



Avaya one-X[®] Agent 2.5 API

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Overview

The one-X Agent 2.5 API (aka the Event Notification API) is being provided to customers to allow them to do a tighter integration with the one-X Agent program. This API will allow an integrator to register their client with one-X Agent and poll for notifications. The API provided in this release is intended to make it easy for customers who would like to do a custom screen-pop.

The one-X Agent API is a XML/HTTP based API where clients make HTTP requests to one-X Agent and receive XML/HTTP responses. This allows clients like Web Browsers to a client implemented in pretty much any language to use the API. The events are not delivered by one-X Agent to the client but instead they are polled for by the client. Only a registered client can poll for events.

Terminology

| Term | Description |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Call | A phone call |
| IM | An instant message |
| WorkItem | A unit of work that is a collection of interactions with other parties. These parties may be either customers, other agents, supervisors or resident experts |
| WorkList | A worklist is a collection of workitems |
| VoiceInteraction | Represents a voice interaction with a remote party |
| IMInteraction | Represents an IM interaction with a remote party |

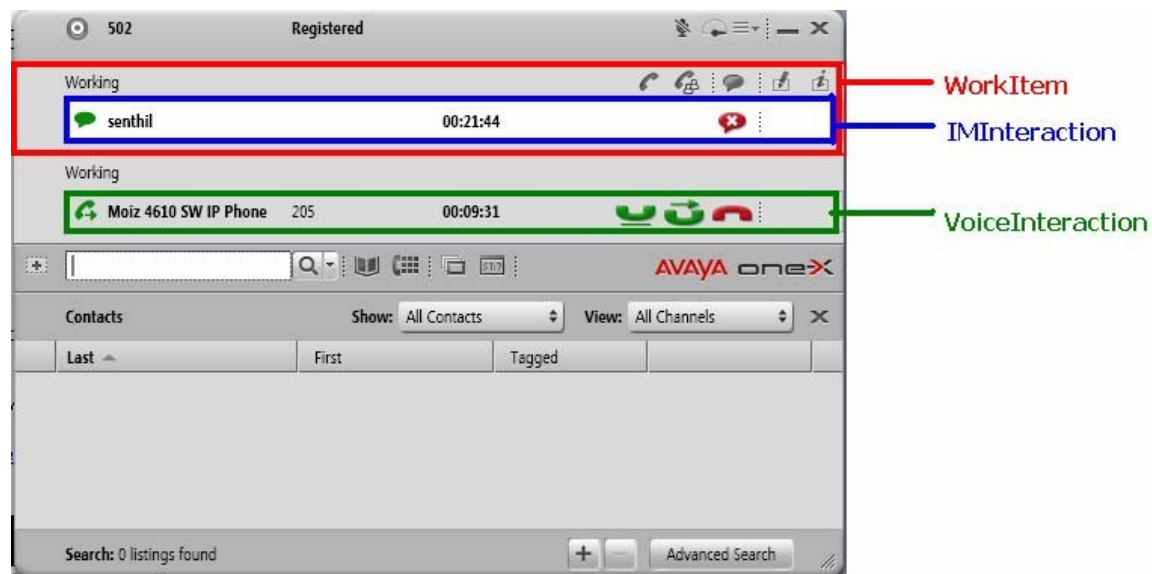


Figure 1 shows a view of the one-X Agent main window. This view contains 2 work items. The first workitem contains an IM Interaction and the second workitem contains a Voice Interaction.

Requests-Responses

RegisterClient

The purpose of this API is to register the client as a client to the one-X Agent. Multiple clients are allowed to register with one-X Agent. The URL for the Register client request looks as:

`http://127.0.0.1:[portnumber]/onexagent/api/registerclient ?name=[clientname]`

| Parameter Name | Description |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| portnumber | The portnumber that the client registers on is in the range 60000-61000. The exact port number to which to listen for can be found in HKCU/Software/Avaya one-X Agent/Settings/APIPort. |
| clientname | This should be a unique name that should be provided when registering the client. |

The Register client response will look as:

```
<?xml version="1.0"?>
<RegisterClientResponse ResponseCode="0" ClientId="272f72e4-12e2-45be-bce8-98d1a3b1e33b" />
```

The attributes of RegisterClientResponse are:

| Attribute Name | Description |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| ResponseCode | These are the possible response codes for the Register Client request 0 – Success 1 – Client Already Registered 4 – Missing Client Name |
| ClientId | This Id needs to be used in all subsequent requests to one-X Agent |

UnregisterClient

The purpose of this API is to allow a client to signal that they will not be using the API anymore. The client has to re-register in order to use the API again.

