SONY MUSIC

Sony Music Delivery Specification

Part 4: Asymmetric Web Service Delivery

Version 1.6

Security Classification: Public

1 Introduction

This document is part of a multi-document specification that details the process and standards used by Sony Music to distribute content to its business partners.

This fourth part of the Sony Music Delivery Specification defines how to use the asymmetric web service architecture – i.e. where only Sony Music publishes a web service – to communicate Release and Deal information from Sony Music to you. The Resource files are uploaded to Sony Music's Shelf service, from which the partner downloads to their server.

2 Content of this part

This part of the Sony Music Delivery Specification contains the following sections:

3 Sony Music web service specification

3.1 Web service address

In accordance with the relevant DDEX standard, Sony Music's web services are available at the following address:

https://ddexws.smecde.com

The web service calls can be accessed using the POST method as defined in the HTTP standard and are REST-based. The body of the message is the message as defined in the respective subsections below ("Message Request"). The answer from Sony Music's web service will be as defined in respective subsections below ("Response Message").

3.2 Communication of Resource Files and Metadata

Product Metadata will be transferred using web services. Resource Files, where applicable, will always be communicated via download links inside of the product metadata.

Sony Music will...

1) Upload the Resource Files (the actual assets) to Sony Music's Shelf server.
2) Announce the availability of the Product Metadata in response to your web service call (ReleaseAvailabilityRequestCall; details are defined in §4).

You will...

3) Ingest the Product Metadata and download the Resource Files from the Shelf
4) Respond with the SupplyChainStatus web service call, confirming either successful ingestion or failed ingestion.

Please note that in the asymmetric web service architecture, the only means for Sony Music to communicate information to its partners is for the partner to call Sony Music's web service.

3.2.1 Notes about Resource Files

The <URL> link cannot be simply copied and pasted into a web browser. For testing purposes, the partner will need to replace all “&” instances in the link with “&” in order for the link to work in any web browser.

For example, the following <URL> link provided in the metadata…

https://mgsrv.smecde.com/rd/000/015/102/898/20122/15102898.20122.mp3?oauth_signature=KUdDlk%2BMJAuBMZNL9btvhrBfD9Q%3D&oauth_consumer_key=delivery&tag=ec2b9e7bcfe79bb6542ce90ab36029b0&oauth_timestamp=1439409410

… would need to have the “&” pieces of the link replaced with “&”, so that the link looks like:

https://mgsrv.smecde.com/rd/000/015/102/898/20122/15102898.20122.mp3?oauth_signature=KUdDlk%2BMJAuBMZNL9btvhrBfD9Q%3D&oauth_consumer_key=delivery&tag=ec2b9e7bcfe79bb6542ce90ab36029b0&oauth_timestamp=1439409410

It is this adjusted link that would work once pasted into a web browser.

Sony Music identifies various file types with a conversion ID, which can be used to differentiate between similar codecs. For example, you may receive a 15 second and 30 second version of the same codec. This conversion id can be used to identify which is the 15 second clip and which is the 30 second clip.

This conversion id can be parsed from the <URL> link for reach Resource File. For example:

https://mgsrv.smecde.com/rd/000/015/102/898/20122/15102898.**20122**.mp3?oauth_signature=KUdDlk%2BMJAuBMZNL9btvhrBfD9Q%3D&oauth_consumer_key=delivery&tag=ec2b9e7bcfe79bb6542ce90ab36029b0&oauth_timestamp=1439409410

The conversion id appears before the file type (in this case .mp3) and is **20122**. Your Account Management representative will provide a mapping of conversion id to each of your selected conversions.

3.3 Error Handling for Web Service Calls & HTTPS Resource File Links

Sony Music would like partners to manage errors they see, using the information below in order to know when to retry web service calls or asset downloads using the HTTPS links found in the product metadata.

For Web Service calls...

a) If a partner receives a “4xx” HTTP status code, please reach out to your Sony Music Account Representative.

b) If a partner receives a “5xx” HTTP status code, please wait and try sending the web service message again a bit later.

For HTTPS Resource File links...

Failure to take the information below into account can result in the partner sending a large number of incorrect “failure” messages back to Sony Music, causing delays in content delivery.

If a partner tries to follow the HTTPS link in a DDEX XML to download an asset from the Sony Music shelf… the partner can have one of the following responses:

1) The partner successfully downloads the asset (video, audio file, cover art, etc.).
    - The HTTP status code for a successful download is “200”.

