Cross-Platform Switching
Enhanced C&R Front-End
Process Use Cases

Summary of changes

Version	Section	Description
0.1	n/a	First internal release.
0.10		Internal review
0.12		2nd internal review
1.0		Draft for Ofcom review
2.0	2, 4	Changes to reflect the order in which the customer contacts the CPs.
3.0		Update of the process diagrams

References

Ref.	Title	Version	Author/Company
[1]	TM Forum TAM Documentation	R15.5.0	TM Forum
[2]	Cross Platform Switching – Back-End via EMP Process Use Cases	1.0	Ted Davies / Adam Tickner
[3]	Cross Platform Switching – Back-End via Direct Inter-CP Process Use Cases	1.0	Ted Davies / Adam Tickner

Glossary of Terms

Term or Abbreviation	Description
Account/service record	This term is used to describe the set of account and service level data that allow a CP to identify an individual instance of a service on a customer account. For example, account reference, post code, service type and one or more service identifiers. The customer would be expected to know or have access to this information. They would need to use it to identify the service for the purpose of switching that service.
AO	Access Operator – usually the operator providing the connection to the customer's premises. Note however that BT Wholesale could also be considered an access operator in some contexts.
BAU	Business As Usual
BSS	Business Support Systems
CLI	Calling Line Identifier
CP	Communications Provider
C&R	Cease & Re-Provide
CSR	Customer Services Representative
ETC	Early Termination Charges
GP	Gaining Provider – the CP to whom the customer is switching
GPL	Gaining Provider Led – describes a switching process in which the Customer interacts with the Gaining Provider and does not need to directly contact the Losing Provider
GNP	Geographic Number Portability
IVR	Interactive Voice Response - technology that allows a computer to interact with humans through the use of voice and keypad inputs
LP	Losing Provider – the CP from whom the customer is switching
IS	Implications of Switching – the (potential) consequences of moving an end user's service(s) from one provider to another, including but not limited to Early Termination Charges
NoT	Notice of Transfer
OSS	Operations Support Systems
PONR	Point of No Return
SLA	Service Level Agreement
Switch Reference ID	A unique reference generated by either the GP or Openreach to identify the customers' switch order request

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1   Introduction

Within Ofcom's wider programme of work on consumer switching, Ofcom engaged Cartesian to conduct a feasibility study on different options to reform the existing switching processes for voice, broadband and pay TV services delivered across different platforms. The objective of Cartesian's work was to identify, define and cost a set of alternative process options that sought to address consumer harms that had been identified as part of recent consumer research and through other evidence.

Two alternative switching options have been chosen for assessment:

1.   Enhanced Cease & Re-Provide (EC&R) Cross-Platform switching model
2.   Gaining Provider led (GPL) Cross-Platform switching model

In both cases, an inter-CP communication channel is proposed for implementation. Again, two alternative options have been chosen for assessment:

3.   Openreach EMP System Extension
4.   Direct Inter-CP Communication Channel

For each of the chosen options, Cartesian has developed use case documents. This documentation is intended to provide Communication Providers (CPs) with sufficient information to conduct their own assessment of the potential costs and implications of adopting these models.

In the documentation, a distinction is made between '*front-end*' and '*back-end*' activities. The '*front-end*' is the initial interaction between the Customer and CP(s) to validate the switching request and obtain the Customer consent. The '*back-end*' covers both the internal CP and CP-to-CP technical activities.

This document concerns the 'front-end' activities of option 1, "*Enhanced Cease & Re-Provide (EC&R) Cross-Platform Switching Model*". This document should be read in combination with the documentation addressing alternative back-end implementations – see References [2] and [3].

1.1   *Aim and Document Scope*

The focus of the project was on the technical and operational aspects of consumer switching of communications services between communication providers (CPs) that use different delivery platforms, i.e. cross-platform switches. This included a consideration of both the processes

(operational activities) that the CPs undertake and the systems (software applications) that support the CPs' business operations.

Ofcom recently (late 2015) carried out quantitative and qualitative research across a full range of switching scenarios of triple play switching to better understand the nature and scale of harms experienced by consumers. Ofcom shared with Cartesian the findings and Cartesian was then asked to develop potential alternatives to the current switching processes that would help to address the issues identified. In particular, measures that could help to address loss of service; double paying; difficulties contacting the losing provider (LP)/cancelling existing services and lack of awareness of implications of switching (IS). Cartesian also considered how to mitigate potential unintended consequences of the measures and assessed the impact to industry should these be adopted.

The following switching cases were within the scope of the project[a]:

- Switching of fixed voice, broadband and/or pay TV services between Virgin Media and another CP
- Switching of satellite pay TV from Sky to another CP (switched either by itself or alongside voice and/or broadband).

The following items were outside the scope of the project:

- Switches that only involve services delivered on the Openreach network, i.e. where there is no cross-platform switch occurring
- Over-the-top TV services, e.g. NOW TV, Netflix (services offered over broadband that are agnostic to which CP is supplying the broadband connection)
- Mobile voice and broadband services
- Switching during a home move
- The commercial and legal implications of the potential alternative options

1.2   Assumptions

The following assumptions have been made in the development of this process option.

1. When switching more than one service, all of the services have the same switch date

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[a] The original scope of the project was broadened to include the switching of standalone pay TV services.

2. When switching more than one service, if the GP encounters a problem with the delivery of one of the services, then the switch date will be postponed for all of the services

3. The information provided under the banner of "Implications of Switching" is driven by differences between the GP and LP products as well as contractual considerations (e.g. there may be discounts that are conditional on subscribing to specific combinations of services, or the customer may incur early termination charges if switching before the end of the minimum contract period). While these should not have a major impact on the process described in this document, consideration should still be given to the type and level of information required here

4. The asset validation phase of the process defined in this document is treated in a real-time manner. The GP's sales conversation is completed at this stage so the customer would not be waiting on-line or have to be contact a second time

5. The customer perception of the quality of service is outside of the remit of this document. The processes in this document cover the activation and cease of active, live services and the provision of such equipment as is necessary to access the service in good working order. CPs may wish to implement additional, post-switch activities to assure that customers are satisfied with their new services.

6. A unique reference is automatically generated, either by the GP or Openreach, to identify the customers' switch order request – Switch Reference ID.[b] A means by which to identify the GP would need to be included in the reference. This is outlined in the back end documentation (see References).

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[b] Openreach will generate the reference if the EMP back end proposal is used. The GP will do it if the 'Direct' back-end proposal is used.

2   Overview of Process

The proposed front-end process of the Enhanced C&R Cross-Platform model aims to provide the customer with additional cancellation routes to those existing today and streamline the process to cease their services with the current provider. It also aims to reduce the customer interaction throughout the process by transferring responsibility for coordinating the switch from the consumer to the GP.

The process specifications have been prepared on the basis of the customer contacting the GP first but the process does also accommodate situations where the customer contacts the LP first.

The process applies to the following cross-platform switching cases:

- Switching of fixed voice, broadband and/or pay TV services between Virgin Media and another CP;

- Switching of satellite pay TV from Sky to another CP (switched either by itself or alongside voice and/or broadband).

