KPI Data Object for KPIinOMA-Enabled CAB Instance

Approved Version 1.0 – 31 Jul 2012

Open Mobile Alliance

OMA-DDS-KPIinOMA_KPI_CAB-V1_0-20120731-A

© 2012 Open Mobile Alliance Ltd. All Rights Reserved.

Used with the permission of the Open Mobile Alliance Ltd. under the terms as stated in this document.   [OMA-Template-DataDefSpec-20120101-I]

Contents

Figures

1. Scope

This document defines the Key Performance Indicators for CAB (Converged Address Book) Enabler V1.0.

2. References

2.1 Normative References

[OMA-CAB-RD] "Converged Address Book Requirements", Version 1.0, Open Mobile Alliance™, OMA-RD-CAB-V1_0, URL:http://www.openmobilealliance.org/

[OMA-CAB-TS] "Converged Address Book Technical Specification", Version 1.0, Open Mobile Alliance™, OMA-TS-CAB-V1_0, URL:http://www.openmobilealliance.org/

[OMA-KPIinOMA-TS] "Key Performance Indicators for OMA Enablers Technical Specification", Open Mobile Alliance™, OMA-TS-KPIinOMA-V1_0, URL:http://www.openmobilealliance.org/

[RFC2119] "Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997, URL:http://www.ietf.org/rfc/rfc2119.txt

2.2 Informative References

[OMADICT] "Dictionary for OMA Specifications", Version x.y, Open Mobile Alliance™, OMA-ORG-Dictionary-V2_8, URL:http://www.openmobilealliance.org/

3. Terminology and Conventions

3.1 Conventions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

All sections and appendixes, except "Scope" and "Introduction", are normative, unless they are explicitly indicated to be informative.

3.2 Definitions

Address Book	See Converged Address Book in [OMA-CAB-RD].
Contact Subscription	See [OMA-CAB-RD].
Personal Contact Card	See [OMA-CAB-RD].

3.3 Abbreviations

AB	Address Book
KPI	Key Performance Indicator
OMA	Open Mobile Alliance
PCC	Personal Contact Card
UP	User Preference
XCAP	XML Configuration Access Protocol
XDM	XML Document Management

4. Introduction

This document defines the KPI for CAB Enabler V1.0, to evaluate the performance of the CAB Service.

5. Justification

The CAB KPI definition follows the KPI definition template defined in [OMA-KPIinOMA-TS].

The calculation, reporting of the CAB KPI follows the mechanisms and messages defined in [OMA-KPIinOMA-TS].

The CAB Enabler functional entities defined in [OMA-CAB-TS] act as KPIinOMA-enabled Instance defined in [OMA-KPIinOMA-TS].

6. KPI Data Description

The CAB KPI includes the KPI for the following main CAB functionalities:

- Contact Search – Personal Contact Card

- Contact Search -- Address Book

- Contact Subscription – Personal Contact Card

- Contact Notification – Personal Contact Card

- Document Management – User Preferences

- Document Management – Personal Contact Card

- Document Management – Address Book

- Address Book Synchronization

For each of the functionality, the KPI includes the following two types:

