

System Integration

Fusion Report



CRIF HIGH MARK

Document Control:

Change History

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05 July 2016	Saket Vaidya	1.0	
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1 Introduction

This document provides guidelines for implementation of Fusion Report and should be used as a guide for developing an interface with the CRIF High Mark (CHM) with support from the additional technical files (WADL, XSD etc.) provided separately. The CPU-CPU Channel provides the client with an ability to perform an inquiry with CRIF High Mark using HTTPS protocol. The API is designed to enable client interact securely with CHM API from client's web application. Client will receive asynchronous XML response from the API that will include values against the inquired parameters along with errors (if any) encountered during execution of inquiry/request.

2 Structure of the Document

This document describes the XML-formatted input and output messages. The sections 4-11 contain the primitive definitions. These are the strings used by HUB. The structure will contain a table identifying the XML parameters.

Two table layouts are used for the parameter description according to the fact that the parameter type is compound or basic.

In case of a compound parameter, the table layout will be:

ELEMENT	TYPE	DESCRIPTION
Contains the tag name (these will be visible within the XML).	Describes the type of the element; this can refer to another table.	Gives a description of the element.

Note:

- The TYPE column of the table may contain the following information:
 - [1] means mandatory element
 - [0..N] means that the element is optional or could be repeated multiple times.
 - [1..N] means that the element is mandatory and could be repeated multiple times.

The detailed XML parameter descriptions are in the form of tables as explained below:

ELEMENT	CHARACTER TYPE	REQUIRED	LENGTH	POSSIBLE VALUES	DESCRIPTION
Contains the tag name (these will be visible within the XML).	Describes the type of element; this can refer to another table.	Describes if the element is mandatory	Describes the maximum length of the element	Describes the enumeration of possible values, is applicable	Gives a description of the element.

Note:

- The CHARACTER TYPE column of the table may contain the following information:
 - A – Alphabetic
 - A/N – Alphanumeric
 - N – Numeric
 - DATE
- The REQUIRED column of the table may contain the following information:
 - Mandatory
 - Optional
 - Required

3 Intended Audience

This document is for the following audience:

- CHM customers who develop messaging interface functionality.
- System architects, system administrators, software developers, security managers, and those who configure and maintain applications. It assumes that the readers are developing application programs that will use CPU-CPU channel to connect to CRIF High Mark User Base.
- The reader is expected to have a fair knowledge of XML and working of HTTPS protocol.

PROCESS

Step 1: CLIENT to CRIF High Mark Send Request

Client need to send Request on the URL provided by CRIF High Mark with protocol defined below

1. **URLs:**

UAT : <https://test.crifhighmark.com/Inquiry/doGet.service/FusionService>

PROD : <https://hub.crifhighmark.com/Inquiry/doGet.service/FusionService>

2. **Protocol:** https (**Restful Web service**)

3. **Method:** POST

4. **Parameters:**

Parameter	Value	Type	Style
requestXML	Request xml as per format specified in integration document	String	HEADER
userId	CRIF High Mark team will share user ID separately	String	HEADER
password	CRIF High Mark team will share password separately	String	HEADER
mbrid	CRIF High Mark team will share mbrid separately	String	HEADER
productType	FUSION	String	HEADER
productVersion	1.0	String	HEADER
reqVolType	INDV	String	HEADER

(Note: User need to send all Parameters with request XML in Header Parameter with POST method.)

Step 2:- After Request has been sent by Client, Client will receive **Acknowledgement with report ID** in return from CRIF High Mark

- If request is accepted then CRIF High Mark will send **Acknowledgement with report ID** to client
- If rejected in L1 validation, then** CRIF High Mark will send Acknowledgement **with error**

Step3. If request passed validation phase (as explained in step2), CLIENT will send Issue Request to CRIF High Mark

Client need to send issue Request on the URL provided by CRIF High Mark with protocol defined below

1. **URLs:**

UAT : <https://test.crifhighmark.com/Inquiry/doGet.service/FusionService>

PROD : <https://hub.crifhighmark.com/Inquiry/doGet.service/FusionService>

2. **Protocol:** https

3. **Method:** POST

4. **Parameters:**

a. **inquiryXML:** issue XML format provided by CRIF High Mark.

i. **issue request will have report Id received in step2**

ii. Client will Send Issue Request to CRIF High Mark with Report ID and Unique Identification Number which was given in Normal Acknowledgement

