Configuring the XML API

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This chapter describes the eXtensible Markup Language (XML) Application Programming Interface (API) support available in Cisco Unified Communications Manager Express (Cisco Unified CME).

Finding Feature Information in This Module

Your Cisco Unified CME version may not support all of the features documented in this module. For a list of the versions in which each feature is supported, see the "Feature Information for XML API" section on page 1663.

Contents

Information About XML API

To enable XML API, you should understand the following concepts:

XML API Definition

An XML API provides an interface to Cisco Unified CME that allows an external network management system (NMS) to configure and monitor Cisco Unified CME operations.

XML API Provision Using IXI

In previous versions of Cisco Unified CME, the XML interface provided configuration and monitoring functions using the HTTP port. The XML interface ran under the HTTP server process, simultaneously parsing incoming XML requests on demand and processing them.

In Cisco Unified CME 4.0 and later versions, the XML interface is provided through the Cisco IOS XML Infrastructure (IXI), in which the parser and transport layers are separated from the application. This modularity provides scalability and enables future XML support to be developed. In Cisco Unified CME 4.0 and later versions, all Cisco Unified CME features have XML support.

XML API for Cisco Unified CME

The eXtensible Markup Language (XML) Application Programming Interface (API) is supported in Cisco Unified Communications Manager Express (Cisco Unified CME) 8.5 and later versions..

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Target Audience

This document assumes that you have knowledge of a high-level programming language, such as C++, Java, or an equivalent language. You must also have knowledge or experience in the following areas:

- TCP/IP Protocol
- Hypertext Transport Protocol
- Socket programming
- XML

In addition, users of this programming guide must have a firm grasp of XML Schema, which is used to define the AXL requests, responses, and errors. For more information on XML Schema, please see the *XML Schema Part 0: Primer Second Edition*.

Prerequisites

- For Cisco Unified CME: XML API must be configured in Cisco Unified CME. For configuration information, see the "Configuring the XML API" section of the *Cisco Unified CME Administrator Guide*.

Information on XML API for Cisco Unified CME

The XML API support in Cisco Unified CME provides a mechanism for inserting, retrieving, updating, and removing data from the Cisco router using XML.

Request methods are XML structures that are passed to the XML server in Cisco Unified CME and Cisco Unified SRST applications using HTTP POST. The XML server receives the XML structures and executes the request. If the request completes successfully, then the appropriate XML response is returned.

Note Querying for multiple entities in a single request can fail because of the XML buffer size limitation. Because of this limitation, the application must adjust its granularity to query one entity per request.

Table 99 lists the request and response methods for the XML API along with the purpose and parameters for each method.

Table 99 XML API Methods: Request and Response

Description	Request	Parameter	Response
System			
Execute configuration commands	ISexecCLI	*command*	ISexecCLIResult
Save router configuration to nvram	ISSaveConfig	—	ISSaveConfigResult
SCCP			
Get system status for Cisco Unified CME or Cisco Unified SRST.	ISgetGlobal	—	ISGlobal
Get status of an IP phone	ISgetDevice	Any combination of the following: ISDevID ISDevName ISKeyword: – all – allTag – available	ISDevices
Get configuration of a phone template	ISgetDeviceTemplate	Any combination of the following: ISDevTemplateID ISKeyword: – all – allTag – available	ISDeviceTemplates

Description	Request	Parameter	Response
Get configuration of an extension	ISgetExtension	Any combination of the following: ISExtID ISExtNumber ISKeyword: – all – allTag – available	ISExtensions
Get configuration of an extension template	ISgetExtensionTemplate	Any combination of the following: ISExtTemplateID ISKeyword: – all – allTag – available	ISExtensionTemplates
Get user information	ISgetUser	ISuserID	ISuser
Get user profile information	ISgetuserProfile	Any combination of the following: ISUserProfileID ISuserID ISKeyword: – all – allTag – available	ISUserProfiles
Get configuration for utility directory	ISgetUtilityDirectory	—	ISUtilityDirectory
SIP			
Get system status for a Cisco Unified CME running SIP	ISgetVoiceRegGlobal	—	ISSipGlobal
Get status of an IP phone	ISgetSipDevice	Any combination of the following: ISPoolID ISPoolName ISKeyword: – all – allTag – available	ISSipDevices

Description	Request	Parameter	Response
Get configuration of an extension	ISgetSipExtension	Any combination of the following: ISVoiceRegDNID ISVoiceRegNumber ISKeyword: – all – allTag – available	ISSipExtensions
Get status of a session server	ISgetSessionServer	Any combination of the following: ISSessionServerID ISSessionServerName ISKeyword: – all – allTag – available	ISSessionServers
Get status of voice hunt groups	ISgetVoiceHuntGroup	ISVoiceHuntGroupID ISKeyword: – all – allTag – available	ISVoiceHuntGroups
Get configuration for Presence	ISgetPresenceGlobal	—	ISPresenceGlobal

