Velonetic™

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ECF Enhancements Programme

Writeback – Web Services

Interface Specification – Retrieve Claim

Version: 3.6.3~~2~~

Issue Date: ~~13/02~~03/07/2018

Contents

1   INTRODUCTION

1.1   Background

The ECF Enhancements Programme delivers a Write Back solution that will enable Carriers to manage the claim within their own systems without the need to duplicate effort via CAS. This is achieved by the provision of services that will allow a Carrier's system to receive timely notifications of claim transaction events, claim information and documents and to similarly respond by message.

This document defines the interface that allows a Carrier's system to retrieve the latest information on the claim transaction at that point in time.

1.2   Document Scope

This document covers the information adhered to by this service along with describing logical functional and exceptional behaviours before describing how the service can be called.

The document covers the data involved in calling this service's operations and the operation behaviours.

Any changes to the interface design will be advised to the market and software vendors through a robust change control process so that the findings and potential changes can be considered.

1.3   Service Overview

Retrieve Claim service is a secure (https) SOAP service that allows the carriers to retrieve snapshot of a claim for a given UMR, UCR and TR.

- The current claim information that would normally be available to the carrier

- A current list of policy and claim documents that would normally be available to the carrier from the IMR.

ARCHITECTURE OVERVIEW
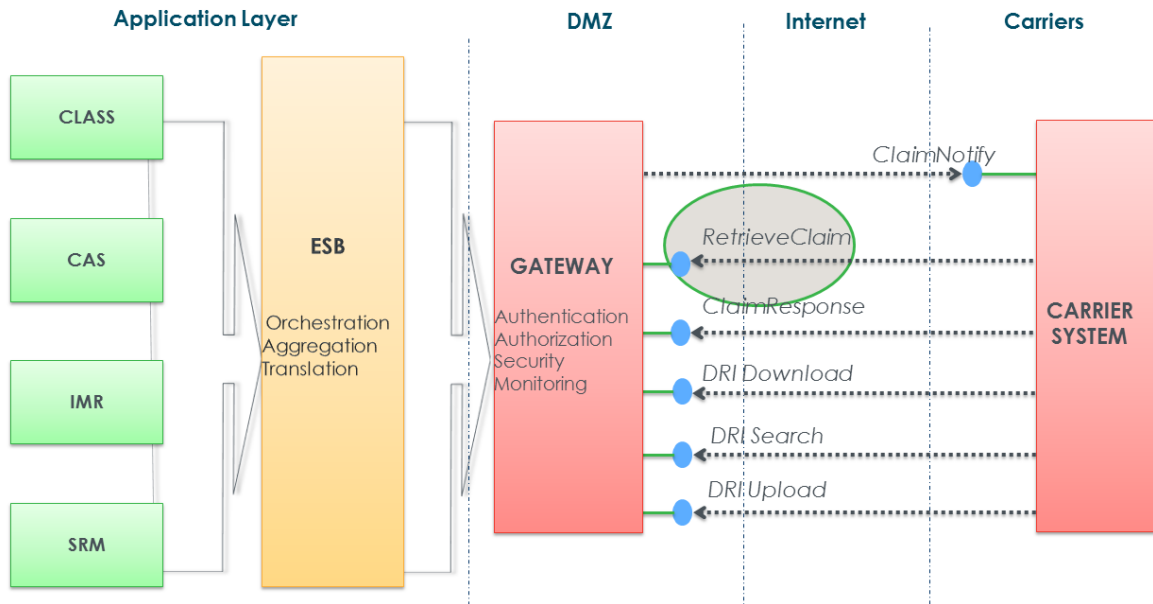
The information will be provided in a structured XML format adhering to custom standards with extensions to ACORD. This service will also contain appropriate failure, retry and exception handling to mitigate any risk of non-delivery.

1.4 Operations

There is only one operation 'Retrieve Claim' available within this service.

2 OPERATION – RETRIEVE CLAIM

This section describes the interface for the Fetch Claim operation offered by Xchanging and its message details required to call the operation along with the data returned in the response message. It covers both the message headers and the message body.

