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Interaction Concentrator Deployment Guide

[Attached Data Specification File](#)

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Attached Data Specification File

This section presents the XML schema definition for processing key-value pairs (KVPs) from the attached data that T-Server or, if applicable, Interaction Server provides with TEvents. If you require ICON to store attached data in IDB, create an attached data specification for ICON to use, based on the information in this section.

Important

If you change the XML file, you must restart ICON in order for the changes to take effect.

Schema Definition

Schema Definition

The following is the XML schema definition for your attached data specification.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsd:schema targetNamespace="http://www.genesyslab.com/standards/icon/ed1"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:icon="http://www.genesyslab.com/standards/
icon/ed1" elementFormDefault="qualified" attributeFormDefault="unqualified">
<xsd:annotation>
  <xsd:documentation>Attached data configuration specification</xsd:documentation>
</xsd:annotation>

<xsd:simpleType name="AdataHistoryType">
<xsd:restriction base="xsd:string">
  <xsd:enumeration value="none" />
<xsd:enumeration value="first" />
<xsd:enumeration value="last" />
<xsd:enumeration value="all" />
</xsd:restriction>
</xsd:simpleType>

<xsd:simpleType name="AdataCallHistoryType">
<xsd:restriction base="xsd:string">
<xsd:enumeration value="first" />
<xsd:enumeration value="last" />
</xsd:restriction>
</xsd:simpleType>

<xsd:simpleType name="AdataCallFieldType">
<xsd:restriction base="xsd:string">
  <xsd:enumeration value="customer-segment" />
<xsd:enumeration value="service-type" />
  <xsd:enumeration value="service-subtype" />
</xsd:restriction>
</xsd:simpleType>
```

```
<xsd:enumeration value="busines-result" />
<xsd:enumeration value="customer-id" />
<xsd:enumeration value="transaction-id" />
<xsd:enumeration value="cause-id" />
<xsd:enumeration value="account-id" />
<xsd:enumeration value="destination-id" />
<xsd:enumeration value="target-id" />
</xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="AdataCallCustFieldType">
<xsd:restriction base="xsd:string">
  <xsd:enumeration value="cust-data-1" />
  <xsd:enumeration value="cust-data-2" />
  <xsd:enumeration value="cust-data-3" />
  <xsd:enumeration value="cust-data-4" />
  <xsd:enumeration value="cust-data-5" />
  <xsd:enumeration value="cust-data-6" />
  <xsd:enumeration value="cust-data-7" />
  <xsd:enumeration value="cust-data-8" />
  <xsd:enumeration value="cust-data-8" />
  <xsd:enumeration value="cust-data-10" />
  <xsd:enumeration value="cust-data-11" />
  <xsd:enumeration value="cust-data-12" />
  <xsd:enumeration value="cust-data-13" />
  <xsd:enumeration value="cust-data-14" />
  <xsd:enumeration value="cust-data-15" />
  <xsd:enumeration value="cust-data-16" />
  <xsd:enumeration value="cust-data-17" />
  <xsd:enumeration value="cust-data-18" />
  <xsd:enumeration value="cust-data-19" />
</xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="AdataHistoryRecord">
  <xsd:attribute name="name" type="xsd:string" />
  <xsd:attribute name="source" type="icon:AdataSource" />
  <xsd:attribute name="history" type="icon:AdataHistoryType" />
</xsd:complexType>
<xsd:complexType name="AdataCallRecord">
  <xsd:attribute name="name" type="xsd:string" />
<xsd:attribute name="source" type="icon:AdataSource" />
  <xsd:attribute name="history" type="icon:AdataCallHistoryType" />
  <xsd:attribute name="field" type="icon:AdataCallFieldType" />
</xsd:complexType>
<xsd:complexType name="AdataCallCustRecord">
  <xsd:attribute name="name" type="xsd:string" />
  <xsd:attribute name="source" type="icon:AdataSource" />
  <xsd:attribute name="history" type="icon:AdataCallHistoryType" />
  <xsd:attribute name="field" type="icon:AdataCallCustFieldType" />
</xsd:complexType>
<xsd:element name="adata_spec">
<xsd:complexType>
<xsd:sequence>
  <xsd:element name="public" type="icon:AdataHistoryRecord" />
    <xsd:element name="secure" type="icon:AdataHistoryRecord" />
    <xsd:element name="call" type="icon:AdataCallRecord" />
    <xsd:element name="call-cust" type="icon:AdataCallCustRecord" />
    <xsd:element name="call-cust1" type="icon:AdataCallCustRecord" />
    <xsd:element name="call-cust2" type="icon:AdataCallCustRecord" />
  </xsd:sequence>
</xsd:complexType>
</xsd:element>
</xsd:schema>
```

Basic Sample

Sample Basic Attached Data Specification

The following is an example of a basic `adata_spec.xml` file for voice and multimedia interactions. A similar sample file, `ccon_adata_spec_example.xml`, is available in your ICON installation folder after you install the application.

Attached data that you specify in the `<public>` and `<secure>` storage type sections of the specification file applies to all interactions. Attached data that you specify in the `<call>` and `<call-cust>` sections applies to voice calls only.

This sample includes examples of keys in a nested key-value list (in this case, attached data from Universal Routing Server [URS]). For more information about specifying URS attached data, see Universal Routing Server Attached Data on the [Storing Attached Data](#) page.