b. **userId** : user login id provided by CRIF High Mark

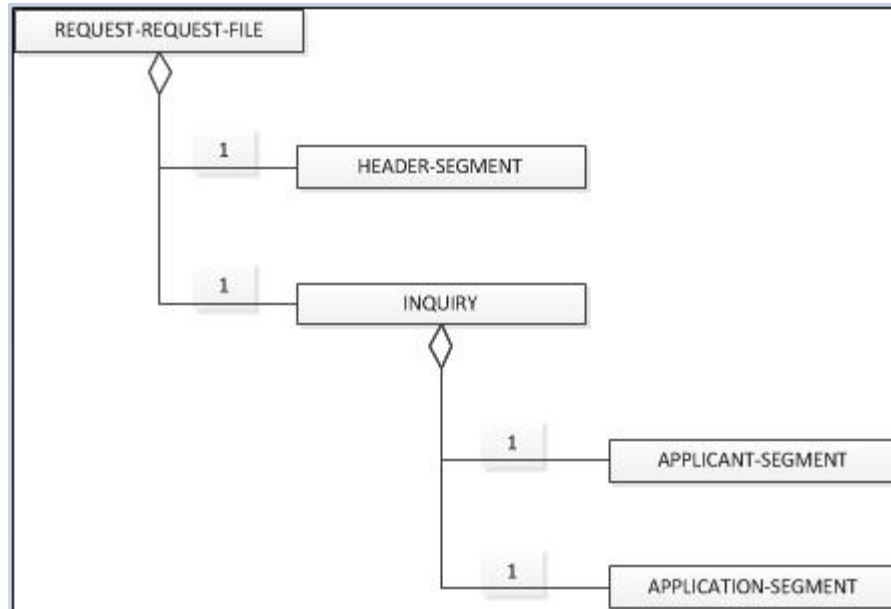
c. **Password:** user password provided by CRIF High Mark

Below are possible outputs of **step3**

- i. If Issue Request Header is Invalid Error Response XML will be return from CRIF High Mark with error mentioned in XML file.
- ii. If Issue Header is valid then CRIF High Mark will check for the response XML generated for the REPORT ID mentioned in Issue Request XML.
- iii. If Response XML is not generated by CRIF High Mark then CRIF High Mark will send Response XML with STATUS Inquiry in process
- iv. If Response XML is generated at CRIF High Mark then Normal response XML will be sent to client

4 Request message structure

Client creates a Single Inquiry Request and submits to CRIF High Mark over CPU-CPU Channel.



REQUEST-REQUEST-FILE

ELEMENT	TYPE	DESCRIPTION
HEADER-SEGMENT	[1] HEADER-SEGMENT	Describes the header information.
INQUIRY	[1] INQUIRY	Describes individual inquiry information

5 Request XML Definitions

5.1 HEADER-SEGMENT

ELEMENT	CHARACTER TYPE	REQUIRED	LENGTH	POSSIBLE VALUE(S)	DESCRIPTION
PRODUCT-TYP	A	Mandatory	15	FUSION	Value identifying which bureau product is requested
PRODUCT-VER	A/N	Mandatory	4	1.0	Value identifying which version of bureau product is requested.
REQ-MBR	A	Mandatory	15		Id of the member as provided by CHM
SUB-MBR-ID	A/N	Mandatory	20		Name of the member
INQ-DT-TM	A	Mandatory	19		The date/time "AS OF WHICH" the request is being submitted to CHM. Format for field will be DD-MM-YYYY HH:MI:SS
REQ-VOL-TYP	A/N	Mandatory	3	C01	Identifies single request
REQ-ACTN-TYP	A/N	Mandatory	4	AT01- (or SUBMIT) - Create New Request AT02- (or ISSUE) - Send Report AT03- (or FORCENE W) - Recreate Existing Request AT04- (or REISSUE) - Resend Existing report AT05- (or UPDATE) - Send Updated	Identifies Credit Inquiry Request Action Type i.e. type of service action being requested.

				Data for an existing report AT06- (or UPGRADE) - Upgrade Existing Report AT07- (or STATUSU PDT) - Check Inquiry Status	
TEST-FLG	A	Mandatory	6	HMTEST HMLIVE	Value identifying whether this request is a test request or valid
AUTH-FLG	A	Mandatory	1	Y N	Y if the request is authorized by Member/Applicant
RES-FRMT	A	Mandatory	8	XML	Response format type for the service or product being requested.
LOS-NAME	A	Mandatory	30		Descriptive name of the LOS as determined by the vendor.
REQ-SERVICE-TYPE	A	Mandatory	100	PAN BUREAU UID DOB ADDRESS CB SCORE INCOME SEGMENT OCCUPATION CLASS ALL	Client can select minimum one or all the services using pipe separator

5.2 INQUIRY

ELEMENT	TYPE	DESCRIPTION
APPLICANT-SEGMENT	[1] APPLICANT-SEGMENT	Describes the applicant data
APPLICATION-SEGMENT	[1] APPLICATION-SEGMENT	Describes application data

5.2.1 APPLICANT-SEGMENT

ELEMENT	CHARACTER TYPE	REQUIRED	LENGTH	POSSIBLE VALUE(S)	DESCRIPTION
NAME	A	Mandatory	100		Name of the Applicant
DOB-DATE	DATE (DD-MM-YYYY)	Required	10		Date of Birth of the Applicant. Required if DOB service is selected
PAN	A/N	Required	10		PAN number of Applicant. Required if PAN service is selected
UID	A/N	Required	12		UID/Aadhar card number of applicant. Required if UID service is selected.
ADDRESS	A/N	Required	150		Address of the applicant. Required if ADDRESS service is selected
CITY	A	Required	20		City of applicant. Required if ADDRESS service is selected
STATE	A	Required	2	Please refer to Appendix D for state codes	State (ex. MH, MP). Required if ADDRESS service is selected
PIN	N	Required	6		PIN code. Required if ADDRESS service is selected
PHONE	A	Required	10		Mobile/Phone number of Applicant. Required if BUREAU service is selected

