PSN #	PSN005752u	Avaya Proprietary – Use pursuant to the terms of your signed agreement or company policy.			
Original publication date: 28-Dec-2020. This is Issue #01, published date: 28-Dec-2020		Severity/risk level	Medium	Urgency	When convenient

Name of problem

Avaya Oceana 3.8.0.1 Process for Messaging Channel Enablement

Products affected

Avaya Oceana 3.8.0.1

Problem description

Integrating the Messaging Channel with Social Messaging Platforms – Facebook, Twitter and WhatsApp

Resolution

Introduction

This document is a development and instructional guide and contains instructions and information for developers and integrators seeking to integrate social messaging platforms with Oceana via the Avaya Digital Connection platform. Refer to sections as appropriate in this document on:

- WhatsApp Integration
- Facebook Messenger Integration
- Twitter Direct Messaging Integration
- General Appendices

What is the Avaya Digital Connection?

The Avaya Digital Connection is a software platform that enables businesses to communicate with their customers across several popular messaging apps.

Developers can use the Avaya Digital Connection along with the SDK to add messaging and conversational capabilities to their software. Avaya Digital Connection's rich APIs allow for conversation management, rich messaging, user metadata collection, account management and more.

Businesses can also use the Avaya Digital Connection to connect to their customers (with agents, bots) over messaging using an Avaya contact centre solution.

Who is this for?

- Businesses who want to offer customer service via OTT messaging apps such as WhatsApp.
- Customer success teams who want to proactively engage with visitors and build engaging relationships.
- Sales teams who want to do commerce and upsell via OTT messaging App.

What you'll need

- Some technical skills and domain knowledge

Supported Channels

Oceana 3.8.0.1 supports messaging with the following social platforms:

- WhatsApp
- Facebook Messenger
- Twitter Direct Message

No other messaging platforms are supported at this time.

Prerequisites

The Messaging channel of Oceana requires that a Digital Connection account is provisioned before commencing the installation of the Async Connector. The Async Connector is deployed with Analytics on the shared Common Services Platform (CSP).

When the Digital Connection account is provisioned, you will be provided the following details:

- Application ID
- Cloud Provider Key
- Cloud Security Key
- Pipeline Processor URL

As part of the deployment process for the Async Connector, you will require these details. They are entered into the Excel deployment file to configure the connector for your Digital Connection account. Do not commence the deployment until these values are available.

Note: You must deploy the Messaging Connector at the same time as Analytics. You cannot retrospectively add the Messaging Connector to the deployment.

For production environments, both Analytics and Async Messaging Connector must be installed in High Availability environments. For non-production lab deployments, you may deploy the Async Messaging Connector in non-HA environments. The hardware footprint remains unchanged in on-HA environments.

Deployment Sequence

The deployment process should be completed in the following sequence:

1. Provision your Digital Connection account and receive the App ID, Provider Key and Security Key.
2. Deploy Oceana and note the FQDN of the Oceana OCP Cluster.
3. Create a new Oceana user which is required for securing file transfers.
4. Deploy Analytics and Async Connector using the App ID, Provider Key and Security Key provided from the Digital Connection account and the Oceana OCP Cluster FQDN. You will also need to specify the Oceana user created for file transfers.
5. Register the webhook created by the Async Connector deployment in your Digital Connection account. To do this, you will need to provide the FQDN for inbound traffic into the CSP cluster to your Digital Connection account administrator. You must complete this step before messages will be routed.
6. Identify the integrations you wish to support in your environment i.e. iOS, Android or Web SDKs for custom messaging enabled applications and/or WhatsApp, Facebook Messenger and Twitter DM Social Messaging applications.

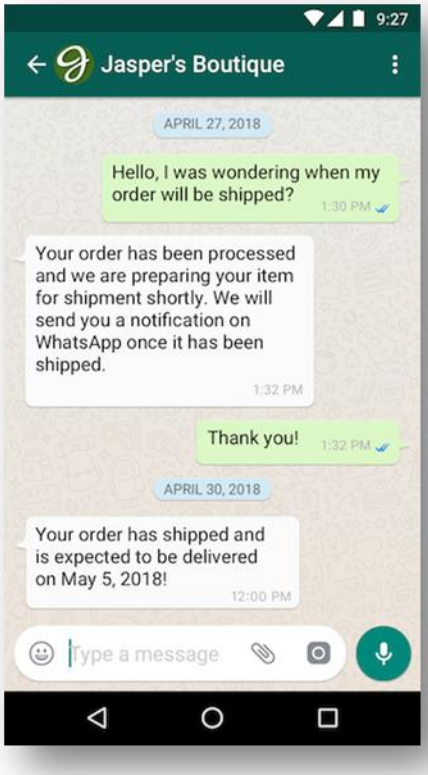
IMPORTANT NOTE: For production environments, you will need to deploy the Async Messaging Connector in a High Availability environment. For lab deployments, High Availability is not required. You may select lab deployments in the Excel deployment spreadsheet to do this. Note that the compute resources allocated to Async components is unchanged.

WhatsApp

Introduction

More than 1.5 billion global monthly users in over 180 countries use WhatsApp to stay in touch with friends and family, anytime and anywhere. WhatsApp offers simple, secure, reliable messaging and calling, available on phones all over the world. Now open to enterprises in early access, WhatsApp is poised to be the world's most powerful business messaging channel. Avaya supports this OTT messaging app via the Avaya Digital Connection API with the following capabilities:

- Text and Emojis
- Images, Stickers and GIFs
- Links
- Locations and Location Requests
- Compound Messages

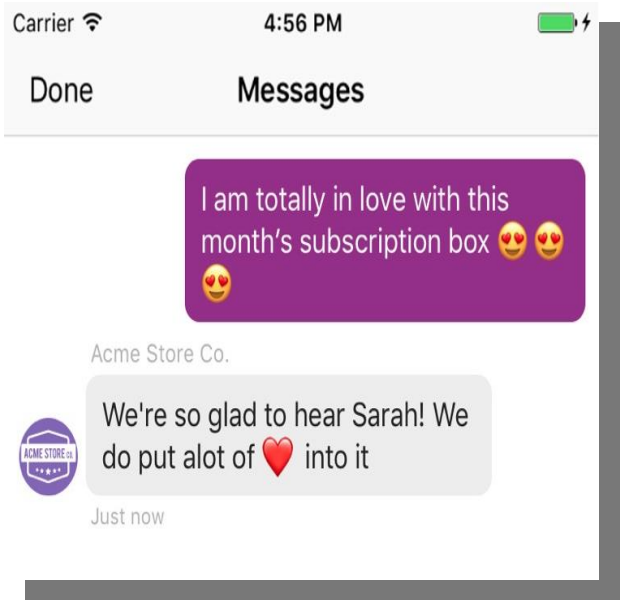


Capabilities

WhatsApp Business API supports a wide variety of capabilities for a rich interactive messaging session between the end-user and the Business. Below is a detailed view of each capability:

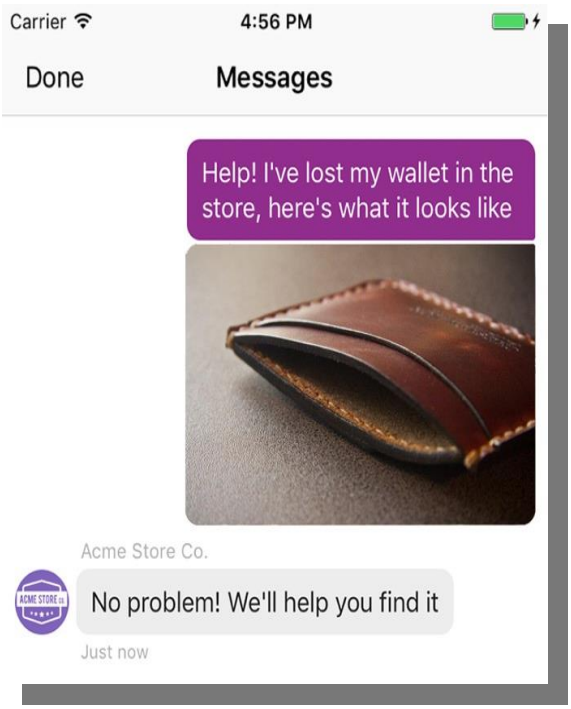
Text and Emoji

Plain text messages and Unicode Emojis ✨



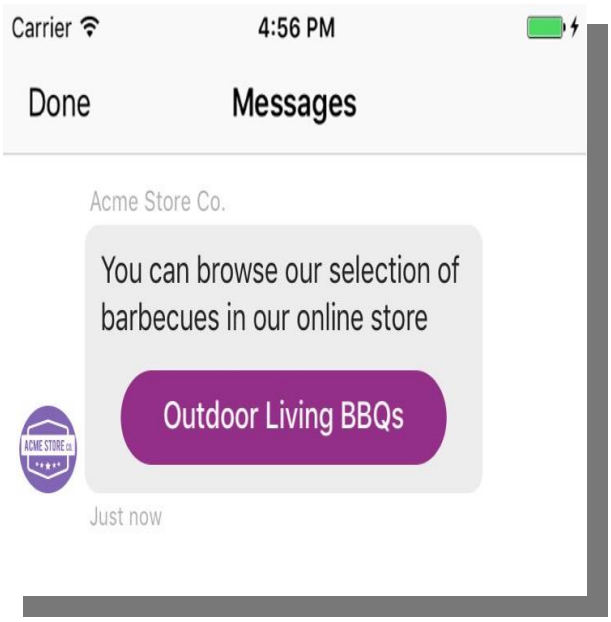
Image, GIF, Stickers

Display Images



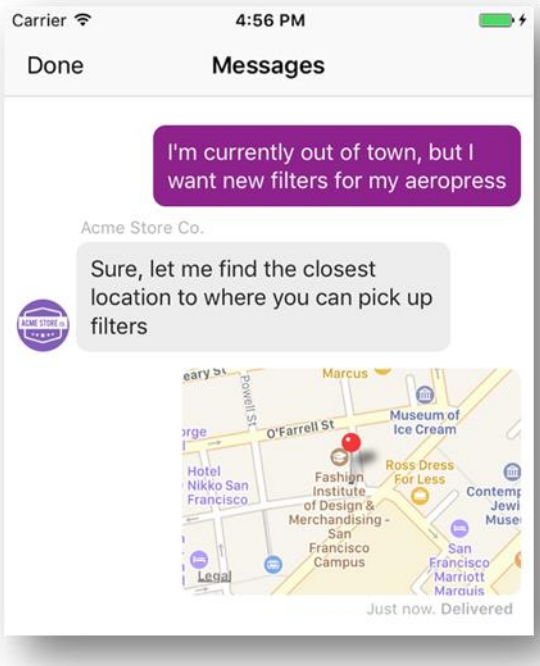
Link

Display web links as buttons.
Transform links into clear calls to action.



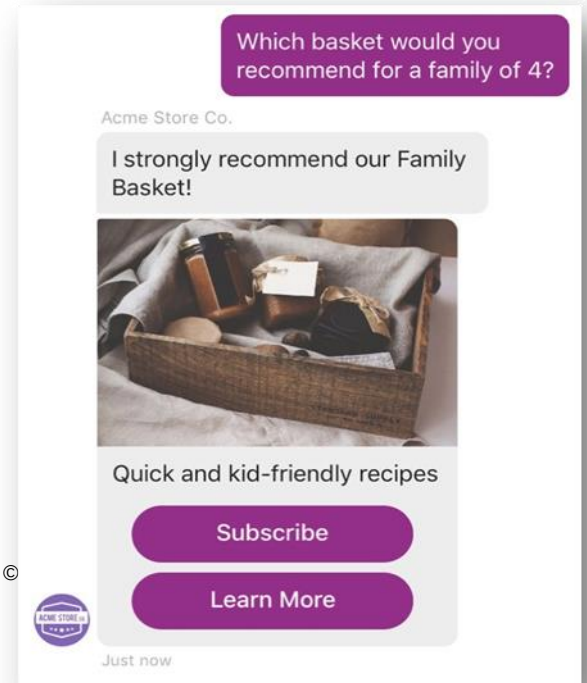
Location

Send and receive geolocation messages



Compound Message

Compound message allows to send text, image and multiple buttons (actions) all in a single message.



Channel Overview

- WhatsApp offers simple, secure, reliable messaging and calling, available on phones all over the world.
- WhatsApp has now introduced an API for businesses which allows enterprise software (Avaya Oceana) message customers over WhatsApp.
- It can be used to respond to customer service requests, to resolve urgent customer issues, to deliver timely notifications (receipts, account updates, gate changes, confirmations, etc.), to automate responses for frequently asked questions.
- It can also be integrated into a CRM system to track ticket resolution and enrich customer data.

IMPORTANT NOTE: Outbound notifications are not supported in this release, Business (Agent/Bot) can respond to active conversation initiated by the end-user.

Glossary

- **Brand** (Business) Enterprise customer of Avaya
- **Business Profile** a unique entry for business with relevant information that will be visible to customers they're communicating with.
- **WABA** (WhatsApp Business Account) official Business Account is verified by WhatsApp.
- **BSP** (Business Solution Provider) vendors approved by WhatsApp/ Facebook
- **WhatsApp Business API** allows you to programmatically send and receive messages and integrate this workflow with your own.
- **WhatsApp Business API Client** headless client that runs in the cloud along with its database and media storage and a mandatory component for integration.
- **WhatsApp Message Templates** outbound (paid) messages that are individually approved by the WhatsApp team to ensure they do not violate the WhatsApp policies.

Onboarding

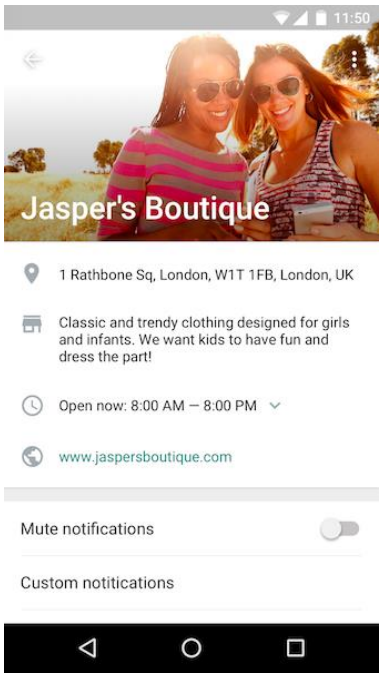
- The WhatsApp Business Solution program is opening in a Limited Access capacity where WhatsApp approval is required for all businesses entering the program.
- WhatsApp and solution providers are bringing businesses onto WhatsApp slowly and thoughtfully to ultimately provide the most benefit for brands and end consumers.
- Avaya can help customers with this journey, the first step is to register interest in this early access program.
- While the Avaya customer waits for approval from the WhatsApp team, they can start testing the integration by using the Sandbox for WhatsApp. This is limited to only accepting messages from a single WhatsApp account and does not support Template Messages.

Administration

Avaya DevOps can facilitate administration of key business information for each number connected to WhatsApp including:

- A profile picture
- Address of business
- Description of business
- Email for business contact
- Business vertical/industry
- Business website

The business profile is shown to end-users in the contact entry corresponding to the connected phone number.



Provisioning

WhatsApp Template Messages (WTMs)

This section covers the creation of WTMs for sending business initiated messages.

- Template Messages are message formats for common reusable messages a business may want to send to end-users.
- When an end-user sends a message to the business, you must respond to it within 24 hours. If you do not respond to it within 24 hours, WhatsApp will reject your message. The only alternative to resuming conversation with that customer is to send a WhatsApp Template Message. This is a paid-for service and is enforced by WhatsApp, not Avaya.

Messages Pricing

WhatsApp's pricing is based on the following rules:

User-initiated [FREE]	- User initiates conversation: all messages exchanged are free for 24hrs - Every time user sends a message, 24hr window renews (just like Facebook)
Business-Initiated [PAID]	- Business initiates conversation: Must use a template message (paid) - Once user responds, all messages exchanged are free for 24hrs - Every time user sends a message, 24hr window renews
Business Follow-Up [PAID]	- If 24 hr window expires, business can only continue conversation with a template message (paid)

IMPORTANT NOTE: Business-initiated conversations are not supported in this release, Business (Agent/Bot) can respond to an active conversation initiated by the end-user.

Creating Template Messages

If you would like to submit Template Messages to be approved by WhatsApp/Facebook against the WABAs hosted for you, then submit to Avaya for approval. Our Customer Advocacy team will submit them to Facebook for review and approval and confirm back within **2 to 10 business days**.
Please note that sending Template Messages will incur costs from WhatsApp based on country code of the recipient. Avaya will pass through these charges and include them on your invoice.

Below is a guide to the types of Template Messages which are **allowed** and **not allowed** by WhatsApp:

Template	Allowed Use Case	Examples
ACCOUNT_UPDATE	Notify the message recipient of a change to their account settings.	Profile has changed Preferences are updated Settings have changed Membership has expired Password has changed
PAYMENT_UPDATE	Notify the message recipient of a payment update for an existing transaction.	Send a receipt Send an out-of-stock notification Notify an auction has ended Status on a payment transaction has changed
PERSONAL_FINANCE_UPDATE	Confirm a message recipient's financial activity.	Bill-pay reminders Scheduled payment reminder Payment receipt notification Funds transfer confirmation or update Other transactional activities in financial services
SHIPPING_UPDATE	Notify the message recipient of a change in shipping status for a product that has already been purchased.	Product is shipped Status changes to in-transit Product is delivered Shipment is delayed
RESERVATION_UPDATE	Notify the message recipient of updates to an existing reservation.	Itinerary changes Location changes Cancellation is confirmed Hotel booking is cancelled Car rental pick-up time changes Room upgrade is confirmed
APPOINTMENT_UPDATE	Notify the message recipient of a change to an existing appointment.	Appointment time changes Appointment location changes Appointment is cancelled
TRANSPORTATION_UPDATE	Notify the message recipient of updates to an existing transportation reservation.	Flight status changes Ride is cancelled Trip is started Ferry has arrived
TICKET_UPDATE	Send the message recipient updates or reminders for an event for which a person already has a ticket.	Concert start time changes Event location changes Show is cancelled A refund opportunity is made available
ISSUE_RESOLUTION	Notify the message recipient of an update to a customer service issue that was initiated in a Messenger conversation, following a transaction.	Issue is resolved Issue status is updated Issue requires a request for additional information
ALERT	Notify the message recipient of something informational	Business hours/hours of availability Check-in/Check-out times

Table 1: Template Messages which are **allowed** by WhatsApp

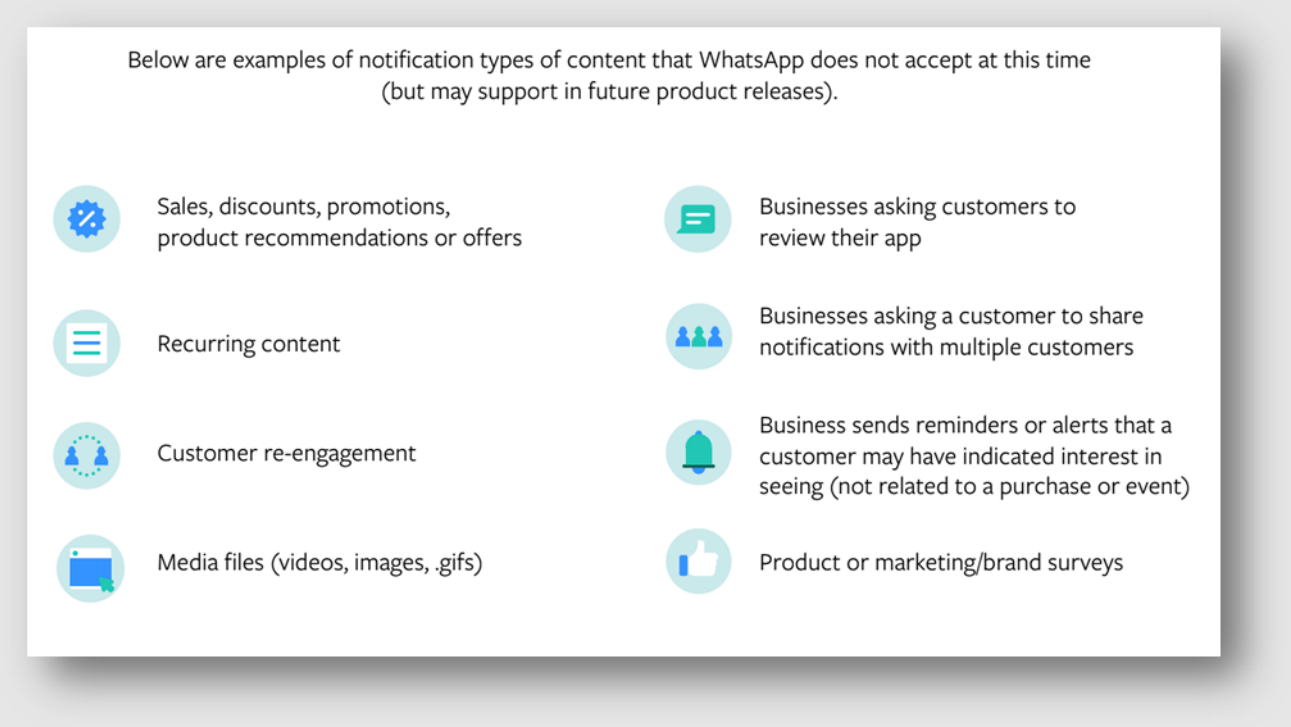


Table 2: Template Messages which are **NOT allowed** by WhatsApp

IMPORTANT NOTE: If you fail to respond to an end user WhatsApp message to the business within 24 hours, you can then only respond with a paid-for WhatsApp Message Template. Attempting to send a normal message is not prevented in Workspaces but will cause it to be rejected by WhatsApp. This limitation is imposed by WhatsApp, not Avaya.

Agents and WhatsApp Message Templates

Here is a summary of some of the system behaviours for WhatsApp Message Templates:

Scenario	Behaviors
End user sends a message to the WhatsApp Business Number. More than 24 hours elapses since the customer message. The contact is then routed to an agent.	The Workspaces user will be advised to use a WhatsApp Message Template in response. No system welcome message will be sent. Regular messages sent to the end user will be rejected.
End user sends a message to the WhatsApp Business Number. More than 24 hours elapses since the customer message. The contact is then routed to an agent. The agent replies with a WhatsApp Message Template.	The WhatsApp Message Template will be delivered to the end user. Any further regular messages sent to the end user will be rejected by WhatsApp until the end user replies. The end user replying resets the 24-hour window and then allows regular messages to be sent again.
End user sends a message to the WhatsApp Business Number. More than 24 hours elapses. Agent firstly sends a template message in reply. Agent immediately sends a regular message in reply (does not wait for an end-user reply message).	The WhatsApp Message Template will be delivered to the end user. The regular message will be rejected. Multiple WhatsApp Message Templates can be sent consecutively, but no regular messages can be sent until the end user replies.
End user sends a message to the WhatsApp Business Number. 23 hours 55 minutes elapses. The contact is then routed to an agent. The agent waits more than 5 mins before sending a regular reply message.	Regular messages sent to the end user will be rejected as more than 24 hours have now elapsed since the last end user message. The Workspaces user will **not** be advised to use a WhatsApp Message Template – this check for the applicability of a template message is performed only when the contact is answered by the agent.

Note: the 24-hour reply window begins from the time of the last end user message, not the time the conversation is initiated or the time the agent answers the contact.

Minimizing WhatsApp Template Message Usage Charges

As WhatsApp Message Template usage incurs charges, you will want to minimize this. The best way to achieve this is:

- Ensure end user messages are prioritized sufficiently so they can be responded to within the 24-hour reply window to avoid charges.
- Have a single WhatsApp Message Template pre-approved and available on the Workspaces Rich Media Widget which encourages re-engagement from the end-user if the 24-hour window has elapsed when the contact is routed e.g. *"Thank you for contacting us. Apologies for the delay in responding. If this is still an issue, please contact us again for resolution."* Templates like this minimize cost be re-engaging the customer with a single message rather than requiring multiple consecutive template messages be used.
- Consider the use of a chatbot to maintain a conversation until agents are available. Avaya Oceana supports the use of chatbots for messaging interactions, including WhatsApp. The chatbot itself will not use template messages, instead it will keep the engagement with the end-user open until an agent is available and avoids the 24-hour reply window from being exceeded.

WhatsApp Sandbox

For the purposes of getting started, it is possible to provision a WhatsApp business sandbox number to enable system testing. This is a highly limited (but free) capability to send messages through WhatsApp. Please contact your Digital Connection account administrator to provision this. However, note the following:

- A temporary sandbox business WhatsApp number will be generated for you. This is not your production number and the production number will be different. Do not share this number widely as it will change.
- Only 1 end user can send messages to this sandbox temporary WhatsApp number. You cannot receive messages from multiple end users to this temporary sandbox number.
- The designated end user allowed to send messages to this temporary sandbox number will need to send a message with a code to a number provided. This step permits the sender WhatsApp number to message the temporary sandbox number. Messages to the temporary sandbox number from other senders will be rejected.
- WhatsApp Message Templates are not supported with the temporary sandbox number.

To get started with a WhatsApp Sandbox number, please request this from your Digital Connection account administrators. They will setup the sandbox for you and provide the code to be sent by the designated end user.

When a production number becomes available, no reconfiguration is required on the Oceana side. The production number will need to be added to your Digital Connection account. Your Digital Connection account administrator will configure this for you.

Testing Templates Messages (WTMs)

Prerequisites: Once your WhatsApp Business Account (WABA) has been created and a phone number is successfully activated in that account, you can test sending WhatsApp Templates Messages.

Typically, you will add the template to the Workspaces Rich Media widget so that they will be easily accessible to agents.

