IBM Cúram Social Program Management

IBM

Case Participant Index Developer Guide

Version 6.0.5

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Chapter 1. Introduction

1.1 Purpose

The purpose of this guide is to provide instructions on how to utilize the Case Participant Index Component (CPI). It describes the entry points for both implementation and customization of the CPI and includes descriptions on using the CPI APIs and customizing the CPI data.

1.2 Audience

This guide is intended for developers and analysts responsible for customizing the Case Participant Index component to suit the business needs of an organization.

1.3 Chapters in this Guide

The following list describes the chapters within this guide:

Chapter 2 Using the Case Participant Index APIs
> This chapter describes the Case Participant Index APIs and provides instructions on how to use them.

Chapter 3 Customizing CPI Data
> This chapter provides instructions on how to customize CPI data.

Appendix A Sample CPIData
> This appendix provides sample CPIData.

Chapter 2. Using the Case Participant Index APIs

2.1 Introduction

The Case Participant Index (CPI) supports central access to client information from multiple Systems of Reference (SOR). This chapter describes the CPI architecture and provides instructions on how to use the Case Participant Index APIs to store, and view client data.

2.2 Case Participant Index Architecture

There are a number of components that play a role in storing CPI client data and making the client data viewable in components external to CPI. These are detailed in the following sections.

There are two options for loading client data in the CPI repository. Either a batch job can parse the client data into the CPILoader via an interface or web services can deliver the data to CPI. Once the client data is loaded and stored in CPI, it can be accessed and viewed via the Social Enterprise Folder delivered by Social Enterprise Collaboration.

2.2.1 ClientAccessV1

The ClientAccessV1 interface is integrated with the Social Enterprise Collaboration component. This allows for client data to be viewed in social enterprise folders and in the citizen context viewer.

2.2.2 CPIDataV1

This is the container API that deals directly with the CPI repository. You can insert, read, and search data from CPI via this API.

2.2.3 CPIWebService

This is the interface that allows access to via web service to the CPI. You can insert, read and search.

2.2.4 CPILoader

This is the interface that loads data into the CPI via batch.

2.2.5 Storing Case Participant Index Data

The Cúram Case Participant Index provides two interfaces for storing client data: the CPILoader and the CPIWebService. The CPILoader is designed to handle a bulk load of data, such as when a new CPI Data Store is initially populated. The CPIWebService interface has been engineered to allow an SOR to perform maintenance like updates, inserts and deletes in real time.

Important: For both interfaces, it is important to note that the unique keys returned for each entry must be mapped back to the SOR (and/or web service unique key mapping support tools) to ensure that the data can be properly maintained.

2.2.5.1 Storing CPI Data Via the CPILoader

The CPILoader interface is provided with CPI and can be used to store CPI data. It is a standard batch process as described in the `Cúram Batch Processing Guide`.

The CPILoader structure requires two parameters to be specified: a log filename and a load filename. The log filename will designate where the log output of the CPILoader run is placed. The load filename must point to an XML file based on the *CPIBatchLoader.xsd* XML schema. This schema essentially extends the schema used for performing web service calls to the CPIWebService. This allows for the reuse of code on the SOR when generating the CPI Batch Load input file.

The CPILoader was written to leverage the same Applications Programming Interface (API) as is used by the CPIWebService. The Batch Loader consists of a Java class, called CPILoader, which publishes a batch method called *loadData()*. CPILoader acts as a wrapper for the same Java code that is used by the CPIWebService. Using this approach ensures that data manipulation operations are performed the same way by the Batch Loader as they will be by the Web Service.

CPILoader Structure

The CPILoader XML "input file" must contain a single, root element of type *CPIBatchLoad*. The *CPIBatchLoad* element can, in turn, contain one or more *CPILoadRecord* elements. Each *CPILoadRecord* consists of a single identifier element (which provides the unique ID and source system identifier for the record being inserted), as well as an *insertAttributes* element (which will provide the details of the information to be inserted). The *insertAttributes* element is a complex XML type, and may contain child elements of type Person, Case, Relationship or CaseMember, for example. The *insertAttributes* XML type is defined within the *CPIData.xsd* XML Schema File.

Running the CPILoader

The recommended approach for running the CPILoader is to invoke it from the command line of a machine that has had the application installed and setup on it. This is accomplished by running the build runbatch Ant target, and providing the command line parameters previously described. From a command prompt in the EJBServer directory of the installation, perform the following (typing the entire command on a single line):

C:\\EJBServer> build runbatch-Dbatch.program=curam.cpi.external.batch.intf.CPILoader.loadData-Dbatch.parameters="loadFilename=<load-file-location>,logFilename=<log-file-location>"

There are some key points to note when typing this command:
- <load-file-location> - replace this symbol in the text above with the actual path and file name of the.xml file you with to load. Include the.xml extension. This is a required parameter.
- <log-file-location> - replace this symbol in the text above with the actual path and file name where you want the CPI Batch Loader to generate the log file for this run. Note that the log file will be overwritten, if it exists. This is also a required parameter.
- You must include the double quotes around the value of the –Dbatch.parameters property, exactly as you see it in the example text above. Do not include any white space within the double quotes. Once this command has been issued, the results of the run can be seen in the log file output in the log file name you specified.