Examples

This section contains examples for the following XML API methods:

System

- ISexecCLI
- ISSaveConfig

SCCP IP Phones

- ISgetGlobal
- ISgetDevice
- ISgetDeviceTemplate
- ISgetExtension
- ISgetExtensionTemplate
- ISgetUser
- ISgetUserProfile
- ISgetUtilityDirectory

SIP IP Phones

- ISgetVoiceRegGlobal
- ISgetSipDevice
- ISgetSipExtension
- ISgetSessionServer
- ISgetVoiceHuntGroup
- ISgetPresenceGlobal

ISexecCLI

Use ISexecCLI to execute a list of Cisco IOS commands on the Cisco router. The request must include the CLI parameter with the Cisco IOS command string for each command to be executed.

Request: Example

```
<SOAP-ENV:Envelope>
<SOAP-ENV:Body>
<axl>
<request xsi:type="ISexecCLI">
<ISexecCLI>
<CLI>ephone 4</CLI>
<CLI>mac-address 000D.BC80.EB51</CLI>
<CLI>type 7960</CLI>
<CLI>button  1:1</CLI>
</ISexecCLI>
</request>
</axl>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Response: Example

The value of “0” for ISexecCLIResponse in the following example is the response when the request is completed successfully.

```
<SOAP-ENV:Envelope >
<SOAP-ENV:Body>
<axl >
<response xsi:type="ISexecCLIResponse" >
<ISexecCLIResponse>0</ISexecCLIResponse>
<ISexecCLIError></ISexecCLIError>
</response>
</axl>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

The following example shows the response when the request fails. The value of ISexecCLIResponse identifies which line number in the request failed. Any subsequent commands in the list of commands are not executed. All preceding commands in the list were executed.

```
<SOAP-ENV:Envelope >
<SOAP-ENV:Body>
<axl >
<response xsi:type="ISexecCLIResponse" >
<ISexecCLIResponse>4</ISexecCLIResponse>
<ISexecCLIError> invalid input dn parameter for button 1</ISexecCLIError>
</response>
</axl>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

ISSaveConfig

Use ISSaveConfig to save the running configuration on a router to the startup configuration on the same router.

Request: Example

```
<request>
<ISSaveConfig />
</request>
```

Response: Example

The following example shows that the ISSaveConfig request was successfully completed.

```
<response xsi:type=" ISSaveConfig">
<ISSaveConfigResult>success</ISSaveConfigResult>
</request>
```

The following example shows the response when the request fails.

```
<response xsi:type=" ISSaveConfig">
<ISSaveConfigResult>fail</ISSaveConfigResult>
</request>
```

The following example shows that response when the request is delayed, typically because there is another terminal session connected to Cisco Unified CME. The running configuration will be saved later by a background process after all other terminal sessions are disconnected.

```
<response xsi:type=" ISSaveConfig">
<ISSaveConfigResult>delay</ISSaveConfigResult>
</request>
```

ISgetGlobal

Use ISgetGlobal to retrieve system configuration and status information for the Cisco Unified CME system.

Request: Example

```
<request xsi:type=”ISgetGlobal”>
<ISgetGlobal></ISgetGlobal>
</request>
```

Response: Example

```
<response>
<ISGlobal>
<ISAddress>10.4.188.90</ISAddress>
<ISMode>ITS</ISMode>
<ISVersion>7.2</ISVersion>
<ISDeviceRegistered>0</ISDeviceRegistered>
<ISPeakDeviceRegistered>1</ISPeakDeviceRegistered>
<ISPeakDeviceRegisteredTime>9470</ISPeakDeviceRegisteredTime>
<ISKeepAliveInterval>30</ISKeepAliveInterval>
<ISConfiguredDevice>32</ISConfiguredDevice>
<ISConfiguredExtension>74</ISConfiguredExtension>
<ISServiceEngine>0.0.0.0</ISServiceEngine>
<ISName>ngm-2800</ISName>
<ISPortNumber>2000</ISPortNumber>
<ISMaxConference>8</ISMaxConference>
<ISMaxRedirect>10</ISMaxRedirect>
<ISMaxEphone>48</ISMaxEphone>
<ISMaxDN>180</ISMaxDN>
<ISVoiceMail>6050</ISVoiceMail>
<ISUrlServices>
<ISUrlService>
<ISUrlType>EPHONE_URL_INFO</ISUrlType>
<ISUrlLink>http://1.4.188.101/localdir</ISUrlLink>
</ISUrlService>
<ISUrlService>
<ISUrlType>EPHONE_URL_DIRECTOREIES</ISUrlType>
<ISUrlLink>http://1.4.188.101/localdir</ISUrlLink>
</ISUrlService>
<ISUrlService>
<ISUrlType>EPHONE_URL_MESSAGES</ISUrlType>
<ISUrlLink>http://1.4.188.101/localdir</ISUrlLink>
</ISUrlService>
<ISUrlService>
<ISUrlType>EPHONE_URL_SERVICES</ISUrlType>
<ISUrlLink>http://1.4.188.101/localdir</ISUrlLink>
</ISUrlService>
<ISUrlService>
```

