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Digital Messaging Server Guide

Messaging Applications 9.0.0

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Digital Messaging Server

Digital Messaging Server is the eServices component that interfaces with social media sites to bring interactions into the Genesys system.

This document describes what you must do to deploy and use Digital Messaging Server.

You can also use Digital Messaging Server with a [Custom Media Channel Driver](#).

Deployment

This section describes how to deploy Digital Messaging Server and its channels.

[Deploy Digital Messaging Server](#)

[Deploy with a Facebook channel](#)

[Deploy with a Twitter channel](#)

[Deploy with a custom media channel](#)

Configuration Options

This chapter documents the configuration options used by Digital Messaging Server.

[Digital Messaging Server Configuration Options](#)

Deploy Digital Messaging Server

The following steps describe how to deploy Digital Messaging Server (DMS).

Prerequisites

- Genesys components
 - Message Server 8.5.x
 - Chat Server 8.5.x
 - Universal Contact Server 8.5.x
 - Interaction Server 8.5.x
- Third-party components
 - Java 8 Developer's Kit (JDK)

Creating a DMS Application object

Create an Application object for DMS if it does not already exist.

1. Import the DMS Application Template from the CD.
2. Create a new Application object based on the template.
 - a. Open the **Properties** dialog box of the Application object.
 - b. On the **Server Info** tab:
 - i. In the **Host** box, enter the name of the desired host.
 - ii. In the **Port** box, enter the port DMS will use.
3. On the **Start Info** tab, enter some characters in the **Working Directory**, **Command Line**, and **Command Line Arguments** fields. These characters will be overwritten with the correct values during the installation, but they cannot be left blank at this point.
4. On the **Connections** tab, add a connection to **all components mentioned**.
5. If this is for a multi-tenant environment, add the tenant(s) on the **Tenants** tab.
6. Open your Interaction Server Application and add a connection to DMS. Specify the Connection Protocol as either **simple** or **addp**.

Installing DMS

See the [Supported Operating Environment Reference](#) for prerequisites before you install DMS.

Windows

1. Locate and run the **Setup.exe** file for DMS.
2. Enter the login information for your Configuration Server:
 - Host
 - Port
 - User
 - Password
3. Select the checkbox if you want to use the Client Side Port, and then click **Next**.
4. Select the appropriate DMS Application object from the list.
5. Choose a destination for the installation.
6. Select the Java instance to use with DMS, then click **Next**.
7. Specify a log folder, then click **Next**.
8. Click **Install**.

Linux

1. Locate the **install.sh** file for DMS.
2. Use the command `>install.sh` to start the installation script.
3. On request, enter the absolute path for the directory of the Java executable.
4. Press Enter to confirm the host name for the installation.
5. Enter the login information for your Configuration Server:
 - Host
 - Port
 - User
 - Password
6. From the list of applications, select one and enter its number in the list.
7. Press Enter to confirm the suggested destination directory, or choose another one.
8. Answer other questions, if required.

Enabling a TLS connection as a Windows Service (Optional)

Prerequisite: TLS 1.2 or higher

When DMS has Transport Layer Security (TLS) configured, either as a server on its ESP port, or as a client in its connection to Configuration Server, Interaction Server, Message Server, Chat Server, and UCS, follow these steps to enable it as a Windows Service:

1. Select the Windows service related to Digital Messaging Server .
2. Select the **Log On** tab. The default setting is **Log on as local system account**.
3. Select **Log on as this account** and provide the login/password of a local host user.

Enabling proxy server support for DMS (Optional)

1. Edit the appropriate file by adding these Java runtime startup options:
 - If using Genesys Cloud API Driver for Facebook 8.5.300.09 or earlier, or Genesys Cloud API Driver for Twitter 8.5.300.07 or earlier:
 - -DproxySet=true
 - -DproxyHost=<host of proxy server>
 - -DproxyPort=<port of proxy server>
 - If using Genesys Cloud API Driver for Facebook 8.5.300.10 or later, or Genesys Cloud API Driver for Twitter 8.5.300.08 or later:
 - -Dhttp.proxyHost=<host of proxy server>
 - -Dhttp.proxyPort=<port of proxy server>
 - -Dhttps.proxyHost=<host of proxy server>
 - -Dhttps.proxyPort=<port of proxy server>
2. To enable authentication for the proxy server, add these options as well:
 - If using Genesys Cloud API Driver for Facebook 8.5.300.09 or earlier, or Genesys Cloud API Driver for Twitter 8.5.300.07 or earlier:
 - -DproxyUser=<username>
 - -DproxyPassword=<password>
 - If using Genesys Cloud API Driver for Facebook 8.5.300.10 or later, or Genesys Cloud API Driver for Twitter 8.5.300.08 or later:
 - -Dhttp.proxyUser=<username>
 - -Dhttp.proxyPassword=<password>
3. File to edit:
 - Windows: In **JavaServerStarter.ini**, the **[JavaArgs]** section.
 - Unix and related systems: In **dmserver.sh**, the last string, namely "**\$JAVA_EXECUTABLE_PATH/java -classpath \$CLASSPATH \$JVMPARAMS \$MAINCLASS \$***"

