

Version History

| Change | Version | By |
|---|----------------|-----------|
| New version | 1.0 | KK |
| Modified CCN Application Document to include collection for Document section. i.e. Allow multiple documents. | 1.1 | KK |
| Added CCN System Document to support host system integration | | |
| Added DocumentContentType in CCNDocument & CCNAppDocument structure | 1.2 | KK |
| Updated CCNAppDocument, CCNDocument structure on typo and format. (2/12/2014) | | |
| Updated CCNDocument structure to include FileID | 1.2.1 | KK |
| Updated CCNDocument structure to include Sender/Recipient CompanyCode, Company Name1 and Name2. | 1.2.2 | KK |
| Removed MyContactCompanyName from CCNAppDocument | | |

1. Web Service API (For Publishing only)

The followings information is required to publish document to CCN Service Bus via SOAP interface

| Web service URL | Environment | Remarks |
|--|----------------|---------|
| http://apidev.ccnhub.com/CCN.ServiceBus.WCFAdaptor/wcfAdaptorService.svc | Test | |
| TBA | Pre-Production | |
| TBA | Production | |

The SOAP Request/Response Information

| Element Name | Type | Remarks |
|-----------------|-----------|---|
| PublishDocument | Operation | IWcfAdaptorService operation, used by application to publish document to CCN Service Bus |
| ccnDocument | String | PublishDocument operation's input parameter. There are many type of CCN Document formats, the supported types are listed in following sections of this document. |
| ErrorMessage | String | PublishDocument response parameter, this response parameter contains error message returned by CCN Service Bus. If publish operation is successful, error message will contain empty string. |

2. Web Service Interface (For Subscriber Web Service implementation)

This section contains Interface (ISubscriberClient) requirement to be implemented by subscriber client as web service so that CCN Service Bus is able to push subscribed document to client by consuming the service.

| Subscriber Web service URL implemented | Environment | Remarks |
|--|----------------|---------|
| To be provided by Client | Test | |
| To be provided by Client | Pre-Production | |
| To be provided by Client | Production | |

All client has to implement ISubscriberClient interface in order to receive document subscribed in CCN Service Bus.

| Element Name | Type | Remarks |
|-------------------|-----------|---|
| ISubscriberClient | Interface | This is the interface library to be implemented by Client web service |
| ReceiveDocument | Operation | ISubscriberClient operation which is used by CCN Service Bus to push subscribed document to client. |
| ccnDocument | String | ReceiveDocument operation's input parameter. There are many type of CCN Document formats, the supported types are listed in following sections of this document. Typically, the type of CCN Document format received is pre-defined and agreed by both client and CCN. Default format used is CCN Application Document format, unless otherwise requested by client. |
| ErrorMessage | String | ReceiveDocument's response parameter, this response parameter contains error message returned by Client web service. If publish operation is successful, error message will contain empty string. |

3. CCN Application Document Specification

This is the default and recommended document format for all CCN Application to publish document to CCN Service Bus. Application is required to serialise this document structure into JSON Format before publishing to CCN ServiceBus.

| Field | Format | Remark |
|-----------------------------|------------------------------------|---|
| SystemDocumentVersion | String M(3) | Default to "001" |
| SystemTransactionID | String M(50) | Unique transaction identifier; application to generate GUID |
| SystemTransactionTimestamp | String M(16) "yyyyMMddHHmmssff" | System Date & time for document submission at publishing application end; publishing application to generate y (year), M (month), d (day), H (hour 24), m (minute), s (second), f (second fraction) |
| Owner Section | | |
| MyCompanyID | String M(50) | Company registered ID in LINC |
| MyCompanyCity | String M(3) | City code of registered company in LINC |
| MyEmailAddress | String O(50) | Email address of sender |
| MyProductID | String M(50) | Registered product/application in LINC that publish this document |
| Party Section | | |
| MyContactPartyID | String M(20) | Party ID that exist in Sender CAB For connecting to Airline, use IATA Carrier Code, e.g. "SQ, MH, QF" etc |
| MyContactEmailAddress | String M(50) | Email address of recipient |
| MyContactProductID | String O(50) | Recipient Product ID that subscribe For connecting to Airline, default to "AIR" |
| Document Information | | |
| DocumentID | String ReadOnly (50) | Unique Document ID in CCN. Auto generated by publishing adaptor. |
| DocumentType | String M(20) | Registered document type to exchange |
| DocumentContentType | String M(10) | MIME Content Type; Default "text/xml" Common MIME format: "image/<xxx>" where xxx represent image extension type. E.g. png, gif, jpg etc. "application/pdf" for PDF document "application/ms-word" for MS-Word document "application/ms-excel" for MS-Excel document |
| DocumentReference | String O(250) | |
| DocumentKeyValue | Collection O | Can have up to 50 key values |
| Key | String M(100) | Key fields |
| Value | String M(100) | Value relating to the key |
| DocumentTag | Collection O | Can have up to 50 tags |
| Value | String M(250) | Tag value |
| DocumentBody | Byte[] M | Document converted to byte array |

4. CCN System Document Specification

This is CCN Service Bus system document format. These are the fields which all supported document format will eventually mapped into, before publishing to the CCN Service Bus topic.

Due to its primitive information requirement on the fields, it is only used by CCN Host related system for interchangeability purpose.

| Field | Format | Remark |
|----------------------------|------------------------------------|---|
| SystemDocumentVersion | String M(3) | Default to "001" |
| SystemTransactionID | String M(50) | Unique transaction identifier; publishing application to generate GUID |
| SystemTransactionTimestamp | String M(16) "yyyyMMddHHmmssff" | System Date & time for document submission at publishing application end; publishing application to generate y (year), M (month), d (day), H (hour 24), m (minute), s (second), f (second fraction) |
| | | |
| Sender Section | Single | Allow only one sender |
| SenderCompanyID | String M(50) | Company registered ID in LINC External registered system have following defaults For ProductID = AIR, CompanyID can be as form of IATA Carrier Code For ProductID = CUS, CompanyID can be the Country+City+"Custom" code of the custom location. e.g SGSINCustom |
| SenderCityCode | String M(3) | City code of registered company in LINC City code can be optional if product is externally registered. |
| SenderCompanyCode | String Read Only (50) | Read Only |
| SenderCompanyName1 | String Read Only (200) | Read Only |
| SenderCompanyName2 | String Read Only (200) | Read Only |
| SenderUserEmailAddress | String O(50) | Email address of sender |
| SenderProductID | String M(50) | Registered product/application in LINC that publish this document Beside LINC registered product id, the followings are external registered system product in CCN, which is available by default. AIR – Airline System GHA – Ground Handling Agent System CUS – Custom System |
| | | |
| Recipient Section | Collection | Can have up to 10 recipient sections |
| RecipientCompanyID | String M(50) | Company registered ID in LINC External registered system have following defaults |

| | | |
|-----------------------------|------------------------|---|
| | | <p>For ProductID = AIR, CompanyID can be as form of IATA Carrier Code</p> <p>For ProudctID = CUS, CompanyID can be the Country + "Custom" code of the customs location. e.g SGCustoms</p> |
| RecipientCityCode | String M(3) | <p>City code of registered company in LINC</p> <p>City code can be optional if product is externally registered.</p> |
| RecipientCompanyCode | String Read Only (50) | Read Only |
| RecipientCompanyName1 | String Read Only (200) | Read Only |
| RecipientCompanyName2 | String Read Only (200) | Read Only |
| RecipientUserEmailAddress | String O(50) | Email address of sender |
| RecipientProductID | String M(50) | <p>Registered product/application in LINC that publish this document</p> <p>Beside LINC registered product id, the followings are external registered system product in CCN, which is available by default.</p> <p>AIR – Airline System GHA – Ground Handling Agent System CUS – Custom System</p> |
| Document Information | Collection | Can repeat up to 10 documents |
| DocumentID | String O(50) | Read Only. Unique Document ID in CCN |
| DocumentType | String M(20) | Registered document type to exchange |
| DocumentContentType | String M(100) | <p>MIME Content Type; Default "text/xml"</p> <p>Common MIME format: "image/<xxx>" where xxx represent image extension type. E.g. png, gif, jpg etc.</p> <p>"application/pdf" for PDF document "application/ms-word" for MS-Word document "application/ms-excel" for MS-Excel document</p> |
| DocumentReference | String O(250) | |
| DocumentKeyValue | Collection O | Can have up to 50 key values |
| Key | String M(100) | Key fields |
| Value | String M(100) | Value relating to the key |
| DocumentTag | Collection O | Can have up to 50 tags |
| Value | String M(250) | Tag value |
| DocumentBody | Byte[] M | Document converted to byte array |
| FileID | String ReadOnly | For system usage. |