```
<ISUrlType>EPHONE_URL_PROXYSERV</ISUrlType>
<ISUrlLink>http://1.4.188.101/localdir</ISUrlLink>
</ISUrlService>
<ISUrlService>
<ISUrlType>EPHONE_URL_IDLE</ISUrlType>
<ISUrlLink>ttp://1.4.188.101/localdir</ISUrlLink>
</ISUrlService>
<ISUrlService>
<ISUrlType>EPHONE_URL_AUTH</ISUrlType>
<ISUrlLink>http://1.4.188.101/localdir</ISUrlLink>
</ISUrlService>
</ISUrlServices>
<global-after-hours>
<block_list>
<block_item>
<pattern_id>1</pattern_id>
<blocking_pattern>1234</blocking_pattern>
<blocking_option />
</block_item>
<block_item>
<pattern_id>2</pattern_id>
<blocking_pattern>2345</blocking_pattern>
<blocking_option>7-24</blocking_option>
</block_item>
</block_list>
<date_list>
<date_item>
<month>Nov</month>
<day_of_month>12</day_of_month>
<start_time>12:00</start_time>
<stop_time>13:00</stop_time>
</date_item>
</date_list>
<day_list>
<day_item>
<day_of_week>Mon</day_of_week>
<start_time>12:00</start_time>
<stop_time>13:00</stop_time>
</day_item>
</day_list>
<after-hours_login>
<http>true</http>
</after-hours_login>
<override-code>2222</override-code>
<pstn-prefix_list>
<pstn-prefix_item>
<index>1</index>
<pstn-prefix>22</pstn-prefix>
</pstn-prefix_item>
</pstn-prefix_list>
</global-after-hours>
<application_name>calling</application_name>
<auth_credential_list>
<credential_item>
<index>1</index>
<user>test</user>
<password>test</password>
</credential_item>
</auth_credential_list>
<auto>
<assign_list>
<assign_item>
<group_id>1</group_id>
<start_tag>70</start_tag>
```

```
<stop_tag>93</stop_tag>
<type>anl</type>
<cfw />
<timeout>0</timeout>
</assign_item>
<assign_item>
<group_id>2</group_id>
<start_tag>1</start_tag>
<stop_tag>20</stop_tag>
<cfw>1234</cfw>
<timeout>80</timeout>
</assign_item>
</assign_list>
</auto>
<auto-reg-ephone>true</auto-reg-ephone>
<bulk-speed-dial_list>
<bulk-speed-dial_item>
<list>1</list>
<url />
</bulk-speed-dial_item>
</bulk-speed-dial_list>
<prefix>123</prefix>
<global-call-forward>
<pattern_list>
<pattern_item>
<index>2</index>
<pattern>.T</pattern>
</pattern_item>
</pattern_list>
<callfwd_system>
<redirecting-expanded>false</redirecting-expanded>
</callfwd_system>
</global-call-forward>
<call-park>
<select>
<no-auto-match>true</no-auto-match>
</select>
<application_system>true</application_system>
<redirect_system>true</redirect_system>
</call-park>
<caller-id>
<block_code>*1</block_code>
<name-only>true</name-only>
</caller-id>
<calling-number>
<initiator>true</initiator>
<local>false</local>
<secondary>false</secondary>
</calling-number>
<cnf-file>
<location>
<TFTP>flash:/its/</TFTP>
<flash>true</flash>
</location>
<option>perphonetype</option>
</cnf-file>
<default_codec>Unknown</default_codec>
<conference>
<hardware>true</hardware>
</conference>
<date-format>mm-dd-yy</date-format>
<device-security-mode>none</device-security-mode>
<dialplan-pattern_list>
<dialplan-pattern_item>
```

```
<index>1</index>
<pattern>1234</pattern>
<extension-length>4</extension-length>
<extension-pattern />
<demote>false</demote>
<no-reg>false</no-reg>
</dialplan-pattern_item>
<dialplan-pattern_item>
<index>2</index>
<pattern>1233</pattern>
<extension-length>4</extension-length>
<extension-pattern />
<demote>true</demote>
<no-reg>false</no-reg>
</dialplan-pattern_item>
<dialplan-pattern_item>
<index>3</index>
<pattern>1232</pattern>
<extension-length>4</extension-length>
<extension-pattern>1111</extension-pattern>
<demote>false</demote>
<no-reg>false</no-reg>
</dialplan-pattern_item>
<dialplan-pattern_item>
<index>4</index>
<pattern>1231</pattern>
<extension-length>4</extension-length>
<extension-pattern />
<demote>false</demote>
<no-reg>true</no-reg>
</dialplan-pattern_item>
</dialplan-pattern_list>
<directory>
<entry_list>
<entry_item>
<tag>1</tag>
<number>1234</number>
<name>directory</name>
</entry_item>
</entry_list>
<option>last-name-first</option>
</directory>
<dn-webedit>false</dn-webedit>
<em>
<external>true</external>
<keep-history>true</keep-history>
<logout>12:00 00:-1 -1:-1</logout>
</em>
<ephone-reg>true</ephone-reg>
<extension-assigner>
<tag-type>provision-tag</tag-type>
</extension-assigner>
<fac>
<standard>true</standard>
<custom_list>
<custom_item>
<fac_string>callfwd all</fac_string>
<fac_list>**1</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>callfwd cancel</fac_string>
<fac_list>**2</fac_list>
```

```
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>pickup local</fac_string>
<fac_list>**3</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>pickup group</fac_string>
<fac_list>**4</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>pickup direct</fac_string>
<fac_list>**5</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>park</fac_string>
<fac_list>**6</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>dnd</fac_string>
<fac_list>**7</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>redial</fac_string>
<fac_list>**8</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>voicemail</fac_string>
<fac_list>**9</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>ephone-hunt join</fac_string>
<fac_list>*3</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>ephone-hunt cancel</fac_string>
<fac_list>#3</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>ephone-hunt hlog</fac_string>
<fac_list>*4</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
```

```
<fac_string>ephone-hunt hlog-phone</fac_string>
<fac_list>*5</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>trnsfvm</fac_string>
<fac_list>*6</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>dpark-retrieval</fac_string>
<fac_list>*0</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
<custom_item>
<fac_string>cancel call waiting</fac_string>
<fac_list>*1</fac_list>
<alias>0</alias>
<alias_map />
</custom_item>
</custom_list>
</fac>
<fxo>
<hook-flash>true</hook-flash>
</fxo>
<hunt-group>
<logout>HLog</logout>
<report>
<url_info>
<prefix>tftp://223.255.254.253/ngm/huntgp/2800/data</prefix>
<hg_suffix>
<low>-1</low>
<high>0</high>
</hg_suffix>
</url_info>
<delay>0</delay>
<duration>24</duration>
<internal>
<duration>5</duration>
<hg_suffix>
<low>1</low>
<high>5</high>
</hg_suffix>
</internal>
</report>
</hunt-group>
<internal-call>
<moh-group>-1</moh-group>
</internal-call>
<ip>
<qos>
<dscp_list>
<dscp_item>
<index>0</index>
<af11>media</af11>
</dscp_item>
<dscp_item>
<index>1</index>
<af12>signal</af12>
</dscp_item>
<dscp_item>
```

```
<index>2</index>
<af13>video</af13>
</dscp_item>
<dscp_item>
<index>3</index>
<af21>service</af21>
</dscp_item>
<dscp_item>
<index>4</index>
<af22>media</af22>
</dscp_item>
<dscp_item>
<index>5</index>
<af23>media</af23>
</dscp_item>
<dscp_item>
<index>6</index>
<af31>media</af31>
</dscp_item>
<dscp_item>
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</dscp_item>
<dscp_item>
<index>8</index>
<af33>media</af33>
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<af41>media</af41>
</dscp_item>
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<index>10</index>
<af42>media</af42>
</dscp_item>
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<af43>media</af43>
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<dscp_item>
<index>12</index>
<cs1>media</cs1>
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<cs2>media</cs2>
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<dscp_item>
<index>14</index>
<cs3>media</cs3>
</dscp_item>
<dscp_item>
<index>15</index>
<cs4>media</cs4>
</dscp_item>
<dscp_item>
<index>16</index>
<cs5>media</cs5>
</dscp_item>
<dscp_item>
<index>17</index>
<cs6>media</cs6>
</dscp_item>
<dscp_item>
```

