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Write Back Functional Specification

Part E: The DRI Repository Download Service

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APPENDICES

1 DRI: REPOSITORY DOWNLOAD MESSAGE INTERACTIONS

The purpose of this document is to explain how the ACORD DRI Repository Download standard will be implemented to support the Write Back Document Download service.

1.1 Service Overview

Central systems will expose a service that will allow Carriers to download documents from the IMR.

Identifying Documents for Download

The Claim Event Notify request, the Retrieve Claim Data response and the DRI Repository Search response message provide Carriers with a list of documents available to the Carrier on the IMR. Carriers can use the information to collate an up to date list of documents for a claim and optionally, request specific documents for download.

Requesting a Document for Download

The information provided in the Claim Event Notify request, the Retrieve Claim Data response and the DRI Repository Search response message for each document will include the information required to uniquely identify a target document on the IMR.

This information must be echoed in Carrier initiated Document Download request.

The information returned will be provided in a structured ACORD XML format with a document attachment in native format as held on the IMR. This service will also contain appropriate failure, retry and exception handling to mitigate any risk of non-delivery.

The response message will contain an acknowledgment of successful receipt of the message or a rejection with the reason.

The ACORD DRI messaging framework will be adopted, including message management, message construct and data definitions. However, the DRI Download service is non-ACORD compliant (please refer to Appendix E2 Exemption for ACORD Non Compliance for further information).

1.2 Identification of Parties

Many of the elements within the DRI message and associated metadata include party ID. Many of these may validly include parties who are not identified by the Lloyd's, Institute of London Underwriters or London Insurance and Reinsurance Market Association code lists.

The agency responsible for the code set from which each party's code is taken must be identified by a valid value from the ACORD Responsible Agency code list (3055).

Only Lloyd's, Institute of London Underwriters or London Insurance and Reinsurance Market Association codes will be used.

Note: Xchanging allow the DUNS code of the message sender to be quoted in the SOAP message.

A completed Party Aggregate example is shown below.

- Lloyd's example

```
<Party>
    <PartyId>urn:lloyds:5555</PartyId>
    <PartyRole>Insurer</PartyRole>
    <PartyName>InsurerName</PartyName>
</Party>
```

1.3 Identification of Documents

The information necessary to uniquely identify a document on the IMR will be conveyed in the Claim Event Notify request, the Retrieve Claim Data response and the DRI Repository Search response

ACORD Protocols for Identifying Documents

Extract from the ACORD DRI Reference Guide v 1.2.0:

"A document is uniquely identified with one of two exclusive methods:

1) A globally unique <*DocumentId*>; or

2) An Owner's repository reference <*DocumentReference*>, optionally augmented by a document version number <*DocumentVersion*>.

When <*DocumentVersion*> is provided in addition to <*DocumentReference*>, it should be considered part of the unique identifier. It should be used consistently for referencing this document. Note that <*DocumentVersion*> can be given with <*DocumentId*> as well, but then it is not part of the unique identifier."

- If the document was loaded to the IMR using the DRI standards, the <*DocumentId*> provided for the document received in a DRI message will be stored in the repository alongside any internal identifier for that document. It will be supplied in the outgoing Search response in the relevant Document identifier data elements.
- If the document was loaded to the repository on-line it <*DocumentID*> will be populated by the repository.

Central Systems Additional Document Identifiers

The current implementation of the IMR has meant that the standard ACORD Document Identifiers are not sufficient to uniquely identify a document on the repository. To facilitate document download, Xchanging introduced an additional Token ID element rlc:ServiceProviderContactDescription to outbound document information.

The data elements which enable unique identification of documents in the Search response are shown below:

```
<DocumentItem>
    <Document>
        <DocumentID>SomeDocumentID</DocumentID>
        <DocumentReference>SomeDocReference</DocumentReference>
        <DocumentVersion>01</DocumentVersion>
    </Document>
    <ReferredObjects>
        <rlc:ServiceProvider>
            <rlc:Party>
                <rlc:Name>Xchanging</rlc:Name>
            <rlc:Party>
            <rlc:Contact>
                <rlc:Description>SomeUniqXchID</rlc:Description>
            <rlc:Contact>
        </rlc:ServiceProvider>
    </ReferredObjects>
</DocumentItem>
```

Carriers should quote all Identifiers provided in the inbound (to Carrier) message in their downstream Document Download request.

1.4 Message Data Definition

1.4.1 Download Request Message

Please refer to the Data Dictionary embedded in the ECF –WriteBack – DRI Services – Interface Specification for the Download Request Message structure, multiplicity and business usage.