2) The partner receives a “4xx” HTTP status code.
    - For example, a “404” status code, meaning “Not Found” is received. This means that Sony Music’s Shelf server is online, but the asset file is not found on the shelf for download. The partner should message a failure back to Sony Music for the associated DDEX XML delivery.

    - If the status code received is a number between 400 & 499, the partner should message a “failure” in their acknowledgement (log file or web service message) back to Sony Music for the associated DDEX XML delivery.

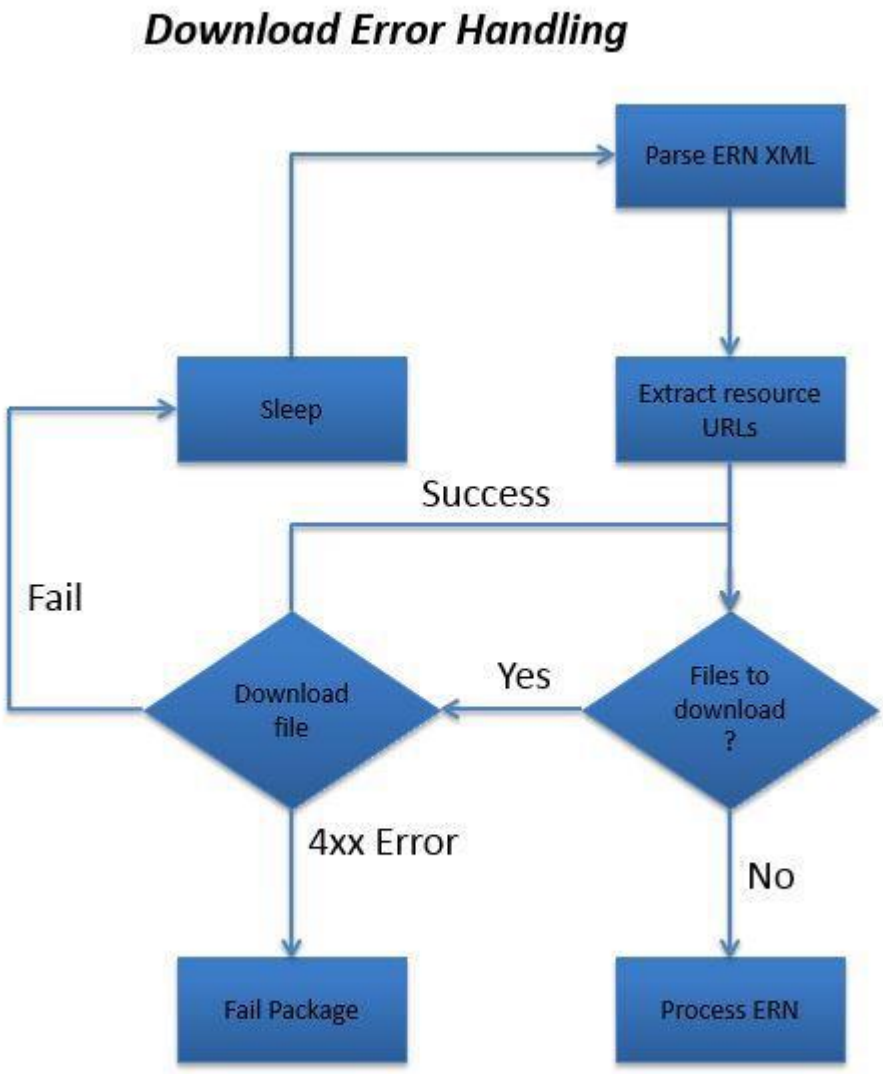
    - Sony Music’s system gives this type of error when there is an issue with the asset. Either the asset is…
        - **Stale**, meaning that an updated version of the asset is now available and the link has been deactivated.

        - **Missing**, meaning that the asset file is missing from the shelf. Sony Music will need to add the file to the shelf, and send a new DDEX XML, with a new link.

3) The partner receives a “5xx” HTTP status code.
    - For example, a “503” status code, meaning “Service Unavailable” is encountered. This means that Sony Music’s Shelf server is temporarily unavailable, but the partner should try accessing the HTTPS link again a bit later.

    - If the response code is any other number (most likely between 500 & 599), the partner should try to access the HTTPS link again.

