British Columbia Ferry Services Inc.

Fare Flexibility and Digital Experience Initiative

Application to the

British Columbia Ferries Commissioner

Pursuant to

Section 55(2) of the *Coastal Ferry Act*

December 2, 2014

Note: In this copy of the application information of a confidential and commercially sensitive nature has been redacted.

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Introduction

British Columbia Ferry Services Inc. ("BC Ferries" or the "Company") continually strives to improve its customers' travel experience and exceed its customers' expectations. The Company monitors and acts on customer feedback, and understands its customers' desire for affordability, a different approach to pricing and an improved experience. BC Ferries understands that the success and sustainability of the Company is directly related to its customers seeing value in the services offered.

Accordingly, BC Ferries proposes to implement two key business strategies that will increase customer satisfaction while generating financial benefits, and in the process, reduce pressure on future fare increases. These two business strategies, the *Fare Flexibility and Revenue Management Strategy* and the *Digital Experience Strategy*, will together modernize the way BC Ferries sets pricing, sells travel, and manages capacity utilization of sailings. BC Ferries expects these strategies will drive significant increases in traffic, online/self-serve transaction volumes and revenues, while improving the overall customer experience.

BC Ferries' *Fare Flexibility and Digital Experience Initiative* (the "Initiative") will deliver the information technology elements required for successful deployment of BC Ferries' *Fare Flexibility and Revenue Management Strategy* and the system-wide modernization of the Company's information technology platforms to support the *Digital Experience Strategy*.

The *Fare Flexibility and Revenue Management Strategy* sets out a new revenue management system for the purpose of managing fares and improving operational efficiency through better capacity management. This strategy envisages a change to the current business model on reserveable routes. Today, customers purchase their fare on departure, and some guarantee their space by paying an additional reservation fee in advance. In the future, customers will be able to pay the full applicable fare in advance, without paying a separate reservation fee, and will have access to discounted fares subject to availability. The Company understands that this will be a significant change for its customers and, therefore, the implementation will be staged and measured. The strategy requires the implementation of revenue management software ("Decision Support System") to manage fare availability over the booking life of a sailing.

By providing the means and the incentives for customers to purchase fares in advance of departure, the *Fare Flexibility and Revenue Management Strategy* is expected to drive an increase in online transactions of approximately 400 percent. As such, this strategy also necessitates a commercial strength e-commerce web platform envisaged as part of the *Digital*

Experience Strategy. The current website is out-dated, rigid and inflexible, and cannot support these strategies. This new web platform will provide commercial strength, multi-channel, secure e-commerce software that will offer an intuitive purchase experience through a device of the customer's choosing – mobile, tablet or computer.

By modernizing the way BC Ferries does business and delivering a strong customer-centric digital user experience, the Initiative will also deliver the other components of *The Digital Experience Strategy*. It will provide BC Ferries' customers with a flexible buying process based on a consolidated shopping cart, single customer profile and sign-on, and the delivery of relevant information to customers about their travel at the right time, anywhere, using any device they choose.

BC Ferries recognizes its website is one of the most critical interfaces the Company has with its customers, providing a way to communicate and engage with them, promoting its products and services, generating revenue, and increasing the strength of the BC Ferries brand. Over the past few years, the website has assumed an increasingly important role in all parts of the business. In fiscal 2014, for example, the website had an average of 505,000 unique visitors every month and more than 1.4 million total visits each month. However, online revenue totalled $10.3 million, accounting for only 1.8 percent of total BC Ferries tariff revenues. The implementation of this Initiative is expected to grow the use of this increasingly important channel to over 70 percent of all tariff revenue on applicable routes.

Once BC Ferries launches the e-commerce site and has the new systems in place, it will initiate a phased roll out of the new revenue management approach across reserveable routes. This is anticipated to drive an increase in both traffic and revenue, which will reduce pressure on future fares, and improve the overall customer experience. The implementation will begin with the routes serving Metro Vancouver and Vancouver Island, and then extend to all other currently reserveable routes, followed by non-reserveable routes, where possible.

An important component of the Initiative will be the ongoing engagement with BC Ferries' customers and internal stakeholders on the specifics of the user interface experience, and fares. This work commenced as part of the development of the two strategies, and will continue throughout the implementation of this Initiative.

Application Request

The *2012 Coastal Ferry Amendment Act*, which came into effect on June 25, 2012, amended section 55 of the *Coastal Ferry Act* (the "Act") to create a new requirement for a ferry operator to obtain the approval of the British Columbia Ferries Commissioner (the "Commissioner")

before incurring a major capital expenditure. By Order 12-04, dated September 30, 2012, the Commissioner defined a major capital expenditure to include *"upgrades to information technology (IT) systems in excess of $5 million, which support ticketing and reservations."*

This Application seeks the approval of the Commissioner to make the capital expenditure necessary to enable the implementation of the Initiative. The information technology elements of the capital expenditure include:

- The replacement of the existing website to support the *Digital Experience Strategy*, which, as described above, includes a new e-commerce platform with commercial strength, multi-channel, secure, e-commerce software that the customer can access from any device; and

- The implementation of Decision Support Software to support the *Fare Flexibility and Revenue Management Strategy.*

Both the e-commerce website and Decision Support Software will be consistent with industry standards in design and usability.

In accordance with section 55(2) of the Act, BC Ferries is seeking approval for a major capital expenditure for the Initiative of up to $<> million, inclusive of interest during construction ("IDC"), and supplemental costs of up to $<> million, for a total expenditure for the Initiative of up to $<> million.

BC Ferries submits that the total expenditure for the Initiative, as described in this Application, is reasonable, affordable, prudent and consistent with the Company's current 5-year and 12-year capital plans approved by BC Ferries' board of directors.

Organization of the Application

This Application is organized as follows:

- Section 1 describes the Initiative. It provides an overview of the Initiative, including objectives and scope, high level solution architecture, implementation plan, timeline and milestones, organization and governance, and other matters pertinent to the Initiative.

- Section 2 describes the three options analysed for the website software upgrade, and presents the results of this analyses.

- Section 3 presents information on the price cap implications, discusses the opportunities for possible reductions in capital expenditures and growth in ancillary services, and describes the completed and planned consultations with respect to the Initiative.

- Section 4 addresses matters related to procurement and risk.

- Section 5 provides a summary of the Initiative.

Section 1: Initiative Description

1.1 Overview

The Initiative will deliver the information technology elements required for successful deployment of BC Ferries' *Fare Flexibility and Revenue Management Strategy* (attached as Appendix A of this Application) and the system-wide modernization of the Company's information technology platforms to support the *Digital Experience Strategy* (attached as Appendix B of this Application). Together, these strategies will drive a significant increase in customer use, transaction volumes and the amount of revenue collected from online self-serve channels. This increase in online activity will require replacing the existing website and its rigid and inflexible platform with a new e-commerce site with commercial strength, multi-channel, secure e-commerce software available through a device of the customer's choosing – mobile, tablet, computer. Successful delivery of this strategy also requires BC Ferries to continuously deliver timely content, products and services through mobile devices and social channels. In addition, new decision support software is needed to support revenue management and capacity optimization. Both the e-commerce site and Decision Support System will be consistent with industry standards in design and usability.

BC Ferries proposes to undertake this Initiative using a phased implementation plan:

- The <u>first release</u> will deliver two mobile applications: one with functionality to view schedules, terminal and vessel information and to manage reservations, and the other for use by commercial drop-trailer customers to track movement of their trailers.

- The <u>second release</u> will be focused on implementing a new e-commerce platform with streamlined content on a new multi-channel web content management system. This will deliver content on both traditional and mobile devices.

- The <u>third release</u> will implement a single cart purchasing flow with the capability to pre-sell ferry travel, vacations, commercial services and onboard amenities.

- The <u>fourth release</u> will implement the Decision Support System needed for the *Fare Flexibility and Revenue Management Strategy*.

These releases are aligned with, and will leverage the functional capabilities rolled out by the Automated Customer Experience ("ACE") Program, which has been the subject of a service review by the Commissioner. The ACE Program is a parallel program underway at BC Ferries that plans to deliver new middleware and back-end software, hardware and development platforms using a multi-year, multi-phased approach.

1.2 Objectives and Scope

The principal objectives of the Initiative are to:

A. **Reduce Pressure on Future Fares and Improve Fare Affordability:** As envisaged by the two business strategies, this Initiative will generate revenue by increasing both traffic and online ancillary purchases. In addition, BC Ferries will be better able to match capacity to demand, thereby reducing the number of additional sailings that are currently required.

These outcomes will reduce pressure on future fares, improving affordability.

B. **Improve the Customer Experience:** This Initiative will improve customer satisfaction by providing customers with:

- An exceptional e-commerce experience with access to timely and relevant information, the ability to research, compare prices, and purchase travel, on-board amenities, accommodation, vacations, and other ancillary components from anywhere, at any time, from the device and channel of their choosing;

- A choice of easy-to-understand fare products, including discounted fares and the ability to book and pay for a specific sailing in advance without paying a separate reservation fee; and

- Greater certainty that they will be able to travel on the sailing of their choice.

C. **Replace the Existing Platform:** This Initiative will replace the current aged website platform with one that can provide a modernized and robust foundation for the successful delivery of key business strategies.

1.3 British Columbia Ferry Commission Principles

Under the *Coastal Ferry Amendment Act, 2011*, the Commissioner was mandated by the Province of British Columbia to conduct a review of the Act as it relates to the regulation of ferry operators. The objective of the review was to recommend to the Minister of Transportation and Infrastructure changes to the Act that would better enable the Commissioner to balance the interests of ferry users with the financial sustainability of ferry operators.

In his report issued January 24, 2012, the Commissioner provided recommendations for changes to the Act and other measures to improve the current regulatory model.[1] The proposed changes and measures were intended to achieve the key objectives of affordability, accountability and financial sustainability of the ferry system. In the report, the Commissioner outlined recommendations that were embodied in 24 principles of which the Initiative is strongly aligned with the following:

Principle 9: Achieve better capacity utilization and improved yield and capacity management capability. This principle is supported by the *Fare Flexibility and Revenue Management Strategy,* which is predicated upon an advance purchase business model. The e-commerce customer interface will allow customers to book in advance and will present prices in a way that allows customers to see the variation of prices across different sailings, providing them with the means and incentives to book on less busy sailings, and in so doing, help BC Ferries to achieve better capacity utilization. In addition, the Decision Support System will provide BC Ferries with the analytical capabilities necessary to control yield and capacity effectively through fares and deck space allocation on a sailing-by-sailing basis.

Principle 15: Upgrade BC Ferries' traffic forecasting capabilities and upgrade the reservation and ticketing point-of-sale systems. In support of this principle, the Decision Support System will significantly improve traffic forecasting capability at a sailing-by-sailing level.

[1] BC Ferry Commission, *Review of the Coastal Ferry Act*, January 24, 2012, pp. 5-7.

Principle 20: Generate new ancillary revenue, if doing so is considered to be in the interests of ferry users and taxpayers. This principle is supported by the implementation of a commercial strength e-commerce platform that incorporates a common purchasing flow using a consolidated shopping cart. This will offer functionality to dramatically improve access to product and service information and offers, and will enable consumers to compare prices. A fully integrated e-commerce platform will provide a sales channel that will add incremental revenue to the Company by cross promoting travel products and onboard services that have not been bookable previously through BC Ferries' website. Improved visibility and positioning on the Company's website will increase awareness among customers and will improve sales conversion.

1.4 Current Practices and Historical Perspective

1.4.1 Pricing and Capacity Management

Current Pricing Practices and their Limitations

BC Ferries' pricing, and the systems that support it, were developed around a business model where customers primarily purchase tickets on departure, and where there is only one price/per traffic type/per route. Over time, BC Ferries has evolved this model in a limited way to include the ability to purchase a separate reservation in advance, and to accommodate additional passenger types (e.g. experience card holders, assured loading card holders).

This model and the rigid information technology systems behind it significantly limit BC Ferries' ability to design attractive and relevant pricing in a number of ways, including the ability both to design different fare products that are attractive to different customer groups and to control the availability of discounted fares at a sailing level. To evolve the business model to accommodate modern travel options, BC Ferries' information technology systems must be significantly improved. It is anticipated that when advance purchase pricing options are made available, the portion of customers who choose to purchase in advance will grow over time. Nonetheless, a portion of vessel capacity will continue to be held for those passengers that choose to buy their ticket on a "show and go" basis at departure or hold assured loading tickets.

Current Capacity Management Practices and their Limitations

Today, the ability of BC Ferries to optimize capacity is constrained by the current business model, whereby the majority of customers do not reserve, but purchase their tickets on departure. During busier periods, on some routes BC Ferries runs additional round trips to accommodate higher demand. Many of these round trips are at the discretion of operations managers in reaction to the build-up of traffic at a terminal. Because of these circumstances, BC Ferries has ships and crews on standby, with associated incremental costs. From a capacity management perspective, this is an inefficient approach and only works to reduce the duration of sailing waits, rather than to prevent them. Investments in this Initiative will enable the Company to incent customers to book and purchase their travel in advance, thereby providing the ability to match capacity and demand more accurately.

Fare Flexibility and Revenue Management Strategy Development Process

In the fall of 2012, following an assessment of the applicability and benefits of revenue management, BC Ferries initiated a four stage strategy development and implementation process, which is outlined below. The first two stages of this process defined the *Fare Flexibility and Revenue Management Strategy*. The final two stages will refine and implement the strategy. Once implementation is complete, the strategy will continue to evolve.

Stage 1: "Research" (complete): An information gathering phase, including customer research, an industry best practice review, an analysis of BC Ferries' internal constraints and considerations, and a review of external tools available that are required to implement a revenue management system.

Stage 2: "Define" (complete): Outline of the core components of the *Fare Flexibility and Revenue Management Strategy*, including proposed fare structure, revenue management processes, revenue management and capacity optimization tactics, and roll out strategy.

Stage 3: "Refine" (future): Continues the process of defining and adjusting the *Fare Flexibility and Revenue Management Strategy*. This stage is iterative and involves testing the initial strategy with customers and other stakeholders and using the results to further refine the strategy.

Stage 4: "Build/Launch" (future): Roll out of the *Fare Flexibility and Revenue Management Strategy*; implementing the Decision Support System, new fare structure, and revenue management processes.

The Company has now completed stage 2, the development of the *Fare Flexibility and Revenue Management Strategy*.

1.4.2 BC Ferries' Website

History and Current Situation

When the BC Ferries' website was first launched in 1995, it quickly became a new channel for marketing and information distribution.

Since then, BC Ferries has tried to keep pace with the evolving online world by adding more travel information, more self-serve functionality, more product offerings and (limited) online transactions. In response to customer surveys, feedback and complaints, the Company has endeavoured to continuously improve the online customer experience, within the limitations of the technology currently utilized. The last major website upgrade was initiated in the fall of 2006 and delivered in two phases. Since then, there has been significant maintenance work to mitigate numerous issues associated with the website applications and underlying infrastructure.

In 2012, two additional projects were undertaken to improve the website:

- **Express Reservations:** improved the reservations design and layout/flows, and provided new 'log in' procedures. This included the capability to book a personal reservation without having to create a customer account and login. This project also implemented support for more recent web browser versions.

- **Website Repatriation:** acquired and implemented a new, high-availability, hardware infrastructure hosted internally, and repatriated the website software and databases from external service provider.

Express Reservations, on the repatriated website infrastructure, went live on April 30, 2013. During 2012, BC Ferries conducted an internal review of its major information technology projects and business initiatives and how they

relate to the Company's website. That review provided the starting point for the research phase of the *Digital Experience Strategy*.

Today, BC Ferries' primary website functionality includes a number of applications that interact with other production systems and data sources. These are: sailing reservations (limited to select routes), customer account management, travel card management, sailing schedules and employee login. BC Ferries also hosts a separate website promoting packaged vacation products. This site is limited by the lack of integration with sailing inventory, and, therefore, vacation packages cannot include a ferry reservation unless manually added by a booking agent. The site also lacks functionality to pre-sell onboard amenities and services.

While BC Ferries' website has grown to become business-critical, its contribution to BC Ferries' corporate objectives has lagged in comparison to others in the travel industry.

Website Revenue (Fiscal 2014)

Revenue originating from BC Ferries' current website is principally from reservations, at $10.3 million in fiscal 2014. This originated from 711,589 online reservations, and represents only 1.8 percent of fiscal 2014 customer revenue of $568 million. In comparison, the airline industry sells more than 98 percent of its passages online. Table 1 illustrates BC Ferries' reservations revenue by channel for fiscal years 2013 and 2014. On a percentage basis, reservations revenue originating from the web in fiscal 2014 increased by 8.4 percent from fiscal 2013, while revenue from each of interactive voice response (IVR) and customer service (phone) reservations decreased by 22.5 percent and 12.5 percent, respectively.

Table 1: Reservations by Booking Channel

Booking Channel	Fiscal 2013 Reservations		Fiscal 2014 Reservations		Year-over-Year Change	
	Revenue	Transactions	Revenue	Transactions	Revenue	Transactions
Web	$9,339,643	656,159	$10,302,105	711,589	10.3%	8.4%
Phone	$763,665	191,001	$805,302	167,073	5.5%	-12.5%
IVR	$1,317,478	77,239	$1,045,048	59,885	-20.7%	-22.5%
Total	$11,420,786	924,399	$12,152,455	938,547	6.4%	1.5%

Note: Reservations revenue includes reservation fees and change fees only and excludes tariffs.

Website Operating Costs (Fiscal 2014)

Table 2 provides an overview of operating costs for maintenance and support of the website for fiscal years 2012 through 2014. Content management of the website is carried out by BC Ferries' Marketing, Travel Services and Web Services; Customer Care, Commercial Services and the Operations and Security Centre; while the Information Technology Division supports, among other things, the customer service application, data, technical and network services.

Table 2: BC Ferries Website Annual Maintenance and Support Costs

	Fiscal 2012	Fiscal 2013	Fiscal 2014
Marketing, Web Service, Travel Services	$<>	$<>	$<>
Operations and Security Centre, Customer Care, Commercial Support			
IT Application Maintenance, Support			
IT Technical Services, Support			
Total			

Operating expenses include labour to maintain and support the website content, applications and underlying infrastructure, and non-labour expenses such as annual hardware and software license and support, network connection and contracted service provider expenses.

Current Website Challenges

The website has been criticized over the past several years on a number of fronts by customers, according to the following themes (see Appendix C for more detail):

- Lack of confidence in website stability and poor usability;
- Lack of support for mobile devices;
- Viewed as inefficient in many areas involving unnecessary account sign-in with duplicate entry of the same information;

- Viewed as BC Ferries-centric with language that is not seen as customer focused; information density drowns out essential messages;

- Lack of support for unique needs of commercial customers; and

- Persistent technology issues, including browser incompatibilities, search problems, and sluggish performance.

From an internal perspective, the website represents a number of challenges, most notably:

- An outdated software development and execution platform that is inflexible, unnecessarily complicated, and difficult to support and enhance. As result, a significant backlog of enhancement requests has accumulated;

- Service notice email generation and other email communications that are unreliable and difficult to use;

- Significant challenges exist in managing web site content and there are issues with search functionality; and

- Lack of integration with new business applications.

The recent implementation of Express Reservations and the repatriation of the website to the BC Ferries' data centre has been a positive step in addressing some of the challenges identified above. The online reservation flows have been somewhat improved, and the website now operates on an up-to-date, fully monitored and extendable hardware infrastructure. However, the significant issues associated with the underlying software platform still remain.

The underlying components of the software platform are older Oracle 10g versions that are at end-of-life status and are no longer supported by the vendor. This means that software updates are no longer provided and technical support from the vendor is very limited and expensive. As a result, the problem determination and resolution process is significantly complicated when website incidents occur. The software components at end-of-life status reside in the middle layers of the website software stack and include:

- Identity management servers;
- Web portal servers;
- Web cache servers; and
- Application servers.

In addition, the Application Development Facility (ADF 10g) platform used to maintain and enhance current website applications is no longer supported. This significantly complicates the sustainment of the website applications, particularly when new browser versions are released.

Digital Experience Strategy Development to Date

In the fall of 2012, a consulting firm was engaged to assist BC Ferries with the development of its *Digital Experience Strategy*. This included:

- **Current Situation:** A review of website platforms considering capability, usability, navigability, constraints, architecture and design, development and execution platforms, and support capabilities and practices.
- **Business Strategy and Plans:** Interviews and workshops to build consensus among key business stakeholders on business strategy and plans, including the future vision of the end-to-end customer experience and the role website, mobility and social media channels should play.
- **Technical Assessment and Architecture:** An analysis of the industry and technology landscape supporting e-commerce, mobility and social media that identified options and priorities for addressing gaps between the current situation and the envisaged future state.
- **Implementation Road Map:** Defined and described a sequence of initiatives with associated costs, expected benefits, analysis of risks, organizational considerations/impacts, and alignment with the ACE Program.

To complete the detailed business case for this Initiative, BC Ferries conducted a Request for Expressions of Interest ("RFEOI") to:

- Confirm the proposed technical architecture and implementation approach;
- Confirm pricing, licensing terms and options pertaining to the core software product options recommended in the solution architecture, notably e-commerce and web content management software; and
- Verify consultant's cost estimates and identify candidate vendors/partnerships interested in and capable of delivering integration and implementation services that meet requirements.

Eleven responses to the RFEOI were received and informed the analysis of options and the recommendations of the business case.

1.5 Business Drivers and Objectives

The business drivers and objectives of this Initiative are set out in the two interdependent strategies described below:

1.5.1 Fare Flexibility and Revenue Management Strategy

The key objective of the *Fare Flexibility and Revenue Management Strategy* is to reduce pressure on future fares by increasing traffic and related revenues, and reducing service delivery costs. The success of this strategy is dependent on the e-commerce platform and communication capabilities envisaged in the *Digital Experience Strategy*.

The *Fare Flexibility and Revenue Management Strategy* is comprised of four core components.

1. A fare structure predicated on the guiding principles of value, choice and simplicity, resulting in an easy-to-understand selection of fare products and prices that better meets customer needs.
2. Revenue management processes that ensure that BC Ferries is able to optimize allocation of deck space by traffic type and fare product.

3. Revenue management and capacity optimization tactics that address customer feedback and achieve BC Ferries' financial objectives, including controlled and targeted use of discounts to grow demand, protecting space for late booking of time-sensitive customers, ensuring customers have a range of prices to choose from, and using price to shape demand to reduce the number of additional discretionary sailings and sailing overloads.

4. A roll-out strategy that provides customers time to adapt to the new business model, while providing them with tangible benefits from day one.

The strategy is expected to result in the following benefits:

Benefit 1: **Enhanced Customer Experience:** The customer experience will be enhanced through:

- Providing a choice of easy-to-understand fare products that include access to discounted rates and the ability to book and pay for a specific sailing in advance without paying a separate reservation fee, and a premium product for assured loading, in addition to a set price for customers who choose to buy their ticket on a "show and go" basis at departure; and

- Ensuring greater certainty that customers will be able to travel on the sailing of their choice.

Benefit 2: Increased Traffic and Revenue: BC Ferries estimates that revenue management techniques will generate between 3 and 5 percent incremental traffic on reserveable routes.

Benefit 3: Operational Cost Savings Through Improved Capacity Utilization: The advance purchase model and revenue management techniques incorporated in the *Fare Flexibility and Revenue Management Strategy* will enable BC Ferries to match capacity to demand more accurately, and in doing so reduce the number of additional discretionary sailings that are currently needed.

1.5.2 Digital Experience Strategy

An effective multi-channel website platform is a critical enabling component for deploying the *Fare Flexibility and Revenue Management Strategy* and pursuing opportunities to increase ancillary revenue. The *Digital Experience Strategy* was developed to guide evolution of the e-commerce website, to align with the ACE Program, and to support BC Ferries in delivering its customer-facing online services in the coming years.

The modernization of the existing website is expected to contribute to BC Ferries' identified business outcomes. Given the role the website plays as the electronic storefront for customers, BC Ferries defined and prioritized the key performance indicators that were most critical for the website to help achieve:

1. **Increased Revenue from Online Self-Service Channels:** Includes the increase in the overall percentage of bookings made through online self-service channels of sailings, vacations/packaged offerings and other onboard amenities.

2. **Increased Customer Satisfaction Rating:** Includes the increase of customer satisfaction with the website and mobile site, as well as the increase in customer satisfaction with the e-commerce tools.

3. **Decreased Operational Booking Cost per Transaction:** Includes the reduction of interactive voice response costs, the reduction of Customer Service Centre booking costs and the reduction of booking costs related to servicing commercial accounts. While a shift from "on departure" to advance purchasing of tickets, particularly on the Major Routes[2], will increase Customer Service Centre costs over the short term because of the higher volume of transactions expected, the

[2] The Major Routes consist of three regulated routes connecting Metro Vancouver with mid and southern Vancouver Island (Route 1: Swartz Bay – Tsawwassen; Route 2: Departure Bay – Horseshoe Bay; Route 30: Duke Point – Tsawwassen), and one regulated route connecting Horseshoe Bay and Langdale (Route 3).

objective remains to encourage online self-service bookings with a view to reducing Customer Service Centre and interactive voice response booking transactions, and associated operational costs, over the longer term.

To transition to a state where the Company can adequately respond to customer needs and expectations and to where the website effectively contributes to BC Ferries' business outcomes, the following eight web development strategies will be adopted:

1. Strong user experience practices;

2. Time-saving self-service functionality;

3. A multi-dimensional social media presence;

4. Personalization and leveraging of new customer relationship management functions, card services and a rewards program;

5. A strong toolset to manage the online customer experience;

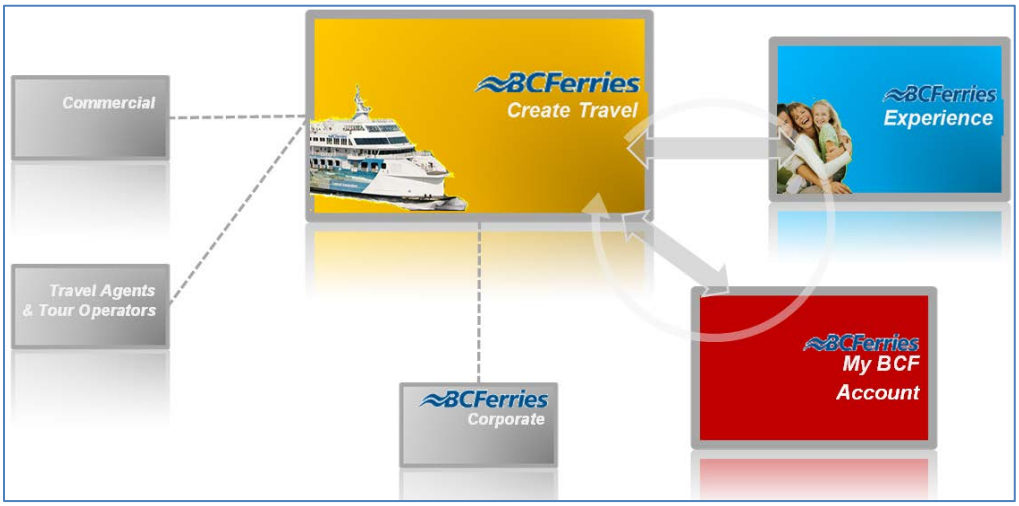
6. A platform that can grow with BC Ferries;

7. A platform that can target customer segments; and,

8. An expanded online store concept and mobile-commerce.

A new e-commerce concept is proposed to support a uniform and intuitive customer experience that is based on subdividing the website into six focussed streams, each with a clear purpose and underpinned by a common flexible buying process (see Figure 1).

Figure 1: Website Streams



The new site concept would include:

- A BC Ferries Home Page ("**Create Travel**" in the illustration above) that would feature the main purchasing flows for those who know exactly what they want to buy in terms of sailings, on-board amenities, vacations packages, accommodations, excursions and other types of transportation. It would feature very prominent links to key operational content including current conditions and schedules, as well as key graphic elements that enable weather-related and/or other operation-related service notice postings.

- A new BC Ferries **Experience** section that would showcase the BC Ferries fleet, onboard amenities, terminals and destinations to customers and encourage them to travel with BC Ferries more often, thereby capturing discretionary and incremental revenue.

- A more personalized and dedicated **My BCF Account** section for existing customers to manage their account, their profile, their travel arrangements, their travel cards, their alerts, and personal preferences. This section would provide significant advantages to registering, including fast-track bookings (by applying pre-set personalized preferences), discounts and incentives.

- A new section dedicated entirely to **Commercial** business, allowing commercial operators to manage their bookings and accounts, reducing contact time for key accounts.

- A new section dedicated to **Travel Agents and Tour Operators**, allowing such partners, in future, to transact on behalf of their customers and to manage their bookings and accounts that will also reduce contact time for key accounts.

- A **Corporate** section, presenting corporate information.

BC Ferries' ability to grow both incremental traffic and ancillary services is predicated on an intuitive self-serve website providing customers easy access to plan, book and manage their travel accommodations. This revenue growth will lessen pressure on future fare increases.

1.6 High Level Solution Architecture

The aforementioned business strategies require that the website provide a variety of self-serve options for its customers, such as reservations and schedules, bookings, sailing schedules, current conditions, service alerts, and services for drop trailers, vacation travel reservations and ancillary or amenity services. The strategies also require an interface with a robust customer relationship management system. A technical assessment was conducted and a target technical architecture was defined to support these business-to-customer interactions.

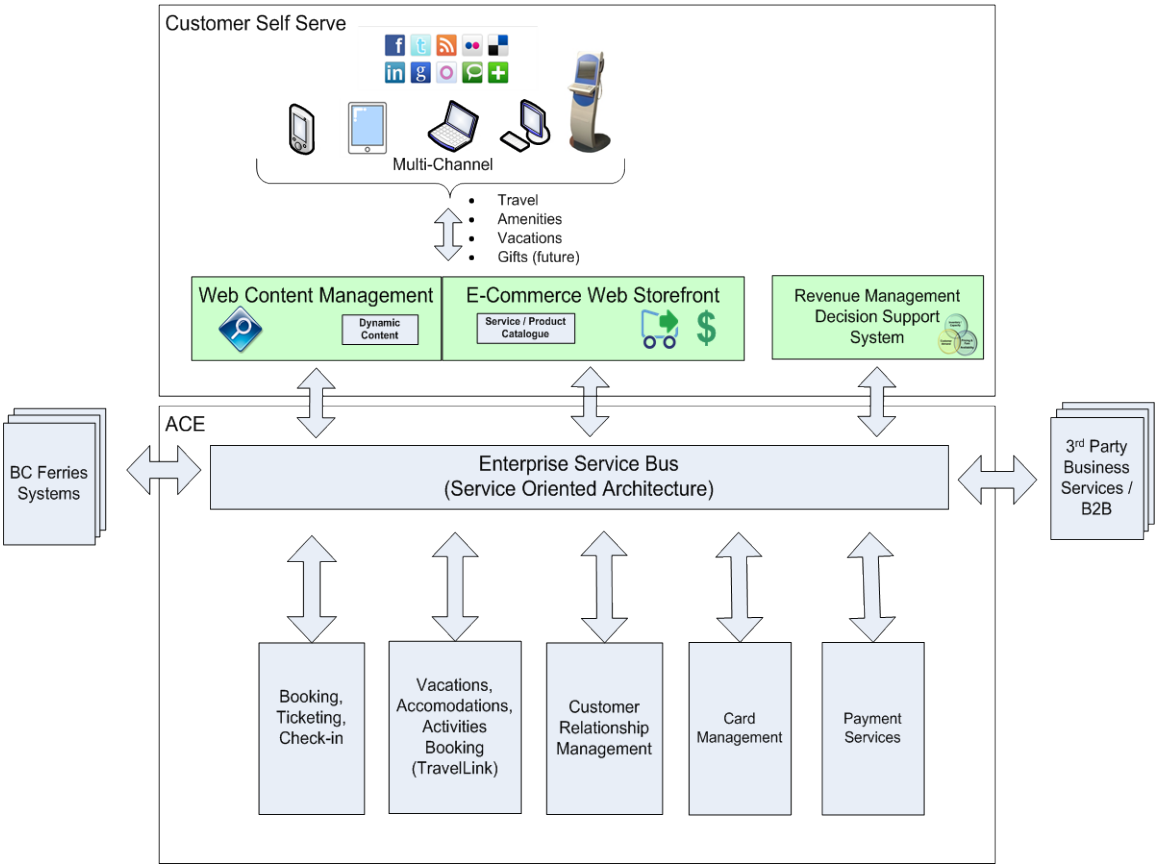
In addition, the business strategies contemplate an increase in online transactions with business partners through system-to-system interactions and to support a growing number of individuals using mobile devices.

According to the most recent market analysis, the trend toward the use of mobile devices -- especially for e-commerce -- has eclipsed that of typical online access with customers spending more per purchase via smart phones and tablets than customers using traditional devices. This strategy recognizes this shift in consumer behavior and enables BC Ferries' customers to transact through various devices.

Therefore, the proposed strategy for BC Ferries' website is to reposition the customer at the center of the business relationship by improving the online user experience through transformation and enhancement of BC Ferries' online presence and offerings.

The recommended high-level technical architecture for achieving this is illustrated in Figure 2.

Figure 2: Technical Architecture



Key elements of this target technical architecture are:

- A multi-channel web content management system that will enable BC Ferries to deliver dynamic personalized content to a variety of end user devices from one responsive website;

- A multi-channel e-commerce web store capable of providing a single consolidated shopping cart that allows users to purchase the products and services they need online using the device of their choice;

- A revenue management Decision Support System to support the *Fare Flexibility and Revenue Management Strategy*; and

- Capability to interface with the service-oriented enterprise service bus for access to booking, ticketing, check-in, customer relationship management, vacations, accommodation, activities, and transfers bookings (Travelink), card management, payment services, other third-party business services, and BC Ferries' internal systems.

System Interfaces

It should be emphasized that all interfaces among systems and components (including legacy systems) will be implemented via the enterprise service bus based on service oriented architecture framework, patterns, and standards. Service oriented architecture provides the architecture for defining, developing, and managing loosely coupled services on the enterprise service bus, which are registered in a service registry. System consumers, such as the website and the Decision Support System, can access services accordingly. The enterprise service bus is a foundational component delivered under the ACE Program.

1.7 Implementation Plan

The implementation plan is based on a phased rollout of multiple website releases to streamline the management of the Initiative. However, the implementation of business strategies may be phased over a longer period of time in order to facilitate customers and employees adapting to the new business approach. During the start-up phase, an internal team will clarify and confirm detailed business requirements, including user experience and flows, branding, macro architecture and conceptual design for the website. Tendering and contracting for the required software platforms and tools, software integrators and other external contract support will also be conducted. (The procurement process is described more fully in Section 4 of this Application.)

Release 1: The first release will deliver two mobile applications:

- An application for customers with functionality to view the schedules, terminal and vessel information, as well as functionality to make and manage reservations; and

- An application for commercial drop trailer customers with functionality to track movement of their trailers, including trailer status and estimated time of arrival, as well as configure and view alerts and service notices.

Release 2: This release will implement the new website concept on a multi-channel web content management system with supporting administrative tools. This provides dedicated landing pages and streamlined multi-channel content for each of the Create Travel, Experience, *My BCF Account*, Commercial, Travel Agents and Tour Operators, and Corporate streams described in the new website concept.

- **Create Travel -** will link to the current website reservations flows. Release 2 will bring forward linkages to the existing Vacations website and online Gift Shop and will include upgrades to the Release 1 mobile applications.

- ***My BCF Account* -** The current web account flows will be migrated to this section on the new platform and streamlined for multi-channel access.

- **Experience -** will include expanded vessel, terminal and on-board amenities content.

- **Commercial** and partner **Travel Agents and Tour Operators -** will be implemented largely based on streamlined content found in the current website.

- **Corporate -** corporate content on the current website will be re-implemented on the new platform. The legacy Release Centre, Business Opportunities, and Career Opportunities applications in the current website (including the administrative functions), will also be re-implemented on the new platform, thereby retiring these applications.

Release 3: This release will implement a single purchasing flow and shopping cart for ferry travel, vacations and on-board amenities, and the ability to up-sell on the selected multi-channel e-commerce platform. It will fully support functionality to deliver:

- Self-serve advanced purchase tickets;

- Pricing comparison tools that allow customers to quickly compare the cost of different itineraries and fare products;

- Personalization of purchasing flow content; and
- Offers based on a customer relationship management customer profile and purchase history.