```
<index>18</index>
<cs7>media</cs7>
</dscp_item>
<dscp_item>
<index>19</index>
<default>media</default>
</dscp_item>
<dscp_item>
<index>20</index>
<ef>media</ef>
</dscp_item>
</dscp_list>
</qos>
<source-address>
<primary>10.4.188.90</primary>
<port>2000</port>
<secondary>1.4.188.90</secondary>
<rehome>0</rehome>
<strict-match>true</strict-match>
</source-address>
</ip>
<keepalive>
<timeout>30</timeout>
<aux_timeout>30</aux_timeout>
</keepalive>
<live-record>999</live-record>
<load_list>
<phone_7914>hehe</phone_7914>
<phone_7915-12>hehe</phone_7915-12>
<phone_7915-24>hehe</phone_7915-24>
<phone_7916-12>hehe</phone_7916-12>
<phone_7916-24>hehe</phone_7916-24>
<phone_12SP>hehe</phone_12SP>
<phone_7902>hehe</phone_7902>
<phone_7906>hehe</phone_7906>
<phone_7910>hehe</phone_7910>
<phone_7911>SCCP11.9-0-1FT6-4DEV</phone_7911>
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<phone_7937>hehe</phone_7937>
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<phone_7941>hehe</phone_7941>
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<phone_7942>hehe</phone_7942>
<phone_7961>SCCP41.8-4-2-38S</phone_7961>
<phone_7962>hehe</phone_7962>
<phone_7965>hehe</phone_7965>
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<phone_7985>hehe</phone_7985>
<phone_ata>hehe</phone_ata>
<phone_6921>hehe</phone_6921>
<phone_6941>hehe</phone_6941>
<phone_6961>hehe</phone_6961>
</load_list>
<load-cfg-file_list>
<load-cfg-file_item>
<cfg_file>flash:its/vrf1/XMLDefaultCIPC.cnf.xml</cfg_file>
```

```
<alias>cnf.xml</alias>
<sign>false</sign>
</load-cfg-file_item>
</load-cfg-file_list>
<log>
<table>
<max-size>150</max-size>
<retain-timer>15</retain-timer>
</table>
</log>
<login>
<timeout>60</timeout>
<clear>24:0</clear>
</login>
<max-conferences>
<count>8</count>
<gain>-6</gain>
</max-conferences>
<max-dn>
<count>180</count>
<global_preference>0</global_preference>
<no-reg>secondary</no-reg>
</max-dn>
<max-ephones>48</max-ephones>
<max-redirect>10</max-redirect>
<modem>
<passthrough>
<payload-type>100</payload-type>
</passthrough>
<relay_sse>
<payload-type>118</payload-type>
</relay_sse>
<relay_sprt>
<payload-type>120</payload-type>
</relay_sprt>
</modem>
<moh_file>flash:music-on-hold.au</moh_file>
<moh-file-buffer>10000</moh-file-buffer>
<multicast>
<moh_ipaddr>239.10.10.10</moh_ipaddr>
<port>2000</port>
<route_list>
<route_item>
<index>1</index>
<route>10.10.10.10</route>
</route_item>
</route_list>
</multicast>
<mwi-server>
<prefix />
<reg-e164>true</reg-e164>
<relay>true</relay>
</mwi-server>
<network-locale_list>
<network-locale_item>
<index>0</index>
<locale>US</locale>
</network-locale_item>
<network-locale_item>
<index>1</index>
<locale>US</locale>
</network-locale_item>
<network-locale_item>
<index>2</index>
```

```
<locale>US</locale>
</network-locale_item>
<network-locale_item>
<index>3</index>
<locale>US</locale>
</network-locale_item>
<network-locale_item>
<index>4</index>
<locale>US</locale>
</network-locale_item>
</network-locale_list>
<night-service>
<option>everyday</option>
<code>*234</code>
<date_list>
<date_item>
<index>1</index>
<month>Jan</month>
<day_of_month>1</day_of_month>
<start_time>12:00</start_time>
<stop_time>14:00</stop_time>
</date_item>
</date_list>
<day_list>
<day_item>
<index>1</index>
<day_of_week>Sun</day_of_week>
<start_time>12:00</start_time>
<stop_time>16:00</stop_time>
</day_item>
<day_item>
<index>2</index>
<day_of_week>Mon</day_of_week>
<start_time>12:00</start_time>
<stop_time>16:00</stop_time>
</day_item>
<day_item>
<index>3</index>
<day_of_week>Tue</day_of_week>
<start_time>12:00</start_time>
<stop_time>16:00</stop_time>
</day_item>
<day_item>
<index>4</index>
<day_of_week>Wed</day_of_week>
<start_time>12:00</start_time>
<stop_time>16:00</stop_time>
</day_item>
<day_item>
<index>5</index>
<day_of_week>Thu</day_of_week>
<start_time>12:00</start_time>
<stop_time>16:00</stop_time>
</day_item>
<day_item>
<index>6</index>
<day_of_week>Fri</day_of_week>
<start_time>12:00</start_time>
<stop_time>16:00</stop_time>
</day_item>
<day_item>
<index>7</index>
<day_of_week>Sat</day_of_week>
<start_time>12:00</start_time>
```

