



Troubleshooting Guide Cisco Unified CRM Connector for SAP

Release 1.0(1)

April 2008

Corporate Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
<http://www.cisco.com>
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100



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Table of Contents

1. Introduction	3
2. LOGGING	3
3. Realtime status of CRM Connector	6
4. Realtime status of CRM Datastore.....	7
5. Common Problems	9
6. Sample log files	11
7. Registry Settings.....	30

Preface

CAUTION

The following features, which are mentioned in this manual, are **not supported** with the initial introduction of this product.

- an SSL connection between the connector and SAP
- an external CRM DataStore

Cisco plans to support these feature in the near future. Support for these features will be announced in an updated version of the Release Notes. The latest version of the Release Notes can be retrieved here:

http://www.cisco.com/en/US/products/ps9117/prod_release_notes_list.html

As long as the Release Notes state that these feature are not supported, they **MUST NOT** be used.

Purpose

The *SAP ICI Troubleshooting Guide* provides troubleshooting procedures for the Cisco Unified CRM Connector for SAP. This document does not cover every possible trouble event that might occur but instead focuses on those events frequently seen by the Cisco Technical Assistance Center (TAC).

Audience

The *SAP ICI Troubleshooting Guide* provides guidance for network administrators responsible for managing the Cisco Unified CRM Connector for SAP, for enterprise managers, and for employees. This guide requires knowledge of telephony and IP networking technology.

Organization

Chapter 1, “Introduction”

Brief description of *Cisco Unified CRM Connector for SAP*.

Chapter 2, “Logging”

This chapter provides information about how to collect and analyze logs for *Cisco Unified CRM Connector for SAP*.

Chapter 3, “Realtime status of CRM Connector”

Explains how to extract real-time status information for *Cisco Unified CRM Connector for SAP*.

Chapter 4, “Realtime status of CRM Datastore”

Explains how to extract real-time status information for CRM Datastore.

Chapter 5, “Common Problems”

This chapter contains a listing of common issues and their solutions or workarounds.

Chapter 6, “Sample log files”

This section shows a listing of log files that can be used as a reference.

Chapter 7, “Registry Settings”

Explains the registry settings for *Cisco Unified CRM Connector for SAP*.

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly What’s New in Cisco Product Documentation, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

1. INTRODUCTION

CAUTION

The following features, which are mentioned in this manual, are not supported with the initial introduction of this product.

- an SSL connection between the connector and SAP
- an external CRM DataStore

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As long as the Release Notes state that these feature are not supported, they MUST NOT be used.

The CRM Connector is the middleware between the Cisco ICM PG and the SAP ICI Server.

2. LOGGING

1.1.1. CRM Connector for SAP

For gateway startup issues, review the logs using ICM dumplog tool. SAP ICI Connector output is written into the ctigw1 ems file. Refer to the ICM product documentation for directions on using the ICM dumplog tool.

When a problem arises it is suggested that the following files/logs be gathered:

- CRM Connector logs
- PG PIM logs
- PG OPC logs
- CG CTI Server logs
- CTI-OS logs (only if CTI OS Supervisor Desktop)
- SAP ICI logs

The Gateway process has a log that is consistent with ICM logs. It will be ctigw1, etc. (just like pim1, pim2, etc.). Dumplog may be used in a manner consistent with all other logs to dump the gateway log.

CRM Connector (ctigw1) log files are stored in C:\Program Files\Cisco Systems\ConnectorSAP\logfiles. This is not the same directory as the PG's log files.

1.1.1.1. EMS trace - setting the Trace Level

Trace levels for the Cisco Unified CRM Connector for SAP can be found in the registry under

HKLM\SOFTWARE\Cisco Systems, Inc.\CRMConnectorSAP\SAP1\EMS
\CurrentVersion\Library\Processes\

The EMSTraceMask are trace masks and they control which tracing information is switched on.

Warning: The default value for the trace masks is 0x04. Changing this value can have a serious impact on client performance. It should only be modified by experienced field personnel or at the request of Cisco support personnel. Reset the EMSTraceMask and EMSDisplayToScreen to their default level after capturing logs as full tracing will have a performance impact. Set the value for EMSTraceMask to 0xffffffff for maximum tracing. Dumplog output files are simple ASCII text and can be opened with a conventional text editor, such as Notepad.

1.1.1.2. EMS trace - Collected trace messages

Trace levels for the Cisco Unified CRM Connector for SAP collected tracing can be found in the registry under HKLM\SOFTWARE\Cisco Systems, Inc.\CRMConnectorSAP\SAP1\CTIData\

The EMSTraceMaskCollectMsg are trace masks and they control which collected tracing information is switched on. Collected tracing will allow engineers to turn on additional tracing that allows inspection of complete transactions as a collection.

Warning: The default value for the trace masks is 0x00. Changing this value can have a serious impact on client performance. It should only be modified by experienced field personnel or at the request of Cisco support personnel. Reset the EMSTraceMask and EMSDisplayToScreen to their default level after capturing logs as full tracing will have a performance impact. Set the value for EMSTraceMaskCollectMsg to 0xffffffff for maximum tracing. Dumplog output files are simple ASCII text and can be opened with a conventional text editor, such as Notepad.

1.1.2. CRM Datastore

The CRM Datastore logs will only be available if an external datastore is used. Otherwise with an internal datastore the datastore logs are included in the regular CRM Connector logs.

To determine if an external datastore is used for this CRM Connector installation, run a Realtime Status Session of the CRM Connector (refer to Chapter 3) and execute the “Iddi” command. Check if the IcmConnectDll value shows “internal” or “external”.

The CRM Datastore logs can be extracted by using the dumplog utility. Dumplog may be used in a manner consistent with all other logs.

CRM Datastore (DSgw1) log files are stored in C:\Program Files\Cisco Systems\ConnectorDataStore\logfiles. This is not the same directory as the PG or CRM Connector log files.

1.1.2.1. EMS trace - setting the Trace Level

Trace levels for the Cisco Unified CRM Connector for SAP can be found in the registry under

HKLM\SOFTWARE\Cisco Systems, Inc.\CRMConnectorDataStore\DS1\EMS
\CurrentVersion\Library\Processes\

The EMSTraceMask are trace masks and they control which tracing information is switched on.

Warning: The default value for the trace masks is 0x04. Changing this value can have a serious impact on client performance. It should only be modified by experienced field personnel or at the request of Cisco support personnel. Reset the EMSTraceMask and EMSDisplayToScreen to their default level after capturing logs as full tracing will have a performance impact. Set the value for EMSTraceMask to 0xffffffff for maximum tracing. Dumplog output files are simple ASCII text and can be opened with a conventional text editor, such as Notepad.

1.1.2.2. EMS trace - Collected trace messages

Trace levels for the Cisco Unified CRM Datastore for SAP collected tracing can be found in the registry under

HKLM\SOFTWARE\Cisco Systems, Inc.\CRMConnectorDataStore\DS1\Data
\DSgw1\Dynamic.