This release and the supporting infrastructure will be performance tested to ensure that it can accommodate significantly higher transaction volumes expected once online advance purchase of tickets is made available. This release will also provide functionality for:

- Traveler ratings, testimonials, and social media integration;
- Improved change travel options;
- Tools for analytics, merchandising, customer feedback and surveys;
- Revamped web forms and workflow based on customer relationship management;
- Live commercial bookings, including bulk booking capability and change flows;
- Tour operator bookings (excluding bulk booking capabilities), and
- Mobile application upgrades.

The implementation of this release on the new e-commerce platform will allow full retirement of the legacy Oracle ADF 10 development platform and Oracle 10g middleware platforms.

Release 4: This release will implement a Decision Support System to enable the revenue management and inventory controls envisaged in the *Fare Flexibility and Revenue Management Strategy*. It will include the implementation of the necessary automated interfaces with the booking system. In the six months prior to this release, BC Ferries will work with a vendor to design its control parameters, and prepare the initial data set.

Future Releases (not in scope): Future releases may deliver additional and enhanced functionality identified in the *Digital Experience Strategy*, such as drop

trailer bookings, bulk tour bookings, travel agent bookings, online Gift Shop integration, and the other enhancements that were deemed out of scope for this Initiative.

Transitional (Technical) Projects: In addition to the aforementioned functional initiatives, there are four transitional technical projects required to set up the infrastructure for the Initiative:

- Presentation aggregator (i.e. implementation of the reverse proxy);
- Upgrade middleware to Oracle WebLogic 12;
- Single sign-on Integration - i.e. Support for (federated) Single Sign-On capabilities can be added to the middleware infrastructure once it has been installed (and is available through the ACE Program); and
- Release Center Upgrade.

1.8 Synergy with ACE Program

The ACE Program is a parallel program under way at BC Ferries that plans to deliver new middleware and back-end software, hardware and development platforms over a multi-year phased approach.

The primary components of the ACE Program are:

- **Booking, Ticketing and Check-in System** will replace the existing reservations and ticketing point of sale systems. The existing systems are old, based on out-dated technology and are no longer responsive to evolving business needs.
- **Customer Relationship Management** supports improved customer relations. This includes the implementation of a solution to support a single customer profile, improved target marketing, support for new incentive programs, campaign management capability, and the ability to define products and services based on customer data that more accurately reflects customer behaviour.
- **Card Management** introduces a flexible solution that will support the management of evolving BC Ferries card requirements, including gift cards,

travel cards, BC Ferries travel incentive cards, and will replace systems such as SmartMedia and TPass.

- **Terminal Hardware** supports ever-evolving safety and security requirements, while maintaining or enhancing the customer experience. Terminal hardware includes the implementation of turnstiles to secure and improve management of fare paid zones; an automated vehicle measuring system to improve accuracy of fare collection and safety for ticket agents, enhanced functionality and expanded footprint of the ticketing kiosks, and the potential for express vehicle check-in lanes for prepaid travel.

In addition, there are other parallel projects underway that have synergies with the ACE Program:

- **Payment Services** will enable the acceptance of all forms of payment (BC Ferries cards as well as credit and debit card payment). This also includes the consolidation of all payment processing into a single module. Through consolidation of payment processing, instead of having payment processing spread across multiple applications and modules, the solution will ensure compliance with payment card industry standards and the privacy provisions of the *Freedom of Information and Protection of Privacy Act,* and will enhance security.

- **Vacations, Accommodation, Activities Booking** is an online booking engine for vacations packages, accommodations and activities.

The ACE Program will be deployed in multiple phases as follows:

- **ACE Phase 1**: Focusing on revenue management enablement and deployed in two releases:

  - Release 1: customer profile (customer relationship management), reservations booking, sailing management, and enterprise service bus integration rolled out to the Customer Service Centre, Vacations Centre, and Northern terminals; and

  - Release 2: fare class management, point of sale terminal ticketing and check-in.

- **ACE Phase 2**: Extended customer relationship management, including new card products, card management, TPass, customer analytics, campaigns and rewards.

- **ACE Phase 3:** Terminal hardware pilots and installation including Vehicle Classification System rollout, enhanced functionality kiosks, and turnstiles.

The release plans for the Initiative and ACE Phase 1 have been aligned to ensure an orderly rollout, while minimizing impact on both projects.

Future phases of the ACE Program will leverage the new multi-channel web content management and e-commerce platforms as needed to expand customer self-service capability.

The master project plan for the Initiative will be developed during its start-up phase and will include a work breakdown structure and schedule that can be linked to the ACE Program plan, with dependences and milestones visible and accordingly tracked by both the ACE Program and the Initiative.

The *Digital Experience Strategy* and ACE Phase 1 releases are aligned to ensure an orderly rollout, while minimizing the impact for both:

- ***Digital Experience Strategy* Release 1**: Mobile applications are aligned to leverage the back-end components, notably the new booking system, of Release 1 of ACE Phase 1.

- ***Digital Experience Strategy* Release 2**: New website concept, multi-channel web content management will also leverage the components, notably customer relationship management, of Release 1 of ACE Phase 1.

- ***Digital Experience Strategy* Release 3**: E-commerce, single cart will leverage the ACE Phase 1 components, Vacations, Accommodations, Activities Booking, and the new Payment Services.

- ***Digital Experience Strategy* Release 4**: Decision Support System will leverage the ACE Phase 1 booking and customer relationship management components to support revenue management.

1.9 Approach and Scope

The implementation phase of the Initiative will be planned, executed, and controlled as a Class A project in accordance with the BC Ferries' Capital Project Management Framework and Guidelines,[3] and the IT Project Management Framework[4]. The IT Project Management Framework aligns with the Capital Project Management Framework and Guidelines and prescribes the key project management tasks, deliverables and checkpoints throughout the system development lifecycle. Information technology projects are required to pass through the Quality Assurance Review Board[5] at prescribed points during their implementation. The Quality Assurance Review Board is tasked with ensuring that information technology projects are effectively defined and planned, and their design, build and deployment are appropriately managed through oversight and key approvals throughout the project's life-cycle.

The Initiative will follow a phased approach comprised of releases that make functional capabilities available for use sooner, as described above. This reduces the risk normally associated with a full scope delivery at one point in time. Within each release, an agile development approach will be adopted, confirming requirements, design work, building and testing required functionality in iterative steps, also referred to as "sprints". Sprints will be based on user requirement prototypes that are visible to, and have been reviewed by, project stakeholders and have been usability tested with customer focus groups. In addition to improving quality through continuous testing and verification of requirements, this approach has an additional benefit of demonstrating functional progress to stakeholders early and continuously throughout the Initiative. Proponent integration vendors will be asked to provide details regarding their preferred methodology for delivering quality assured solutions that are proposed.

The Initiative's implementation plan will be linked to the ACE Program integrated plan and the IT Infrastructure Refresh project plan in order to confirm dependencies, balance resources, track progress and to address scheduling delays or resourcing issues as quickly as possible.

[3] BC Ferries, Capital Project Management Framework and Guidelines, August, 2014
[4] BC Ferries, IT Project Management Framework V2.0, April, 2014
[5] BC Ferries, Quality Assurance Gated Governance Quick Reference Guide, July, 2014

The implementation plan for the Initiative will be reviewed and adjusted as needed to align with the selected vendors' proposed solutions, methodologies and plans. This review will occur when the tendering process has concluded and contracts have been signed – approximately three months from the start of the implementation.

Work In Scope

The work that is within scope of the Initiative is:

- Project initiation documentation in accordance with the IT Project Management Framework;
- Confirmation of business requirements, macro architecture and design;
- Planning, staffing and training of required internal resources in the methodologies, frameworks, and toolsets required to manage and support the new website;
- Tendering and contracting of required software platform/toolset licenses, training, external partners, and consulting support;
- Set-up pre-production environments needed to support configuration, extension, integration, testing, and migration activities. Activities for setting up pre-production environments will be incorporated into the master project plan for this Initiative and managed accordingly. This will be done in conjunction with hardware provisioning activities within the IT Infrastructure Refresh project;
- User experience and interface usability testing for all website visual and functional improvements with customer focus groups;
- Re-organization and re-implementation of website content management using the recommended content management toolset and processes;
- Re-design, re-branding, re-implementation and update of all existing website front-end components (reservations, current conditions, release centre/service notices, dynamic schedules, commercial drop trailer tracking, etc.) on the new software platforms;

- Integration with the service oriented architecture enterprise service bus, booking, ticketing, and check-in, customer relationship management, card management, card services, accommodations / vacations booking and terminal hardware, where necessary;

- Preparation of quality assurance and user acceptance test plans, including functional, platform, load, performance, availability and security testing;

- Updating and testing of the website disaster recovery plan and environment with the new website software platforms;

- Development of training materials and training of internal stakeholders supporting the website - Marketing and Vacations, Web Services, Customer Care, Terminal Operations and Information Technology support staff, etc.;

- Tender and contracting of the Decision Support System as a service with technical support; and

- Design, development, testing and implementation of required interfaces to the booking system needed to fully implement revenue management.

Work Out of Scope

- Enhancements to the current website Reservations and My Account.

- Replacement of back end systems, data feeds, and infrastructure unless otherwise specified.

- Interactive voice response functionality/interfaces.

- Replacement of externally hosted websites such as the online Gift Shop.

- Upgrade or replacement of internal BC Ferries websites or internal mobility applications, such as Intranet, Sail Safe and Academy websites.

- Migration of the current website production and pre-production environments to the new BC Ferries data centres and implementation of a disaster recovery plan for the website. This is within scope of the IT Infrastructure Refresh project with support from the Information Technology sustainment teams.

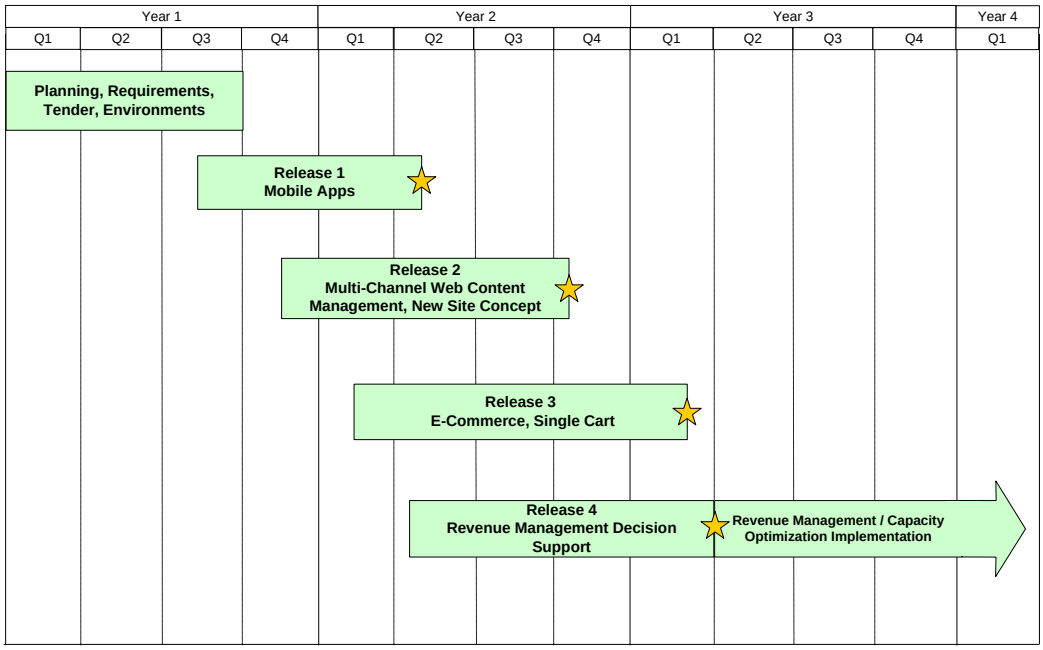
- Pre-production and production environments equipment. The IT Infrastructure Refresh project will provide the required hardware. However, capacity planning, coordination, installation, configuration of software platforms needed on the hardware platforms provided for pre-production environments is within scope of the Initiative.

- Internal pre-production and production hosting and support of the Decision Support System given it is expected to be provided as a Software as a Service solution with external technical support.

1.10 Timeline and Milestones

The timeline for the Initiative is set out in Figure 3.

Figure 3: Timeline



Key milestones dates for the Initiative are:

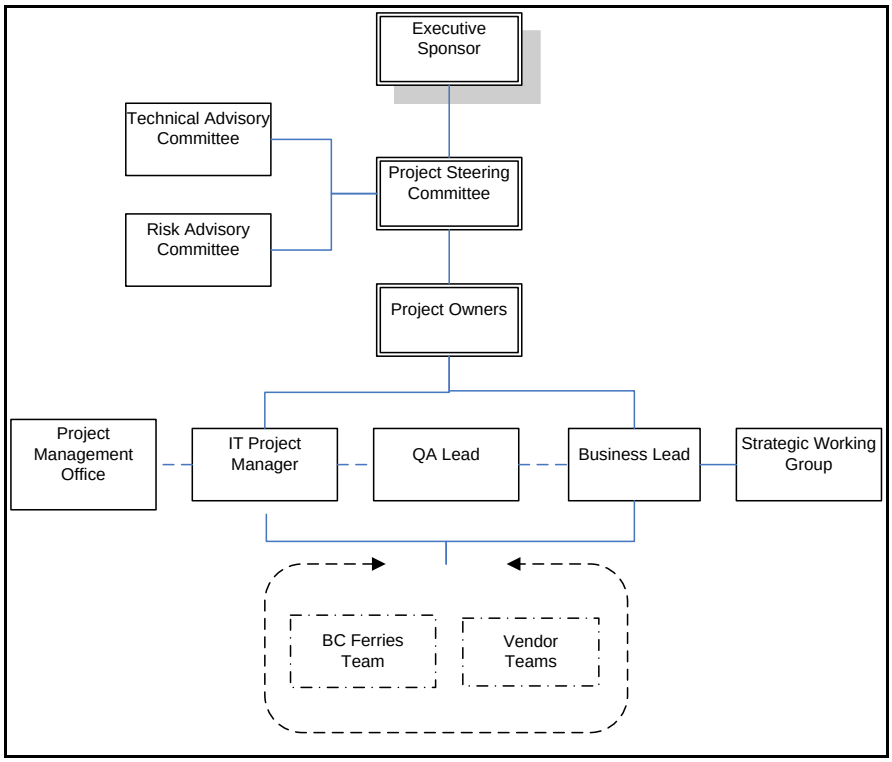
Phase	Milestone Date
Start	January 5, 2015
Complete planning, requirements, architecture, tender, environments	September 30, 2015
Release 1: Mobile applications	April 30, 2016
Release 2: New website concept on multi-channel web content management	October 31, 2016
Release 3: Single cart purchasing flow on multi-channel e-commerce	February 28, 2017
Release 4: Revenue management Decision Support System	March 31, 2017
Close-out	June 30, 2017

The timeframes and milestone dates will be reviewed and may be adjusted once the tendering process has been completed to align with the successful vendor's proposed timelines and milestones.

1.11 Organization and Governance

The Initiative's organization and governance structure is shown in Figure 4.

Figure 4: Organization and Governance Structure



Executive Sponsor

- Provides general direction regarding the business and technical outcomes of the Initiative, and chairs the Project Steering Committee.
- Is currently the Executive Vice President and Chief Financial Officer.

Project Steering Committee

- Sets direction and makes timely decisions for the Initiative.
- Provides support to the Project Owners, Project Manager and Project Sponsor as required.

Technical Advisory Committee

- Provides technical guidance for the Initiative.
- Is chaired by the Vice-President and Chief Information Officer, Information Technology.

Risk Advisory Committee

- Ensures effective risk management and privacy/security is being applied.
- Is chaired by the Director, Risk and Insurance.

Project Owners

- Ensure the objectives and scope defined in the detailed business case are achieved.
- Approve assets delivered by the Initiative once acceptance criteria have been met.
- Are currently the Treasurer and Vice President of Marketing and Travel Services.

IT Project Manager

- Ensures delivery of the information technology solutions within scope, schedule and budget.
- Plans, schedules, monitors and controls execution of tasks, resource assignments.
- Manages risks and mitigation plans.
- Ensures timely decision-making and resolution of issues.
- Reports on status.
- Manages the vendor.
- Holds the budget for the Initiative.

Business Lead

- Leads organizational readiness.
- Ensures products delivered meet business objectives and requirements.
- Ensures products delivered provide excellent customer/user experience.
- Prepares and ensures business requirements are clear, concise and complete.
- Leads usability testing, customer focus groups.
- Leads website content design, creation, migration and management.
- Leads user acceptance testing.
- Ensures business readiness/communications.
- Ensures timely decision-making and resolution of issues.
- Chairs Strategic Working Group.

Strategic Working Group

- Provides functional and organizational guidance.

Quality Assurance Lead

- Develops and executes overall quality plan and tests strategy for the Initiative.
- Oversees all quality activities for the Initiative.
- Identifies and reports issues to the IT Project Manager and Quality Assurance Review Board, and assists with resolution.

Project Management Office

- Supports IT Project Manager with project planning, management, scheduling, control and status reporting.
- Coordinates Quality Assurance Review Board checkpoints and provides project document control.
- Provides IT Project Management Framework guidance and support.

Section 2: Analysis of Options

BC Ferries considered three options for the website software upgrade: Oracle software platform upgrade only, a full software upgrade and the status quo.

2.1 Key Financial Assumptions

The following financial assumptions are used in the analysis of the options considered.

- **Inflation Factor**
  An annual escalation for inflation of 2 percent has been applied to future revenues and operating costs.

- **Discount Rate**
  A discount rate of 7 percent is used for the net present value ("NPV") analysis.

- **Investment Life**
  The anticipated life of the investment is 7 years.

2.2 Option 1: Oracle Software Platform Upgrade Only

This option is the minimum required to continue maintaining the current web-based services for BC Ferries' customers. This option will only implement upgrades to the legacy components of the website software platform (Oracle 10g) to current versions (Oracle 11g). Website applications would be modified and/or rewritten as needed to operate on the Oracle 11g platform. The current content management system (Marqui) would remain in place and the legacy content management applications (Business Opportunities, Career Opportunities) will be migrated to the Marqui environment, thereby retiring the legacy PHP/MySQL environments, thereby addressing the associated security issues.

This option will not support the business strategies put forward in the Initiative, nor will it produce the benefits anticipated from the associated strategies. Changes to website application functionality, including additional mobile applications, social media functionality and Decision Support Systems are not within the scope of this option and would need to be addressed by other projects.

Financial Implications

Total Cost (including IDC)		$<>M
Capital Cost (including IDC) Operating Cost	$<>M $<>M	
4 year NPV		($2.8M)
13 year NPV		($4.8M)

Pros

- Current stability issues with the legacy application used by the Operations and Security Centre to generate service notices will be improved by moving this application to a more stable software platform.

- The operational issues with the current software platform will be addressed by implementing up-to-date versions of the underlying Oracle platforms consistent with current BC Ferries' software platform standards.

- Support for common browsers will be more current.

- Maintaining and enhancing the website applications will be more efficient.

- The platform upgrades should further reduce the Customer Service Centre's effort to handle website calls associated with website issues.

Cons

- This option will not support the business strategies put forward in this Initiative, nor will it produce the benefits anticipated from those strategies.

- Additional functionality is not in scope, including support for the *Fare Flexibility and Revenue Management Strategy*. Any additional functionality will have to be custom built, thereby requiring much greater design and development effort and timeframes than would otherwise be needed to integrate with proven functionality provided in commercial off-the-shelf platforms (i.e. multi-channel, single cart purchasing flow, personalization, ancillary sales, price comparators, multi-site, etc.).

- There is a high risk of duplicate application development given the variety of mobile device platforms used by customers.

- The current custom applications operating on the legacy software platforms will not be able to address future load and performance requirements needed to support the *Fare Flexibility and Revenue Management Strategy* and the *Digital Experience Strategy*. Significant testing, refactoring, and tuning will be required.

2.3 Option 2: Full Software Upgrade

This option provides the necessary software platforms and tools to fully enable the business strategies outlined in this Initiative.

This option fully implements the *Fare Flexibility and Revenue Management Strategy* and the *Digital Experience Strategy* in four releases. These releases include mobile applications, multi-channel web content management, a commercial strength e-commerce platform and a Decision Support System. In addition, this option delivers a foundation that can be leveraged to effectively support BC Ferries' customers' website needs for many years to come.

Financial Implications

Total Cost (including IDC)		$<>M
Capital Cost (including IDC) Operating Cost	$<>M $<>M	
4 year NPV		$0.7M to $7.0M
13 year NPV		$10.5M to $33.5M

The ranges for the NPV analyses have been calculated based on incremental traffic growth scenarios of 3 percent and 5 percent (see Table 3), as follows:

- The 3 percent scenario is based on a full traffic growth by year 3 of the Initiative. This growth rate is deemed the minimal growth rate obtainable based on industry benchmarks and operational and regulatory considerations.

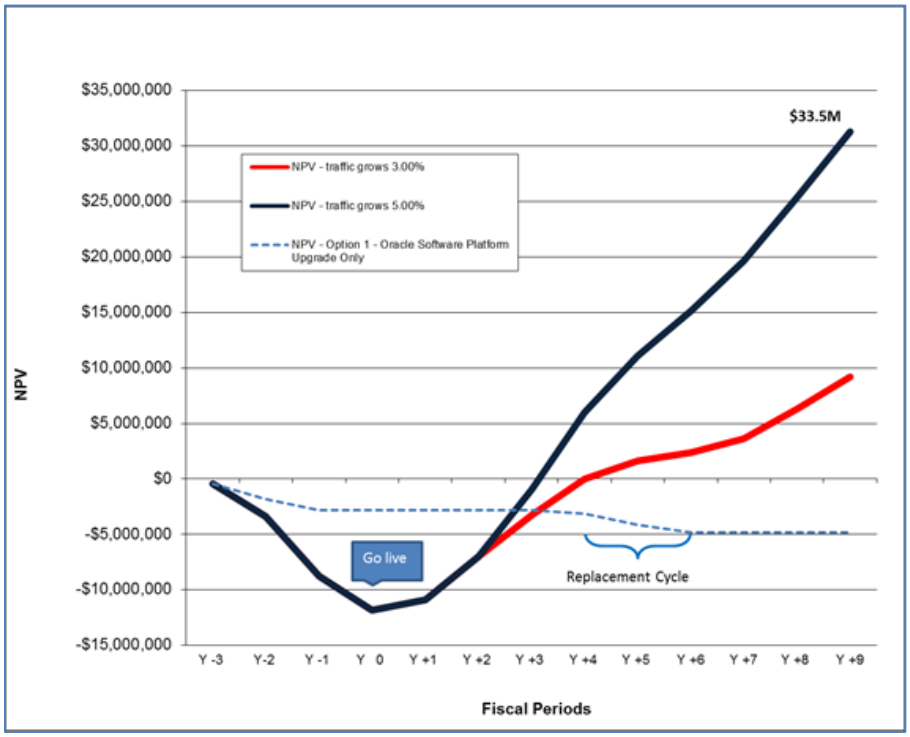
- The 5 percent scenario is based on the same growth rate over the first three years of the Initiative followed by two years of further growth, with the full 5 percent achieved by year five. This growth rate is deemed to be the upper range of outcomes considered achievable, and within the range of benefits achieved by benchmarked companies.

Table 3: Traffic Growth Scenarios

Incremental Passenger Vehicle and Passenger Traffic Growth on Reserveable Routes					
Initiative Year	Year 1	Year 2	Year 3	Year 4	Year 5
Targeted Routes	1, 2, 3, 30	1, 2, 3, 30 plus 9 , 10, 11, 17[6]			
3% Traffic Growth Scenario $10.5M NPV	0.75%	1.50%	3.00%	3.00%	3.00%
5% Traffic Growth Scenario $33.5M NPV	0.75%	1.50%	3.00%	4.25%	5.00%

The NPV's were calculated using a 13-year period that includes the initial build plus one full website renewal. A 13-year period was used to demonstrate the ongoing recurring benefit after the initial ramping up to full traffic levels.

Figure 5: Cumulative NPV



6 Route 9 connects Tsawwassen and the Southern Gulf Islands; Route 10 connects Port Hardy and Prince Rupert; Route 11 connects Skidegate and Prince Rupert; and Route 17 connects Comox and Powell River.

These results are based on a phased rollout of the *Fare Flexibility and Revenue Management Strategy* across reserveable routes; the Major Routes only in the first year and extended to all other reserveable routes in the following year. This rollout plan is highly dependent on the implementation of the ACE Program.

This option will generate incremental revenue growth estimated from $11 million to $18 million (incremental first full year). To support this level of revenue growth, incremental costs estimated from $<> million to $<> million (incremental first full year) will be incurred in the areas of Customer Service Centre, terminal operations, credit card fees, systems maintenance and support.

The estimated growth in revenue is mainly attributed to the anticipated growth in traffic, which will also generate additional onboard revenue. As well, there is an anticipated increase in ancillary revenues attributed to the implementation of a multi-channel e-commerce single cart purchasing flow. This will enable the delivery of relevant, personalized information content, offers and options to purchase onboard amenities, vacations, accommodation and activities in concert with a customer's purchase of travel. In addition, the ability to manage traffic through pricing strategies will allow for savings from sailing plan rationalization.

Opportunities exist to further improve the NPV of this option by introducing a pricing strategy that encourages customers to book online rather than by telephone to the Customer Service Centre, which would reduce Customer Service Centre costs. This could be achieved by offering lower fares for online booking or by introducing a transaction fee for Customer Service Centre bookings – assuming these fees are deemed ancillary revenue and are not included in the price cap.

This option also provides a solid foundation for expansion of future sales opportunities with the integration of the online Gift Shop into the single cart purchasing flow and the future expansion of business-to-business commerce interfaces to new partners and resellers should BC Ferries wish to do so.

Pros

- This option will support the business strategies put forward in this Initiative, and will produce the following benefits:
  - Increase customer satisfaction;
  - Generate financial benefits;
  - Reduce pressure on future fare increases; and

- o Modernize the way the Company sets pricing, sells travel and manages capacity.

- This option will provide a commercial-strength platform which will, in turn, provide market-tested functionality and performance to deliver relevant information content and purchasing capability to the customer – anytime, anywhere, on the device of their choosing.

- This option positions BC Ferries to take advantage of future opportunities with business partners and integrate the online Gift Shop (not currently in the scope of this Initiative).

- The operational issues with the current software platform will be addressed by implementing up-to-date fully supported software platforms.

- Current stability issues with the legacy application used by the Operations and Security Centre to generate service notices will be addressed.

- The ability to maintain and enhance the website applications will be improved and more efficient. Time to market for new content and functionality should be considerably shorter. A mobile development platform will be implemented capable of supporting a "build once and deploy on many" mobile devices.

- An extensive library of widely-used and field tested "electronic store" functionality available in e-commerce platforms will be available. This will significantly improve quality of releases, while optimizing labour and time to deliver when compared to custom building equivalent software functionality.

- A commercial off-the-shelf platform will have load and performance proven functionality capable of handling the anticipated increases in website volume when advance purchase is implemented on all reserveable routes.

This option addresses several significant Commission principles as identified in the Commissioner's report, *Review of the Coastal Ferry Act*, including:

- Better capacity utilization and improved yield and capacity management capability;

- The generation of new ancillary revenue in the interests of ferry users and taxpayers; and

- Enhanced traffic forecasting capabilities.[7]

Cons

- In order for this option to be successful, it will require customer acceptance of a move to advance purchase of travel and on-board amenities, differentiated pricing, revenue management and capacity optimization. This will require significant business planning, communications and organizational change management.

- This option will introduce software new to BC Ferries, and as a result, staff will require formal training and a period of time for familiarization.

- The traditional development methodology used at BC Ferries may need to be adjusted to accommodate more agile development practices commonly used by software integrators to configure, extend, test and implement functionality. However, this is expected to yield significant benefits in terms of improving productivity, reducing risk and improving overall quality of website releases.

2.4 Option 3: Status Quo

Status quo is not considered a viable option given the inflexibility and technical issues associated with the current website software platform. As previously discussed, many of the underlying software components are older versions that are at end-of-life status and are no longer supported by the vendor. This means that software updates are no longer provided and technical support from the vendor is very limited, which significantly complicates the problem determination and resolution process when website incidents occur.

[7] BC Ferry Commission, *Review of the Coastal Ferry Act*, January 24, 2012, pp. 5-7. For the Commission's discussion of these principles, see pp. 71-75, 83, and 79 respectively.

2.5 Preferred Option

Option 2: Full Software Upgrade is BC Ferries' preferred option as it provides the opportunity to generate an NPV ranging from $10.5 million to $33.5 million over a 13-year period (10 years from go live).

By providing customers an intuitive, self-serve website accessible through multiple devices, the full software upgrade option positions BC Ferries to obtain incremental traffic revenues, incremental ancillary revenues, and the ability to better manage vessel utilization. These benefits will reduce pressure on future fares.

Section 3: Other Considerations

3.1 Price Cap Implications

To assess the impact of this Initiative, a comparison of price cap implications was undertaken for the viable options outlined in this Application. Financial forecasts and price cap estimates were produced for Option 1, which were based on an Oracle software platform upgrade only, and for the recommended option, Option 2, based on a full software upgrade with 3 percent incremental traffic. These forecasts incorporated the operating and capital impacts identified in the business case and held all other revenue and expense items the same. In all calculations, BC Ferries' Long Term Forecasting Model was used, and price caps were derived by solving for the Commissioner's target leverage ratio of 82.5 percent at the end of performance term four (April 1, 2016 – March 31, 2020).

The analysis indicates that Option 2 will lead to a decrease in future price cap requirements. Option 2 results in price caps in performance term four being approximately 0.07 percent per annum less than under Option 1, and 0.39 percent per annum less through performance term five (April 1, 2020 – March 31, 2024). Fares at the end of performance term five would be 1.82 percent lower under Option 2 than under Option 1. This analysis indicates that the capital expenditures contemplated in Option 2 support BC Ferries' core objective of fare affordability.

3.2. Scenarios for Reducing Capital Expenditures

The preferred option (Option 2) consists of two types of capital expenditures (new e-commerce website platform and revenue management Decision Support Software), both of which are holistic in nature and, accordingly, do not lend themselves to scalability. An option would be to forego one or the other expenditure. However, doing so would fundamentally compromise the ability to drive the anticipated benefits of the Initiative described in this Application. Without the integration with the Decision Support System, the e-commerce platform can deliver some benefit, but cannot in itself deliver the benefits contemplated under the *Fare Flexibility and Revenue Management Strategy*.

In the alternative, the Decision Support System could integrate with the existing website platform, but little benefit can be derived because the existing platform cannot handle the transaction volume that would be required. Accordingly, neither of these approaches to reducing capital expenditures is considered a viable option.

A new but smaller e-commerce platform may be available, but would constrain the volume of transactions that could be processed, with the risk of increased costs associated with the need to ultimately upgrade or replace the platform.

Option 1, which is based on an Oracle software platform upgrade only, is viable to maintain the stability of the current website. It potentially could be upgraded at additional cost to provide mobile applications. However, as has been demonstrated, there is a significant negative variance in the NPV of Option 1 versus the NPV of Option 2.

The Company respectfully submits that there is no reasonable scenario for reducing capital expenditures from the preferred option (Option 2).

3.3 Ancillary Services

The Initiative is expected to generate growth of the following ancillary revenue streams:

Sales of Onboard Food and Merchandise: Incremental traffic will itself generate an increase in onboard sales of food and merchandise. Online advance purchase options will be utilized to encourage customers to purchase food prior to boarding the vessel. Incremental food and merchandise sales are estimated to be between $6.7 million (net) and $9.3 million (net) over the life of the business case (13 years).

Package Vacations Sales: Incremental website traffic, as well as the capability to upsell and cross sell Vacations, is expected to increase vacation package sales. Incremental ancillary revenue from Vacations sales is estimated to be between $3.4 million (net) and $4.5 million (net) over the life of the business case (13 years).

3.4 Completed and Future Consultations

Considerable research and analysis has been undertaken to evaluate and design the business strategies supported by the Initiative. This has included customer research, internal focus groups and a review of industry best practice, all of which support the Initiative.

Customer Research

- Customer focus group research was conducted to validate customer expectations of various elements of the *Fare Flexibility and Revenue Management Strategy* and the *Digital Experience Strategy* including:
  - Advance purchase of tariff and onboard services;
  - Expanded digital sales channel;
  - Opportunities for discounted fares;
  - BC Ferries' website;
  - Mobile and tablet access; and
  - Social media.

- To understand the customer's response to a differentiated pricing structure, BC Ferries engaged external consultants to undertake customer research using a conjoint analysis approach. This research tested customer responses to different price and fare attribute combinations and determined their effectiveness in preventing full fare dilution, while at the same time driving additional travel by price sensitive customers.

- Customer feedback gathered through Responsetek (BC Ferries' customer feedback database) and BC Ferries' ongoing Customer Satisfaction Tracking research was reviewed and analysed to gather insights regarding customer expectations as to pricing, reservations, and ways and means to purchase tickets.

- The Company also engaged an external consultant to design a reservation booking flow, based on customer focus groups that they conducted.

Future Consultations

Future customer research and consultations are planned to validate and refine pricing and fare attributes, website usability, website design and mobile interfaces.

Internal Research

- The Company engaged a revenue management expert to facilitate a series of internal workshops to assist in confirming the applicability and potential benefits of revenue management to BC Ferries, and develop a conceptual fare product structure.

- Internal workshops were conducted by external e-commerce experts to assist in the development of the *Digital Experience Strategy.*

Review of Industry Best Practice

- BC Ferries interviewed ferry and rail operators who practice revenue management. A broad range of topics was covered, including current business practices and their experiences implementing revenue management.

- The Company issued Requests for Information for Decision Support Systems and for digital technologies, to understand what solutions were available and the cost of such software.

- As part of research into the *Digital Experience Strategy*, the Company conducted a review of latest industry reports on technology, including megatrends research, and conducted a benchmarking exercise of other travel and hospitality websites.

Section 4: Procurement and Risk

4.1 Procurement Strategy

During the research phase of the underlying strategy development of this Initiative, BC Ferries placed significant emphasis on engaging external experts to develop the business and technological strategies that underpin the solution and plans described in this Application. In addition, a Request for Information and a RFEOI were issued for the revenue management Decision Support System and Multi-Channel Website Software respectively, with a view to confirming vendor/product availability, methodology, pricing and timeframes.

Three distinct tenders are envisaged going forward:

1. Multi-channel website content management and e-commerce software platform licenses and integration services (website platform/integration);

2. Website, mobility and social media user experience, user interface design, usability testing services ("Website UX/UI"); and

3. Revenue management Decision Support System service and support.

Fixed price contract awards are contemplated.

The following timeline for procurement is envisaged:

- **November / December 2014:** BC Ferries intends to issue a non-binding Request for Pre-Qualification ("RFPQ")in late 2014 to pre-qualify software and integration vendors capable of implementing multi-channel web content management and e-commerce software solutions in accordance with specified functional and technical requirements and within timeframe and budgetary constraints. This RFPQ will contain an option to award a contract in the event that an outstanding proposal has been received that meets all stipulated requirements. The exercise of this option would be subject to the approval of this Application.

- **March / April 2015:** The issuance of a Request for Proposal ("RFP") for software and integration vendors to pre-qualified vendor or vendor partnership from the RFPQ, followed by contract award to the successful proponent is planned to take place in spring, 2015.

- **March / April 2015:** Also in spring, 2015, BC Ferries intends to issue RFPs for the Website UX/UI and revenue management Decision Support System, and award contracts to the successful proponents accordingly.

There is a number of software and integration vendors in the market place capable of delivering multi-channel web content management/e-commerce solutions, as well as firms that specialize in multi-channel user experience/interface design, mobile applications and social media presence. BC Ferries will seek to acquire web platforms and solutions that are "main-stream" and similar to those commonly in use. Therefore, BC Ferries will seek solutions that deliver functionality "out-of-the-box" or by configuration/extension, with a minimum amount of customization required. Competitive tenders with numerous proposals are expected.

In the case of revenue management Decision Support System, given this is a more specialized marketplace, fewer vendor proposals are expected. Also, given the specialized nature of revenue management, a Software as a Service may be required.

4.2 Risk Identification and Mitigation

An overview of the key risks, together with planned mitigation strategies, is provided below.

Public Acceptance of New Business Model

There is a risk that customers may not embrace the new advance purchase model as anticipated, resulting in lower traffic and/or revenue.

Mitigation: BC Ferries' exposure will be limited as a result of the following:

- Major ongoing operating costs are variable and linked to the volume of advance purchase ticket sales (credit card fees and Customer Service Centre electronic funds transfers).