This operation is a means of receiving claim information accompanying a list of documents available within the IMR that are associated with the claim

2.1 Request/Input message

The request is contained in a SOAP envelope split between headers and the body payload data.

2.1.1 Message Header

Apart from standard SOAP headers as per WS* standard, following additional information will be sent in the SOAP header of the message.

- Sender and Receiver party information will be passed in the request header.

```
<Sender>
    <Party><Id> {Carrier's  party ID – Stamp Code }</Id></Party>
</Sender>

<Receiver>
    <Party><Id> {Xchanging's party ID – DUNS Code }</Id></Party>
</Receiver>
```

The Party IDs of the sender & receiver will be expected to in this format

#	Format
LIRMA	urn:lirma:XNNNN
Lloyds	urn:lloyds:NNNN
Xchanging	urn:duns:236196817
ILU	urn:ilu:NNNNNN

- <MsgTypeCd> will be added to the header to represent the type of the message. Value of the field will be 'RetrieveClaim'

- <RequestUUID> will be added to the header for auditing purposes at gateway level. The value of RequestUUID tag would be the same as the value of UUID tag in the message body

- <ResponseUUID> is an optional tag,
  - This will be included in the response messages from Xchanging. The value should be the same as the value of ReferredMessage/UUID tag in the response message body
  - This tag will not be sent in the request messages
- <Timestamp> will have message creation date and time
- Carrier will be sending encrypted hash value of the signature in <wsse:security> tag to allow Xchanging to identify and authenticate the user based on the Carrier's public key. Please see the Security Section to get more information on Service authentication.

Refer to the RetrieveClaim section for the XSD.

2.1.2   Message Body

The request message should have mandatory fields that are defined in the XML schema. The key ones are

- UMR
- UCR
- TR
- ClaimLineNo

Refer data dictionary defined in Appendix-B.

The data dictionary that defines

- the set of fields and their metadata
- business description of the fields along with certain validation rules
- optionality details

Refer XML Schema defined in Appendix-C to get all the data definition of the request and response message structure of Retrieve Claim service operation.

2.2 Response/Output message

The content of Retrieved Claim will be an enriched claim data, representing snapshot of the claim at that point in time.

2.2.1 Message headers

Please refer to section 2.1.1 for message header details.

2.2.2 Message body

The response payload should also contain acknowledgement indicator and statuses.

```
<Response>
    <AcknowledgementLevelIndicator>-</AcknowledgementLevelIndicator>
    <AcknowledgementStatus>-</AcknowledgementStatus>
    <ResponseDescription>-</ResponseDescription>
</Response>
```

Acknowledgement Indicator values are = **translation_validation** or **application_validation.**

Acknowledgement Status values are '**acknowledged**' or '**rejected**'.

The synchronous response, since it is on the same session, will not be signed.

Though data dictionary has both insurer and reinsurer related fields specified (in order to keep the interface broadened), only insurer related details will be passed across as part of response.

Agreement Parties

<ContractMarket> aggregate of the message contains all the participants of the risk of a given Bureau[1]. *ParticipantFunction* within the aggregate will define if the Carrier is a Lead, Follower or Agreement Party.

So, from carrier point of view, they will always receive complete set of participants on the risk (within the Bureau) with identifier (i.e. *ParticipantFunction*) indicating as to who the agreement parties on the claim are. Based on these the carrier system UI should be rendered appropriately. This information will be retained in all subsequent transactions so that every agreement party can know who the latest set of other agreement parties are.

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[1] For Writeback-I, we will only reflect on the participants of the single Bureau. But, interface is broadened to support to send participants across the Bureau in subsequent phases.

Public/Private/Cross Market Comments

All public comments (and associated line number) made by the participants of the bureau are available within <wb: PublicComments> aggregate. These details are fetched from mainframe source and it does not contain additional metadata (e.g. syndicate name and response code) about the comment.

The comments (with additional data such as response code, syndicate name etc.) from mainframe source are synced to the non-mainframe systems with a delay of about 5 minutes. So, the comments with enriched metadata are available for the carriers within <wb:CrossMarketComments> aggregate[2] (note that this aggregate is repeatable across the Bureau to accommodate cross market comments).