The URL for the Unregister client request looks as:

`http://127.0.0.1:[portnumber]/onexagent/api/unregisterclient ?clientid=[clientid]`

| Parameter Name | Description |
|----------------|-------------|
|----------------|-------------|

| | |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| portnumber | The portnumber that the client registers on is in the range 60000-61000. The exact port number to which to listen for can be found in HKCU/Software/Avaya one-X Agent/Settings/APIPort. |
| clientid | This is the id returned by one-X Agent on a successful Register Client request |

The Unregister client response will look as:

```
<?xml version="1.0"?>
<UnregisterClientResponse ResponseCode="0" />
```

The attributes of UnRegisterClientResponse are:

| Attribute Name | Description |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| ResponseCode | These are the possible response codes for the Unregister Client request 0 – Success 2 – Client Not Registered 3 – Missing Client Id |

NextNotification

The purpose of this API is to allow a client to get the next notification from its notification queue. This notification queue is created for each client when it registers with one-X Agent and is destroyed when it unregisters. Once a notification is retrieved from the queue it is removed from the queue.

The URL for the NextNotification request looks as:

[http://127.0.0.1:\[portnumber\]/onexagent/api/nextnotification ?clientid=\[clientid\]](http://127.0.0.1:[portnumber]/onexagent/api/nextnotification ?clientid=[clientid])

| Parameter Name | Description |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| portnumber | The portnumber that the client registers on is in the range 60000-61000. The exact port number to which to listen for can be found in HKCU/Software/Avaya one-X Agent/Settings/APIPort. |
| clientid | This is the id returned by one-X Agent on a successful Register Client request |

The Next Notification response will look as:

```
<?xml version="1.0"?>
<NextNotificationResponse
ResponseCode="0">
    [Notification]
</NextNotificationResponse>
```

The attributes of NextNotificationResponse are:

| Attribute Name | Description |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| ResponseCode | These are the possible response codes for the NextNotification request 0 – Success 2 – Client Not Registered 3 – Missing Client Id |

Each NextNotificationResponse can contain one of the following Notifications

1. QueueEmpty
2. WorkItemAdded
3. WorkItemRemoved
4. VoiceInteractionCreated
5. VoiceInteractionMissed
6. VoiceInteractionTerminated
7. IMInteractionCreated
8. IMInteractionTerminated

MakeCall

The purpose of this API is to allow a client to make a call using one-X Agent. This API can be used to enable click to dial functionality in 3rd party application. The way this API works is that it makes the call the way one would make a call using the one-X Agent UI itself. Any Agent Preferences settings with regards to prompting a dialog to confirm (or correct) the phone number before dialing or auto-holding an existing call will be respected (preserved). This also makes the MakeCall API asynchronous in that a successful response will be received by the client much before the call is actually made. Any errors in making the call will be reported via the one-X Agent UI.

The URL for the MakeCall request looks as:

`http://127.0.0.1:[portnumber]/onexagent/api/voice/makecall
?clientid=[clientid]&number=[phonenumber]`

| Parameter Name | Description |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| portnumber | The portnumber that the client registers on is in the range 60000-61000. The exact port number to which to listen for can be found in HKCU/Software/Avaya one-X Agent/Settings/APIPort. |
| clientid | This is the id returned by one-X Agent on a successful Register Client request |
| number | The phone number that should be dialed |

The Next Notification response will look as:

```
<?xml version="1.0"?>  
<MakeCallResponse ResponseCode="0">  
</ MakeCallResponse >
```

The attributes of MakeCallResponse are:

| Attribute Name | Description |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------|
| ResponseCode | These are the possible response codes for the Make Call request 0 – Success 2 – Client Not Registered 3 – Missing Client Id |

Mute

The purpose of this API is to allow a client to Mute the phone using one-X Agent. This API is also asynchronous and works in a very similar fashion to the MakeCall API.