1.4.2 Download Response Message

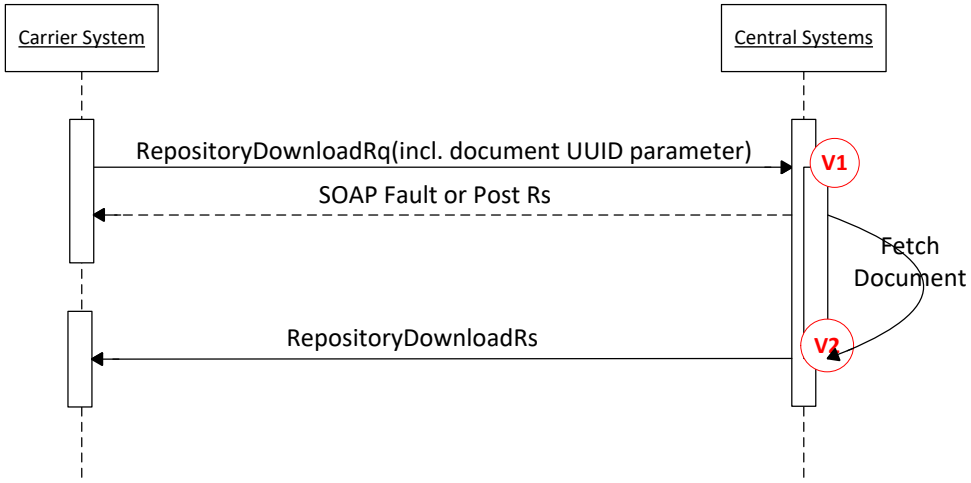
Please refer to the Data Dictionary embedded in the ECF –WriteBack – DRI Services – Interface Specification for the Download Response Message structure, multiplicity and business usage.

1.5 Operational Behaviours

The service will exhibit the following operational behaviours:

- Request Successful
- Request Failed – SOAP failure or Negative Post Rs
- Request Failed – DRI Repository Download Rejected

The diagram below illustrates the DRI Repository Download main success path. Note: the diagram does not show the HTTP handshake.



- The Carrier User or System submits a Download Request to Central Systems based on the UUID provided as part of the document metadata in the list of documents via the Claim Event Notify, Retrieve Claim Data or DRI Repository Search services to collect a copy of a document on the list.

  Validations

  (V1) Initial Checks

  The gateway receives the request and performs SOAP level validation at point V1 on the diagram before sending a synchronous response back to the Carrier System. The SOAP validation performed will be in line with the current DRI implementation. The validation is included in Appendix E1 below.

  SOAP Failure or Negative Post Rs

  - If the Download Request fails SOAP level validation at the gateway, the Carrier will receive a synchronous SOAP failure response / negative Post Rs notifying them of the failure and the process will terminate here.

  Positive Post Rs

- If the Download Request passes SOAP level validation at the gateway, the Carrier will receive a synchronous positive Post Rs response notifying them of the success and the request will continue to be processed. The gateway will then pass on the message to the Central System (IMR) to apply business level validation at point V2 on the diagram above.

(V2): Business Message Checks

The business level validation carried out by the system at this point is specified in Appendix Part E1 below.

DRI Message Validation: Rejected

- If the business level validation on the message fails, then the Download Response back to the Carrier will have an Acknowledgement Status of 'rejected' and will not provide a copy of the document requested.

DRI Message Validation: Success

- If the business level validation on the message passes, then the Download Response back to the Carrier will have an Acknowledgement Status of 'acknowledged' and will provide a copy of the document requested and any associated document data.

1.5.1 SOAP Faults and Post Rs Validation

Technical errors e.g. SOAP fault handling will be in line with the existing DRI implementation. These will be fully confirmed in the phase two ACORD design phase which is targeted for completion in January 2015.

1.5.2 DRI Repository Message Validation

A DRI Repository Download response must be issued for each valid, accepted DRI Repository Download request message. Each response message includes a response aggregate which informs the recipient of the response message the processing status of the request message. The response aggregate will indicate that the request has been completed (and the document requested attached) or that the request was not completed (and the reason).

Field Name	Definition
Message ID	The unique ID of the message being responded to.

Field Name	Definition
Acknowledgement level	Code which indicates the level of acknowledgement provided in a response. Only two values from the RLC code table A43 are accepted: - "translation_validation": the response is given at a stage where the message is checked for syntax, unwrapping etc. before being validated according business rules - "application_validation": the response is given after message validation and processing by the application
Acknowledgement status	Code which indicates the status of the acknowledgment given within a response. - "acknowledged" : message successfully processed -- "rejected": message rejected - not processed at all
Error indicator	An error code from the A44 Codelist, identifying the type of error
Error description	Either Error Indicator or Response Description must be present if response status is not “acknowledged”

In the event of a DRI request validation error, the response message will be completed as follows:

Acknowledgement Level: translation_validation or application_validation whichever is appropriate.

Acknowledgement Status: will be set to ‘rejected’

Error Indicator: Will be set to the appropriate value in the ACORD A44 code set.

1.5.3 Timeout & Retry

It is expected that 98% of requests will have a response within 1 hour as per the SLA below (section 1.4.3). However any responses not acknowledged within 24 hours should be considered lost. Carriers could consider setting the timeout and retry handling to 24 hours in line with this if they choose to.

1.5.4 Message Persistence

Sent DRI Repository Download messages will be persisted within central systems and retained for a period of 45 days (existing standard but to be confirmed in full NFS).