The EMSTraceMaskCollectMsg are trace masks and they control which collected tracing information is switched on. Collected tracing will allow engineers to turn on additional tracing that allows inspection of complete transactions as a collection.

Warning: The default value for the trace masks is 0x00. Changing this value can have a serious impact on client performance. It should only be modified by experienced field personnel or at the request of Cisco support personnel. Reset the EMSTraceMask and EMSDisplayToScreen to their default level after capturing logs as full tracing will have a performance impact. Set the value for EMSTraceMaskCollectMsg to 0xffffffff for maximum tracing.

1.1.3. Trace Mask Key

Following table shows the key to both the EMSTraceMask and the EMSTraceMaskCollectMsg

COMMUNICATION	= 0x00000010;
TPI	= 0x00000020;
ICM	= 0x00000040;
AGENT	= 0x00000080;
CALL	= 0x00000100;
TRANSACTION	= 0x00002000;
SCHEDULER	= 0x00004000;
CONFIG	= 0x00008000;
MESSAGE_NAME	= 0x00010000;
MESSAGE_DETAIL	= 0x00020000;
HEARTBEAT	= 0x00040000;
PERFORMANCE_DATA	= 0x00080000;
CREATE	= 0x01000000;
DELETE	= 0x02000000;
BEGIN_METHOD	= 0x04000000;
END_METHOD	= 0x08000000;
COLLECTED	= 0x80000000;

The individual settings can be combined via bitwise AND to combine multiple trace settings. Following are some suggested trace mask settings:

Normal **0x00000004**

Shows errors, warnings and info messages

Trace low **0x8001209F**

Shows errors, warnings and info messages as well as trace messages of the following categories: COMMUNICATION, AGENT, TRANSACTION, MESSAGE_NAME, COLLECTED_MESSAGES

Trace medium **0x8407A0FF**

Shows errors, warnings and info messages as well as trace messages of the following categories: COMMUNICATION, TPI, ICM, AGENT, TRANSACTION, CONFIG, MESSAGE_NAME, MESSAGE_DETAIL, HEARTBEAT, BEGIN_METHOD, COLLECTED_MESSAGES

Trace high **0x8F0FE0FF**

Shows errors, warnings and info messages as well as trace messages of the following categories: COMMUNICATION, TPI, ICM, AGENT, TRANSACTION, SCHEDULER, CONFIG, MESSAGE_NAME, MESSAGE_DETAIL, HEARTBEAT, PERFORMANCE_DATA, CREATE, DELETE, BEGIN_METHOD, END_METHOD, COLLECTED_MESSAGES

3. REALTIME STATUS OF CRM CONNECTOR

The Remote Console is the main interface console to the CRM Connector process. You can use Remote Console to query information directly from the CRM Connector process. Several monitors can be run at the same time. The impact on the system's performance is minimal. The monitor's features are kept for each session.

Usage

You can run monitors from a Telnet session or a DOS command prompt. Please note that only local access is supported. The monitor process supports local commands. Local commands are defined within monitor. This section provides a list of basic monitor commands for use with processes such as <list_> or <dump_>.

To navigate and / or edit the executed commands you can press the <Up> or <Down> arrows on the keyboard.

A monitor telnet session can be started by entering following command at a DOS command prompt:

```
C:\>telnet localhost <RemoteConsolePort>
```

or in a telnet session:

```
Welcome to Microsoft Telnet Client
Escape Character is 'CTRL+'
```

```
Microsoft Telnet> localhost <RemoteConsolePort>
```

“localhost” indicates that a connection to the local server and is synonym to the “127.0.0.1” IP address which always points to the current machine.

<RemoteConsolePort> is the address of the gateway port, which is stored in the following registry key:

```
HKLM\SOFTWARE\Cisco Systems,
Inc.\CRMConnectorSAP\SAPI\CTIData\<InstanceName>\Dynamic
The default is 42031.
```

After the monitor is started the following prompt is visible:

```
remote>
```

List of Commands

In order to display a basic list of commands type **help**. The following list displays:

```
remote>help
help command's list
Command          Parameter  Description
-----
help             ?         -         Display this help
echo             -         -         toggle on/off
status           -         -         Display gateway status
trace            [tracelvl] Get or set the tracelevel
collectedtrace [tracelvl] Get or set the tracelevel for collected messages
da              -         -         Dump agent monitor entry
dt              -         -         Dump transaction monitor entry
dtdi            -         -         Dump tpi dll info
dddi            -         -         Dump ds dll info
la              -         -         List logged agents states
lt              -         -         List calls for specific ID or all
ltdi            -         -         List tpi dll info
lddi            -         -         List ds dll info
exit            -         -         Exit monitor
remote>
```

4. REALTIME STATUS OF CRM DATASTORE

The Remote Console is the main interface console to the CRM Connector process. You can use Remote Console to query information directly from the CRM Connector process.

Several monitors can be run at the same time. The impact on the system's performance is minimal. The monitor's features are kept for each session.

Usage

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A monitor telnet session can be started by entering following command at a DOS command prompt:

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or in a telnet session:

```
Welcome to Microsoft Telnet Client  
Escape Character is 'CTRL+''
```

```
Microsoft Telnet> localhost <RemoteConsolePort>
```

“localhost” indicates that a connection to the local server and is synonym to the “127.0.0.1” IP address which always points to the current machine.

<RemoteConsolePort> is the address of the gateway port, which is stored in the following registry key:

```
HKLM\SOFTWARE\Cisco Systems,  
Inc.\CRMConnectorDataStore\DS1\Data\<InstanceName>\Dynamic  
The default is 42030.
```

After the monitor is started the following prompt is visible:

```
remote>
```

List of Commands

In order to display a basic list of commands type **help**. The following list displays:

```
remote>help  
  
help command's list  
  
Command          Parameter  Description  
-----  
help             ? -       Display this help  
echo             -       toggle on/off
```

```

status          -          Display gateway status
trace           [tracelvl] Get or set the tracelevel
collectedtrace [tracelvl] Get or set the tracelevel for collected messages
dt              -          Dump transaction monitor entry
dtdi           -          Dump tpi dll info
dddi           -          Dump ds dll info
la             -          List logged agents states
lt             -          List calls for specific ID or all
ltdi           -          List tpi dll info
lddi           -          List ds dll info
exit           -          Exit monitor

remote>

```

5. COMMON PROBLEMS

Connector Startup Problems

Symptom: CRM Connector stays in IDLE state after startup. The CRM Connector is connecting to CTI Server A/B, i.e. no PIM involved.

Cause: The SAP ICI Connector waits for the PIM to open up a connection and send an OPEN_REQ message. Note that, in a duplexed system, side B gateway is only connected from PIM when side A goes down.

Action: Verify PIM configuration in registry CtiHostA/CitHostB (in HKLM\SOFTWARE\Cisco Systems, Inc.\CRMConnectorSAP\SAP1\CTIData\<InstanceName>\Config\)) setting must match the PG IP address and CtiPortA /CtiPortB configuration (in HKLM\SOFTWARE\Cisco Systems, Inc.\CRMConnectorSAP\CTIData\<InstanceName>\Config\)). Also verify that the Peripheral ID is correct in CTIAgentPeripheralID.