Next Steps

- Configure the options as necessary. Refer to the [Digital Messaging Server](#) page in the [eServices Options Reference](#).
- Continue deployment by:
 - Adding a channel, such as [Facebook](#), a [Twitter](#), or a [Custom Media Channel](#).
 - Adding a messaging channel, such as [Apple Business Chat](#), Facebook Messenger, [SMS/MMS](#), or [WhatsApp](#).

Important

If desired, you can upload the DMS installation package to Genesys Administrator Extension for storage purposes or to share the package with other machines in your environment. Refer to the [GAX documentation](#) for additional information.

Uninstalling or upgrading DMS

Uninstalling DMS

Important

- If you have also installed Genesys drivers for DMS (for example, Apple Business Chat), you must uninstall these drivers separately. These drivers are not uninstalled automatically if DMS is uninstalled.
- You cannot uninstall DMS and then install a new instance of DMS at the same location and use the old driver instances. You must also reinstall drivers that you want to use with the new DMS instance, even if the driver versions have not changed.
- You must delete the DMS Application object separately.

Windows

To uninstall using the wizard:

1. Run the **setup.exe** file for DMS that is located on the product CD or in the installation package.
2. Select **Maintenance of existing installation**.
3. Select the DMS instance that you want to remove.
4. Select **Next**. Wait for several seconds until the Genesys Installation Wizard window appears on your

desktop.

5. Select **Remove**.
6. Select **Next**.
7. Select **Yes** to confirm the operation.
8. Choose when to restart your computer.
9. Select **Finish**.

To uninstall using the Control Panel:

1. Open the Control Panel.
2. Select the DMS installation that you want to remove.
3. Select **Uninstall** and then **Next**. Wait for several seconds until the Genesys Installation Wizard window appears on your desktop
4. Select **Remove**.
5. Select **Next**.
6. Select **Yes** to confirm the operation.
7. Choose when to restart your computer.
8. Select **Finish**.

Linux

Delete the DMS files directly by performing the following command: `rm -rf <DMS_FOLDER>`

Upgrading DMS

Important

- If you have also installed Genesys drivers for DMS (for example, Apple Business Chat), you must update these drivers separately. These drivers are not updated automatically when DMS is updated.
- You cannot upgrade DMS and use the old driver instances. You must also reinstall drivers that you want to use with the upgraded DMS instance, even if the driver versions have not changed.
- You must update the DMS Application separately, if needed.

Windows: Upgrading via the wizard

1. Run the **setup.exe** file for DMS that is located on the product CD or in the installation package.
2. Select **Install new instance of the application** and then select **Next**.

3. Enter your Configuration Server parameters.
4. Select **Next**.
5. Select the checkbox if you want to use the Client Side Port, and then select **Next**.
6. Select the DMS application that you want to upgrade and then select **Next**.
7. Select **Browse** and select the folder in which the existing DMS instance is installed, then select **Next**.
8. Select the Java instance to use with DMS, then select **Next**.
9. Specify a log folder, then select **Next**.
10. Select **Install**.

Linux: Upgrading via the install.sh script

1. Run the **./install.sh** file for DMS that is located on the product CD or in the installation package.
2. Specify the path to the Java executable folder.
3. Specify the hostname.
4. Specify the hostname of the Primary Configuration Server.
5. Specify the Primary Configuration Server port, username, and password.
6. Select the DMS application that you want to upgrade.
7. Specify the existing DMS installation path.
8. Select how to handle existing data in the DMS folder. For example, 2 only overwrites those files that are part of the installation package.

Deploy Digital Messaging Server with a Facebook Channel

For a Facebook channel, you need two installation packages:

- Digital Messaging Server
- Genesys Cloud API Driver for Facebook.

The driver adds Facebook-specific features to Digital Messaging Server and does not require its own Application object in the Configuration Server database.

You can also create a [Custom Media Channel Driver](#).