2.2.5.2 Storing CPI Data Via the CPIWebService
The CPIWebservice interace is provided with CPI and can be used to store CPI data. The CPI developer must write a client webservice and call the `CPIWebservice.insert` method. This method parses the CPI data using the CPIWebservice schema. It is necessary for the CPI developer to adhere to the schema in the development directory, e.g., EJBServer\Components\CaseParticipantIndex\webservices.

2.2.6 Viewing and Using Case Participant Index Data
The ClientAccessV1 interface provides access to the client data stored in the Case Participant Index. More specifically, it allows this data to be viewed and used in the Social Enterprise Collaboration (SEC) components. Viewing CPI data outside of Social Enterprise Collaboration is not currently supported.

2.2.7 Data in Social Enterprise Folders
Participants and their cases from CPI data can be added to a Social Enterprise Folder (SEF) as clients and cases in order to aid Social Enterprise Collaboration. For more information on social enterprise folders, see the `Cúram Social Enterprise Collaboration` business guide.

2.2.8 Data in Citizen Context Viewer

CPI Data can be viewed in the Family and Care and Protection components of the Citizen Context Viewer (CCV). This includes information about persons, their families, and their cases. For more information on the CCV, see the Cúram Citizen Context Viewer Guide.

2.2.9 Person Search and View Person Pages

CPI Clients can be searched for via the Person Search page in the Social Enterprise Collaboration component where the component is operating with the *curam.clientaccess.external.enabled* property set to 'YES'.

2.2.10 View Case Page

A default View Case page is provided which enables cases stored in the Case Participant Index to be viewed in the Social Enterprise Collaboration components. To access these cases, the *curam.clientaccess.external.enabled* property must be set to 'YES'.

Chapter 3. Customizing CPI Data

3.1 Introduction

This chapter provides instructions on how to enable and disable CPI data and describes how to add additional data to the CPI data repository. CPISchema prerequisites must be met before customizing CPI data.

3.2 Enabling and Disabling CPI Data

The Case Participant Index (CPI) component can be at it most rudimentary level be turned 'off' or 'on' when installed with the Social Enterprise Collaboration (SEC) component via the *curam.clientaccess.external.enabled* property. This is not a dynamic property; you cannot switch back and forth during application runtime.

3.3 CPISchema Prerequisites

It is important to note before any customizations are made that while the CPISchema is flexible there are a number of data dependencies if using CPI with SEC. An example of the expected data for CPI is shown below in the appendix. Here is a run down of the required elements. Not supplying these elements and fields listed will destabilise the SEC component to a point where it is not supportable when the *curam.clientaccess.external.enabled* property is set to 'YES'.

Person needs:
- globalPersonID
- firstName
- middleName
- lastName
- phoneNumber
- ssn
- sensitivity
- emailAddress
- dateOfBirth
- gender

Relationship needs:
- globalFamilyMemberID
- relationshipType
- firstName
- middleName
- lastName
- startDate
- endDate

Case needs:
- globalCaseID
- caseType
- name

- startDate
- endDate
- memberType
- caseStatus
- caseReference
- sensitivity

3.4 Adding Additional Data

About this task

Here are the steps to add additional data to CPIData.

Procedure

1. Add an entry in the CPI xml data of type 'AdditionalData'. Here is an example of how some additional data is stored on CPIData:

```
<value><![CDATA[<AdditionalData
    type='AdditionalData' label='Communications'>
        <node attr='Email Sent' value='Date : 20/01/2007'/>
        <node attr='Letter Sent' value='Date : 19/01/2007'/>
        <node attr='Letter Sent' value='Date : 14/01/2007'/>
    </AdditionalData>
    <AdditionalData
    type='AdditionalData' label='Employment'>
        <node attr='Civil Service'
        value='Start Date : 10/01/2000'/>
        <node attr='Curam' value='Start Date : 10/01/2001'/>
        <node attr='Accenture' value='Start Date : 10/01/2002'/>
        <node attr='Cybertrust'
        value='Start Date : 10/01/2002'/>
        <node attr='Deloitte' value='Start Date : 10/01/2002'/>
    </AdditionalData>
    <AdditionalData type='AdditionalData'
    label='Education Facilities Attended'>
        <node attr='Primary School' value='Saint Johns'/>
        <node attr='Secondary School' value='Hartstown CBS'/>
        <node attr='University'
        value='Dublin City University'/>
    </AdditionalData>
    <AdditionalData type='AdditionalData'
    label='Qualifications'>
        <node attr='Bachelor of Science Computer Applications'
        value='Undergraduate Degree'/>
        <node attr='Diploma Archaeology'
        value='Postgraduate Diploma'/>
        <node attr='Master of Science' value='Masters Degree'/>
    </AdditionalData>
    <AdditionalData type='AdditionalData'
    label='Alternate Names'>
        <node attr='Also Known As' value='Bob Muprhy'/>
        <node attr='Also Known As' value='Bobby Muprhy'/>
    </AdditionalData>
    <AdditionalData type='AdditionalData'
    label='Bank Accounts'>
        <node attr='Bank of Ireland' value='555-1111'/>
        <node attr='Ulster Bank' value='555-1112'/>
        <node attr='AIB' value='555-1113'/>
        <node attr='NIB' value='555-1114'/>
    </AdditionalData>
```

2. It is recommended that you add entries to the *BPOClientAccessAdditionalFields.xml* file located at <your-dev-directory>EJBServer\components\CaseParticipantIndex\message. By accessing these CPIData fields via the codetable descriptions in java, it will ensure that future DatastoreEntry attribute name changes won't break your java code.

3. Data gets loaded onto the DatastoreEntity table via the CPIWebservice or the CPILoader batch job. See *Chapter 2 Using Case Participant Index APIs* for more information.

4. To allow Social Enterprise Collaboration to read new CPI data, the ConcernRole table (and its related tables) should be updated to include any new CPI records that are added via the CPILoader or the CPIWebservice.

Appendix A. SampleCPIData

A.1 Sample CPI Data

The following is a sample dmx file for Data Store Entity.

```xml
<table name="DATASTOREENTITY">

  <column name="entityID" type="id"/>
  <column name="isoverflowind" type="bool"/>
  <column name="entityvalue" type="text"/>
  <column name="versionNo" type="number"/>
  <column name="entitytype" type="text"/>

  <row>
<attribute name="entityID">
  <value>1101</value>
</attribute>
<attribute name="isoverflowind">
  <value>0</value>
</attribute>

<attribute name="entityvalue">
  <value><![CDATA[<Person type='Person'>
  <globalPersonID>1101</globalPersonID>
  <node attr='firstName' value='Jimmy'/>
  <node attr='middleName' value='Paddy'/>
  <node attr='lastName' value='Murphy'/>
  <node attr='address'
  value='12 The Oaks SmithsVille, Rathfarnham'/>
  <node attr='phoneNumber' value='35387563'/>
  <node attr='ssn' value='24512442P'/>
  <node attr='sensitivity' value='0'/>
  <node attr='emailAddress' value='eMurphy@curamsoftware.com'/>
  <node attr='dateOfBirth' value='19640926'/>
  <node attr='gender' value='SX1'/>
      <Relationship type='FamilyMember'>
        <globalFamilyMemberID>1102</globalFamilyMemberID>
        <node attr='relationshipType' value='RT6'/>
        <node attr='firstName' value='Sarah'/>
        <node attr='middleName' value='Jane'/>
        <node attr='lastName' value='Murphy'/>
        <node attr='startDate' value='19870926'/>
        <node attr='endDate' value='00000000'/>
      </Relationship>
      <Case >
        <globalCaseID>21101</globalCaseID>
        <node attr='caseType' value='External Integrated'/>
        <node attr='name' value='External Sporting Grant'/>
        <node attr='startDate' value='01/01/2001'/>
        <node attr='endDate' value='01/01/2007'/>
        <node attr='memberType' value='PrimaryMember'/>
        <node attr='caseStatus' value='OPEN'/>
        <node attr='caseReference' value='23421'/>
        <node attr='sensitivity' value='0'/>
      </Case>

  </Person>]]></value>
      </attribute>
      <attribute name="overflowInd">
          <value>0</value>
      </attribute>
  </row>
```

```
  <attribute name="versionNo">
    <value>1</value>
  </attribute>

  <attribute name="entitytype">
    <value>Application</value>
  </attribute>

</table>
```

Appendix B. Compliancy

B.1 Introduction

This appendix explains how to develop in a compliant manner. By following these considerations, customers will also find it easier to upgrade to future versions.

B.2 Public API

The Case Participant Index has a public API which you may use in your application code. This public API will not have any components changed or removed without following standards for handling customer impact.

B.3 Identifying the API

The JavaDoc shipped is the sole means of identifying which public classes, interfaces and methods form the public API.

B.4 Outside the API

The Case Participant Index also contains some public classes, interfaces and methods, which do not form part of the API.

Important: To be compliant, dependencies on any class or interface should not be made. No methods should be called other than those described in the JavaDoc.

Classes, interfaces and methods outside of the public API are subject to change or removal without notice. Unless otherwise stated in the JavaDoc, you must not place any of your own classes or interfaces in the same package as that of the Case Participant Index.

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