Connector Status not going ACTIVE on a co-located installation

Symptom: CRM Connector stays in ACTIVATING state after startup on an co-located installation, i.e. the CRM connector is installed on the same server as the PG.

Cause: Ensure that the CTIHostA/B settings in the registry do not point to “localhost”. This setting must contain an IP address or host name of the PG servers.

Action: Verify PIM configuration in registry CtiHostA/CitHostB (in HKLM\SOFTWARE\Cisco Systems, Inc.\CRMConnectorSAP\SAP1\CTIData\<InstanceName>\Config\)) setting must match the PG IP address and CtiPortA /CtiPortB configuration (in HKLM\SOFTWARE\Cisco Systems, Inc.\CRMConnectorSAP\CTIData\<InstanceName>\Config\)). Also verify that the Peripheral ID is correct in CTIAgentPeripheralID.

Agent login problems

Symptom:

The following error message appears on the ICWC after a login attempt:

Failed to log on to the communication management software system

Solution:

Ensure that the Cisco ICM CRM Connector for SAP CTIgw1 service is running on the PG and that a connection can be established to port 8080 (or whichever port is currently configured) of the PG server.

Open a browser and type in the following in the address bar:

http://172.160.42.10:8080/ (replace the IP address with the one of the PG and port number with the one currently used by the CRM connector)

If you see a response from the CRM connector displaying a page listing the services offered by it (<todo: describe this page>), then the connector is running and is responding. If not you will see an “Unable to connect” message in the browser. If you are testing an SSL connection, then the corresponding certificate has to be installed in the browser beforehand.

Alternatively you can test if the connector replies with a telnet session:

Symptom: Agent login failure

PeripheralErrorCode:8196 is found in CRM Connector log file (ensure trace settings are set correctly):

```
2007.10.09 14:21:05 T(0x00000040):  
ICM::CicmCtiConnector::OnClientConnectionMsg T=1900 * Msg  
Detail Data: MsgType:CONTROL_FAILURE_CONF  
(InvokeID:0x2000002 FailureCode:CF_GENERIC_OPERATION  
PeripheralErrorCode:8196 )
```

This indicates that an invalid device ID was specified during login on the ICWC.

Solution: Correct the login parameters.

Failover

If the SAP ICI connector loses the connection to the CTI server, it attempts to connect to the second PG on a duplexed system. There will be no impact from the agent's perspective. If the connector is down together with the PG, side B will take over and all agent and call states will be as before.

Call Attached Data missing on Transfer

When a transferred call appears on the second agents IC WebClient, the Call Attached Data is not visible yet. It only becomes visible on the second agents ICWC *after* the first Agent completes the transfer. This is an SAP ICI limitation.

6. SAMPLE LOG FILES

Example of Agent Logon SOAP telegrams

Following is a list of the SOAP telegrams that are sent back and forth between the SAP WebServer and the SAP CRM Connector. These telegrams can be found in the SAP ICI Connector log files if the trace setting is sufficiently high. Some duplicated telegrams have been omitted for brevity.

Added comments are in *italic* font. The numbers (*I* ...) correspond to the numbers in the sequence diagram in Chapter 7.2.1 of the SAP ICI Interface Specification, Version 3.05 [3].

1) SAP -> connector

```
<ns0:getWorkcenterCapability xmlns:ns0="urn:IciSystemInterface">
  <userid xmlns="urn:IciSystemInterface">USER1</userid>
</ns0:getWorkcenterCapability>
```

Connector -> SAP

```
<getworkcentercapabilityresponse xmlns="urn:IciSystemInterface">
  <response xmlns>
    <types>100</types> → specified via TpiWorkcenterType in registry
    <workcenterlist>>false</workcenterlist>
    <filter>>false</filter>
  </response>
</getworkcentercapabilityresponse>
```

SAP -> connector

```
<ns0:getWorkcenter xmlns:ns0="urn:IciSystemInterface">
  <id xmlns="urn:IciSystemInterface">11114;11114;52513</id>
  <type xmlns="urn:IciSystemInterface">100</type>
</ns0:getWorkcenter>
```

Connector -> SAP

```
<getworkcenterresponse xmlns="urn:IciSystemInterface">
  <response xmlns>
    <id>11114;11114;52513</id>
    <description>11114;11114;52513</description>
    <type>100</type>
    <default>>true</default>
  </response>
</getworkcenterresponse>
```

SAP -> connector

```
<ns0:setWorkcenter xmlns:ns0="urn:IciUserInterface">
  <userid xmlns="urn:IciUserInterface">USER1</userid>
```

```

        <workcenterid
xmlns="urn:IciUserInterface">11114;11114;52513</workcenterid>
        <workcentertype xmlns="urn:IciUserInterface">100</workcentertype>
</ns0:setWorkcenter>

```

Connector -> SAP

```

<setworkcenterresponse xmlns="urn:IciUserInterface">
    <response xmlns />
</setworkcenterresponse>

```

2) SAP -> connector

```

<ns0:getAttributes xmlns:ns0="urn:IciUserInterface">
    <userid xmlns="urn:IciUserInterface">USER1</userid>
</ns0:getAttributes>

```

Connector -> SAP

```

<getattributesresponse xmlns="urn:IciUserInterface">
    <response xmlns>
        <currentchannels>
            <item>
                <description>Telephony</description>
                <id>1</id>
            </item>
        </currentchannels>
        <addresses>
            <item>
                <address>+140452513</address>
                <channel>1</channel>
            </item>
        </addresses>
        <workmodes>
            <item>
                <description>Logged off</description>
                <id>1</id>
            </item>
            <item>
                <description>Logged on - ready</description>
                <id>2</id>
            </item>
            <item>
                <description>Logged on - not ready</description>
                <id>3</id>
            </item>
            <item>
                <description>Logged on - not ready 1</description>
                <id>1001</id>
            </item>
            <item>
                <description>Logged on - not ready 2</description>
                <id>1002</id>
            </item>
            <item>
                <description>Logged on - not ready 3</description>
                <id>1003</id>
            </item>
        </workmodes>
        <queues>
            <item>
                <description>8003278454</description>
                <id>8003278454</id>
            </item>
        </queues>
    </response>
</getattributesresponse>

```

```

        </item>
    </queues>
    <channels>
        <item>
            <description>Telephony</description>
            <id>1</id>
        </item>
    </channels>
    <userid>USER1</userid>
    <wrapupmode>2</wrapupmode>
    <currentworkmode>
        <description>Logged off</description>
        <id>1</id>
    </currentworkmode>
    <currentqueues />
</response>
</getattributesresponse>

```

3) SAP -> connector

```

<ns0:setCurrentChannels xmlns:ns0="urn:IciUserInterface">
    <userid xmlns="urn:IciUserInterface">USER1</userid>
    <channels xmlns="urn:IciUserInterface">
        <item>1</item>
    </channels>
</ns0:setCurrentChannels>