A flowchart describing this workflow is below:



NOTE: If a “5xx” error is encountered instead of a successful download or a “4xx” error, please try to follow the link to download the file again.

3.4 Web service security

To ensure that all web service communications between Sony Music and you are highly secure, the following security procedure is implemented:

Each partner receives a unique username and password for the web service communication, which is validated for each call.

Only with this username and password can web services can be interchanged between Sony Music and the partner. The password consists of a combination of letters and numbers.

All calls are SSH encrypted using HTTPS only.

All web service requests are stored within a database for technical reporting and logging issues.

Sony Music's systems only respond to Web service calls when being initiated from a computer with a known IP address or from a known IP address range. Partners cannot request new IP/ranges to be enabled via a web service call; any modification to the allowed IP address or IP address range needs to be communicated between authorised personnel, i.e. in a phone call, email request or ticketing system.

4 Message exchange

4.1 Delivery of a new Release/product

In the case of asymmetric Web Services communication, the DSP is responsible for requesting the notification that a new Release/product is available. Before fulfilling such a request, all Resource Files will be uploaded to the Sony Music shelf. Only then will Sony Music respond with a Release/product availability message.

In this profile Sony Music cannot actively send content to its partners. All communication has to be initiated by the DSP

This message also provides references to the locations of all associated Resource Files as part of the NewReleaseMessage portion of the web service response.

Table 1: Delivery of a new Release/product

Web service call address	https://ddexws.smecde.com/ReleaseAvailabilityRequestCall
Sender	DSP
Recipient	Sony Music
Request	ReleaseAvailabilityRequestMessage (see §5.4.2)
Response	ReleaseAvailabilityResponseMessage (see §0) including, if applicable a NewReleaseMessage containing the metadata of the Release/product delivered
Message Type	Synchronous

The response to the ReleaseAvailabilityRequestMessage will provide the DSP with either a new Release/product (or group thereof) or with a status code indicating that currently no new delivery is available. Valid status codes are

Table 2: Status codes for the ReleaseAvailabilityResponseMessage

AvailableForDSP	A ReleaseAvailabilityStatus indicating that a Release is available for a DSP.
NotYetPrepared	A ReleaseAvailabilityStatus indicating that a Release is still being prepared by SME.
UserDefined (statusTx=No releases	A ReleaseAvailabilityStatus indicating that no Releases are currently available for a DSP.

available)	

If a new Release/product was delivered, the DSP will be able to access individual Resource Files by extracting their location information from the NewReleaseMessage. The DSP can then process the metadata and Resource Files and insert the new Release/product into its system.

Details on how the Release/ product is described in the NewReleaseMessage can be found in Part 5. 5

The DSP is expected to report the status of the received Release/product. Such status information provided by the DSP will enable Sony Music to quickly respond to any problems encountered during the ingestion process.

4.2 Resource File and Metadata update

When any Resource Files (audio or graphics) are modified/replaced in Sony Music's asset management system, Sony Music sends an XML update for all previously delivered products, including new links to the new Resource Files for the DSP to download from Sony Music's shelf location.

4.3 Metadata-only update

When any Release/product metadata or commercial (Deal) information changes, Sony Music automatically triggers metadata updates for all previously delivered Releases/products affected.

In the case of asymmetric Web Services messaging, a NewReleaseMessage containing the Release and Deal information will be sent in response to the DSP when it requests pending delivered products.

The process is exactly the same as for the initial delivery, except that (i) no Resource Files are made available for download and (ii) no TechnicalResourceDetail information is communicated in the NewReleaseMessage. The absence of these TechnicalResourceDetails indicates that the update is a metadata-only update.

The DSP is expected to report the status of the received Release/product. Such status information provided by the DSP will enable Sony Music to quickly respond to any problems encountered during the ingestion process .

4.4 Take down

Sony Music may need to issue a take down when commercial or marketing rights change on a Release.

In the case of asymmetric Web Services messaging, Sony Music will respond[1] with a take down notice in the form of a metadata update to the DSP when the DSP requests new delivered products. This update comes in the form of a NewReleaseMessage and will explicitly reference all Deal terms for the product. The DSP is expected to process the metadata and update/revoke the Release/product in its system.

In this profile Sony Music cannot actively send takedowns. Urgent takedowns may thus be communicated out of bands (e.g. via email or a phone call).