For claim transactions that are deleted and that have statuses less than 10 (i.e. carriers will not be able to respond to the transactions with these statuses as they are all error transactions), it is recommended that carrier system should not invoke retrieve claim service as part of their business process. If the retrieve claim is invoked for such transaction, it will result in an error.

Clarification on data enrichment

Data enrichment for RetrieveClaimData service is sourced from both review and respond screens (or APIs) of CAS. In the below scenarios, only review part of the data will be retrieved and enriched and response part of the claim transaction are not retrieved e.g. Claim scheme, Triage category, Lead/participant contact details, Claim indicators, public and private comments. This restriction is enforced as a business validation within CAS. This behaviour in write back is consistent with CAS.

> ➢ Carrier is a follower and the Lead has not yet responded
> ➢ Carrier is a Lead and a previous transaction is Open (where lead has not responded)

Once the lead has responded or the previous transaction has been processed then the carrier can use the RetrieveClaimData service to obtain the Response part of the claim transaction data.

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[2] The design of this aggregate is such that it fits the Binders' functionality of supporting cross claim comments, although this will not be sent for Phase 1

VCS Triage Category Clarification

Refer to the clarification paper available under Appendix D for detailed examples on data populated in the Triage Category field for various scenarios.

Insurer Risk Reference

In order to align with ACORD schema, *InsurerRiskReference* field has been made optional. However the sender and receiver should make sure that this data element is populated, refer to the clarification paper available under Appendix E on when it would be populated.

Broker Claim Reference 1

Refer to the clarification paper available under Appendix F on population of the field *BrokerClaimReference1* and further information on population of notify messages on Broker updates and deletes.

AsOfDate (Time Stamp) (NOTE - Part of November release, only DD changes are included. Sample message and XSD do not include this field for September release)

AsOfDate (Time Stamp) field is added to interface as part of CR11.

AsOfDate is the latest Class record update date and time to the millisecond.

FolderReference (CR19)

The Service providers/Carriers receives the corresponding IMR Folder Name signposting where the document is stored with the Meta data information of IMR documents in Retrieve message.

This enables the user to user to focus on documents requiring action.

PbSIndicator (CR24)

PbS Indicator will be populated with a value "Y" where the claim transaction is created through PbS. This will help Carriers to identify PbS Claims and respond to them accordingly. Default value for the indicator would be "N".

Co-lead and Subordinate Claim Responses

Where the latest information on a transaction relates to an *interim* response, the appropriate interim transaction status will be sent on the Write Back. *Coordinated* responses on the Write Back message will be represented by existing transaction statuses (Part-Authorised, Queried).

Carriers using Write Back who have made an interim response to a co-lead / master cover claim but have not yet received the coordinated response will need to invoke the Retrieve Claim Request service in order to get an up-to-date view of cross-market comments and responses on associated co-lead claims.

In addition, subordinate claims and automated responses on these claims will also be notified to carriers with a role of 'Suppressed Lead' on the master cover claim.

2.3 Operation behaviours

The Retrieve Claim operation will exhibit the following functional behaviours:

- Request Successful – Full Response
- Request Successful – Partial Response
- Request Failed – Central Systems Unavailable
- Request Failed – Invalid Request Format
- Request Failed – Claim Not Found
- Request Failed – Authentication Failure
- Request Failed – Unregistered Sender