Create the Facebook Channel

1. [Deploy Digital Messaging Server](#).
2. Run the installation for Genesys Driver for Use with Facebook, selecting the desired Digital Messaging Server object.
3. Locate the **driver-for-facebook-options.cfg** configuration file in the \<**Digital Messaging Server application**>\media-channel-drivers\channel-facebook directory.
4. In Configuration Manager, open your Digital Messaging Server Application, go to the **Options** tab, and import **driver-for-facebook-options.cfg**.

Configure the Options

Refer to the [Genesys Cloud API Driver for Facebook](#) page in the [eServices Options Reference](#).

Interaction Attributes

The driver provides a number of interaction attributes. A reference listing is available on a [separate page](#).

Sample Business Processes and Database Scripts

You must:

- Install the [sample Business Processes for Social Media](#).
- Run the database upgrade scripts installed with the sample Business Process. These scripts add required fields to the Interaction Server database.

Requirement for Posting and Commenting

In order for the Genesys Desktop Plugin to display the **Delete**, **Delete Post**, **Comment**, and **Share** buttons, it checks the **_facebookCanComment** and **_facebookCanDeleteComments** keys in the interaction's attached data.

This means that, if the Facebook account holder did not set permissions to let everybody post/comment on the account holder's wall, the agent must *like* the poster's page or add him as a friend to be able to post on the wall.

The same holds for an autoresponse if it is included into the strategy: if the agent does not *like* the poster, or if he or she did not set permissions to let everybody post/comment on the wall, the post/comment will fail and a **Facebook POST failed** exception is written in the log.

Facebook Interaction Attributes

Basic Attributes

Genesys Driver for use with Facebook adds the following attributes to an interaction's user data.

Key Name	Value Type	Description
_facebookDriverVersion	UTF string	Driver version
_facebookItxType	Int	<ul style="list-style-type: none"> 1—Facebook Post and single Comment (if the interaction is a Reply, the parent Comment is also included, as well as all elements in Comment Attributes below). 2—Facebook Post and multiple Comments
_umsChannel	UTF String	Name of the channel that includes the monitor that submitted the interaction
_umsChannelMonitor	UTF String	Name of the monitor that submitted the interaction
_umsChannelInfo	Key-value list	Present if the driver was able to get Publisher information. See _umsChannelInfo Attributes below.
_facebookPostId	UTF String	Post ID
_facebookContentCreatedOnlyByAdmin		0 or 1
_facebookCanComment	Int	Whether the Comments are (0) or are not (1) allowed on the object.
_facebookNComments	UTF string	Number of Comments for this Post
_facebookShareCount	UTF string	Number of times the Post was shared
_facebookPostCanBeDeleted	UTF string	true or false
_facebookMediaAttachmentsCount	Int	Number of files attached to the Post
Subject	UTF string	Subject of the Post, usually taken from Post text itself. If the message in the Post is empty, Subject is taken from the name or description of the first

Key Name	Value Type	Description
		attached file. If that information is missing, Subject is equal to <code>_facebookPostId</code> .
<code>_facebookMessageText</code>	UTF string	Message in the Post
<code>_facebookNLikes</code>	UTF string	Number of Likes for the Post
<code>_facebookUpdatedTime</code>	UTF string	The time, expressed as a UNIX timestamp, that the Post was last updated, which occurs when a User comments on the Post.
<code>_facebookCreatedTime</code>	UTF string	The time the Post was published, expressed as UNIX timestamp
<code>_facebookSourceId</code>	UTF string	Facebook ID of the object where this Post was published
<code>_facebookSourceObjectType</code>	Int	Type of the Facebook object that published the Post: <ul style="list-style-type: none"> • 0—User • 1—Page • 2—Event • 3—Group • 4—Application
<code>_facebookActorId</code>	UTF string	Facebook ID of the object that published this Post
<code>_facebookActorObjectType</code>	Int	Type of the Facebook object that published the Post: <ul style="list-style-type: none"> • 0—User • 1—Page • 2—Event • 3—Group • 4—Application
<code>_facebookActorName</code>	UTF string	Name of the Page or User that published the Post. If it is a User (<code>_facebookActorIdType = 0</code>), then in addition to the name, the attributes listed in User Attributes below are also included.
<code>_facebookComments</code>	Key-value list	The list of key-value pairs provided in facebookComments Attributes below. The key for each list equals the value of <code>_facebookCommentId</code> .