The URL for the Mute request looks as:

[http://127.0.0.1:\[portnumber\]/onexagent/api/voice/mute ?clientid=\[clientid\]](http://127.0.0.1:[portnumber]/onexagent/api/voice/mute ?clientid=[clientid])

| Parameter Name | Description |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| portnumber | The portnumber that the client registers on is in the range 60000-61000. The exact port number to which to listen for can be found in HKCU/Software/Avaya one-X Agent/Settings/APIPort. |
| clientid | This is the id returned by one-X Agent on a successful Register Client request |

The Next Notification response will look as:

```
<?xml version="1.0"?>  
<MuteResponse ResponseCode="0">  
</ MuteResponse >
```

The attributes of MuteResponse are:

| Attribute Name | Description |
|----------------|---------------------------------------------------------------------------------------------------------------------------------|
| ResponseCode | These are the possible response codes for the Mute request 0 – Success 2 – Client Not Registered 3 – Missing Client Id |

UnMute

The purpose of this API is to allow a client to UnMute the phone using one-X Agent. This API is also asynchronous and works in a very similar fashion to the MakeCall API.

The URL for the UnMute request looks as:

`http://127.0.0.1:[portnumber]/onexagent/api/voice/unmute ?clientid=[clientid]`

| Parameter Name | Description |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| portnumber | The portnumber that the client registers on is in the range 60000-61000. The exact port number to which to listen for can be found in HKCU/Software/Avaya one-X Agent/Settings/APIPort. |
| clientid | This is the id returned by one-X Agent on a successful Register Client request |

The Next Notification response will look as:

```
<?xml version="1.0"?>
<UnMuteResponse ResponseCode="0">
</ UnMuteResponse >
```

The attributes of UnMuteResponse are:

| Attribute Name | Description |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------|
| ResponseCode | These are the possible response codes for the UnMute request 0 – Success 2 – Client Not Registered 3 – Missing Client Id |

AcceptVoiceInteraction

The purpose of this API is to allow a client to Accept a voice interaction/call using one-X Agent. This API is also asynchronous and works in a very similar fashion to the MakeCall API.

The URL for the AcceptVoiceInteraction request looks as:

`http://127.0.0.1:[portnumber]/onexagent/api/voice/accept ?clientid=[clientid]
&interactionid=[interactionid]`

| Parameter Name | Description |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| portnumber | The portnumber that the client registers on is in the range 60000-61000. The exact port number to which to listen for can be found in HKCU/Software/Avaya one-X Agent/Settings/APIPort. |
| clientid | This is the id returned by one-X Agent on a successful Register Client request. |

| | |
|---------------|----------------------------------------------------------------------------------------------------------------------------|
| interactionid | The id of the voice interaction. This id can be obtained by the client from NextNotification Response. It is the Objectid. |
|---------------|----------------------------------------------------------------------------------------------------------------------------|

The AcceptVoiceInteraction response will look as:

```
<?xml version="1.0"?>
< AcceptVoiceInteractionResponse ResponseCode="0">
</ AcceptVoiceInteractionResponse >
```

The attributes of AcceptVoiceInteractionResponse are:

| Attribute Name | Description |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| ResponseCode | These are the possible response codes for the AcceptVoiceInteraction request 0 – Success 2 – Client Not Registered 3 – Missing Client Id |

ReleaseVoiceInteraction

The purpose of this API is to allow a client to Release a voice interaction/call using one-X Agent. This API is also asynchronous and works in a very similar fashion to the MakeCall API.

The URL for the ReleaseVoiceInteraction request looks as:

[http://127.0.0.1:\[portnumber\]/onexagent/api/voice/release ?clientid=\[clientid\] &interactionid=\[interactionid\]](http://127.0.0.1:[portnumber]/onexagent/api/voice/release ?clientid=[clientid] &interactionid=[interactionid])

| Parameter Name | Description |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| portnumber | The portnumber that the client registers on is in the range 60000-61000. The exact port number to which to listen for can be found in HKCU/Software/Avaya one-X Agent/Settings/APIPort. |
| clientid | This is the id returned by one-X Agent on a successful Register Client request |
| interactionid | The id of the voice interaction. This id can be obtained by the client from NextNotification Response. It is the Objectid. |

The ReleaseVoiceInteraction response will look as:

```
<?xml version="1.0"?>
< ReleaseVoiceInteractionResponse ResponseCode="0">
</ ReleaseVoiceInteractionResponse >
```

The attributes of ReleaseVoiceInteractionResponse are:

| Attribute Name | Description |
|----------------|-------------|
|----------------|-------------|

| | |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| ResponseCode | These are the possible response codes for the ReleaseVoiceInteraction request 0 – Success 2 – Client Not Registered 3 – Missing Client Id |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------|

HoldVoiceInteraction

The purpose of this API is to allow a client to Hold a voice interaction/call using one-X Agent. This API is also asynchronous and works in a very similar fashion to the MakeCall API.