These operational behaviours are explained in the following sequence diagram
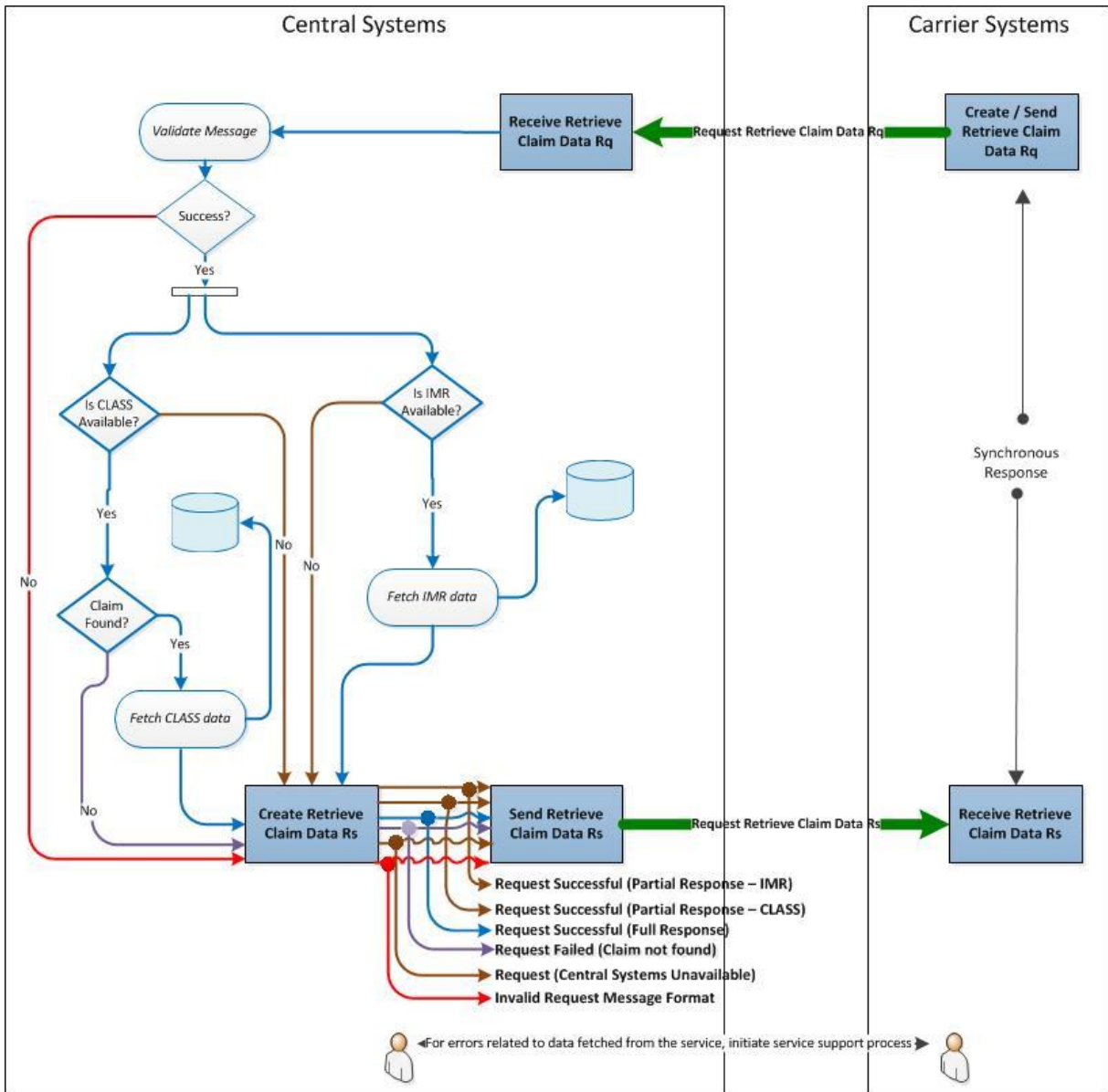
2.3.1 Retrieve Claim successfully requested and full response received

Behaviour 1 – Request Successful – Full Response	
Pre-condition	A valid request message containing the UMR, UCR, and TR is sent to the service All central services systems are available.
Post-condition	• *<AcknowledgementLevelIndicator>* will be set to '**application_validation'** • *<AcknowledgementLevelStatus>* will be set to "**acknowledged**" • The response will include the required claim data and a list of matching documents.