```

Connector -> SAP

```

<setcurrentchannelsresponse xmlns="urn:IciUserInterface">
    <response xmlns />
</setcurrentchannelsresponse>

```

4) SAP -> connector

```

<ns0:setCurrentQueues xmlns:ns0="urn:IciUserInterface">
    <userid xmlns="urn:IciUserInterface">USER1</userid>
    <queues xmlns="urn:IciUserInterface">
        <item>8003278454</item>
    </queues>
</ns0:setCurrentQueues>

```

Connector -> SAP

```

<setcurrentqueuesresponse xmlns="urn:IciUserInterface">
    <response xmlns />
</setcurrentqueuesresponse>

```

5) SAP -> connector

```

<ns0:subscribe xmlns:ns0="urn:IciContainerInterface">

```

```

        <appurl
xmlns="urn:IciContainerInterface">http://10.10.112.24:8001/sap(bD11biZjPTIwNSZkPW1
pbIZpPTEmcz1TSUQ1M2FBTk9OJTNhZWxjcmQwMF9FQ0RfMDElM2FwSTJ1Szd2WWlyUkFkeUp1NmZ5YWtzW
kNTSEZIR2RGX3hwZjEtaDVBLUFUVA==)/bc/soap/ici</appurl>
        <appid xmlns="urn:IciContainerInterface">470A44907F684956E10000000A0A7018
</appid>
        <channeltype xmlns="urn:IciContainerInterface">1</channeltype>
        <containerid xmlns="urn:IciContainerInterface">+140452513</containerid>
</ns0:subscribe>

```

Connector -> SAP

```

<subscribeResponse xmlns="urn:IciContainerInterface">
    <response xmlns="" />
</subscribeResponse>

```

6) SAP -> connector

```

<ns0:getCalls xmlns:ns0="urn:IciPhoneLineInterface">
    <lineNumber xmlns="urn:IciPhoneLineInterface">+140452513</lineNumber>
</ns0:getCalls>

```

Connector -> SAP

```

<getCallsResponse xmlns="urn:IciPhoneLineInterface">
    <response xmlns="" />
</getCallsResponse>

```

14) SAP -> connector

```

<ns0:setAddresses xmlns:ns0="urn:IciUserInterface">
    <userId xmlns="urn:IciUserInterface">USER1</userId>
    <addresses xmlns="urn:IciUserInterface">
        <item>
            <channel>1</channel>
            <address>+140452513</address>
        </item>
    </addresses>
</ns0:setAddresses>

```

Connector -> SAP

```

<setAddressesResponse xmlns="urn:IciUserInterface">
    <response xmlns="" />
</setAddressesResponse>

```

15) SAP -> connector

```

<ns0:subscribe xmlns:ns0="urn:IciUserInterface">
    <appUrl
xmlns="urn:IciUserInterface">http://10.10.112.24:8001/sap(bD11biZjPTIwNSZk
PW1pbIZpPTEmcz1TSUQ1M2FBTk9OJTNhZWxjcmQwMF9FQ0RfMDElM2FwSTJ1Szd2WWlyUkFkeUp1NmZ5YW
tzWkNTSEZIR2RGX3hwZjEtaDVBLUFUVA==)/bc/soap/ici</appUrl>
    <appId
xmlns="urn:IciUserInterface">470A448F7F684956E10000000A0A7018</appId>
    <userId xmlns="urn:IciUserInterface">USER1</userId>
</ns0:subscribe>

```

Connector -> SAP

```
<subscribeResponse xmlns="urn:IciUserInterface">
  <response xmlns="" />
</subscribeResponse>
```

16) SAP -> connector

```
<ns0:setCurrentWorkmode xmlns:ns0="urn:IciUserInterface">
  <userId xmlns="urn:IciUserInterface">USER1</userId>
  <workmode xmlns="urn:IciUserInterface">3</workmode>
</ns0:setCurrentWorkmode>
```

Connector -> SAP

```
<setCurrentWorkmodeResponse xmlns="urn:IciUserInterface">
  <response xmlns="" />
</setCurrentWorkmodeResponse>
```

17) Connector -> SAP

```
<userChanged xmlns="urn:IciEventInterface">
  <appIds xmlns="">
    <item>470A448F7F684956E1000000A0A7018</item>
  </appIds>
  <user xmlns="">
    <currentChannels>
      <item>
        <description>Telephony</description>
        <id>1</id>
      </item>
    </currentChannels>
    <addresses>
      <item>
        <address>+140452513</address>
        <channel>1</channel>
      </item>
    </addresses>
    <workmodes>
      <item>
        <description>Logged off</description>
        <id>1</id>
      </item>
      <item>
        <description>Logged on - ready</description>
        <id>2</id>
      </item>
      <item>
        <description>Logged on - not ready</description>
        <id>3</id>
      </item>
      <item>

```

```

        <description>Logged on - not ready 1</description>
        <id>1001</id>
    </item>
    <item>
        <description>Logged on - not ready 2</description>
        <id>1002</id>
    </item>
    <item><description>Logged on - not ready
3</description>
        <id>1003</id>
    </item>
</workmodes>
<queues>
    <item>
        <description>8003278454</description>
        <id>8003278454</id>
    </item>
</queues>
<channels>
    <item>
        <description>Telephony</description>
        <id>1</id>
    </item>
</channels>
<userId>USER1</userId>
<wrapUpMode>2</wrapUpMode>
<currentWorkmode>
    <description>Logged on - not ready</description>
    <id>3</id>
</currentWorkmode>
<currentQueues>
    <item>
        <description>8003278454</description>
        <id>8003278454</id>
    </item>
</currentQueues>
</user>
</userChanged>

```

Example of Agent Initiates Outbound call SOAP telegrams

Following is a list of the SOAP telegrams that are sent back and forth between the SAP WebServer and the SAP CRM Connector when the agent initiates an outbound call. These telegrams can be found in the SAP ICI Connector log files if the trace setting is sufficiently high. Some duplicated telegrams have been omitted for brevity.

Added comments are in *italic* font. The numbers (**I** ...) correspond to the numbers in the sequence diagram in Chapter 7.3 of the SAP ICI Interface Specification, Version 3.05 [3].