- BC Ferries has conducted and will conduct more customer research to build and refine details behind the new business model. To date, customer research has consistently shown that customers endorse the proposed approach.

- The phased roll-out plan will allow time to adapt and fine tune the offering.

- Communication of the new business model to customers will be crucial in ensuring customers understand its benefits. A communication plan is envisaged and sufficient funds have been included in the budget to support this plan.

Organization Readiness

There is a risk that the Company and its employees will not be ready to deliver such a large change in business process.

Mitigation: A business transformation timeline is being developed and will include requirements for these strategies and those being deployed as part of the ACE Program. The phased roll out will limit the training requirements for staff, which ensures that employees are not overextended in the delivery of the strategies. The *Fare Flexibility and Revenue Management Strategy* envisages that the majority of fare transactions will occur online and via the Customer Service Centre, and will be phased in over time, which limits the impact on employees.

Selected Vendor Proposal Budget and Schedule Impact

There is a risk that the cost and schedule estimates supporting the business case may be found to be insufficient to accommodate selected proposals resulting from the RFP processes.

Mitigation: BC Ferries will continually review cost estimates as requirements are confirmed and the solution designs are developed, with the intent of identifying potential issues as early as possible. The Company intends to include a requirements confirmation checkpoint in the vendor contracts and, if necessary, will adjust the contracts and the Initiative scope, schedule and budget.

ACE Program Synergy

There is a risk that ACE Program requirements and schedule changes resulting from gap/fit analysis or other factors may have an impact on the scope, schedule and budget of this Initiative.

Mitigation: BC Ferries intends to use a phased approach and carefully align releases in concert with the ACE Program to ensure orderly rollout, while minimizing impact of schedule delays that may occur. The Company will also re-verify release rollout plans upon completion of major phases for both projects. Completion of a business transformation timeline will assist in the identification of possible opportunities and conflicts.

Internal Resource Availability

There is a risk that internal resources may not be in place in the timeframe needed, or business subject matter/technical expert resources are not available because of higher priority work on other major projects, such as the ACE Program and the IT Infrastructure Refresh.

Mitigation: BC Ferries will continually monitor resource availability and adjust task assignments and scheduling to minimize overall impact. The Company will put in place full-time dedicated resources, as much as possible, and begin staffing actions as early as possible. A business resource plan will be developed, in conjunction with the ACE Program, to ensure balanced allocation of resources for both projects.

Technical Complexity Issues

There is a risk that unanticipated technical issues are encountered, given the complexity of the technical environment of the website and ACE Program, including implementation of the revenue management Decision Support System.

Mitigation: BC Ferries intends to incorporate early prototyping, testing and technical evaluation tasks in the Initiative plan to identify technical and integration issues as early as possible. The Company will employ external subject matter experts who are proficient with revenue management Decision Support Systems to ensure efficient and effective integration. As required, solution architecture and design will be adjusted.

4.3 Implications of Deferring or Postponing the Project

Deferring or postponing the Initiative will delay implementation of the software technology to achieve the financial and other benefits identified in this Application.

Long-awaited mobile and social media support requested by BC Ferries' customers will also be delayed, as will opportunities to increase incremental revenue by cross-promoting products and services that have not been bookable on the current BC Ferries website.

Deferring or postponing this Initiative will further delay rectification of issues with the current legacy software platform and applications. This will further perpetuate the challenges previously noted with managing website content, as well as maintaining and enhancing the website applications, notably Reservations and "My Account". Deferring the initiative is also expected to result in higher costs, as the full benefits from synergies with the ACE Program would not be realized.

Section 5: Summary

The Initiative will deliver the information technology elements and resources required for successful deployment of BC Ferries' *Fare Flexibility and Revenue Management Strategy* and *Digital Experience Strategy*. Together, these strategies are expected to drive a significant increase in customer use, transaction volumes and the amount of revenue collected from online self-serve channels, while at the same time enhancing the customer experience.

Specifically, the Initiative will:

Reduce Pressure on Fares – the increase in traffic and operational savings driven by the Initiative will moderate price cap increases by 0.07 percent per annum during performance term four and 0.39 percent per annum during performance term five.

Enhance Customer Experience – the Initiative will address customer feedback by providing customers with greater certainty that they will travel on the ferry of their choosing without paying a separate reservation fee, access to discounted fares year round, and the ability to book and change tickets online through the device of their choice.

Replace Aged Website Software – the Initiative will deliver the information technology elements required for the successful deployment of the *Fare Flexibility and Revenue Management Strategy* and the system-wide modernization of the Company's information technology platforms to support the *Digital Experience Strategy.*

This Initiative provides the potential to increase traffic by between 3 and 5 percent and generate a positive NPV ranging from $10.5 million to $33.5 million over a 13-year period (10 years from the go-live date.)

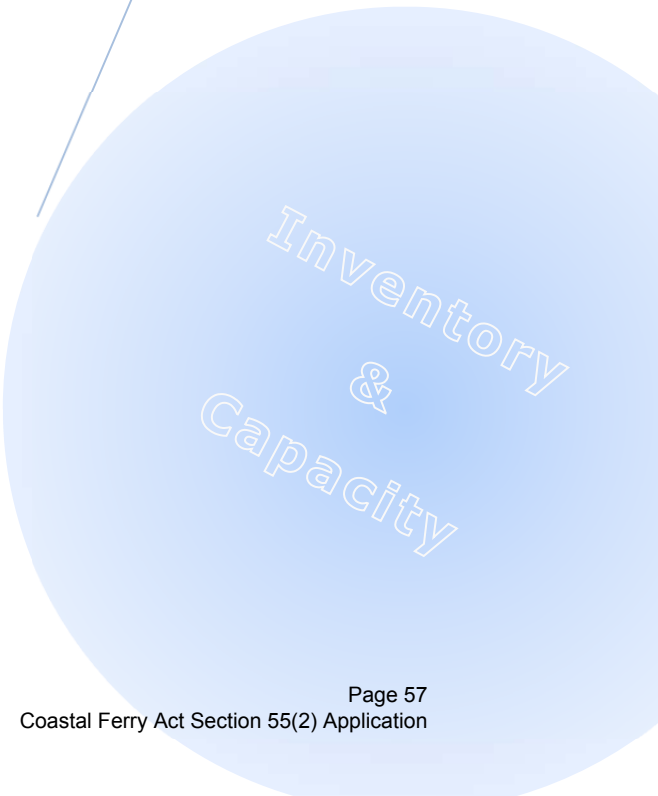
Conclusion

In accordance with section 55(2) of the Act, BC Ferries is seeking approval for a major capital expenditure for the *Fare Flexibility and Digital Experience Initiative* of up to $<> million, inclusive of IDC, and supplemental costs of up to $<> million, for a total expenditure for the Initiative of up to $<> million. BC Ferries submits that the total expenditure for the Initiative, as described in this Application, is reasonable, affordable, prudent and consistent with the Company's current 5-year and 12-year capital plans approved by BC Ferries' board of directors.

Appendix A: Fare Flexibility and Revenue Management Strategy Report

Fare Flexibility and Revenue Management Strategy

The right product
to the right customer
at the right time
for the right price



September 30, 2014

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1. Executive Summary

The key objective of the *Fare Flexibility and Revenue Management Strategy* is to reduce pressure on fares. This objective is supported by increasing traffic and related revenues, and reducing service delivery costs.

At British Columbia Ferry Services Inc. ("BC Ferries" or "the Company"), we understand that to drive additional traffic, we must offer fare products that our customers value. We also understand that to provide fare products that our customers value, we need to understand what our customers value. As a result, we have undertaken considerable customer and industry research, and have plans to undertake more as we refine our strategy and further develop our flexible fare framework.

BC Ferries' *Fare Flexibility and Revenue Management Strategy* is predicated on the principles of value, choice, and simplicity. Our research indicates that customers value the following fare product enhancements:

- Elimination of a separate vehicle reservation fee;
- All fares available for advance purchase;
- The rack rate available for purchase on departure is set and published in advance;
- Discount fares are available year round; and
- A selection of easy to understand fare products.

Today, BC Ferries' reservation and ticketing systems do not support flexible fare products or simply offering advance purchase, other than via the limited reservations only version. The implementation of the new Booking Ticketing and Check-in system being delivered under the Automated Customer Experience ("ACE") program will, however, provide BC Ferries with sophisticated pricing functionality that will allow BC Ferries to create fare products that address customer research.

To implement the *Fare Flexibility and Revenue Management Strategy*, BC Ferries will need to construct a new web portal and electronic transaction platform, and implement revenue management software.

The new web portal and platform will be capable of the following:

- Handling the expected increase in the volume of advance ticket sales;

- Displaying prices and fare/itinerary choices in an easy-to-understand way;
- Providing a smooth, intuitive booking process;
- Directing customers to sailings where promotion fares are available (if requested); and
- Presenting intuitive alternatives if the price is too high/desired sailing is not available.

Revenue management software, known as a Decision Support System, will assist BC Ferries' analysts in generating dynamic demand forecasts on a sailing-by-sailing basis and using this information to optimize fare availability and deck space allocations on each sailing.

BC Ferries estimates that the implementation of the *Fare Flexibility and Revenue Management Strategy* will generate a traffic increase of between 3 and 5 percent annually, and will realize operational cost savings of at least $470,000 per year.

The *Fare Flexibility and Revenue Management Strategy* consists of four core components:

1. **Fare structure** predicated on the guiding principles of value, choice and simplicity, resulting in an easy-to-understand selection of fare products and prices that better meets customer needs.

2. **Revenue management processes** that ensure BC Ferries is able to optimize allocation of deck space by traffic type and fare product.

3. **Revenue management and capacity optimization tactics** that address customer research and achieve BC Ferries' financial objectives, including controlled and targeted use of discounts to grow demand, protecting space for late booking or time-sensitive customers, ensuring customers have a range of prices to choose from so as few as possible choose not to travel because of price, and using price to shape demand on a sailing-by-sailing basis, thereby reducing the number of additional sailings and sailing overloads.

4. **Roll-out strategy** that provides customers time to adapt to the new business model while providing them with tangible benefits from day one.

Further consultations are planned to refine the above components and to research the most appropriate pricing mechanisms for non-reserveable routes.

2. Introduction

2.1 Purpose

The *Fare Flexibility and Revenue Management Strategy* is a key business strategy to be deployed by BC Ferries over the near term. Its objective is to reduce pressure on fares by increasing traffic and related revenues, and reducing service costs.

This paper outlines the *Fare Flexibility and Revenue Management Strategy*, and is organized as follows:

Section 2: Introduction, purpose and background.

Section 3: Objective and benefits.

Section 4: Strategy components, describing the core elements of the proposed strategy. These are: proposed fare structure, revenue management processes, revenue management and capacity optimization tactics, and roll-out strategy.

Section 5: Future consultations planned as part of the stage to refine the strategy.

Appendices: Includes research stage findings, operational considerations and mitigation strategies, a list of companies interviewed as part of an industry best practice review, and definitions of terms.

2.2 Background

Revenue management is used by companies that have perishable inventory to increase volumes and enhance revenues. It is now common practice in the airline and hotel industries, and being increasingly adopted by other travel and tourism industries, including other ferry companies, car rental companies, and golf courses.

BC Ferries has undertaken both qualitative and quantitative customer research to validate the applicability of revenue management for BC Ferries, and to understand whether our customers would embrace it. Key findings were:

At a conceptual level, BC Ferries operates within a market that has the characteristics necessary to deploy a successful revenue management system:

- The customer base consists of a mix of price sensitive and price insensitive customers that can be independently targeted with the appropriate mix of fare attributes and channels;

- The variable cost of incremental traffic is low versus the high costs of increasing capacity; and
- The product is perishable with limited ability to adjust capacity to meet specific demand.

Revenue management will be most effective on the Major Routes[1] where:

- Fares are higher and the ability to provide a meaningful price differential is greater;
- There is physical capacity at the terminals to segregate waiting traffic; and
- There is a greater share of discretionary travel and opportunities to stimulate demand.

BC Ferries' quantitative and qualitative customer research indicates:

- A wide acceptance of common revenue management techniques such as advance purchase and dynamic pricing;
- A strong willingness to travel from respondents who would not have travelled otherwise, in response to discounted fares; and
- That revenue management and fare product attributes such as advance purchase requirements, change fee and refund restrictions and discount availability at a sailing level would be effective in protecting revenue and at same time grow traffic.

Arising from these findings, the Company has embarked on a four stage strategy development process to design and implement a revenue management concept that would be embraced by BC Ferries' customers and help to reduce pressure on future fares.

Stage 1: "Research" (complete): An information gathering phase including customer research, an industry best practice review, an analysis of BC Ferries' internal constraints and considerations, and a review of external tools available that are required to implement a revenue management system.

Stage 2: "Define" (complete): Outline of the core components of the *Fare Flexibility and Revenue Management Strategy*, including proposed fare structure, revenue management processes, revenue management and capacity optimisation tactics, and roll out strategy.

[1] The Major Routes consist of three regulated routes connecting Metro Vancouver with mid and southern Vancouver Island (Route 1: Swartz Bay – Tsawwassen; Route 2: Departure Bay – Horseshoe Bay; Route 30: Duke Point – Tsawwassen), and one regulated route connecting Horseshoe Bay and Langdale (Route 3)).

Stage 3: "Refine" (future): Continues the process of defining and adjusting the *Fare Flexibility and Revenue Management Strategy*. The stage is iterative and involves testing the initial strategy with customers and other stakeholders and using the results to further refine the strategy.

Stage 4: "Build/Launch" (future): Roll out of the *Fare Flexibility and Revenue Management Strategy*; implementing the decision support system, new fare structure, and revenue management processes.

BC Ferries has now completed the second stage of this strategy development process, the contents of which are presented in this document.

3. Objectives and Benefits

Objective: The overarching objective of *the Fare Flexibility and Revenue Management Strategy* is to reduce pressure on future fares by increasing revenue through growing traffic.

The core benefits of this strategy are:

- An enhanced customer experience, including meeting customer requests for the ability to purchase tickets in advance, greater departure certainty, and greater access to discounted fares;
- Increased traffic and revenue through use of revenue management techniques; and
- Operational costs savings generated by using demand management to reduce the number of additional round trips needed.

As well, the strategy responds to several principles of the British Columbia Ferries Commissioner's (the "Commissioner") 2012 Review of the *Coastal Ferry Act* (the "Act").

Benefit 1: An enhanced customer experience: Our customers have indicated they would value being able to book and pay for their tickets in advance without paying a separate reservation fee, having greater access to discounted rates and, if they choose to pay for their travel on departure, to know what the cost will be in advance.

Customers have also said they would like to be able to arrive at terminals with greater certainty that they will be able to board the next departing sailing, and that they would like to be able to book and pay for tickets on their mobile devices and personal computers.

The *Fare Flexibility and Revenue Management Strategy,* in conjunction with the *Digital Experience Strategy*, directly address this feedback.

Benefit 2: Increased traffic and revenue: Revenue management techniques provide companies with a means of controlling and optimizing the level and quantity of discounts at a granular level, thereby allowing them to strike a balance between using price to grow traffic and protecting average fare paid.

BC Ferries estimates that revenue management will generate between 3 and 5 percent incremental private vehicle and passenger traffic on reserveable routes (1, 2, 3, 30, 9, 10, 11 and 17[2]). These assumptions are based on the experience of large ferry, rail, air, and hospitality companies which have implemented

[2] Route 9 connects Tsawwassen and the Southern Gulf Islands; Route 10 connects Port Hardy and Prince Rupert; Route 11 connects Skidegate and Prince Rupert; and Route 17 connects Comox and Powell River.

revenue management. These companies, most of which operate in a competitive market, report that revenue management generated between a 3 percent and 15 percent revenue increase.

BC Ferries has positioned its achievable benefits at the lower end of this range to reflect: its objective to grow revenue by increasing traffic rather than through yield increases; the high market share that BC Ferries already holds in its markets; and public sensitivity to ferry fares.

It should be noted that should these traffic increases be achieved, overall traffic levels will still be below those experienced in 2008.

Benefit 3: Operational cost savings by reducing the number of additional round trips needed: Today, the approach that BC Ferries takes to 'optimize' capacity in busy periods is constrained by the current business model, whereby the majority of customers do not reserve, but instead purchase their ticket on departure. From a capacity management perspective, this is an inefficient approach as it results in underutilized sailings during relatively busy times. The advance purchase model and revenue management techniques envisaged in the *Fare Flexibility and Revenue Management Strategy* will enable BC Ferries to more accurately match capacity to demand, and in doing so, reduce the number of additional sailings that are needed.

The strategy responds to several principles in the Commissioner's 2012 Review of the *Coastal Ferry Act.* Under the *Coastal Ferry Amendment Act, 2011*, the Commissioner was mandated to conduct a review of the Act as it relates to the regulation of ferry operators. The objective of the review was to recommend changes that would better enable the Commissioner to balance the interests of ferry users with the financial sustainability of ferry operators. In his report issued January 24, 2012[3], the Commissioner provided recommendations for changes to the Act and other measures to improve the current regulatory model. These recommendations were embodied in 24 major principles. The *Fare Flexibility and Revenue Management Strategy* directly aligns with two of these principles, namely:

- **Principle 9: Achieve better capacity utilization and improved yield and capacity management capability.** The tools and techniques envisaged to deliver the *Fare Flexibility and Revenue Management Strategy* will provide BC Ferries with the means to shape demand to achieve better capacity utilization and to control the yield on each sailing.

- **Principle 15: Upgrade BC Ferries' traffic forecasting capabilities and upgrade the reservation and ticketing point of sale systems.** The tools and techniques envisaged to deliver the *Fare Flexibility and Revenue Management Strategy* will significantly improve traffic forecasting capabilities and the Company's understanding of consumer behaviour at the sailing-by-sailing level.

[3] BC Ferry Commission, *Review of the Coastal Ferry Act,* January 24, 2012, pp. 5-7.

4. Strategy Components

This section provides detail on the four core components of the *Fare Flexibility and Revenue Management Strategy*, these being:

1. **Fare Structure** that is predicated on the guiding principles of value, choice and simplicity, resulting in an easy to understand selection of fare products and prices that better meet customer needs.

2. **Revenue Management Processes** that ensure BC Ferries is able to optimize deck space allocation by traffic type and fare product on a sailing-by-sailing basis throughout each sailing's booking life.

3. **Revenue Management and Capacity Optimization Tactics** that address customer research and achieve BC Ferries' financial objectives, including controlled and targeted use of discounts to grow demand, protecting space for late booking of time sensitive customers, ensuring customers have a range of prices to choose from, and using price to shape demand to reduce the number of additional sailings required and reduce overloads.

4. **Roll-out Strategy** that provides customers time to adapt to the new business model while providing them with tangible benefits from day one.

4.1 Fare Structure

The future BC Ferries fare structure will be a set of fare products, associated fare attributes and price levels offered to customers. This section sets out a proposed fare structure for Routes 1, 2, and 30. It is organized into several sections; the guiding principles that underpin its design, the proposed "public range"[4] and an outline of the other fare ranges that could be deployed.

4.1.1 Guiding Principles

The public range fare structure is designed to reflect the principles of value, choice, and simplicity. These are embodied in the new fare structure as follows:

[4] Public Range: The range of fare products available to the general public to buy in advance or at the terminals. Does not include fares products designed for commercial, bus and tour operators.

Value: The new fare structure available on reserveable routes would offer:

- **Advance purchase:** All fares will be bookable in advance.
- **Departure certainty**: All advance purchase fares will include a reservation - there will be no separate fee.
- **Access to discounted fares:** Discounted fares will be available year-round.
- **Affordability:** For vehicle itineraries, fares will not exceed the current sum of the bundled components, (vehicle + driver + passengers+ reservation fee) adjusted for regulated price cap increases. Passengers will have access to discounted rates if they book in advance.

Choice: Customers will have a choice of different fares and fare products to suit their travel needs.

Simplicity: Fare products will be designed so that customers can quickly understand their pricing options and cost of travel.

- Fewer component parts for customers to consider; the reservation fee, vehicle and driver elements are bundled into one price, before discounts.
- A limited number of fare products using a limited number of commonly-used fare attributes.

4.1.2 Public Range

The public range is likely to consist of four different fare products for private vehicle and driver, two for adult walk on passengers, and one walk on child fare. *The names and attributes of the fare products provided below are for illustrative purposes only and may change after future consultations*.

Vehicle and Driver Fare Products

- **Premium** – A priority travel product that offers customers the convenience of assured loading and other value added benefits. It will be designed for time sensitive business passengers.
- **Flexi (Rack) -** This fare will always be available, and is, in effect, the "rack rate". Possible attributes may include: exchangeable and refundable without fee, can be purchased in advance or at terminals prior to departure. As well as acting as the "Pay on Departure" fare, this fare product will provide an option for customers who are looking for departure certainty but wish to have the flexibility to exchange or refund their travel without charge, if their plans change.

- **Saver -** This fare product will offer some flexibility, and will be priced at a discount to the "Flexi" fare. Possible attributes may include: can only be purchased in advance (not sold at terminals), possible to change departure times on payment of a fee, partially refundable if cancelled prior to departure. This ticket will suit customers who are looking for a discount, but still appreciate the ability to change their plans at a relatively low cost.

- **Super Saver -** This fare product will offer very limited flexibility, but will be priced at a substantial discount to the "Flexi" fare. Possible attributes may include: can only be purchased in advance (not sold at terminals), the outward and return journeys must be booked at the same time, possible to change departure times on payment of a fee; not refundable, and limited to off-peak sailings. This fare will suit customers who are price sensitive, who are able to travel during off peak periods, and are prepared to commit to a fixed itinerary.

Vehicle Passenger Fare Products

These will be sold as add-ons to associated vehicle and driver fare. Exchange and refund conditions will mirror those of associated vehicle and driver fare, or if purchased at departure, those of the "Flexi" fare product.

Walk-on Passenger Fare Products

- **Flexi:** These fares will be available for purchase on departure at terminals, and in advance; similar attributes to Flexi vehicle + driver fare.

- **Saver:** This fare will only be available to purchase in advance; similar attributes to Saver vehicle + driver fare.

4.1.3 Other Ranges

Other ranges will be available, as they are today, for sale through channels such as tour operators, international travel agents, group and coach operators, and commercial operators.

4.2 Revenue Management Processes

The generic goal of a revenue management process is to ensure the right products are sold to the right customers at the right price. In BC Ferries' terms, this means that for each sailing, the Company strives for an optimum allocation or mix of:

- deck space allotted to commercial, coach and passenger vehicles;

- advance purchase vehicle tickets versus pay on departure traffic;

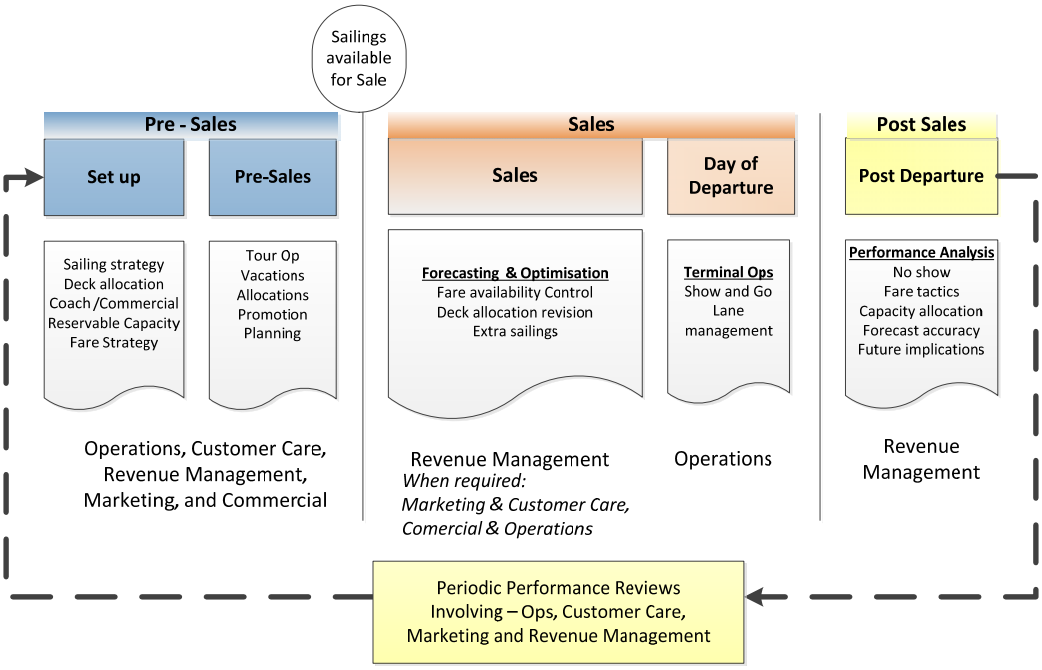
- walk on passengers and vehicle passengers; and
- fare products.

The BC Ferries revenue management process will encompass the complete planning and sales cycle of the ferry schedule. Unlike today, where few adjustments to deck space allocation and fares are made once a sailing goes on sale, the dynamic forecast provided by the Decision Support System will enable BC Ferries to adjust fare product availability and allocation to match changes in expected demand throughout the each sailing's booking life.

4.2.1 Overall Revenue Management Process

The revenue management process involves multiple internal stakeholders in the set up (one year before sailing departure), the sales (one year to day of departure) and post departure analysis of sailings. BC Ferries will re-organize roles and responsibilities to manage the new overarching revenue management process.

An overview is provided in the following diagram:



4.2.2 Revenue Management Team and Decision Support System

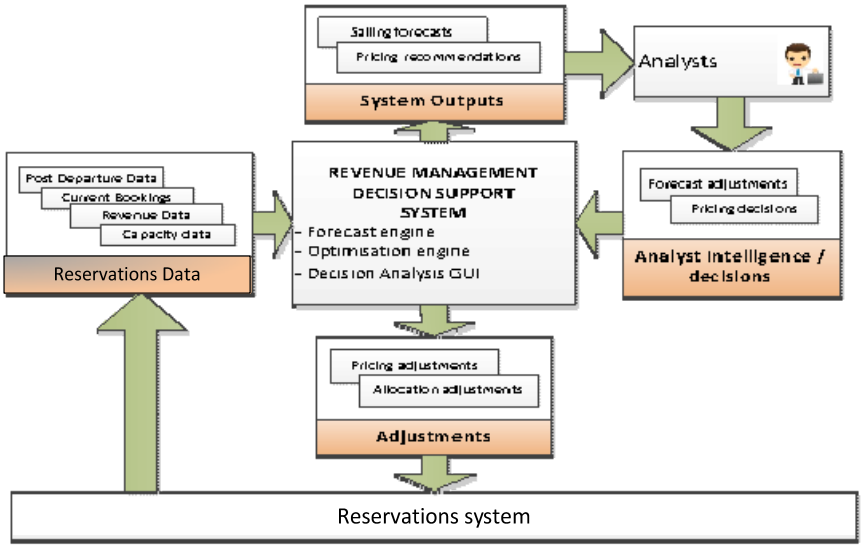
The Revenue Management Team will be dedicated to managing the forecasting and optimization process and guiding the overall revenue management process. This unit will consist of a Director, whose role is to propose revenue management strategy and oversee its implementation, and Sailing Analysts who will

forecast demand and optimize fare product availability on each sailing. On a day-to-day basis, the team's actions will revolve around the dynamic forecast and fare product availability recommendations of the Decision Support System.

4.2.3 Forecasting and Optimization

The Sailing Analysts' core task will be to manage the forecasting and optimization activities that will ensure BC Ferries has the appropriate fare products offered at the right time for each sailing.

Every night, the reservation system will provide the Decision Support System with the data to generate forecasts and optimization recommendations. These recommendations will be provided to the Sailing Analysts in the morning. The Analysts will review the recommendations, accept, adapt, or reject them, based on their knowledge of external factors and management guidelines.
This process is summarized in the following diagram:



4.2.4 Governance

Today, all pricing decisions are signed off by the Company's Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO") and reviewed by the BC Ferries executive team. This will remain the case for the new fare structure and its associated fare products. However, due to sheer volume, this will not be the case for the multitude of fare availability decisions that will be made each day by Sailing Analysts.

To ensure sufficient oversight and control, Sailing Analysts will work within defined and measureable parameters which will be developed in consultation with other internal stakeholders and signed off by CFO and CEO.

4.3 Revenue Management and Capacity Optimization Tactics

The move from a business model where the majority of customers do not make reservations and purchase tickets on departure, to an advance purchase model where the majority of customers can book and pay for their tickets in advance, will allow BC Ferries to deploy a range of revenue management tactics to grow traffic and to generate operational savings. It is likely that these tactics will evolve over time, as BC Ferries learns which ones are most effective for our customers and the Company. A selection of the tactics envisaged follows.

4.3.1 Price Discounts on Off-peak and Other Less Busy Sailings

Discounts will be offered on off peak and other less busy sailings for two reasons:

- To generate incremental travel, either new passengers who would not otherwise have travelled due to cost, or existing customers who are incented to travel more often; and
- To incent price sensitive customers to travel on non-peak sailings, ensuring that there is adequate space for time sensitive late booking customers on peak sailings.

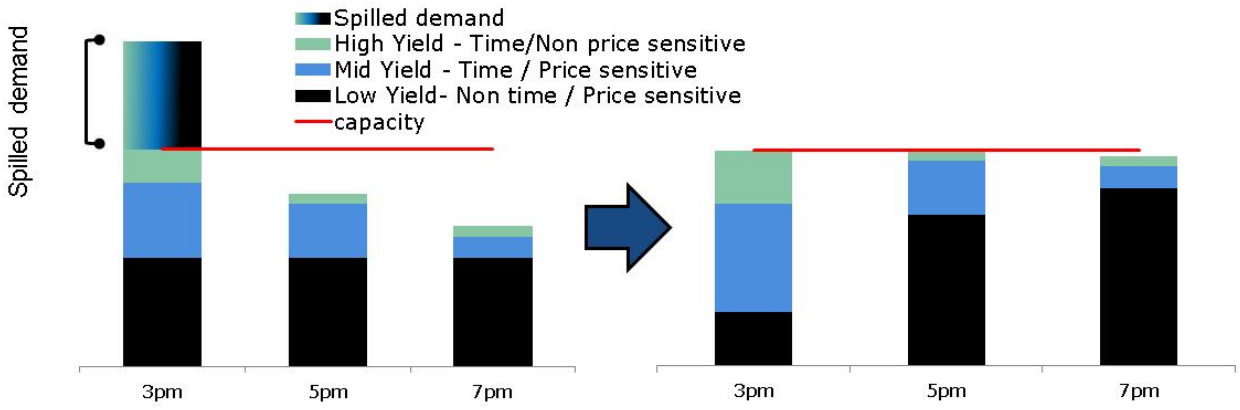
Discounts will be offered year round. The amount of space assigned to discounted fares will be limited and will vary by sailing and by how far in advance the customer books a ticket.

4.3.2 Protect Space for Schedule Sensitive and Late Booking Customers

This tactic works hand-in-hand with the previous tactic and is particularly relevant around events or busy weekends. At periods of high demand, less space will be sold at a discount, and the discount offered will decrease, the closer the booking is made to departure. This will “protect” space for schedule-sensitive and late-booking customers who value travelling on specific sailings and/or the flexibility to book close departure.

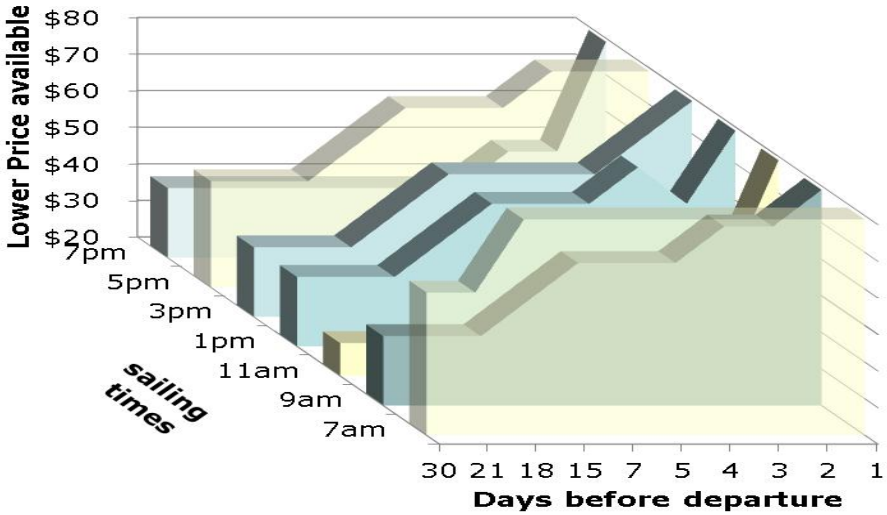
The following charts show how this tactic might change the passenger mix over three sailings, for example, before a major sporting event. In this example, a percentage of overall demand needs to be on the 3:00 p.m. sailing to make the game. Today, this sailing is often oversubscribed; as a result, these customers may not make this sailing.

In the future, customers who are not attending the event will be incented through pricing to travel on other sailings. As a result, BC Ferries will be able to accommodate all passengers, increasing the overall load factor, traffic and revenue.



4.3.3 Providing a Variety of Price Points Over Time

The chart below illustrates the effect of intra-day pricing on a daily schedule. Intra-day pricing alternatives ensure customers are presented with a wide range of prices so that as few as possible choose not to travel because of price.



4.3.4 Shaping Demand to Optimize Capacity

Today, the approach that BC Ferries takes to 'optimize' capacity in busy periods is constrained by the current business model whereby the majority of customers does not reserve, but purchase their tickets on departure.

During winter and other low-demand periods, BC Ferries' capacity is set by the minimum number of sailings contractually agreed to with the provincial government ("core schedule"). However, during busier periods (for example, the summer months), BC Ferries runs additional round trips to cater to higher demand. Depending on level of certainty, BC Ferries can choose when to make these additional sailings

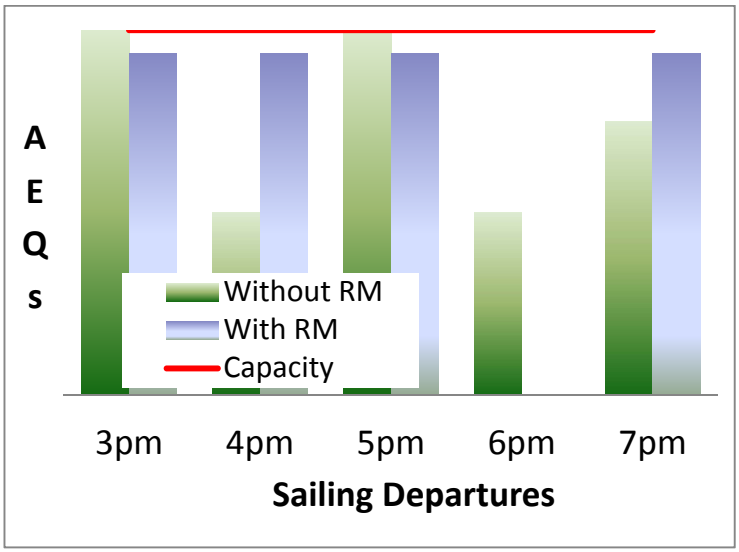
available for sale, sometimes weeks in advance, allowing customers the possibility of making reservations on these services, sometimes only on the day of departure, in response to high demand on the day of travel. To support this policy, BC Ferries has ships and crews on standby.

Today during these periods, more customers choose to travel on the core schedule sailings. This practice often results in a pattern of an overloaded "core" sailing followed by an underutilized "additional" sailing. From a capacity management perspective, this is an inefficient approach; it also works only to reduce length of sailing waits rather than to prevent them.

For example, on Friday afternoons the 3:00 p.m. and 5:00 p.m. core sailings are often over loaded, resulting in the need to run additional sailings at 4:00 p.m. and 6:00 p.m.

With revenue management and advance purchase, customers are more likely to be aware of additional sailings, and BC Ferries can use price to incent customers to travel on less utilized sailings. The combination of these factors will reduce the number of additional sailings needed. The graph below builds on the example described above, and shows how by moving enough customers from the 3:00 p.m. and 5:00 p.m. sailings onto the 4:00 p.m. and the 7:00 p.m. sailings, sufficient capacity exists to remove the additional 6:00 p.m. sailing.

Theorectical Load Factor Distribution on P.M. Sailings – With and Without Revenue Management ("RM")



Impact on Total Traffic & Load Factor

Example	AEQ[5]	Load %
Without RM	1500	75%
With RM	1500	93.5%

[5] AEQ – Automobile Equivalent – represents 20 square feet of deck space.