EMAIL	A	Required	50		E-mail id of applicant. Required if BUREAU service is selected
RELATION-TYPE	A/N	Optional	3	K01- Father K02- Husband K03- Mother K04- Son K05- Daughter K06- Wife K07- Brother K08- Mother-In-law K09- Father-In-law K10- Daughter-In-law K11- Sister-In-Law K12- Son-In-law K13- Brother-In-law K15- Other	Required if RELATION-VALUE is populated
RELATION-VALUE	A	Required	30		Required if RELATION-TYPE is populated
NOMINEE-TYPE	A/N	Optional	3	K01- Father K02- Husband K03- Mother K04- Son K05- Daughter K06- Wife K07- Brother K08- Mother-In-law K09- Father-In-law K10- Daughter-In-law K11- Sister-	Required if NOMINEE-VALUE id populated

				In-Law K12- Son- In-law K13- Brother-In- law K15- Other	
NOMINEE-VALUE	A	Optional	30		Required if NOMINEE-TYPE is populated
GENDER-TYPE	A/N	Optional	3	G01 - Male G02 - Female G03 – Transgende r G04-Un- tagged	Gender of applicant. Pass any one of G01, G02, G03 or G04.
OTHER DETAILS	[0..1]OTHER DETAILS				Additional details of applicant that can be furnished.

5.2.1.1 OTHER DETAILS

ELEMENT	TYPE	REQUIRED	LENGTH	POSSIBLE VALUES	DESCRIPTION
NAME	A	OPTIONAL	100		Describes the name/alternate name
ADDRESSES	[0..1] ADDRESSES				Describes the alternate address of the applicant
IDS	[0..1] IDS				Describes the identity information
PHONES	[0..1] PHONES				Alternate phone number of applicant
EMAILS	[0..1] EMAILS				Alternate email of applicant

5.2.1.1.1 ADDRESSES

ELEMENT	TYPE	DESCRIPTION
ADDRESS	[1..N] ADDRESS	Describes the address(es) of the applicant

5.2.1.1.1.1 ADDRESS

ELEMENT	CHARACTER TYPE	REQUIRED	LENGTH	POSSIBLE VALUES	DESCRIPTION
TYPE	A/N	Optional	3	D01- Residence D02- Company D03- Res Cum Off D04- Permanent D05- Current D06- Foreign D07- Military D08- Other	Type of address
ADDRESS-1	A/N	Required	150		Required if TYPE is populated. Should be CDATA section.
CITY	A	Required	20		Required if TYPE is populated.
STATE	A	Required	2	Please refer to Appendix D for state codes	Required if TYPE is populated.
PIN	N	Required	6		Required if TYPE is populated.

5.2.1.1.2 IDS

ELEMENT	TYPE	DESCRIPTION
ID	[1..N] ID	Identity information

5.2.1.1.2.1 ID

ELEMENT	CHARACTER TYPE	REQUIRED	LENGTH	POSSIBLE VALUES	DESCRIPTION
TYPE	A/N	Optional	4	ID01- Passport ID02- Voter ID ID03- UID ID04- Others ID05- Ration Card ID06- Driving License No ID07- Pan	
VALUE	A/N	Required	30		Required if TYPE is populated

5.2.1.1.3 PHONES

ELEMENT	TYPE	DESCRIPTION
PHONE	[1..N] PHONE	Phone information

5.2.1.1.3.1 PHONE

ELEMENT	CHARACTER TYPE	REQUIRED	LENGTH	POSSIBLE VALUES	DESCRIPTION
TELE-NO-TYPE	A/N	Optional	3	P01- Residence P02- Company P03- Mobile P04- Permanent P05- Foreign P07- Other P08- Untagged	
TELE-NO	N	Required	15		Required if TELE-NO-TYPE is populated