To do this you need to have an approved template to add and Rich Media widget source code. File to be updated is ***richmedia-content.templates.js***. There are already several template messages as an example. To add new WhatsApp template message just go to groupName called “WhatsApp Template Messages” and add new item to the groupItems list.

For example, you have new approved template, which you would like to add to the widget. Template name is “hello_world”, it is placed in “communications” namespace and you want it to be in English language. In that case you will need to add to the groupItems list the following:

```
{
  'title': 'WTM: Template example',
  'richMediaType': 'whatsapptemplate',
  'textFallback': '[WTM]: Placeholder TM for Whatsapp',
  'body': {
    'template': {
      'namespace': 'communications',
      'name': 'hello_world',
      'language': {
        'code': 'en_US'
      }
    }
  }
}
```

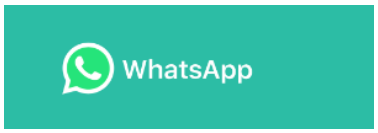
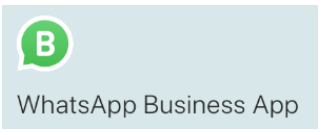
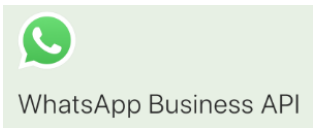
textFallback is the message which will be shown to agent before template message is reconstructed by WhatsApp API Client and sent back.

After Rich Media widget is updated it should be built and imported. For more info, please check Widget Framework Developer Documentation.

Appendix A – WhatsApp Variants

There are three variants for WhatsApp as listed below. WhatsApp Business API integration is part of the Avaya Digital Connector offer that enables end-users using WhatsApp Messenger on their Mobile, Web or Desktop App to communicate with a valid registered Business using with Avaya CC Solution and Avaya Workspaces.

- WhatsApp Messenger
- WhatsApp Business App
- WhatsApp Business API

		
WhatsApp Messenger or simply WhatsApp is a freeware, cross-platform messaging and Voice over IP service owned by Facebook, Inc. It allows users to send text messages and voice messages, makes voice and video calls, and share images, documents, user locations, and other media.	WhatsApp Business is built with the small business owner in mind. Business can create a catalogue to showcase their products and services. Connect with customers easily by using tools to automate, sort and quickly respond to messages.	WhatsApp can also help medium and large businesses provide customer support and deliver important notifications to customers. more about WhatsApp Business API.
Free to download, Available on Google play store or Apple App Store.	Free to download, Available on Google play store or Apple App Store.	Require an API integration and deploying a WhatsApp API Client. Integration with a BSP/CSP/Contact Center solution and Agent Desktop with rich media support.

Appendix B - WhatsApp FAQ

Some rich media elements are not displaying correctly in WhatsApp clients.	Certain rich media features such as list pickers and carousels are supported on other channels but not rendered effectively in WhatsApp. You are advised to only show the rich media elements in the customized widget for Workspaces that render correctly on WhatsApp. You should make this widget context aware of the messaging platform used by the end user who initiated the conversation.
Files from the end user are not received	These may be blocked by the virus scanning. Check if a notification has been received in the chat window and ask the sender to scan their device. With some file types, file extensions may be removed.
Group chat not supported.	You cannot add the WhatsApp for Business number to a group chat.
Cannot reply to an end user message.	You can only reply to an end user message within 24 hours of receiving it. Otherwise, WhatsApp will reject the message and it will not be delivered to the end user. The only means of reply to an end user message older than 24 hours is through sending an approved template. You can send consecutive template messages to that user, but you must await a response before being able to send a regular message.

Live Location is not supported.	WhatsApp for Business does not support Live Location sharing.
File extension – some limitations	For some file types, e.g. PDF files sent to the end user may have their file extensions truncated. Other file types such as .avi are not supported (Both iOS and Android do not natively support or render these).

Facebook Messenger

Introduction

Facebook Messenger enables sharing of messages, images and media between Facebook and Instagram users, including the ability to create Rooms and make payments. Avaya Oceana supports end users interacting with the Contact Center via Facebook Messenger. Note this does not include harvesting public messages posted to a business page. For options on public Social Media, please contact your Avaya representative.

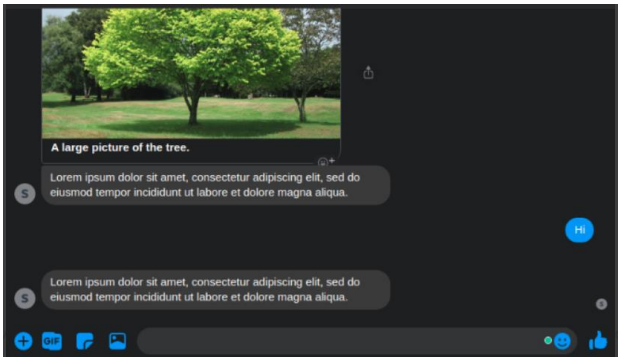
Oceana does not support end users messaging via Instagram to a Facebook Messenger business account.

Capabilities

Facebook supports many rich media elements which can be added to the Workspaces Rich Media Widget for easy sharing by the agent to the end user. The following elements are supported in Facebook Messenger:

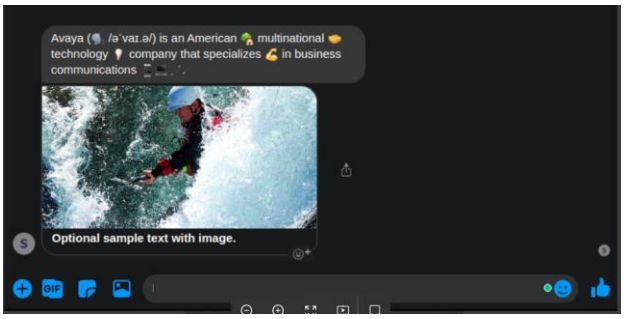
Text and Emoji

Plain text messages and Unicode Emojis



Image, GIF, Stickers

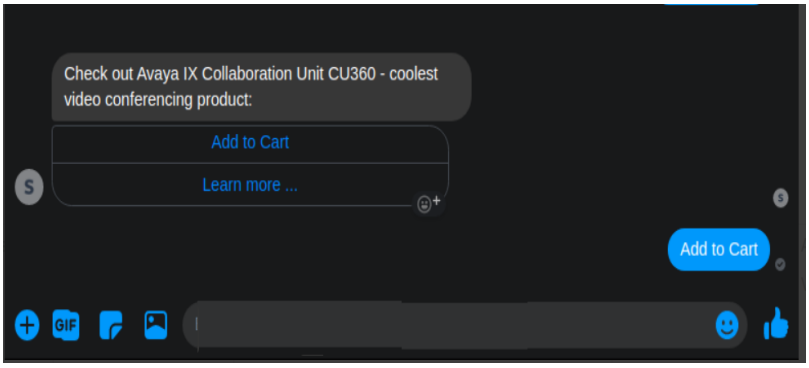
Display Images to the end user.



Link

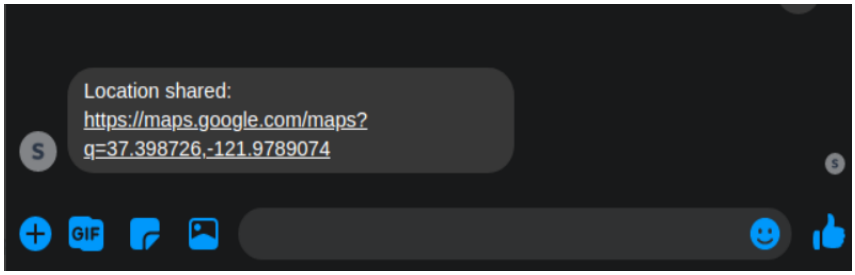
Display web links as buttons.

Transform links into clear calls to action.