4.4 Roll-out Strategy

The roll-out strategy will allow customers and employees to adapt to the new business model while providing tangible benefits from its launch.

Today, 20 percent of vehicle customers on reserveable routes choose to book their ferry travel in advance and are charged a separate reservation fee. They pay $15.00 to $22.00 more than the 80 percent of vehicle customers who purchase their tickets on departure.

Customer research indicates that customers value the departure certainty that a secured booking brings. The research also indicates that more customers would book in advance if it were not for the reservation fee.

The new business model envisages reversing the current business model; customers who plan ahead will have access to discounted fares, and those who value the flexibility to book close or at departure will pay the more expensive “Flexi” fare.

BC Ferries is aware that those customers who do not make reservations today and are accustomed to paying for their travel on departure may take time to adjust to the new model. The Company will take this into consideration by designing a staged and measured plan that clearly communicates the value proposition of the new business model and associated fare products, and which gradually increases the price differential between the discounted advance purchase fares and the on departure fares.

The new fare structure and full advance purchase will be rolled out across different routes in four phases. Phase 1 will start a limited version of new fare structure on routes 1, 2, 3 and 30. Phase 2 and 3 will see an expansion of fare products on these routes, and a new fare structure added to the other reserveable routes. Phase 4 will see an enhanced fare structure for currently non-reserveable routes.

5. Future Consultations

BC Ferries will conduct further qualitative and quantitative customer research to understand and develop the best combination of fare attributes, price levels and revenue management approaches to successfully launch this new business model.

The Company will also research operational feasible fare products and revenue management constructs for those routes that are currently non-reserveable.

Appendix A: Findings from Strategy Development

Stage 2: Research

Considerable research has been undertaken to investigate the impact of the introduction of a revenue management system, including customer surveys, an industry best practice review, consultations with operational departments, and a review of the software alternatives and system interfaces pre-requisites required to support revenue management tools.

Customer

BC Ferries has undertaken both qualitative and quantitative customer research to validate and test customer acceptance of the revenue management concepts outlined in conceptual design.

I. Customer Acceptance

Focus groups were undertaken to validate customer acceptance of fare attributes, advance purchase and dynamic pricing[6].

Key findings were:

- Wide acceptance of advance purchase and dynamic pricing;
- Customers are positive about advance purchase as long as they are able to rebook or go standby on the next sailing in case of highway delays;
- Customers want easy-to-understand pricing alternatives;
- There should not be a separate fee for reservations;
- Space should be protected for last minute travelers; and
- The price of a ticket for passengers who decide to purchase their tickets at terminals should be known in advance.

[6] Dynamic Pricing – the ability to change prices levels over the booking life of a sailing (from when a sailing is first made available for sale, to when it departs)

II. Conjoint Analysis[7]

To understand the customer's response to a differentiated pricing structure, BC Ferries engaged external consultants to undertake customer research using a conjoint approach. This approach tested customer responses to different price and fare attribute combinations, and simulated their effectiveness in preventing full fare dilution, and stimulating additional travel by price sensitive customers.

Key findings were:

- A combination of advance purchase requirements, change fees, limited allowance for refunds, and travel date and time of day restrictions would be effective in protecting yield; and
- If fares are reduced there exists a strong willingness to travel from respondents who would not have travelled otherwise.

Industry Practice

To understand current industry practices, BC Ferries interviewed ferry and rail operators who practice revenue management. A broad range of topics was covered including current business practices and their experiences implementing revenue management. Companies interviewed are listed in Appendix C. Key findings are highlighted below.

Revenue Management

- Revenue management techniques are now common in the ferry industry – particularly in Europe.
- Successful implementation of revenue management requires an integrated process that involves Operations, Sales and Marketing, as well as a dedicated Revenue Management team.
- These companies credit revenue management with an increase in revenue of between 3 and 15 percent.

Fare Structure

- Ferry companies practicing revenue management typically offer a limited number of fare products with different exchange conditions / refund charges to differentiate by flexibility and convenience.

[7] Conjoint Analysis – a quantitative research technique that measures and ranks respondents' preferences to different attributes. Sometimes known as "stated preference".

- On highly competitive Channel routes between UK and France, ferry companies track competitor fares and adjust pricing of individual fare products on a daily basis.

- Companies varied price of fares depending on the customers' length of stay (day trip, less than 5 nights, and more than 5 nights).

Promotional Mechanisms

- Promotions were a common feature on all companies' websites.

- UK ferry operators fare products built with maximum stay (day trips, short breaks) conditions to be most effective at stimulating demand whilst protecting space for higher yield traffic.

- One ferry company found that promotions targeting its customer database via email were far more effective than general offers marketed by traditional media.

Organization

- Senior management set the overall fare structure and revenue management guidelines.

- Day-to-day control of fare product and inventory is delegated to revenue analysts, who review booking levels and system recommendations and apply changes as required.

- The Revenue Management team manages pricing and inventory until the day before departure, at which point they hand off to Operations. Terminal Operations have the flexibility to alter inventory controls and override fare rules as required.

- Where there are competing demands for over height deck space, the Revenue Management team provides guidance on the revenue impact of different choices, and in some cases acts as arbitrator.

Forecasting and Optimization

- All companies interviewed use technology to undertake decision support activities. Systems are used to dynamically forecast bookings and make pricing recommendations at a sailing-by-sailing level.

- The level to which companies used the optimization functionality offered by such systems varied. Some companies required that their analysts review and adjust all system recommendations; others allowed their systems to automatically apply optimization recommendations within varying parameters.

Capacity Utilization

- On a seasonal basis, one ferry company noted that since putting revenue management in place, they had seen significant increases in volume in their shoulder season (May & September), while at the same time experiencing their most successful peak season ever.

- On a day-of-the-week basis the same ferry company believed that revenue management led to passengers booking trips midweek through choice, rather than, as previously, because of lack of availability on weekends.

Industry Tools

Decision Support

Companies that practice revenue management typically use decision support software to dynamically forecast traffic and generate pricing recommendations. In the transportation industry, there are a limited number of companies who provide off-the-shelf decision support software and a few others that build custom systems.

Two providers offer dedicated solutions for ferry companies; RTS (customers include Color Line, Brittany Ferries, Stena Sealink, and Wightlink) and Amadeus (Eurotunnel).

Several software companies offer custom revenue management solutions for different transportation sectors. The largest are JDA and Pros. Smaller boutique revenue management consultants, such as Veritec, also build custom solutions.

To understand the costs and applicability of these solutions better, BC Ferries issued a Request for Information to potential providers. Responses have been received and reviewed. In 2014, subject to the Commissioner's approval of the *Fare Flexibility and Digital Experience Initiative*[8], BC Ferries will proceed with a formal Request for Proposal.

[8] The *Fare Flexibility and Digital Experience Initiative* outlines the investments necessary to enable the *Fare Flexibility and Revenue Management Strategy* and the *Digital Experience Strategy*.

Web Portal

A basic premise of revenue management is that customers self-segment by picking their optimal price, fare type and itinerary combination. To support this, the future web portal must capable of:

- Handling the expected increase in the volume of advance ticket sales;
- Displaying prices and fare/itinerary choices in easy-to-understand way;
- A smooth, intuitive booking process;
- Directing customers to sailings where promotional fares are available (if requested); and
- Presenting intuitive alternatives if price is too high or the desired sailing not available.

These and the other website requirements are outlined in more detail in separate documentation in the Company's *Digital Experience Strategy*.

Appendix B: BC Ferries Operational Considerations

In 2013, BC Ferries' Operations division analysed the potential impact of moving from a predominately "pay on departure" business model to a predominately advance purchase business model. The division identified risks that would potentially impact safety, customer experience, operational efficiency and/or operational costs. These risks and the proposed mitigation strategies are detailed below.

Risk: Unsustainable demand growth during peak periods

On peak days and time slots, BC Ferries has a very limited or no ability to increase capacity to cater to the increased demand that may occur as a result of moving to an advance purchase model. If mitigation measures are not in place, BC Ferries could face increased congestion and sailing waits at terminals, potentially impacting safety at terminals and on highways prior to check in.

Mitigation: Use of revenue management techniques to shape demand away from peak services, leading to a more even distribution of traffic across the week and day.

Risk: Reduction of throughput at check-in kiosks

BC Ferries' current tariff is well known and simple to understand. As such, kiosk agents are able to process sales transactions quickly. Moving to a more complex tariff with more fare products and different attributes may lead to longer transaction times at terminals.

Mitigation: Majority of new fare products bookable in advance on web or via call center. Terminals will only sell the "pay on departure" fare. Terminal processing times for bookings made in advance are quicker than "pay on departure" transactions, as payment has already been taken. Fare products and fee structures will be designed to incentivise customers to book and make changes to their itineraries in advance.

Risk: Call center is overwhelmed

Moving to an advance purchase model where customers are encouraged to book in advance will lead to a massive increase in demand and therefore costs for the Customer Service Centre ("call center").

Mitigation: This risk has been anticipated within the business case, sufficient funds and space have been made available to cater for an additional 26 call centre full-time equivalent positions. BC Ferries is also investigating options for incentivising customers to book online, which if required, can be used to reduce pressure on call centre.

Risk: Customer adaption

Customers may take longer than anticipated to adapt to an advance purchase model, leading to a later realization of expected benefits.

Mitigation: Communication, pricing strategies and ease of booking in advance are central to the success of converting "pay on departure" customers to advance purchase customers. BC Ferries will undertake extensive communications to advise customers of the benefits of purchasing tickets in advance; website design will have a strong focus on usability; and pricing strategies will be designed to incent customers to book in advance. Many of the incremental operating costs associated with the advance purchase business model are variable, therefore automatically limiting BC Ferries' exposure to higher costs if the expected level of advance purchase booking does not materialize.

Risk: Under forecasting pay on departure traffic:

An unexpected influx of traffic arrives for a particular sailing or group of sailings, leading to insufficient space on the sailing to accommodate both advance purchase traffic and "pay on departure" traffic.

Mitigation: In the first instance, BC Ferries will adopt a conservative approach to the deck space assigned to advance purchase bookings, and will increase it over time as a greater percentage of customers move to advance purchase. Operations will still maintain the capability to run additional services when necessary.

Appendix C: Peer Reviews

Company	Services in	Benchmarking method
Brittany Ferries	UK & France	Email, conference calls & face to face discussions
Color Line	Northern Europe	Email, conference calls & face to face discussions
Condor Ferries	UK & France	Face to face discussions
DFD Seaways	Northern Europe	Email, conference calls & face to face discussions
P&O Ferries	UK & France	Email, conference calls & face to face discussions
Virgin Trains	UK	Conference calls & face to face discussions & face to face discussions
Via Rail	Canada	Emails
Eurostar	UK, France, Belgium	Emails and calls
Wightlink	UK	Face to face meetings & emails

Appendix D: Revenue Management and Other Terms

Term	Definition
Additional Round trips	Sailings over and above the core schedule which BC Ferries runs in order to cater for greater demand during busy periods. Known as "Manager's Discretion Sailings".
Advance Purchase	Purchase of fare product for a given sailing in advance of that sailing.
Availability	The number of a given fare product or given price level that can be purchased for a given sailing, at a given point during the booking life of that sailing.
Booking Life	The period before the departure of a given sailing in which customers can reserve or book space on that sailing.
Conjoint Analysis	A quantitative research technique that measures and ranks respondents preferences to different attributes. Sometimes known as "Stated Preference".
Core Schedule	Minimum year round service level contractually agreed to with Provincial Government.
Dynamic Forecast	Granular forecast for a given sailing that is regularly updated based on booking patterns at defined points in that sailings booking life.
Dynamic Pricing	Prices that change during the items (e.g. sailings) booking life.
Fare	The price the customer is charged to purchase his/her chosen itinerary.
Fare Attribute	Features or conditions associated with a fare product. For example restrictions on itinerary changes, refund policy, where tickets can be purchased and how far in advance a fare is available for purchase.
Fare Product	The combination of a fare and its associated fare attributes.
Fare Range	A set of fare products targeting a particular group of customers and/or sold through a particular sales channel(s) – e.g. Public Range, Tour Operator Range etc.
Fare Structure	The complete set of fare products with their associated fare attributes and price offered to different customer groups.
Other Ranges	The sets of fare products with their associated fare attributes and price offered made available to be purchased to other customer groups; e.g. tour operators, commercial traffic and bus operators.
Public Range	The selection of fare products available to the general public to buy in advance or at the terminals.
Pay on Departure	Purchase of a fare product for a given sailing at check in, without a prior reservation.
Rack Rate	The non-discounted fare, which is available for purchase at terminals on departure.
Revenue Management	The application of disciplined analytics that predict consumer behavior at a sailing micro-market level and optimize fare product availability and price to maximize revenue growth.
Spilled demand	Customers who choose not to or are unable to travel because sailing is full, too expensive, or too busy.

Appendix B: Digital Experience Strategy

British Columbia Ferry Services Inc.

Digital Experience Strategy

September 30, 2014

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1. EXECUTIVE SUMMARY

The Digital Experience Strategy of British Columbia Ferry Services Inc. ("BC Ferries" or the "Company") outlined in this document has been developed based on customer and best-practice research, as well as workgroup sessions with internal stakeholders. It covers a vision for BC Ferries' website, mobile site and mobile applications, and social media integration.

Today, BC Ferries is challenged by an aged website infrastructure, obsolete underlying software and minimal mobile features. The website is currently the source of many customer complaints, and the outdated platform is making it extremely difficult to action an important transition towards improved customer service and self-serve capabilities. The Digital Experience Strategy contained here-in describes the modernization of digital interfaces required to increase the level and quality of services to customers. In particular, it builds the case for a commercial strength e-commerce platform with market-tested functionality and performance to deliver relevant informational content and purchasing capability to the customer – anytime, anywhere, on the device of their choosing.

It also provides a solid foundation for expansion of future sales opportunities with the integration of other lines of business into the single cart purchasing flow, and the future expansion of business-to-business commerce interfaces to new partners and resellers, should BC Ferries wish to do so.

The Digital Experience Strategy embeds the self-serve experience to be offered to customers in relation to core enabling functionalities being developed within a sister program -- the Automated Customer Experience ("ACE") program -- in particular in relation to a new e-booking tool, a consolidated customer account through customer relationship management software, a new travel rewards program and a new Fare Flexibility and Revenue Management Strategy, with capabilities that include (and not limited to):

- A smooth, intuitive booking process;
- Incentives for customers to purchase in advance through a digital channel;
- Handling of an increase in the volume of advance ticket sales;
- Displaying prices and fare/itinerary choices in an easy to understand way;
- Directing customers to sailings where promotion fares are available (if requested); and

- Presenting intuitive pricing alternatives if the price is too high or the desired sailing is not available.

1.1 Objectives

The modernization of the existing website is expected to contribute to BC Ferries' identified business outcomes. Given the role the website plays as the electronic storefront for customers, BC Ferries defined and prioritized the key performance indicators that were most critical for the website to help achieve:

1. **Increased Revenue from Online Self-Service Channels**: Includes the increase in the overall percentage of bookings made through online self-service channels of sailings, vacations/packaged offerings and other onboard amenities.

2. **Increased Customer Satisfaction Rating**: Includes the increase of customer satisfaction with the website and mobile site, as well as the increase in customer satisfaction with the e-commerce tools.

3. **Decreased Operational Booking Cost per Transaction**: Includes the reduction of interactive voice response costs, the reduction of Customer Service Centre booking costs and the reduction of booking costs related to servicing commercial accounts. While a shift from "on departure" to advance purchasing of tickets, particularly on the Major Routes[1], will increase Customer Service Centre costs over the short term because of the higher volume of transactions expected, the objective remains to encourage online self-service bookings with a view to reduce Customer Service Centre and interactive voice response booking transactions, and associated operational costs, over the longer term.

1.2 Strategies

To transition to a state where the Company can adequately respond to customer needs and expectations and to where the website effectively contributes to BC Ferries' identified business outcomes, the following eight web development strategies will be adopted:

1. Strong user experience practices;

2. Time-saving self-service functionality;

[1] The Major Routes consist of three regulated routes connecting Metro Vancouver with mid and southern Vancouver Island (Route 1: Swartz Bay – Tsawwassen; Route 2: Departure Bay – Horseshoe Bay; Route 30: Duke Point – Tsawwassen), and one regulated route connecting Horseshoe Bay and Langdale (Route 3).

3. A multi-dimensional social media presence;

4. Personalization and leveraging of new customer relationship management functions, card services and a rewards program;

5. A strong toolset to manage the online customer experience;

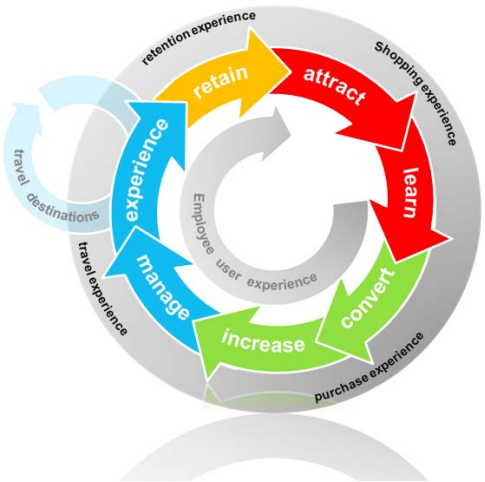
6. A platform that can grow with BC Ferries;

7. A platform that can target customer segments; and,

8. An expanded on-line store concept and mobile-commerce.

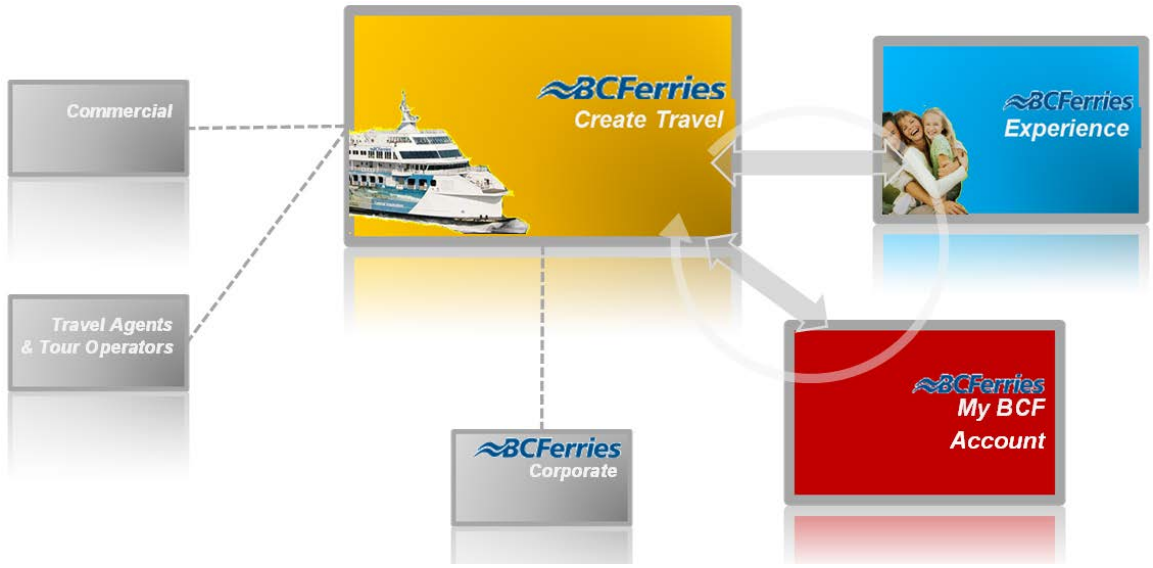
Seamless and Intuitive End-to-End Customer Experience

The end-to-end target customer experience was elaborated in the form of a customer life-cycle (illustrated below), user journeys, and a main common purchasing flow. The target seamless and intuitive experience embeds key new business concepts for BC Ferries, such as single customer profile, consolidated cart and cross/up-selling.



Concepts

A number of concepts were developed as starting points for BC Ferries, including the following core concept that outlined a new site ecosystem:



While "Create Travel" is the foundational interface for customers to transact with BC Ferries, the "Experience" interface represents a fundamental shift by BC Ferries to showcase the fleet, onboard amenities, terminals and destinations to customers and encourage them to travel with BC Ferries more often, thereby capturing discretionary and incremental revenue.

Commercial, Travel Agents & Tour Operators, and BC Ferries Corporate, will all have their own homes in this ecosystem.

High Level Requirements

The targeted seamless and intuitive end-to-end customer experience was elaborated in the form of user journeys, user stories and user sub-stories. The stories and sub-stories were captured in a matrix of site capabilities and represent a preliminary list of high level requirements.

Implementation Plan

The roll-out of the Digital Experience Strategy will align with the Fare Flexibility and Revenue Management Strategy implementation, as part of the Fare Flexibility and Digital Experience Initiative.

2. INTRODUCTION

2.1 Purpose of the Document

This document constitutes the business strategy and plan deliverable for the purpose of helping BC Ferries define its Digital Experience Strategy. In general, this document answers three basic questions:

- Where are we now?
  - Current Situation
- Where to from here?
  - Vision and Strategy
- What should the solution contain?
  - Preliminary High Level Concepts

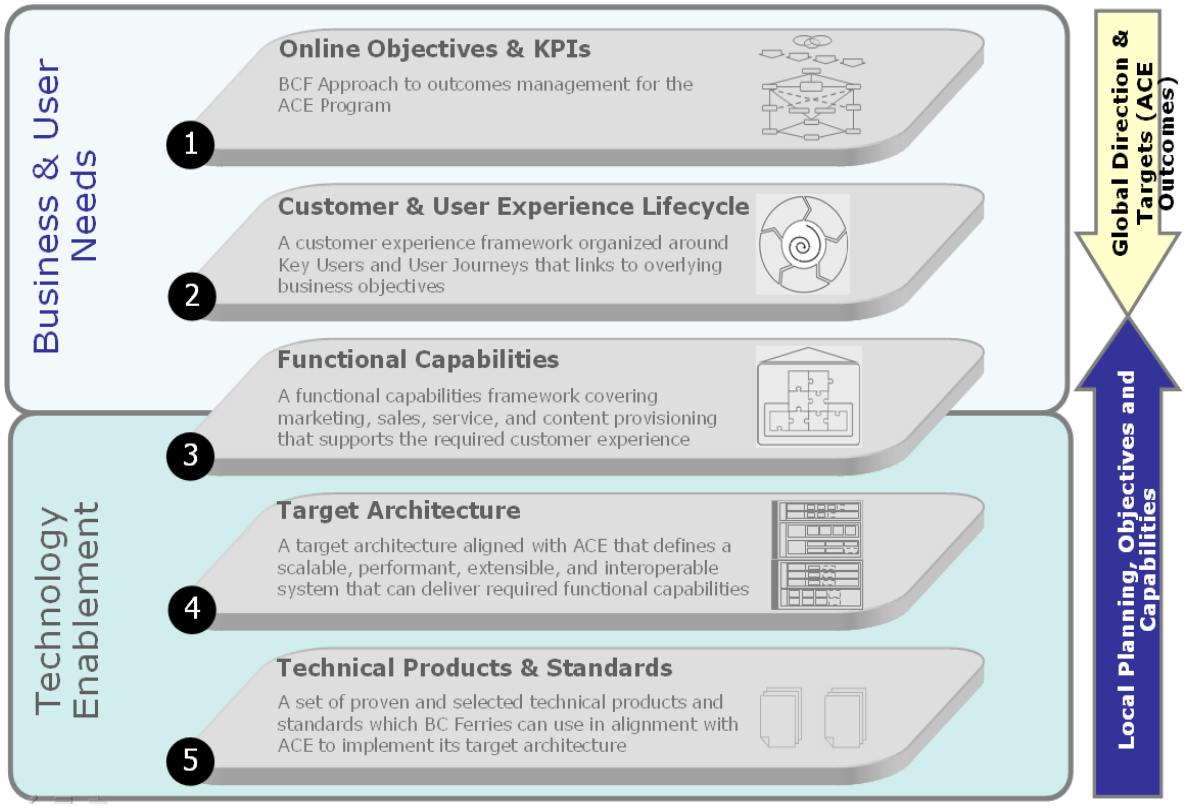
The next logical question of "How do we get there?" is dealt with separately in two documents entitled:

- Technical Assessment and Architecture Report; and
- Implementation Roadmap Report.

2.2 Methodology Used

2.2.1 Outcomes-Based Framework

The project was structured according to the following outcomes-based framework, fully customized to BC Ferries.



In summary,

Business objectives are met by…

… meeting our customers' needs with an excellent user experience…

…through the provisioning of appropriate system functionality…

…which is enabled through a robust, performing, and scalable target architecture…

…which is delivered with a set of products and standards common to BC Ferries.

2.2.2 Workshop-Based Approach

The proposed approach for this project centered on workshops with key BC Ferries subject matter experts, who brought both the customer and BC Ferries perspectives to the table. Generally, the goals of the workshops were as follows:

- Identify current "pain points" with the website, mobile site and mobile applications, and social media integration;
- Identify best practices;
- Define objectives;
- Define strategy;
- Identify key target users;
- Identify key User Journeys and stories;
- Develop core concepts;
- Determine the high level requirements associated with the journeys (i.e. solution granularity);
- Identify priorities;
- Prepare a preliminary implementation roadmap;
- Estimate high level costs, benefits, impacts, and risks; and
- In parallel to these steps, determine "how" technically to make it happen (i.e. technology assessment and architecture).

Throughout this document, the workshop participants have been referred to as the Project Workgroup.

2.2.3 User Journey Approach to Requirements Gathering

The way customer needs were captured was in the form of user journeys, user stories and user sub-stories.

A user journey is a short description of the high level need in customer terms. The general structure used for defining a User Journey is as follows:

As a **[Type of User],** I want to **[Function to Perform]**

Keeping this structure in mind helps focus the journey descriptions so that they stay customer and business-value oriented instead of technical in nature.

For example, a typical BC Ferries user story could be:

- "As a customer, I want to prepay my travel so that I can have a reserved spot on tonight's sailing."

Key user journeys have been broken out into user stories, each of which describes one step in the journey.

Each user story is a placeholder and a promise to have a future conversation about the needed functionality. When some elements of the needed functionality are known, they are captured as sub-stories. When they are not known, the detailing is put off to a future phase.

By delaying the detailed conversations regarding requirements until shortly before development, BC Ferries can avoid some of the waste that is typical of projects where detailed requirements are gathered early, but become invalid or require significant review before the work begins.

But by listing them at the project research phase such as this, they are essentially a first cut at understanding the scope of the system, and can be used to estimate the project with a certain degree of confidence.

2.3 About BC Ferries

BC Ferries operates as an independent, regulated, self-financing company providing passenger and vehicle ferry service to ports of call throughout coastal British Columbia. The *Coastal Ferry Act* (the "Act") has enabled the transformation of BC Ferries into a customer-focussed and financially stable marine transportation system focussed on offering world-class transportation and travel services.

BC Ferries provides frequent year-round ferry transportation services to the west coast of Canada on 24 routes, supported by 35 vessels and 47 terminals, and also manages other remote routes through contracts with independent operators. BC Ferries is their vital sea link between the British Columbia

mainland, Vancouver Island and the smaller islands dotted along the coast of Canada's most westerly province.

2.4 About BC Ferries Lines of Business

Within the structure of BC Ferries, there are four lines of business, each requiring business and technology expertise. Each one of these lines of business will be impacted by the Digital Experience Strategy.

The four lines of business are summarized as follows:

Ferry Transportation

BC Ferries transports in excess of 7.7 million vehicles and 19.9 million passengers each year across 24 routes, 35 vessels and 47 ports of call. This includes private and commercial customers and forms the core service.

Catering and Retail Operations

BC Ferries operates 34 food and beverage outlets and 16 retail stores on 19 vessels. In addition, it contracts food and retail operations to vendors at ten terminal facilities.

Commercial Services

Travelling commercial customers have the option to apply for a commercial travel card ("CTC") account for a more convenient way to travel with BC Ferries. The CTC program provides commercial customers with several benefits such as weekly invoicing, 30-day payment terms and automatic payment withdrawals. In March 2009, BC Ferries launched a drop trailer service on two Major Routes serviced by the Tsawwassen terminal. This is a key business initiative that requires the website and mobility to help commercial customers manage their bookings.

Travel Services

BC Ferries launched BC Ferries Vacations in May 2010. This service offers a variety of bundled travel packages that have been created in partnership with many tourism suppliers. Over 70 unique BC coastal vacation packages and more than 100 individual products that include ferry, accommodation and activities available for purchase at the Vacations Centre, through the website or by telephone. This will expand market reach and increase profile in key markets and within the tourism industry. This is expected to lead to increased discretionary traffic as well as incremental non-tariff revenue.

2.5 About the Automated Customer Experience Program

The ACE Program is a parallel program under way at BC Ferries that will deliver new middleware and back-end software, hardware and platforms to support bookings, customer relationship management, revenue management, and card services.

The plan for implementing the Digital Experience Strategy, must take into account the ACE Program Roadmap and, as new middleware and back-end systems are deployed, new digital features identified in this strategy document can be implemented.

3. CURRENT SITUATION

3.1 Digital Components in Place Today

BC Ferries' website (www.bcferries.com), BC Ferries' mobile site and social media pages on Facebook and Twitter are the Company's most critical customer-facing interfaces, providing the means for continuous communications and engagement, while promoting its products and services, increasing revenue, and strengthening the BC Ferries brand.

Screenshot of the BC Ferries Homepage as at July 8, 2014

Digital components[2] can be categorized into the following general areas:

- Website functionality (www.bcferries.com): a number of interactive applications that are interactive with or render information from BC Ferries' production systems and data sources.

Application	Description
Reservations	Provides capability to reserve vehicle space on BC Ferries' routes. In early 2013, a new reservations application was implemented to support standard reservations on certain routes without requiring a customer account / sign-on. It interfaces with the TRIPPS database using a web services layer.
My BCF Account	An application allowing customers to create a "My BCF" account and maintain account information, change their password and security question, and subscribe to news releases, special offers and promotions and service notices. Subscriptions to news releases and service notices are managed through the Release Centre application. Customers may also view and manage their reservations and initiate a new online reservation from within their account. Drop trailer commercial customers may view a Drop Trailer Report which displays trailer movement.
Cards (Smart Media)	An internally-hosted web application that allows the customer to register and manage BC Ferries Experience Cards and Assured Loading Cards. The Smart Media is accessed from BC Ferries' website via an inline frame (IFrame).
Schedules	Displays sailing schedules in wireless friendly format and PHP web page format. The wireless and PHP format schedules are updated by web services using Marqui on an as needed basis. In addition, PDFs of printed schedules for select routes are uploaded and made available to customers within the website's Schedules content.
Current Conditions	Displays major terminal departure and arrival information, terminal information, terminal web cams, and vessel tracking on select routes. This information is retrieved from internally-hosted orca.bcferries.com for display on the BC Ferries website via an in-line frame (IFrame).

[2] See Annex 1 for a mapping of the different features.

- Mobility features (mobile.bcferries.com): there is no optimized mobile version of the website and no BC Ferries-owned mobile applications. Currently, customers have access to the following:

Application	Description
Mobile Features	Customers have access to webcams, current conditions, service notices and vessel tracking on the mobile site (http://mobile.bcferries.com). Customers have access to the current website that is automatically rendered in miniature on mobile (but such a format is really not optimized for use). Customers have access to unauthorized mobile applications that are "screen-scraping" parts of BC Ferries' website and offering it up in mobile format to their customers.

- Content management applications: applications and services used to manage and refresh content on an ongoing basis.

Application	Description
Marqui	A commercial web content management service used by the Web Services team to develop, maintain, and publish much of the non-application static page content.
Career Opportunities	A legacy custom-built content management application used by Human Resources to post job opportunities.
Business Opportunities	A legacy, custom-built application used by Supply Chain and Engineering to post Request for Proposals ("RFP's") and active competitions. Customers may view purchasing contacts and guidelines, retail supplier guidelines and can subscribe to a bidder notification service.

- Administrative applications: applications used to provide various administrative functions supporting the website.

Application	Description
Release Centre	Used by the Operations and Security Centre to manage service notices and by Public Affairs to manage news releases. Release Centre sends service notices and news release subscriptions to email addresses as authorized by customers in their MyBCFerries account.
Customer Admin Centre	Used by Web Services and Customer Support Services to access MyBCFerries customer account information. It is used to reset customer passwords and to unsubscribe customers from news releases and services notices when an unsubscribe request is received by email.
News Archive	Used as an archive for news releases dated January 23, 2002 to March 25, 2008. It was replaced by Release Centre.

- Auxiliary websites: several BC Ferries websites that are hosted separately from the main BC Ferries website, but that are nevertheless linked to the main website.

Application	Description
BC Ferries Vacations **(www.bcferriesvacations.com)**	Allows customers to view vacation travel packages, accommodations and activities, and to book select packages online. Customers can also request a quote via a link to an online form for products not bookable online. Vacations customers may also read electronic newsletters, subscribe to electronic newsletters and promotions, and enter promotional contests using online subscription forms. The Vacations website is not integrated with ferry reservations inventory. A workaround is therefore in place to offer vacation customers open-ended vouchers for sailing, rather than formal reservations or bookings. Reservations must be added manually by a booking agent.
Gift Shop **(www.giftshop.bcferries.com)**	Allows customers to view select products sold in Passages Gift Shops and to purchase products and gift certificates online. At the time of writing, the online gift shop is hosted at OmniLogic.

- Online forms: a number of online forms are available on BC Ferries' website for requesting reservations, services, submitting claims, and providing feedback.

Form	Description
Contact Us	Accessed from the Gift Shop website.
Request Quote Forms	Accessed from the BC Ferries Vacations website.
Group Reservation Form	Reservation request for 10 or more persons.
Website Feedback Form	Customers may submit feedback about the website.
Freedom of Information Request Forms	General requests may be made by an online submitted form; personal requests may be made by a pdf form, manually submitted.
Community Investment Application Form	Used by organizations to request donations and sponsorship.
Vessels Charter Request Form	Used to request chartering of a vessel.
Media Production Request Form	Used to request filming at BC Ferries' terminals or onboard.
Confidential Reporting Form	Used by employees to submit a confidential report to Internal Audit.
Reservation Request Forms	Available for reservation requests for Inside Passage (route 10), Haida Gwaii (route 11) and Discovery Coast Connector (route 10S). Both a customer and a travel agent form are available for each route.
General Feedback	Customers may submit feedback to Customer Relations. Hosted

Form	Description
	by Response Technology.
Travel Experience Feedback	Customers may submit feedback on their travel experience to Customer Relations. Hosted by Response Technology.
Commercial Travel Card Application	A pdf form to be submitted manually by customers wishing to apply for a Commercial Travel Card.
Property Damage or Injury Claim Form	A pdf form to be submitted manually by customers wishing to claim property damage or injury.
Baggage Claim Form	A pdf form to be submitted manually by customers wishing to make a baggage claim.
FOI Response PDFs	Read-Only pdf responses to public Freedom of Information requests. On a server hosted by Telus.

- Employee links: several links available from the BC Ferries homepage for employees to gain access to internal BC Ferries systems.

Application	Description
Employee Login	Provides access to the following directly from inside BC Ferries and via VPN or Citrix when outside the BC Ferries network: • Employee Intranet • Daily Timesheets and Crew Reports • Employee Self Service • Manager Self Service • FINS • Online Expenses Employees can also access the login page to Release Center and Webmail from the Employee Login main page.

3.2 Current Website Usage

Over the past few years, the website has taken on an increasing important role in all parts of BC Ferries' business. In summary, statistics for fiscal 2014 are as follows:

- **www.bcferries.com**
  - Visits: 16.8 million
  - Unique visitors: 6 million

- **www.bcferriesvacations.com**
  - Visits: 645,000
  - Unique visitors: 454,000

- **www.mobile.bcferries.com**
  - Visits: 491,000
  - Unique visitors: 194,000

- Total online reservations on all routes
  - 711,589

- Total online reservations revenue
  - $10,302,105
  - Representing less than 2 percent of total BC Ferries' tariff revenue

- Reservation methods
  - Web: 76 percent
  - Customer Service Center: 18 percent
  - Interactive voice response ("IVR"): 6 percent

Top traffic areas of the site are consistently the same, month after month:

- Schedules

- Current conditions (i.e. Total Deck Space Committed by Sailing)

- Online reservations, and

- General content (approximately 700 pages).

Online traffic peaks have attained five times the average in any particular day, particularly during weather-related delays or cancellations.

3.3 Current Website Results

When BC Ferries' website was first launched in 1995, it quickly became a new channel for marketing and for distributing information.

Since then, BC Ferries has tried to keep pace with the evolving online world by adding more travel information, more self-serve functionality, more product offerings and (limited) online transactions. In response to customer surveys, feedback and complaints, the Company has endeavored to continuously improve the online customer experience, within the limitations of the technology utilized.

While the BC Ferries' website has grown to become business-critical, its contribution to BC Ferries' corporate objectives has lagged in comparison to others in the travel industry. For instance, compared to the airline industry, which sells more than 98 percent of its passages online, BC Ferries' online revenue is less than 2 percent of total reservation and booking revenue.

3.4 Digital Marketing

Marketing is one of the main departments handicapped by the technological obsolescence of BC Ferries' digital channels. More often than not, marketing strategies are limited by the inability of the website platform, functionality and interfaces.

3.5 What's Right with the Current Site and Online Program

During the workshops, the Project Workgroup first identified a number of things they find are right with the current site and online program, they are:

What's Right with the Current Site
Site colours and look/feel are consistent with BC Ferries' branding.
General travel information is available in abundance.
The most requested information on travel schedules and current conditions is always available.
All the lines of business, as well as corporate, are represented and information is easily available.
Reservations functionality is available and accessible from the home page.
Vacation offers are available and enticing.
Processes are available to deal with common requests (e.g. need a wheelchair onboard).
Very easy to subscribe to the BC Ferries corporate e-newsletter.
Professional-looking corporate e- newsletter.
Relevant and timely feedback in social media communities.

3.6 What's Wrong with the Current Site

In order to show what is wrong with the current site, the Project Workgroup tabled the results of a Usability[3] study done in March 2012 (looking in particular at the core reservations process), that included the following customer comments:

[3] Habanero Usability Findings, March 5, 2012 based on a sampling of 11 BC Ferries customers.

Habanero Usability Findings – General Comments
"I find it bothersome and irksome to do two separate one-way bookings."
"Hard to comparison shop between routes to see what's the cheapest way to travel."
"Why does it prompt "Checkout"? I want to book another leg. I don't want to make a million transactions."
"Having to create an account in the middle of the process is very frustrating … and makes me not want to continue."
"I don't want to create an account for something that I only use twice a year."
"It's very frustrating to have to input everything each time you book."
"Dangerous goods and over-width options are not remembered from booking to booking … I don't like having to enter in and change the same options over and over again."
"I was expecting to enter all my account information at the same time…there's so many steps."
"Account type? … I'm torn … I just don't know what the difference is."
"I find the whole reservation screen too busy, there's just so much stuff standing out everywhere."
"Sometimes I'm on the phone with customer service at the same time as booking online just in case it freezes."

In summary, customer usability feedback revolved around a number of key themes:

- Confidence in the system – customers lacked confidence in the system and their ability to use it.
- Account sign-in and creation was seen as intrusive and unnecessary – customers had a number of challenges with the account creation and access.
- The booking functionality does not match expectations – customers are accustomed to standard travel booking terminology that is not used on the site.
- The system was seen as inefficient – in many areas, customers had to re-enter information.
- The system was seen as BC Ferries centric – language was not seen as customer-focused and participants were required to enter information that had no benefit.
- Information density drowned out essential messages – customers often overlooked key information.
- Commercial customers have unique needs – the system does not provide the efficiency required by commercial customers.

- Technology issues persisted – customers encountered browser incompatibilities, sluggish performance and problems with search.

While some of the usability problems raised have been corrected, the findings are important to the Digital Experience Strategy as they must be considered in any new development, in order first to see whether any of the areas can be improved even further, and second to not revert back to the way things were.

Note that at the time of writing this report, BC Ferries has received positive feedback[4] on the new Express Reservations flow that was launched into production in early 2013, and that is intended to resolve some of the most pressing concerns raised in the Usability Findings. Customers contacted have indicated that they like:

- General visual design;
- Current Conditions;
- New guest reservations flow;
- New vehicle icons;
- New round-trip booking versus single-trip;
- Clearly articulated pricing with no surprises;
- Bolded mention that "you can still add and pay for passengers at the terminal";
- Clear Error messaging on the page;
- Clarity of the Sailing Summary Information;
- Clarity of payment terms "Due at Terminal" and "Due Now";
- Padlock and transaction security guarantees; and

[4] Visual Design Usability Findings and Updated Mock-ups, Habanero, August 22, 2012, based on a review of the upcoming site featuring Express Reservations, launched into production in early 2013.

- Clear arrival instructions (30 to 60 minutes).

In order to show what else is wrong with the current site and online program, the Project Workgroup identified a number of "pain points" that in many instances are much more fundamental to BC Ferries, and that are not being corrected short-term:

"Pain Points"	Theme
Can't prepay fares online. Can still only reserve and prepay a spot for a vehicle.	Core Revenue
Difficulty for the customer to coordinate connections with other sailings.	Core Revenue
Can't sell any of the onboard amenities online (e.g. buffet, Seawest Lounge).	Up-Sell
No integration between regular sailings, vacation, accommodations, cards (e.g. Assured Loading Card) and gift shop online carts. They are all built in silos and thus each has its own cart and payment process.	Up-Sell
Fares and schedules are manually managed.	Pricing and promotions
No flexibility in pricing and promotions. This means that BC Ferries cannot use pricing and/or promotions to incent travellers away from busy time slots. Note: BC Ferries is developing a strategy for differentiated pricing.	Pricing and promotions
Issue with customer communications in general – Not personalized or relevant or timely to their travel.	Content
Challenging to access content – 700 pages on the site – inefficient/outdated information architecture.	Content
FAQ info not easy to navigate -- FAQ is not predictive and contextual.	Content
Inadequate internal search optimization. Users of common search terms are not being directed to specific places.	Content
A lot of site information is only available through unfriendly PDF format.	Content
A lot of old information (pages) still resides in old corners of the website, and can't be removed.	Content
Limited usability and design – hard to access relevant content.	Content
Servers do not accommodate streaming video.	Content
Email notifications organized as silos.	Content
Problem with resources availability – to manage content management systems ("CMS") and website operations.	Resourcing
No single consolidated customer account « My Account ».	Single customer profile
Multiple log in's (no Single Sign-on).	Single customer profile
Difficult to provide service notices in the right context.	Personalization
Static advertising only (banners and big box).	Personalization

"Pain Points"	Theme
Limited possibilities to personalize and target email distribution (no customer segmentation).	Personalization
Time to market is too slow as a result of missing merchandising, promotional and pricing tools.	Tools
Email unsubscribe partially done manually (issue for email best practices) – complicated update process.	Tools
No « contesting » coordination tools.	Tools
Few tools to proactively get customer feedback. E.g. a customer is not asked to rate his trip or encouraged to share his experience with others.	Customer Feedback
Confusing with all the different card services (Experience, Assured Loading, Commercial Travel Card, etc.).	CRM
Little to no mobile-friendly services.	Mobile
Unfriendly ship status map, not integrated to Google mapping application program interfaces.	Social
No possibility to leverage social media networks.	Social
Payment information/validation for credit cards – security & fraud issues.	Payment
Browser recognition, browser compatibility problems.	Technology
Email Service notifications – failing or slow batch process.	Technology
Problems with having emails blacklisted and junked.	Technology
Major weaknesses in terms of billing, reservations, real-time information and status of the movement of drop trailers.	Commercial
Reliability of online commercial reservation system for booking (should be fixed with Web Repatriation Project and new Express Reservations).	Commercial
Reliability of the trailer movement application online (i.e. "intermittent" technology).	Commercial
Virtually impossible to launch new commercial products or services quickly.	Commercial
No real-time departure and arrival information, leaving trucking companies guessing whether the schedules published in pdf months ago are always right.	Commercial
Impossible for customers to request specific location on a deck. For instance, a truck carrying livestock must not be placed in an area where there is a draft.	Commercial

3.7 High Levels of Effort for Basic Tasks

Certain processes associated with the website were identified by the Project Workgroup as being quite unproductive and/or time-consuming because they were either completely manual or because BC Ferries is not equipped with the proper tools. This leads to high levels of efforts that, at least in some cases, the Project Workgroup believes could be reduced with the right process improvements and the right set of tools.

The list of processes identified included:

List of "human" processes
Online reservations manual workflow for processing submissions from eight different web forms: six Northern Route Forms, one Group Reservation Form.
Business support processes and tools for managing submissions from six online forms: Community Relations, Freedom of Information, Preferred Accommodations/BC Ferries Business Travel, Media Production and Vessel Charters, Business Conduct and Ethics Confidential Reporting Form.
Customer feedback workflow process and tools.
Customer survey process, tools and management of lists.
Promotional blast campaigns and management of lists.
Social media listening and participation processes and tools.
User Roles and Rights administration processes and tools.
Customer Service Centre for managing "My BCF" customer accounts (password resets, subscriptions changes, account deactivations).
Management of content through 10 different CMS tools for web and digital signage: Marqui (six unique instances); Scala; SignWave; the CMS populating media wall content at the BC Ferries Vacations Center in Vancouver; and the WTP CMS for the BC Ferries Vacations website.
Release Centre process and tools for publishing news releases, service notices and email alerts (subscriber lists managed through Customer Service Centre).
Process and legacy application for publishing Ferry Advisory Committee meeting minutes.
Process and legacy application for publishing job postings (internal and external).
Process and legacy application for publishing business opportunities and management of lists.
Freedom of Information process and tools for posting of documents and management of lists.
Process and tools for regular reporting (statistics, metrics, etc.).
Desired functionality -- Block booking commercial and tour operator reservations system - process to book advance reservations in priority order as set by Commercial Services and Travel Services divisions. Ability to handle a block booking portal is also captured in ACE requirements.
Desired functionality -- Ability to automate over-wide reservation request process.
Desired functionality -- Ability to automate baggage cart request process.

The list of current tools identified included:

List of Current Tools
Customer Service Center (for managing user names and passwords)
User role and rights management admin tool
Web content management
Search term optimization
eMail management (list management, creation, launch)
Web analytics (Google Analytics)
Social media listening (HootSuite)
Paper forms, fax and phone

3.8 Governance

Marketing is responsible for managing the website in collaboration with and/or on behalf of a large number of important business stakeholders (see the table below).

3.8.1 Key Stakeholders

Key business and IT stakeholders are:

Business Stakeholders	
Stakeholder	**Interest**
BC Ferries Customers	Interest in the reliability, functionality, and performance of the website.
Customer Care Department	Responsible for strategic management of Customer Service Centre and Customer Relations. Maintains content on behalf of the Operations Division. Interest in the reliability, functionality, performance, management, and maintainability the website content and customer facing applications.
Marketing	Responsible for developing and executing marketing programs that strengthen and manage the BC Ferries brand and grow incremental revenue. Responsible for strategic management of Web Services/Customer Information Network, Digital Marketing Strategy and Social Media. Interest in the reliability, functionality, performance, and maintainability of the website, the home page (store front) and access to Travel Services/Vacations components. Particular interest in the customer experience, look and feel, and the BC Ferries voice.

Travel Services	Responsible for development and implementation of Travel Services programs that include BC Ferries Vacations, tour operators, group travel, and travel media. Owner of the BC Ferries Vacations website. Interest in business development opportunities through all digital channels. Interest in integration of dynamic reservations capabilities within packaged vacations.

Business Stakeholders	
Stakeholder	**Interest**
Commercial Services	Responsible for live commercial and drop trailer services operating at major terminals supporting commercial customers. Interest in the reliability, functionality, performance, and maintainability of the website, in particular, access to the drop trailer website pages allowing customers to view the drop trailer transactions and movements.
Retail Services	Responsible for development and implementation of retail programs. Interest in the reliability, functionality, performance, and maintainability of the website, in particular, the home page (store front) access the online Gift Shop.
Operations Security Centre	Responsible for operations and incident management including issuing of status updates and customer service notices. Interest in the reliability, functionality, performance, and maintainability of the website, in particular, the Release Centre.
Freedom of Information and Protection of Privacy ("FOIPP") Office	Responsible for developing, implementing and managing strategies to ensure that BC Ferries is compliant with the *Freedom of Information and Protection of Privacy Act* (“FOIPPA”) and the Canada Anti-Spam Legislation (“CASL”). Interest in Privacy Impact Assessments to ensure that the handling of customer and employee personal information complies with privacy legislation and that all potential risks have been addressed.
Other BC Ferries Business Stakeholders	Various business stakeholders who are responsible for various content on the website including: Human Resources and Corporate Development: Career opportunities, public affairs, media room. Corporate Affairs: Protection of privacy, freedom of information. Finance: Business opportunities, fares, investor relations. Interest in the reliability, functionality, performance, and maintainability of the website.

IT Stakeholders	
Stakeholder	**Interest**
IT Operations	Responsible for delivery and operation of technology infrastructure including network and telecommunications, service desk, regional support, servers and data centre support, telephone and cell phone services, desktop support, security, and change management. Interest in architecture, design, acquisition, and implementation, operation, and support of a high availability and scalable server and network infrastructure capable of supporting the website.
Application Management	Responsible for application management ensuring that technical solutions meet and enable business needs, are able to leverage new features and functions, can be delivered in a timely fashion, and are stable and available. Includes: Customer Support Applications: provides support, monitoring, maintenance, system administration and enhancement development for the BC Ferries' website. Data Services: provides technical and operational support for application development, testing, deployment, data administration, performance tuning and management of the Oracle and Sybase databases and Oracle middleware products. Interest in architecture, design, development, implementation, operation, and support of the website.
Major Projects	Responsible for the ACE Program and other major capital projects, many of which will deliver website components that will be co-located and integrated with the website.
Compliance, Security, and Quality Assurance	Responsible for the overall governance of compliance to standards, methodologies, policies and procedures and includes the IT Project Management Office, Security Management, Internal Controls and Industry Compliance, Quality Assurance and Change Management. Interest in Payment Card Industry compliance, security management and controls associated with the new infrastructure.
Enterprise Architect	Responsible for providing standards-based, forward looking views on how to develop and manage the information technology roadmap and ensures project implementations and other implementation activities are compliant with the overall direction of the stated roadmap. Interest in the architecture and technical design of the new infrastructure and its compliance with the information technology roadmap.

3.8.2 Roles and Responsibilities

Each of the business and IT stakeholder groups has resources working in some capacity in supporting the BC Ferries website. In most cases, their roles are crucial to ensuring timely and accurate content on the website, even though the time it takes them may be small in comparison to their other responsibilities.

The main roles related to operating and maintaining the website are within Marketing, Web Services and Customer Care. Not counting the various levels of management who manage the website as one of their many responsibilities, there exist four key roles:

- A Web Services Manager who acts as the de facto website owner in that he takes day-to-day responsibility for the operations of the website. He is able to provide information management advice and some editorial control, in spite of the way the site is built in silos and in spite of the multiple CMS[5] in place;
- A Marketing Manager who acts as the focal point for campaigns, promotions and online sales, and as a guardian of the BC Ferries brand;
- A Customer Care Manager who acts as the voice of BC Ferries in online communities;
- Customer Service Agents respond to web queries and web-generated calls in a timely fashion.

3.8.3 Resourcing Levels

Business Resources

Various business resources are involved in managing and/or administering the website, committing at least 50 percent of their time to this activity. This includes management through to content creators. Those who are affected for more than half their time, and who have been taking on an increasingly greater workload, are the following (note that percentages are approximate):

[5] Multiple CMS currently in Place at BC Ferries: Marqui -- six unique instances; Scala; SignWave; Legacy CMS' for populating Career Opportunities, Business Opportunities, etc.; Existing CMS for populating Media Wall content at BC Ferries' Travel Center in Vancouver; and the WTP CMS for the Vacations website.

Resource Titles	Job Description Summary	%
Manager, Web Services and Customer Information Network	Manages operations of primary and auxiliary websites; manages digital signage operations; supports Fleet Operations' use of automated identification system technologies.	70
Manager, Marketing	Online consumer campaigns, Vacations, e-newsletters, social media management and brand management.	50
Manager, Customer Care	Social media monitoring and conversations.	50
Customer Service Agents (number of agents varies seasonally)	Answer web queries and calls generated through the web and/or through other channels such as social media.	100

External Business Support

Several third-parties support BC Ferries in its website activities. These activities include:

- Electronic mail campaigns are currently supported by a third party, including the use of this third-party's platform. There are a number of challenges as described in the "pain points" and significant improvements are needed if BC Ferries is to optimize its return related to the marketing tactic. This activity is expected to be brought in-house over the medium term, once a customer relationship management platform is in place at BC Ferries.

- Customer feedback is currently coordinated through a third-party which provides results back to BC Ferries.

- Vacations reservations are provided by Travelink, through a link on the Vacations website. Travelink includes and maintains the inventory of accommodations, excursions and "other" types of transportation.

- The online Gift Shop application is hosted externally and administrative tools are provided through which BC Ferries manages its catalogue and fulfills orders directly.

- The CMS used to support many BC Ferries external and internal websites is hosted and maintained externally by Marqui Inc. in Vancouver.

- Website and CMS support for bcferriesvacations.com is provided by UK service provider Zolv.

Technical Resources

Resources for the development and support of the website services are assigned, as required, from within the Business Applications team, supported by external contractors. Web service projects share resources with other IT projects, in particular the sister ACE Program.

3.9 Content Management Process

Content management involves dozens of BC Ferries resources throughout the organization, most of whom create and get approval for their content offline, and who then forward it to the Web Services team by email in a timely manner. This process is said to be running "smoothly", however it is labour intensive.

Because of the multitude of CMS systems in place at BC Ferries, the difficulty comes in the form of recapturing the submitted content in the appropriate CMS or instances. This work is primarily done by the two resources working under the Web Services Manager.

3.10 Related Projects

Several related projects are already underway that will impact the digital customer experience and functionality.

3.10.1 Synergy with other IT initiatives:

The ACE Program is a parallel program under way at BC Ferries that plans to deliver new middleware and back-end software, hardware and development platforms over a multi-year phased approach.
The primary components of the ACE Program are:

Booking, Ticketing and Check-in System will replace the existing reservations and ticketing point of sale systems. The existing systems are old, based on out-dated technology and are no longer responsive to evolving business needs.

- **Customer Relationship Management** supports improved customer relations. This includes the implementation of a solution to support a single customer profile, improved target marketing, support for new incentive programs, campaign management capability and the ability to define products and services based on customer data that more accurately reflects customer behaviour.

- **Card Management** introduces a flexible solution that will support the management of evolving BC Ferries card requirements, including gift cards, travel cards, BC Ferries travel incentive cards, and will replace systems such as SmartMedia and TPass.

- **Terminal Hardware** supports ever-evolving safety and security requirements, while maintaining or enhancing the customer experience. Terminal hardware includes the implementation of turnstiles to secure and improve management of fare paid zones; automated vehicle measuring system to improve accuracy of fare collection and safety for ticket agents, enhanced functionality and expanded footprint of the ticketing kiosks, and the potential for express vehicle check-in lanes for prepaid travel.

In addition, there are other parallel projects underway that have synergies with this Strategy.

- **Payment Services** will enable the acceptance of all forms of payment (BC Ferries cards as well as credit and debit card payment). This also includes the consolidation of all payment processing into a single module. Through consolidation of payment processing, instead of having payment processing spread across multiple applications and modules, the solution will ensure compliance with payment card industry standards and the privacy provisions of the FOIPPA, and will enhance security.

- **Vacations, Accommodation, Activities Booking** is an online a booking engine for vacations packages, accommodations and activities.

BC Ferries is also currently reviewing its pricing and revenue model and has defined a new Fare Flexibility and Revenue Management Strategy, with online requirements that include, but are not limited to:

- Purchasing in advance through a digital channel;
- Handling an increase in the volume of advance ticket sales;
- Displaying prices and fare/itinerary choices in an easy to understand way;
- A smooth, intuitive booking process;
- Directing customers to sailings where promotion fares are available (if requested); and
- Presenting intuitive pricing alternatives if price is too high or desired sailing is not available.

3.10.2 Recent Web-Related Projects

The last major upgrade of the website was the “MyBCF” project initiated in the fall of 2006 and delivered in two phases. Since then, significant maintenance work has been undertaken to mitigate numerous issues associated with the website applications and underlying infrastructure.

In 2012-2013, two additional projects were undertaken to improve the website:

- Express Reservations: improved the reservations design and layout/flows, and provided new 'log in' procedures. This included the capability to book a personal reservation without having to create a customer account and login. This project also implemented support for newer web browser versions.

- Website Repatriation: acquired and implemented a new, high-availability, hardware infrastructure hosted internally and repatriated bcferries.com and bcferriesvacations.com and databases from external hosting suppliers.

4. CUSTOMER NEEDS AND EXPECTATIONS

4.1 Key Users and Groups

Many types of users and groups rely on BC Ferries for their movement through British Columbia's coastal waters. Each has needs and expectations of BC Ferries, many with respect to what they can see and do online and on their mobile devices. A list of these users and groups are:

- British Columbian Commuters and Travelers;
- Vacationing/Tourists;
- Commercial Live and Commercial Drop Trailer; and
- Tour Bus Operators, Travel Agents and Groups.

Note that Section 7.1 elaborates on BC Ferries' target users.

4.2 High Customer Expectations

In 2011, BC Ferries undertook a survey to identify the needs and expectations of travelers with BC Ferries. In summary, travelers expected the following from BC Ferries (and not limited to):

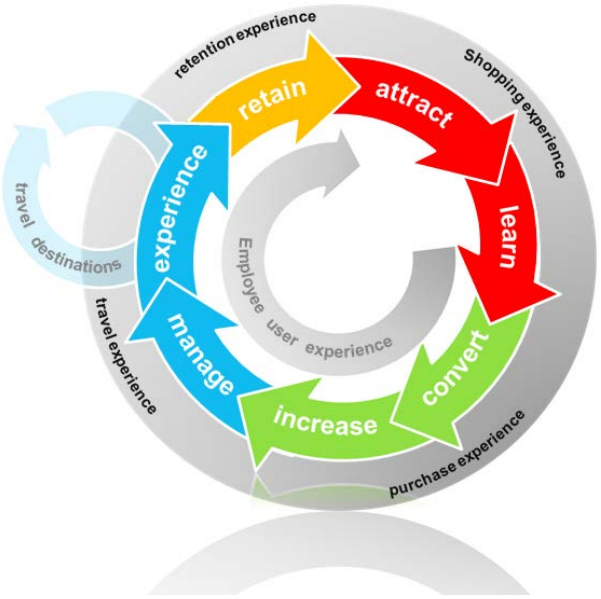
- A trusted and safe ferry service that understands and responds to the ever-evolving needs and expectations of marine-transportation customers for products, services and information, and for unique west coast travel experiences;
- Affordable fares;
- Frequent sailings;
- On-time arrivals, departures;
- Fast and orderly throughput;
- Boarding certainty;
- Expanded late-night sailings (event driven);

- Cleanliness and comfort; friendly and competent staff;
- Short overall trip durations;
- Convenient, accessible, secure and universal payment options;
- Clear, up-to-date signage;
- Timely, accurate, relevant and understandable information on:
  - products, services and routes;
  - related vacation travel options;
  - accessing other modes of integrated transportation;
  - disruptions or change in service;
  - safety and/or security concerns;
- Timely, honest and trusted communication with the media on fare increases, service disruptions, and/or concerns related to safety or security;
- Clear, simple, informative and easy-to-navigate website;
- Convenient, secure and universal reservation services;
- Expanded self-service options;
- Expanded baggage services;
- Unique and convenient ancillary services which respond to requirements of both leisure and business travel;
- Affordable, tasty and nutritious food services;
- Incentives to take vacations or conduct business requiring transportation by BC Ferries;
- Predictability, dependability of travel from remote locations; and
- Information security and protection of personal privacy.

4.3 Customer Lifecycle

Clearly emerging from the workshops and the customer feedback is that customers have expectations for a seamless and enjoyable end-to-end experience with BC Ferries -- an experience in which BC Ferries is there for its customers every step of the way. Specifically, customers are looking for a great quality experience from the moment they see an advertisement in the newspaper, to browsing sailing schedules on the website, to reserving online or through the customer service center, to enjoying their sailing experience, and to responding to a customer appreciation survey. While different customer types (and individuals within) may adopt different patterns, BC Ferries must be ready at every possible step of the way to provide the right information, service and functionality, at the appropriate place and time, and on the appropriate devices.

In order to ensure a common understanding of what it means to be "there for the customers every step of the way", the Project Workgroup defined a generic BC Ferries customer lifecycle, as set out below.

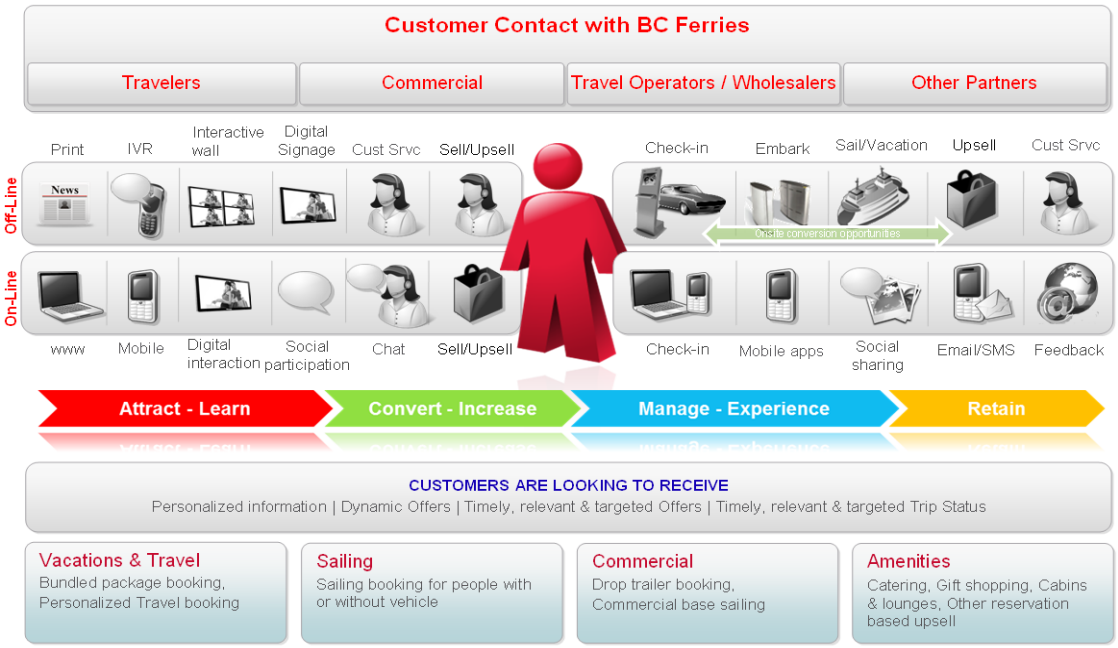


In summary, the Project Workgroup concluded that BC Ferries must have customer-centric strategies and tactics in place to:

- Attract customers (Attract);
- Answer questions and inform customers of the offerings (Learn);
- Enable customers to buy in a convenient and secure manner (Convert);
- Enable customers to add other items to their order (Increase);
- Enable customers to manage their accounts and/or travel itineraries (Manage);
- Help customers enjoy the sailing or travel experience (Experience); and
- Incent users to come back again (Retain).

4.4 Target Channels

The Project Workgroup further reflected on what it means to be there for the customers every step of the way. In order to ensure a common understanding, the Project Workgroup defined a simple business architecture for the organization illustrating the key touch points and the high level customer expectations. This is shown below.



In summary, the Project Workgroup concluded that BC Ferries must have strategies and tactics in place to deliver the expected customer experience across all of the touch points identified, and in the case of this project, to focus on what it means for the web, mobile and social media channels.

5. LANDSCAPE REVIEW

In the course of defining this Strategy, the Project Workgroup considered business strategies and online best practices from both within and beyond its industry. The purpose was to confirm direction and, when necessary, to provide valuable insight from elsewhere. A summary of the strategies and practices are referenced here.

5.1 Economist Intelligence Unit: Megatrends 2020

The Project Workgroup used the Megatrends [6] ("MT") research (published by the Economist Intelligence Unit) as a basis to confirm its thinking, structure its recommendations and elaborate its strategies. The research identified eight key trends for the next decade, many of the same trends BC Ferries is facing in its industry. The trends, including the Project Workgroup's view of what they mean for BC Ferries, are as follows:

MT 1. Global competition will drive up service standards

For BC Ferries, this was interpreted to mean that the current mix of multiple log-ins, multiple customer profiles and silos was recognized as being poor in terms of user experience, in comparison with others in the travel industry and with what customers are demanding. Further, that customer-listening and feedback, as well as alignment with global best practice, are critical to achieving the desired level of usability, simplicity, and intuitiveness.

MT 2. Companies must maintain service standards in the face of the need for speed.

For BC Ferries, this confirmed that BC Ferries' core online mission to make it easy for users to purchase travel should be improved. Without the online capability of pre-paying travel and vacations online, customers are forced to transact over the phone or in person at a ticket booth. This is very costly to BC Ferries.

MT 3. Firms must learn to use the increased transparency brought by social media to their advantage.

For BC Ferries, this equated to mean that BC Ferries needs to be increasingly focused first on improving the level of its service, and then on generating and leveraging positive social media feedback to resell to their customers and to attract others.

[6] Service 2020 – Megatrends for the next decade, Economist Intelligence Unit, Jan 29, 2012

MT 4. Companies must use new sources and types of data to rethink the way they track and personalize their service.

For BC Ferries, this confirmed that the lack of systems to track customer needs and preferences means it cannot offer a more personalized and pertinent experience, and that it will continue to struggle to up-sell amenities and cross-sell vacations packages until it corrects the problem. Further, BC Ferries' inability to identify its most frequent customers means lesser appreciation and lesser customer satisfaction from those most loyal and proud of the brand, and who therefore have little motivation to increase use in frequency or in array of BC Ferries' services.

MT 5. Good employees will remain fundamental to good service but with technology as an enabler.

For BC Ferries, this equated to mean that the lack of tools to support strong online marketing, promotion, content, communications management and differentiated pricing means BC Ferries does not currently have the technology needed to manage its business and customer expectations, leading to much frustration on the part of customers. Further, substandard web analytics tools are preventing measurement of critical commerce indicators like clickthru and conversion rates, meaning little commerce optimization activities are taking place.

MT 6. More firms will outsource aspects of customer service to new kinds of specialists.

For BC Ferries, this was interpreted to mean that its network of resellers and partners is the first place this will impact. Whether it is to incent travel agents to sell more, or to attract new agents or types of distributors, the integration and availability of core functionality to integrate partners and to process third-party sales must be easy and fast.

MT 7. The rise of the mass affluent and other customer segments will force companies to find new product or service niches.

For BC Ferries, this was interpreted to mean that new customer segments could be coming from elsewhere (e.g. international travelers) as well as emerging locally, and that services desired by some are irrelevant to others. In other words, some new customer segments may be interested in high value travel packages, assured loading cards, and VIP lounge access, while other customer segments may seek lower fared options. Further, incorporation of new products and services to cater to new and/or different customer segments must be quick and easy.

MT 8. Customer expectations including the purpose of the store are evolving with new technology.

For BC Ferries, this was interpreted to mean that its online sales channel is virtually irrelevant today (with less than 2 percent of revenue generated online), and it is further hindered by a dissuasive reservation model. As long as online prepayment is not resolved, BC Ferries will be regarded as being out of touch with industry best practices. Further, customers now expect to be able to transact on other devices such as smartphones and tablets, and to have BC Ferries alert them immediately if something changes with their itinerary.

5.2 Travel Surveys

The Project Workgroup also considered reports and surveys from the travel industry, the most important of which was the 2012 Passenger Self-Service Survey by ATW[7]. The report helped confirm many of the observations already made by customers and by the Project Workgroup with respect to online self-service, mobility and social media. In particular:

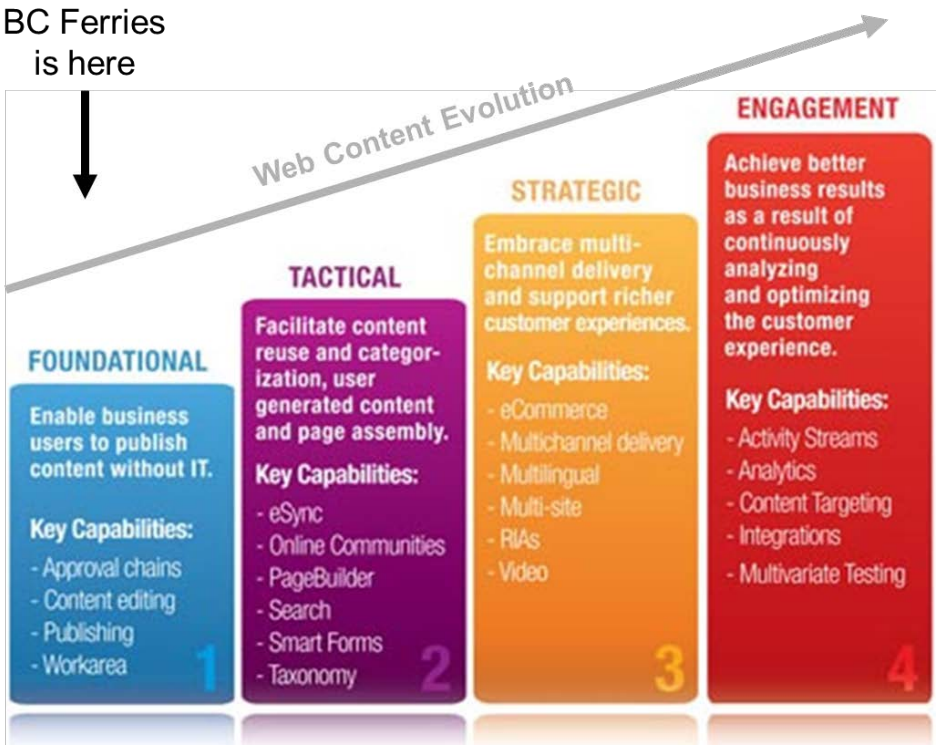
- The demand for self-service continues to increase, across all channels;
- Smartphone penetration has increased dramatically and customers are expecting operators to enable mobile self-service and mobile commerce; and;
- Travelers are increasingly active on social media (a much higher percentage than the population overall) and are interested in using social media throughout the passenger journey.

5.3 Maturity Models

Various maturity models were evaluated by the Project Workgroup in order to evaluate where BC Ferries stands versus the leaders, purely in terms of online functionality. Four models were retained (eContent, eCommerce, Mobility and Social Media) in order to help BC Ferries plan its online transition according to logical patterns.

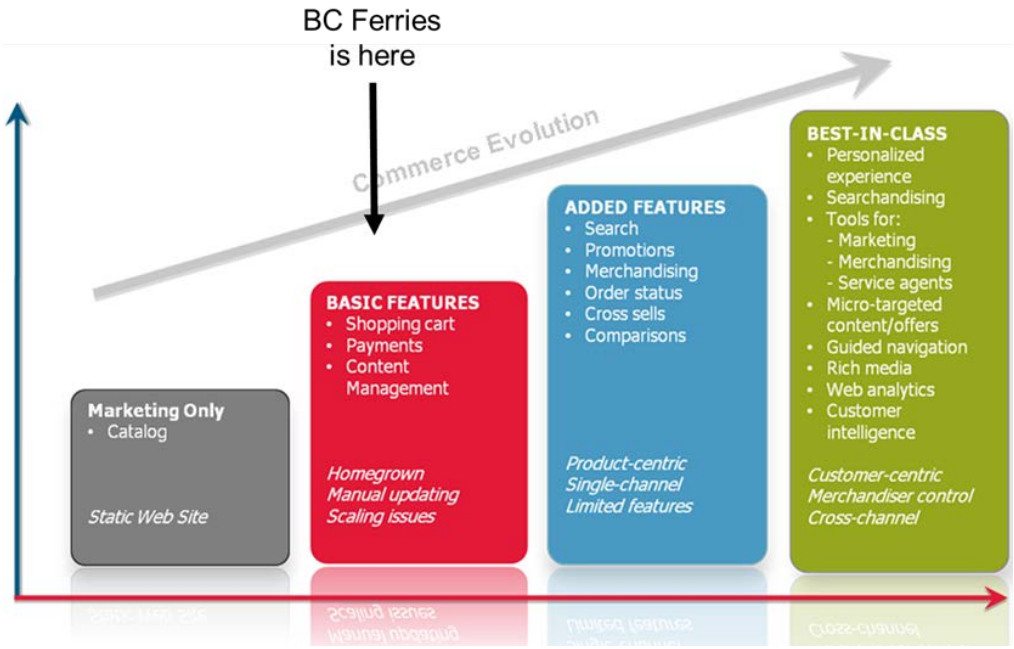
[7] 2012 Passenger Self-service Survey conducted by Air Transport World

5.3.1 eContent Maturity Model



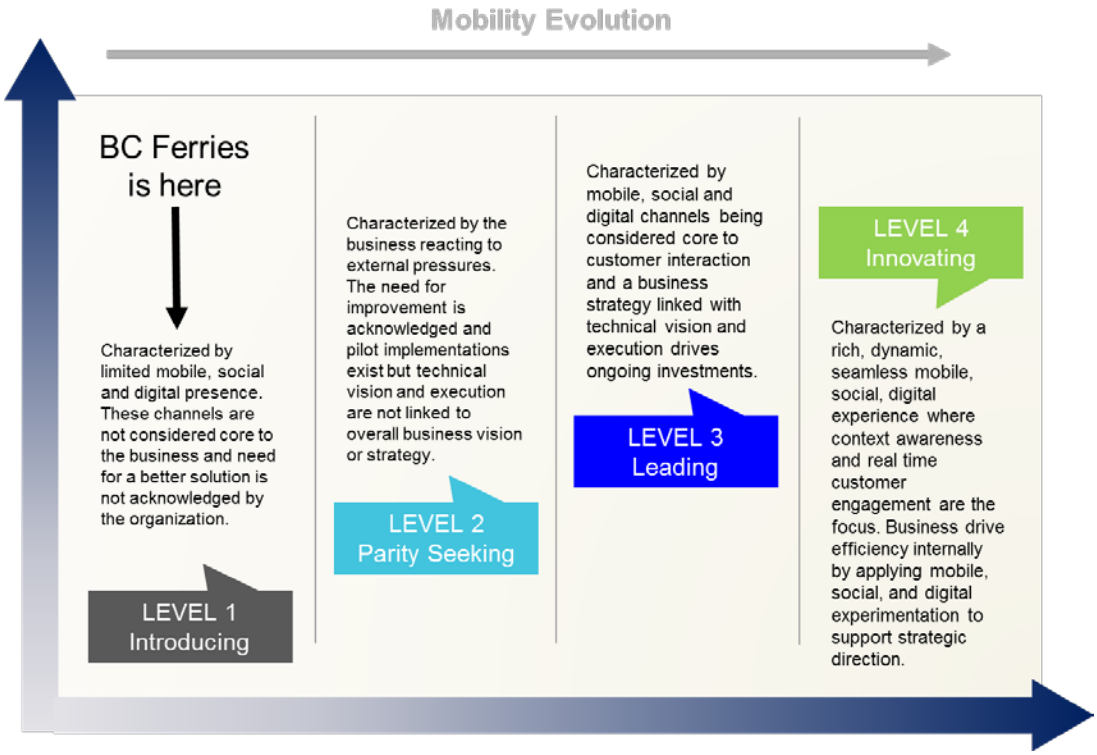
Source: www.ektron.com

5.3.2 eCommerce Maturity Model



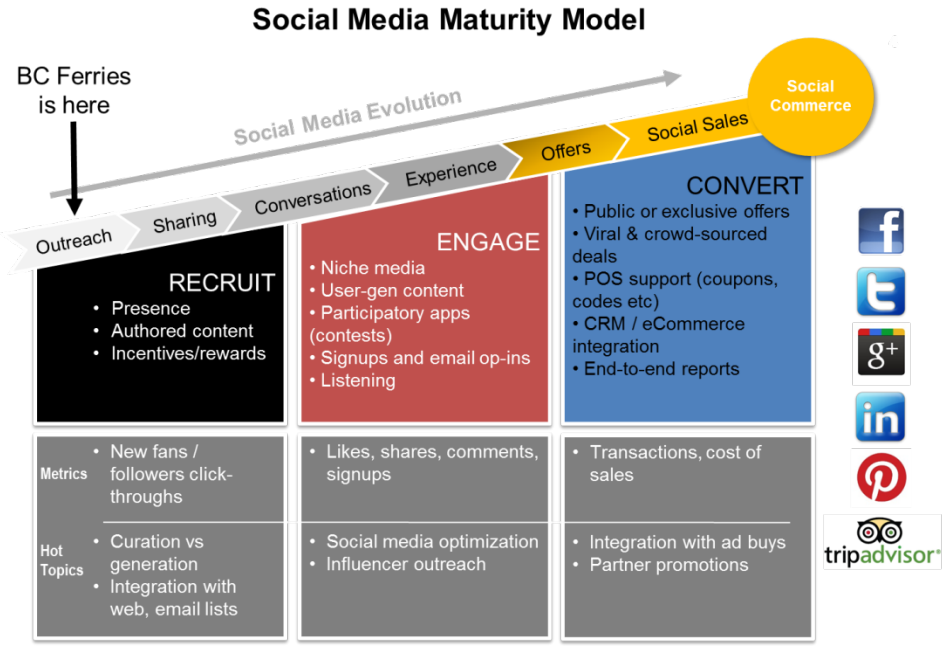
Source: CGI Group, eCommerce Practice

5.3.3 Mobility Maturity Model



Source: CGI Group, Mobility Practice

5.3.4 Social Media Model



Source: CGI Group, Social Media Group

5.4 Industry Reports

Many industry reports were consulted, in particular those published by the Gartner Group[8] and the Forrester Group[9]. They were used mainly to identify and confirm the online direction being considered by BC Ferries, and/or to ensure conclusions were not in contradiction of best practice.

Some of the key areas investigated were:

- Web content management (i.e. to resolve the multiple CMS "pain point" at BC Ferries);
- Online commerce management and features (i.e. to understand the key features embedded in the leading software packages, as well as the tools for online merchandizing and promotions);
- Cross-channel commerce (i.e. to investigate ways of extending the online reservations functionality to mobile); and
- Top trends and priorities in 2012.

5.5 Site Benchmarking

Members of the Project Workgroup were tasked with identifying (other) sites that they most admired and to briefly indicate why. Further, during workshops, sites were cited as examples in relation to some particular feature or approach. Some of the sites discussed were:

- Brittany Ferries – because it offers the sale of both sailings and vacation packages in the same flow;
- UK Ferries – because of its efficient "tunneling" approach through checkout once a user has made their selection, including up-selling of amenities, accommodations;
- Red Funnel (UK) Ferries – because of its ease of navigation, information architecture and information completeness;

[8] Gartner Group Reports including Magic Quadrant for Web Content Management 2012, Magic Quadrant for eCommerce 2011, How to Maximize the Value of Mobile and Social Commerce 2012, and the 2012 CIO Agenda: Re-imagining IT.

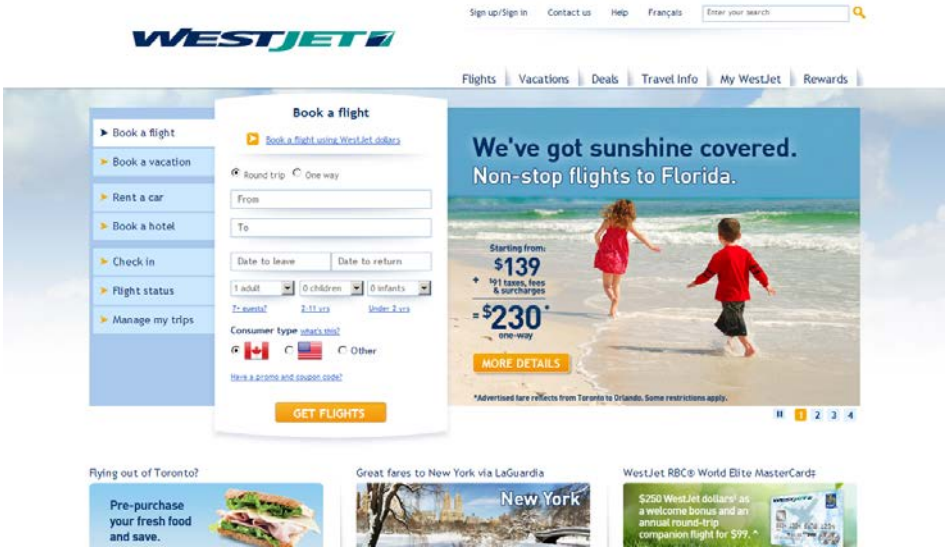
[9] Forrester Group Reports including Forrester Wave eCommerce Platforms 2012, and the eCommerce Content Conundrum, December, 2010.

- Starbucks – because of their social media success;
- McDonald's – because of its dynamic FAQ's;
- City of Calgary – because of the strength of its search engine and its innovative google-like home page;
- Amtrak mobility site – because it represents the mobility application BC Ferries desires;
- Alaska Airlines – because of its reservations system;
- Air Canada – because of its aggressive campaign "of historic proportions" to engage customers in their Facebook community;
- KLM – because of its Facebook promotions;
- Sears – because of its site personalization features;
- Videotron – because of its use of emerging navigation and design patterns intended to respond and display properly, regardless of the device;
- Vodafone – because of its multi-site set up and white-labeled partner network;
- Rio Tinto Alcan – because of its B2B Commercial Dashboard; and
- Rogers Communications – because of its innovation with "searchandizing".

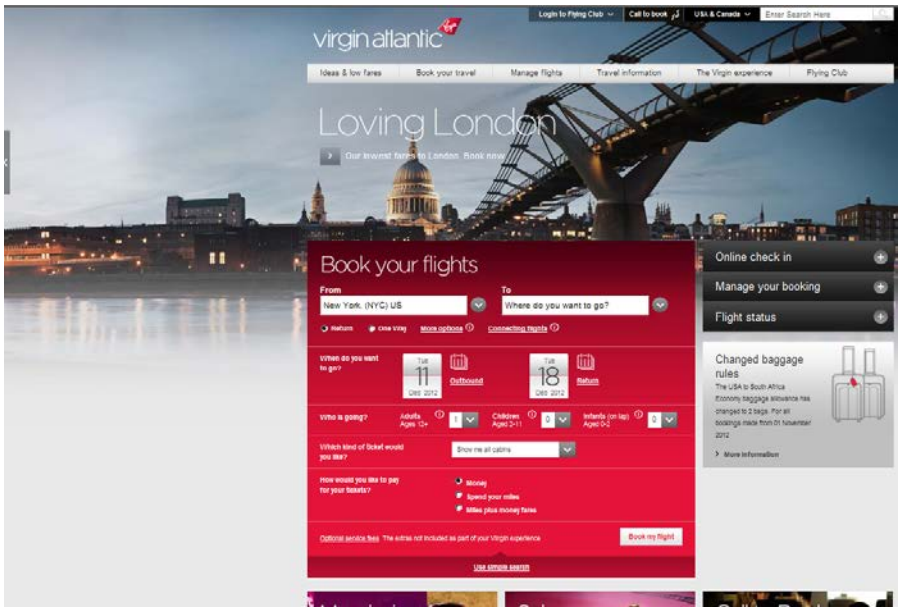
The exercise led to a consensus amongst the Project Workgroup members that BC Ferries wanted most to resemble the following:

- Westjet – because of the pleasant unencumbered home page focused on the core business (i.e. selling tickets); and
- Virgin Atlantic – similarly, because of the pleasant unencumbered home page focused on the core business (i.e. selling tickets).

www.westjet.ca



www.virgin-atlantic.com



6. VISION, OBJECTIVES AND STRATEGY

6.1 BC Ferries Vision

The Digital Experience Strategy is expected to help contribute to the BC Ferries corporate vision defined as:

Provide a continuously improving west coast travel experience that consistently exceeds customer expectations and reflects the innovation and pride of our employees.

The Strategy is expected to align with other programs and projects in progress, in particular the ACE Program, to produce an exceptional online customer experience and to deliver on BC Ferries' corporate objectives as further defined below.

6.2 Digital Experience Strategy Goal

The goal of the Digital Experience Strategy is the modernization of BC Ferries' public-facing web presence, as well as its extension and footprint into channels that are relatively new to BC Ferries, such as mobile and social media.

Specifically, this Strategy focuses first on upgrading the applications, software framework, and platform upon which bcferries.com and mobile.bcferries.com are built, and then on extending BC Ferries' reach to customers through strategic use of relevant emerging trends in mobile and social media.

Generally, BC Ferries wants to offer a more timely, relevant and pleasant self-serve experience for BC Ferries' customers. It is expected this focus will put BC Ferries in a much better position to effectively and efficiently react and respond to requirements for change originating from customers, the business, and from major programs / projects such as the ACE Program.

6.3 Strategic / Operational Objectives and Requirements

This Strategy is expected to adhere to the corporate strategic plan by supporting the following strategic objectives and business plan goals:

6.3.1 Strategic Objectives

1. "Ensure a safe, secure and environmentally responsible marine transportation system"

   The BC Ferries' website includes capabilities used by the Operations and Security Centre to issue and manage service notices to its customers and the general public. These are important to ensuring customer awareness and public safety particularly in the event of service disruptions caused by inclement weather or other types of unforeseen events.

2. "Establish a company-wide commitment to customer service"

   The BC Ferries' website is the principal portal for customers to access information about and services provided by BC Ferries. A highly available, flexible, maintainable, mobile and social media enabled website reinforces the Company's commitment to customer service by providing a means for continuous communications to its customers using electronic channels that they choose. This project will significantly improve electronic customer service.

3. "Foster a highly motivated, committed and flexible workforce"

   A strategy to build and maintain a focused, highly-trained cross-functional team to sustain and enhance the websites electronic channels will maximize motivation and commitment to this critical interface to our customers.

4. "Establish pro-active and constructive relationships with community and government"

   The BC Ferries' website includes a number of information portals supporting an active public consultation program supporting communications with Ferry Advisory Committees, Terminal Liaison Committees, and consultation with specific public interest groups and municipal governments. A highly available, flexible, maintainable, mobile and social media enabled website will reinforce the Company's commitment to community and government relationship building.

5. "Respond to and develop market demand to increase revenue"

   The amount of revenue generating activity on the website is expected to increase over time as service offerings supporting the Fare Flexibility and Revenue Management Strategy are expanded. A flexible, expandable, and well-managed website platform is critical to ensuring that the Company's "electronic storefront" continually engages BC Ferries' customers while promoting its products and services, increasing revenue, and strengthening the BC Ferries brand.

6. "Maximize enterprise value"

   A flexible, expandable, and well-managed website infrastructure will reduce costs, risks, and "time to market" associated with continuously improving the BC Ferries' website customer experience to increase customer self-service, thereby maximizing enterprise value.

6.3.2 Business Plan Goals

1. "Safety – To continuously improve the safety of our operations inclusive of vessels, terminals and facilities"
   The BC Ferries' website provides "Safety First" information to promote public awareness of vessel-specific safety and emergency preparedness information which can be delivered through mobile and social media channels of the customer's choosing.

2. "Operational Reliability – To continuously improve the operational reliability of vessels, terminals and facilities"
   An updated website software platform will significantly improve the operational reliability of the website and ensure that financial transactions over the web are conducted reliably and securely.

3. "Continuous Improvement – To be better at everything we do"
   Customer usage of the website will increase overtime so it is important to improve our online self-service capabilities to our customer's satisfaction. This can be accomplished by implementing more flexible software platforms and more agile development methodologies.

4. "Value for Money – To continuously improve value to our customers at every point along the customer experience chain"
   A better, expandable, and flexible website software platform capable of leveraging mobility and social media channels will contribute to an improved customer experience and value proposition.

5. "Financial Integrity – To achieve key financial targets, ensuring that sufficient capital and retained earnings are available to revitalize our fleet, facilities and infrastructure, while minimizing fare escalation"
   Providing the ability for customers to confidently self-serve using BC Ferries' website in a secure and private way will generate revenue at a lower cost compared to traditional customer care telephone and IVR services.

6.4 Online Objectives

The objectives of the Digital Experience Strategy are to:

- Improve the customer's experience associated with BC Ferries' "electronic storefront";
- Provide an effective and efficient online self-service for BC Ferries' customers;
- Support a multiplication in online transactions as the Fare Flexibility and Revenue Management Strategy is rolled out;
- Mitigate all technical issues currently associated with current website infrastructure;
- Significantly improve the reliability and flexibility of the website's underlying hardware and software to enable faster response to change while enabling mobility and social media platforms used by our customers;
- Ensure that the website platform remains well positioned to respond to and implement envisioned digital marketing strategies, approaches, and capabilities; and
- Align with ACE Program business requirements.

6.5 Business Outcomes

The Digital Experience Strategy is expected to contribute to BC Ferries' business outcomes that were elaborated in the context of the ACE Program, in which the web and mobile sites are considered the electronic storefronts (i.e. front door) for customers.

BC Ferries' business outcomes identified and prioritized by the Project Workgroup as being most relevant to the Digital Experience Strategy are the following:

- Core Commerce
  - "An increase over three years in the provision of products and service via website".
- Customer Satisfaction and Self-Serve
  - "Sustained and/or increased rates of customer and service-beneficiary satisfaction";
  - "An increase over three years in the provision of self-service"; and
  - A marked increase in "timely, accurate, relevant and understandable information".

- Up-Sell Commerce
  - Increases in revenue and profits for current and new retail/ancillary products and services, third party amenity services, and passenger onboard spend.

- Tools
  - "An improvement over three years in time-to-market window to go live"; and
  - Increase in the provision of collaboration tools and discussion boards to gather and leverage customer data and insight from customers, staff, partners, and stakeholders.

- Seamless Service
  - Increase in provision of multiple channels, enterprise-wide, to deliver products, services and amenities with sign-on capability.

- Pricing & Promotions
  - Support a dynamic revenue model, including ability to do variable pricing; and
  - Enable optimal promotion and provision of flexible travel options and incentives for travelers to increase their onboard spend.

- Operational Improvements
  - "A decrease over three years in labour costs derived from customer self-service".

From a Commercial Services perspective, the business outcomes identified and prioritized by the Project Workgroup as being most relevant to the Digital Experience Strategy are the following:

- Core Commerce
  - An increase in revenue and drop trailer profits; and
  - An increase in revenue derived from late night sailings.

- Customer Satisfaction and Self-Serve
  - An increase in the Company's capacity to track and report on storage and transportation of dangerous goods; and
  - An increase in how fast information can be disseminated to customers regarding the transport of their trailers.

- Tools
  - An increase in tools to share data and optimize coordination with other transportation providers.

- Technology
  - An increase in automated alerts to commercial customers.

6.6 Digital Key Performance Indicators

In order to monitor the contribution of the Digital Experience Strategy to BC Ferries' business objectives and outcomes, the BC Ferries Project Steering Committee has identified a number of digital key performance indicators ("KPI's").

At the time of writing, KPI's were identified and prioritized, as per the table below.

Website Key Performance Indicators			Priority
Revenue from Online Self-Serve Channels			
	↑	% of Total Tariff / Bookings Revenue	1
	↑	% of Total Vacations Revenue	
	↑	% of Total Onboard Amenities Revenue	
Customer Satisfaction Rating			2
	↑	On the Web	
	↑	Reservations	
Operational Costs (Bookings)			3
	↓	IVR	
	↓	Key Account - Commercial	
	↓	Call Centre	

6.7 Business Drivers

In order to achieve the business outcomes, BC Ferries has launched a number of major initiatives that will fundamentally change the way it serves customers in the coming few years. In summary:

- **Prepaid Fares:** BC Ferries is planning to move to a prepayment of fares model, versus the current model of simply reserving a vehicle for a fee. Combined with the planned Fare Flexibility and Revenue Management Strategy, this will have the effect of driving millions of transactions online as users opt to pre-book. It is anticipated that as many as 70 percent of transactions could occur online.

- **Fare Flexibility and Revenue Management Strategy:** BC Ferries is planning to move to a differentiated pricing model, versus the current (relatively) fixed pricing model. This will enable BC Ferries to attract new target segments (i.e. price sensitive customers), promote different types of offers and price according to demand and supply.

- **Customer Relationship Management:** BC Ferries is planning to launch a customer relationship management program in which it maintains a single customer profile (versus multiple profiles today, depending on the line of business). This will provide BC Ferries with the ability to improve service to different customer groups through market segmentation.

- **Travel Rewards:** BC Ferries is planning to enhance its travel card program in order to recognize frequent customers. This will enable BC Ferries to personalize offers to repeat customers based on their known preferences.

- **Card Services:** BC Ferries is planning the addition of new card(s) such as a BC Ferries Gift Card, as well as a review and realignment of existing card services.

- **Terminal Automation and Upgrade:** The terminal hardware component of the infrastructure in support of the ACE Program will enhance several current BC Ferries processes by introducing a number of hardware and software solutions:

    - Customer ticketing throughput: A vehicle classification system will be installed to automatically measure length and classify vehicles thus avoiding delays and safety issues occurring through manual measurements.

    - Ticket Purchases: Existing self-serve ticket kiosks will be replaced with units that accept cash and allow for future payment methods (e.g.: “tap-and-go”) to increase uptake on self-service.

    - Security and Safety: Optical turnstiles at the entry to the fare paid and embarkation zones will be used to enhance security and obtain accurate foot passenger counts.

    - Security and Safety: Hand held scanners will be used to validate tickets and embark foot passengers boarding the ferry via the car deck.

    - Baggage Tagging: All checked baggage will be tagged using a self- service kiosk that will link baggage to a customer’s boarding card.

- **Website Modernization:** BC Ferries is planning (through the development of this Strategy) to renew the website in order to provide the customer-facing functionality that accommodates the major business changes upcoming (as noted above). The modernization project will also enable BC Ferries to improve the customer experience, to strive for something that is more seamless, intuitive and functional than the current website, and most importantly, to begin cross-selling and up-selling.

- **Mobility:** Also through the development of this Strategy, BC Ferries is planning to introduce mobility functionality. This will allow customers to deal with BC Ferries at any time, from anywhere and using any device.

- **Social enablement:** Also through the development of this Strategy, BC Ferries is planning to integrate social media within the fabric of BC Ferries' website. This will enable BC Ferries to leverage its effects on customer satisfaction and purchase decisions.

6.8 Recommended Strategies

In light of the BC Ferries' vision, objectives and business drivers, the Project Workgroup conceived eight strategies for helping BC Ferries to transition from the current situation to a state where it can more adequately respond to customer needs and expectations, and to a state where it can effectively contribute to BC Ferries' business outcomes for the coming years.

More specifically, the Project Workgroup approached the project with the perspective that it was defining a three-year implementation strategy that would put into place the foundation to drive BC Ferries' online service, webcams, current conditions, service notices and vessel tracking well beyond 2020.

The strategies are the direct result of the Habanero customer input, Project Workgroup contribution, and the research uncovered during the project (and summarized in the Landscape Review – Section 5 of this document).

The eight strategies and what they entail for BC Ferries are:

1. Adopt Strong User Experiences Practices

- Companies achieving this today: Apple, Starbucks, Victoria Secret, Niemen Marcus and Walt Disney.

- First, ensure the voice of the customer is heard and incorporated. Next, adopt a fully integrated (versus silos) approach, making the customer experience seamless, supported by relevant and timely content and functionality, in order to gain parity with the current best practice online services.

- Tactics include:
  - Provide a complete end-to-end service and be there for customers every step of the way, one that goes beyond the narrow purpose of an online store;
  - Remove patchwork of distractions on the home page and direct users with appropriate navigation. Use westjet.ca as a reference site;
  - Focus on transactions related to regular travelers, commercial and vacations travel;
  - "Tunnel" customers who are ready to buy now, and guide everyone else towards a showcase of the BC Ferries fleet, on-board amenities and destinations;
  - Take the BC Ferries Experience concept to another level by leveraging social media content and engaging customers as ambassadors of BC Ferries (i.e. let them tell the stories that will sell the BC Ferries product);
  - "Wow" users into wanting to travel again, and make it desirable for them through relevant promotions;
  - Continually upgrade the reservation process to become increasingly more intuitive and user-friendly for both ferry and vacations travel;
  - Offer single sign-on, a single customer profile, a single consolidated cart and rich "My Account" functionality; and
  - Adopt customer-listening and feedback tools.

2. Adopt Time-Saving Self-Serve Functionality

- Companies achieving this today: Expedia, Air Canada and Banks (e.g. Online Banking).
- Identify time-saving functionality that can help respond to customer demand for speed and ease, related first to core functionality and subsequently to other customer touch points.
- Tactics include:
  - Provide timely, relevant, and targeted information;

- Provide both “guest” purchase flows and “logged-in” purchase flows;
- Pre-populate favorites for logged-in users;
- Offer pre-configured bundled offers and reduce clicks to buy;
- Provide contextual information to accelerate buying as well as relevant, easily selectable, and contextual up-sells;
- Offer click-to-call inside the reservation flow at strategic customer decision points and live chat outside the flow;
- Web-enable common requests such as underage passenger transfer, facilitation of disabled access to elevators, medical travel, dangerous goods reporting. Must minimize/eliminate use of paper forms;
- Transition towards pre-paying tickets, amenities and vacation travel online, in alignment with the ACE Program and the Fare Flexibility and Revenue Management Strategy;
- Introduce a price-comparison tool when differentiated pricing and pre-paid ticketing are launched. Conceive a simple online process for customers to obtain (or qualify for) special pricing (when purchasing a pre-paid ticket);
- Conceive bulk upload and a consolidated dashboard for commercial users to manage their fleets; and
- Communications must be designed in alignment with FOIPPA and CASL regulations regarding collecting and use of customer data.

3. Adopt a Multi-Dimensional Social Presence

- Companies achieving this today: Starbucks, KLM, Coca-Cola, Trip Advisor, TSN and Red Bull.
- To an extent, social media is a very healthy thing. It brings people and companies into conversations and the best corporate citizens are rewarded with loyal and highly satisfied repeat customers. The strategy for social media should be multi-dimensional focusing on customer engagement, brand perception, marketing, and customer service.

- Tactics include:
  - Develop guidelines and objectives for use of social media in various situations, including special situations, in alignment with FOIPPA and CASL considerations and constraints. This includes timely messaging through the right channels;
  - Recognize that shopping is not restricted to the website and that BC Ferries needs to sow seeds in various social media communities;
  - Have customers tell their stories (and promote the destinations for the Company) on the BC Ferries Experiences page;
  - Engage users with: 1) the use of contests, campaigns, user ratings, and feedbacks, 2) the ability for users to like, share and recommend on Facebook, and 3) the features to share on other popular social media platforms like Twitter, Instagram, Trip Advisor, etc.;
  - Embed relevant contextual recommendations based on Facebook likes, Trip Advisor ratings and comments, and other social media tools; and
  - Seek future opportunities for using social e-commerce as a catalyst to increase conversions and sales.

4. Adopt Personalization and Leverage Customer Relationship Management, Card Services and Travel Rewards Program

- Companies achieving this today: Sears, Amazon.com, Aeroplan, and Trip Advisor.
- Leverage new customer relationship management, rewards and card services improvements to drive brand awareness, customer satisfaction, as well as increased travel frequency. Also, personalize the online experience in order to present relevant and timely information, and to accelerate the up-sell and/or cross-sell purchases.
- Tactics include:
  - Present relevant and timely information through appropriate channels;
  - Present relevant and personalized promotions and offers;

- Offer customers the ability to establish profiles and to opt-in to marketing and promotion campaigns, notifications, service updates, and others;
- Incent customers to join the travel rewards program, and to travel more to redeem more;
- Offer complete "My Account" functionality, and continue adding as needs evolve; and
- Consider opportunities within social media and mobile channels for gathering permission-based personalized data.

- Personalization must be designed in alignment with FOIPPA and CASL constraints about collecting and use of customer data. Note that persistent cookies are not permitted according to current regulations.

5. Adopt a Strong Toolset to Manage Online Customer Experience

- Companies achieving this today: Apple, Best Buy and Rogers Communications.
- Equip BC Ferries with the marketing, promotion, content, communications management, pricing and analytics tools needed to manage its business.
- Tactics include:
  - Equip BC Ferries' employees with the following toolset to effectively manage this Strategy and tactics, including:
    - web content management;
    - merchandising and catalogue management;
    - promotion management;
    - contesting and campaigning (including templates for landing pages);
    - scenario manager (for personalization);
    - search tTerm optimization;
    - eMail management (list and CMS); and
    - web analytics.
  - Service request and incident management;
  - Customer feedback management, Live Chat and click-to-call;

- Social listening; and
- Social platform management.

6. Adopt a Platform that Could Grow with BC Ferries

- Companies achieving this today: Vodafone (100+ partners).

- Equip BC Ferries with a platform of commercial strength to handle the growth of online transactions and the possible expansion of the BC Ferries sales network.

- Tactics include:

  - Select a multi-site e-commerce platform that can enable different customer types to transact online. For example:
    - Regular car and foot passengers;
    - Commercial (live and drop trailer);
    - Travel Agents; and
    - Bus and tour operators;

  - In the future, it may mean developing interfaces for new partners/resellers not imagined today;

  - It may mean operating parallel white-labeled sites (e.g. embedded within a logistics company's dispatching dashboard);

  - Ensure the platform can easily and rapidly integrate new BC Ferries product offerings without going into development; and

  - Ensure the platform can also integrate new third-party products services into the BC Ferries buying flow.

7. Adopt a Platform that Can Target Customer Segments

- Companies achieving this today: Vodafone (e.g. **www.vodafone.de, www.otelo.de)**.

- Equip BC Ferries with tools to accommodate new products and services easily.

- Tactics include:
  - Select a platform that can accommodate new products and services, without the need for costly development;
  - Select a platform that can be personalized based on customer profile, preferences, and buying history;
  - Select a platform that can run parallel segmented BC Ferries sites; and
  - Select a platform that can incorporate micro-sites (i.e. to accommodate click-thru's from BC Ferries' campaigns and promotions that are presented on external sites).
- Note that personalization must be designed in alignment with FOIPPA and CASL constraints about collecting and use of customer data.

8. Adopt an Expanded Store Concept and Mobile Commerce

- Companies achieving this today: Amtrak, and Trip Advisor.
- Equip BC Ferries with an end-to-end multi-channel platform that can enable the business to implement and evolve its revenue management strategies.
- Tactics include:
  - Recognize that weeks of information gathering, browsing and shopping are part of the buying process and thus ensure that the right information is available at the right time, and in the right channel;
  - Introduce a rich BC Ferries experience that allows users the opportunity to feel (if they desire) before buying;
  - Conceive an information flow that keeps customers completely informed of their purchases, until their trips are completed. The purpose of the store does not end once a user clicks "buy";
  - Adopt mobile commerce (See "Mobility Options and Recommendations below");

- Transition towards pre-paying online, in alignment with the ACE Program and the Fare Flexibility and Revenue Management Strategy;
- Offer the entire BC Ferries experience on an entire range of mobile devices from smartphones to tablets using Responsive web design; and
- Select a platform that can accommodate a full 360 cross-channel experience including the web, mobile and social, and the possibility for kiosk commerce, Customer Service Center commerce and [potentially] point-of-sale.

6.9 Guiding Principles

Core to the eight recommended strategies presented above is for BC Ferries to focus on the following:

- Present customers with a seamless intuitive experience (i.e. single sign-on, single customer profile, single cart);
- "Channel" customers who are ready to buy now into the electronic store, and guide everyone else towards what should become a BC Ferries modern-day showcase of the BC Ferries fleet, on-board amenities and destinations;
- Strive for a common buying process that is flexible to accommodate different types of users;
- Aim to deliver the right information to the right people at the right time;
- Aim for access anywhere using any device;
- Engage customers and have them become experience ambassadors;
- Strive to automate service requests; and
- Prioritize implementation based on contribution to business outcomes.

6.10 Mobility Options and Recommendations

While mobility was a common theme in many of the workshops, a dedicated session on mobility enabled the Project Workgroup to more deeply explore the use of mobility for BC Ferries' customers.

The first assessment made by the Project Workgroup is that customers are increasingly turning to their smart phones and tablets for BC Ferries' information and reservations, and are frustrated by what is currently minimally available from BC Ferries:

- Customers have access to webcams, current conditions, service notices and vessel tracking on the mobile site (mobile.bcferries.com);
- Customers have access to the current website that is automatically rendered in miniature on mobile, but such a format is not optimized for use; and
- Customers have access to unauthorized mobile applications that are "screen-scraping" parts of the BC Ferries website and offering it up in mobile format to their customers.

The second assessment made by the Project Workgroup is that mobility is a necessity for BC Ferries. [Note: the 2012 Air Passenger Self-Service Survey (discussed in Section 5.2) confirmed that more than 70 percent of passengers now carry and use a smartphone regularly, which supported the Project Workgroup's assertion that mobility is a business necessity.]

Mobility thus becomes an additional channel for BC Ferries to reach and serve its customers, and to help it to achieve business objectives. In particular, the Project Workgroup noted that mobility could help to achieve the following business outcomes:

- Provide timely, accurate and relevant information and real-time alerts;
- Provide near real-time communication to passengers of vessel capacity, sailing status, and space availability;
- Increase customer satisfaction by enabling customers on the road to modify plans based on vessel traffic and/or changes in schedules;
- Make it easier for customers on the road (and not in front of a desktop computer) to reserve a sailing;
- Enable customers to have quick access to the sailing schedules;
- Provide access to BC Ferries from anywhere at any time through any device (i.e. multi-channel); and
- Provide real-time status to Commercial customers of their trailer movement.

6.10.1 Mobility Option

Three different options were considered by the Project Workgroup for mobility at BC Ferries:

1. Do Nothing:

The option to do nothing is basically to remain with what is available today. In other words, customers have access to webcams, current conditions, service notices and vessel tracking, as well as a site automatically rendered as a miniature website in the mobile device window.

2. Plan for Mobile Apps (often referred to as "Native Apps"):

A native app is a specific application built for a certain mobile device (smartphone, tablet, etc.) on a specific platform (iOS, Android, Blackberry, etc…). They are installed directly onto the device. Users typically acquire these apps through an online store or marketplace such as the App Store or Android Apps on Google Play. An example of such an app for BC Ferries could be for commercial customers to use their smartphones to know the status and whereabouts of their trailers.

It is part of the best practices in mobility to offer small native apps that are targeted to a specific need. Multi-function apps often end up being clumsy to use and will show a lower retention level.

3. Plan for a Mobile Website:

A mobile website is similar to any other website in that it consists of browser-based HTML pages that are linked together and accessed over the Internet (for mobile typically Wi-Fi or 3G or 4G networks). The obvious characteristic that distinguishes a mobile website from a standard website is the fact that it is designed and optimized for the smaller handheld display and touch-screen interface.

Like any website, mobile websites can display text content, data, images and video. They can also access mobile-specific features such as click-to-call (to dial a phone number) or location-based mapping.

6.10.2 Options Evaluation

The options have been evaluated in the Technical Assessment and Architecture Report prepared for this Strategy. [Note that for any solution, it is important to take into consideration personal privacy laws that apply to mobile in the same way as they apply to websites and social media.]

6.10.3 Mobility Recommendations

In light of the information gathered, the Project Workgroup concluded that, from a business perspective, the Company needs the following:

Mobile Website: the Project Workgroup concluded that BC Ferries needs a mobile website for presenting customers with the ability to transact with the Company from anywhere, at any time, using any device. Further, it recognized that the navigation and design patterns need to be thought through from the touch and swipe perspective required on smartphones and tablets versus the traditional point and click perspective. (See the two design concepts elaborated in Section 7.3.6.).

Mobile Apps: The Project Workgroup also concluded that there were specific applications that could be launched quickly that would provide immediate benefit to customers. It identified two apps in particular:

- **App 1: Regular Customer Account Application (inspired by the Amtrak mobile app)**
  Description: An application for BC Ferries' customers with functionality to view the schedules, terminal and vessel information, as well as functionality to make and manage reservations. This would include:

  - Reservations/bookings;
  - Create, view and manage My Profile;
  - View sailing schedules and status (dynamic);
  - View sailing prices;
  - View terminal information:
    - General terminal information (directions, phone number, etc.);
    - View current conditions;
    - View terminal webcams;
    - Receive terminal notices (opt-in);

- View vessels Information:
  - Amenities, capacity, size, etc.;
  - View vessel floor plan;
  - View vessel tracking (geo-location on its route, with estimated time of arrival);
  - Receive vessel security notices (opt-in); and

- View My Trips.

http://www.youtube.com/watch?v=JffZMaeyj4M

- **App 2: Drop Trailer Tracking (Commercial) Application**

  Description: An application for BC Ferries' drop trailer commercial customers to view the status and movement of their trailers. This would include:
  - View my trailer status and estimated time of arrival;
  - Configure my alerts;
  - View my alerts; and
  - Receive alerts notices (as configured).