2.3.2 Retrieve Claim successfully requested and partial response received

Behaviour 1 – Request Successful – Full Response	
Pre-condition	A valid request message containing the UMR, UCR, and TR is sent to the service, however: 1. CLASS is unavailable whereas the IMR is available 2. CLASS is available whereas the IMR is unavailable
Post-condition	• *<AcknowledgementLevelIndicator>* will be set to '**application_validation'** • *<AcknowledgementLevelStatus>* will be set to "**acknowledged**" If CLASS is unavailable whereas the IMR is available • *<ResponseDescription>* will be set to "**Partial Response – CLASS Unavailable**" • The response will include a list of matching documents only. If CLASS is available whereas the IMR is unavailable • *<ResponseDescription>* will be set to "**Partial Response – IMR Unavailable**" • The response will include the claim business information only.

2.3.3 Central Systems Unavailable

If central systems are unavailable e.g. when both CLASS and IMR are down then a service response 'Fail – Central Services Unavailable' will be returned.

Behaviour 3 – Request Failed – Central Systems Unavailable	
Pre-condition	A valid request message containing the UMR, UCR, and TR is sent to the service, however central systems (CLASS and IMR) is unavailable
Post-condition	• *<AcknowledgementLevelIndicator>* will be set to '**application_validation**' • *<AcknowledgementLevelStatus>* will be set to "**acknowledged**"

Behaviour 3 – Request Failed – Central Systems Unavailable	
	• *<ResponseDescription>* will be set to "**Central Systems Unavailable**"
	• The response message will not include claim business or claim document information.

2.3.4   Invalid Request Message Format

If the message is in an invalid format then a service response 'Fail' will be returned. The originator is responsible for correcting and re-sending the message if and as appropriate.

Behaviour 4 – Invalid Request Message Format	
Pre-condition	An invalid request message is sent to the service and the request has failed validation within central systems
Post-condition	• *<AcknowledgementLevelIndicator>* will be set to '**translation_validation**' • *<AcknowledgementLevelStatus>* will be set to "**rejected**" • *<ResponseDescription>* will be set to "**Fail - Request Invalid**" • The response message will not include claim business or claim document information.

2.3.5   Sender and Claim Combination Invalid

If a message is received from a party who is not a participating organisation on the claim then a service response of 'Fail – Sender not valid for the Claim Reference provided" will be returned.

Behaviour 5 - Request Failed – Invalid Recipient	
Pre-condition	1. The sender of the message is not a valid organisation on the claim
Post-condition	• *<AcknowledgementLevelIndicator>* will be set to '**application_validation'** • *<AcknowledgementLevelStatus>* will be set to

"**rejected**"

- *<ResponseDescription>* will be set to "**Fail – Sender Claim Combination Invalid**"

- The response message will not include claim business or claim document information.

2.3.6 Claim Not Found

If a correctly formatted Retrieve Claim Data request is received from the carrier but the UMR, UCR and TR do not correctly identify a claim, then a service response 'Fail – Claim Not Found' will be returned. The carrier will require re-submitting the request bearing correct identifiers if and as appropriate.

Behaviour 6 – Request Failed – Claim Not Found	
Pre-condition	A valid formatted message has been received but with a UMR, UCR and TR that does not identify a claim transaction
Post-condition	• *<AcknowledgementLevelIndicator>* will be set to '**application_validation**' • *<AcknowledgementLevelStatus>* will be set to "**rejected**" • *<ResponseDescription>* will be set to "**Fail – Claim Not Found**" The response message will not include claim business or claim document information.

2.3.7 Authentication failure

Behaviour 6 – Authentication Failure	
Pre-condition	Invalid user invokes the service or the carrier security details are not configured correctly in the gateway
Post-condition	SOAP fault message with authentication error or certificate related issue.