A summary of the front-end process is detailed below:
- From the customer perspective, the switch consists of two discrete activities: activation and cease
    - The customer contacts the GP to order the new services
    - The customer contacts the LP to cease the existing services
- The GP will offer to co-ordinate the switch on the customer's behalf. If the customer contacts the LP first, they will explain that the GP can co-ordinate the timing of the switch on their behalf.
- The customer consents that the GP will orchestrate the switch.
- The GP is responsible for aligning the activation of its services and the LP service cease date; the customer still needs to place a cease order with the LP.
- The LP adjusts its cease date under direction from the GP; where the LP currently enforces a minimum notice period, this will be altered to align to the time required to complete the switch.
- Consumers can use the GP's telesales, online and retail channels to request a switch. In the retail channel it is assumed that CPs would effectively re-use either the telesales or online systems.

- During the interaction with the LP the customer is able to investigate the implications of switching (IS), such as whether any Early Termination Charges (ETCs) and disconnection charges are payable

- The LP and GP will communicate via back-end processes to align their activities to a common switch date, thus minimising service interruption and service overlap

- The CPs will use the LP account reference and/or Calling Line Identifier (CLI) if not a standalone TV switch to identify the customer in the asset validation stage of the process

During the sales process, the customer provides the GP with:

- Name

- Address and postcode

- Current provider name

- Services they wish to switch

- Account Reference with current provider and /or CLI if not a standalone TV switch

The GP must identify the customer to the LP during the Asset/Account Validation step, i.e. the interaction between the two CPs to identify the assets used to provide the consumer's service. The LP Account Reference and/or the CLI of the line to be switched can be used. The CP name, and customer's postcode are also requested from the customer by the GP. The postcode is sent with the LP Account Reference / CLI as a means to prevent erroneous transfers due to mis-keying of account references / CLI.

The following diagram walks through the process for this use case.

Figure 1: High-level Overview of the EC&R Cross-Platform Switching Model

High-level Overview of Cross-platform Switching End-to-end eC&R Process
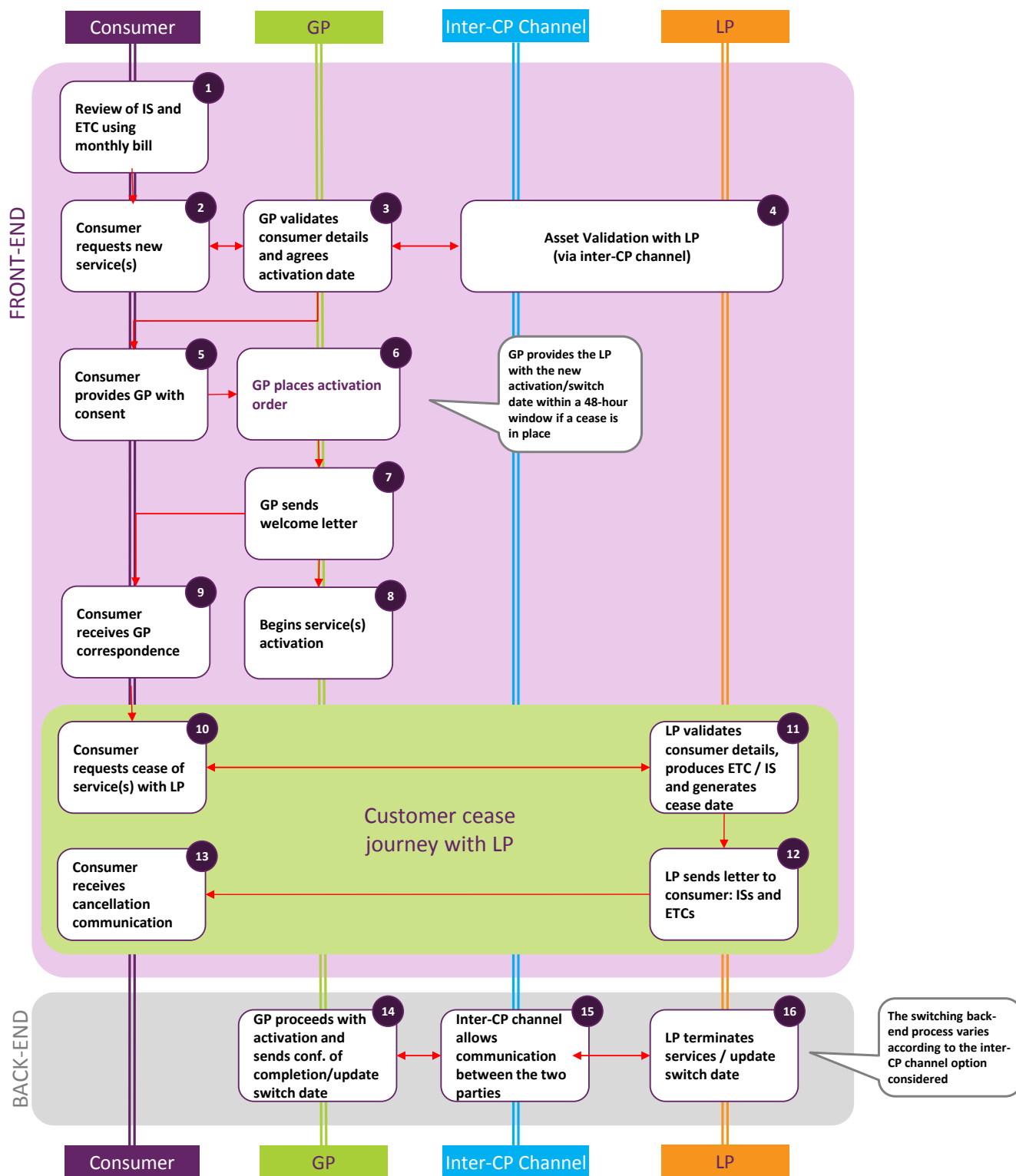
Table 1 High-level Steps in the Enhanced Cease & Re-Provide Switching Process

Area	Step	Description
Front-end	**1**	**Customer reviews ISs and ETCs**. The consumer has the option of proactively checking the costs and implications of switching before contacting the GP. CPs make this information available for telephone, broadband and pay TV services via the monthly bill.[c] **IS information added to the monthly bill** The implications of switching (IS) are included on the Customer monthly bill. This includes the contract end date, the value of any ETCs, and any disconnection charges.
Front-end provide	**2**	**Customer contacts GP and places order for service(s)** The GP will: • Confirm whether the customer has service with another CP • GP explains that they can manage the cease date with the LP. • GP gains consent from the customer to manage the cease date
Front-end provide	**3**	**GP validates customer details and completes own Asset Validation** The GP ensures that they have all necessary details to set up a new contract and completes the internal checks on whether services are available and whether an engineer visit is required**.**

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[c] Note that although Openreach-to-Openreach switching cases are out of scope of this document. (They follow the GPL NoT+ process.) These two enhancements would benefit all customer switching scenarios. This could lead to a reduction in the number of inbound calls to the LP in GPL NoT+ switches.