```
<stop_time>16:00</stop_time>
</day_item>
</day_list>
<everyday>
<start_time>12:00</start_time>
<stop_time>16:00</stop_time>
</everyday>
<weekday>
<start_time>12:00</start_time>
<stop_time>16:00</stop_time>
</weekday>
<weekend>
<start_time>12:00</start_time>
<stop_time>16:00</stop_time>
</weekend>
</night-service>
<pin>1234</pin>
<pin_override>true</pin_override>
<privacy>true</privacy>
<privacy-on-hold>false</privacy-on-hold>
<protocol>
<mode>dual-stack</mode>
<preference>ipv4</preference>
</protocol>
<sdspfarm>
<conference_options>
<mute-on>124</mute-on>
<mute-off>234</mute-off>
<hardware>false</hardware>
</conference_options>
<units>4</units>
<tag_list>
<tag_item>
<tag>1</tag>
<device>mtp-conf</device>
</tag_item>
</tag_list>
<transcode>
<sessions>4</sessions>
</transcode>
<unregister>
<force>1</force>
</unregister>
</sdspfarm>
<secondary-dialtone>4567</secondary-dialtone>
<secure-signaling>
<trustpoint />
</secure-signaling>
<server-security-mode />
<service>
<local-directory>true</local-directory>
<local-directory_authenticate>false</local-directory_authenticate>
<dss>false</dss>
<dnis>
<overlay>false</overlay>
<dir-lookup>false</dir-lookup>
</dnis>
<directed-pickup>true</directed-pickup>
<directed-pickup_gpickup>false</directed-pickup_gpickup>
<phone_list>
<phone_item>
<index>1</index>
<phone_params>displayOnTime</phone_params>
<phone_text>time.xml</phone_text>
```

```
</phone_item>
</phone_list>
</service>
<ssh>
<userid>ngm</userid>
<password>ngm</password>
</ssh>
<standby>
<user>ngm</user>
<password>ngm</password>
</standby>
<system_message>LITTLE TWIN STARS (2800)</system_message>
<tftp-server-credentials>
<trustpoint />
</tftp-server-credentials>
<time-format>12</time-format>
<time-webedit>false</time-webedit>
<time-zone>0</time-zone>
<timeouts>
<busy_timeout>10</busy_timeout>
<interdigit_timeout>10</interdigit_timeout>
<ringing_timeout>180</ringing_timeout>
<transfer-recall_timeout>0</transfer-recall_timeout>
<night-service-bell_timeout>12</night-service-bell_timeout>
</timeouts>
<transfer-digit-collect>new-call</transfer-digit-collect>
<transfer-pattern_list>
<transfer-pattern_item>
<index>1</index>
<pattern>....</pattern>
<blind>false</blind>
</transfer-pattern_item>
<transfer-pattern_item>
<index>2</index>
<pattern>.T</pattern>
<blind>false</blind>
</transfer-pattern_item>
</transfer-pattern_list>
<transfer-system>
<type>full-consult</type>
<dss>false</dss>
</transfer-system>
<trunk_optimization_pre_connect>false</trunk_optimization_pre_connect>
<url_list>
<information>
<url>http://1.4.188.101/localdir</url>
</information>
<directories>
<url>http://1.4.188.101/localdir</url>
</directories>
<messages>
<url>http://1.4.188.101/localdir</url>
</messages>
<services>
<url>http://1.4.188.101/localdir</url>
<name />
</services>
<proxy_server>
<url>http://1.4.188.101/localdir</url>
</proxy_server>
<idle>
<url>http://1.4.188.101/localdir</url>
<idle_timeout>90</idle_timeout>
</idle>
```

```
<authentication>
<url>http://1.4.188.101/localdir</url>
<user />
<password />
</authentication>
</url_list>
<user-locale_list>
<user-locale_item>
<index>0</index>
<locale>US</locale>
<package>en</package>
<load />
</user-locale_item>
<user-locale_item>
<index>1</index>
<locale>US</locale>
<package>en</package>
<load />
</user-locale_item>
<user-locale_item>
<index>2</index>
<locale>US</locale>
<package>en</package>
<load />
</user-locale_item>
<user-locale_item>
<index>3</index>
<locale>US</locale>
<package>en</package>
<load />
</user-locale_item>
<user-locale_item>
<index>4</index>
<locale>US</locale>
<package>en</package>
<load />
</user-locale_item>
</user-locale_list>
<video>
<maximum>
<bit-rate>10000000</bit-rate>
</maximum>
</video>
<voicemail>6050</voicemail>
<web>
<system_admin>
<name>Admin</name>
<secret>-1</secret>
<password />
</system_admin>
<customer_admin>
<name>ngm</name>
<secret>5</secret>
<password>$1$.nfD$zn3h3bp/4grULFS87ZHHV/</password>
</customer_admin>
<customize>
<load />
</customize>
</web>
<xml>
<user>cisco</user>
<password>cisco</password>
<level>0</level>
</xml>
```