- Successful rate of the operation

- Average response time for the operation

6.1 Data Structure
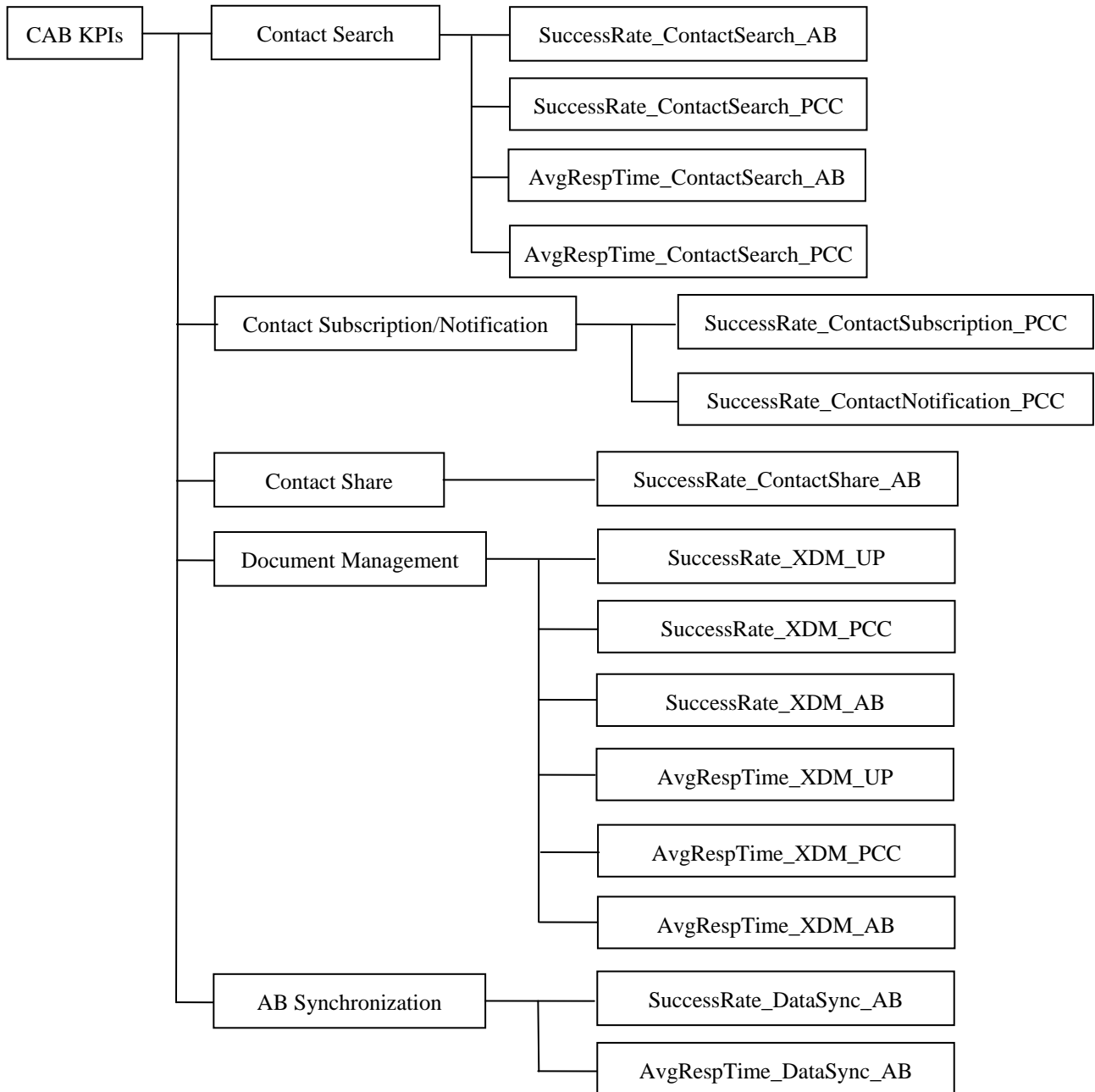
Figure 1: Structure of CAB KPI Data Object

6.2   Data Components

6.2.1   Contact Search KPI Data Components

6.2.1.1   Successful Rate of Contact Search -- AB

Field	Description
Name	SuccessRate_ContactSearch_AB
Description	The Successful Rate when CAB Users request for AB Contact Search
Purpose	This KPI is aimed to evaluate the CAB AB XDM server's service quality of Contact Search functionality, to detect the low performance time period occurred on the server.
Formula	(successful response for Contact Search-AB) / (total number of request for Contact Search-AB)
Unit	Percentage (%)
Data Type	Float Digital (e.g. 89.32)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.1.2   Average Response Time of Contact Search -- AB

Field	Description
Name	AvgRespTime_ContactSearch_AB
Description	The Average Time elapsed between CAB Users request for AB Contact Search and get the search result Server session timeout search is also included into calculation
Purpose	This KPI is aimed to evaluate the CAB AB XDM server's service quality of Contact Search functionality, to detect the low performance time period occurred on the server.
Formula	(sum of each search delay time) / (number of contact search)
Unit	Millisecond (ms)
Data Type	Float Digital (e.g. 65.12)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.1.3 Successful Rate of Contact Search -- PCC

Field	Description
Name	SuccessRate_ContactSearch_PCC
Description	The Successful Rate when CAB Users request for PCC Contact Search
Purpose	This KPI is aimed to evaluate the CAB PCC XDM server's service quality of Contact Search functionality, to detect the low performance time period occurred on the server.
Formula	(successful response for Contact Search-PPC) / (total number of request for Contact Search-PPC)
Unit	Percentage (%)
Data Type	Float Digital (e.g. 89.32)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.1.4 Average Response Time of Contact Search -- PCC

Field	Description
Name	AvgRespTime_ContactSearch_PCC
Description	The Average Time elapsed between CAB Users request for PCC Contact Search and get the search result Server time-out search is also included into calculation
Purpose	This KPI is aimed to evaluate the CAB PCC XDM server's service quality of Contact Search functionality, to detect the low performance time period occurred on the server.
Formula	(sum of each search delay time) / (number of contact search)
Unit	Millisecond (ms)
Data Type	Float Digital (e.g. 65.12)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.2   Contact Subscription and Notification KPI Data Components

6.2.2.1   Successful Rate of Contact Subscription

Field	Description
Name	SuccessRate_ContactSubscription_PCC
Description	The Successful Rate when CAB Users request for PCC Subscription
Purpose	This KPI is aimed to evaluate the CAB UP XDM server's service quality of Contact Subscription/Notification functionality, to detect the low performance time period occurred on the server
Formula	(total number of SIP Notify for contact subscription) / (total number of SIP Subscription for contact subscription)
Unit	Percentage (%)
Data Type	Float Digital (e.g. 89.32)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.2.2   Successful Rate of Contact Notification

Field	Description
Name	SuccessRate_ContactNotification_PCC
Description	The Successful Rate when CAB Users request for PCC Notification
Purpose	This KPI is aimed to evaluate the CAB PCC XDM server's service quality of Contact Subscription/Notification functionality, to detect the low performance time period occurred on the server
Formula	(total number of SIP Notify generated for user's PCC changes) / ((total number of PCC change) * (number of users who has successfully subscribed to user's PCC)
Unit	Percentage (%)
Data Type	Float Digital (e.g. 89.32)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.3   Contact Share KPI Data Component(s)

6.2.3.1   Successful Rate of Contact Share

Field	Description
Name	SuccessRate_ContactShare_AB
Description	The Successful Rate when CAB Users request for Contact Share of AB
Purpose	This KPI is aimed to evaluate the CAB Server's service quality of contact share functionality, to detect the low performance time period occurred on the server
Formula	(total number of successful contact sent operation) / (total number of contact share operation)
Unit	Percentage (%)
Data Type	Float Digital (e.g. 89.32)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.4   Document Management KPI Data Components

6.2.4.1   Successful Rate of XDM -- AB

Field	Description
Name	SuccessRate_XDM_AB
Description	The Successful Rate when CAB Users request for AB XDM Document Access
Purpose	This KPI is aimed to evaluate the CAB AB XDM server's service quality of AB XDM functionality, to detect the low performance time period occurred on the server.
Formula	(number of successful responses for AB XDM Document Access) / (total number of requests for AB XDM Document Access)
Unit	Percentage (%)
Data Type	Float Digital (e.g. 89.32)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.4.2   Average Response Time of XDM -- AB

Field	Description
Name	AvgRespTime_XDM_AB
Description	The Average Time elapsed between CAB Users request for AB XDM access and get the access result. Server time out is also included into calculation.
Purpose	This KPI is aimed to evaluate the CAB AB XDM server's service quality of AB XDM functionality, to detect the low performance time period occurred on the server.
Formula	(sum of each AB XDM access response time) / (total number of requests for AB XDM access)
Unit	Millisecond (ms)
Data Type	Float Digital (e.g. 65.12)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.4.3   Successful Rate of XDM -- PCC

Field	Description
Name	SuccessRate_XDM_PCC
Description	The Successful Rate when CAB Users request for PCC XDM Document Access
Purpose	This KPI is aimed to evaluate the CAB PCC XDM server's service quality of PCC XDM functionality, to detect the low performance time period occurred on the server.
Formula	(number of successful responses for PCC XDM Document Access) / (total number of requests for PCC XDM Document Access)
Unit	Percentage (%)
Data Type	Float Digital (e.g. 89.32)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.4.4   Average Response Time of XDM -- PCC

Field	Description
Name	AvgRespTime_XDM_PCC
Description	The Average Time elapsed between CAB Users request for AB and get the access result Server timeouted access is also included into calculation
Purpose	This KPI is aimed to evaluate the CAB PCC XDM server's service quality of PCC operation functionality, to detect the low performance time period occurred on the server.
Formula	(sum of each PCC response time) / (total number of requests for PCC XDM access)
Unit	Millisecond (ms)
Data Type	Float Digital (e.g. 65.12)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.4.5   Successful Rate of XDM -- UP

Field	Description
Name	SuccessRate_XDM_UP
Description	The Successful Rate when CAB Users request for UP XDM Document Access
Purpose	This KPI is aimed to evaluate the CAB UP XDM server's service quality of XDM, to detect the low performance time period occurred on the server.
Formula	(number of successful responses for UP XDM Document Access) / (total number of requests for UP XDM Document Access)
Unit	Percentage (%)
Data Type	Float Digital (e.g. 89.32)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.4.6   Average Response Time of XDM -- UP

Field	Description
Name	AvgRespTime_XDM_UP

Description	The Average Time elapsed between CAB Users request for UP and get the access result Server timeouted access is also included into calculation
Purpose	This KPI is aimed to evaluate the CAB UP XDM server's service quality of XDM functionality, to detect the low performance time period occurred on the server.
Formula	(sum of each UP XDM access response time) / (total number of UP XDM access)
Unit	Millisecond (MS)
Data Type	Float Digital (e.g. 65.12)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.5   Data synchronization KPI Data Components

6.2.5.1   Session successful rate of Data Sync

Field	Description
Name	SuccessRate_DataSync_AB
Description	The Successful Rate when CAB Users request for data sync of AB
Purpose	This KPI is aimed to evaluate the CAB Server's service quality of data synchronization functionality, to detect the low performance time period occurred on the server
Formula	(total number of successful data sync session) / (total number of data sync request)
Unit	Percentage (%)
Data Type	Float Digital (e.g. 89.32)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

6.2.5.2   Average Response Time per 100 records of Data Sync

Field	Description
Name	AvgRespTime_DataSync_AB
Description	The Average Time elapsed between the Data Sync session start time and data sync session end time, based on 100 records unit
Purpose	This KPI is aimed to evaluate the CAB Server's service quality of Data Sync functionality, to detect the low performance time period occurred on the server.
Formula	(sum of data sync session time period) / ((amount of synced address book number)/100)
Unit	Millisecond (ms)
Data Type	Float Digital (e.g. 7310.02)
Reporting Frequency	1 time per hour
Reporting Duration	1 hour
Data Source	KPIinOMA-enabled CAB instance
Category (optional)	None

7. Operational Considerations

The definition of KPIscan be independent of the KPIinOMA enabler.

Each KPI definition is tied to a particular OMA enabler release.

The reporting of the KPI data follows the security mechanisms specified in [OMA-KPIinOMA-TS].

Appendix A.   Change History   (Informative)

A.1   Approved Version History

Reference	Date	Description
OMA-DDS-KPIinOMA_KPI_CAB-V1_0-20120731-A	31 Jul 2012	Status changed to Approved by TP Ref TP Doc# OMA-TP-2012-0288-INP_KPIinOMA_V1_0_for_Final_Approval