

Solution Proposal for IR0683 – Project Cumberland

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Document Revision History

|  |  |  |
| --- | --- | --- |
| Revision | Date | Description |
| 0.1 | 6/2/2020 | Initial Version |

Overall template directions: Text in green are directions and guidance for filling out the template and should be removed by the actual text. Update the table of contents at the end. Sections should all be left in with notations of no scope anticipated as necessary. Add or remove options sections as needed.

# Business Drivers

Due to Accelerite being found not to be financially viable, to preserve the revenue that is enabled by this platform, USCC is looking to find alternative solutions (preferably inhouse) for the services that Accelerite provides.

Phase 1 of this project is to replace Accelerite’s platform for

* Google Play
* SMS Monetization

*Deferred scope (phase 2)*

* *Settlement with 3rd party for all carrier charges*
* *Settlement with SMS aggregators*
* *Reporting revenue feeds to SAP*
* *Reporting to California for 3rd party revenue*
* *Allowing of credits from TOPS*
  + *Including accounting for it in 3rd party settlements*
* *Assigning 3rd party billing offers in TOPS* 
  + *including recurring offers*
  + *Including those that provision a 3rd party*
* *Individualized spending limit*

# Assumptions

* Google play enablement does not need partner invoicing
* USCC does not handle Google play credits

# High Level Scope

## Functional Capabilities:

This section describes what is required at a high level to support the business drivers with the focus on business functions.

**FC1**

Ability to accept charges/credits from 3rd party using APIs for postpaid & prepaid subscribers

**FC2**

Ability to do an extract every night of all the charges processed thru the system and send to mediation

**FC3**

Ability to validate the subscriber and enforce spend limits

**FC4**

Support Google carrier billing

**FC5**

Ability to validate and the check the prepaid balance in real time before approving the charge

**FC6**

Ability to allow for SMSC aggregator to bind directly to the SMSC server

**FC7**

Ability to run usage reports out of SMSC

**FC8**

Ability for the SMSC aggregator to enter Short codes for vetting by a third party before being provisioned in SMSC

## Logistical Scope:

SOW for WMC for the project

## Operational Capabilities:

This section describes scope that supports the functional scope. These items are needed but do not drive the overall benefit. Scope items here include items needed to support technical impacts to other organizations.

The system needs to be maintained and enhanced as needed in-house both from software as well as from an operational support perspective

# Capability Prioritization and Sequencing

|  |  |  |
| --- | --- | --- |
| **Capability** | **Recommended MVS/MVP** | **Value Rationale** |
| FC1 | MVS1 | 3rd party billing for postpaid |
| FC2 | MVS1 | 3rd party billing for postpaid |
| FC3 | MVS2 | Subscriber validation and Spend limit enforcement |
| FC4 | MVS3 | Google carrier billing |
| FC5 | MVS4 | Prepaid support |
| FC6 | MVS5 | SMSC enablement |
| FC7 | MVS5 | SMSC enablement |
| FC8 | MVS6 | SMSC short code approval |

# Solution/Approaches

This section describes the various high level recommended approaches for this initiative. It includes a very high level overview of the solution and the pros and cons for each solution. This includes the delivery approaches by various phased along with technology options, wherever possible identifying options to improve value velocity should be identified.

## Proposed Solution/Approach 1:

### Solution Overview

This section defines the high level overview of the solution that is required to fulfill the key business scenarios

***In scope***

* Applicable to prepaid and postpaid

***Out of Scope***

* Ability to charge at the account level

### Solution Overview

Payment service enablement

* We provide payment service for number of 3rd party service providers



Google Carrier billing enablement

* Google specs will be used to develop the real-time SOAP and batch APIs for Google Carrier billing

Note:- It is preferable to use the newer specs for carrier billing



* Only the Google APIs (4 APIs), batch interfaces (4 in, 1 out) and Google Short code treatment that Accelerite has implemented needs to be replicated

Subscriber Validation

DMI feed will be used to validate subscriber status. If subscriber is not present ESB call will be used to validate the subscriber status.