The process is exactly the same as the initial delivery.

The DSP is also expected to report the status of the received Release/product. Such status information provided by the DSP will enable Sony Music to quickly respond to any problems encountered during the ingestion process.

4.5 Delivery Acknowledgement

After ingestion of the product metadata and resource files, you will need to report your ingestion status to Sony Music. This can be done with the SupplyChainStatusMessage.

Table 3: Status reporting

Web service call address	https://ddexws.smecde.com/SupplyChainStatusCall
Sender	DSP
Recipient	Sony Music
Request	SupplyChainStatusMessage (see §5.5.2)
Response	WsAcknowledgementMessage (see §0)
Message Type	Synchronous

The following status codes are valid:

Table 4: Status codes

DeliveredToReleaseDistributor	A SupplyChainStatus indicating that a Release has been delivered to the ReleaseDistributor.
SuccessfullyIngestedByReleaseDistributor	A SupplyChainStatus indicating that a Release has been successfully ingested by the ReleaseDistributor.
ProcessingErrorAtReleaseDistributor	A SupplyChainStatus indicating that a Release has failed ingestion by the ReleaseDistributor, which will then be investigated by Sony Music

[1] In the asymmetric model, Sony Music cannot actively send any requests to the DSP, as the DSP does not publish a web service listening for incoming requests. Therefore any communication via Web Services must be initiated by the DSP.

4.6 Receiving error responses

Any errors will be responded to with a WsAcknowledgementMessage containing details of the error in the ErrorText node. Please see §0 for an example of such a response.

5 Definition of Messages

5.1 Introduction

The messages used in the asymmetric web service architecture are defined in the XML Schema files which are downloadable from: https://s3.amazonaws.com/sme-dsp-library/ddex/echo/1.5/schema.zip

5.2 General structure of web service messages

The communication between Sony Music and DSPs via web services will be conducted using XML messages that are sent using the POST command defined in the HTTP standard.

All web service messages contain a WsMessageHeader composite which contains metadata and tracing information, such as IDs for the message, sender and recipient. This allows for performance analysis, statistical analysis and troubleshooting support when needed.

The precise syntax for all elements is defined in the relevant DDEX standard (DDEX-AMEP. Please refer to Part 1 for the precise reference.

5.3 General structure of web service responses

All responses to web service calls have either the structure as shown below or are extensions of this structure. It enables the web server to communicate a status code back to the caller.

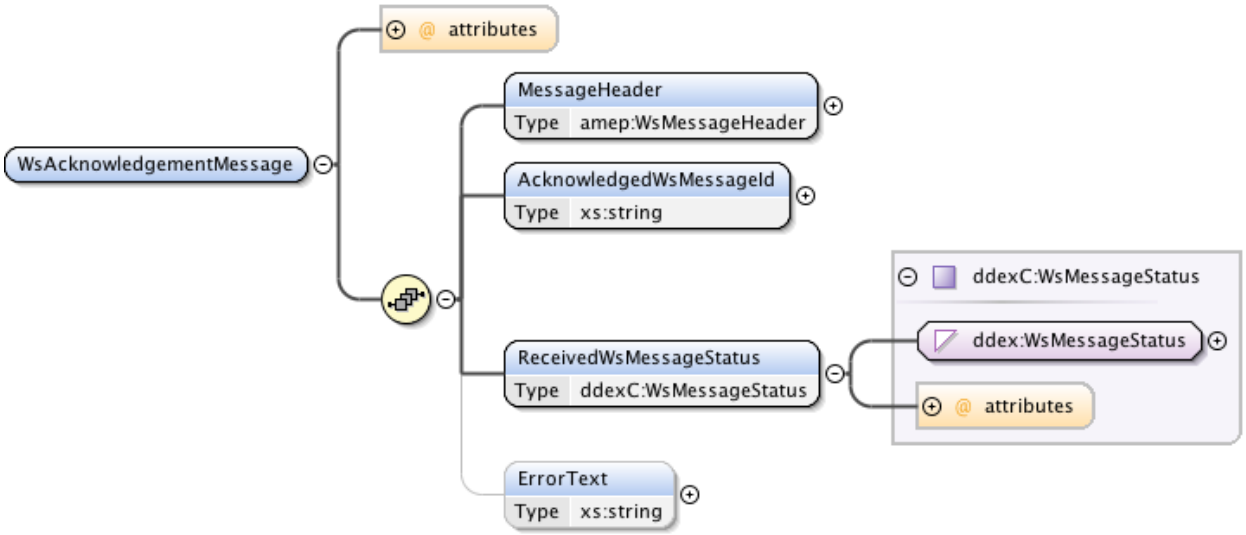


Figure 1: Baseline of the response message to all web service calls

The following status values are valid: NoValidMessageReceived, ValidMessageQueuedForProcessing and ValidMessageReceived.