```
</ISGlobal>
</response>
```

ISgetDevice

Use ISgetDevice to retrieve configuration and status information for IP phones.

Use any combination of the following parameters in the request message to specific one or more SCCP phones:

- ISDevID with the ephone tag number of SCCP phone to be queried.
- ISDevName with the MAC address of SCCP phone to be queried.
- ISKeyword with one of the following options:
  - all—All configured SCCP phones
  - allTag—Ephone tag numbers for all SCCP phones configured
  - available—Next available ephone tag number to be configured

Request: Example

```
<request xsi:type="ISgetDevice">
<ISgetDevice>
<ISDevID>1</ISDevID>
<ISDevName>SEP0012DA8AC43D</ISDevName>
<ISDevName>allKeyphone</ISDevName>
</ISgetDevice>
</request>
```

Response: Example

```
<response>
<ISDevices>
<ISDevice>
<ISDevID>1</ISDevID>
<ISDevName>SEP0016C7C7AF9D</ISDevName>
<ISDevType>Others</ISDevType>
<ISconfigDevType>7911</ISconfigDevType>
<ISDevUsername>test</ISDevUsername>
<ISDevLineButtons>
<ISDevLineButton>
<ISDevLineButtonID>1</ISDevLineButtonID>
<ISDevLineButtonMode>MONITOR_RING</ISDevLineButtonMode>
</ISDevLineButton>
</ISDevLineButtons>
<after-hours_exempt>false</after-hours_exempt>
<after-hours_login>
<http>false</http>
</after-hours_login>
<block-blind-xf-fallback>false</block-blind-xf-fallback>
<capf-ip-in-cnf>false</capf-ip-in-cnf>
<codec>
<codec_name>g711ulaw</codec_name>
<dspfarm-assist>false</dspfarm-assist>
</codec>
<adhoc_conference>
<add-mode>
<creator>true</creator>
</add-mode>
<admin>true</admin>
```

```
<drop-mode>
<creator>false</creator>
<local>false</local>
</drop-mode>
</adhoc_conference>
<fastdial_list>
<fastdial_item>
<fastdial>1</fastdial>
<fastdial_number>1234</fastdial_number>
<fastdial_name>home LINE</fastdial_name>
</fastdial_item>
</fastdial_list>
<feature-button_list>
<feature-button_item>
<feature-button>1</feature-button>
<feature_type>Dnd</feature_type>
</feature-button_item>
<feature-button_item>
<feature-button>2</feature-button>
<feature_type>Flash</feature_type>
</feature-button_item>
</feature-button_list>
<keep-conference>
<hangup>true</hangup>
<drop-last>false</drop-last>
<endcall>true</endcall>
<local-only>true</local-only>
</keep-conference>
<keypad-normalize>false</keypad-normalize>
<keyphone>false</keyphone>
<mtp>true</mtp>
<multicast-moh>true</multicast-moh>
<night-service_bell>true</night-service_bell>
<privacy />
<privacy-button>false</privacy-button>
<transfer-park>
<blocked>false</blocked>
</transfer-park>
<transfer-pattern>
<blocked>false</blocked>
</transfer-pattern>
<busy-trigger-per-button>0</busy-trigger-per-button>
<emergency-resp_location>0</emergency-resp_location>
<max-calls-per-button>0</max-calls-per-button>
<nte-end-digit-delay>0</nte-end-digit-delay>
<keepalive>
<timeout>30</timeout>
<aux_timeout>30</aux_timeout>
</keepalive>
<lpcor>
<type>none</type>
</lpcor>
<exclude-services>
<em_service>true</em_service>
<directory_service>false</directory_service>
<myphoneapp_service>false</myphoneapp_service>
</exclude-services>
<park>
<reservation-group>park</reservation-group>
</park>
<paging-dn>
<dn>0</dn>
<mode>multicast</mode>
</paging-dn>
```

