DIMETRA APPLICATION PROGRAMMING INTERFACE (API) TRAINING

Dimetra Control Interface

UCS

Course Structure

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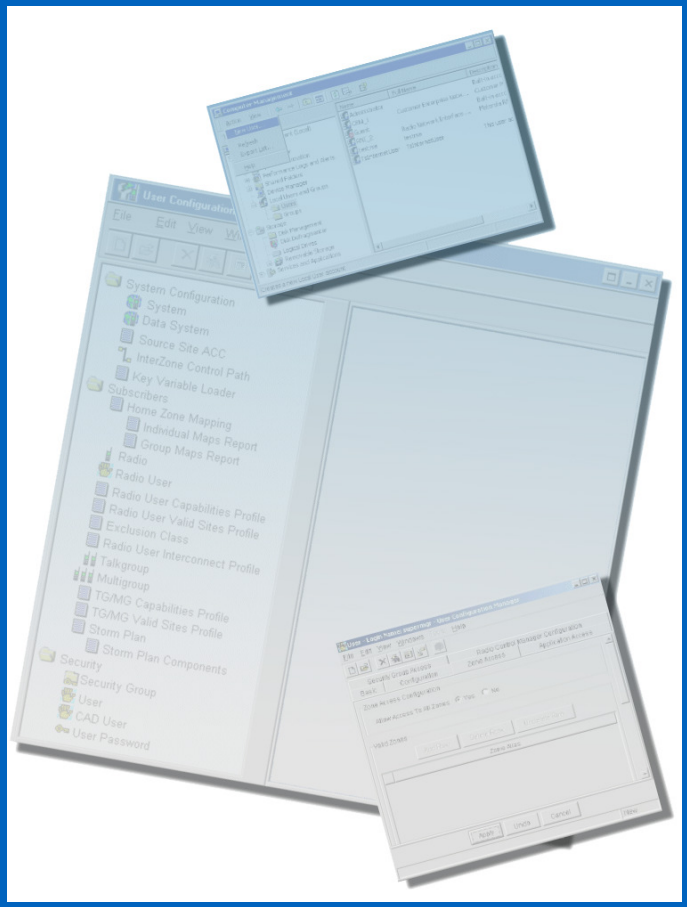
Module 2 – UCS API Overview

Module 3 – UCS API Operation

Module 4 – Course Summary



UCS API Overview

UCS stands for User Configuration Subsystem

The UCS API provides single-point programmatic access to provisioning data in a cluster

Allows integration of third party provisioning application and infrastructure management with Dimetra