Key Name	Value Type	Description
_facebookXML	UTF string	An XML string which includes information about all objects that participated in or were mentioned in the Post/Comments/Replies

Private Message Attributes

Key Name	Value Type	Description
_facebookDriverVersion	UTF String	Driver version
_facebookItxType	int	10 (Private Message)
_umsChannel	UTF String	Configured Facebook channel name
_umsChannelMonitor	UTF String	Configured Facebook monitor name
_umsChatRequired	UTF String	Always true
_umsMediaType	String	Value of inbound-media option for the monitor. To work with Workspace Desktop Edition the value must be facebooksession.
_umsMediaTypeChat	UTF String	
_umsFromAddr	UTF String	Either full User name of the user who published the message, or Facebook User ID
_umsToAddr	UTF String	Page name that the message was sent to
_umsMsgContext	int	Facebook thread ID, used to identify Chat session.
_umsMsgPlainText	UTF String	Text of the message.
_facebookPMThreadId	UTF String	Facebook thread ID.
_facebookPMThreadNMessages	int	Total number of messages in the thread
_facebookPMMessageId	UTF String	Facebook message ID.
_facebookMessageText	UTF String	Text of the message.
_facebookCreatedTime	UTF String	Last update time of the thread (UNIX timestamp)
_facebookActorId	UTF String	Facebook ID of the User who sent the message
_facebookActorName	UTF String	Name of the user who published the private message All of the content of User Attributes (table farther down)

Key Name	Value Type	Description
		this page) is added to UserData as well.
Subject	UTF String	Subject of the Message. Truncated version of Message text.
_facebookXML	UTF String	XML string that includes some info about all objects that participated in this thread (Thread, Message, Page, User)
_facebookPMInboxUrl	String	Value is set to a link that points to a list of all conversations for this Page.

_facebookComments Attributes

The value of the **_facebookComments** attribute: a list of key-value pairs with type Key-value list and keys equal to **_facebookCommentId**.

Key Name	Value Type	Comments
_facebookActorId	UTF String	Facebook ID of the object that published this Comment
_facebookActorIdType	int	Type of the Facebook object that published the Comment: <ul style="list-style-type: none"> • 0—User • 1—Page • 2—Event • 3—Group • 4—Application
_facebookActorName	UTF String	Name of the Page or User that published the Post. If it is a User (_facebookActorIdType = 0), then in addition to the name, the attributes listed in User Attributes below are also included.
Plus the contents of Comment Attributes below		

Here is an example of _facebookComments:

```
'_facebookComments' [lst] = KVList:
  '744384022244153_8236433' [lst] = KVList:
    '_facebookCommentId' [str] = "'744384022244153_8236433'"
    '_facebookCommentParentId' [str] = "0"
    '_facebookText' [str] = "This is a Comment on the Post"
```

```
'_facebookTime' [str] = "1384811057"
'_facebookCommentNLikes' [str] = "0"
'_facebookActorId' [str] = "507441822604742"
'_facebookActorIdType' [int] = 1
'_facebookActorName' [str] = "Some Page Name"
'744384022244153_8250812' [lst] = KVList:
'_facebookCommentId' [str] = "'744384022244153_8250812'"
'_facebookCommentParentId' [str] = "'744384022244153_8236433'"
'_facebookText' [str] = "This is a Reply to the Comment"
'_facebookTime' [str] = "1385154821"
'_facebookCommentNLikes' [str] = "10"
'_facebookActorId' [str] = "100000523748952"
'_facebookActorIdType' [int] = 0
'_facebookActorName' [str] = "UserFirstName UserLastName"
Also all key-value pairs from User Attributes
'744384022244153_8250813' [lst] = KVList:
'_facebookCommentId' [str] = "'744384022244153_8250813'"
...
```

Comment Attributes

Key Name	Value Type	Description
_facebookCommentId	UTF String	Facebook Comment ID
_facebookCommentParentId	UTF String	Facebook parent Comment ID
_facebookText	UTF String	The text of the Comment
_facebookTime	UTF String	UNIX timestamp associated with the creation time of the Comment
_facebookCommentNLikes	UTF String	The number of likes for the Comment

User Attributes

Key Name	Description
url	User's app scope ID
first_name	First Name of the user
last_name	Last name of the user
link	URL to the user's Facebook profile
name	Display name of the user
updated_time	Timestamp for the last updated time of the user's profile
picture	Key-Value list containing following values: <ul style="list-style-type: none"> is_silhouette - Should be true is user if user does not have any profile picture, and false if profile picture is present.