1) SAP -> connector

```
<ns0:create xmlns:ns0="urn:IciItemInterface">
  <channelType xmlns="urn:IciItemInterface">1</channelType>
  <containerId xmlns="urn:IciItemInterface">+4049952512</containerId>
</ns0:create>
```

connector -> SAP

```
<createResponse xmlns="urn:IciItemInterface">
  <response xmlns="">
    <status><description>Created</description><id>1</id></status>
    <capabilityList>
      <item>6</item>
      <item>7</item>
      <item>8</item>
      <item>101</item>
      <item>102</item>
      <item>103</item>
    </capabilityList>
    <processingStatus>
      <description>Not in process</description>
      <id>1</id>
    </processingStatus>
    <itemId>1</itemId>
  </response>
</createResponse>
```

2) SAP -> connector

```
<ns0:dial xmlns:ns0="urn:IciPhoneCallInterface">
  <lineNumber xmlns="urn:IciPhoneCallInterface">+4049952512</lineNumber>
  <callHandle xmlns="urn:IciPhoneCallInterface">1</callHandle>
  <dialNumber xmlns="urn:IciPhoneCallInterface">+916782327185</dialNumber>
</ns0:dial>
```

connector -> SAP

```
<dialResponse xmlns="urn:IciPhoneCallInterface">
  <response xmlns="">+916782327185</response>
</dialResponse>
```

3) connector -> SAP

```
<phoneCallChanged xmlns="urn:IciEventInterface">
  <appIds xmlns=""><item>478CF7F94C151713E1000000A0A7018</item></appIds>
  <phoneCall xmlns="">
    <dialedNumber>+116782327185</dialedNumber>
    <lineNumber>+4049952512</lineNumber>
```

```

<callStatus>
  <description>Ringing</description>
  <id>104</id>
</callStatus>
<capabilityList>
  <item>6</item>
  <item>102</item>
</capabilityList>
<internal>>false</internal>
<remoteNumbers>
  <item>+116782327185</item>
</remoteNumbers>
<callHandle>1</callHandle>
<trunkId xsi:nil="true"/>
<processingStatus>
  <description>Active</description>
  <id>2</id>
</processingStatus>
<attachedData><?xml version = "1.0" encoding = "UTF-
8"?><ItemAttachedData&
  gt;<Application id = "SAP-
IC"><CV01/><CV02/><CV03/><CV04/><CV05/><CV06/&
gt;<CV07/><CV08/><CV09/><CV10/></Application></It
emAttachedData&
  gt;</attachedData>
  <inbound>>false</inbound>
</phoneCall>
</phoneCallChanged>

```

SAP -> connector

```

<phoneCallChangedResponse xmlns="urn:IciEventInterface">
  <response xmlns="" />
</phoneCallChangedResponse>

```

4) Connector -> SAP

```

<phoneCallChanged xmlns="urn:IciEventInterface">
  <appIds xmlns="">
    <item>478CF7F94C151713E1000000A0A7018</item>
  </appIds>
  <phoneCall xmlns="">
    <dialedNumber>+116782327185</dialedNumber>
    <lineNumber>+4049952512</lineNumber>
    <callStatus>
      <description>Ringing</description>
      <id>104</id>
    </callStatus>
    <capabilityList>
      <item>6</item>
      <item>102</item>
    </capabilityList>
  </phoneCall>
</phoneCallChanged>

```

```

<internal>false</internal>
<remoteNumbers>
  <item>+116782327185</item>
</remoteNumbers>
<callHandle>1</callHandle>
<trunkId xsi:nil="true"/>
<processingStatus>
  <description>Active</description>
  <id>2</id>
</processingStatus>
<attachedData>&lt;?xml version = "1.0" encoding = "UTF-
8"?&gt;&lt;ItemAttachedData&
  12:30:54 ConnectorSAP-CTIgw1 Trace: ++continued++:   gt;&lt;Application id
= "SAP-
IC"&gt;&lt;&lt;CV01/&gt;&lt;CV02/&gt;&lt;CV03/&gt;&lt;CV04/&gt;&lt;CV05/&gt;&lt;CV06/&
gt;&lt;CV07/&gt;&lt;CV08/&gt;&lt;CV09/&gt;&lt;CV10/&gt;&lt;/Application&gt;&lt;/It
emAttachedData&gt;</attachedData>
  <inbound>false</inbound>
</phoneCall>
</phoneCallChanged>

```

SAP -> connector

```

<phoneCallChangedResponse xmlns="urn:IciEventInterface">
  <response xmlns=""/>
</phoneCallChangedResponse>

```

5) connector -> SAP

```

<phoneCallChanged xmlns="urn:IciEventInterface">
  <appIds xmlns="">
    <item>478CF7F94C151713E1000000A0A7018</item>
  </appIds>
  <phoneCall xmlns="">
    <dialedNumber>+40499D49</dialedNumber>
    <lineNumber>+4049952512</lineNumber>
    <callStatus>
      <description>Alerting</description>
      <id>3</id>
    </callStatus>
    <capabilityList>
      <item>1</item>
      <item>2</item>
      <item>3</item>
      <item>6</item>
      <item>102</item>
    </capabilityList>
    <internal>true</internal>
    <remoteNumbers>
      <item>+40499D49</item>
    </remoteNumbers>
  </phoneCall>
</phoneCallChanged>

```

```

        <trunkId xsi:nil="true"/>
        <processingStatus>
            <description>Not in process</description>
            <id>1</id>
        </processingStatus>
        <attachedData>&lt;?xml version = "1.0" encoding = "UTF-
8"?&gt;&lt;ItemAttachedData&gt;&lt;Application id = "SAP-
IC"&gt;&lt;CV01/&gt;&lt;CV02/&gt;&lt;CV03/&gt;&lt;CV04/&gt;&lt;CV05/&gt;&lt;CV06/&
gt;&lt;CV07/&gt;&lt;CV08/&gt;&lt;CV09/&gt;&lt;CV10/&gt;&lt;/Application&gt;&lt;/It
emAttachedData&gt;</attachedData>
        <inbound>>false</inbound>
    </phoneCall>
</phoneCallChanged>

```

6) SAP -> connector

```

<accept xmlns="urn:IciItemInterface">
    <itemId xmlns="">1</itemId>
<containerId xmlns="">+0041319176043</containerId></accept>

```

4) connector -> SAP

```

<acceptResponse xmlns="urn:IciItemInterface">
    <response xmlns=""/>
</acceptResponse>

```

SAP -> connector

```

<phoneCallChangedResponse xmlns="urn:IciEventInterface">
    <response xmlns=""/>
</phoneCallChangedResponse>

```

7) connector -> SAP

```

<phoneCallChanged xmlns="urn:IciEventInterface">
    <appIds xmlns="">
        <item>478CF7F94C151713E1000000A0A7018</item>
    </appIds>
    <phoneCall xmlns="">
        <dialedNumber>+40499D50</dialedNumber>
        <lineNumber>+4049952512</lineNumber>
        <callStatus>
            <description>Connected</description>
            <id>101</id>
        </callStatus>
        <capabilityList>
            <item>3</item>
            <item>4</item>
            <item>6</item>
            <item>7</item>
            <item>8</item>
            <item>102</item>
        </capabilityList>
    </phoneCall>
</phoneCallChanged>

```

```

        <item>103</item>
        <item>104</item>
        <item>105</item>
        <item>107</item>
        <item>109</item>
        <item>110</item>
        <item>111</item>
    </capabilityList>
    <internal>true</internal>
    <remoteNumbers>
        <item>+40499D50</item>
    </remoteNumbers>
    <callHandle>1</callHandle>
    <trunkId xsi:nil="true"/>
    <processingStatus>
        <description>Active</description>
        <id>2</id>
    </processingStatus>
    <attachedData><?xml version = "1.0" encoding = "UTF-8" ?>&lt;ItemAttachedData&gt;&lt;Application id = "SAP-IC"&gt;&lt;CV01/&gt;&lt;CV02/&gt;&lt;CV03/&gt;&lt;CV04/&gt;&lt;CV05/&gt;&lt;CV06/&gt;&lt;CV07/&gt;&lt;CV08/&gt;&lt;CV09/&gt;&lt;CV10/&gt;&lt;/Application&gt;&lt;/ItemAttachedData&gt;</attachedData>
    <inbound>>false</inbound>
</phoneCall>
</phoneCallChanged>

```

SAP -> connector

```

<phoneCallChangedResponse xmlns="urn:IciEventInterface">
    <response xmlns="" />
</phoneCallChangedResponse>

```

9) SAP -> connector

```

<ns0:drop xmlns:ns0="urn:IciPhoneCallInterface">
    <lineNumber xmlns="urn:IciPhoneCallInterface">+4049952512</lineNumber>
    <callHandle xmlns="urn:IciPhoneCallInterface">1</callHandle>
</ns0:drop>

```

connector -> SAP

```

<dropResponse xmlns="urn:IciPhoneCallInterface">
    <response xmlns="" />
</dropResponse>

```

10) connector -> SAP

```

<phoneCallChanged xmlns="urn:IciEventInterface">
    <appIds xmlns="" />

```

```

        <item>478CF7F94C151713E1000000A0A7018</item>
    </appIds>
    <phoneCall xmlns="">
        <dialNumber>+40499D50</dialNumber>
        <lineNumber>+4049952512</lineNumber>
        <callStatus>
            <description>Ended</description>
            <id>4</id>
        </callStatus>
        <capabilityList>
            <item>5</item>
            <item>6</item>
            <item>102</item>
        </capabilityList>
        <internal>true</internal>
        <remoteNumbers>
            <item>+0</item>
        </remoteNumbers>
        <callHandle>1</callHandle>
        <trunkId xsi:nil="true"/>
        <processingStatus>
            <description>Wrapup</description>
            <id>3</id>
        </processingStatus>
        <attachedData><?xml version = "1.0" encoding = "UTF-
8" ?>&lt;ItemAttachedData&gt;&lt;Application id = "SAP-
IC" &gt;&lt;CV01/&gt;&lt;CV02/&gt;&lt;CV03/&gt;&lt;CV04/&gt;&lt;CV05/&gt;&lt;CV06/&
gt;&lt;CV07/&gt;&lt;CV08/&gt;&lt;CV09/&gt;&lt;CV10/&gt;&lt;/Application&gt;&lt;/It
emAttachedData&gt;</attachedData>
        <inbound>>false</inbound>
    </phoneCall>
</phoneCallChanged>
SAP -> connector
<phoneCallChangedResponse xmlns="urn:IciEventInterface">
    <response xmlns=""/>
</phoneCallChangedResponse>

```

Example of Consult Transfer SOAP telegrams

Following is a list of the SOAP telegrams that are sent back and forth between the SAP WebServer and the SAP CRM Connector during a consult transfer. These telegrams can be found in the SAP ICI Connector log files if the trace setting is sufficiently high. Some duplicated telegrams have been omitted for brevity.

Added comments are in *italic* font. The numbers (***1*** ...) correspond to the numbers in the sequence diagram in Chapter 7.5 of the SAP ICI Interface Specification, Version 3.05 [3].

1) SAP -> connector

```
<ns0:create xmlns:ns0="urn:IciItemInterface">
  <channelType xmlns="urn:IciItemInterface">1</channelType>
  <containerId xmlns="urn:IciItemInterface">+00413191773001</containerId>
</ns0:create>
```

connector -> SAP

```
<createResponse xmlns="urn:IciItemInterface">
  <response xmlns="">
    <status>
      <description>Created</description>
      <id>1</id>
    </status>
    <capabilityList>
      <item>6</item>
      <item>7</item>
      <item>8</item>
      <item>101</item>
      <item>102</item>
      <item>103</item>
    </capabilityList>
    <processingStatus>
      <description>Not in process</description>
      <id>1</id>
    </processingStatus>
    <itemId>4</itemId>
  </response>
</createResponse>
```

2) SAP -> connector

```
<ns0:consult xmlns:ns0="urn:IciPhoneCallInterface">
  <lineNumber xmlns="urn:IciPhoneCallInterface">+00413191773001</lineNumber>
  <callHandle xmlns="urn:IciPhoneCallInterface">4</callHandle>
  <connCallHandle xmlns="urn:IciPhoneCallInterface">1</connCallHandle>
  <dialNumber xmlns="urn:IciPhoneCallInterface">+73003</dialNumber>
  <nextStep xmlns="urn:IciPhoneCallInterface">2</nextStep>
</ns0:consult>
```

connector -> SAP

```
<consultResponse xmlns="urn:IciPhoneCallInterface">
  <response xmlns="" />
</consultResponse>
```

3)connector -> SAP

```
<phoneCallChanged xmlns="urn:IciEventInterface">
  <appIds xmlns="">
```

```

        <item>47B339A480C83283E1000000A424709</item>
    </appIds>
    <phoneCall xmlns="">
        <dialedNumber>+00413191773002</dialedNumber>
        <lineNumber>+00413191773001</lineNumber>
        <callStatus>
            <description>Hold</description>
            <id>105</id>
        </callStatus>
        <capabilityList>
            <item>4</item>
            <item>6</item>
            <item>7</item>
            <item>8</item>
            <item>102</item>
            <item>103</item>
            <item>104</item>
            <item>105</item>
            <item>108</item>
            <item>109</item>
            <item>110</item>
        </capabilityList>
        <internal>true</internal>
        <remoteNumbers>
            <item>+00413191773002</item>
        </remoteNumbers>
        <callHandle>1</callHandle>
        <trunkId xsi:nil="true"/>
        <processingStatus>
            <description>Active</description>
            <id>2</id>
        </processingStatus>
        <attachedData>&lt;?xml version="1.0" encoding="utf-
8"?&gt;&lt;ItemAttachedData&gt;&lt;Application id="SAP-
IC"&gt;&lt;CV01/&gt;&lt;CV02/&gt;&lt;CV03/&gt;&lt;CV04/&gt;&lt;CV05/&gt;&lt;CV06/&
gt;&lt;CV07/&gt;&lt;CV08/&gt;&lt;CV09/&gt;&lt;CV10/&gt;&lt;/Application&gt;&lt;App
lication
id="CRM_IC/BUPA"&gt;&lt;CURRENTCUSTOMER/&gt;&lt;CURRENTCONTACT/&gt;&lt;CURRENTCOMP
ONENT/&gt;&lt;BPCONFIRMED/&gt;&lt;COMPCONFIRMED/&gt;&lt;/Application&gt;&lt;Applic
ation
id="CRM_IC/MCM"&gt;&lt;FWDTYPE&gt;Consult&lt;/FWDTYPE&gt;&lt;FWDFROM&gt;173001&lt;
/FWDFROM&gt;&lt;FWDTIME&gt;0&lt;/FWDTIME&gt;&lt;/Application&gt;&lt;/ItemAttachedD
ata&gt;</attachedData>
        <inbound>>false</inbound>
    </phoneCall>
</phoneCallChanged>