Location

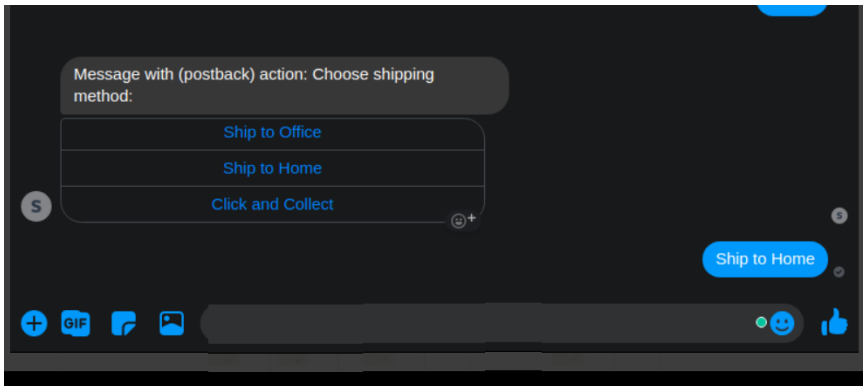
Send and receive geolocation messages. Shared as a URL



Postback

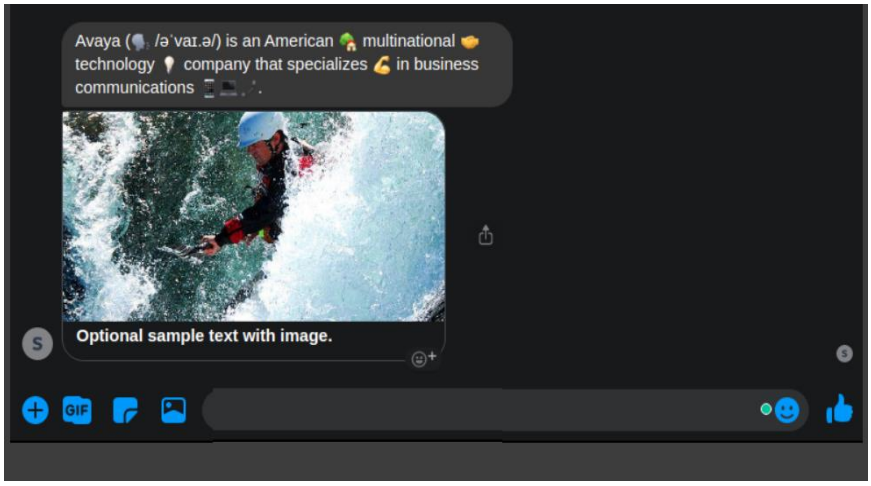
Send buttons to trigger events on your server

The server can then act on the click and post messages back to the user in response to the click.



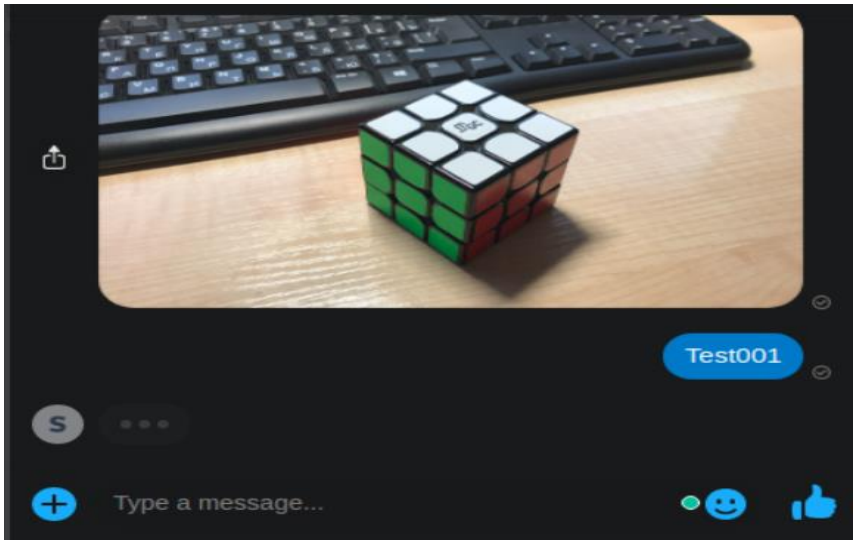
Compound Message

Compound message allows to send text, image and multiple buttons (actions) all in a single message.



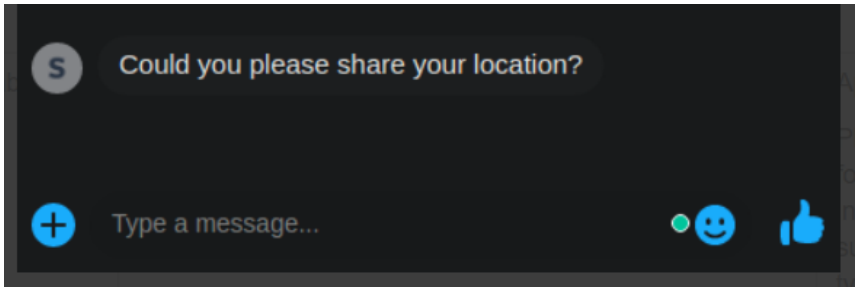
Typing Status

Display a typing indicator



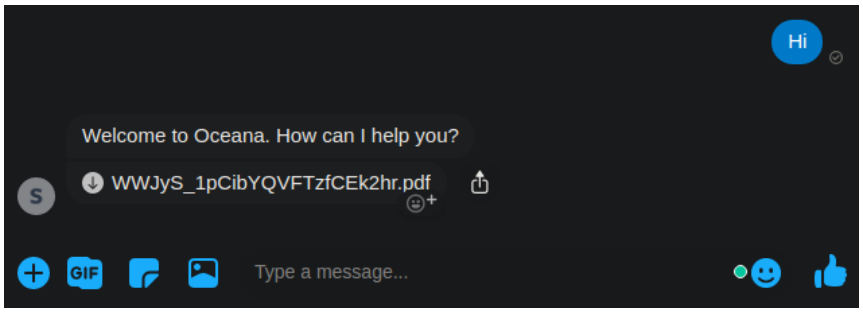
Location Request

Request the current location of the user. Shared as a static message only.



File

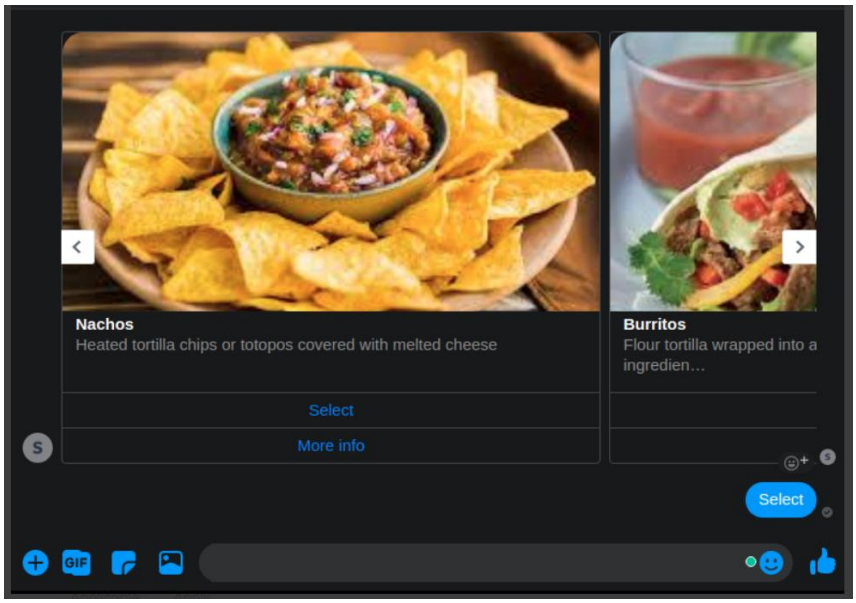
Files can be shared by the agent and will appear as a download link to the user.



Carousel

Send a horizontally scrollable set of cards that can contain text, image, and action buttons.

Carousels support up to a maximum of 10 message items. Each message item must include a title and at least one supported action.



Channel Overview

Facebook Messenger offers the ability for end users to easily message the account of a business, sharing messages, images or other media.

Facebook Messenger is accessible through an Enterprise API which is used by Avaya Oceana to collect messages, provide automation and route to Oceana agents according to your routing preferences.

Agents can respond with messages or rich media which will be relayed to end users and notified to their device (depending on app settings).

Note: Avaya does not support the following Facebook Messenger capabilities:

- Facebook Messenger Rooms*
- Payments
- Messenger Kids
- Reactions

*Please contact Avaya for alternate video chat capabilities for Oceana.

** Reply messages are supported, but only the new reply is sent (original message which is being replied to is not re-quoted).

Onboarding

Facebook Messenger integration is open to integration with Avaya Oceana. Generally, you do not need to await approval for provisioning an account and getting started.

In order to connect your Facebook account to Oceana, you will need to share the following details with the Digital Connection account team:

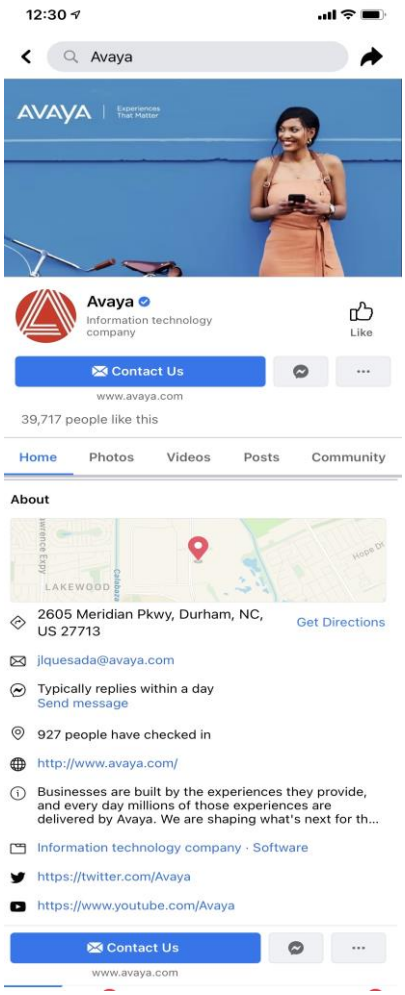
- Facebook Username
- Facebook Password
- The Facebook Business Page that you want to connect

Administration

Avaya DevOps can facilitate administration of key public information for your profile including:

- A profile picture or video
- Address and map location of business
- Description of business
- Email for business contact
- Business vertical/industry
- Business website
- Opening hours

The business profile is shown to end-users in the contact entry corresponding to the connected phone number.



Appendix – Facebook FAQ

Images or stickers shared from the agent not visible to the end user	Some images, especially those hosted on public URLs may be flagged by users as inappropriate and are therefore restricted from end user view.
PPT & PPS file types	Some PPS file types sent from the contact centre are received as ms/word files. You may need to change the file extension to open.
Reactions are not supported	End user reactions to messages are not supported in a Facebook for Business environment.
Media recordings from Workspaces when using Chrome browsers are not rendered to Facebook users.	The media format of agent recorded audio or video clips in Workspaces rendered by Chrome browser is not compatible with Facebook. Pre-recorded media files or normally attached media files are not usually impacted. It is suggested that if this use case is required for your business, consider an alternative agent browser.
Some Facebook capabilities are not available to end users or business pages in Europe	Sending messages to/from Facebook end users or business pages for EU users is changing in late 2020. In particular, the following features will be impacted: • Sending and receiving media attachments (files, audio and video) - Image attachments will not be impacted • Sending buttons to end-users using the Facebook web client (templates sent to Android and iOS end-user will not be impacted) • Sending typing indicators to end-users • Receiving channel delivery events As such, if your business pages are EU based, or your user base is likely to be EU based, consider removing these capabilities

	in Workspaces from your customized rich media widget for async messaging. Note, these restrictions are imposed by Facebook and are out of Avaya’s control.

Twitter Direct Messages

Introduction

Avaya Oceana supports messaging to a business through Twitter Direct Message. Twitter DM enables private messages to be sent by an end user to a business which are then relayed to designated Contact Center agents or handled through automation. A range of messages and media can be shared. Note, this solution describes engagement through private messaging only; public tweet harvesting is not supported. Contact your Avaya representative for public Twitter mining solutions if required.

Capabilities

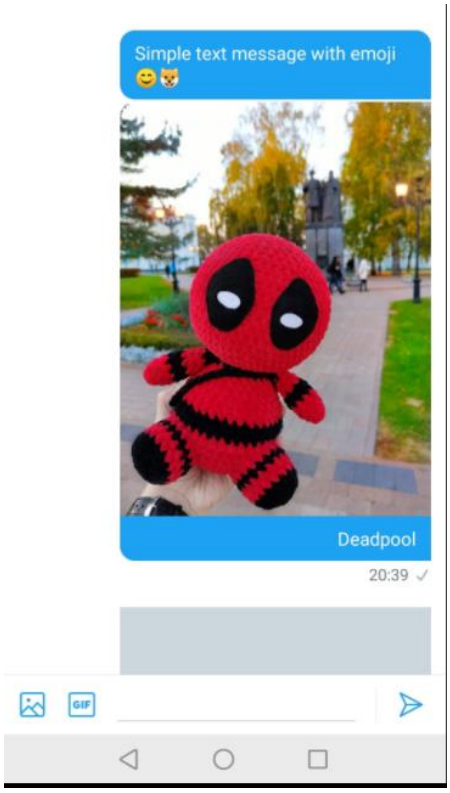
While Twitter DM supports many rich media types, it should be noted that many are sent as hyperlinks to the end user. You may customize the Rich Media widget on Workspaces to use appropriate rich media supported by Twitter DM. These include:

Text and Emoji

Plain text messages and Unicode Emojis

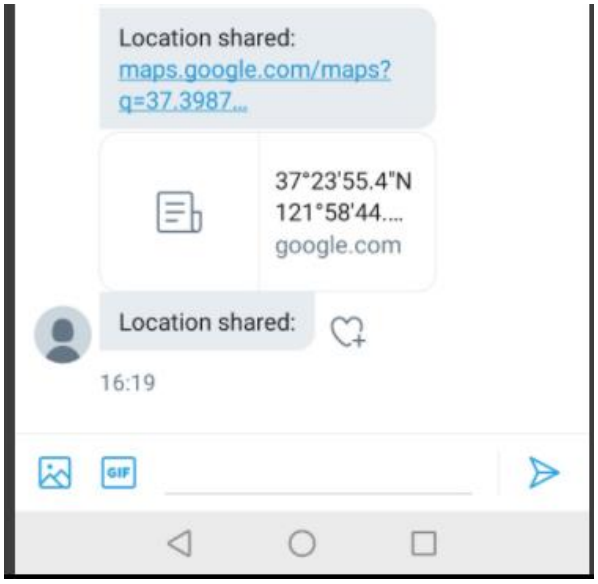
Image, GIF, Stickers

Display Images to the end user. These are displayed inline in the Twitter app.



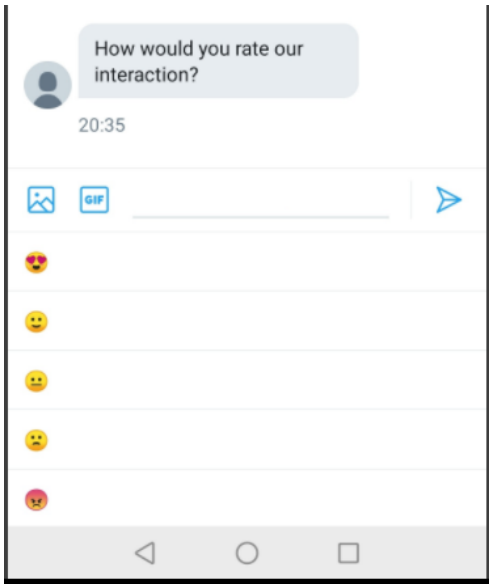
Location

Send and receive geolocation messages. Shared as a URL



Reply

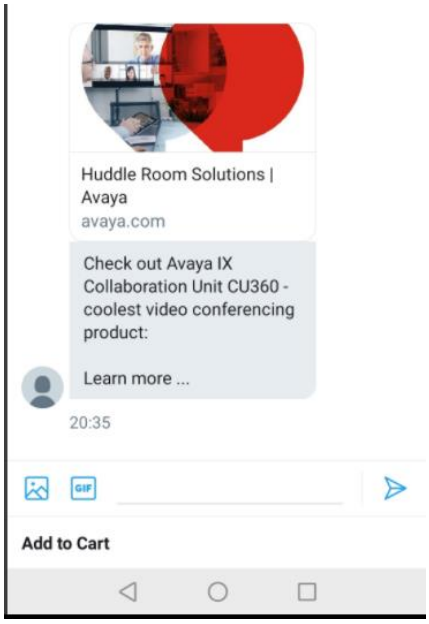
Suggest a few answers to reply to a message.



Link

Display web links as buttons.

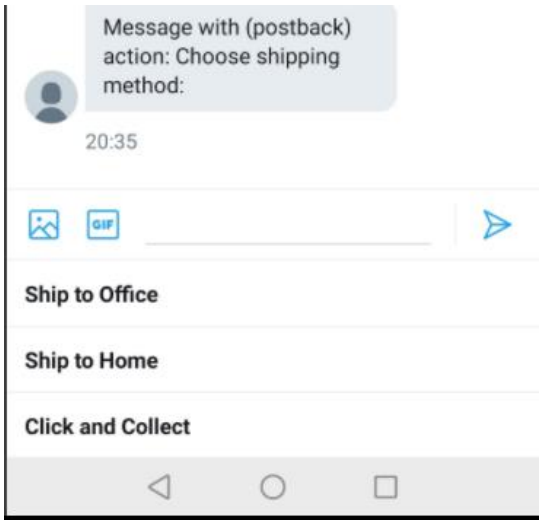
Transform links into clear calls to action.



Postback

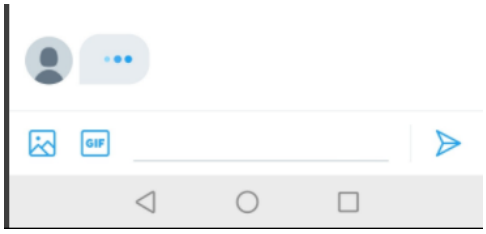
Send buttons to trigger events on your server

The server can then act on the click and post messages back to the user in response to the click.



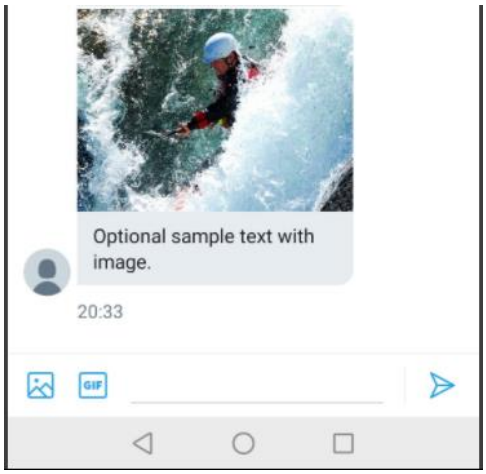
Typing Status

Display a typing indicator



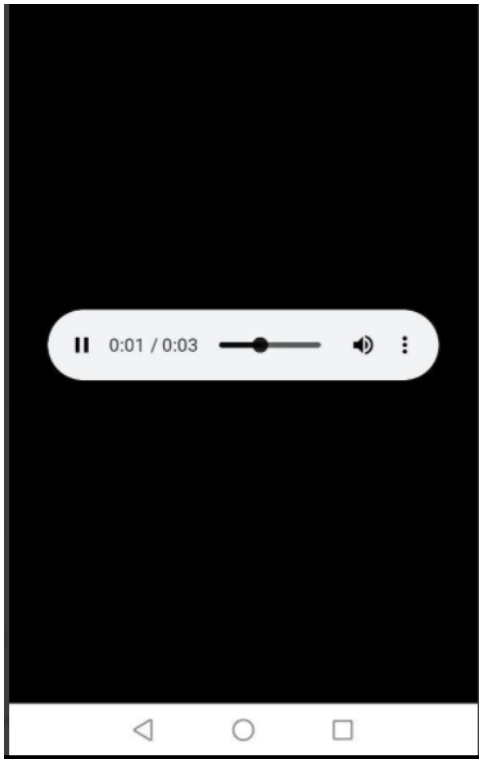
Compound Message

Compound message allows to send text, image and multiple buttons (actions) all in a single message.



File, Audio, Video

Files can be shared by the agent and will appear as a download link to the user. Depending on the format of the file, an audio/video player may open to play the file. Alternatively, they are downloaded to the user's device.



Channel Overview

Twitter enables users to share messages and media privately to a business which in collected by Avaya through the Twitter Enterprise APIs. This in turn is routed to Oceana queues or given automated treatment.

It is worth noting that while many of the rich media elements supported on other channels can be shared with Twitter users, the presentation of some of that media is through hyperlinks rather than directly presenting the element in the Twitter client itself. Presentation of the media is outside Avaya control. Given these limitations, you should carefully decide the extent of rich media used on the Workspaces rich media widget for Twitter users.

Onboarding

Twitter Direct Messaging integration is open to integration with Avaya Oceana. Generally, you do not need to await approval for provisioning an account and getting started.

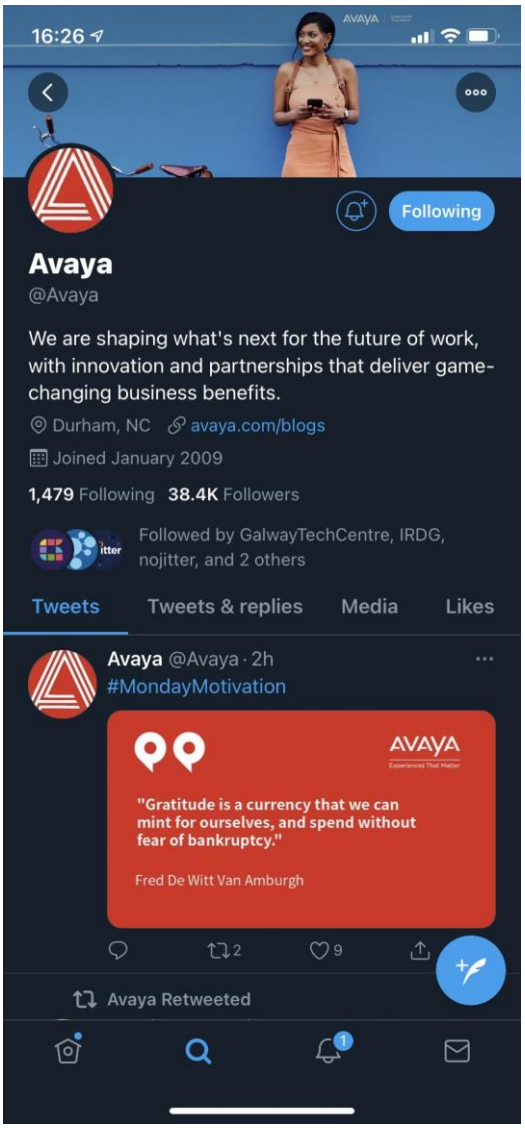
In order to connect your existing Twitter account to Oceana, you will need to share the following details with the Digital Connection account team:

- Twitter Handle
- Twitter Password

Administration

Your Twitter account will usually include the following information which is presented to the end users:

- Business Name
- Short description
- Location
- Website



Please reach out to Avaya for support if required to display the business profile page.

Appendix – Twitter Direct Message

Reactions are not supported.	Reactions in Twitter are not relayed to Oceana or Workspaces.
Typing notifications may not be displayed on some devices.	Typing notifications for the end user are displayed in web browsers but may not be shown in some devices.

Appendix A – Modifying the Digital Connection Account Details After Messaging Connector Deployment

Avaya recommends that the Digital Connection account is provisioned prior to deploying the Oceana Messaging Connector. As previously mentioned, the API key, Provider Key and Secret are required deployment parameters.

However, there may be cases where the Digital Connection account is not provisioned at the time of deployment. Likewise, in the event that the secret is compromised, you may need to change these. Follow these steps if you need to change the Digital Connection account details after deployment.

1. Obtain your new API key, Provider Key and Secret from DevOps
2. Login into your Common Services Platform (CSP) server and execute the following command

   ccm release async configureVendors.sh

   Which returns a series of options, which you can perform
3. The option to update the API key, Provider Key and Secret from DevOps is, [Configure Aggregator] by executing the following command

   ccm release async configureVendors.sh -a

   It will prompt you for the following information

   a. [Profile]. Enter csp
   b. [Aggregator URL]: Enter https://api.smooch.io/v1.1/apps/
   c. [Aggregator App/Tenant Id]: Enter AppId from DevOps team
   d. [Aggregator Key ID]: Enter Provider Key from DevOps team
   e. [Aggregator Security Key]: Enter Provider Secret from DevOps team
   f. [Roll out changes/update now? Enter y

You may also need to configure virus scanning for attachments after you have installed your product. To do so

1. Obtain the pipeline processor URL from DevOps
2. Login into your Common Services Platform (CSP) server and execute the following command

   ccm release async virusscanprocessor.sh -generate

3. It will prompt you for the following information
   a. [Aggregator App/Tenant Id]: Enter AppId from DevOps team
   b. [Aggregator Key ID]: Enter Provider Key from DevOps team
   c. [Aggregator Security Key]: Enter Provider Secret from DevOps team
   d. [Processor URL]: Enter Processor URL from DevOps team

Appendix B – File Transfer & Attachment Virus Scanning

File Transfer

Files can be exchanged bi-directionally between agents and end users. However, this must be configured in advance. You need to create a Breeze user to ensure that only authenticated applications transfer files to/from your Contact Center. The user created is entered into the deployment spreadsheet.

Recommended reading: Deploying Avaya Analytics for Avaya Oceana Guide
Section: Configuring file transfer

Virus Scanning

As the system is capable of receiving files from external users, these files are virus scanned to ensure no suspicious files are received into the Contact Center.

Outgoing Files

Files sent by the agent to an end user are scanned by the corporate virus protection applied to an agent PC. It is recommended to ensure this virus scanning is enabled and up to date.

Incoming Files

Files being received from end users are automatically scanned and will not be processed if identified as suspicious. An error will be displayed if the end user attempts to share a suspicious file and the agent and end user should arrange an alternative to share safe files.

There is no action needed to update virus scanning software. However, there is a post deployment script described just above this section that the customer needs to execute. Virus scanning is enabled for private inbound attachments only, but is configured per App

Note that at this time, zip files may not be received into the Contact Center.