5.4 ReleaseAvailabilityRequestCall

5.4.1 Introduction

This web service call is to request available Releases from Sony Music.

5.4.2 Request Example: ReleaseAvailabilityRequestMessage

```
<?xml version="1.0" encoding="UTF-8"?>
<echo:ReleaseAvailabilityRequestMessage xmlns:ds="http://www.w3.org/2000/09/xmldsig#"
   xmlns:echo="http://ddex.net/xml/ern-c/15" MessageVersionId="1.5">
   <MessageHeader>
      <WsMessageId>2348b71b-47be-4d51-963a-692526208048</WsMessageId>
      <MessageSender>
         <PartyId>PADPIDA3897722461G</PartyId>
         <PartyName>
            <FullName>Release Distributor</FullName>
         </PartyName>
      </MessageSender>
      <MessageRecipient>
         <PartyId>PADPIDA2007040502I</PartyId>
         <PartyName>
            <FullName>Release Creator</FullName>
         </PartyName>
      </MessageRecipient>
      <MessageCreatedDateTime>2009-11-20T09:30:47.0Z</MessageCreatedDateTime>
      <IsSymmetric>false</IsSymmetric>
      <Priority>Normal</Priority>
   </MessageHeader>
   <DSP>
      <PartyId>PADPIDA3897722461G</PartyId>
   </DSP>
   </echo:ReleaseAvailabilityRequestMessage>
```

5.4.3 Response Example: ReleaseAvailabilityResponseMessage

```
<?xml version="1.0" encoding="UTF-8"?>
<echo:ReleaseAvailabilityResponseMessage xmlns:ds="http://www.w3.org/2000/09/xmldsig#"
   xmlns:echo="http://ddex.net/xml/ern-c/15" xmlns:ernm="http://ddex.net/xml/ern/381"
   NewReleaseMessageNamespace="ernm" MessageVersionId="1.5">
   <MessageHeader>
      <WsMessageId>2348b71b-47be-4d51-963a-692526208048</WsMessageId>
      <MessageSender>
         <PartyId>PADPIDA2007040502I</PartyId>
         <PartyName>
            <FullName>Sony Music Entertainment</FullName>
         </PartyName>
      </MessageSender>
      <MessageRecipient>
         <PartyId>PADPIDA3897722461G</PartyId>
      </MessageRecipient>
      <MessageCreatedDateTime>2001-12-17T09:30:47.0Z</MessageCreatedDateTime>
      <IsSymmetric>false</IsSymmetric>
      <Priority>Low</Priority>
   </MessageHeader>
   <AcknowledgedWsMessageId>ACK1470789259680</AcknowledgedWsMessageId>
   <ReceivedWsMessageStatus>ValidMessageReceived</ReceivedWsMessageStatus>
   <ReleaseAvailabilityStatus>AvailableForDSP</ReleaseAvailabilityStatus>
   <ernm:NewReleaseMessage>
      <MessageThreadId>1</MessageThreadId>
            <MessageId>G010001887844F</MessageId>
            ...
            ...
            ...
   </ernm:NewReleaseMessage>
</echo:ReleaseAvailabilityResponseMessage>
```

5.5 SupplyChainStatusCall

5.5.1 Introduction

This web service call is to report the supply chain status of a specific Release/product to Sony Music.