```
<?xml version="1.0" encoding="utf-8" ?>
<adata_spec>
<public>
  <key name = "u_key1" source="userdata" history = "first"/>
  <key name="u_key2" source="userdata" history="all" />
  <key name="r_key1" source="reasons" history="last" />
  <key name="RTargetAgentSelected" source="userdata" history="first" />
  <key name="RTargetUsed/RTargetName" source="userdata" history="first" />
  <key name="RTargetUsed/RTargetType" source="userdata" history="first" />
</public>
<secure>
  <key name="RTenant" source="userdata" history="first" />
</secure>
<call>
  <key name = "customer-segment" source="userdata" history = "first" field="customer-segment"/>
  <key name = "svc_class_cd" source="userdata" history = "first" field="service-type"/>
  <key name = "CCTP_CALLTYPE" source="userdata" history = "first" field="service-subtype"/>
  <key name = "cid" source="userdata" history = "first" field="customer-id"/>
  <key name = "transact_tn_final" source="userdata" history = "first" field="transaction-id"/>
</call>
<call-cust>
  <key name = "STATE" source="userdata" history = "last" field="cust-data-1"/>
</call-cust>
<call-cust1>
  <key name = "PegTD" source="userdata" history = "last" field="cust-data-2"/>
</call-cust1>
<call-cust2>
  <key name = "vrapp_ctl_lang" source="userdata" history = "last" field="cust-data-3"/>
</call-cust2>
</adata_spec>
```

Important

ICON ignores duplicate keys. Only the first occurrence of a key name will be used to update the applicable database table.

In the following example, only the `cust_data_2` field in the `G_CALL_USERDATA_CUST` table is populated by the value corresponding to key name = `customer-segment` (if it is present in `userdata`). The field `cust_data_2` in table `G_CALL_USERDATA_CUST1` is not updated.

```
<call-cust>
<key name = "customer-segment" source="userdata" history ="first" field="cust-data-2"/>
<key name = "STATE" source="userdata" history ="last" field="cust-data-1"/>
</call-cust>

<call-cust1>
<key name = "customer-segment" source="userdata" history ="first" field="cust-data-1"/>
<key name = "PegTD" source="userdata" history ="last" field="cust-data-2"/>
</call-cust1>
```

Multimedia Sample

Sample Specification for Multimedia Attached Data

The following is an example of an `adata_spec.xml` file that has been modified to capture multimedia-specific attached data. A similar sample file, `ccon_adata_spec_mcr_example.xml`, is available in your ICON installation folder after you install the application.

With this attached data specification, values for the following predefined and customer-defined keys and attributes are stored in IDB in the `GM_F_USERDATA` or the `GM_L_USERDATA` table.

The `GM_F_USERDATA` table

The following user data key names and event attributes are always stored, whether or not they are defined explicitly in the XML file.

```
<mcr-f>
<key name = "FromPersonal" source="userdata" history ="first" field="mcr-from-name"/>
<key name = "FromAddress" source="userdata" history ="first" field="mcr-from-address"/>
<key name = "Subject" source="userdata" history ="first" field="mcr-subject"/>
<key name = "Origination_Source" source="userdata" history ="first" field="mcr-origin-
source"/>
<key name = "attr_itx_subtype" source="userdata" history="first" field="mcr-sub-type"/>
<key name = "attr_itx_received_at" source="userdata" history="first" field="mcr-received-
at"/>
</ mcr-f>
```

You can use the XML to define four additional keys that will be stored in the `GM_F_USERDATA` table. For example, you might define keys similar to the following ones:

```
<key name = "Custom Key Name - 1" source="userdata" history ="first" field="mcr-reserved-1"/>
<key name = "Custom Key Name - 4" source="userdata" history ="first" field="mcr-reserved-4"/>
```

The `GM_L_USERDATA` table

The following user data key names are always stored, whether or not they are defined explicitly in the

XML file.