The URL for the HoldVoiceInteraction request looks as:

http://127.0.0.1:[portnumber]/onexagent/api/voice/hold ?clientid=[clientid]
&interactionid=[interactionid]

| Parameter Name | Description |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| portnumber | The portnumber that the client registers on is in the range 60000-61000. The exact port number to which to listen for can be found in HKCU/Software/Avaya one-X Agent/Settings/APIPort. |
| clientid | This is the id returned by one-X Agent on a successful Register Client request |
| interactionid | The id of the voice interaction. This id can be obtained by the client from NextNotification Response. It is the ObjectId. |

The HoldVoiceInteraction response will look as:

```
<?xml version="1.0"?>
< HoldVoiceInteractionResponse ResponseCode="0">
</ HoldVoiceInteractionResponse >
```

The attributes of HoldVoiceInteractionResponse are:

| Attribute Name | Description |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| ResponseCode | These are the possible response codes for the HoldVoiceInteraction request 0 – Success 2 – Client Not Registered 3 – Missing Client Id |

UnHoldVoiceInteraction

The purpose of this API is to allow a client to UnHold a voice interaction/call using one-X Agent. This API is also asynchronous and works in a very similar fashion to the MakeCall API.

The URL for the UnHoldVoiceInteraction request looks as:

http://127.0.0.1:[portnumber]/onexagent/api/voice/unhold ?clientid=[clientid]

&interactionid=[interactionid]

| Parameter Name | Description |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| portnumber | The portnumber that the client registers on is in the range 60000-61000. The exact port number to which to listen for can be found in HKCU/Software/Avaya one-X Agent/Settings/APIPort. |
| clientid | This is the id returned by one-X Agent on a successful Register Client request |
| interactionid | The id of the voice interaction. This id can be obtained by the client from NextNotification Response. It is the ObjectId. |

The UnHoldVoiceInteraction response will look as:

```
<?xml version="1.0"?>
< UnHoldVoiceInteractionResponse ResponseCode="0">
</ UnHoldVoiceInteractionResponse >
```

The attributes of UnHoldVoiceInteractionResponse are:

| Attribute Name | Description |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| ResponseCode | These are the possible response codes for the UnHoldVoiceInteraction request 0 – Success 2 – Client Not Registered 3 – Missing Client Id |

Notifications

QueueEmpty

Since the one-X Agent API works via polling if the notification queue is empty then the QueueEmpty notification is returned.

This QueueEmpty notification has the following format,

```
<QueueEmpty ObjectId="" NotificationId="[notificationid]"
TimeStamp="[timestamp]"
```

The attributes of QueueEmpty are:

| Attribute Name | Description |
|----------------|-------------------------------------------------------|
| ObjectId | This is always empty for a QueueEmpty notification |
| NotificationId | This is a GUID to uniquely identify this notification |

| | |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TimeStamp | <p>This is a timestamp when the Notification was created. It has the format yyyy-MM-dd-HH:mm:ss.fff</p> <p>yyyy – year MM – Month dd – Day of the Month HH – Hour mm – Minute ss – Seconds fff – Milli seconds</p> |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

WorkItemAdded

The WorkItemAdded notification is added to the clients notification queue when a new WorkItem is created by one-X Agent.

The WorkItemAdded notification has the following format

```
<WorkItemAdded NotificationId="[notificationid]" ObjectId="[objectid]"
TimeStamp="[timestamp]" Topic="[topic]" />
```

The attributes of WorkItemAdded are:

| Attribute Name | Description |
|----------------|---------------------------------------------------------------------------------|
| ObjectId | This is a unique identifier for the WorkItem that was just added by one-X Agent |
| NotificationId | This is a GUID to uniquely identify this notification |
| TimeStamp | see description of TimeStamp in QueueEmpty |
| Topic | The topic of the workitem. |

WorkItemRemoved

The WorkItemRemoved notification is added to the clients notification queue when a new WorkItem is removed by one-X Agent.

The WorkItemRemoved notification has the following format:

```
<WorkItemRemoved NotificationId="[notificationid]" ObjectId="[objectid]"
TimeStamp="[timestamp]" Topic="[topic]" />
```

The attributes of WorkItemRemoved are:

| Attribute Name | Description |
|----------------|---------------------------------------------------------------------------------|
| ObjectId | This is a unique identifier for the WorkItem that was just added by one-X Agent |

| | |
|----------------|-------------------------------------------------------|
| NotificationId | This is a GUID to uniquely identify this notification |
| TimeStamp | see description of TimeStamp in QueueEmpty |
| Topic | The topic of the workitem. |

VoiceInteractionCreated

The VoiceInteractionCreated notification is added to the clients notification queue when a new VoiceInteraction is created by one-X Agent. This happens both when a call is made from one-X Agent to another party and when a call is received by one-X Agent.

The VoiceInteractionCreated notification has the following format,

```
<VoiceInteractionCreated NotificationId="[notificationid]"
  ObjectId="[objectid]" TimeStamp="[timestamp]" WorkItemId="[workitemid]"
  RemoteUser="[remoteuser]" Topic="[topic]" RemoteAddress="[remoteaddress]"
  PromptedDigits="[prompteddigits]" UUI="[uui]" />
```

The attributes of VoiceInteractionCreated are:

| Attribute Name | Description |
|----------------|-------------------------------------------------------------------------------------------|
| ObjectId | This is a unique identifier for the VoiceInteraction that was just created by one-X Agent |
| NotificationId | This is a GUID to uniquely identify this notification |
| TimeStamp | see description of TimeStamp in QueueEmpty |
| Topic | The topic of the voiceinteraction. |
| WorkItemId | This is the id of the workitem that this voiceinteraction belongs to. |
| RemoteUser | This is the name of the remote user |
| RemoteAddress | This is the phone number/extension of the remote user |
| PromptedDigits | For ACD calls these would be the caller info that was collected by an IVR or CM |
| UUI | For ACD calls this would be the UUI that was assigned to a call by a CTI Application |

VoiceInteractionTerminated

The VoiceInteractionTerminated notification is added to the clients notification queue when a VoiceInteraction is properly terminated by one-X Agent. This happens when a call is hung up after it was answered.

The VoiceInteractionTerminated notification has the following format:

```
<VoiceInteractionTerminated NotificationId="[notificationid]"
  ObjectId="[objectid]" TimeStamp="[timestamp]" WorkItemId="[workitemid]"
  RemoteUser="[remoteuser]" Topic="[topic]" RemoteAddress="[remoteaddress]"
  PromptedDigits="[prompteddigits]" UUI="[uui]" />
```

The attributes of VoiceInteractionTerminated are the same as for VoiceInteractionCreated.

VoiceInteractionMissed

The VoiceInteractionMissed notification is added to the clients notification queue when a VoiceInteraction(call) is terminated by the remote party before the one-X Agent user could answer it.

The VoiceInteractionMissed notification has the following format:

```
<VoiceInteractionMissed NotificationId="[notificationid]"
  ObjectId="[objectid]" TimeStamp="[timestamp]" WorkItemId="[workitemid]"
  RemoteUser="[remoteuser]" Topic="[topic]" RemoteAddress="[remoteaddress]"
  PromptedDigits="[prompteddigits]" UUI="[uui]" />
```

The attributes of VoiceInteractionMissed are the same as for VoiceInteractionCreated.

IMInteractionCreated

The IMInteractionCreated notification is added to the clients notification queue when a new IMInteraction is created by one-X Agent. This happens both when an IM is sent or received by the one-X Agent user.

The IMInteractionCreated notification has the following format:

```
<IMInteractionCreated NotificationId="[notificationid]" ObjectId="[objectid]"
  TimeStamp="[timestamp]" WorkItemId="[workitemid]" Topic="[topic]" />
```

The attributes of IMInteractionCreated are:

| Attribute Name | Description |
|----------------|-------------------------------------------------------------------------------------------|
| ObjectId | This is a unique identifier for the VoiceInteraction that was just created by one-X Agent |
| NotificationId | This is a GUID to uniquely identify this notification |
| TimeStamp | see description of TimeStamp in QueueEmpty |
| Topic | The topic of the voiceinteraction. |
| WorkItemId | This is the id of the workitem that this IMInteraction belongs to. |
| RemoteUser | This is the name of the remote user |

IMInteractionTerminated

The IMInteractionTerminated notification is added to the clients notification queue when a IMInteraction is terminated. This happens when either the one-X Agent user or the remote party ends the IM session.