1.6 DRI: Repository Download Non-Functional Requirements

The DRI Repository Download service should comply with the following non-functional characteristics:

1.6.1 Security

The service will only succeed if the Carrier is registered for the XAG service and has the appropriate security certificates and digital certificates in place to handle the encrypted message.

1.6.2 Service Availability

DRI Repository events are triggered by XAG which has a service availability of 24/7 though scheduled and unscheduled downtime may be required from time to time (existing standard but to be confirmed in full NFS).

1.6.3 Service Response Times

1.6.3.1 Message Transmission from XAG

A synchronous receipt must be issued from Xchanging's ACORD gateway within 1 service minute of receipt of a DRI submission (existing standard but to be confirmed in full NFS). Recommended practice suggests repeat requests should not be submitted until a synchronous response is received or a timeout threshold is exceeded.

The existing SLA states that 98% of DRI Repository Download messages will be transmitted within a period of 1 core service hour (existing standard but to be confirmed in full NFS) of the Download Request being processed within central systems.

1.6.3.2 Message Response from Carriers System

DRI Repository Download acknowledgment messages will be transmitted by carrier systems within a period (to be defined in a separate NFS) of the Download Response being issued by central systems.

1.6.4 Performance and Maximum Load

1.6.4.1 Message Size

There are no limits on the message size, however the document upper limit size is 20 MB (existing standard but to be confirmed in full NFS).

1.6.4.2 Anticipated Volumes

The anticipated volumes are to be defined in a separate NFS.

1.6.5 Service Support and Maintenance

The XAG gateway is available 24/7, but service support will only be available during core business hours which are 7am-7pm UK time, Monday to Friday excluding public and bank holidays (existing standard but to be confirmed in full NFS)

1.6.6 Invoking the Service

Xchanging will provide a separate Production URL and outbound Xchanging public security certificates for the DRI Repository Download messages for each Carrier. The Carrier must provide their own inbound public security certificates to Xchanging. The URL will only succeed for those Carrier lines/stamps that have been registered and on-boarded for this service.

From time to time Xchanging will provide separate URLs for lower environments e.g. MAT to carry out testing but the outbound Xchanging public security certificates will be the same across all environments.

Part E: Appendices

Appendix Part E1: Validation

SOAP Validation

Validation	Description	Error Message
Is the sender or owner valid?	The sender PartyId & PartyRoleCd (Broker, ServiceProvider etc) must be registered with Xchanging for the message type (Upload, Download, Search etc.) that they are sending in.	Either the Owner or the Sender is not a valid trading partner *Note:* Error message is not sent to the originator in this case, please contact Xchanging's support team in case the messages are not getting processed.
Is business message valid?	The business message was not well formed XML	SOAP Fault
Was SOAP body signed with valid key?	All incoming DRI messages have ACORD minimal security applied which means that they must have been signed with a valid certificate. The public version of this certificate needs to be registered on each gateway.	Signature validation failed
Is the business MsgId in the valid format?	The MsgId is not a valid GUID in the business message	The MsgId is not a valid GUID

Business Validation

Validation	Description	Error Message
Is the component UUID unique?	Each DRI message must have a unique MsgId	Duplicate component UUID
Is the document id reference valid?	Document Id or Document Reference & Version should be a valid one and should exist in the IMR.	Invalid Document Id/Reference
Is the Additional Document Identifier valid?	Please refer to the section 1.3 where the need for Additional Document Identifier is explained. This identifier should be a valid one.	Invalid data provided in rlc:description

Appendix Part E2: Exemption for ACORD Non Compliance

1 BACKGROUND

The DRI Download is an existing production service and the Brokers who are its consumers have built their interfaces in line with it. We were of the understanding that all our ACORD live services are compliant with the ACORD standard up until the preliminary checks conducted by Matt Finch at ACORD, who advised that the DRI Download service has failed the initial validation i.e. the service is currently non-compliant.

2 TECHNICAL OPTIONS

- We can change the service quickly to achieve compliance but this will leave the Brokers exposed – they will probably require circa 6 months to support this change i.e. to modify their own systems.
- We have looked at the option of adopting a "current plus one" approach to our software but this is impractical for the following reasons –
    - The schema for all ACORD DRI messages being exchanged with Xchanging would need to be upgraded to the latest version
    - The Xchanging ACORD Gateway would need to change to allow the transmission of DRI messages with the new schema
    - XMA and IMR interaction would need to change to incorporate the new DRI versions
- These changes will jeopardize our delivery in September 2015: This is not a trivial change and involves analysing and changing all impacted components mentioned above apart from internal and external testing around it.

3 SUMMARY

We request an exemption for Xchanging and all Software Providers from the ACORD certification for DRI Download as it is the only service failing the initial validation by ACORD, and any change to it would include a potential change to brokers systems and a delay to the go live date of Write Back.

Post Go-Live we (Xchanging and Software Providers) will work with the market to put a plan in place to upgrade this service to be ACORD compliant provided the Brokers and the market have an appetite to incorporate all the required changes.