



APPENDIX **B**

Troubleshooting

This appendix provides troubleshooting information.

FAQs

When I submit a large number of NBI requests rapidly to the server, after a while, I start seeing throttling exceptions and my requests are rejected by the server. Why is this?

The Provisioning Manager Server only allows 20 requests to execute at one time. There is no queuing on the server; requests exceeding the limit are rejected with a throttling exception.

When I use the NBI syncDomain request, I receive a notification with a fault that no Domain synchronization rules are configured. What do I have to do?

Before you can synchronize a Domain, you must set the Domain synchronization rules. There is no NBI request for setting the Domain synchronization rules; you must do so through the Provisioning Manager user interface.

To set up the Domain synchronization rules:

Step 1 In the Provisioning Manager user interface, select **Advanced Setup > Policies > Rules**.

Step 2 Select a Domain.

Step 3 Click **Configure Domain Sync Rules**.

Step 4 Select the synchronization rules that you want to be applied to the Domain.

On the Rules page, if you select Customer Domain Template and Configure the Domain Sync Rules, when a Domain is created, the rules will be copied to the Domain.

When I try to delete a device, Domain, or Service Area, I get an exception thrown that I need to be in maintenance mode. What do I have to do?

Before you can delete a device, Domain, or Service Area, you must change Provisioning Manager to maintenance mode. There is no NBI request for changing the operational mode; you must do so through the Provisioning Manager user interface.

To put Provisioning Manager into maintenance mode:

Step 1 In the Provisioning Manager user interface, select **System Administration > Maintenance Mode**.

Step 2 Select **Enter Maintenance Mode**.

When I send a submitOrder request to the server, I get the exception that I am in maintenance mode. What do I have to do?

Infrastructure configuration orders and subscriber orders can be submitted only in normal mode (not maintenance mode).

To put Provisioning Manager into normal mode:

Step 1 In the Provisioning Manager user interface, select **System Administration > Maintenance Mode**.

Step 2 Select **Exit Maintenance Mode**.

I cannot use Provisioning Manager to disable certain infrastructure products on Cisco Unified Communications Manager. What is preventing me?

Some values in Cisco Unified Communications Manager, once selected and set to true in Provisioning Manager, cannot be changed to false. This applies to values that are displayed as check boxes in Cisco Unified Communications Manager.

Following are some examples:

- In Voice Mail Profile, the attribute IC_isDefault corresponds to the check box *Make this the default Voice Mail Profile for the System*. The attribute IC_isDefault cannot be changed from true to false.
- In Voice Mail Pilot, the attribute IC_isDefault cannot be changed from true to false.
- In H323 Gateway, the attribute IC_mtpRequired cannot be changed from true to false

I want to remove one subscriber role from a Service Area without deleting and creating an object. How do I do that?

The metadata action property allows you to remove one setting from a property that takes multiple values.

For the NBI request updateServiceArea request, specify the following for the metadata value:

- The attribute name you want to update.
- The attribute value you want to remove.
- The property action setting of REMOVE.

I have created multiple phones and multiple lines in one order. When I send the request with submitOrder, how can I associate the lines to the appropriate phones?

Orders have sequence numbers for each detail. When adding a service based on a service previously added in the order, set the assocSequence value to the sequence number to make the association.

After synchronizing a device, I am not seeing all the directory numbers that are available on the Cisco Unified Communications Manager in Provisioning Manager. Why is that?

If a directory number on Cisco Unified Communications Manager has not been assigned to a subscriber in Cisco Unified Communications Manager, it will not be uploaded to Provisioning Manager during the syncDevice request.

I sent a list request with a filter for multiple attribute values using the logical OR. My resulting list only uses the first attribute value I specified.

The attribute value type in the filter is an array. However, the array is designed to store multiple values for one attribute setting and not designed to store all the attribute values that you wish to apply to the logical OR in the query. Each value for the OR must be specified as a unique attribute name/value pair.

For example, consider the filter to return all devices that have a capability of either Cisco Unity or Cisco Unity Connection.

The following is incorrect:

```
<filter>
  <cmn:objectSelectionCriteria>
    <cmn:selectionCriteria>
      <cmn:item>
        <cmn:attributeName>capabilityName</cmn:attributeName>
        <cmn:attributeValue>
          <co-v1-3:item>CiscoUnity</co-v1-3:item>
          <co-v1-3:item>CiscoUnityConnection</co-v1-3:item>
        </cmn:attributeValue>
      </cmn:item>
    </cmn:selectionCriteria>
    <cmn:flag>OR</cmn:flag>
  </cmn:objectSelectionCriteria>
  <cmn:returnDataCriteria>
    <cmn:returnDataType>ALL</cmn:returnDataType>
  </cmn:returnDataCriteria>
  <cmn:associatedObjectSelectionCriteria/>
</filter>
```

The following is correct:

```
<filter>
  <cmn:objectSelectionCriteria>
    <cmn:selectionCriteria>
      <cmn:item>
        <cmn:attributeName>capabilityName</cmn:attributeName>
        <cmn:attributeValue>
          <co-v1-3:item>CiscoUnity</co-v1-3:item>
        </cmn:attributeValue>
      </cmn:item>
      <cmn:item>
        <cmn:attributeName>capabilityName</cmn:attributeName>
        <cmn:attributeValue>
          <co-v1-3:item>CiscoUnityConnection</co-v1-3:item>
        </cmn:attributeValue>
      </cmn:item>
    </cmn:selectionCriteria>
    <cmn:flag>OR</cmn:flag>
  </cmn:objectSelectionCriteria>
```

```

    <cmn:returnDataCriteria>
      <cmn:returnDataType>ALL</cmn:returnDataType>
    </cmn:returnDataCriteria>
    <cmn:associatedObjectSelectionCriteria/>
  </filter>

```

When I send a get request or a getOrderSummary request, or any request that returns data back in a notification that is contained in a cupmApiList, how do I extract the individual objects from the list?