Area	Step	Description
Back-end provide	4	**Asset Validation with LP (via inter-CP channel)** The GP uses information provided by the customer to validate the customer with the LP. The GP checks whether the LP has received a cease order for the services to be switched. If a cease order has already been received, then the GP can progress with coordinating the cease and provide activities. If not, the GP informs the customer that they must contact the LP to cease the services. The customer is also warned about the risks of failing to do so, e.g., risk of double billing or loss of service. The GP then continues to periodically check the LP system for receipt of a cease order. If a cease order has not been received by the LP within 2 working days of the customer placing the order with the GP, the GP will progress with its order independently of the LP cease. The GP must explain the process to the customer and asks them for consent (because customer data is involved). **Customer Information for Validation:** The GP can use the customer's LP account number and/or CLI as the primary means of identifying the customer to the LP. To avoid erroneous transfers (disconnections), the primary identifying information should be sent to the LP with the customer's surname, address or postcode.
Front-end provide	5	**Customer provides GP with consent.** GP elicits statement of customer consent and records and stores record of consent for 12 months. **Record of Consent:** The GP makes a durable record of the customer's decision to activate their services with a new CP. The record can consist of a letter signed by the Customer, a voice record, an online transaction or other record type. The GP is responsible for holding and storing this record.
Front-end provide	6	**GP places activation order and informs LP of new switch date** **Align the notice period to the switch period** A transfer period will apply – though this will vary according to how quickly the GP can provide services to the customer. The customer's notice period will align with the agreed switch date. The transfer period will accommodate the minimum lead times for the GP to provision/activate the services on its platform.
Front-end provide	7	**GP sends out welcome letter to the customer.** Communications are to be sent in a durable format such as letter and/or email. CPs may also provide updates by SMS although this is optional and is not required for the impact assessment. The letter shall outline key information such as: the activation date and the services being activated. It should also include confirmation of the customer consent for the GP to manage the LP cease if required.

Area	Step	Description
Back-end provide	8	**GP service activation.** Follows BAU processes.
Front-end provide	9	**Customer receives GP welcome letter**.
Front-end cease	10	**Customer requests cease of services with LP.** The customer contacts the LP via one of several channels. **Multiple Channels for Cease** Existing channels for customers to cease services may be limited to contacting the call centre. The following additional options are made available for submitting cancellation requests. • Online via customer's account • By telephone using an IVR system • Webchat These same additional channels should be available to customers cancelling the activation of new services. **Better guidance for customers on 'how to cancel'** CPs to provide easily accessible information through multiple channels (e.g. online, IVR system and agent's script) to advise the customer on what they need to do, what they don't need to do, and set the right expectations and times when ceasing. For example, in the event that the customer contacts the old provider first, they will be informed that the customer has the option of having the new provider co-ordinate the switch date. GPs to inform the customer that it's their responsibility to cancel the services with the LP and advise they can contact their LP online, by telephone (via IVR) and webchat.
Front-end cease	11	**LP validates customer details, provides IS information and sets the cease date.** This will be done via whichever channel is used by the customer in step 2.

Area	Step	Description
Front-end cease	**12**	**The LP sends communications to the customer confirming the cease has been scheduled.** Note that the LP communications are sent 2 working days after the customer request to allow time for 1) the GP to communicate the new switch date to the LP or 2) the customer to contact the GP and request a coordinated cease & re-provide, as this may result in a change to the scheduled cease date. Communications are to be sent in a durable format such as letter and/or email. CPs may also provide updates by SMS although this is optional and is not required for the impact assessment. The communications will follow a standard format similar to the one used in the GPL NoT+ process to improve readability and understanding for the customer. It will outline key information such as: the cease date; the IS including any ETCs; disconnection fees and any service /price related effects on any other services. The LP letter must balance the need to ensure the customer is informed, versus overwhelming the customer with too much detail.
Front-end cease	**13**	**Customer receives LP communications**
Back-end	**14**	**GP sends confirmation of completed activation to LP via the inter-CP communication channel.** This avoids unexpected service loss should problems arise with the GP service delivery on the switch date. For further details, refer to the back-end process documents (see References). **Proactively rescheduling the switch date** If delays occur during the GP service activation then the GP is able to update the switch date, as long as this is before the point of no return (PONR) – note that this has not been defined and would be subject to industry discussion. The switch date may also be postponed by the GP in response to a customer request. The switch date refers to all components of the services being switched.
Back-end	**15**	**CP communication channel (dependent on back-end option selected)**
Back-end	**16**	**LP cancels services / update cease date**

3   Overview of Impacted Areas

3.1   Overview of Use Cases

The following table summarises the use cases described in more detail later in this document. All use cases are focused on the switching process and how the scenario affects the elements of that process.

Table 2: Overview of Use Cases

Ref	Scenario	Sect.	Figure	Description
FE-GPL-UC02	Customer Activation Request	4.1	2	Process followed when a customer orders services with the GP
FE-GPL-UC01	Customer Cease Request	4.2	3	Process followed when a customer ceases the services with the LP
FE-GPL-UC03	Customer-Initiated Change Activation Date	4.3	4	Process to be followed when a customer requests a change of activation date. (Note: this will trigger the GP to update the LP cease date.)
FE-GPL-UC03	Customer-Initiated Cancel Activation	4.4	5	Process followed when a customer chooses to cancel an order with the GP

3.2   Interfaces

The following table summarises the interfaces referenced in the use cases in this document. Exact details of these interfaces will vary from one CP to another. The intention here is to cover at a generic level the types of interfaces that will be required and that will be impacted by the proposed switching process.

Table 3: Overview of Interfaces

Interface	Description
CP order entry	This covers the front end interfaces used to input customer and order data, such as the applications used by the CSRs and any customer self-service front ends.
CP-customer mail	This covers the means of a retail CP informing their customers of information pertaining to a switch and can be via a postal letter or via electronic communication.
CP billing	This covers a CP's bill presentation, whether in paper or electronic format.
CP <- -> CP channel interface	This covers the interactions between CPs and the Openreach EMP system to manage requests and how their acknowledgements and their responses in relation to existing (and potential new) back-end switching processes will be orchestrated.
Customer online account portal	This covers customer self-service front end for presentation of customer information.

3.3   Applications

Each operator will have a unique suite of applications in their OSS/BSS architecture. To provide a common language, this document uses the "Level 1" application names and descriptions in the TM Forum's Application Framework (a.k.a. TAM). This industry standard framework can be mapped by CPs to their own specific application architecture.

The descriptions below are replicated from the TM Forum's TAM Map document and are included for ease of reference. Please refer to the TM Forum documentation (Reference [1]) for more detail on TAM.

Table 4: Overview of Applications

Application	Description
Channel Sales Management	The Channel Sales Management application provides the necessary functionality to sell to a number of specific sales channels.
Knowledge Management	Knowledge Management (KM) comprises a range of practices used in an organisation to identify, create, represent, distribute and enable adoption of insights and experiences. Such insights and experiences comprise knowledge, either embodied in individuals or embedded in organizational processes or practice.
Customer Information Management	Customer Information Management ensures the delivery of a consistent, accurate and complete customer view to operational and analytical touch-points across the service provider enterprise, thus enabling the optimization of key business processes and the leverage of new revenue opportunities. Customer information is typically scattered across mixed environment with fragmented, isolated customer data which needs to be consolidated, directly or using data federation. A Customer Information Management application, using context sensitive business logic, synchronizes customer information across all of service provider systems and reconciles customer data inconsistencies. Customer Information Management traditionally lies within the boundaries of Master Data Management (MDM), however, it is not mandatory.
Customer Self-Management	Customer self-empowered applications provide an internet technology driven interface to the customer to undertake a variety of business functions directly for themselves. These applications interact to provide fully automated service or assisted service over various customer touch points. Although customer self-management applications primarily trigger functionality defined in the rest of the CRM, Service Management and Resource Management applications, they should also contain functionality specific to customer self-empowerment.

Application	Description
Customer Contact Management, Retention and Loyalty	Customer contact management, retention and loyalty applications are a varied group of functions that are generally sold as part of a Customer Relationship Management (CRM) suite of applications. These applications allow an operator create, update and view the customer's information (names, addresses, phone numbers, organizational hierarchy), record and view all customer interactions across different communication channels and department, so that whoever is speaking to a customer can see the history of issues that have concerned that customer, be they order issues, billing enquiries or service problems. More sophisticated systems allow capabilities to highlight customers as risk of switching to an alternative carrier (churn indicator) and provide comparisons with other operator's service packages to allow customer care agents to try to persuade a customer that their current operator can provide the best value for money. These indicators can be provided via integration to business intelligence platforms.
CSR Toolbox	The CSR toolbox addresses the need for rich interactions with the customer, comprising of applications from the Fulfilment, Assurance and Billing domains. The CSR toolbox provides additional functionality in a common look and feel across the applications – and is not simply a convoluted assembly of applications and processes across silo systems.
Customer Order Management	Customer Order Management applications manage the end to end lifecycle of a customer request for products. This includes order establishment (step guiding, data collection and validation), order publication as well as order orchestration and overall lifecycle management. A customer request may also pertain to already purchased product(s). Thus the Customer Order Management application handles order requests to suspend, resume, change ownership, amend, add, change and discontinue existing ordered products. Customer Order Management application should support repackaging of the purchased offers into alternate product offering (may require sales/contract negotiation). Customer Order Management applications typically serve all the customer touch points / channels, including call centre, retail, self-service, dealers, affiliates, etc. The order may be initiated by any channel and visible to the other channels if needed.
Customer Problem Management	The purpose of Customer Problem Management is to manage problems reported by customers, resolving these problems to the customer's satisfaction, and providing meaningful status on the issue as needed to the customer. Customer problems can include: • General questions on products purchased and being used by the customer • Problems with products already purchased and being used by the customer either due to lack of education or service/network problems. • Problems with a material purchase from the service provider, even if they do not have an account with the said service provider. • General inquiries, complaints, and commendations.
Service Order Management	Service Order Management applications manage the end to end lifecycle of a service request. This includes validating service availability as well as the service order request. Other functionality includes service order issuance, service and or product order decomposition, and service order tracking along with orchestrating the activation and the test and turn up processes. Notifications will be issued to the Customer Order Management during the service order orchestration process (especially upon completion). Such notification can trigger other steps in the Customer Order Management (e.g. service order completion concludes these steps with Customer Order Management). In addition, Service Order Management also provides service design and assignment functionality.

Application	Description
Service Inventory Management	Service Inventory Management represents the applications which contain and maintain information about the instances of services in a telecom organization. A Service Inventory application may store and manage customer or resource facing service instances, and their attributes. The Service Inventory may also store and manage service relationships.
Service Problem Management	Service Problem Management applications are responsible for receiving service affecting customer problems as well as network troubles/faults, relating the various problems, and resolving them in an efficient manner.
Partner Management	Most of the service providers now bring in a lot of products from partners to add to their service portfolio, so that customers can choose from a wide array to their preference and benefit. The service providers can also form channel partners through which they can offer their products to other markets where they don't have any direct access. As the market is getting polarized to service providers and customer owners, partnerships are going to be the key. Virtual world is opening up with increasing operations of players like MVNOs, extending services or products from other parties to their customers leveraging their brand power and customer access. Hence horizontal and vertical value chain integration is going to be a vital part of the consolidation and convergence strategy of any service provider. In the online content and commerce world, the length of value chain could go on to include content providers, brokers, intermediaries, network operators, payment processing entities, banks and so on. Revenue from the end customer needs to be shared among these value chain entities based on pre-defined agreements. Sometimes the revenue settlement process has to be done in real-time so that final transaction can be validated and output delivered to the end customer.
Transactional Document Production	Transactional Document Production applications can be used in the telecommunications activities that require bills, invoices, letters and statements to be created for subscribers. It can be deployed by any organization that provides these services. Transactional Document Production applications can process numeric, text and image content into print-ready and web-ready streams that can be reproduced using a predefined template on a variety of media. For instance, telecommunications companies can process data from a billing system into standard industry print streams to produce paper bills.
Bill Calculation	The purpose of this application is to calculate a convergent bill for next-generation voice, data, content, and commerce services - Including prepaid and post-paid services in a single convergent bill.

Application	Description
Application Integration Infrastructure[d]	The enterprise integration framework described in this document seeks to provide an effective, generic and flexible approach to such integration where changes can be made by operations people rather than software engineers. It is critical to the success of any 'lean operator' program that integration between processes, data and applications can be achieved progressively, accommodating both legacy applications as well as new systems sourced from commercial suppliers or built in-house. Some approaches to integration are really only applicable to 'clean-build situations and for most operators with legacy systems, it is most unlikely that they can deploy anything other than step-by-step progressive integration approach. This progressive approach assumes that an increasing number of steps in a lean operator's processes will be automated via applications, either by replacement of current manual process steps, replacement of existing applications with one's offering greater functionality or upgrades to existing systems. Thus the task of providing end-to-end, flexible process automation is essentially one of providing integration between "islands" of automation. There are 3 primary building blocks to achieving a generic and flexible approach to integration such process and application "islands". These are: • A common communications infrastructure between each application. Several leading middleware products are now well established to provide a common communications vehicle. The most common of these is currently enterprise application integration (EAI) bus technology that supports numerous interface types to cater for a variety of legacy operating systems, databases, data formats, standards etc. EAI is concerned foremost with application-to-application exchange of data, not user activity or interaction. Other common communications vehicles such as web based approaches can also be used. • A business process management (BPM) environment. BPM is an emerging class of technologies that work hand-in–hand with EAI technology to provide a range of facilities to manage process and information flows between applications. The real value of BPM is the ability to define and execute business processes independent of applications and infrastructure. While EAI and integration capabilities offer an important resource to BPM environments, EAI software alone typically lacks the ability to address the user-facing side of business processes. • Contract-defined interfaces between applications. In TM Forum Frameworx parlance, these are defined as contract interfaces. Frameworx Contracts define the interfaces to Services made available by the OSS application. The data and metadata in Contract specifications use information defined in the Shared Information and Data model (SID).

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[d] This is a domain rather than a level 1 application

4   Use Cases

The use cases in this section make reference to account/service information which is used by the LP to identify the customer. The account/service information is captured by the GP during the sales process. During the sales process, the customer provides the GP with:

- Name
- Address and postcode
- Current provider name
- Services they wish to switch
- Account reference with current provider and/or CLI

The primary means for the GP to identify the customer with the LP is through the Account Reference and / or the CLI.

4.1   FE-ECR-UC01: Customer Activation Request

This use case captures the interaction between the customer and the GP to request the provisioning of new services. There are different channels the customer might use. The majority of customers are expected to interact with the CPs online and via call centres, however orders may also be placed in person where CPs have retail stores. Where retail channels are supported by a GP, it is assumed that the online and/or telesales systems will be reused for consent validation.

The following aspects must be considered by the CPs as part of the front end switching process and enhancements to the customer experience:

- The GP coordinates the activation date of its services and the LP service cease date upon customer consent.
- The customer has a 2 working day window to place a cease order with the LP to enable the two orders to be coordinated
- When a cease order has already been placed with the LP at the GP point of contact, the LP cease date is updated with the GP activation/switch date
- Where the LP currently enforces a minimum notice period, this is altered to align to the time required to complete the switch
- It is assumed that by default all services supplied by a CP are activated/ceased on the same date. Providing greater flexibility would add cost and complexity to any future solution

4.1.1   Process

The following diagram walks through the process for this use case.