UCS API in Dimetra 6.2

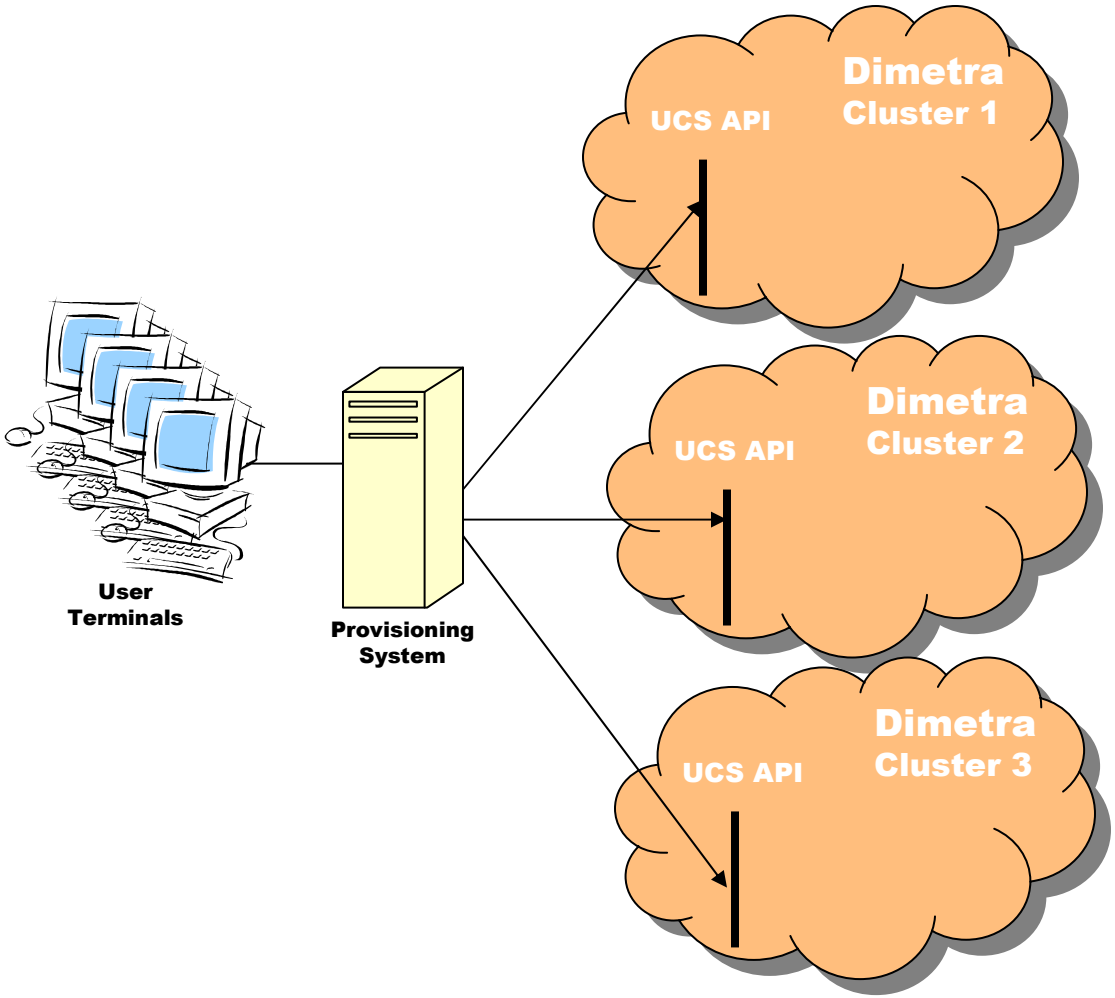
UCS API controls access to the configuration of the licensed objects and attributes using license key read from UCS

- Licensed object needs to be purchased to modify licensed object or the attributes
  - Eg. RUA / RUI Aliasing, Radio Control Manager Capability
- Read only operations are not affected

New DTD and IDL updates is available

It is backward compatible

UCS API for Provisioning



- UCS API supports applications that span to all clusters in the nationwide system
- 3rd party application add considerable value to the solution

UCS API Capabilities

It allows a provisioning or fleet-mapping system to be interfaced to Dimetra for provisioning of

- Some Infrastructure data
- Subscriber data (Radios, Radio Users and Talkgroups)

Insert, list, read, change and delete properties of subscribers and infrastructure data

UCS API Limitations

Only one UCS API client and one session can exist at a time per cluster

- There will be an exception message returned
- Timeout is imposed to force a logoff to a client after certain period in idle state

In a multi-cluster system, each UCS will provide an UCS API with access to the UCS data in the cluster

UCS API Supported Data

User or subscriber data

- Radio
- Radio User
- Radio User Capability Profile
- Radio User Interconnect Profile
- Talkgroup
- Multigroup
- Talkgroup / Multigroup Capability Profile

Note: Console object not supported

UCS API Supported Data (cont)