There are several ways to do this in Axis2-supported Java. See the following Java code snippets for examples.

```

// get the arrayOfObject object out of the list
org.ossj.xml.common.v1_3.ArrayOfObject arrayOfObject = cupmApiList.getDataObject();

// process each object in the list int sizeArray = arrayOfObject.sizeOfItemArray();
for ( int ix = 0 ; ix < sizeArray ; ix++ ) { XmlObject xmlObject =
arrayOfObject.getItemArray(ix); processObject(xmlObject); }

void processObject(XmlObject xmlObject) {
// For each object in the list, the class, a typed object, and/or the
// node name can be used to determine and cast the object on the list.
//
// Some objects can be done multiple ways, others, sent back as
// documents, must use the typed object OMElement element = new

StAXOMBuilder(xmlObject.newXMLStreamReader()).getDocumentElement();
XmlOptions options = new XmlOptions();
options.setLoadReplaceDocumentElement(element.getQName());
typedXmlObject = XmlObject.Factory.parse(xmlObject.newInputStream(), options);
String nodeNameKey = getTypeFromListItem(xmlObject);
// nonimpl way to identify node Class xmlClass = xmlObject.getClass();
if ( xmlClass.equals(com.cisco.cucms.cupm.nbi.v1.impl.CupmApiResponseValueImpl.class) ) {

// if list contains a apiResult, you may use the result in its value state,
// or you can create a document class and work with the result for more functionality
CupmApiResponseValue cupmApiResponse = (CupmApiResponseValue)
xmlObject; CupmApiResponseDocument cupmApiResponseDocument =
CupmApiResponseDocument.Factory.newInstance();
cupmApiResponseDocument.setCupmApiResponse(cupmApiResponse); } else if (
xmlClass.equals(com.cisco.cucms.cupm.nbi.v1.impl.DeviceValueImpl.class) ) {

// if list contains a device, you may use the device in its value state,
// or you can create a document class and work with the device for more functionality
DeviceValue device = (DeviceValue)xmlObject; DeviceDocument deviceDocument =
DeviceDocument.Factory.newInstance(); deviceDocument.setDevice(device);
// This also applies to domain, serviceArea, Subscriber, Order, InventoryItem, Product,
// ServiceDetail, PhoneInfo, String, CupmApiFaultType, CupmApiList } else if (
nodeNameKey.equalsIgnoreCase("EnumerationContextType") ) {
// For Enumeration Object, better to use node name instead of support class so client
// is not limited to the Axis2 implementation of Enumeration EnumerationContextType
enumerationContext = (EnumerationContextType)xmlObject; EnumerationContextDocument
enumerationContextDocument = EnumerationContextDocument.Factory.newInstance();
enumerationContextDocument.setEnumerationContext(enumerationContext); } else if (
typedXmlObject instanceof OrderSummaryDocument ) {
// OrderSummary comes back as a document so must use the typedXmlObject for casting
OrderSummaryDocument orderSummaryDocument = (OrderSummaryDocument)typedXmlObject; if ( ps
!= null ) ps.println(orderSummaryDocument.toString()); } else if ( typedXmlObject
instanceof com.cisco.cucms.cupm.nbi.v1.KeywordListDocument ) {
// KeywordList comes back as a document so must use the typedXmlObject for casting
com.cisco.cucms.cupm.nbi.v1.KeywordListDocument keywordListDocument =
(com.cisco.cucms.cupm.nbi.v1.KeywordListDocument)typedXmlObject; if ( ps != null )
ps.println(keywordListDocument.toString()); } else { System.out.println("WARNING - unknown
class = " + xmlClassName + " node name = " + nodeNameKey ); } }

```

When I run getOrder or listOrder with a return attribute of all, some of the settings do not match the attribute values that were passed in the initial submitOrder request.

When the order is retrieved from the Provisioning Manager database, some settings (in particular, boolean settings) have their internal attribute values returned.

When I create a createServiceArea request or a submitOrder request, an attribute that looks correct to me is rejected. Why is that?

Attribute names are case sensitive. Make sure that your name exactly matches the XSD string. Also, double check the to make sure that the attribute definition is in the right object. For example, device and device capability are different levels in the createDevice request.

When I create a createServiceArea request with VoiceGatewayReference, the request is rejected with a message stating, "Invalid VoiceGatewayReferenceName," but the specified VoiceGatewayReference exists in CUPM. Why is that?

VoiceGatewayReferenceName will be considered as valid only if the Slot and Subunit properties are configured for the VoiceGatewayReference. Ensure that the VoiceGatewayReference name you are specifying in the request has a slot and subunit configured.