Key Name	Description
	<ul style="list-style-type: none">• url - URL to the user's profile picture

Sample of user attributes:

```
{
  "id": "240958046340982",
  "first_name": "John",
  "last_name": "Smith",
  "link": "https://www.facebook.com/app_scoped_user_id/240958046340982/",
  "name": "John Smith",
  "updated_time": "2017-06-09T11:43:41+0000",
  "picture": {
    "data": {
      "is_silhouette": false, "url": "https://scontent.xx.fbcdn.net/v/t1.0-1/p50x50/16195176_258650437905076_3924523920539810613_n.jpg?oh=da57bd2ece1b88e84206b908936b654f&oe=59DB5A2D" }
    }
  }
}
```

_umsChannelInfo Attributes

The value of the `_umsChannelInfo` attribute: a list of key-value pairs that represent information about the Facebook object on whose behalf Posts/Comment/Replies are published by this particular Monitor.

Key Name	Value Type	Comments
<code>_facebookSourceId</code>	UTF String	ID of the Facebook object on whose behalf the Post/Comment/Reply is published
<code>_facebookSourceObjectType</code>	UTF String	Type of the object on whose behalf the Post/Comment/Reply is published: <ul style="list-style-type: none">• <code>com.genesyslab.mcr.facebook.fql.Application</code>• <code>com.genesyslab.mcr.facebook.fql.User</code>• <code>com.genesyslab.mcr.facebook.fql.Page</code>
<code>_facebookSourceNickName</code>	UTF String	Name of the object
<code>_facebookSourceXML</code>	UTF String	Information about the object packed in an XML string

Sample:

```
'_umsChannelInfo' [lst] = KVList:
'channel-facebook-2-monitor-G-Page-MBAero-Main' [lst] = KVList:
'_facebookSourceId' [str] = "178227039004532"
'_facebookSourceObjectType' [str] = "com.genesyslab.mcr.facebook.fql.Page"
'_facebookSourceNickName' [str] = "Some Page Name"
'_facebookSourceXML' [str] = "<com.genesyslab.mcr.facebook.fql.Page>"
  <page__id>178227039004532</page__id>
  <name>Some Page</name>
  <pic__small>https://fbcdn-profile-a.akamaihd.net/hprofile-ak-ash1/373048_178227039004532_890644691_t.jpg</pic__small>
  <pic__big>https://fbcdn-profile-a.akamaihd.net/hprofile-ak-ash1/373048_178227039004532_890644691_n.jpg</pic__big>
  <page__url>https://www.facebook.com/SomePage</page__url>
  <type>COMMUNITY</type>
</com.genesyslab.mcr.facebook.fql.Page>
```

Deploy Digital Messaging Server with a Twitter Channel

For a Twitter channel, you need two installation packages:

- Digital Messaging Server
- Genesys Cloud API Driver for Twitter

The Driver adds Twitter-specific features to Digital Messaging Server and does not require its own Application object in the Configuration Server database.

You can also create a [Custom Media Channel Driver](#).

Important

Tweets from a customer who has a protected twitter account will not enter Digital Messaging Server even if the business twitter account is authenticated to view the protected tweets from the customer's twitter account.

Prepare the Twitter Channel

1. [Deploy Digital Messaging Server](#).
2. Run the installation for Genesys Driver for Use with Twitter, selecting the desired Digital Messaging Server object.
3. Locate the **driver-for-twitter-options.cfg** configuration file in the \<Digital Messaging Server application>\media-channel-drivers\channel-twitter directory.
4. In Genesys Administrator Extension, open your Digital Messaging Server Application, go to the **Options** tab, and import **driver-for-twitter-options.cfg**, selecting **No** in response to **Do you want to overwrite the existing data?**

Configure the Options

Refer to the [Genesys Cloud API Driver for Twitter](#) page in the [eServices Options Reference](#).

Twitter Interaction Attributes

Basic Attributes

Genesys Cloud API Driver for Twitter adds the following attributes to the user data of a Twitter interaction.

Key name	Value type	Description
_twitterMsgType	UTF string	Message type Values: DirectMessage, Status.
_twitterQueryName	String	Query name of the channel monitor.
_twitterCreatedAt	UTC Time Zone	Message creation date and time.
_twitterMsgId	String	Message ID.
_twitterIsFavorited	String	Indicates whether the Tweet has likes (formerly known as favorites) or not.
_twitterFavoriteCount	Integer	Number of likes received by the Tweet.
_twitterUserName	String	Full name of the user who posted the Tweet.
_twitterFirstName	String	First name of the user.
_twitterLastName	String	Last name of the user.
_twitterUserId	String	Twitter user ID.
_twitterUserScreenName	String	Screen name of the user.
_twitterUserCreatedAt	UTC Time Zone	The UTC date and time when the user account was created on Twitter.
_twitterUserLanguage	String	Language code in the user's profile.
_twitterUserImageURL	String	URL of the user profile image (also known as avatar).
_twitterUserTimeZone	String	Time zone of the Twitter user.
_twitterUserUtcOffset	String	UTC offset for the user's time zone.
_twitterUserFollowersCount	String	The user's current number of followers.
_twitterUserFriendsCount	String	The number of other users this user is currently following.
_twitterUserStatusesCount	String	The number of Tweets (including