Spending limits

Spending limit will be defined by Account type/subtype. The subscriber spending amount will be maintained each billing cycle and will be validated against this limit

Billing feed

A billing extract will be needed at the end of the day for all charges/credits

Prepaid integration

Gy interface will be enable for prepaid subscribers

SMS monetization enablement

* Engineering with enable SMS connectivity with SMS aggregators
  + Engineering with be able to generate usage reporting for invoicing purposes
  + Engineering will help with troubleshooting as needed for connectivity issues
* WMC global’ campaign management tool will be enabled for SMS code approval

* + WMC global does not support SAML and hence we will have to use their admin tool to setup/deactivate users (associates, WMC associates, partners)
* Engineering SMS tool will continue to be used for provisioning

Solution direction

* The API signature for payment services will be retained/preserved so that the consumers will not be impacted
  + Including security standards for the API
  + Inputs/Outputs
  + Assumption: Only IP, user credential changes will need to change
  + Migration strategy will be determined in phase 2
* DataPower will be used for publishing the SOAP/REST APIs
* SOAP/REST APIs can be hosted in OpenShift
* Fuse or some other module can be used for the API development
* Oracle or MongoDB can be used as a data store
* MFT will be used for the file transfers
  + PGP encryption will be used if needed for secure transfer

### Capabilities Included/Excluded

This section identifies what capabilities are included or excluded in the solution. For example: Excluded from this solution are capabilities FC3, OC2, OC3.

N/A

### Pros/Cons for the Solution

This section outlines the advantages and disadvantages for the above proposed solution

**Pro:**

Meets business need

**Con:**

None assuming no additional PCI obligations

# Recommendation

This section outlines the recommended solution from the architecture‘s perspective based on the various solutions presented in Section 3.

Solution option 1

# Impacted Teams and Functions

This section outlines the impacted teams and functions for the recommended solution. Focus here for logistical, morale and operational scope.

Teams impacted by capabilities:

|  |  |
| --- | --- |
| **Capability** | **Teams Impacted/Needed** |
| FC1, FC2 | Billing development, Infra Architect, DBA, Middleware, Security Architect, IAM team, MFT, Testing |
| FC3 | Billing development, Testing, MFT, Middleware  Consulted: DMI, ESB |
| FC4 | Billing development, Infra Architect, DBA, Middleware, Security Architect, IAM team, MFT, Testing |
| FC5 | Billing development, Testing  Consulted: Amdocs |
| FC6, FC7 | Engineering, Testing |
| FC8 | WMC, Security architect, IAM team |

# Impacted Business Process Areas

This section outlines the impacted business process areas, following the ASOM/eTOM methodology. It is ok to annotate as this section being Not Applicable for requests that do not benefit with such impact identification.

N/A

# Project Uncertainty Profile

This model will help to communicate, plan, invest, and manage more effectively based on aproject’s measured level of forecast uncertainties.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *P r o j e c t C o s t*  Technical Experience | **Exploration** |  | X |  |
| **Journey** |  |  |  |
| **Commute** |  |  |  |
|  |  | **Refinement** | **Evolution** | **Revolution** |
|  |  | *Business Case*  Operational Experience | | |

**Justification of Profile:** The IS work is extensive using existing patterns. This is a risk avoidance/business continuity item when it comes to business case

# Estimated effort duration

This section outlines the basic duration in 3 month increments that the entire request will take. For example: I.S. anticipates that a request of this size will take from 4-6 months to implement after approval.

6-9 months

# Governance Recommendation

Give overall recommendation for how the project should be governed ISPM only, EPM Only, Functionally Led etc.

IS PM only

Will need to work with engineering for SMS IP setup

# Guidance for Capex/Opex Determination

High level guidance for Capex or Opex determination by accounting. This should summarize the amount of new functionality versus adjustments to existing functionality. New capabilities / Vendors should be highlighted. Ask Tom or Nikhil for guidance if needed.

This is new in-house capability for the company which will replace a 3rd party provided SaaS offering.