```
<key name = "SuggestedResponseID"          source="userdata"  history ="last" field="mcr-
suggested-response"/>
<key name = "AutoResponseID"                source="userdata"  history ="last" field="mcr-
auto-response"/>
<key name = "AutoACKID"                     source="userdata"  history ="last" field="mcr-auto-
ack"/>
<key name = "Stop_Reason"                   source="userdata"  history ="last" field="mcr-stop-
reason"/>
<key name = "ContactID"                     source="userdata"  history ="last" field="mcr-ucs-
contact-id"/>
```

Predefined event attribute: attr_reason_system_name

Customer-defined keys: SuggestedResponseID, AutoResponseID, AutoACKID

For information about the IDB fields in which the values will be stored, see [IDB Fields](#).

Sample adata_spec.xml File

In the GM_F_USERDATA section of the sample adata_spec.xml file that follows, the FromPersonal, Subject, and Origination_Source key names are defined, though they would appear in the table in any case. The CalledBack key name is user-defined and would not appear without the explicit definition. The event attributes are also pre-defined. In the GM_L_USERDATA table section, all of the key names are ones that are also predefined.

```
<?xml version="1.0" encoding="utf-8" ?>
<adata_spec>
<mcr-f>

<key name = "FromPersonal" source="userdata"  history ="first" field="mcr-from-name"/>
<key name = "FromAddress" source="userdata"  history ="first" field="mcr-from-address"/>
<key name = "Subject" source="userdata"  history ="first" field="mcr-subject"/>
<key name = "Origination_Source" source="userdata"  history ="first" field="mcr-origin-
source"/>
<key name = "attr_itx_subtype" source="userdata" history="first" field="mcr-sub-type"/>
<key name = "attr_itx_received_at" source="userdata" history="first" field="mcr-received-
at"/>
</ mcr-f>
<mcr-l>

<key name = "SuggestedResponseID" source="userdata" history ="last" field=" mcr-suggested-
response "/>
<key name = "AutoResponseID" source="userdata" history ="last" field=" mcr-auto-response "/>
<key name = "AutoAckID" source="userdata" history ="last" field=" mcr-auto-ack "/>
<key name = " Stop_Reason " source="userdata" history ="last" field=" mcr-stop-reason "/>
<key name = "ContactID" source="userdata" history ="last" field=" mcr-ucs-contact-id "/>
</ mcr-l>
</adata_spec>
```

Custom Sample

Sample Specification for Customized Attached Data

The following is an example of an `adata_spec.xml` file that has been modified for customized attached data processing.

You must create a custom dispatcher stored procedure to process the custom attached data. For an example of the script to create a custom dispatcher stored procedure, see [Sample Script for Custom Attached Data](#).

```
<?xml version="1.0" encoding="utf-8" ?>
<adata_spec>
  <cust-disp-group-1>
    <key name = "name1_1" source="userdata" history ="first" field="cust-
int-1"></key>
  <key name = "name2_1" source="userdata" history ="last" field="cust-int-2"></key>
  ...
  <key name = "name17_1" source="userdata" history ="last" field="cust-int-17"></key>
  <key name = "name18_1" source="userdata" history ="last" field="cust-str-1"></key>
  <key name = "name19_1" source="userdata" history ="last" field="cust-str-2"></key>
  ...
  <key name = "name34_1" source="userdata" history ="last" field="cust-str-17"></key>
  </cust-disp-group-1>
  <cust-disp-group-2>
    <key name = "name1_2" source="userdata" history ="first" field="cust-
int-1"></key>
  <key name = "name2_2" source="userdata" history ="last" field="cust-int-2"></key>
  ...
  <key name = "name17_2" source="userdata" history ="last" field="cust-int-17"></key>
  <key name = "name18_2" source="userdata" history ="last" field="cust-str-1"></key>
  <key name = "name19_2" source="userdata" history ="last" field="cust-str-2"></key>
  ...
  <key name = "name34_2" source="userdata" history ="last" field="cust-str-17"></key>
  </cust-disp-group-2>
  ...
  <cust-disp-group-16>
    <key name = "name1_3" source="userdata" history ="first" field="cust-
int-1"></key>
  <key name = "name2_3" source="userdata" history ="last" field="cust-int-2"></key>
  ...
  <key name = "name17_3" source="userdata" history ="last" field="cust-int-17"></key>
  <key name = "name18_3" source="userdata" history ="last" field="cust-str-1"></key>
  <key name = "name19_3" source="userdata" history ="last" field="cust-str-2"></key>
  ...
  <key name = "name34_3" source="userdata" history ="last" field="cust-str-17"></key>
  </cust-disp-group-16>
</adata_spec>
```