[Note that the Project Workgroup identified other potential areas for considering native apps for the mid and long term, but none were prioritized for development as they are all expected in one form or another to become part of the mobile website.]

BC Ferries Private App Store

In the context of possibly reusing business to consumer applications for employees, the Project Workgroup concluded that there was significant merit in building a private storefront for BC Ferries' employees to first access the business to consumer applications, and second to leverage the mobility environment and infrastructure for building internal secured and/or role-based applications.

In summary, a BC Ferries secured private App Store and mobile device manager would enable distribution of BC Ferries' public and private applications to employees. Such an investment would

provide benefits to vessels' crews, amongst others, who require such things as online training manuals, process and regulatory literature, and Canadian transportation laws at the tips of their fingers.

The strategy would be to increase the scope of the Digital Experience Strategy to put into place the BC Ferries private App Store as part of the infrastructure being built up for the business to consumer applications, and to leave it to Operations Departments to define the internal mobility applications strategy. [Note that such a decision to increase the scope has not yet been made, at the time of writing this report].

6.11 Social Options and Recommendations

6.11.1 Social Context

The Project Workgroup dedicated an entire workshop to exploring the role social media should play at BC Ferries.

It started with the familiar refrain that more than a billion people use social media platforms daily and that BC Ferries needed to be there, and in particular, in the following:

- Facebook: More than 1.1 billion monthly unique active users. Best opportunity for community building with customers.
- Twitter: 271 million monthly unique active users. Best tool for interacting in real-time.
- Pinterest: More than 70 million monthly unique active users. A viral platform for sharing stories via pictures.
- TripAdvisor: 260 million monthly unique active users. More than 60 million travel reviews and opinions from travelers around the world. More than 90 percent of topics posted in the Trip Advisor forums are replied to within 24 hours.
- Youtube: More than 1 billion unique users each month. A video-sharing website owned by Google, in which users can upload, view and share videos.

The Project Workgroup asked itself why BC Ferries needed to be engaged in social media and reflected on many of the typical reasons provided:

- Social media provides customers an avenue to voice their opinions with respect to various products or services;

- Social media is not only friendly but also offers a much simpler avenue to respond to the concerns raised by customers;
- Making use of social media boosts dependability and also constructs the corporation's image;
- Customers expect organizations to get into the social media arena and believe that it is no longer adequate to simply have a website;
- Social media enables customers to link with numerous people from all-around the globe and share their BC Ferries experience ;
- Social media enables companies to leverage the viral effect created by customers acting as "trusted advisors" in their own social space;
- Social media allows companies to instantly influence brand awareness, increase customer interaction as well as generate customer acquisition;
- Social media is really a core component to facilitate the propagation of viral marketing; and
- Social media supports boosting sales as well as maximizing the number of customers.

6.11.2 Social Benefits

The Project Workgroup refined the list to come up with the following main reasons that BC Ferries should integrate social media into the fabric of the organization:

- Provide timely and relevant information;
- Maintain top-of-mind awareness with existing customers (i.e. every time BC Ferries tweets or uploads a picture, all of BC Ferries' friends see it on their social feed);
- Build stronger relationships with customers by engaging in conversations;
- Leverage the experiences of its million+ customers to tell their stories to others;
- Introduce BC Ferries to potential new customers;
- Obtain feedback in order to help improve service;

- Leverage the insight of customers, staff, partners and shareholders;
- Meet expectations for social responsibility and support for local tourism and commerce; and
- Monitor what others are saying about BC Ferries.

The Project Workgroup concluded that social media is an integral part of the end-to-end sales process and that users navigate in and out of social media networks in search of information to make a buying decision. Further, the Project Workgroup recognized that there are customers who appreciate BC Ferries and who, after their trips, are ready to provide real-life experiences, videos, pictures, references, comments, ratings and more that will help influence the buying decisions of others. In other words, many customers are proud to share their stories and to become unofficial ambassadors of the company.

Naturally, integrating social media networks into the BC Ferries site adds pressure on BC Ferries to offer top quality service across each of its product lines, but the benefits were believed to clearly outweigh any risks as the BC Ferries experience and destinations consistently rate very well. It was also recognized that present or not, poor service would come out through social media anyway.

What the decision means in terms of concept is that social media needs to be integrated into the fabric of the site, particularly in strategic areas where a customer comment, rating or picture can help make the difference between a user buying now and a user going to browse for travel elsewhere.

While social media is evolving at a pace that could make today's conclusions seem archaic by the time this Strategy is ready to go into production, the following are the most important elements retained by the Project Workgroup for consideration as part of this Strategy, at this time.

6.11.3 Social Functionality

The Project Workgroup identified the following functionality as essential for BC Ferries to leverage social media:

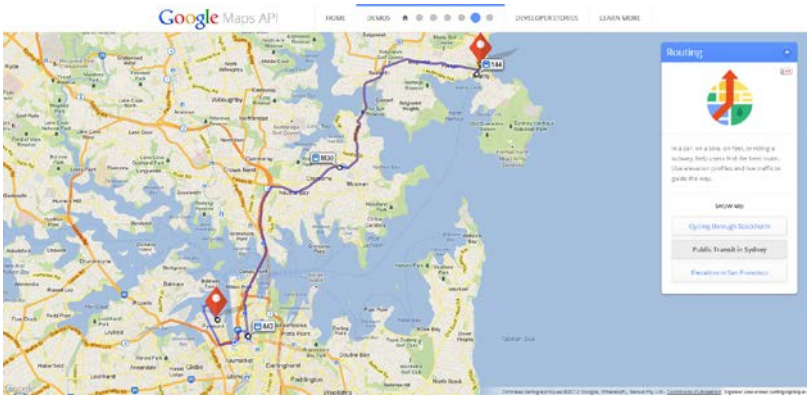
- Contextual social (i.e. aligning ratings, comments, and other social media content in tactical places on the site in order to help a customer decide);
- "Pop-up-like" incentives to promote social media recommendations;
- Upload and share "my experiences" on BC Ferries site;
- Share and "Like" various BC Ferries user generated content such as images, videos and descriptions with various social networks, such as Facebook, Pinterest and Youtube;

- Promote and leverage social media e-commerce capabilities that are increasingly being offered by social media networks to increase sales;

- Independent ratings and social media content (e.g. Trip Advisor) ;

- Invite BC Ferries' site visitors to join BC Ferries' social media pages (e.g. Facebook, Twitter, etc.); and

- Delivering the BC Ferries sailing schedule into Google Transit (as per the image below) in order to maximize geo-coding integration with various collective transports.



6.11.4 Social for Other Purposes

BC Ferries is already monitoring what is being said about BC Ferries in social media networks and responding as required. Further, there are expectations of rapid communications through the appropriate networks when something out-of-the-ordinary occurs. As social media evolves, BC Ferries will need to constantly review its participation and engagement and make the necessary changes to its strategy and tactics.

[Note that the Project Workgroup identified other potential areas for considering social media integration for the mid and long term, but none were prioritized for further investigation as they were not critical for first phase implementation and, by the time the site is ready to go live, the ground may have shifted considerably.]

6.11.5 Protection of Privacy Requirements for BC Ferries Social Media Sites

It is important to note that social media tactics and communications must be designed in alignment with the FOIPPA, the CASL regulations, and other laws or guidelines that may apply to BC Ferries at the time of production.

7. TARGET USERS, JOURNEYS, HIGH LEVEL CONCEPTS AND STORIES

7.1 Target Users

BC Ferries' target users are made up of types that require their own interface and/or that involve significant differences in functionality (i.e. require alternative booking flows).

From the list of traveller types presented earlier in Section 4.1, the following user groups are identified as those for which an interface and functionality will be developed, and upon which other users and groups are expected to leverage for their own needs.

- **British Columbian Commuters and Travelers** – generally referred to as "regular" users who need easy and quick information to book their trip, no hassle, best deals, and availability. This user group includes:

  - Business Trips – Corporate: These are defined as people travelling on company expenses for business reasons. Typically, they would be business people with recurrent but irregular travel requirements;

  - Small Business / Tradespersons: These are defined as small business employees and owners and independent or contract tradespersons who are likely travelling regularly over perhaps a short, long term, or extended period for a specific project or an enduring business purpose;

  - Commuters – Work and Business: This group consists of people travelling from home specifically to their place of employment. They share similar behavior patterns to the small business segment; however they will tend to travel more frequently with greater regularity and an increased propensity for walk on;

  - Commuters – Students: Students travelling regularly for the purpose of attending school or university, as distinct from students travelling for a school function;

  - Commuters -- Personal Reasons: Passengers travelling for personal business reasons. This could include dental or medical services and treatment, financial business or other personal matters;

- Visiting Friends and Relatives – Passengers who are travelling primarily to visit family and friends as opposed to other forms of vacation travel or travelling for events;

- Seniors – This segment can be thought of as those individuals who are now retired and are empty-nesters with the freedom to travel as they like or can afford. A subset of this segment is individuals over 65 with British Columbia residency that pay a reduced passenger fee when travelling on certain days under the provincial government's Senior Discount Program;

- Events – Passengers travelling for specific events such as sporting events or concerts; and

- Shoppers – Customers travelling for the primary purpose of shopping.

- **Vacationing/Tourists** – Passengers travelling for vacation where the British Columbia destination is also a component of the vacation experience. For example, a Vancouver Island passenger visiting Vancouver for a weekend and staying at a BC Ferries partner hotel would be in this segment, whereas a passenger taking a ferry to access Vancouver airport and continue directly to the onward destination would not. Generally, these users need a lot more information in the form of pictures, offers, directions, ratings, opinions, booking services, etc. to make their vacation decision.

- **Commercia**l – Generally referred to as "commercial" users who need functionality to book and manage their fleet:

  - Live Commercial "Show 'n Go" – Typically, the same functionality as regular users. There are generally two types:
    - Owner Operators; and
    - Small and Large Companies/Shippers;

  - Live Commercial "Reserved" – Typically, the same functionality as regular users, although they may benefit from additional payment options (such as "billing");

  - Live Commercial carrying livestock – Need additional functionality in the form of clearance to priority load and perhaps special placement on the vessel;

  - Commercial Drop Trailer – Need functionality to manage their reservations, as well as critical functionality to track the progress of the trailers;

- o Commercial Drop "Hot Shot" – Need functionality in order to priority load; and

- o Regular Commercial – Typically, a regular customer whose vehicle does not qualify for regular rates (e.g. a Winnebago) and who is treated as commercial customer simply from a pricing perspective;

- Tour Bus Operators, Travel Agents and Groups – Need an interface and customized functionality to manage special third-party and group bookings.

- Site Administrators and Marketers – Need an interface for site administrators to manage content, metatags, catalogue data, scenarios (for personalization), campaigns, and surveys.

- General Public, the Media, Stakeholders and Government – Need an interface to access general corporate information.

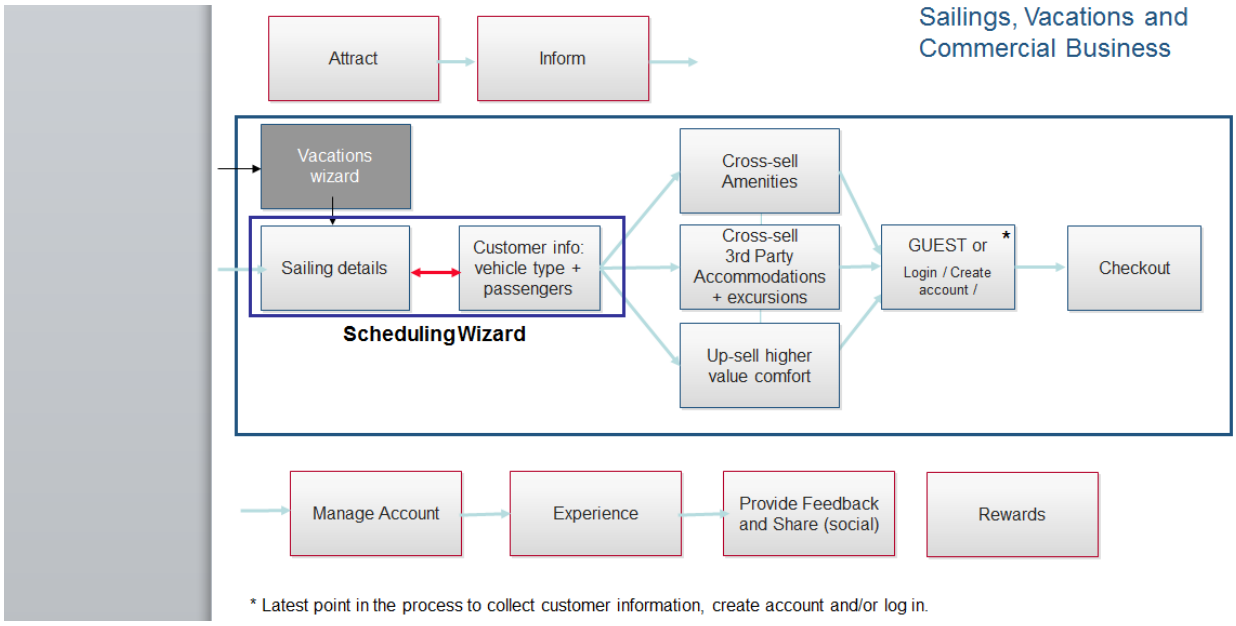
- Systems – need integration to third-party systems such as Google Transit.

7.2 User Journeys

BC Ferries user journeys were defined by the Project Workgroup in order to help identify the main customer scenarios for which BC Ferries needs to plan and build. The user journeys are made up of a core buying process (a process common enough to be shared by all), core journeys to reflect a typical scenario for each of the main target user groups listed in Section 7.1, sample journeys for each of the main target user groups, and other journeys to be considered when elaborating the high level requirements.

7.2.1 Core Buying Process

The core buying process generally represents the common buying process (i.e. common set of pipes) to be used for any type of transaction at BC Ferries. It is important to streamline and to design a core buying process in order to keep development costs down.

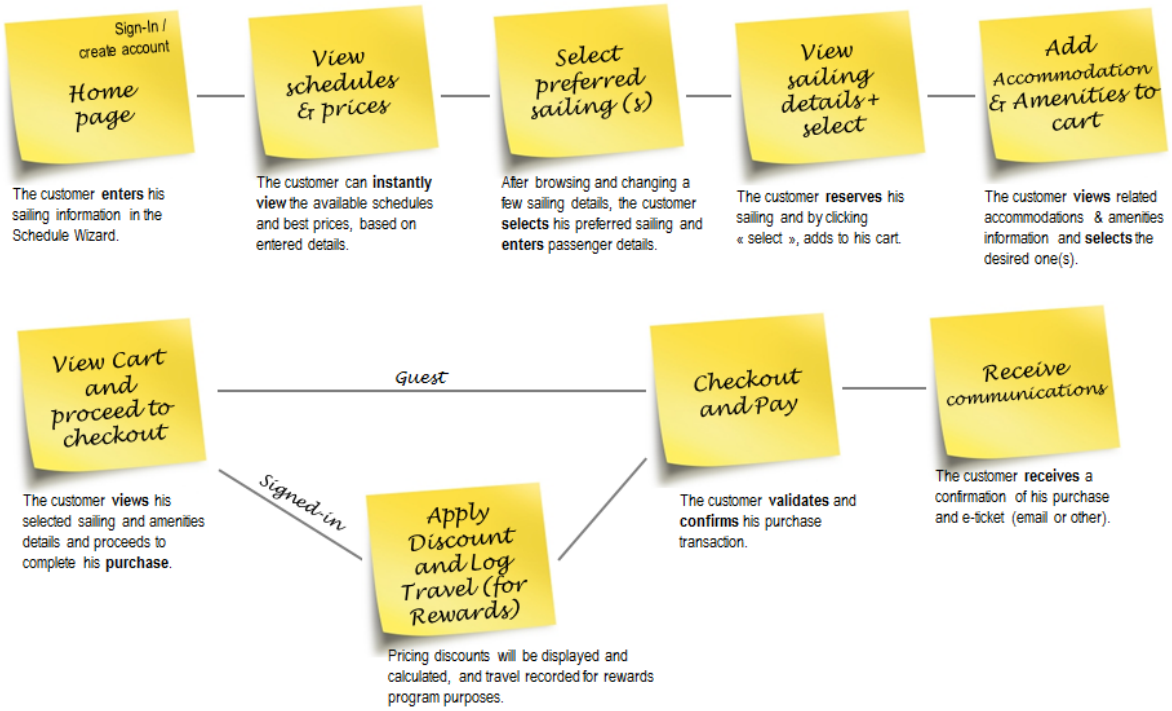


7.2.2 Core Journeys

The core journeys generally represent a typical scenario for each of the main user groups above:

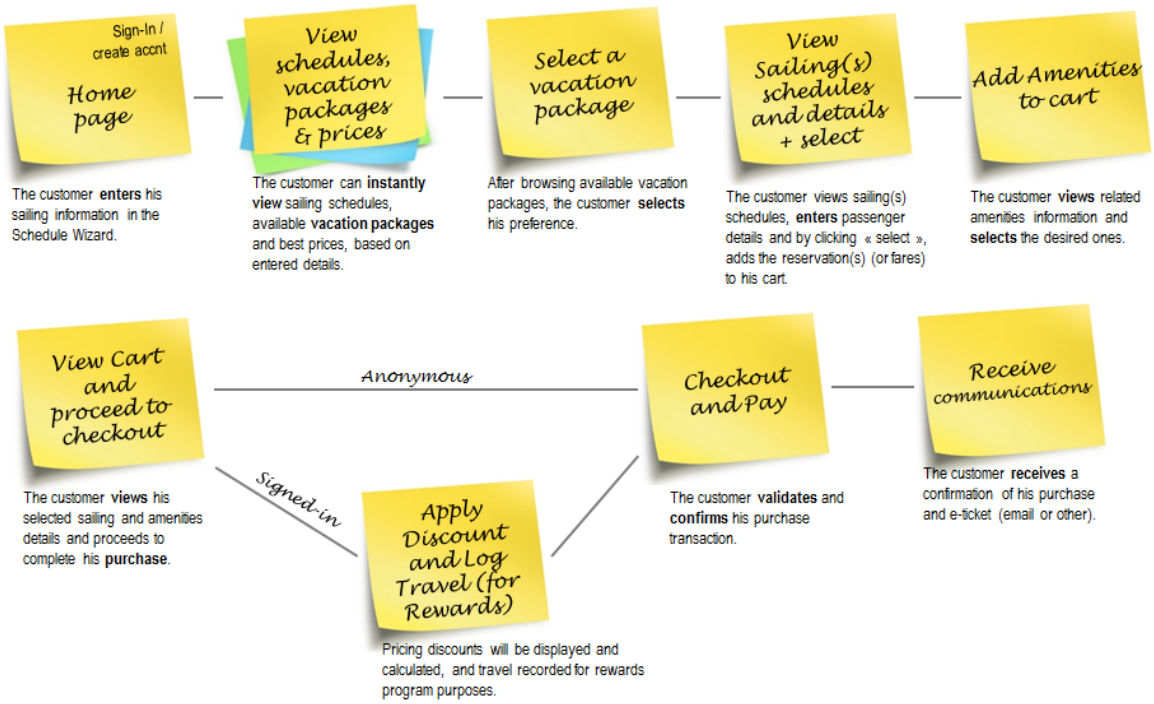
BC Commuters and Travelers – Core Journey

RJ0« As a regular BCF ferry user, I would like to book a sailing ».



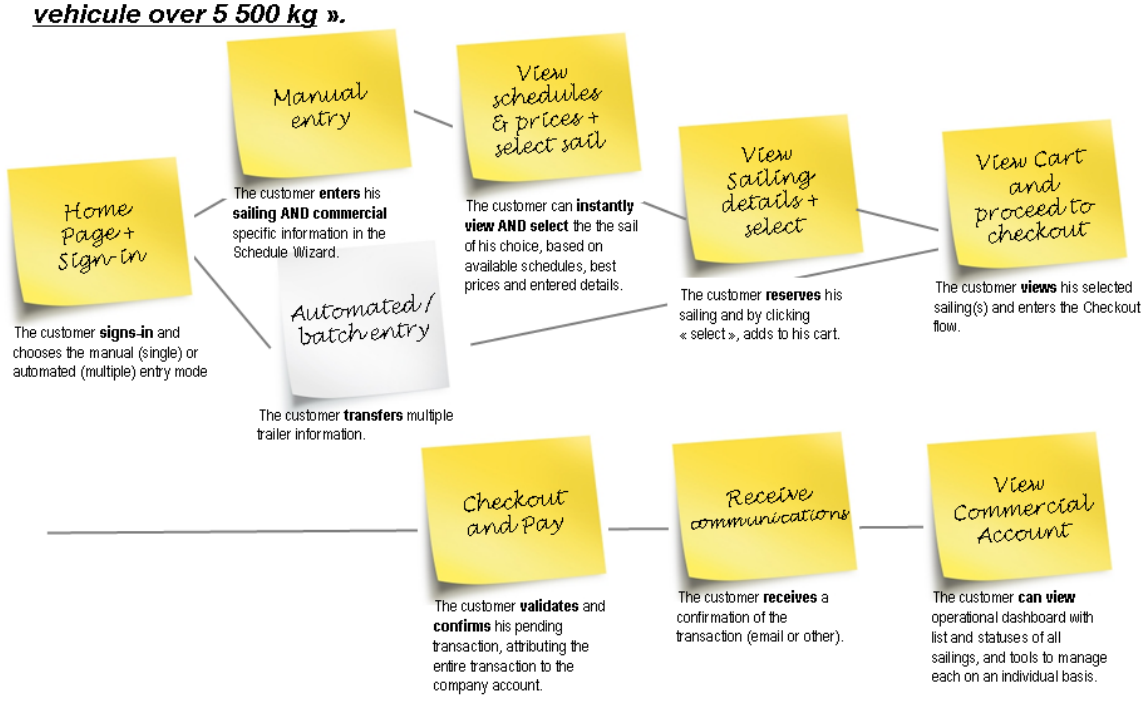
Vacationing / Tourists – Core Journey

VJ0« As a frequent BCF ferry user, I would like to book a "Vacation Package ".



Commercial – Core Journey

CJ0« As a frequent BCF ferry user, I would like to book a commercial sailing with a vehicule over 5 500 kg ».



Tour Bus Operators / Travel Agents / Groups

As a tour operator or Travel Agency, my tour group is sailing on a specific date but would like to specifically select a sail on the "Spirit of BC" as we are looking to purchase access to the Pacific buffet as well as SeaWest lounge. As we had many customer in the last month, I'd like to verify my billing account statement and see if there are any discount incentives available for my customers this week.

7.2.3 Key Journeys

Key journeys generally reflect a typical scenario for each of the subgroups above. They are illustrated and available as a separate artifact to this project.

7.2.4 Other Journeys

Finally, other journeys (and there could be hundreds) are simply listed so that they are not forgotten when it comes time to generate the high level requirements. They are also available in the separate artifact to this project (noted above).

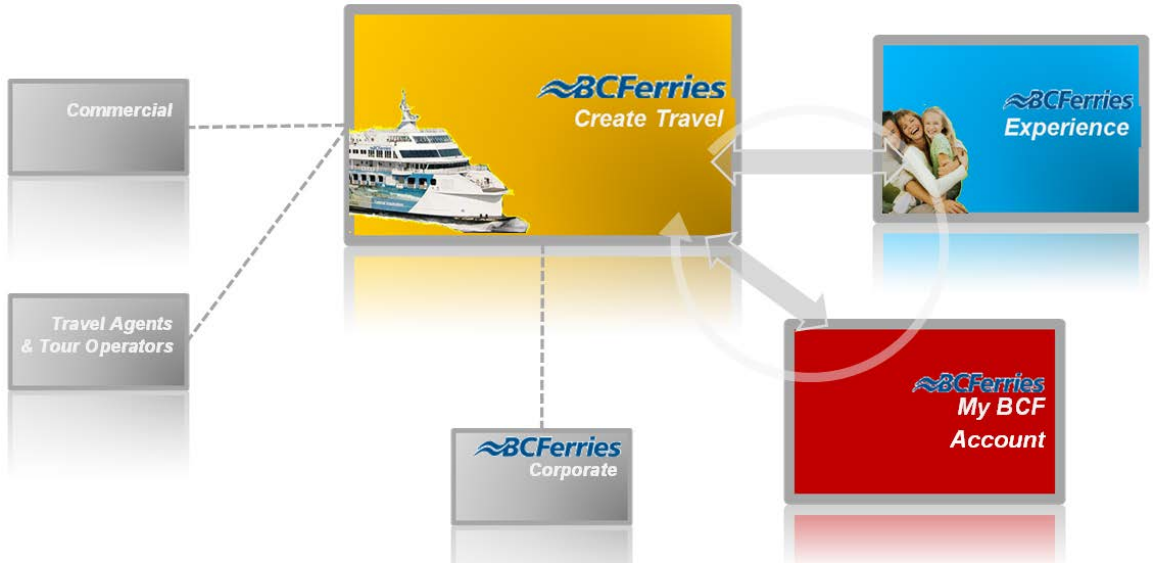
7.3 High-Level Concepts

During the workshops, a number of high-level concepts emerged regarding how customers should be able to interact with BC Ferries in the future. In order not to lose any of the ideas, the concepts were documented and are to be considered as the starting point for the conception/elaboration phase.

7.3.1 Multi-site BC Ferries ecosystem

BC Ferries' current ecosystem is made up of a single website trying to be everything to everyone. During one of the workshops, a concept emerged in which BC Ferries would host an ecosystem of sites, each dedicated to delivering an important part of the seamless intuitive customer experience,

none of which having to compete with the other for attention or space. The redistribution looked as follows:



In summary, the redistribution included the following:

- A BC Ferries Home Page ("Create Travel" in the illustration above) that would feature the main purchasing flows for those who know exactly what they want to buy in terms of sailings, on-board amenities, vacations packages, accommodations, excursions and other types of transportation. It would also feature prominent links to key operational content such as current conditions or schedules, as well as other key graphic elements that enable weather-related and/or operation -related postings.

- A new BC Ferries Experience section would showcase the BC Ferries fleet, on-board amenities, terminals, and destinations to customers and encourage them to travel with BC Ferries more often.

- A more personalized and dedicated manage My BC Ferries Account section for existing customers to manage their account, their profile, their travel arrangements, their travel cards, their alerts, and their preferences. A new My BC Ferries Account would provide significant advantages to registering, including fast-track bookings (by applying pre-set personalized preferences), discounts and incentives.

- A new section dedicated entirely to Commercial business, allowing commercial operators to manage their bookings and accounts, reducing contact time for key accounts.

- A new section dedicated to Travel Agents and Tour Operators, allowing such partners, in the future, to transact on behalf of their customers and to manage their bookings and accounts that will also reduce contact time for key accounts.

- A corporate section presenting corporate information.

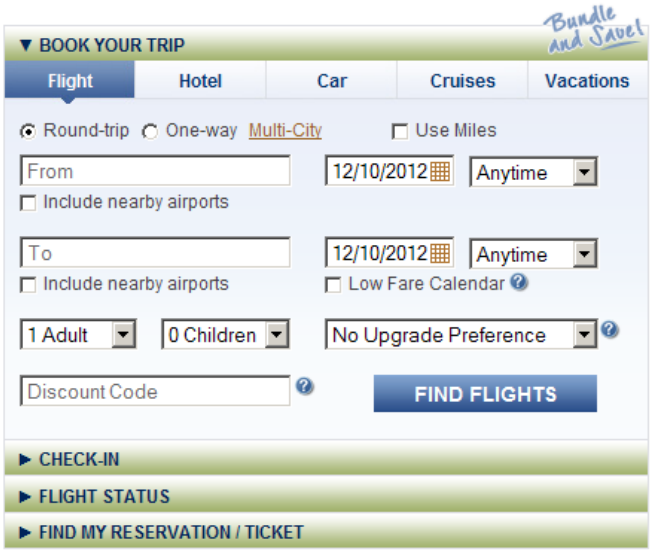
- In order to ensure good ranking for BC Ferries in the search engines, preliminary thoughts regarding URLs would be to keep the core URL for all, and expand as follows:
  - Home page: **www.bcferries.com**
  - Experience Section: **www.bcferries.com/Experience**
  - My BC Ferries Account: **www.bcferries.com/MyBCF**
  - Commercial: **www.bcferries.com/Commercial**
  - Travel Agents and Tour Operators**: www.bcferries.com/Partners**
  - Corporate Site**: www.bcferries.com/Corporate**

7.3.2 A Reservations Compromise

BC Ferries has spent a considerable amount of effort over the past year modifying its online reservations buying flow in order to address the issues with it. Unfortunately, like many others, it is caught in a generational gap in which some prefer the wizard approach (with a limited number of clicks) while others prefer a more traditional sequential flow (regardless of the number of clicks involved).

BC Ferries customers have identified wizards they like as a model during a first round of Habanero Usability Findings[10] (e.g. Alaska Airlines), and the Project Workgroup identified others such as Kayak and Expedia that may be worth another look when it comes time to designing for the next site.

[10] Habanero Usability Findings, March 5, 2012



On the other hand, the Usability Findings – Round 2 [11] recorded a number of very dissatisfied customers relating to the reservations wizard being proposed by BC Ferries, which caused BC Ferries to go back to the drawing board for its current Express Reservations functionality launched in early 2013.

The reservations flow and wizard concept will need to be investigated further during conception phase in order to determine whether the new Express Reservations functionality is the proper compromise, or whether additional refinements or rethinking need to take place.

7.3.3 A Combined Schedule, Current Conditions and Reservations Design

Currently, sailing schedules, current conditions and reservations are three separate independent features of BC Ferries' website, even though all three are fundamentally based on the same sailings information.

Specifically, sailing schedules are presented as static content from the CMS (as well as available in .pdf), current conditions are offered real-time (i.e. percentage filled for each route), and the reservations functionality taps into the booking system for the list of routes that can be reserved.

From a development perspective, there may be an opportunity to combine the three functionalities into one development, even though they still need to be presented as separate customer-facing functionalities.

[11] Habanero Usability Findings – Round 2, March 21, 2012

This potential for combining these three key components of the site will need to be further investigated during the design stage of the project.

7.3.4 Price Comparison Tool

When the differentiated pricing model proposed in the Fare Flexibility and Revenue Management Strategy comes into effect, customers will have the opportunity to choose non-peak sailings in exchange for lower rates. (Note that for BC Ferries, the change will mean that it can make better utilization of its fleet and staff.)

For the shopping experience to be pleasant and effective, customers must have access to a price comparison matrix, similar to what was first introduced by Lufthansa in 2007, and quickly copied by other travel companies (including Expedia and Kayak).

Fares shown are the best available matching your filter selections. close

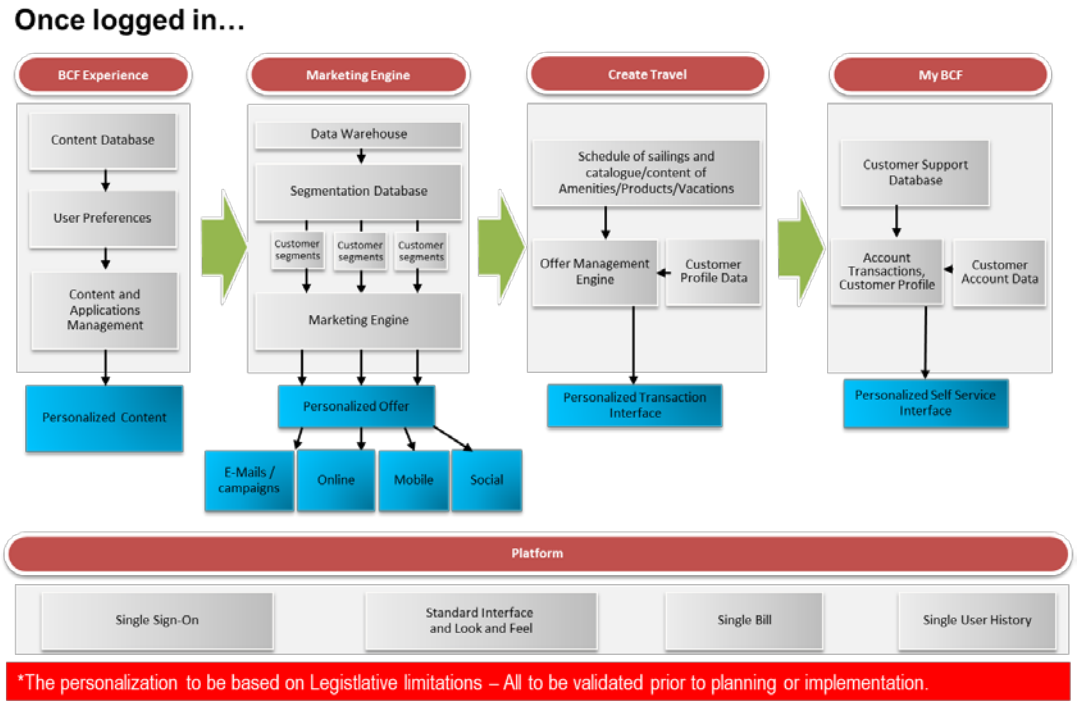
Return → / ↓ Depart	Fri 12/28	Sat 12/29	Sun 12/30	Mon 12/31	Tue 1/1	Wed 1/2	Thu 1/3
Fri 12/21	$1198	$1131	$1070	$996	$996	$1009	$1009
Sat 12/22	$1399	$1333	$1271	$1198	$1198	$1210	$1210
Sun 12/23	$1260	$1195	$1132	$1059	$1059	$1071	$1071
Mon 12/24	$972	$985	$923	$850	$850	$862	$862
Tue 12/25	$897	$910	$848	$775	$775	$787	$787
Wed 12/26	$1172	$1107	$1045	$972	$972	$984	$984
Thu 12/27	$1334	$1268	$1207	$1132	$1132	$1145	$1145

The concept may need refinement by BC Ferries in order for the matrix to not only feature days but also times of day, but it is a must-have requirement for the future site.

7.3.5 Personalization

Personalization has been proven to help increase online conversion rates, and to increase sales. Personalization can take on many forms however, some with minimal effort and very easy to accomplish, while others are more difficult and, in some cases, very labour intensive.

The following diagram summarizes the areas of personalization retained for BC Ferries that need to be incorporated into the design during the conception phase.



In summary, here is what personalization means for BC Ferries:

- Personalized Content: Website, email, mobility and/or social media content that are delivered based on the customer's profile, buying habits and behavioral profile. For instance, present the rules surrounding pets to a customer who has transported pets in the past.

- Personalized Offers: Website, email, mobility and/or social media offers that are delivered based on the customer's profile, buying habits and behavioral profile. For instance, show a romantic weekend get-away for 35 year old female and a Seawest Lounge offer to a frequent business traveller.

- Personalized Transaction Interface: Reservations and buy flows that are pre-populated based on the customer's profile and preferred settings. For instance, pre-populate the entire transaction based on the user's profile and favourites settings (i.e. I always travel Victoria-Vancouver-Victoria), leaving only the date fields to select and two buttons to click (i.e. "Buy" and "Confirm") for the customer to Checkout.

- Personalized Self-Service Interface: Presentation of a user's account that contains features that are personalized and relevant. For instance, a customer with an upcoming trip should be invited to receive information alerts related to his trip, shown relevant current conditions, content and cross-selling offers for that destination, and receive a personalized offer based on their BC Ferries travel frequency and patterns.

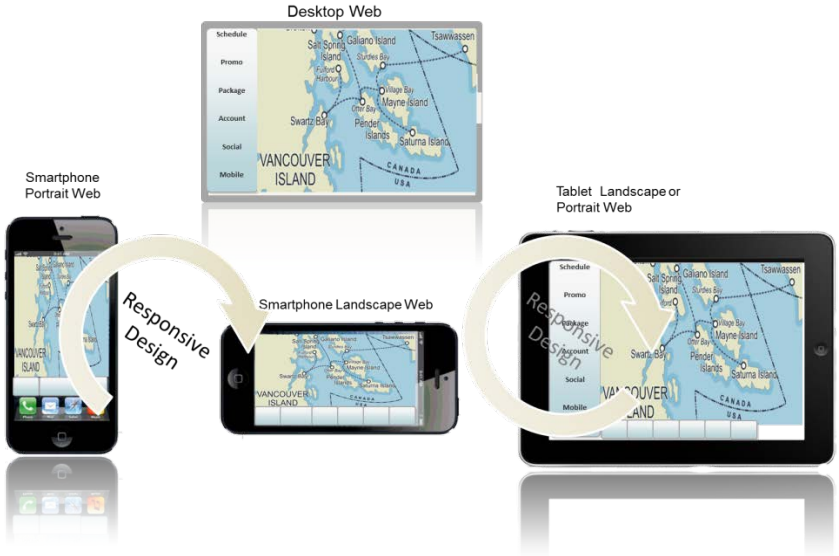
- It will be important to ensure the site is designed with personalization in mind, with a personalization engine in place, and with placeholders created and reserved for future use.