2.3.8 Unregistered Sender

Behaviour 6 – Authentication Failure	
Pre-condition	User is not registered for invoking Retrieve Claim service
Post-condition	*<AcknowledgementLevelIndicator>* will be set to '**application_validation'** *<AcknowledgementLevelStatus>* will be set to "**rejected**" *<ResponseDescription>* will be set to "**Carrier not registered to invoke the service**"

2.3.9 Retrieve Transactions of status < 10

Retrieve claim transactions of status less than 10	
Pre-condition	Claim transaction has a transaction status of 3,4,8 or 9
Post-condition	Refer data dictionary for details around these transaction statuses *<AcknowledgementLevelIndicator>* will be set to '**application_validation'** *<AcknowledgementLevelStatus>* will be set to "**rejected**" *<ResponseDescription>* will be set to "**Fail - Unable to Retrieve Claim Transaction**"

2.3.10 Other unexpected runtime errors

In this scenario, Xchanging system will send the response to the Retrieve Claim request and carrier systems encounter any runtime exceptions or errors; this will result in SOAP fault that will propagate to the client.

3   NON-FUNCTIONAL CHARACTERISTICS

The Retrieve Claim service should comply with the following non-functional characteristics. To understand the impact of the ECF Binders project on these characteristics, please refer to the ECF Binders Non Functional Requirements.

3.1 Security

The service will be exposed on a secure end point (transport level security). There is no message level security enforced.

Central services system recommends the following authentication and security strategy for the ECF2 write back services. This is consistent with the ACORD security profiles, please refer to [ACORD Security Profiles V1.1.0](#) link (section 5.2) for more details.

Security Techniques

- SSL/TLS Server Authentication
- SSL/TLS Integrity
- SSL/TLS Encryption
- WSS Signature SOAP Envelope

3.1.1   **Identification**

When carrier systems invoke the service, Xchanging will receive the sender and receiver details in the header.

3.1.2   **Authentication**

The service authentication of all ECF write back services will be handled via Public Key Infrastructure (PKI) standards.[3]

Carrier systems will request the claim transaction information by signing the message with its own private key. The hash-value of the message is encrypted and passed in the SOAP header to the Xchanging system. Xchanging gateway, on the other end, will decrypt the hash based on carrier's public key and verify the signature.

The exchange of certificate keys will be done as part of registration process.

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[3] PKI approach is considered over other options such as OAuth, SAML, API Keys to ensure write back services are DRI consistent and aligns with Write back phase-2 strategy
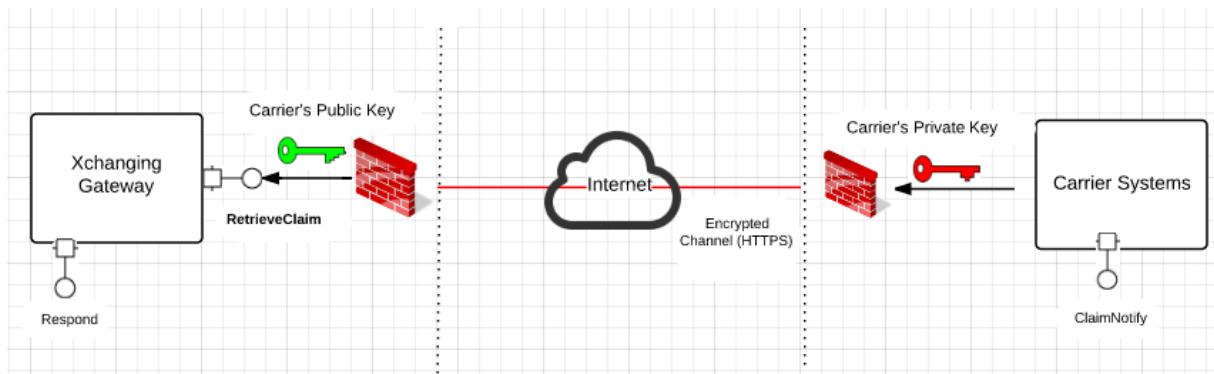
One of the key advantages of this approach is that carrier system can reuse the same approach (and same set of keys) across other services including DRI services.

3.1.3 Authorisation

All carriers will be registered in Xchanging's 'Service Registration Management (SRM)' application as part of the service registration process.

If carriers are not registered for the Retrieve Claim service in SRM, the web service will send a failure response to the carrier with suitable error code. See this [section](#) for further clarification.

3.1.4 Encryption

No message level encryption is enforced[4]. But, transport level (SSL) encryption is enabled.