5.2.1.1.4 EMAILS

ELEMENT	TYPE	DESCRIPTION
EMAIL	[1..N] EMAIL	EMAIL ID

5.2.1.1.4.1 EMAIL

ELEMENT	CHARACTER TYPE	REQUIRED	LENGTH	POSSIBLE VALUES	DESCRIPTION
EMAIL	A	Optional	50		EMAIL ID of applicant

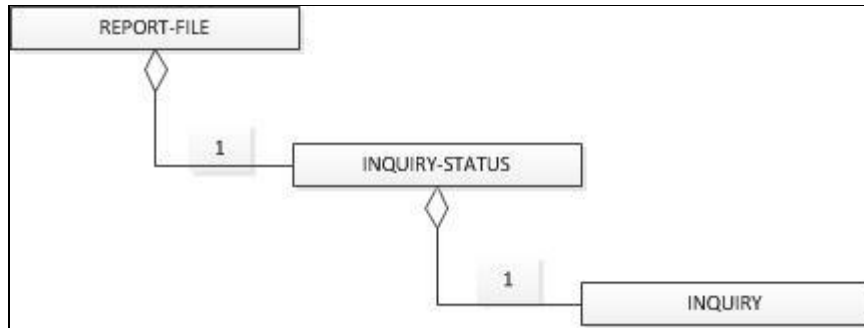
5.2.2 APPLICATION-SEGMENT

ELEMENT	CHARACTER TYPE	REQUIRED	LENGTH	POSSIBLE VALUES	DESCRIPTION
INQUIRY-UNIQUE-REF-NO	A/N	Optional	20		Unique identifier for an inquiry (Logic provided in Appendix A)
CREDIT-RPT-ID	A/N	Optional	30		Required in case of Reissue or Upgrade. A reference number assigned by the CHM to a specific credit report.
CREDIT-REQ-TYP	A	Mandatory	4	INDV	The Credit Request Type specifies either an

					Individual Report on one person, or a Joint Report
CREDIT-INQ-PURPS-TYP	A/N	Mandatory	4	CP01- Account Origination CP02- Account Maintenance CP03- CheckingOrSavingsPossibl eAdditionalOf fers CP04- CreditWatch CP05- FraudCheckR equested CP06- OnlinePR CP07- InsuranceReq uest CP08- LegitimateBu sinessPurpos e CP09- Licensing CP10- Other CP11- SkipTrace CP12- UtilityCompa ny	The Inquiry Purpose Type identifies the reason for requesting the credit data on the Applicant. Submit the values in bold letters. For example CP07
CREDIT-INQ-PURPS-TYP-DESC	A/N	Mandatory	50		Description of option selected for CREDIT-INQ-PURPS-TYP
CLIENT-CUSTOMER-ID	A/N	Optional	50		Applicant reference as provided by the requesting branch
BRANCH-ID	A/N	Optional	30		Name/number of requesting branch
APP-ID	A/N	Optional	50		Application reference as provided by the requesting branch
AMOUNT	N	Optional			Amount applied for. Decimal values can also be populated

6 Acknowledgement Message Structure

CRIF High Mark processes the Inquiry Request and sends an acknowledgment xml as a response. The acknowledgement XML will contain Report Id, if the inquiry was successfully submitted. Else, it will contain the error(s) why inquiry was rejected/not processed.



REPORT-FILE

ELEMENT	TYPE	DESCRIPTION
INQUIRY-STATUS	[1] INQUIRY-STATUS	Carries information about processing status of inquiry.

7 Acknowledgement XML Definitions

7.1 INQUIRY-STATUS

ELEMENT	TYPE	DESCRIPTION
INQUIRY	[1..N] INQUIRY	Carries information about processing status of inquiry.

7.1.1 INQUIRY

ELEMENT	CHARACTER TYPE	LENGTH	POSSIBLE VALUES	DESCRIPTION
INQUIRY-UNIQUE-REF-NO	A/N	20		Unique reference as in Requested inquiry
CLIENT-CUSTOMER-ID	A/N	20		Member Id as in Requested inquiry
REQUEST-DT-TM	A	19		Date and Time of Request. Format for field will be DD-MM-YYYY HH:MI:SS
REPORT-ID	A/N	30		Unique report id provided by CHM. This should be used for any further communication with CHM. Only present when response-type is

				ACKNOWLEDGEMENT
RESPONSE-DT-TM	A	19		Date and time when response was generated. Format for field will be DD-MM-YYYY HH:MI:SS
REPONSE-TYPE	A	15	<ul style="list-style-type: none"> ACKNOWLEDGEMENT ERROR 	Type of response
ERRORS	[0..N] ERRORS			Error why inquiry was not processed. Only present when response-type is ERROR

7.2 ERRORS

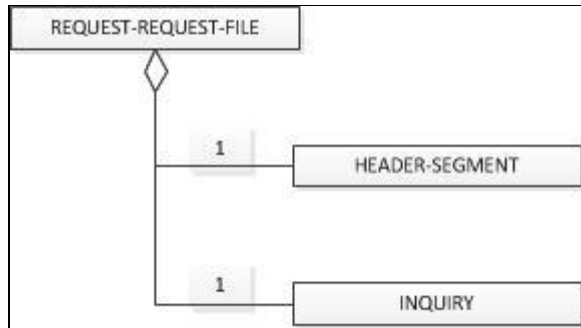
ELEMENT	TYPE	DESCRIPTION
ERROR	[1..N] ERROR	Carries information about processing status of inquiry.

7.2.1 ERROR

ELEMENT	CHARACTER TYPE	LENGTH	DESCRIPTION
CODE	A/N	30	Error code why inquiry was not processed. Please refer to Appendix E & Appendix F .
DESCRIPTION	A/N	100	Error description why inquiry was not processed. Please refer to Appendix E & Appendix F .

8 Issue message structure

Client creates and submits an issue xml to collect the report. The issue XML should contain the Report Id provided by CRIF High Mark in the Acknowledgement response.