1. Obtain the pipeline processor URL from DevOps
2. Login into your Common Services Platform (CSP) server and execute the following command

   ccm release async virusscanprocessor.sh -generate

3. It will prompt you for the following information
   a. [Aggregator App/Tenant Id]: Enter AppId from DevOps team
   b. [Aggregator Key ID]: Enter Provider Key from DevOps team
   c. [Aggregator Security Key]: Enter Provider Secret from DevOps team
   d. [Processor URL]: Enter Processor URL from DevOps team

Appendix C – How to Test Oceana Messaging Channel

Perform the following steps to validate that the Messaging Channel is operational:

1. Ensure that your Digital Connection Account is provisioned by the Digital Connection account administrators.
2. Use the FQDN of the Oceana Cluster 3, the App ID, Provider Key and Security Key (provided from the Digital Connection account administrators) as input parameters to the Analytics & Async Deployment Excel workbook. As well as the other values described in the Async Deployment Excel workbook tab.

   Recommended reading: Deploying Avaya Analytics for Avaya Oceana Guide
   Section: Configuring the Avaya Analytics™ deployment spreadsheet for Messaging

3. Deploy Analytics and Async. Ensure the post install steps are carried out. This includes installing System Manager CA certificate CSP. And also, you may need to install your corporate proxy certificate (e.g. Zscaler), if one exists in your organization. Furthermore, you may need to install the Amazon Root CA (Digital Connection cloud service is deployed in AWS). Usually, servers will already have trusted Amazon CA, in the unlikely event its not already trusted, deploy install this cert.

   Recommended reading: Deploying Avaya Analytics for Avaya Oceana Guide
   Section: Post-installation configuration for Messaging

4. After deployment has completed successfully, you must ensure the Digital Connection Cloud provider can access the Digital Connection component ('Async Messaging Connector') on CSP. This is done by ensuring your external load balancer is publicly accessible and is configured to point to the FQDN of your newly installed Async product. How this mapping is setup will depend on your hardware infrastructure. Below are examples of each

   a. Note if you are using a reverse proxy, you may have to specify a port also (again, depending on the setup):

      https://your.external.loadbalancer.fqdn/async/messaging/v1/health-check HTTP GET

      https://csp.cluster.fqdn/async/messaging/v1/health-check HTTP GET

   b. If successful you should see a response *{alive:true}*, if this is the case you are now ready for the next step

5. Once publicly accessible you now need to register a webhook that exists within the newly deployed Async Messaging Connector. This notifies the Digital Connection account where to direct end user messages. To do this, you will need to provide the FQDN or external load balancer used above for inbound traffic into the CSP cluster to your Digital Connection account administrator. You must complete this step before messages will be routed.

6. Follow the Virus Scanning process defined in Appendix B. This will enable virus scanning on all inbound files.

7. *Optional: Once the webhook is successfully registered by your Digital Connection account administrator, you will be provided with a secret for your webhook. This is an API Key sent with each REST request from the Digital Connection provider.*

If your organisation uses a network edge security device, you can configure validation of the secret by checking the following value from the REST header:

X-API-Key: secret

8. Identify the integrations you wish to support in your environment i.e. iOS, Android or Web SDKs for custom messaging enabled applications and/or WhatsApp, Facebook Messenger and Twitter DM Social Messaging applications. Your Digital Connection account administration will need to configure this for you, once you provide them with the account details for each channel and any security credentials for those chosen channels.
9. Ensure the Engagement Designer Messaging Workflow in Oceana is deployed, target agents are assigned the Messaging channel and the attributes assigned match the attributes specified in the Excel workbook.

   Recommended reading: Deploying Avaya Oceana Guide
10. If you are using Android, iOS or Web SDK integrations, download the latest sample clients and SDK from DevConnect (Avaya_In-app-Messaging_SDKs_Oceana_3.8.zip). Follow the Readme guide to setup the sample clients, ensuring they are configured correctly for your Digital Connection account.
11. If you are using WhatsApp, Facebook Messenger or Twitter DM, you can send messages directly to the business number/profile provided these are configured integrations in your Digital Connection account (Step 7).
12. Inbound messaging interactions should now be routed to your logged in agents.

Appendix D – How to Troubleshoot Certificates Update Issue

After Async product is installed on CSP cluster additional post-deployment steps are to be performed to finish installation. One of the steps is update of System Manager Certificate Authority to be able to send traffic towards Oceana over secure web sockets. It is done via running the following command:

ccm release async updateSystemManagerCert.sh

During run of this script the following error could occur:

Could not find async-oceana-adapter trust store

That means that trusted store for the service could not be found. There could be different reasons for that, so you can try to update certificate manually. To do that please follow these steps:

1. Find the binary to run certificate manager:

   find /opt -name "crtmgr" | head -n 1

   The output should be something like this:

   /opt/avaya/flex/clusters/async-lab3-analytics/staging/cert-manager-1.1.100011/cert-manager/avaya-flex/sbin/release/crtmgr

2. After that you could run the following command to list all trusted stores:

   sh /opt/avaya/flex/clusters/async-lab3-analytics/staging/cert-manager-1.1.100011/cert-manager/avaya-flex/sbin/release/crtmgr --trusted-stores

   Note: you will have your own path to the binary.

3. For certificate manager to work correctly the following environment variables should be set:

   export C_ACCESS_TOKEN=$(/opt/avaya/ccm/bin/getAuthtoken.sh)
   export C_CLUSTER_FQDN=$(cat `find /opt -name "varsfile.yml"| head -n 1 ` | yq -r .cluster_fqdn)

   C_CLUSTER_FQDN is the FQDN of the current cluster and C_ACCESS_TOKEN is the token needed to communicate with certificate manager.

4. If everything is fine the command above will list all trusted stores in cert manager. The ouput will be something like this:
   ...
   {

"serviceId": "async-aggregator-interface-asyncaggregatortrustore",
"serviceDisplayName": "async-aggregator-interface Trust Store",
"serviceDescription": "Trust Store for async-aggregator-interface",
"resourcePath": "/api/trusted-stores/async-aggregator-interface-asyncaggregatortrustore"
}
{
"serviceId": "alarming-db-common-services-truststore1",
"serviceDisplayName": "auth trust store",
"serviceDescription": "trusted cert for auth service",
"resourcePath": "/api/trusted-stores/alarming-db-common-services-truststore1"
}
…

5. After that, if certificate manager works fine and returns the list of trusted stores, you need to check if certificate document exists for the micro service. To do that, please run the following command:

   kubectl get CertificateDocument --field-selector metadata.name=$MICRO_SERVICE --no-headers | awk '{print $1}' | wc -l

   Where $MICRO_SERVICE is the micro service, for which you would like to install the certificate. For example, *async-oceana-adapter*.
   The command above should return 1.

6. As soon as we are sure that certificate manager works OK and we have everything needed, we can run the following command to get the name of the trusted store to save certificate later:

   sh /opt/avaya/flex/clusters/async-lab3-analytics/staging/cert-manager-1.1.100011/cert-manager/avaya-flex/sbin/release/crtmgr --trusted-stores | jq -r –arg STORE_NAME "$STORE_NAME" '.[] | select(.serviceId | contains($STORE_NAME)) | .serviceId'

   Where STORE_NAME is the name of the certificate manager store to save the certificate. For example, *asyncoceanatrustore.*
   The result for the command above should be something like:
   async-oceana-adapter-asyncoceanatrustore

7. After that you can store certificate via the following command:

   sh /opt/avaya/flex/clusters/async-lab3-analytics/staging/cert-manager-1.1.100011/cert-manager/avaya-flex/sbin/release/crtmgr --add-trustcert $TRUST_STORE $CERT_LOCATION

   Where TRUST_STORE is the name of the trusted store, which we received on the 6th step. And CERT_LOCATION is the path to the System Manager certificate. Successful result of the command above looks like this:
   {
   "status": "CREATED",
   "statusCode": 201,
   "timestamp": "13-12-2020 06:42:38",

"message": " async-oceana-adapter-asyncoceanatrustore: Certificate added to store successfully"
}

Steps above are done automatically by updateSystemManagerCert.sh post deployment script. But it may be useful to run these steps manually to figure out on which step error takes place in case script fails to update certificate.

Workaround or alternative remediation
n/a
Remarks
n/a

Patch Notes

The information in this section concerns the patch, if any, recommended in the Resolution above.

Back up before applying the patch	
n/a	
Download	
n/a	
Patch install instructions	Service-interrupting?
n/a	No
Verification	
n/a	
Failure	
n/a	
Patch uninstall instructions	
n/a	

Security Notes

The information in this section concerns the security risk, if any, represented by the topic of this PSN.

Security risks
n/a
Avaya Security Vulnerability Classification
Not Susceptible
Mitigation
n/a

If you require further information or assistance please contact your Authorized Service Provider, or visit support.avaya.com. There you can access more product information, chat with an Agent, or open an online Service Request. Support is provided per your warranty or service contract terms unless otherwise specified in the Avaya support Terms of Use.