Key name	Value type	Description
		Retweets) posted by the user.
_twitterFromAddr	String	Screen name of the message author.
_twitterFromUserId	String	User ID of the message author.
_twitterUserIsFollower	String	Indicates whether the user is a follower of the channel's account or not.
_twitterUserIsFriend	String	Indicates whether the channel's account is following the user or not.
_twitterToAddr	String	Screen name of the message addressee.
_twitterToUserId	String	User ID of the message addressee.
_twitterMsgPlainText	String	Message content in plain text format.
Subject	String	Message subject.
_twitterMsgLanguage	String	Language code of the Tweet.
_twitterSource	String	Source of the message.
_twitterIsRetweet	String	Indicates whether the message is a Retweet of another message.
_twitterEntities	Key-value list	URL entities expressed as a key-value pairs list with URL and Media attributes.
_umsChannel	String	Channel name.
_umsMediaAccount	String	Twitter account ID of the channel.
_umsChannelInfo	Key-value list	The list of key-value pairs provided in _umsChannelInfo Attributes below.
_twitterUtterances	Key-value list	The list of key-value pairs provided in _twitterUtterances Attributes below.
_twitterTopics	String	Keywords in Tweets.
_twitterTimeFrame	String	Timeout for the group ID, in seconds. A new group ID is assigned after this timeout.
_twitterGroupId	String	Twitter group ID assigned to a group of Tweets from the same sender.

_umsChannelInfo Attributes

Key name	Value type	Description
_twitterUserId	String	Twitter account ID of the channel.
_twitterUserScreenName	String	Screen name of the channel's Twitter account.
_twitterUserName	String	The brand name which is the same as the channel's Twitter user name.
_twitterUserImageURL	String	URL of the brand's Twitter profile image (also known as avatar).
_twitterSourceNickName	String	Value retrieved from the x-source-nick-name configuration parameter.
_twitterSentiment	String	Sentiment polarity of the Tweet. It can be Positive, Neutral, or Negative.
_twitterSentimentScore	String	A numerical representation of the sentiment polarity of the Tweet.
_twitterSentimentConfidence	String	Confidence score of sentiment extractor.
_twitterActionability	String	A score determined by the number of Tweets that are accepted and rejected by agents. The default value is 50.

_twitterUtterances Attributes

Key name	Value type	Description
content	String	A speech act, usually a sentence from the received message/ Tweet. The initial message is divided into speech acts using punctuation patterns.
intention_type	String	Result of intention classifier.
intention_type_confidence	String	Confidence score of intention classifier.
sentiment	String	Sentiment polarity of the speech act. It can be Positive, Neutral, or Negative.
sentiment_score	String	A numerical representation of the sentiment polarity of the current speech act.
sentiment_confidence	String	Confidence score of sentiment extractor.

Key name	Value type	Description
topic_confidence	String	Confidence score of topic extractor.
topics	String	Noun phrases from the speech acts.