REQUEST-REQUEST-FILE

ELEMENT	TYPE	DESCRIPTION
HEADER-SEGMENT	[1] HEADER-SEGMENT	Describes the header information.
INQUIRY	[1] INQUIRY	Describes individual inquiry information

9 Issue XML Definitions

9.1 HEADER-SEGMENT

ELEMENT	CHARACTER TYPE	REQUIRED	LENGTH	POSSIBLE VALUES	DESCRIPTION
PRODUCT-TYP	A	Mandatory	15	FUSION	Value identifying which product is requested
PRODUCT-VER	A/N	Mandatory	4	1.0	Value identifying which version of product is requested.
REQ-MBR	A	Mandatory	15		Name of the member as provided by CHM
SUB-MBR-ID	A	Mandatory	20		Name of the member
INQ-DT-TM	A	Mandatory	19		The date "AS OF WHICH" the request is being submitted to CHM. Format for field will be DD-MM-YYYY HH:MI:SS
REQ-VOL-TYP	A/N	Mandatory	3	C01 - INDV	
REQ-ACTN-TYP	A/N	Mandatory	4	AT01 - SUBMIT - Create New Request AT02 - ISSUE - Send Report AT03 - FORCENEW - Recreate Existing Request AT04 - REISSUE - Resend Existing report AT05 - UPDATE - Send Updated Data for an existing report AT06 -	Type of service action being requested. (The value should be AT02)

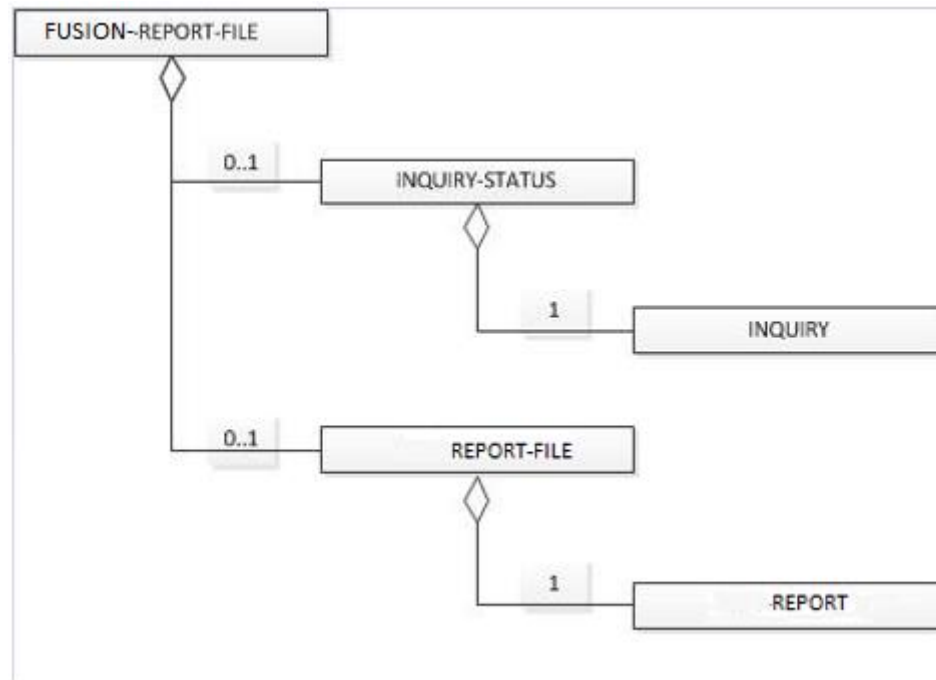
				UPGRADE - Upgrade Existing Report AT07-STATUSUPD T - Check Inquiry Status	
TEST-FLG	A	Mandatory	6	HMTST HMLIVE	Value identifying whether this request is a test request or valid
AUTH-FLG	A	Mandatory	1	Y N	Y if the request is authorized by Member/Applicant
RES-FRMT	A	Mandatory	8	XML	Response format type for the service or product being requested.
LOS-NAME	A	Optional	30		Descriptive name of the LOS as determined by the vendor.
REQ-SERVICE-TYPE	A	Mandatory	100	PAN BUREAU UID DOB ADDRESS CB SCORE INCOME SEGMENT OCCUPATION CLASS ALL	Service(s) requested

9.2 INQUIRY

ELEMENT	CHARACTER TYPE	REQUIRED	LENGTH	POSSIBLE VALUES	DESCRIPTION
INQUIRY-UNIQUE-REF-NO	A/N	Required	20		Unique identifier for an inquiry
REQUEST-DT-TM	A	Required	19		Date/Time of Request. Format for field will be DD-MM-YYYY HH:MI:SS
REPORT-ID	A/N	Required	30		Report Id provided by CHM in Acknowledgement. Only present in case of Single Request flow.

10 Response Message Structure

CRIF High Mark processes the Issue Request and responds with response XML. The response XML will contain Report XML if the report is ready. Else, it will include an acknowledgement to convey IN PROCESS status. The response can optionally contain the Printable report, if requested.