3.2 Web Service Availability

The web service will be 'technically' available beyond ECF core hours (7am – 7pm), but supported only during ECF core hours.

If the CLASS is unavailable, the web service will return partial data (retrieved from IMR) and vice-versa.

3.3 Service versioning

Major version = 1

Minor version = 0

For an incompatible service change, it is assumed that the changes is major and change the major version number as a result. Old version: N.m => New version: (N+1).0

For backward-compatible service changes, we'll assume the change is minor and change only the minor version number as a result. Old version: N.m => New version: N.(m+1)

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[4] This is in accordance with ACORD messaging on DRI services.

3.4 Performance and Maximum Load

3.4.1 Message Size

Average size of the message size = 80 KB

Maximum size of the message size = 160 KB

Average size of the message is calculated by calculating average number of documents[5] associated in a claim and average number of public/private comments in the claim transaction.

Maximum size of the message is calculated based on the total number of repeatable groups in the message, the biggest chunk of it is about aggregate details, which can repeat 496 times.

3.4.2 Anticipated Volumes

#	Metrics
Daily maximum number of Retrieve Claim requests (as per current volumes)	20000
Peak hour volumes (% age of daily volume)	15%
Maximum time for carriers to receive a response before timeout	360 seconds
Average size of the claim content message	80 KB per message
Maximum size of the claim content message	160 KB per message
Average Response Time	12-15 seconds[6]

3.5 Service Support and Maintenance

Xchanging's write back service support and incident management process will be published to allow carrier support teams to collaborate with Xchanging's service desk to handle any issues.

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[5] Average number of documents in IMR per claim, policy and transaction is about 15-17

[6] In technical terms, this is the average response time it takes for a synchronous call to take on an average condition. This has a big dependency on gateway performance on both the ends – Xchanging and Carrier systems. Service response time will increase whenever there is a large data set, in these exceptional cases if the Carriers system closes the connection before waiting for the response from Xchanging's gateway, it will result in connection time-out error. Recommendation for the Service Providers is to keep the value of timeout as specified above at their end, from Xchanging's end the timeout value for the inbound requests will be set to 360 seconds.

3.6 Invoking the Service

The test, MAT and production URLs of the Retrieve Claim Web service end point will be shared with the carriers at the point of registration.

4 ACRONYMS

Acronym	Definition
DoS	Denial of Service - an attempt to make a machine or network resource unavailable to its intended users
HTTP	Hyper Text Transfer Protocol
HTTPS	HTTP over SSL
IP	Internet Protocol
SOAP	Simple Object Access Protocol – an industry standard protocol for invoking remote web services, usually used with HTTP
SSL	Secure Sockets Layer – a protocol for secure interaction over IP
WSDL	Web Services Definition Language

5 DOCUMENT CONTROL

Version	Date	Author	Brief description
0.1	18/11/14	Vikas Acharya, Nitin Jain	First draft
0.2	17/11/14	Vikas Acharya,	Data dictionary fixes, XSDs, average response times
0.3	19/01/2015	Nitin Jain	Added few more details for the message header and body
0.4	21/01/2015	Nitin Jain	Incorporated internal review comments
0.5	23/12/2015	Vikas Acharya	Clarifying the Documentation Scope section 1.2
1.0	02/02/2015	Vikas Acharya	Comments and clarifications from market workshop on 28/1. More clarity on message sequence, security, public/private comments. Internally reviewed comments. Added sample messages. Re-versioned to 1.0. Issued for sign-off.
1.0	13/02/2015	Vikas Acharya, Nitin Jain	Few data definition optimizations based on feedback from the market. Updated XML resources. Re-issued for Sign-off.
1.0	20/02/2015	Vikas Acharya	Signed-off.
1.1	25/03/2015	Vikas Acharya	Removed the security tag from the Xchanging's header as it will be inserted into the SOAP header in the same level. Added in SGN to Response Code tab and split

			out YES and CES responses
			Updated comments for Underwriting Year to remove "May not be present on first advice"
			Updated Business Format to CHAR(7) for Agency under Reinsurer, Insurer and Broker
1.2	22/04/2015	Vikas Acharya	Clarifying outputs of workshop on 14/4 around data enrichment.
			Clarifying behaviour of the service for invalid transaction statuses
			Updated DD, XSD
1.3	11/05/2015	Nitin Jain	Updated DD
1.4	27/05/2015	Vikas Acharya	Few clarifications in DD. No impacts to XSD.
2.0	18/11/2015	Nitin Jain	Updated DD,
			Attached the latest version of published clarification papers,
			Attached latest version of RetrieveClaimRs XSD
2.1	04/02/2016	Sue Brett	Updated DD, Appendix B
			Added a new error for conflict of interest under the Ack Level Codes tab.
2.2	19/04/206	Adnan Nasar-Ullah	Updated DD, Appendix B with CR11 Changes
2.3	19/04/2016	Adnan Nasar-Ullah	Updated DD, Appendix B with Master Cover / Co lead Binders project changes
2.4	20/04/2016	Sudhir Kumar	Updated for new field added in DD for AsOfDate (Time Stamp) as part of CR11.
2.5	25/04/2016	Adnan Nasar-	Updated AsOfDate to milliseconds in DD

		Ullah	
2.6	27/04/2016	Sudhir Kumar	Attached updated XSD and Sample message.
2.7	20/06/2016	Sudhir Kumar	Updated for Write Back CR19 – Added document folder name reference in Retrieve message DD. Updated comments for CR11 changes. DD include changes for both CR11 and CR19. Sample message and XSD conforms to CR19 changes.
2.8	28/06/2016	Sudhir Kumar	Updated sample message, XSD and DD.
2.9	05/07/2016	Paul Sterrett	Updated DD
3.0	14/07/2016	Paul Sterrett	Updated DD and sample messages (Claim Retrieve Response)
3.1	28/07/2016	Paul Sterrett	Updated DD
3.2	15/09/2016	Paul Sterrett	Updated DD and sample messages
3.3	22/09/2016	Paul Sterrett	Updated Sample Messages
3.4	07/11/2016	Paul Sterrett	Updated document version numbers in line with updates to Notify and Respond Interface Specifications
3.5	31/05/2017	Sudhir Kumar, Ankit Jain	Updates for CR24. Updated DD, Sample messages and XSD Retrieve service will not retrieve PBS Query details when invoked. The Query details will be passed only through WriteBack ClaimNotify Service.
3.6	24/08/2017	George Cruickshanks	No change to content – to bring into line with other ECF documentation

3.6.1	26/09/2017	George Cruickshanks	No change to content – to bring into line with other ECF documentation
3.6.2	12/02/2018	Dave Smith	Updates for Co-Lead and Master Cover changes. Reference to latest Retrieve Claim Data DD added
3.6.3	03/07/2018	Dave Smith	Updated DD

6 APPENDIX A: SAMPLE MESSAGES

Please see the [following section](#) for the sample messages for both request and response. Note that these sample messages does not contain a real claim transaction data, but it should give enough information around the structure of the message.

7   APPENDIX B: RETRIEVE CLAIM DATA DICTIONARY

Refer to Retrieve Data Dictionary circulated with this document

ClaimRetrieve Data
Dictionary v3 6 1.xlsx [Deleted]

ClaimRetrieve Data
Dictionary v3 6 3.xlsx

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8   APPENDIX C: SERVICE XML RESOURCES

8.1   RetrieveClaim XSDs & Sample messages

Refer to XSDs and Sample messages circulated with this document

Sample XMLs (2).zip

Retrieve XSDs V3.6.2.zip   [Deleted]

Retrieve XSDs V3.6.3.zip

9 APPENDIX D: VCS TRIAGE CATEGORY CLARIFICATION

VCS Triage
Category Clarificatio

10 APPENDIX E: INSURER RISK REFERENCE

Insurer Risk
Reference SOAP v0 3

11 APPENDIX F: BROKER CLAIM REFERENCE1

Broker Claim
Reference and Notif