Sample Interactions

Public Tweet

```
'_twitterQueryName' [str] = "Public"
'_twitterCreatedAt' [str] = "2017-12-18T10:22:10Z"
'_twitterMsgType' [str] = "Status"
'_twitterMsgId' [str] = "942701514744672256"
'_twitterIsFavorited' [str] = "false"
'_twitterFavoriteCount' [int] = 0
'_twitterUserName' [str] = "Shruti Mishra"
'_twitterFirstName' [str] = "Shruti"
'_twitterLastName' [str] = "Mishra"
'_twitterUserId' [str] = "834289359406915584"
'_twitterUserScreenName' [str] = "shruti14111"
'_twitterUserCreatedAt' [str] = "2017-02-22T14:30:58Z"
'_twitterUserLanguage' [str] = "en"
'_twitterUserImageURL' [str] = "http://abs.twimg.com/sticky/default_profile_images/default_profile_normal.png"
'_twitterUserTimeZone' [str] = "New Delhi"
'_twitterUserUtcOffset' [str] = "19800.0"
'_twitterUserFollowersCount' [str] = "12"
'_twitterUserFriendsCount' [str] = "33"
'_twitterUserStatusesCount' [str] = "2071"
'_twitterFromAddr' [str] = "shruti14111"
'_twitterFromUserId' [str] = "834289359406915584"
'_twitterUserIsFollower' [str] = "true"
'_twitterUserIsFriend' [str] = "true"
'_twitterInReplyToUserId' [str] = "868003715545931776"
'_twitterToUserId' [str] = "868003715545931776"
'_twitterInReplyToScreenName' [str] = "Sparrow11071"
'_twitterToAddr' [str] = "Sparrow11071"
'_twitterMsgPlainText' [str] = "@Sparrow11071 Text Tweet to brand"
'_Subject' [str] = "@Sparrow11071 Text Twe..."
'_twitterMsgLanguage' [str] = "en"
'_twitterSource' [str] = "<a href='\"http://twitter.com\"' rel='\"nofollow\"'>Twitter Web Client</a>"
'_twitterIsRetweet' [str] = "false"
'_twitterEntities' [lst] = KVLList:
'Media' [lst] = KVLList:
'Url' [lst] = KVLList:
'_umsChannel' [str] = "channel-twitter-Test"
'_umsMediaAccount' [str] = "868003715545931776"
'_umsChannelInfo' [lst] = KVLList:
'_twitterUserId' [str] = "868003715545931776"
'_twitterUserScreenName' [str] = "Sparrow11071"
'_twitterUserName' [str] = "Sparrow Products"
'_twitterUserImageURL' [str] = "http://abs.twimg.com/sticky/default_profile_images/default_profile_normal.png"
'_twitterSourceNickName' [str] = "*set value*"
'_twitterSentiment' [str] = "Neutral"
```

```
'_twitterSentimentScore' [str] = "0.0"
'_twitterSentimentConfidence' [str] = "5.0"
'_twitterActionability' [str] = "50.0"
'_twitterUtterances' [lst] = KVList:
'_utterance-0' [lst] = KVList:
  'content' [str] = "@Sparrow11071 Text Tweet to brand"
  'intention_type' [str] = "JUNK"
  'intention_type_confidence' [str] = "3.0"
  'sentiment' [str] = "Neutral"
  'sentiment_score' [str] = "0.0"
  'sentiment_confidence' [str] = "5.0"
  'topic_confidence' [str] = "74.0"
  'topics' [str] = "text tweet,sparrow11071"
'_twitterTopics' [str] = "text tweet,sparrow11071"
'_twitterTimeFrame' [str] = "60.0"
'_twitterGroupId' [str] = "834289359406915584:5977904549637487079"
```

Direct Message

```
'_twitterQueryName' [str] = "User"
'_twitterCreatedAt' [str] = "2017-12-18T10:24:57Z"
'_umsMediaType' [str] = "twitterdirect"
'_twitterMsgType' [str] = "DirectMessage"
'_twitterMsgId' [str] = "942702217122824196"
'_twitterUserName' [str] = "Shruti Mishra"
'_twitterFirstName' [str] = "Shruti"
'_twitterLastName' [str] = "Mishra"
'_twitterUserId' [str] = "834289359406915584"
'_twitterUserScreenName' [str] = "shruti14111"
'_twitterUserCreatedAt' [str] = "2017-02-22T14:30:58Z"
'_twitterUserLanguage' [str] = "en"
'_twitterUserImageURL' [str] = "http://abs.twimg.com/sticky/default_profile_images/default_profile_normal.png"
'_twitterUserTimeZone' [str] = "New Delhi"
'_twitterUserUtcOffset' [str] = "19800.0"
'_twitterUserFollowersCount' [str] = "12"
'_twitterUserFriendsCount' [str] = "33"
'_twitterUserStatusesCount' [str] = "2071"
'_twitterFromAddr' [str] = "shruti14111"
'_twitterFromUserId' [str] = "834289359406915584"
'_twitterUserIsFollower' [str] = "true"
'_twitterUserIsFriend' [str] = "true"
'_twitterToAddr' [str] = "Sparrow11071"
'_twitterToUserId' [str] = "868003715545931776"
'_twitterMsgPlainText' [str] = "TEST DM"
'_Subject' [str] = "TEST DM"
'_umsChannel' [str] = "channel-twitter-Test"
'_umsMediaAccount' [str] = "868003715545931776"
'_umsChannelInfo' [lst] = KVList:
  '_twitterUserId' [str] = "868003715545931776"
  '_twitterUserScreenName' [str] = "Sparrow11071"
  '_twitterUserName' [str] = "Sparrow Products"
  '_twitterUserImageURL' [str] = "http://abs.twimg.com/sticky/default_profile_images/default_profile_normal.png"
  '_twitterSourceNickName' [str] = "*set value*"
'_twitterEntities' [lst] = KVList:
'_Media' [lst] = KVList:
'_Url' [lst] = KVList:
'_twitterSentiment' [str] = "Neutral"
'_twitterSentimentScore' [str] = "0.0"
'_twitterSentimentConfidence' [str] = "5.0"
'_twitterActionability' [str] = "50.0"
```

```
'_twitterUtterances' [lst] = KVList:
'utterance-0' [lst] = KVList:
  'content' [str] = "TEST DM @Sparrow11071"
  'intention_type' [str] = "RECOMMENDATION"
  'intention_type_confidence' [str] = "24.0"
  'sentiment' [str] = "Neutral"
  'sentiment_score' [str] = "0.0"
  'sentiment_confidence' [str] = "5.0"
  'topic_confidence' [str] = "75.0"
  'topics' [str] = "sparrow11071"
'_twitterTopics' [str] = "sparrow11071"
'_twitterTimeFrame' [str] = "60.0"
'_twitterGroupId' [str] = "834289359406915584_868003715545931776:5977904549637654629"
```