FUSION-REPORT-FILE

ELEMENT	TYPE	DESCRIPTION
INQUIRY-STATUS	[0..1] INQUIRY-STATUS	Carries information about processing status of the inquiry. Only present in case the inquiry is in process.
REPORT-FILE	[0..1] REPORT-FILE	Actual report of individual inquiry

11 Response XML Definitions

11.1 INQUIRY-STATUS

ELEMENT	TYPE	DESCRIPTION
INQUIRY	[1] INQUIRY	Carries information about processing status of inquiry.

11.1.1 INQUIRY

ELEMENT	CHARACTER TYPE	LENGTH	POSSIBLE VALUES	DESCRIPTION
INQUIRY-UNIQUE-REF-NO	A/N	20		Unique reference as in Requested inquiry
REQUEST-DT-TM	A	19		Date and Time of Request. Format for field will be DD-MM-YYYY HH:MI:SS
RESPONSE-DT-TM	A	19		Date and time when response was generated. Format for field will be DD-MM-YYYY HH:MI:SS
RESPONSE-TYPE	A	15	<ul style="list-style-type: none"> ACKNOWLEDGEMENT ERROR 	Type of response
ERRORS	[0..1] ERRORS			Error to explain why inquiry was not processed. Only present when response-type is ERROR

11.1.1.1 ERRORS

ELEMENT	TYPE	DESCRIPTION
ERROR	[1..N] ERROR	Carries information about processing status of inquiry.

11.1.1.1.1 ERROR

ELEMENT	CHARACTER TYPE	LENGTH	DESCRIPTION
CODE	A/N	30	Error code why inquiry was not processed. Please refer to Appendix E & Appendix F .
DESCRIPTION	A/N	100	Error description why inquiry was not processed. Please refer to Appendix E & Appendix F .

11.2 REPORT-FILE

ELEMENT	TYPE	DESCRIPTION
HEADER	[1] HEADER	Carries header information of inquiry.
STATUS-DETAILS	[1] STATUS-DETAILS	Status Details of the inquiry
REQUEST	[1] REQUEST	Carries request information of inquiry.
REQ-SERVICES	[1] REQ-SERVICES	Response against requested services

11.2.1 HEADER

ELEMENT	CHARACTER TYPE	LENGTH	DESCRIPTION
DATE-OF-REQUEST	DATE (DD-MM-YYYY)	10	Date when inquiry was submitted.
PREPARED-FOR	A/N	100	Member Name for whom the report is prepared
PREPARED-FOR-ID	A/N	30	Member Id for whom the report is prepared
DATE-OF-ISSUE	DATE (DD-MM-YYYY)	10	Date when response was created
REPORT-ID	A/N	30	Report Id for the Inquiry.

11.2.2 STATUS-DETAILS

ELEMENT	TYPE	DESCRIPTION
STATUS	[1..N] STATUS	Carries status details.

11.2.2.1 STATUS

ELEMENT	CHARACTER TYPE	LENGTH	DESCRIPTION
OPTION			
OPTION-STATUS			
ERRORS	[0..1] ERRORS		Error message

11.2.2.1.1 ERRORS

ELEMENT	CHARACTER TYPE	LENGTH	DESCRIPTION
ERROR			

11.2.3 REQUEST

ELEMENT	CHARACTER TYPE	LENGTH	DESCRIPTION
NAME	A	100	Name of the Applicant (As in Inquiry Request)
DOB-DATE	DATE (DD-MM-YYYY)	10	Date of Birth (As in Inquiry Request)
PAN	A/N	10	PAN number (As in Inquiry Request)
UID	A/N	12	UID/Aadhar card number (As in Inquiry Request)
ADDRESS	A/N	150	Address (As in Inquiry Request)
CITY	A	20	City (As in Inquiry Request)
STATE	A	2	State (As in inquiry request)
PIN	N	6	PIN code (As in Inquiry Request)
PHONE	N	10	Mobile phone number (As in Inquiry Request)
EMAIL	A	50	Email id (As in Inquiry Request)
BRANCH-ID	A/N	30	Branch (As in Inquiry Request)
CLIENT-CUSTOMER-ID	A/N	50	Client Customer ID of applicant (As in Inquiry Request)
APP-ID	A/N	50	Application id (As in Inquiry Request)
CREDIT-INQ-PURPS-TYP	A/N	4	Credit Inquiry Purpose type (As in Inquiry Request)
CREDIT-INQ-PURPS-TYP-DESC	A/N	50	Credit Inquiry Purpose type description (As in Inquiry Request)
CREDIT-RPT-ID	A/N	30	Credit Report id (As in Inquiry Request)
CREDIT-REQ-TYP	A	4	Type of credit request (As in Inquiry Request)
AMOUNT	N	15	Amount applied for

11.2.4 REQ-SERVICES

ELEMENT	TYPE	DESCRIPTION
REQ-SERVICE	[1..N] REQ-SERVICE	

11.2.4.1 REQ-SERVICE

ELEMENT	TYPE	DESCRIPTION
REQ-SERVICE-TYPE	[1]	Name of service(s) selected
STATUS	[1]	Y if the inquired element is found in data source else N
DESCRIPTION	[1]	Description of the result of verification
SCORES	[1]	Score details
REMARKS	[0..1]	Remarks

11.2.4.1.1 REQ-SERVICE-TYPE

ELEMENT	CHARACTER TYPE	LENGTH	DESCRIPTION
REQ-SERVICE-TYPE	A	100	Service(s) selected in inquiry. CB SCORE INCOME SEGMENT etc.