```

6)connector -> SAP

```

<phoneCallChanged xmlns="urn:IciEventInterface">
    <appIds xmlns="">
        <item>47B339A480C83283E1000000A424709</item>
    </appIds>

```

```

</appIds>
<phoneCall xmlns="">
  <dialedNumber>+00413191773003</dialedNumber>
  <lineNumber>+00413191773001</lineNumber>
  <callStatus>
    <description>Ringing</description>
    <id>104</id>
  </callStatus>
  <capabilityList>
    <item>6</item>
    <item>102</item>
  </capabilityList>
  <internal>true</internal>
  <remoteNumbers>
    <item>+00413191773003</item>
  </remoteNumbers>
  <callHandle>4</callHandle>
  <trunkId xsi:nil="true"/>
  <processingStatus>
    <description>Active</description>
    <id>2</id>
  </processingStatus>
  <attachedData>&lt;?xml version = "1.0" encoding = "UTF-
8"?&gt;&lt;ItemAttachedData&gt;&lt;Application id="SAP-
IC"&gt;&lt;CV01/&gt;&lt;CV02/&gt;&lt;CV03/&gt;&lt;CV04/&gt;&lt;CV05&
gt;&lt;CV06/&gt;&lt;CV07/&gt;&lt;CV08/&gt;&lt;CV09/&gt;&lt;CV10/&gt;&lt;/Applicati
on&gt;&lt;/ItemAttachedData&gt;</attachedData>
  <inbound>>false</inbound>
</phoneCall>
</phoneCallChanged>

```

7) connector -> SAP

```

<phoneCallChanged xmlns="urn:IciEventInterface">
  <appIds xmlns="">
    <item>47B3098BCC7C2C61E1000000A424709</item>
  </appIds>
  <phoneCall xmlns="">
    <dialedNumber>+00413191773003</dialedNumber>
    <lineNumber>+00413191773003</lineNumber>
    <callStatus>
      <description>Alerting</description>
      <id>3</id>
    </callStatus>
    <capabilityList>
      <item>1</item>
      <item>2</item>
      <item>3</item>
      <item>6</item>
    </capabilityList>
  </phoneCall>
</phoneCallChanged>

```

```

        <item>102</item>
    </capabilityList>
    <internal>true</internal>
    <remoteNumbers>
        <item>+00413191773001</item>
    </remoteNumbers>
    <callHandle>6</callHandle>
    <trunkId xsi:nil="true"/>
    <processingStatus>
        <description>Not in process</description>
        <id>1</id>
    </processingStatus>
    <attachedData>&lt;?xml v
        12:05:40 ConnectorSAP-CTIgw1 Trace: ++continued++: ersion = "1.0"
encoding = "UTF-8"?&gt;&lt;ItemAttachedData&gt;&lt;Application id="SAP-
IC"&gt;&lt;CV01/&gt;&lt;CV02/&gt;&lt;CV03/&gt;&lt;CV04/&gt;&lt;CV05&gt;1&lt;/CV05&
&gt;&lt;CV06/&gt;&lt;CV07/&gt;&lt;CV08/&gt;&lt;CV09/&gt;&lt;CV10/&gt;&lt;/Applicati
on&gt;&lt;/ItemAttachedData&gt;</attachedData>
        <inbound>true</inbound>
    </phoneCall>
</phoneCallChanged>

```

SAP ->connector

```

<ns0:accept xmlns:ns0="urn:IciItemInterface">
    <itemId xmlns="urn:IciItemInterface">6</itemId>
    <containerId xmlns="urn:IciItemInterface">+00413191773003</containerId>
</ns0:accept>

```

connector -> SAP

```

<acceptResponse xmlns="urn:IciItemInterface">
    <response xmlns="" />
</acceptResponse>

```

8)SAP -> connector

```

<ns0:transfer xmlns:ns0="urn:IciPhoneCallInterface">
    <lineNumber xmlns="urn:IciPhoneCallInterface">+00413191773001</lineNumber>
    <connCallHandle xmlns="urn:IciPhoneCallInterface">4</connCallHandle>
    <heldCallHandle xmlns="urn:IciPhoneCallInterface">1</heldCallHandle>
</ns0:transfer>

```

connector -> SAP

```

<transferResponse xmlns="urn:IciPhoneCallInterface">
    <response xmlns="" />
</transferResponse>

```

9)connector -> SAP

```

<phoneCallChanged xmlns="urn:IciEventInterface">
    <appIds xmlns="" />

```

```

        <item>47B339A480C83283E10000000A424709</item>
    </appIds>
    <phoneCall xmlns="">
        <dialedNumber>+00413191773002</dialedNumber>
        <lineNumber>+00413191773001</lineNumber>
        <callStatus>
            <description>Ended</description>
            <id>4</id>
        </callStatus>
        <capabilityList>
            <item>5</item>
            <item>6</item>
            <item>102</item>
        </capabilityList>
        <internal>true</internal>
        <remoteNumbers>
            <item>+0</item>
        </remoteNumbers>
        <callHandle>1</callHandle>
        <trunkId xsi:nil="true"/>
        <processingStatus><description>Not in process</description>
            <id>1</id>
        </processingStatus>
        <attachedData>&lt;?xml version="1.0" encoding="utf-
8"?&gt;&lt;ItemAttachedData&gt;&lt;Application
id="CRM_IC/BUPA"&gt;&lt;CURRENTCUSTOMER/&gt;&lt;CURRENTCONTACT/&gt;&lt;CURRENTCOMP
ONENT/&gt;&lt;BPCONFIRMED/&gt;&lt;COMPCONFIRMED/&gt;&lt;/Application&gt;&lt;Applic
ation
id="CRM_IC/MCM"&gt;&lt;FWDTYPE&gt;Transfer&lt;/FWDTYPE&gt;&lt;FWDFROM&gt;173001&lt
;/FWDFROM&gt;&lt;FWDTIME&gt;16750641&lt;/FWDTIME&gt;&lt;/Application&gt;&lt;Applic
ation id="SAP-
IC"&gt;&lt;CV01/&gt;&lt;CV02/&gt;&lt;CV03/&gt;&lt;CV04/&gt;&lt;CV05&gt;3&lt;/CV05&
gt;&lt;CV06/&gt;&lt;CV07/&gt;&lt;CV08/&gt;&lt;CV09/&gt;&lt;CV10/&gt;&lt;/Applicati
on&gt;&lt;/ItemAttachedData&gt;</attachedData>
        <inbound>>false</inbound>
    </phoneCall>
</phoneCallChanged>

```

10)connector -> SAP

```

<phoneCallChanged xmlns="urn:IciEventInterface">
    <appIds xmlns="">
        <item>47B339A480C83283E10000000A424709</item>
    </appIds>
    <phoneCall xmlns="">
        <dialedNumber>+00413191773003</dialedNumber>
        <lineNumber>+00413191773001</lineNumber>
        <callStatus>
            <description>Ended</description>
            <id>4</id>
        </callStatus>