Figure 2: Use case FE-ECR-UC01

4.1.2   Use Case Steps

Table 9 : FE-ECR-UC01 Steps

No	Description
1	**Customer requests new service with GP.** The GP collects the following information: • Name • Address • Postcode • Service type(s) • LP name • LP account reference and/or CLI if not a standalone TV switch
2	**GP validates Customer details.** GP checks if customer has cancelled services with current provider (if applicable). The GP informs the customer that it's their responsibility to cancel the services with the LP and which cancellation routes are available at the LP (no need to 'speak' with a LPs agent) Should the customer request number portability the BAU GNP process is followed. The GP will align the NP requested date to the same date as the activation of the other services.
A	**The GP performs the asset validation in real time internally and also with the LP – i.e. account validation. The asset/account validation with the LP is executed via the implemented inter-CP communications channel. The process steps and use cases are described in detail in the corresponding back-end process specification document (see References [2] and [3]).**
3	The GP has completed asset validation and understands the services and offers that it can provide to the customer. The GP uses the data returned to qualify the sale, informing the customer should any changes be necessary as a result of learning the existing service data held against the supplied account/service data. • **Phone** - GP agent advises customer that this stage of the call is being recorded and that consent to proceed will be noted, recorded and the order confirmed and contact issued • **Web** – Consent validation "checkbox" must be ticked to confirm consent for GP to manage any cease date changes is being given. Order will be confirmed and contact issued The GP obtains customer consent to co-ordinate the activation activities with the LP cease date. The GP provides the customer with the earliest activation date and informs that, in order to the coordinated C&R to be effective, they have 2 working days to place a cease order with the LP. The GP also informs the customer of the associated risks of loss of service or double payment if they fail to so and that the activation process will proceed unless they explicitly cancel it.
4	The customer instructs the GP to proceed with order for new services.

No	Description
5	The GP records the customer consent, storing it in durable form. The call recording must be stored in an easily retrievable format, identified by a customer/service identifier or LP account details. • **Phone** – verbal consent provided and contracts issued in durable form • **Web** – Consent validation "checkbox" ticked prior to submitting order and contracts issued in durable form. The GP web system must also flag which orders are placed by the customer via the online channel and which orders are coming through the retail channel.
6	GP places the activation order. The GP periodically checks the LP system for receipt of a cease order during a 2 working day window. If a cease is placed within this window, the GP provides the LP with the new activation/switch date. The customer will have consented at step 4 for the GP to manage this communication for them or opt out and inform the LP themselves. The GP to LP interactions are outlined in the back end use cases (see references [1] and [2].)
7	As soon as the customer agrees to a new service, an immediate communication to the customer confirming service request should be sent by the GP via the defined customer communications channel.
8	GP sends welcome communication to the customer. The letter should include details agreed during the sales process. This information is to be presented in a format and to a level of detail to be agreed with Ofcom.
B	**The GP and LP interactions are outlined in the back end use cases (see references [1] and [2])**

4.1.3   Deviations from Happy Path

Table 10: FE-ECR-UC01 Deviations from Happy Path

Step	Deviation	Alternative Process
2	No service available	GP informs the customer that at present the services they require are not available at this time as per standard process
2	Customer is unable to identify their LP service (i.e. unable to provide LP account reference *and* unable to provide CLI)	Terminate flow. The GP may try to help the customer find the information on their bill or advise contacting the LP to obtain it. Customers without the information may also elect to place an order without a synchronised cease in which case the GP should advise them that they are responsible for cancelling any LP services that they no longer require.

Step	Deviation	Alternative Process
2	The earliest GP activation date is after LP cease date	The GP sends a request to the LP to postpone the cease date to match the GP's expected activation date. The activation date refers to all components of the services being activated.
3	The customer does not consent to GP managing cease date	The GP will inform the customer that they will need to contact the LP to amend cease date should activation date change. This would be at the customer's own risk and the inform them of the impacts such as temporary loss of service and double billing if the LP does not cease. The back end use cases and steps would not apply in this instance.
3 and 6	Customer contacts LP first	The GP sends an update message to the LP with the new activation/switch date immediately after it places the activation order in its systems. The existence of a valid cease order with the LP is confirmed as part of the asset validation step. The GP clarifies to the customer that the current cease date communicated by the LP will be updated with the new activation date.
6	LP has not received consumer's cease order within 2 working days of the order being placed with GP.	GP notifies consumer that they have not received confirmation from LP that a cease order has been placed and will not co-ordinate the switching process. However, the provision of the new service will continue.

4.1.4   Application Impacts

The mapping of impacts to applications is illustrative, based on a generic application framework (see Reference [1]).

Table 11: FE-ECR-UC01 Application Impacts

Step	Impacted Applications															Party	Description
	Channel Sales Mgt.	Knowledge Mgt.	Customer Info. Mgt.	Customer Self-Mgt.	Cust. Retention & loyalty	CSR Toolbox	Customer Order Mgt.	Customer Problem Mgt.	Service Order Mgt.	Service Inventory Mgt.	Service Problem Mgt.	Partner Mgt.	Transactional Doc. Prod.	Bill Calculation	App. Integ. Infrastructure		
2	✓	✓	✓													GP	Can validate request a check with customer that they have cancelled service with LP

Step	Impacted Applications															Party	Description
	Channel Sales Mgt.	Knowledge Mgt.	Customer Info. Mgt.	Customer Self-Mgt.	Cuts. Retention & loyalty	CSR Toolbox	Customer Order Mgt.	Customer Problem Mgt.	Service Order Mgt.	Service Inventory Mgt.	Service Problem Mgt.	Partner Mgt.	Transactional Doc. Prod.	Bill Calculation	App. Integ. Infrastructure		
3	✓	✓	✓	✓												GP	Can access information and scripts to inform the customer that calls will be recorded
4,5	✓		✓	✓		✓	✓		✓							GP	Can store confirmation of customer's intent to proceed.
6	✓		✓	✓		✓	✓		✓	✓		✓		✓		GP	Can raise orders based upon customer's choice of service and tariff.
7,8							✓		✓							GP	Can look up information necessary for confirmation letter (NoT). Can generate confirmation letter to be sent by post, e-mail or other means.

4.1.5 Interface Impacts

Table 12: FE-ECR-UC01 Interface impacts

Step	Impacted Interfaces					Parties	Data Description
	CP order entry	CP-customer mail	CP-CP switching back-end	CP Billing	Customer online account portal		
3,4,5	✓					GP	GP order entry platform allows creation of record of consent and contracts to be stored.
6	✓					GP	GP Order entry platforms allows orders to be raised and tariffs to be associated to orders
7,8		✓				GP	Allow production and sending of welcome letter to customer.

4.2   FE-ECR-UC02: Customer Cease Request

This use case consists of the interaction between the customer and the LP to request the ceasing of the existing services. The cease request can be placed with the LP via a number of channels.

A 2 working day delay is provided between the customer placing the cease order and the LP acting upon it. This aligns with the time allowed to the customer to contact the LP and place a cease order, when GP is contacted first and the consumer requests a coordinated C&R. At the same time, it also allows time for the customer to contact the GP and request a coordinated C&R, when the LP is contacted first.