11.2.4.1.2 STATUS

ELEMENT	CHARACTER TYPE	LENGTH	DESCRIPTION
STATUS	A	1	Y if requested service is successfully executed else N

11.2.4.1.3 DESCRIPTION

ELEMENT	CHARACTER TYPE	LENGTH	DESCRIPTION
DESCRIPTION	A	50	Description of the result of verification

11.2.4.1.4 SCORES

ELEMENT	CHARACTER TYPE	LENGTH	DESCRIPTION
SCORE	[1..N] SCORE	5	Description of the result of verification

11.2.4.1.4.1 SCORE

ELEMENT	CHARACTER TYPE	LENGTH	DESCRIPTION
SCORE-NAME	A/N	10	Name of score
SCORE-VALUE	A/N	50	Value of score
SCORE-DESCRIPTION	A/N	50	Description of score

11.2.4.1.5 REMARKS

ELEMENT	TYPE	LENGTH	DESCRIPTION
REMARK	[1..N] A/N	200	Carries list of remarks.

Appendix A: Logic to arrive at Inquiry Unique reference number

The INQUIRY-UNIQUE-REF-NO should be a unique identifier for an inquiry. This will be used for tracking processing of inquiry being submitted to bureau. The unique reference number should be alphanumeric (with no special characters).

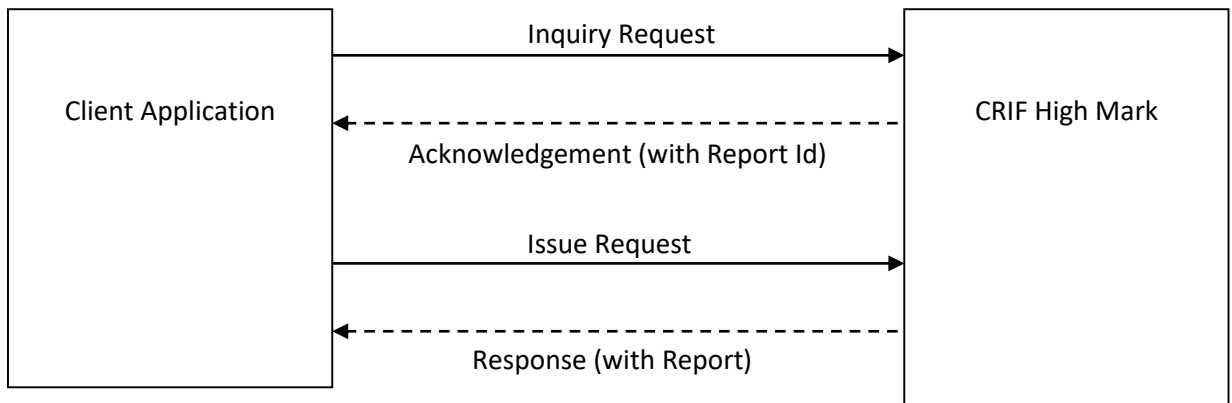
Proposed pseudo-code to generate a unique reference number is as detailed below –

A combination of current date/time, Member Id, LOS Application ID (if available) and a random number (or sequence).

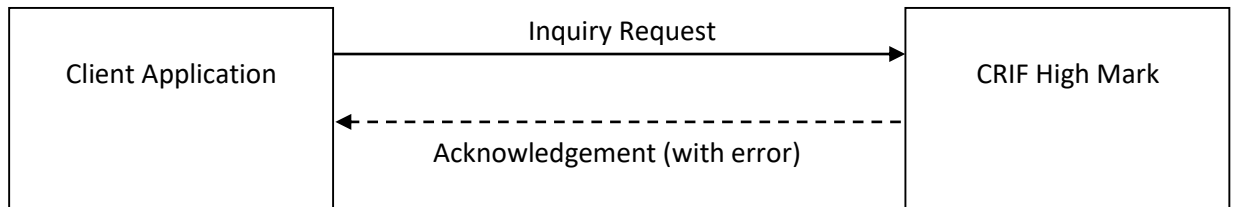
- E.g. 1. If LOS Application Id is available,
Current date time followed by the id and a 6 digit random number.
(DDMMYYYYHHmmSSLOSApIDxxxxxx)
24102011204135HM98765000001
2. Current date time followed by a 6 digit random number.
(DDMMYYYYHHmmSSxxxxxx)
241020112041350000001
3. Member Id followed by Current date time and a 6-digit random number.
(MFIxxxxxxDDMMYYYYHHmmSSxxxxxx)
MFI00004524102011204135000001

Alternatively, it can have the alphanumeric value that is used by the Member to uniquely identify a particular inquiry/application.