Custom Media Channel Driver

Genesys supplies drivers for media channels that connect Digital Messaging Server to Twitter and Facebook. You can also create a custom media channel driver, as described in [this API reference](#).

Important

Installation of Digital Messaging Server is described on the [Deploy Digital Messaging Server](#) page.

Digital Messaging Server Configuration Options

See the [Digital Messaging Server Options Reference](#) for information on the configuration options available.

Options for a particular monitor override the general channel options.

You must set the following Java VM properties according to which DMS channels are used in your environment:

Channel(s)	Options
Chat mode only is used in all DMS channels	<ul style="list-style-type: none"> • -Dgenesys.mcr.stdserverex.itxrequired = false • -Dgenesys.mcr.stdserverex.scsrequired = true • -Dgenesys.mcr.stdserverex.chatrequired = true
Paging mode only is used in all DMS channels	<ul style="list-style-type: none"> • -Dgenesys.mcr.stdserverex.itxrequired = true • -Dgenesys.mcr.stdserverex.scsrequired = false • -Dgenesys.mcr.stdserverex.chatrequired = false
Both chat and paging modes are used in DMS channels	<ul style="list-style-type: none"> • -Dgenesys.mcr.stdserverex.itxrequired = true • -Dgenesys.mcr.stdserverex.scsrequired = true • -Dgenesys.mcr.stdserverex.chatrequired = true
DMS channels do not post messages to DMS (for example, a channel for bots)	<ul style="list-style-type: none"> • -Dgenesys.mcr.stdserverex.itxrequired = false • -Dgenesys.mcr.stdserverex.scsrequired = false • -Dgenesys.mcr.stdserverex.chatrequired = false

Masking sensitive data in log files

Although values for sensitive data such as passwords are masked in key-value lists, these values are not masked when users view or modify the related configuration options.

You can use the internal log-filtering mechanism in Digital Messaging Server to properly mask these values, based on the **logging-filter-default.json** configuration file that you put into the directory where your DMS jar file resides. Specify the configuration file to use in the value for **logging-filter-spec**. [Click here](#) to download a sample for **logging-filter-default.json**.

First, define a set of filters that are applied to the server's log messages before they are passed to a logging system. The filters intercept the original message's content and produce new content (possibly empty values) for specific messages in a log file (for example, a message that has specific identification information).

There are three types of filter procedures:

- Skip—Produces empty new content,
- Hide—Produces standard placeholder as a new content,
- Edit—Produces new content as a transformation of an original content.

The filter can modify content as part of a series of steps. For example, it can mask one category of information before masking a separate category.

Modification of content is based on a search-and-replace approach using regular expressions and replace expressions (“search” predicate and “replace” action). See the following links for more information:

- [Lesson: Regular Expressions \(Oracle\)](#)
- [Class Pattern \(Oracle\)](#)
- [Regular Expression Language - Quick Reference \(Microsoft\)](#)

You must extensively test regular expressions to ensure they perform as expected in all cases. The following tools might be useful for testing:

- [Regex Planet](#)
- [RegExr](#)

The following are examples and definitions of typical sensitive data:

- [Bank card number](#)
- [Social Security Number](#)
- [Phone number](#)