In both cases, it avoids the situation whereby the LP issues two letters in rapid succession due to a GP-requested change to the cease date.

It is recommended that the 2 working day delay is also observed before cease orders are raised with Openreach. This will avoid a geographic number port request by the GP being rejected because of a pending cease on the line.

4.2.1   Process

The following diagram walks through the process for this use case.
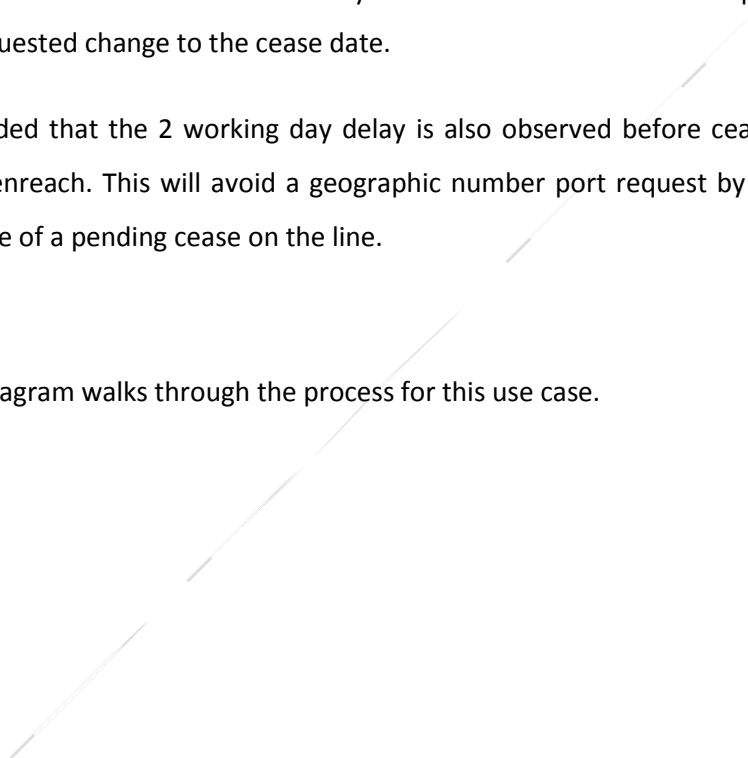
Figure 3: Use case FE-ECR-UC02

FE-ECR-UC02: Customer Cease Request
Enhanced C&R Front-end Process
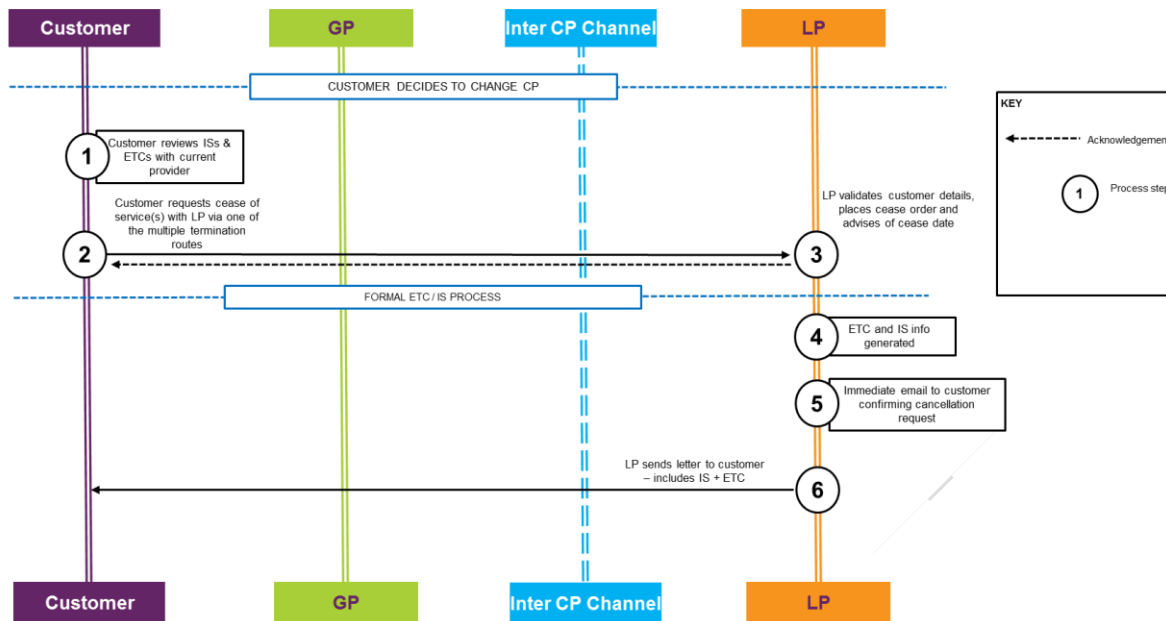
4.2.2   Use Case Steps

Table 5 FE-ECR-UC02 Steps

No	Description
1	Customer reviews IS with the current provider (LP). Customers have several channels to access this information: • Call centre • Monthly bill • Email and/or letter on request
2	Customer requests the cease of their services with the LP. Customers can place request via a number of channels: • Online portal • IVR • webchat
3	LP validates customer details and places cease order for the requested services. Scheduled cease date is communicated to the customer via the cancellation route used.
4	The LP determines the IS including any ETCs or disconnection charges.
5	The LP confirms the request to cease with an immediate email or text sent to the customer.

No	Description
6	After 2 working days have elapsed, the LP sends a letter or email to the customer notifying them in writing of the IS and the scheduled cease date. The delay provides time for 1) the GP to communicate the new switch date to the LP or 2) the customer to contact the GP and request a coordinated cease & re-provide.
	If the customer contacts the GP after this window, the customer will receive a second LP letter notifying them that the cease date has been changed to align with the activation date of the GP services.
	The information in the letter would need to be presented in a format and to a level of detail to be agreed with Ofcom. Similar information could be presented in the online channel.

4.2.3   Deviations from Happy Path

Table 6 : FE-ECR-UC02 Deviations from Happy Path

Step	Deviation	Alternative Process
2	Customer does not have LP account number	Standard LP processes to identify customer are followed
3	LP cannot find customer based on account number	Standard LP processes to identify customer are followed
5	New cease date received from GP	The LP updates the scheduled cease date and communicates this to the customer. Any changes to IS as a result of the new cancellation date should be included in the communications.

4.2.4   Application Impacts

The mapping of impacts to applications is illustrative, based on a generic application framework (see Reference [1]).

Table 7 FE-ECR-UC02 Application Impacts

Step	Impacted Applications															Party	Description
	Channel Sales Mgt.	Knowledge Mgt.	Customer Info. Mgt.	Customer Self-Mgt.	Cuts. Retention & loyalty	CSR Toolbox	Customer Order Mgt.	Customer Problem Mgt.	Service Order Mgt.	Service Inventory Mgt.	Service Problem Mgt.	Partner Mgt.	Transactional Doc. Prod.	Bill Calculation	App. Integ. Infrastructure		

Step	Impacted Applications															Party	Description
	Channel Sales Mgt.	Knowledge Mgt.	Customer Info. Mgt.	Customer Self-Mgt.	Cuts. Retention & loyalty	CSR Toolbox	Customer Order Mgt.	Customer Problem Mgt.	Service Order Mgt.	Service Inventory Mgt.	Service Problem Mgt.	Partner Mgt.	Transactional Doc. Prod.	Bill Calculation	App. Integ. Infrastructure		
1														✓		LP	Can look up information necessary for calculation of ETCs. Can calculate ETCs. Can look up information necessary to derive service implications.
2			✓	✓	✓		✓		✓					✓		LP	Can place cease request, including: • LP account number • LP identifier Assuming LP systems already capture: • Customer name • Customer address and postcode
3			✓	✓					✓							LP	Can accept and store details of cease request, including: • LP account number • LP identifier Assuming LP systems already capture: • Customer name • Customer address and postcode
4							✓		✓					✓		LP	Can look up information necessary for calculation of ETCs. Can calculate ETCs. Can look up information necessary to derive service implications.
5,6							✓		✓				✓			LP	Can look up information necessary for cancellation letter. Can generate cease letter to be sent by post, e-mail or other means.

4.2.5   Interface Impacts

Table 8: FE-ECR-UC02 Interface Impacts

Step	Impacted Interfaces					Parties	Data Description
	CP order entry	CP-customer mail	CP-CP switching back-end	CP Billing	Customer online account portal		
1					✓	LP	Customer must be able to obtain ETC and IS detail via their online account
2		✓			✓	LP	Allow cease requests through multiple channels
4				✓		LP	Allow production of IS and ETC information.
5, 6		✓				LP	Allow production and sending of IS/ETC letter to customer.

4.3   FE-ECR-UC03: Customer Change of Activation Date

This use case covers the scenario whereby a customer wishes to change the date of the activation with the GP (and hence the cease date with the LP).

It is worth noting that the initial activation date can also change due to delays in the service activation on the GP side. In the case where the GP changes the date, the consumer receives a notification with the new activation date from the GP and continues receiving service from the LP. This use case is described in the back-end process specs – see References.
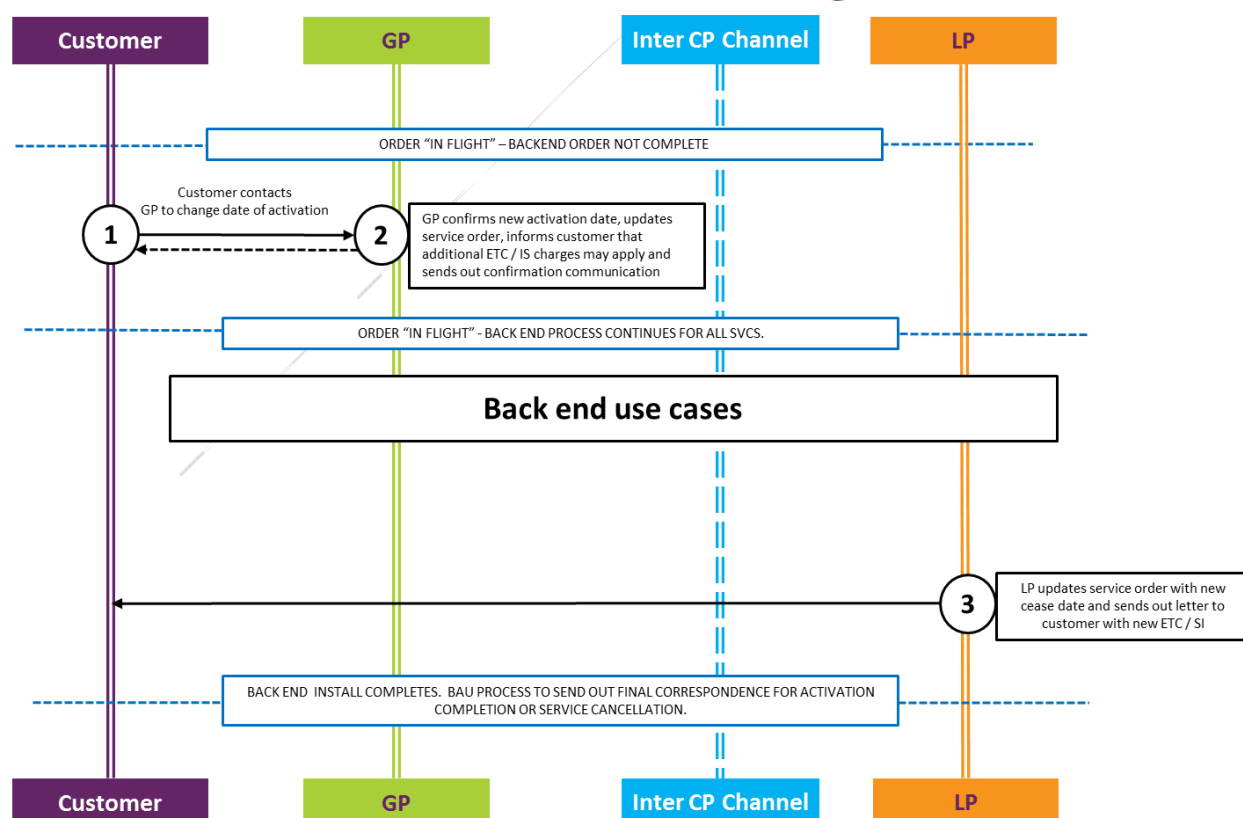
The GP is able to update the activation date using their own internal processes and systems. They can use the new Inter CP channel to communicate with the LP and advise them of the new cease date.

4.3.1   Process

The following diagram walks through the process for this use case.

Figure 4: Use case FE-ECR-UC03

4.3.2   Use Case Steps

Table 13: FE-ECR-UC03 Steps

No	Description
1	The customer wishes to change the activation date for their services.
	An agreement is needed as to when the Point of No Return (PONR) applies here. It could be that this is up to the activation date but it would be beneficial to agree a standard. E.g. Openreach have PONRs relating to their products.
2	The GP goes through their standard security validation and determines the order for which the customer wishes to amend the activation date. The GP agrees on a new date with the customer and update their systems.
	By default, the communications will be sent in a letter by post. If the customer has elected to receive communications by email from the GP, then email may be used as an alternative.
	The GP will ask the customer whether they want the GP to also change the cease date with the LP. The customer must have the option to manage the communication with the LP themselves. The GP will inform customer that a change of date may impact their ETC / IS and final bill with LP.
	The GP and LP interactions are outlined in the back end use cases (see References [2] and [3])
3	The LP updates the service order with new cease date and communicates it to customer. Any ETCs and other ISs will need to be recalculated.
	By default, the LP communications will be sent in a letter by post. If the customer has elected to receive communications by email from the LP, then email may be used as an alternative.

4.3.3   Deviations from Happy Path

Table 14 FE-ECR-UC03 Deviations from Happy Path

Step	Deviation	Alternative Process
2	Customer places request after PONR	GP rejects change request and informs customer
3	The customer does not consent to GP managing cease date	The GP will inform the customer that they will need to contact the LP if they want to amend the cease date.
3	LP unable to match Switch Reference ID to an active switch order	GP and LP escalate to jeopardy management team to identify customer and identify/issue new switch reference.