5.5.2 Request Example: SupplyChainStatusMessage

```
<?xml version="1.0" encoding="UTF-8"?>
<echo:SupplyChainStatusMessage xmlns:ds="http://www.w3.org/2000/09/xmldsig#"
   xmlns:echo="http://ddex.net/xml/ern-c/15" MessageVersionId="1.5">
   <MessageHeader>
      <WsMessageId>2348b71b-47be-4d51-963a-692526208048</WsMessageId>
      <MessageSender>
         <PartyId>PADPIDA3897722461G</PartyId>
         <PartyName>
            <FullName>Release Distributor</FullName>
         </PartyName>
      </MessageSender>
      <MessageRecipient>
         <PartyId>PADPIDA2007040502I</PartyId>
         <PartyName>
            <FullName>Release Creator</FullName>
         </PartyName>
      </MessageRecipient>
      <MessageCreatedDateTime>2009-11-20T09:30:47.0Z</MessageCreatedDateTime>
      <IsSymmetric>false</IsSymmetric>
      <Priority>Normal</Priority>
   </MessageHeader>
   <DSP>
      <PartyId>PADPIDA3897722461G</PartyId>
   </DSP>
   <ReleaseId>
      <GRid>A10301A0001887844F</GRid>
   </ReleaseId>
   <Status>SuccessfullyIngestedByReleaseDistributor</Status>
</echo:SupplyChainStatusMessage>
```

5.5.3 Response Example: WsAcknowledgementMessage

```
<?xml version="1.0" encoding="UTF-8"?>
<echo:WsAcknowledgementMessage xmlns:ds="http://www.w3.org/2000/09/xmldsig#"
   xmlns:echo="http://ddex.net/xml/ern-c/15" MessageVersionId="1.5">
   <MessageHeader>
      <WsMessageId>2348b71b-47be-4d51-963a-692526208048</WsMessageId>
      <MessageSender>
         <PartyId>PADPIDA2007040502I</PartyId>
         <PartyName>
            <FullName>Sony Music Entertainment</FullName>
         </PartyName>
      </MessageSender>
      <MessageRecipient>
         <PartyId>PADPIDA3897722461G</PartyId>
      </MessageRecipient>
      <MessageCreatedDateTime>2009-11-20T09:30:47.0Z</MessageCreatedDateTime>
      <IsSymmetric>false</IsSymmetric>
      <Priority>Normal</Priority>
   </MessageHeader>
   <AcknowledgedWsMessageId>DEF456</AcknowledgedWsMessageId>
   <ReceivedWsMessageStatus>ValidMessageReceived</ReceivedWsMessageStatus>
</echo:WsAcknowledgementMessage>
```

5.6 Error responses

5.6.1 Introduction

Any errors will be responded to with a WsAcknowledgementMessage containing details of the error in the ErrorText node

5.6.2 Response Example: WsAcknowledgementMessage

```
<?xml version="1.0" encoding="UTF-8"?>
<echo:WsAcknowledgementMessage xmlns:ds="http://www.w3.org/2000/09/xmldsig#"
   xmlns:echo="http://ddex.net/xml/ern-c/15" MessageVersionId="1.5">
<MessageHeader>
      <WsMessageId>2348b71b-47be-4d51-963a-692526208048</WsMessageId>
      <MessageSender>
         <PartyId>PADPIDA2007040502I</PartyId>
         <PartyName>
            <FullName>Sony Music Entertainment</FullName>
         </PartyName>
      </MessageSender>
      <MessageRecipient>
         <PartyId>PADPIDA3897722461G</PartyId>
      </MessageRecipient>
      <MessageCreatedDateTime>2011-01-31T14:18:53.787+01:00</MessageCreatedDateTime>
      <IsSymmetric>false</IsSymmetric>
      <Priority>High</Priority>
   </MessageHeader>
   <AcknowledgedWsMessageId>DEF456</AcknowledgedWsMessageId>
   <ReceivedWsMessageStatus>NoValidMessageReceived</ReceivedWsMessageStatus>
   <ErrorText> DSP Party ID contained in message body is unknown</ErrorText>
</echo:WsAcknowledgementMessage>
```

6 Version history

The table below provides the version history of this part of Sony Music's Music Delivery Specification. Each part of the specification is developed to a different timeline and thus may be published with a different version number.

Date	Version	Author	Summary of change
2016-03-28	1.0	Phil Charles, Marcus Eiras, Pete Salvione	Initial draft of the Music Delivery Specification
2016-04-14	1.1	Phil Charles, Marcus Eiras, Pete Salvione	Updated
2016-07-18	1.5	Phil Charles, Marcus Eiras, Pete Salvione, Syed Hassan	Choreography/Light Weight Revoke Update
2016-08-11	1.6	Robert Dewilder, Phil Charles, Marcus Eiras, Pete Salvione, Syed Hassan	Update for Echo 1.5