Note: Personalization needs to meet legislated FOIPPA and CASL requirements in particular as it relates to obtaining consent and using private customer information.

7.3.6 Emerging and Responsive Web Design

The Project Workgroup identified two important concepts relating to web design that it expected to be incorporated into the BC Ferries site:

- Responsive Web Design: Responsive web design (often abbreviated to RWD) is an approach to web design in which a site is crafted to provide an optimal viewing experience – easy reading and navigation with a minimum of resizing, panning and scrolling – across a wide range of devices from desktop computer monitors to mobile phones to tablets. This concept was discussed as a strength of mobile websites (in Section 6.10.3) in order to ensure that the site is developed once and available across all devices.

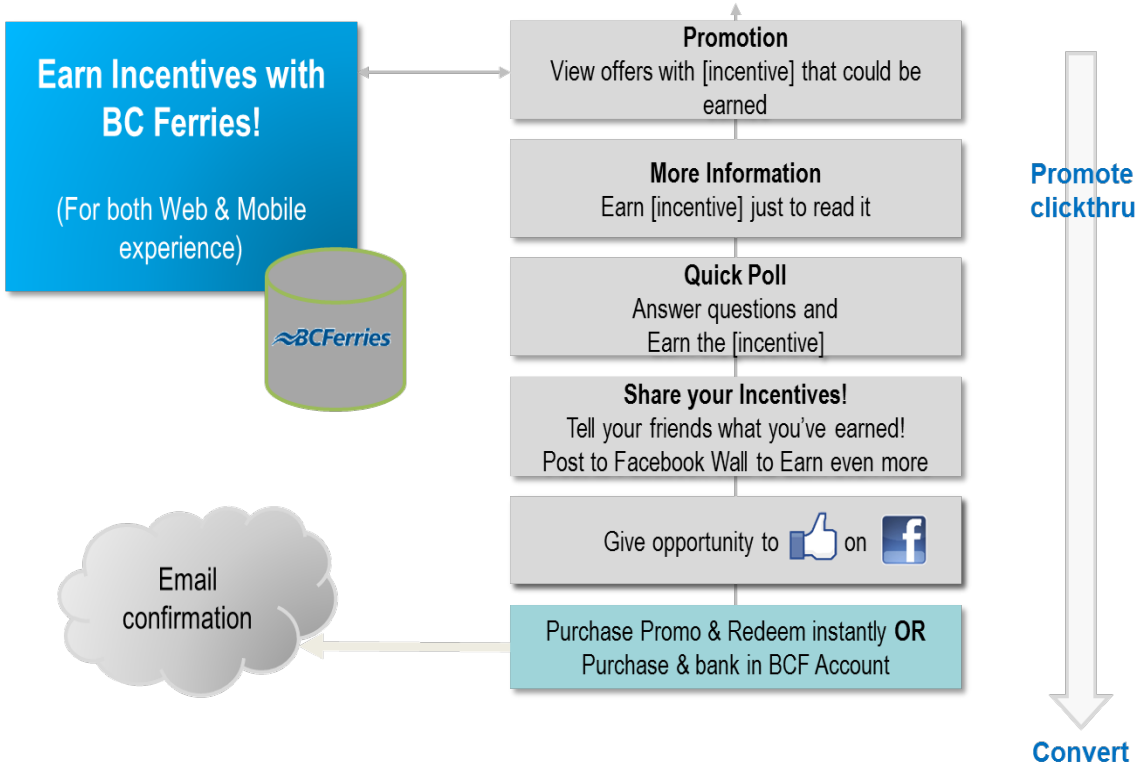


- Emerging Design Patterns: Emerging design patterns is an approach to web design in which a site is designed as if it were a tablet with a touch screen first, and then applied back to the web and mobile. In other words, the site is thought of from the touch and swipe perspective and not simply the point and click perspective. The experience is one in which pages and sections flow easily from one to the other, rather than hard clicks that give the impression the user is clicking from one physical location to another. An example of this, which won the 2012 Interactive Design Boomerang Award, is Videotron. (http://www.videotron.com/residential/telephony#)

7.3.7 eMarketing Campaigns

In order for BC Ferries to capitalize on the kinds of digital marketing strategies that have been proven to work elsewhere in the travel industry, certain marketing tools were identified by the Project Workgroup as essential to the Company's growth and success.

A sample online marketing campaign was therefore elaborated in order to get a common view of what such a campaign looks like and what it would entail in terms of tools.



In summary, BC Ferries requires the ability to do the following:

- Publish offers/promotions on and off site;
- Push offers/promotions through email (i.e. through customer relationship management);
- Personalize offers/promotions (when customer profile or behavioural data is available);
- Reward users who provide valuable insights on them or their desires (i.e. polls/surveys);
- Incent users to click thru to a dedicated micro-site (i.e. templates);
- Enable users to purchase offer/promotion and to redeem the incentive; and
- Engage users to share in social media networks (i.e. integration with main social media networks like Facebook).

The tools required have been included in the high level requirements.

Note that eMarketing needs to meet legislated FOIPPA and CASL requirements in particular as it relates to obtaining consent and using private customer information.

7.3.8 Dashboard for Commercial Customers (including those transporting livestock)

Two breakout sessions were organized with the BC Ferries Commercial Team in order to gather commercial needs. One main concept emerged, that of dashboard to manage commercial reservations.

The dashboard would be used by customers' dispatchers to manage their fleet reservations, and it could be accessed directly through BC Ferries' website or, for larger customers, could be embedded into the customer's systems through systems integration.

The same dashboard, with consolidated information across all its customers, could possibly also be used internally by BC Ferries' Customer Service representatives, field personnel, billing staff, as well as by Terminal operations. [Note that internally-facing interfaces are out-of-scope for the current project].

The dashboard would include search functionality, such as:

- Basic search for customers to find a reservation based on a bill of lading ("BOL") or other tracking number;

- Advanced search for BC Ferries to find customers, vehicles, etc.;

- Functionality to create bookings including:
  - A method to reserve single one-way, return and multi-route sailings;
  - One or more methods to perform a bulk upload of reservations;
  - A workflow tool to accept/reject/propose a sailing on a truck-by-truck or trailer-by-trailer basis;
  - functionality to view and manage bookings. For instance, for each vehicle, the user would have the ability to view (and if they had the rights) to modify a booking. The information on each booking could include the following:
    - Truck or trailer information;
    - Equipment number;
    - Length;
    - Priority;
    - Sailing route;
    - Sailing date and time;
    - Traffic advisories;
    - Tracking number (BOL);
    - Placard information;
    - Dangerous goods information;
    - Creation of a BOL form;
    - Status.

- Ability to set notifications on a truck-by-truck or trailer-by-trailer basis as well as to view and manage account billing.

7.3.9 F-Commerce

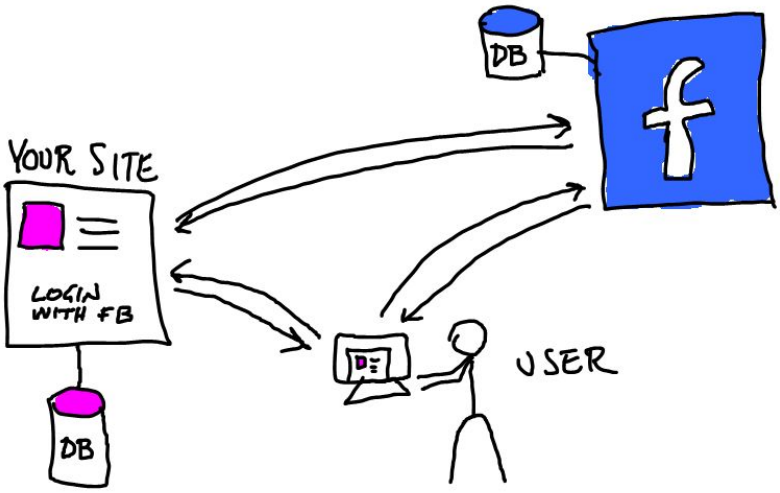
Facebook commerce (f-commerce) refers to the buying and selling of goods or services directly through Facebook by integrating a retailer's e-commerce platform and buying flows right into the social media network platform. It is the biggest game changing idea on the horizon for the web. [Note that the same concept is emerging for Twitter (t-commerce) and others.]

Victoria's Secret and Niemen Marcus have already succeeded in the integration using their ATG Commerce platform and it is simply a matter of time before more try to make a business of it, and that a new channel for direct e-commerce is born.

Note that the integration referred to here is not about hyperlinks but about full integration of the social media network platform and the company platform offering a seamless experience to the customers who think they are still on Facebook but they are actually transacting on the retailer's site.
It is recommended that BC Ferries watch the development of this new capability, including stories about its effectiveness, and to be ready to react if required.

7.3.10 Not Retained as a Concept - Facebook Single Sign-On

Facebook single sign-on simplifies registering and log-on processes onto a website by using Facebook credentials for any site chosen by the user. In exchange for the service, profile information that Facebook has on the customer would be accessible to BC Ferries, and profile information BC Ferries has on a customer must be made accessible to Facebook.



The two principal reasons customers would subscribe to the service would be 1) to obtain a seamless single-sign-on experience from social media networks to the BC Ferries site and back, and 2) to obtain a more personalized experience when they visit the different sites.

The simple reason for BC Ferries not to consider Facebook single sign-on is that BC Ferries cannot relinquish site security to a social media network nor share private information with third parties. In other words, the Project Workgroup members were unanimous in agreeing that customers must always be prompted for their BC Ferries password and that BC Ferries would never share user profile and transactional information with the social media networks.

While the prospect of building such bridges with social media networks may have some advantages, the Project Workgroup concluded that such tight coupling was not in the interest of BC Ferries and its customers, would not meet FOIPPA and CASL regulations, and that BC Ferries must restrict itself to normal interactions with social media networks using regular links and application program interfaces.

7.4 User Stories and Sub Stories

The Workgroup sessions helped in gaining an overall view of what BC Ferries expects from the Digital Experience Strategy, and the detail of many of the conversations have ended up in an .xls spreadsheet of user stories and sub stories that is available as a separate project artifact.

The user Stories and sub stories represent a first pass at defining high level requirements for the website and should be considered 80 percent complete. It is an important artifact that provides a starting point for reviewing customer needs once BC Ferries is ready to proceed with implementation.

Note that the user stories and sub stories have been aligned wherever possible with the ACE Program, including integration points.

BCF WebSite Software Upgrade Project Stories -- CUSTOM
Date: 2012-12-28

Level		Criticality		Target Properties by Phase (P1, P2 or PN): Create Travel	Experience	MY BCF Account	Commercial	Partners	Corporate	Email Req.
0	Attract		From a BCF perspective, "Attract" generally reflects the requirements for supporting offsite marketing activities. From a customer perspective, it generally needs to answer "Where can I see more information on this sevice you are offering to me?"							
1	Marketing/Communications Requirements									
2	View email Marketing Campaigns	must have	Requirement is to Build, Buy or Partner with a Third-party for an eMail Marketing tool that allows BCF to send targeted and personalized offers, newsletters, communications, etc....							
3	View email		User receives a personalized email, including relevant information and offers.	x	x	P1-R2	P1-R2	x	x	x
3	Click on a link		User is redirected to the BCF website, to the proper page, and at the proper place on the page.	x	x	P1-R2	P1-R2	x	x	
3	Click on an offer		User is redirected to a Bridge page that presents offer details and that applies embedded discounts and/or promotions to the cart.	x	x	P1-R2	P1-R2	x	x	
2	View Basic Offers and Campaigns	must have	Requirement is for Marketing to have the ability to display offers on the site and to be able to redirect users to a bridge page to see specific details related to the offer.							
3	View offer		Customer Views an offer onsite (or offsite) and clicks on it.	P1-R2	P1-R2	P1-R2	P1-R2	P1-R2	x	
3	View offer details		Customer lands on a specially-designed bridge page developed by Marketing and views detailed information relating to the offer.	P1-R2	P1-R2	P1-R2	P1-R2	P1-R2	x	
3	"Like" the offer		Customer has the opportunity to "LIKE" the offer and for it to be posted on their Facebook (and other social networks)	P1-R2	P1-R2	P1-R2	P1-R2	P1-R2	x	
3	Select the Offer		User selects the offer and it redirects him into the purchasing flow, that recognizes the promotion and prepopulates the items and relevant discounts.	P1-R2	P1-R2	P1-R2	P1-R2	P1-R2	x	
2	View Advanced Offers and Campaigns	like to have	Requirement is to build on the Basic offers and Campaigns functionality by building in a tool for polling							
3	View offer		Customer views an offer somewhere (onsite or offsite) with an offer or incentive that could be earned if the user answers a quick poll.	x	PN	x	x	x	x	
3	Participate in quick poll		Customer answer quick questions and earns a portion of total promotion incentive, just by answering it	x	PN	x	x	x	x	
3	Share on Facebook and earn more		Customer may earn more incentives, just by sharing on facebook the promotion and earned incentives.	x	PN	x	x	x	x	
3	"Like" the offer		Customer has the opportunity to "LIKE" the offer and for it to be posted on their Facebook (and other social networks)	x	PN	x	x	x	x	
			Customer is offered to redeem the incentives won by doing an immediate							

Title | CustomerMatrix

ANNEX 1 – CURRENT BC FERRIES WEBSITE FEATURES

The following diagram illustrates the features of the current BC Ferries website (circa December 2012) and their access points from the BC Ferries home page.

< >

ANNEX 1a – CUSTOMER NOTIFICATIONS (eMails and SMS)

While customer notifications are an important part of the current strategy, it has been assumed that they will be offered as a service by the ACE Program. The notes below are intended to summarize the comments from the Workshop on the subject.

CURRENT SITUATION:

- Email notifications are sent to customers who create or change myBCFerries accounts. Notifications are also sent to people who subscribe to receive Service Updates, News Releases, Freedom of Information Updates, Business Opportunities and Marketing eNewsletters.

myBCFerries Accounts

- Email notifications are sent to customers who create new myBCFerries accounts, or change email address associated with pre-existing accounts.

- The purpose of these notifications is to have customers validate the new account or the account change.

- This is an automated process.

Service Notices and News Releases

- Customers create and manage subscriptions through their myBCFerries accounts.

- BC Ferries' Operations and Security Centre staff use the Release Centre interface to manage publishing and email distribution of Service Notices.

- BC Ferries' Public Affairs staff use the Release Centre interface to manage publishing and email distribution of corporate news releases.

- Subscriber support is provided by Customer Care and Web Services.

FOIPPA Updates

- Customers can subscribe to a notification service letting them keep track of corporate responses to Freedom of Information requests.

- Subscription requests are submitted by way of a simple online form.

- The subscriber list is managed internally by Corporate Affairs and Web Services staff as a stand-alone process.

Business Opportunities

- People interested in receiving information on business opportunities (RFPs, etc) can subscribe to receive notifications when new competitions are issued.

- Subscribers can manage their own subscriptions through the Business Opportunities section of the corporate website.

- BC Ferries' Supply Chain Management staff manages postings and email distribution.

- The service is provided using a stand-alone legacy application (integrates web publishing, email distribution and subscriber list management).

Marketing Information and eNewsletters

- Customers can 'opt in' to receive promotional information from BC Ferries when they set up a myBCFerries account.

- They can also subscribe using a different mechanism associated with the stand-alone BC Ferries Vacations website.

- Subscriber list management and distribution of marketing material (usually eNewsletters) is handled outside of the BC Ferries web environment, using third-party services contracted directly by the Marketing Department.

- Subscriber updates from the myBCFerries database are forwarded to the third-party provider prior to each email "blast".

Notification Monitoring

- BC Ferries' IT Sustainment group has a monitoring tool in place for Service Notice and News Release email distribution.

- The other notification services identified above do not have monitoring systems associated with them.

DESIRED FUTURE STATE

1. Account Creation: email or option text confirmation/validation if they choose

2. Order Confirmations: email, SMS

3. Service Notices: email (non pdf), SMS, social media

4. News Releases: email without link to pdf (rather HTML email or with link that opens HTML page so that people on smart phones can access easily

5. eMail "Blasts": email

6. Travel Advisories: same as service notices

7. Instant promos (terminal/vessels): SMS/email

8. Contests and other social media engagements: SMS/email

9. Personalized communications (outside of above promos): email/SMS

10. Surveys and Research: SMS/Email

ANNEX 2 – OTHER WEBSITES REFERENCED (OR CONSULTED)

During workshops, sites were cited as examples in relation to some particular feature or approach. Some of the sites discussed were:

- Brittany Ferries – because it offers the sale of both Sailings and Vacation packages in the same flow.
- UK Ferries – because of its efficient "tunneling" approach through checkout once a user has made their selection, including up-selling of amenities, accommodations.
- Red Funnel (UK) Ferries – because of its ease of navigation, information architecture and information completeness.
- Starbucks – because of their social media success.
- McDonald's – because of its dynamic FAQ's.
- City of Calgary – because of the strength of its search engine and its innovative google-like home page.
- Amtrak mobility site – because it represents the mobility application BC Ferries wants.
- Alaska Airlines – because of its reservations system.
- Air Canada – because of its aggressive campaign "of historic proportions" to get people to become "engaged" in their Facebook community.
- KLM – because of its Facebook promotions.
- Sears – because of its site personalization features.
- Videotron – because of its use of emerging navigation and design patterns intended to respond and display properly, regardless of the device.
- Vodafone – because of its multi-site set up and white-labeled partner network.

- Rio Tinto Alcan – because of its B2B Commercial Dashboard.

- Rogers Communications – because of its innovation with Searchandizing.

The exercise led to a consensus amongst the Workgroup members that BC Ferries wanted most to resemble the following:

- Westjet – because of the pleasant unencumbered home page focused on the core business (i.e. selling tickets).

- Virgin Atlantic – similarly, because of the pleasant unencumbered home page focused on the core business (i.e. selling tickets).

Appendix C: BC Ferries Website and Fares Customer Feedback

On The Web, Fares & Reservations

Customer Feedback

Overview of Customer Feedback

Category	Number of Comments	% of Total Comments
On the Web	1,929	11%
Fares	3,151	18%
Reservations	1,078	6%

- Design/usability and login/passwords were the most frequently commented on aspects of the website, mentioned in two-thirds of all On the Web feedback.
- Price elements mentioned in the majority of the Fares comments, with keywords “Discount”, “Senior” and “Experience Card” mentioned in one-third of all fares customer feedback.
- In fiscal 2014, 62% of Reservations comments relate to online reservations, while booking with an agent and IVR comments account for a combined 2% of comments.

On the Web: Comment Distribution

Group	Fiscal 2013	Fiscal 2013 %	Fiscal 2014	Fiscal 2014 %
Design & Usability	320	24%	233	40%
Login/Passwords	722	54%	145	25%
Information/General	106	8%	93	16%
Service Notices	92	7%	43	7%
Travel Planning	35	3%	44	7%
Current Conditions	41	3%	24	4%
Online Giftshop	25	2%	6	1%
Total	**1,341**		**588**	

- *In fiscal 2014, 85% of all ratings related to the website design and usability were rated either 'Bad' or 'Poor'.*

Fiscal 2013: April 1 2012 – March 31 2013
Fiscal 2014: April 1 2013 – March 31 2014

On the Web: Overview

Group	Most Frequently Mentioned Topics	Customer Feedback
Design & Usability	Mobile	Customer called to ask us to update the site to be more compatible for mobile devices. Customer stated site was very slow and information would not fully load on the screen.
		Made an account, activated it. Got logged out. Couldn't log back in. iPhone user. Since 28% of smart phone users have an iPhone, and I'd imagine the vast majority of casual travelers or one time travelers are using mobile devices, that's a very large number of users who are unable to access the service.
		I just wanted to take a minute to give you some feedback about your website. I was quite disappointed and frustrated this last weekend when I was unable to make a ferry reservation while travelling using my mobile device (an iPhone 4). Although you have a streamlined mobile site for schedules and some general info, I have the expectation to be able to make and change reservations while on the go. Even from a computer, your website is slow, finicky and could use some improvements. I would suggest that you update this soon. It will have to be done eventually as your customers will increasingly have the expectation for mobile access. Please just invest and get it done asap.
Design & Usability	System	“I am trying to book a reservation online and your system keeps getting stuck on the vehicle details page. Yes both buttons are pushed and it's not becoming green on the continue button. Ok I have added BC Ferries as a trusted website but it's still not working.”
		Regular customer called in upset that we are not fixing our website. He says he's been having trouble booking on our website for the last 6 months and every time he calls in he receives the same response "It's a known issue with Internet Explorer 11 that our IT team is trying to fix".
Design & Usability	Online	Customer found that the website wasn't clear on how he could change his reservation online. He booked under the 'no account' reservation field.
		“I have constant online issues with your website. It's the worst website I have ever experienced!"
Design & Usability	Process	Customer called to complain that the drop down for upcoming dates for the new schedules on the schedules page is not easy to find . Would like BC ferries to make finding upcoming schedules a more intuitive process
		"Hello! We just booked a reservation online for the first time, and we were shocked at how complicated you made the procedure. As someone who has structured websites for a living, I wonder if you are in fact trying to dissuade people from making reservations?...”

Fares: Comment Distribution

Group	Fiscal 2013	Fiscal 2013 %	Fiscal 2014	Fiscal 2014 %
Value for Fares Paid	309	21%	441	26%
Experience Card	217	15%	381	22%
Other Fares	219	15%	188	11%
Discount Fares	190	13%	176	10%
Refunds	114	8%	173	10%
Coast Card	193	13%	128	8%
Errors	70	5%	120	7%
Credit/Debit Card	26	2%	30	2%
Promotions	80	5%	30	2%
Frequent Travel	31	2%	26	2%
SailPass/CirclePac (Now Removed)	7	0%	2	0%
Total	**1,456**		**1,695**	

Fiscal 2013: April 1 2012 – March 31 2013
Fiscal 2014: April 1 2013 – March 31 2014

Fares: Overview

Most Frequently Mentioned Topics	Customer Feedback
Cost	"We were considering traveling this summer from Prince Rupert to Vancouver Island then from the island to Vancouver. The cost to transport a car and 3 people (one is 12 years old) is more than half the price of a 7 day Alaska Cruise for 3 people…"
	"Please pass on my deepest concern to the administration who makes these decisions that the latest fare hikes to and from Vancouver Island will mean a further reduction in our family and friends travelling on BC Ferries. I have been a user of BC Ferries since its inception and a lifelong taxpayer in British Columbia. The fares are so exorbitant for personal users (not on expense accounts) now that my trips to the Lower Mainland will become even more infrequent. And family and friends on the Mainland have informed me that because of the cost they will be coming to Vancouver Island less frequently as well. This is deeply disappointing for the Crown corporation to be operating in this manner..."
Senior	"I am writing to complain regarding the fact seniors will have to start paying half the ferry fares effective 1 April 2014 instead of the $0.00 rates they have had for years. […] Seniors comprise a large part of the population in BC and the majority are on fixed incomes without eligibility for regular increases to meet the cost of living on an annual basis so continue to find reductions in their spending power."
	"We are seniors and have some relatives living on the mainland. we used to take the ferry on a regular schedule but it is getting harder and harder. Now with the new proposal to charge seniors even through the hole week will make it even harder on us and we can not see our grand-kids and " kids " that often any more. There surely must be another way to make the ferry service viable WITHOUT hurting us seniors."
Discount	"Do you have a special rate for smart cars as they are comparable to motorcycles and only 2.5 meters in length? Would BC Ferries be willing to consider initiating a discounted rate for Smart Cars? They are half the length of a typical economic car and weigh even less!"
	"What is an Experience Card? Never heard of it! Perhaps you should have a campaign to enlighten passengers about your Experience Card, Coast Card, and Discount Fares…"
Experience Card	"Good morning, is it planned to offer experience card loading by Pay Pal? Almost all online services offer this option now and it would be the preferred method for loading in our family."
	"We should be able to transfer experience dollars between two separately registered cards, and we should also be able to use the experience card on the vessel."

Reservations: Comment Distribution

Group	Fiscal 2013	Fiscal 2013 %	Fiscal 2014	Fiscal 2014 %
Online Reservations	123	30%	416	62%
Policies	124	30%	125	19%
Availability	29	7%	35	5%
General	47	11%	30	4%
Flexibility/Changes	32	8%	27	4%
Cost	29	7%	21	3%
Booking with an Agent	16	4%	8	1%
Automated Phone Reservations	10	2%	6	1%
Total	**410**		**668**	

- *In fiscal 2014, 42% of all reservations comments were complaints related to online reservations.*

Fiscal 2013: April 1 2012 – March 31 2013
Fiscal 2014: April 1 2013 – March 31 2014

Reservations: Overview

Group	Most Frequently Mentioned Topics	Customer Feedback
Reservations	Mobile Accessibility	I can not believe how utterly pathetic your company is to not have an online reservation program that's mobile phone friendly. Your mobile page only offers status updates, and I have been trying to make a reservation for over an hour on a poor Wi-Fi signal, because I have to go through a step by step process continually loading massive pages. Considering how much people use their phones to access the internet, especially when they are on vacation and don't have access to their computers, it's hilariously out of touch with reality that you could possibly think your program is at all acceptable.
		Online booking system not compatible with iPad. Unable to change date on website so unable to book any reservation unless its for today
		I am logged into my reservations account. I am using my iPad and when I try to select the date of travel, it only brings up today, and the calendar won't open. I have been trying this for two days!"
Reservations	Change Fee	Customer called to change a Southern Gulf Island reservation more than 7 days before the sailing date. He was informed that he would be charged a $9 change fee to make the change. He believes that this is illogical because there is no fee to cancel a reservation and make a new one which would be the equivalent to changing it.
		Customer called to complain that $9 change fee is a "gouge".
Reservations	Reservation Fee	Why does BC Ferries charge to make a reservation? A reservation should not be charged, perhaps to make the online tickets payment non-refundable will be better. Any other Ferries like in the Washington state ferries. No other reservation system charges you e.g. to rent a car, book a hotel, etc. With the ferry fares so expensive + reservation fees, no wonder less people travel to the islands every day.
		I was very surprised to find out about the increase in the reservation fee. When we reserve, you know how many vehicles and passengers to expect and can manage your sailings and crew more effectively. Yet the folks who choose to reserve are penalized. You should make reservations mandatory (and free) and charge a premium to travelers who just show up and expect to be able to get on the ship. It works well for airlines, why not ferries.

Appendix D - Responses to Section 55 Application Guidelines Questions

	Section 55 Application Guidelines Questions	Reference in Application
	Project Description	
a.	Describe the proposal for the capital expenditure and provide a comparison to the capital currently in use, in terms, for example, of size, capacity and staff and/or crew requirements.	See Section 1.
b.	In the case of a new vessel, has an independent marine surveyor provided a condition assessment of the current vessel and is that assessment factored into the business case supporting the requested capital expenditure?	*Not applicable.*
c.	Is there a regulatory driver for the proposed capital expenditure?	No.
d.	Provide information on the operating costs of the vessel, terminal, information technology or other capital asset to be replaced and/or to be upgraded, covering the most recent three year period, including the current year.	See Section 1.4.2.
e.	Compare the annual maintenance costs of the existing capital asset with those expected for the replacement and explain any significant variances.	See Supplemental Information.
f.	Have there been service disruptions due to inadequacy of the existing capital asset?	Yes, see Section 1.4.2.
g.	If age of the existing capital asset is a factor, what is the estimate of future costs of continuing its use?	*Not applicable. Status quo is not considered a viable option.*
h.	Have there been complaints from the public, or other stakeholders about the existing capital asset?	Yes, see Section 1.4.2 and Appendix C.
i.	Provide an estimate of the total capital costs associated with the proposed investment.	See Section 2.3 and Supplemental Information.
j.	How was the cost estimate derived? Entirely with BC Ferries' staff or was there an external review?	Cost estimates were derived with the assistance of external experts and subsequently confirmed through RFI/RFEOI processes.
k.	In the case of a new vessel was the international ship broking industry contacted to determine if there are existing vessels available for purchase that may, with adaptation, be appropriate?	*Not applicable.*
l.	Provide an estimate of the incremental capital costs to provide "ancillary services," including catering and retail concessions, and provide estimates of the incremental operating costs to provide the ancillary services and the incremental revenue expected to be generated from those services.	*Not applicable.*

	Section 55 Application Guidelines Questions	Reference in Application
m.	In the case of a new vessel, demonstrate on a lifecycle cost or present value basis that the decision to build a new vessel versus the cost of acquiring a second-hand vessel, if applicable, is a net benefit. Include sensitivity analysis in case of cost overruns.	*Not applicable.*
n.	Does the proposal include significant features that are innovative or untried?	The business strategies are innovative and new to BC Ferries. However, they, along with the technology, is proven and widely used.
o.	Is there an allowance in the estimate for inflation from the date of acceptance of a proposal to the completion date (escalation clause)?	No. This will be considered at the RFP/contract negotiation stage.
p.	Are financing costs included in the cost estimate between first payment to the supplier and the in-service date?	Yes.
q.	Compare the operating costs of the existing capital asset with those expected for the replacement, to include, in the case of vessels, fuel costs, crew costs and depreciation.	See Supplemental Information.
r.	Does BC Ferries intend to capitalize any of its own internal costs with respect to the capital expenditure?	Yes, in accordance with BC Ferries' financial policies and International Financial Reporting Standards.
s.	Identify any parts of the capital expenditure that are to be provided by BC Ferries or its subsidiaries.	See Section 1.11.
t.	In the case of vessels, if tenders are to be sought from foreign shipbuilders, what is the applicability of custom tariffs on importation of the vessels?	*Not applicable.*
u.	In the case of vessels, will BC Ferries require the contracting shipyard to bear the design and construction risk?	*Not applicable.*
	Timing and In-service Date	
a.	For new or replacement vessels what is the expected in-service or deployment date and how was it derived?	*Not applicable.*
b.	Were potential builders, for example shipyards, contacted to determine if the proposed date is reasonable?	*Not applicable.*
c.	What are the consequences of a delay in the in-service or deployment date?	See Section 4.3.
	Does the Proposed Capital Expenditure Demonstrate Good Judgment, Based on Wisdom, Experience and Good Sense?	
i.	Why is the proposed capital expenditure required now, and what are the consequences of any delay?	See Sections 1 and 4.3.

	Section 55 Application Guidelines Questions	Reference in Application
ii.	How has this capital expenditure project been prioritized relative to other capital expenditure projects within the long term capital plan?	This project is of a high priority based on the strong business case, projected revenue increase and anticipated increase in customer satisfaction.
iii.	What sources of expertise and experience have been relied upon in deciding to proceed with this capital expenditure?	See Supplemental Information.
iv.	Provide detail on completed and/or planned consultations, in particular with the provincial government or other stakeholders.	See Section 3.4.
v.	In the case of new vessels, has BC Ferries considered any alternative to building and owning the new vessels?	*Not applicable.*
vi.	Will a new or replacement vessel require any modifications to any terminals? If so, at what additional cost?	*Not applicable.*
vii	What are the procurement cost risks and how will they be mitigated?	See Section 4.2.
viii	What are the consequences or the alternatives if the application is rejected?	As addressed in Section 2.4, status quo is not considered a viable option. Scenarios for reducing the capital expenditure of the proposed Initiative and the associated implications are addressed in Section 3.2.
	Wise Use of Resources	
i.	Can an existing vessel be reassigned instead?	*Not applicable.*
ii.	For shorter routes, were non-vessel options considered, such as a fixed link?	*Not applicable.*
iii.	Were non-vehicle vessels (e.g. passenger only ferries, barges, other) or a mix of vessel types considered?	*Not applicable.*
iv.	Has a used vessel option been considered?	*Not applicable.*
v.	How does the vessel align with the concept of standardization of the fleet?	*Not applicable.*
vi.	Would investments in technology, such as an expanded reservation system, better IT systems or a yield management program allow for a smaller sized vessel?	*Not applicable.*

	Section 55 Application Guidelines Questions	Reference in Application
	Showing Due Consideration for the Future	
i.	How does the proposed new vessel contribute to overall fleet flexibility?	*Not applicable.*
ii.	What new technologies or innovations will be incorporated, and why are they considered necessary?	See Section 1.6 and Supplemental Information.
iii.	Will there be provision for a conversion to an alternative to marine diesel engines, such as LNG?	*Not applicable.*
iv.	Is dual fuel capability planned and if so provide the rationale?	*Not applicable.*
v.	Will the new or replacement vessel be appropriate if the ratio of vehicle to foot passenger traffic changes in future?	*Not applicable.*
vi.	Is vessel capacity sufficient to meet current and projected future demand?	*Not applicable.*
vii.	What is the estimated impact of the proposed capital expenditure on future price caps assuming no change in non-passenger related revenues?	See Section 3.1.
	Not Excessive	
i.	What passenger amenities will be provided, and why are they considered appropriate for the intended use of this vessel?	*Not applicable.*
ii.	Do any of the proposed passenger amenities require crewing levels to be higher than what is required by Transport Canada regulations?	*Not applicable.*
iii.	Is the vessel the right size and how has the capacity requirement been determined?	*Not applicable.*
iv.	Describe the objectives of BC Ferries' design standards for passenger accommodations for vessels of similar size and scope. Will the passenger accommodations for the replacement vessel deviate from these standards? If so, what is the rationale for the deviation and what impact, if any, will it have on the capital and operating costs of the vessel?	*Not applicable.*
v.	Will the application of logos or other BC Ferries' brand images to the vessel be consistent with BC Ferries' current practice for similar vessels? If not, how will it differ and what will be the effect on capital costs?	*Not applicable.*
vi.	What would have to be sacrificed to reduce total costs by 10%, and by 20%?	See Section 3.2.

	Section 55 Application Guidelines Questions	Reference in Application
vii.	Does vessel design or expected operating speed have any impact on labour costs?	*Not applicable.*
viii.	Are engines sized for efficient operations, fuel consumption and ability to recover schedule?	*Not applicable.*
Demonstrating Good Value at a Fair, Moderate Price		
i.	For new vessels what alternatives were considered? Provide the rationale (cost or otherwise) for why the alternatives were not accepted.	*Not applicable.*
ii.	Has the business case been built on a full life cycle costing basis?	Yes.
iii.	How fuel efficient will the new vessels(s) be?	*Not applicable.*
iv.	Will the new or replacement vessel have any impact on efficient use of labour?	*Not applicable.*
v.	Are the operating costs reasonable?	Yes. See Supplemental Information.
vi.	How do the operating costs compare with the vessel being replaced?	*Not applicable.*
vii.	Is there any expected impact on revenue?	Yes. See Section 2.3.
viii.	Will crew training and certification activities be in excess of that required to meet regulatory requirements? If so, explain the rationale for this approach and whether it will result in incremental operating costs.	*Not applicable..*
Coastal Ferry Services Contract		
i.	Is the proposed capital expenditure consistent with the current Coastal Ferry Services Contract (CFCS)?	*The CFSC is silent on matters respecting management of tariffs and hence consistency of the proposed capital expenditure with the CFSC is not applicable.*

	Section 55 Application Guidelines Questions	Reference in Application
Long Term Vision for Coastal Ferry Services in British Columbia		
i.	How does the proposed expenditure support the government approved long term vision for the future of coastal ferry services?	The Initiative responds to the government's objectives of a long term vision for the future of coastal ferry services, as articulated in its *BC Coastal Ferries Consulation and Engagement, Fall 2012, Discussion Guide*, by enhancing operational efficiency, improving capacity utilization, enhancing revenues, and reducing the pressure on future fares.
Information Technology Projects		
i.	Describe the new system and provide details of the business case for the new system.	See Sections 1 and 2, and Supplemental Information.
ii.	Provide support information for key assumptions in the business case.	See Section 2 and Supplemental Information.
iii.	Is the project included in the most recent capital plan?	Yes.
iv.	Has the project been approved by the board of directors?	Yes.
v.	Is there a project plan in place?	Yes. A preliminary detailed project plan has been prepared and resides in the BC Ferries Project Portfolio Management System (Primavera). This plan will be revised once the RFP process has been completed and winning vendor proposals have been selected.
vi.	Describe any major risks that could affect the project's success.	See Section 4.2.
vii.	Describe mitigation strategies for major risks that have been identified.	See Section 4.2.