4.3.4   Application Impacts

Table 15 FE-ECR-UC03 Application Impacts

Step	Impacted Applications															Party	Description
	Channel Sales Mgt.	Knowledge Mgt.	Customer Info. Mgt.	Customer Self-Mgt.	CCM Retention & loyalty	CSR Toolbox	Customer Order Mgt.	Customer Problem Mgt.	Service Order Mgt.	Service Inventory Mgt.	Service Problem Mgt.	Partner Mgt.	Transactional Doc. Prod.	Bill Calculation	App. Integ. Infrastructure		
2									✓	✓					✓	GP	Can update the service orders with the new activation date.
3									✓	✓					✓	LP	Can update the service orders with the new cease date from information received via the Inter CP Channel

4.3.5   Interface Impacts

Table 16: FE-ECR-UC03 Interface Impacts

Step	Impacted Interfaces					Parties	Data Description
	CP order entry	CP-customer communication	CP <- -> CP channel interface	CP Billing	Customer Online Account Portal		
2, 3		✓		✓		GP, LP	Allow a billing recalculation. Update to the email and text interfaces.

4.4   FE-ECR-UC04: Customer-initiated Cancel

This use case covers the scenario whereby a customer cancels an activation. The request would be made by the customer to the GP.

An activation order can also be cancelled due to issues/errors on the GP side. This case is described in the back-end process documents (see References).

Note that this does not automatically cancel the LP service cessation. The consumer will need to contact the LP separately if they wish to retain their current services.

4.4.1   Process

The following diagram walks through the process for this use case.

Figure 5: Use case FE-ECR-UC04
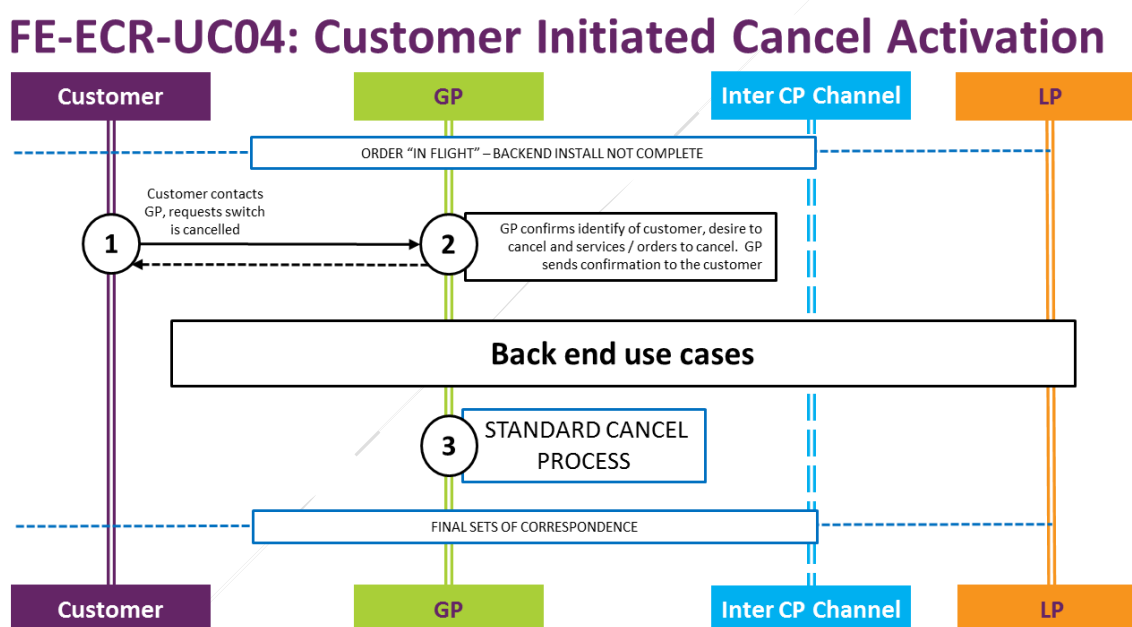
4.4.2   Use Case Steps

Table 17: FE-ECR-UC04 Steps

No	Description
1	The customer contacts the GP and provides the details of the services they wish to cancel.

No	Description
2	The GP will check the status of the customer's order on the order management system. The happy path assumes that the customer is within the cooling-off period. Standard CP cancellation processes should then be used. The GP should also advise/remind customer to contact LP to ensure continuation of service if applicable. It is assumed that CPs are able to cancel 'in-flight' cease requests to retain a customer.
3	The GP cancels the activation request. In line with existing process, the GP would need to inform the customer that the order had been cancelled using existing communications channels.

4.4.3   Deviations from Happy Path

Table 18: FE-ECR-UC04 Deviations from Happy Path

Step	Deviation	Alternative Process
2	GP finds account/service record, but the order is past the cooling-off period	GP will advise the customer of any charges that will be levied. Standard CP cancellation processes should then be used.

4.4.4   Application Impacts

The mapping of impacts to applications is illustrative, based on a generic application framework

Table 19: FE-ECR-UC04 Application Impacts

Step	Channel Sales Mgt.	Knowledge Mgt.	Customer Info. Mgt.	Customer Self-Mgt.	Customer Retention & loyalty	CSR Toolbox	Customer Order Mgt.	Customer Problem Mgt.	Service Order Mgt.	Service Inventory Mgt.	Service Problem Mgt.	Partner Mgt.	Transactional Doc. Prod.	Bill Calculation	App. Integ. Infrastructure	Party	Description
1				✓			✓		✓							GP	The customer can cancel activation with the GP on the phone or online
2		✓	✓	✓		✓	✓		✓			✓			✓	GP	Can store confirmation of customer's intent to cancel activation. Can update systems with cancellation date. Can generate cancellation letter

4.4.5   Interface Impacts

Table 20: FE-ECR-UC04 Interface Impacts

Step	Impacted Interface					Parties	Data Description
	CP order entry	CP-customer communication	CP <- -> CP channel interface	CP Billing	Customer online account portal		
1	✓				✓	GP	Customer can cancel order online or via phone
2	✓					GP	GP can cancel customer order for activation

4.5 Common Elements across all Use Cases

4.5.1 Common Interface Impacts

It is assumed that each party communicating with another party via electronic means will be able to do the following:

1. Store details of any message sent to it, including details of the party that sent the message

2. Validate that the party sending it a message is allowed to do so

3. Provide and store the appropriate level of acknowledgement to the message, whether that be:

    a. an acknowledgement

    b. an acceptance code and message

    c. a rejection code and message

    d. data

    e. a combination of the above

4. Store details of any message it sends, including details of the party to which it sent the message

5. Store details of responses to any message it sends, including details of the party to have sent the response

4.5.2 Common Application Impacts

The common interface impacts described in section 4.5.1 above will impact each operator's Application Integration Infrastructure functionality (see section 3.3).

5   Non-Functional Areas

Non-functional areas need to be given consideration, including but not limited to the following:

- Amount of data storage required at CP level
    - Persistent data (*additional fields* x *number of non-closed services*)
    - Switch-related data (*additional fields* x *number of switched services*)
    - Messaging per switch (*variable message size* x *process touch-points* x *number of switches*)
    - Messaging for BAU (*variable message size* x *number of non-closed services* x *average number of non-switch, account/service record impacting transactions per service*)
- Performance requirements and SLAs for synchronous transactions
- Performance requirements and SLAs for asynchronous transactions
- Performance requirements and SLAs around asset validation process (synchronous – response time across multiple CPs; asynchronous – *steps in chain* x *time period* such that *total time <= n minutes/hours*)
- Method of audit to allow
    - Investigation whether customer actually agreed (recordings)
    - Interface messages received and processed