Appendix B: CPU-CPU Request-Response Message flow



Appendix C: CPU-CPU Request-Response Message flow (Error scenario)



Appendix D: Code definitions for State

AP	Andhra Pradesh
AR	Arunachal Pradesh
AS	Assam
BR	Bihar
CG	Chattisgarh
GA	Goa
GJ	Gujarat
HR	Haryana
HP	Himachal Pradesh
JK	Jammu & Kashmir
JH	Jharkhand
KA	Karnataka
KL	Kerala
MP	Madhya Pradesh
MH	Maharashtra
MN	Manipur
ML	Meghalaya
MZ	Mizoram
NL	Nagaland
OR	Orissa
PB	Punjab
RJ	Rajasthan
SK	Sikkim
TN	Tamil Nadu
TR	Tripura
TS	Telangana
UK	Uttarakhand
UP	Uttar Pradesh
WB	West Bengal
AN	Andaman & Nicobar
CH	Chandigarh
DN	Dadra and Nagar Haveli
DD	Daman & Diu
DL	Delhi
LD	Lakshadweep

Appendix E: Transaction Error Codes & Descriptions

Error Code	Error Description
ERR_REQ_XML_NT_RCVD	Request XML not received. Kindly set request XML in parameter 'inquiryXML'
ERR_INV_REQ_RCVD	XML received is not valid.
ERR_CANT_PROC_REQ	Request cannot be processed now. Please resend request later.
ERR_INV_USR_PWD	User Name / password is invalid
ERR_ACT_LOCK	Account is locked. Please contact Highmark to unlock user.
ERR_INV_REQ_HDR_RCV D	XML Header received is not valid.
ERR_RESP_SENT	Response already sent for report id

Appendix F: Validation Error Codes & Descriptions

Error Code	Error Description
ERR_BLNK_REQ_TYP	Credit Request Type is empty
ERR_INV_REQ_TYP	Invalid Value in Credit Request Type
ERR_BLNK_INQ_PRPSE	Credit Inquiry Purpose Type is empty
ERR_INV_INQ_PRPSE	Invalid Value in Credit Inquiry Purpose Type
ERR_BLNK_CNS_NAME	Consumer Name is empty
ERR_INV_CNS_NAME	Consumer name should have at least One Word
ERR_BLNK_DOB_AGE	Date of Birth or age is empty
ERR_INV_DOB_DT_FRMT	Format of DOB(Date Format) is Invalid
ERR_BLNK_ID_VAL_TYP	Either Id Type is missing for given Id value or Id Value is missing for given Id Type
ERR_BLNK_REL_TYP_NAME	Either Relation Type is missing for given Relation Name or Relation Name is missing for given Relation Type
ERR_BLNK_NOM_TYP_NAME	Either Nominee Relation Type is missing for given Nominee Name or Nominee Name is missing for given Nominee Relation Type
ERR_BLNK_TEL_TYP_NUM	Either Telephone Type is missing for given Telephone no or Telephone No is missing for given Telephone type
ERR_INV_KYPRSN_TYP	Invalid Value in Key Person Relation Type
ERR_INV_NOM_TYP	Invalid Value in Nominee Relation Type
ERR_BLNK_REL	Either one of Spouse/Father must be provided
ERR_INV_REL_TYP	Invalid Value in Relation Type
ERR_INV_TEL_TYP	Invalid value in Telephone type
ERR_INV_ID_LEN	Id's length can't be less than 6
ERR_BLNK_ADDR	Address should be provided
ERR_BLNK_ADDR_TYP	Address Type is empty
ERR_INV_ADDR_TYP	Invalid value in Address Type
ERR_BLNK_ADDR_LINE	Address1 Line 1 is empty
ERR_INV_ADDR_LEN	Address length cannot be less than 5
ERR_BLNK_STATE	State is empty
ERR_INV_STATE_CODE	Invalid Value in State Code

ERR_BLNK_PIN	Pin is empty
ERR_INV_PIN_LEN	Pin Code length should be equal to 6
ERR_BLNK_ID_SPOUSE_FATHER	Either Father's name , Spouse's name , Phone No or ID must be specified
ERR_INVALID_EMAIL	Email Address is invalid

Appendix G: INCOME TRANCHES

Condition	Final Income Band	Suggested Bands
INCOME >=24000000	H	Above 2400000
INCOME >=15000000	G	1500000 - 2400000
1000000 <= INCOME < 1500000	F	1000000 - 1500000
800000 <= INCOME < 1000000	E	800000 - 1000000
600000 <= INCOME < 800000	D	600000 - 800000
400000 <= INCOME < 600000	C	400000 - 600000
300000 <= INCOME < 400000	B	300000 - 400000
INCOME < 300000	A	Up to 300000
	EX01	Only guarantor or authorized user accounts
	EX02	Too few updates to rate
	EX03	Missing key trade details
	EX04	Outlier Account Types
	EX05	Only Single Wealth Based Loan

Appendix H: OCCUPATION CLASS CATEGORIES

Occupation Class	Occupation Class Description
A	Salaried
B	Self Employed Professional
C	Self Employed
D	Others