Infrastructure data

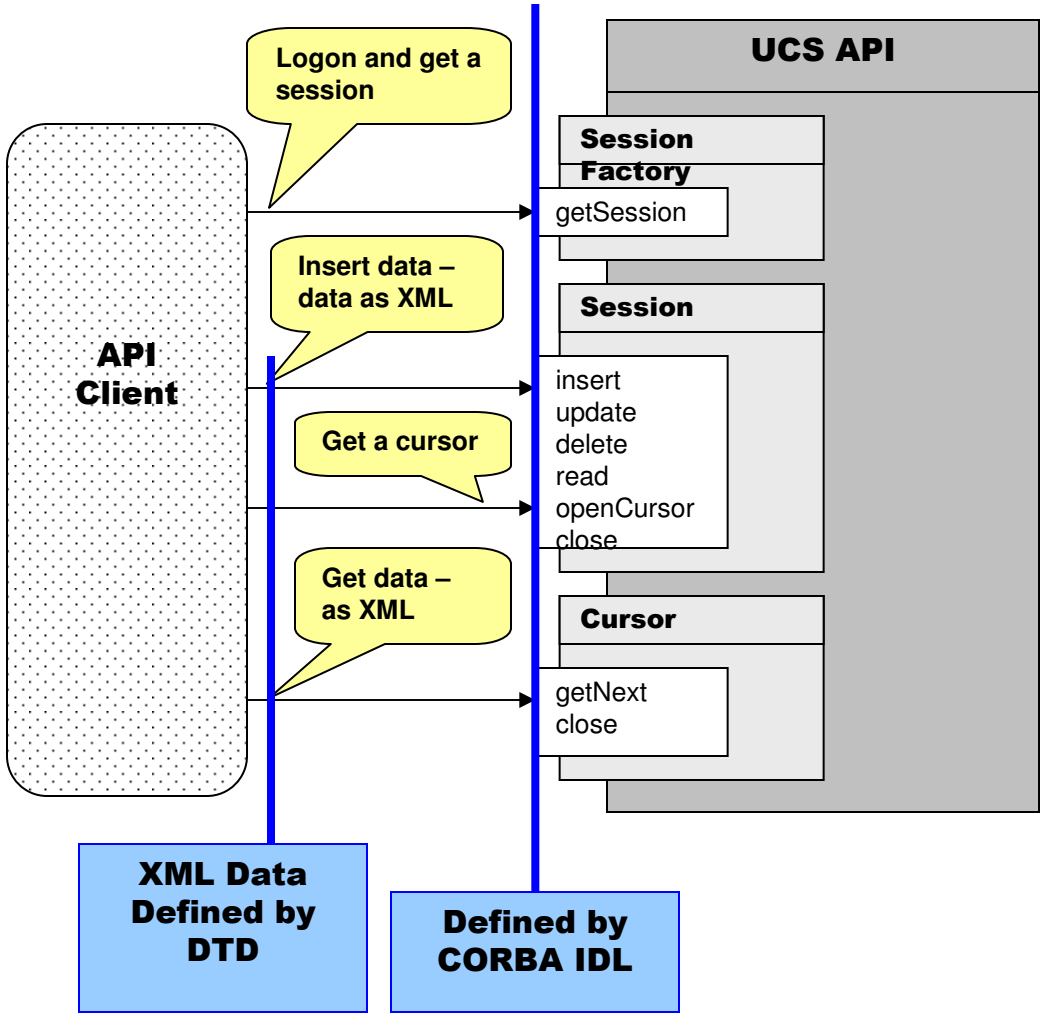
- EBTS Site
- RF Site
- External EBTS Site
- External RF Site
- Call Routes
- External Call Routes
- Home Zone Mapping
- StatusSet
- User Group

Note: List operation is
not supported for External EBTSSite

UCS API Structure

- UCS Interface implemented as CORBA server on the UCS
- Single object provides method to validate API user and session object is returned with all needed methods to manipulate data
- Interface to UCS API is defined by CORBA IDL
- Object data is transferred between the server and client in XML data format
- CORBA Interface Definition Language (IDL) and XML Document Type Definition (DTD) available as source file

UCS API Structure



- The UCS API is defined by:
  - The CORBA Interface Defination Language (IDL)
  - The XML Document Type Defination (DTD)
- The CORBA IDL defines the objects and methods (function calls) available
- The XML DTD describes the structure and contents of the provisioning data
- Clients may run anywhere on the network
- Clients may be developed in any programming language supporting CORBA

UCS API Implementation

Corba supported version: 2.3 and IIOP version 1.1 or 1.2

XML version : 1.0

UCS API uses JacORB CORBA Naming Service (java based)

References: http://www.jacorb.org/

CORBA

Common Object Request Broker Architecture

Open standard produced by the Object Management Group (OMG)

Infrastructure for applications to interoperate over networks

IDL is used to describe object interfaces

ERROR: undefined
OFFENDING COMMAND: ¯— ˘

STACK: