Genesys Mobile Services Developer's Guide

Custom Reporting

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Contents

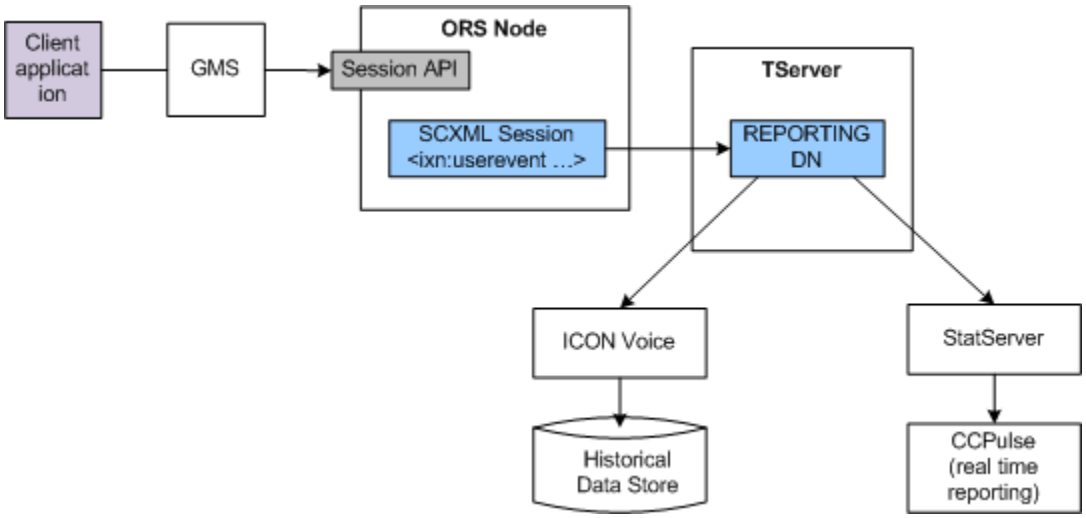
Custom Reporting

Basic Configuration for Real-Time and Historical Reporting Based on T-Server's UserEvent Mechanism

Prerequisites

1. ORS is connected to T-Server
2. StatServer is connected to the same T-Server (if you need real-time reporting)
3. Icon is connected to T-Server and configured to store user events to G_CUSTOM_DATA_P table (if you need historical reporting)

Architecture



Configuration instructions

- Create a new DN of type **Extension**. The name of the DN is not important, but it is used inside SCXML scripts so should be meaningful and recognizable.
  Example: Sip_Switch -> DN -> REPORTING
- Make sure Icon and StatServer are connected to the T-Server that is servicing the switch specified in step 1.
  Example: Sip_Server.
- In Icon configuration in Configuration Manager, add the 'custom-states' section under Options and create the **GlobalData** option there. List attached data fields you want to capture preceded with data

type.
Example:

```
 custom-states/GlobalData=char,gms_SessionId, char,gms_SessionEventSeq, char,gms_ServiceName,
char,gms_UserId, char,gms_externalId,
                         char,gms_ServiceStartAt, char,gms_WaitingForAgent,
char,gms_AgentAvailable, char,gms_UserConnected,
                         char,gms_AgentConnected, char,gms_IxnCompleted,
char,gms_ServiceStoppedAt
```

- Start Icon and StatServer (if not already started) and use logs to verify they registered on REPORTING DN.
- Add the following block of code to the beginning of your SCXML flow. This code will setup the `_data.userevent_udata_to_send` variable to store all significant state changes you want to capture from the point of view of reporting. Names should match Icon's `GlobalData` configuration option and StatServer/CCPulse reporting and statistics templates.
  Example:

```
 <datamodel>


 </datamodel>
 <script>
        _data.userevent_udata_to_send = {
                'gms_SessionId':_sessionid,
                'gms_SessionEventSeq':0,
                'gms_ServiceName':'your service name here',
                'gms_UserId':,
                'gms_externalId':,
                // service state change timestamps
                'gms_ServiceStartAt': ,
                'gms_WaitingForAgent':,
                'gms_AgentAvailable':,
                'gms_UserConnected':,
                'gms_AgentConnected':,
                'gms_IxnCompleted':,
                'gms_ServiceStoppedAt':
        };
 </script>
```

- Add following block of code into your SCXML flow where significant state change is happening:

```
 <script>
        _data.userevent_udata_to_send.gms_WaitingForAgent = new Date().getTime().toString();
        _data.userevent_udata_to_send.gms_SessionEventSeq =
_data.userevent_udata_to_send.gms_SessionEventSeq + 1;
 </script>
 <ixn:userevent requestid="_data.userevent_reqid" resource="({'switch':'SIP_Switch',
'dn':'REPORTING'})"
                    udata="_data.userevent_udata_to_send"/>
```

Example:

```
 <state id="waitForAgent">
        <onentry>
                <script>
                        _data.userevent_udata_to_send.gms_WaitingForAgent = new
Date().getTime().toString();
                        _data.userevent_udata_to_send.gms_SessionEventSeq =
_data.userevent_udata_to_send.gms_SessionEventSeq + 1;
```

```
                </script>
                <ixn:userevent requestid="_data.userevent_reqid"
resource="({'switch':'SIP_Switch', 'dn':'REPORTING'})"
                               udata="_data.userevent_udata_to_send"/>

                <queue:submit route="false"  timeout="_data.queueSubmitTimeout">
                        <queue:targets type="agentgroup">
                                <queue:target name="_data.defaultAgentGroup"/>
                        </queue:targets>
                </queue:submit>
        </onentry>

        <transition event="queue.submit.done" target="agentAvailable"/>
        <transition event="error.queue.submit" target="error">
        </transition>
        <transition event="service.ttl.expired" target="error">
        </transition>
 </state>
```

Verifying reporting data

- Run your scenario by triggering Genesys Mobile Services and Orchestration Server (ORS) APIs directly.
- Make sure user events are being delivered to StatServer and Icon applications by checking T-Server logs. You should see something like this:

```
 00:34:20.757 Int 04543 Interaction message "RequestDistributeUserEvent" received from 516
("OrchestrationServer")
 -- Absent ThisDN, REPORTING was used
 @00:34:20.7570 [0] 8.1.000.62 send_to_client: message EventACK
        AttributeEventSequenceNumber        0000000000000ef8
        AttributeCustomerID        'Environment'
        AttributeTimeinuSecs        757000
        AttributeTimeinSecs        1348817660 (00:34:20)
        AttributeReferenceID        431
        AttributeThisDN        'REPORTING'
        AttributeUserEvent        RequestDistributeUserEvent
 00:34:20.757 Trc 04542 EventACK sent to [516] (00000003 OrchestrationServer
192.168.27.50:40727)
 @00:34:20.7570 [0] 8.1.000.62 distribute_user_event: message EventUserEvent
        AttributeEventSequenceNumber        0000000000000ef9
        AttributeCustomerID        'Environment'
        AttributeTimeinuSecs        757000
        AttributeTimeinSecs        1348817660 (00:34:20)
        AttributeUserEvent        EventUserEvent
        AttributeUserData        [347] 00 0c 00 00..
                'gms_AgentAvailable'        '1348817660755'
                'gms_AgentConnected'
                'gms_IxnCompleted'
                'gms_ServiceName'        'inbound-delay'
                'gms_ServiceStartAt'        '1348817660553'
                'gms_ServiceStoppedAt'
                'gms_SessionEventSeq'        3
                'gms_SessionId'        '65UA6ISSJH76R340BNDQ2DG0DG000036'
                'gms_UserConnected'
                'gms_UserId'
                'gms_WaitingForAgent'        '1348817660744'
                'gms_externalId'
        AttributeANI        '777'
        AttributeDNIS        '333'
        AttributeReferenceID        431
```

```
         AttributeThisDN        'REPORTING'
 00:34:20.758 Trc 04542 EventUserEvent sent to [508] (0000000c Icon_Voice 192.168.27.50:42678)
 00:34:20.758 Trc 04542 EventUserEvent sent to [588] (00000004 Stat_Server
192.168.27.50:40728)
 00:34:20.758 Trc 04542 EventUserEvent sent to [592] (00000005 Universal_Routing_Server
192.168.27.50:40744)
```

- Check your Icon log and G_CUSTOM_DATA_P table and make sure data is recorded properly. Examples:

Icon log:

```
 00:39:19.569 Int 04543 Interaction message "EventUserEvent" received from 65200
("SIP_Server@REPORTING")
 00:39:19.751 Int 04543 Interaction message "EventUserEvent" received from 65200
("SIP_Server@REPORTING")
 00:39:19.766 Int 04543 Interaction message "EventUserEvent" received from 65200
("SIP_Server@REPORTING")
 00:39:19.987 Trc 25016 Persistent Queue GUD: transaction 10929 is committed. 5 records
written into the queue
 00:39:19.987 Trc 25003 Database queue [GUD]: persistent queue transaction 10929 is being
processed.
 00:39:20.001 Trc 25004 Database queue [GUD]: persistent queue transaction 10929 is
processed, committed and removed. 5 records are written.
```

Icon's G_CUSTOM_DATA_P table:

```
 select * from dbo.G_CUSTOM_DATA_P

 8        0        830        REPORTING        0        101        1        2012-09-28
07:43:09.443        1348818189        4496060        65UA6ISSJH76R340BNDQ2DG0DG000038
1        inbound-delay                        1348818189441
 9        0        830        REPORTING        0        101        1        2012-09-28
07:43:09.590        1348818189        4496060        65UA6ISSJH76R340BNDQ2DG0DG000038
2        inbound-delay                        1348818189441        1348818189590
 10        0        830        REPORTING        0        101        1        2012-09-28
07:43:09.600        1348818189        4496060        65UA6ISSJH76R340BNDQ2DG0DG000038
3        inbound-delay                        1348818189441        1348818189590
1348818189596
```

- Start CCPulse and create a reporting template for monitoring REPORTING DN.

Congratulations: you are done!