```

```

        <capabilityList>
            <item>5</item>
            <item>6</item>
            <item>102</item>
        </capabilityList>
        <internal>true</internal>
        <remoteNumbers>
            <item>+0</item>
        </remoteNumbers>
        <callHandle>4</callHandle>
        <trunkId xsi:nil="true"/>
        <processingStatus>
            <description>Not in process</description>
            <id>1</id>
        </processingStatus>
        <attachedData>&lt;?xml version="1.0" encoding="utf-
8"?&gt;&lt;ItemAttachedData&gt;&lt;Application
id="CRM_IC/BUPA"&gt;&lt;CURRENTCUSTOMER/&gt;&lt;CURRENTCONTACT/&gt;&lt;CURRENTCOMP
ONENT/&gt;&lt;BPCONFIRMED/&gt;&lt;COMPCONFIRMED/&gt;&lt;/Application&gt;&lt;Applic
ation
id="CRM_IC/MCM"&gt;&lt;FWDTYPE&gt;Transfer&lt;/FWDTYPE&gt;&lt;FWDFROM&gt;173001&lt
;/FWDFROM&gt;&lt;FWDTIME&gt;16750641&lt;/FWDTIME&gt;&lt;/Application&gt;&lt;Applic
ation id="SAP-
IC"&gt;&lt;CV01/&gt;&lt;CV02/&gt;&lt;CV03/&gt;&lt;CV04/&gt;&lt;CV05&gt;1&lt;/CV05&
gt;&lt;CV06/&gt;&lt;CV07/&gt;&lt;CV08/&gt;&lt;CV09/&gt;&lt;CV10/&gt;&lt;/Applicati
on&gt;&lt;/ItemAttachedData&gt;</attachedData>
            <inbound>>false</inbound>
        </phoneCall>
    </phoneCallChanged>

```

12)connector -> SAP

```

<phoneCallChanged xmlns="urn:IciEventInterface">
    <appIds xmlns="">
        <item>47B3098BCC7C2C61E1000000A424709</item>
    </appIds>
    <phoneCall xmlns="">
        <dialedNumber>+00413191773003</dialedNumber>
        <lineNumber>+00413191773003</lineNumber>
        <callStatus>
            <description>Connected</description>
            <id>101</id>
        </callStatus>
        <capabilityList>
            <item>3</item>
            <item>4</item>
            <item>6</item>
            <item>7</item>
            <item>8</item>
            <item>102</item>
            <item>103</item>
            <item>104</item>
        </capabilityList>
    </phoneCall>
</phoneCallChanged>

```

```

        <item>105</item>
        <item>107</item>
        <item>109</item>
        <item>110</item>
        <item>111</item>
    </capabilityList>
    <internal>true</internal>
    <remoteNumbers>
        <item>+00413191773001</item>
    </remoteNumbers><callHandle>6</callHandle>
    <trunkId xsi:nil="true"/>
    <processingStatus>
        <description>Active</description>
        <id>2</id>
    </processingStatus>
    <attachedData>&lt;?xml version="1.0" encoding="utf-
8"?&gt;&lt;ItemAttachedData&gt;&lt;Application
id="CRM_IC/BUPA"&gt;&lt;CURRENTCUSTOMER/&gt;&lt;CURRENTCONTACT/&gt;&lt;CURRENTCOMP
ONENT/&gt;&lt;BPCONFIRMED/&gt;&lt;COMPCONFIRMED/&gt;&lt;/Application&gt;&lt;Applic
ation
id="CRM_IC/MCM"&gt;&lt;FWDTYPE&gt;Transfer&lt;/FWDTYPE&gt;&lt;FWDFROM&gt;173001&lt
;/FWDFROM&gt;&lt;FWDTIME&gt;16750641&lt;/FWDTIME&gt;&lt;/Application&gt;&lt;Applic
ation id="SAP-
IC"&gt;&lt;CV01/&gt;&lt;CV02/&gt;&lt;CV03/&gt;&lt;CV04/&gt;&lt;CV05&gt;6&lt;/CV05&
gt;&lt;CV06/&gt;&lt;CV07/&gt;&lt;CV08/&gt;&lt;CV09/&gt;&lt;CV10/&gt;&lt;/Applicati
on&gt;&lt;/ItemAttachedData&gt;</attachedData>
        <inbound>true</inbound>
    </phoneCall>
</phoneCallChanged>

```

13)connector -> SAP

```

<phoneCallChanged xmlns="urn:IciEventInterface">
    <appIds xmlns="">
        <item>47B3098BCC7C2C61E10000000A424709</item>
    </appIds>
    <phoneCall xmlns="">
        <dialedNumber>+00413191773002</dialedNumber>
        <lineNumber>+00413191773003</lineNumber>
        <callStatus>
            <description>Connected</description>
            <id>101</id>
        </callStatus>
        <capabilityList>
            <item>3</item>
            <item>4</item>
            <item>6</item>
            <item>7</item>
            <item>8</item>
            <item>102</item>
            <item>103</item>
            <item>104</item>
        </capabilityList>
    </phoneCall>
</phoneCallChanged>

```

```

        <item>105</item>
        <item>107</item>
        <item>109</item>
        <item>110</item>
        <item>111</item>
    </capabilityList>
    <internal>true</internal>
    <remoteNumbers>
        <item>+00413191773001</item>
    </remoteNumbers>
    <callHandle>6</callHandle>
    <trunkId xsi:nil="true"/>
    <processingStatus>
        <description>Active</description>
        <id>2</id>
    </processingStatus>
    <attachedData>&lt;?xml version="1.0" encoding="utf-
8"?&gt;&lt;ItemAttachedData&gt;&lt;Application
id="CRM_IC/BUPA"&gt;&lt;CURRENTCUSTOMER/&gt;&lt;CURRENTCONTACT/&gt;&lt;CURRENTCOMP
ONENT/&gt;&lt;BPCONFIRMED/&gt;&lt;COMPCONFIRMED/&gt;&lt;/Application&gt;&lt;Applic
ation
id="CRM_IC/MCM"&gt;&lt;FWDTYPE&gt;Transfer&lt;/FWDTYPE&gt;&lt;FWDFROM&gt;173001&lt
;/FWDFROM&gt;&lt;FWDTIME&gt;16750641&lt;/FWDTIME&gt;&lt;/Application&gt;&lt;Applic
ation id="SAP-
IC"&gt;&lt;CV01/&gt;&lt;CV02/&gt;&lt;CV03/&gt;&lt;CV04/&gt;&lt;CV05&gt;6&lt;/CV05&
gt;&lt;CV06/&gt;&lt;CV07/&gt;&lt;CV08/&gt;&lt;CV09/&gt;&lt;CV10/&gt;&lt;/Applicati
on&gt;&lt;/ItemAttachedData&gt;</attachedData>
        <inbound>true</inbound>
    </phoneCall>
</phoneCallChanged>

```

7. REGISTRY SETTINGS

Refer to Installation and Configuration Guide for details about the registry settings.