The IMInteractionTerminated notification has the following format:

```
<IMInteractionTerminated NotificationId="[notificationid]"
  ObjectId="[objectid]" TimeStamp="[timestamp]" WorkItemId="[workitemid]"
  Topic="[topic]"/>
```

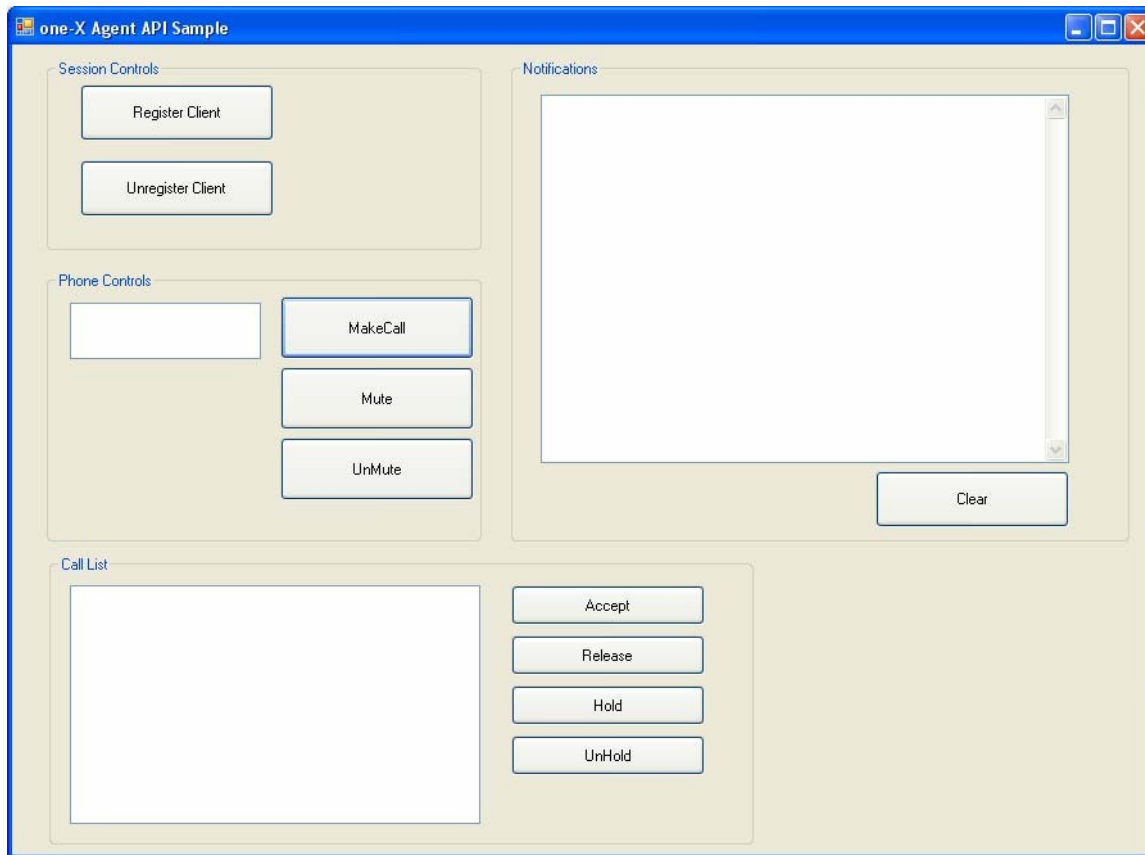
The attributes of IMInteractionTerminated are similar to IMInteractionCreated

Response Codes

| Response Code | Response Code Name | Description |
|---------------|---------------------------|-----------------------------------------------------------------------------------|
| 0 | Success | |
| 1 | Client Already Registered | Error code when register client is called for a client that is already registered |
| 2 | Client Not Registered | Error code when requests are received with an unknown client id |
| 3 | Missing Client Id | Error code when requests are received with a missing client id |
| 4 | Missing Client Name | Error code when register client requests are received with a missing client name |

Sample Program

A sample program is bundled with one-X Agent which looks as:



This sample program is a WinForms application that has been written in C# but as stated before almost any language can be used to develop a client for the one-X Agent API. The sample is bundled with a one-X Agent distribution and could be a good starting point for developers who would like to create a quick integration with one-X Agent.

The sample program shows how to send requests and receive responses from one-X Agent. It does very little interpretation of the responses other than displaying them in the Notifications window. Three notification responses, `VoiceInteractionCreated`, `VoiceInteractionTerminated` and `VoiceInteractionMissed`, are processed in order to populate the Call List.

Sample responses for a Call handled by one-X Agent

```
<?xml version="1.0"?>
<NextNotificationResponse ResponseCode="0">
  <WorkItemAdded NotificationId="b8c98ebf-bf57-4294-8847-a40278a75917"
  ObjectId="WI2:21d6fcel-eeee-46f2-95ec-661979174a72" TimeStamp="2009-08-06-
  17:59:08.0119" Topic="" />
</NextNotificationResponse>
```

```
<?xml version="1.0"?>
<NextNotificationResponse ResponseCode="0">
  <VoiceInteractionCreated NotificationId="78fbd30f-0330-4f91-a4de-
  5940c2fa0d73" ObjectId="VI3:897fda30-e3d9-4199-b0ff-b41d6d874df5"
  TimeStamp="2009-08-06-17:59:09.0893" WorkItemId="WI2:21d6fcel-eeee-46f2-95ec-
  661979174a72" RemoteUser="" Topic="" RemoteAddress="205" PromptedDigits=""
  UUI="" />
</NextNotificationResponse>
```

```
<?xml version="1.0"?>
<NextNotificationResponse ResponseCode="0">
  <VoiceInteractionTerminated NotificationId="db6043e2-eae7-4c7f-91d4-
  5e134a78da70" ObjectId="VI3:897fda30-e3d9-4199-b0ff-b41d6d874df5"
  TimeStamp="2009-08-06-17:59:23.5792" WorkItemId="WI2:21d6fcel-eeee-46f2-95ec-
  661979174a72" RemoteUser="Moiz 4610 SW IP Phone" Topic="" RemoteAddress="205"
  PromptedDigits="" UUI="" />
</NextNotificationResponse>
```

```
<?xml version="1.0"?>
<NextNotificationResponse ResponseCode="0">
  <WorkItemRemoved NotificationId="277fb8f8-a83a-457b-8f6e-65392cfadca8"
  ObjectId="WI2:21d6fcel-eeee-46f2-95ec-661979174a72" TimeStamp="2009-08-06-
  17:59:23.5792" Topic="" />
</NextNotificationResponse>
```

Sample responses for an IM handled by one-X Agent

```
<?xml version="1.0"?>
<NextNotificationResponse ResponseCode="0">
  <WorkItemAdded NotificationId="2a4ecedf-3b49-41d7-9b96-24cfd28bc77d"
  ObjectId="WI4:97571279-087f-48c4-acca-7cf4dc7800d1" TimeStamp="2009-08-06-
  17:59:44.7209" Topic="" />
</NextNotificationResponse>
```

```
<?xml version="1.0"?>
<NextNotificationResponse ResponseCode="0">
  <IMInteractionCreated NotificationId="92a09455-dff7-4141-9cb2-aebde6aba9ba"
  ObjectId="IM5:8e024502-62f2-4aeb-80e5-90ffceea6ef6" TimeStamp="2009-08-06-
  17:59:45.0488" WorkItemId="WI4:97571279-087f-48c4-acca-7cf4dc7800d1"
  RemoteUser="senthil" Topic="" />
</NextNotificationResponse>
```

```
<?xml version="1.0"?>
<NextNotificationResponse ResponseCode="0">
  <IMInteractionTerminated NotificationId="adb17e09-8c76-4a44-ac56-
  04c93703ee37" ObjectId="IM5:8e024502-62f2-4aeb-80e5-90ffceea6ef6"
  TimeStamp="2009-08-06-17:59:48.6713" WorkItemId="WI4:97571279-087f-48c4-acca-
  7cf4dc7800d1" RemoteUser="senthil" Topic="" />
</NextNotificationResponse>
```

```
<?xml version="1.0"?>
<NextNotificationResponse ResponseCode="0">
  <WorkItemRemoved NotificationId="ae6a9fb2-c943-4986-b8f8-eea3d70c997b"
  ObjectId="WI4:97571279-087f-48c4-acca-7cf4dc7800d1" TimeStamp="2009-08-06-
  17:59:48.6713" Topic="" />
</NextNotificationResponse>
```

Sample responses for a missed call handled by one-X Agent

```
<?xml version="1.0"?>
<NextNotificationResponse ResponseCode="0">
  <WorkItemAdded NotificationId="6f7029b4-95ab-4d1a-a880-7c07a566696b"
  ObjectId="WI7:77520aae-3f2d-447b-bb4a-5c6289270975" TimeStamp="2009-08-06-
  18:01:10.7083" Topic="" />
</NextNotificationResponse>

<?xml version="1.0"?>
<NextNotificationResponse ResponseCode="0">
  <VoiceInteractionCreated NotificationId="58a65cc5-1b60-4a36-9746-
  c687abbd71b3" ObjectId="VI8:9ba9af22-203c-4954-bf41-18aee82d4e5a"
  TimeStamp="2009-08-06-18:01:10.7551" WorkItemId="WI7:77520aae-3f2d-447b-bb4a-
  5c6289270975" RemoteUser="Moiz 4610 SW IP Phone" Topic="" RemoteAddress="205"
  PromptedDigits="" UUI="" />
</NextNotificationResponse>

<?xml version="1.0"?>
<NextNotificationResponse ResponseCode="0">
  <VoiceInteractionMissed NotificationId="fc221582-be1c-4dfa-87bf-
  d6e092c5242f" ObjectId="VI8:9ba9af22-203c-4954-bf41-18aee82d4e5a"
  TimeStamp="2009-08-06-18:01:14.8148" WorkItemId="WI7:77520aae-3f2d-447b-bb4a-
  5c6289270975" RemoteUser="Moiz 4610 SW IP Phone" Topic="" RemoteAddress="205"
  PromptedDigits="" UUI="" />
</NextNotificationResponse>

<?xml version="1.0"?>
<NextNotificationResponse ResponseCode="0">
  <WorkItemRemoved NotificationId="6f2262e5-3526-4f6a-a288-a8b413be9a4f"
  ObjectId="WI7:77520aae-3f2d-447b-bb4a-5c6289270975" TimeStamp="2009-08-06-
  18:01:14.8148" Topic="" />
</NextNotificationResponse>
```

Troubleshooting

The primary troubleshooting tool for issues involving API usage would be the logs. The following table describes the log statements that may help troubleshoot issues with one-X Agent API usage.

| Log Statement | Description |
|----------------------------------------------|--------------------------------------------------------------------------------------------|
| Attempting to start HttpListener at port {0} | DEBUG : This is logged when the one-X Agent API service is about to start the HttpListener |
| Started HttpListener at port {0} | DEBUG : This is logged when the service has successfully started the HttpListener |

| | |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Failed to start HttpListener at port {0} | ERROR : This is logged when the service fails to start the HttpListener. This means that the one-X Agent API is not usable on this system. |
| Please enable port privileges for this user in order to use the OneXAgentAPI | ERROR : This is logged to indicate that the HttpListener failed to start due to a privilege issue. Enabling port privileges will help with this issue. |
| Make Call request received - {0} | DEBUG : Logged when an API request is received to make a phone call |
| Mute request received - {0} | DEBUG : Logged when an API request is received to mute the phone |
| UnMute request received - {0} | DEBUG : Logged when an API request is received to unmute the phone |
| Accept VoiceInteraction request received - {0} | DEBUG : Logged when an API request is received to accept a voice interaction (phone call) |
| Release VoiceInteraction request received - {0} | DEBUG : Logged when an API request is received to release a voice interaction (phone call) |
| Hold VoiceInteraction request received - {0} | DEBUG : Logged when an API request is received to Hold a voice interaction (phone call) |
| UnHold VoiceInteraction request received - {0} | DEBUG : Logged when an API request is received to unhold a voice interaction |
| Register Client request received - {0} | DEBUG : Logged when an API request is received to register a client |
| Unregister Client request received - {0} | DEBUG : Logged when an API request is received to unregister a client |
| HttpListener not supported | This is likely to happen only on an unsupported platform like Windows 2000/Windows 98. This error message means that the one-X Agent API cannot be used on this OS. |

Note the NextNotification request has deliberately not been logged to prevent flooding of the log file with those messages as the next notification request is a polling request.

Caveats

Enabling port privileges

The one-X Agent API can only be used by users who are logged in as administrators on the machine or users that have been provided the privileges to open a port on the system. If you would like users to continue to work as non-administrators but at the same time allow them to use the one-X Agent API then you will need to provide them port privileges. In order to do this Microsoft provides some tools (httpcfg and netsh) to do this. To understand how to use these tools please refer to this MSDN article (<http://msdn.microsoft.com/en-us/library/ms733768.aspx>).

Sample Program

The Sample Program has been deliberately kept very simple so that developers do not get lost in the

details. It is not robust and should not be considered for production use.