```
<speed-dial_list>
<speed-dial_item>
<index>1</index>
<phone_number>1234</phone_number>
<label>home</label>
</speed-dial_item>
</speed-dial_list>
<ssh>
<userid>ngm</userid>
<password>ngm</password>
</ssh>
<phone_type>
<name>7911</name>
<addon_list>
<addon_item>
<addon>1</addon>
<addon_type>7914</addon_type>
</addon_item>
</addon_list>
</phone_type>
<auto-line>
<mode>normal</mode>
<auto_select_line>0</auto_select_line>
</auto-line>
<blf-speed-dial_list>
<blf-speed-dial_item>
<index>1</index>
<phone_number>1234</phone_number>
<label>blfsd</label>
</blf-speed-dial_item>
<device>true</device>
</blf-speed-dial_list>
<bulk-speed-dial_list>
<bulk-speed-dial_item>
<list>1</list>
<url />
</bulk-speed-dial_item>
</bulk-speed-dial_list>
<capf-auth-str>7777</capf-auth-str>
<description>ephoneOne</description>
<device-security-mode>none</device-security-mode>
<dnd>
<feature-ring>true</feature-ring>
</dnd>
<ephone-template>1</ephone-template>
<headset>
<auto-answer>
<line_list>
<line>1</line>
</line_list>
</auto-answer>
</headset>
<logout-profile>0</logout-profile>
<display_all_missed_calls>true</display_all_missed_calls>
<mwi-line>1</mwi-line>
<offhook-guard-timer>0</offhook-guard-timer>
<phone-ui>
<snr>true</snr>
<speeddial-fastdial>true</speeddial-fastdial>
</phone-ui>
<pin>1234</pin>
<presence>
<call-list>true</call-list>
</presence>
```

```
<provision-tag>1</provision-tag>
<username>test</username>
<password>test</password>
<video_enable>true</video_enable>
<vm-device-id>SEP0016C7C7AF9D</vm-device-id>
<ISDevAddr>
<Xipv4Address>0.0.0.0</Xipv4Address>
</ISDevAddr>
<ISPhoneLineList>
<ExtMapStatus>
<LineId>1</LineId>
<ExtId>176</ExtId>
<ExtNumber>6176</ExtNumber>
<ExtStatus>false</ExtStatus>
<LineState>idle</LineState>
</ExtMapStatus>
</ISPhoneLineList>
<ISKeyPhone>false</ISKeyPhone>
<SNRui>true</SNRui>
<ISLogoutProfileID>0</ISLogoutProfileID>
<ISUserProfileID>0</ISUserProfileID>
<ISTapiClientAddr>
<Xipv4Address />
</ISTapiClientAddr>
<ISDevStatus>unregistered</ISDevStatus>
<ISDevLastStatus>deceased</ISDevLastStatus>
<ISDevChangeTime>4040</ISDevChangeTime>
<ISDevKeepAlives>0</ISDevKeepAlives>
<ISDevTapiCStatus />
<ISTapiCLastStatus />
<ISTapiCChangeTime />
<ISTapiCKeepAlive />
<ISDevDND>no</ISDevDND>
</ISDevice>
</ISDevices>
</response>
```

ISgetDeviceTemplate

Use ISgetDeviceTemplate to retrieve configuration and status information for IP phone templates.

Use any combination of the following parameters in the request message to specify one or more phone templates:

- ISDevTemplateID with phone template tag number to be queried.
- ISKeyword with one of the following options:
  - all—All configured phone templates
  - allTag—Phone template tag numbers for all configured phone templates
  - available—Next available phone template tag number to be configured

Request: Example

```
<request>
<ISgetDeviceTemplate>
<ISgetDevTemplateID>1</ISgetDevTemplateID>
<ISgetDeviceTemplate>
</request>
```

Response: Example

```
<response>
<ISDeviceTemplates>
<ISDeviceTemplate>
<ISDevTemplateID>1</ISDevTemplateID>
<after-hours>
<block_list>
<block_item>
<pattern_id>1</pattern_id>
<blocking_pattern>1234</blocking_pattern>
<blocking_option>7-24</blocking_option>
</block_item>
</block_list>
<date_list>
<date_item>
<month>Jan</month>
<day_of_month>1</day_of_month>
<start_time>12:00</start_time>
<stop_time>14:00</stop_time>
</date_item>
</date_list>
<day_list>
<day_item>
<day_of_week>Mon</day_of_week>
<start_time>12:00</start_time>
<stop_time>14:00</stop_time>
</day_item>
</day_list>
<exempt>true</exempt>
<after-hours_login>
<http>true</http>
</after-hours_login>
<override-code>1234</override-code>
</after-hours>
<block-blind-xf-fallback>false</block-blind-xf-fallback>
<button-layout_phone_7931>0</button-layout_phone_7931>
<button-layout_list>
<button-layout_item>
<button-layout>1,9</button-layout>
<button-type>line</button-type>
</button-layout_item>
<button-layout_item>
<button-layout>4-5,7</button-layout>
<button-type>speed-dial</button-type>
</button-layout_item>
<button-layout_item>
<button-layout>2-3</button-layout>
<button-type>feature</button-type>
</button-layout_item>
<button-layout_item>
<button-layout>11</button-layout>
<button-type>url</button-type>
```

```
</button-layout_item>
</button-layout_list>
<capf-ip-in-cnf>false</capf-ip-in-cnf>
<codec>
<codec_name>g711ulaw</codec_name>
<dspfarm-assist>false</dspfarm-assist>
</codec>
<adhoc_conference>
<add-mode>
<creator>false</creator>
</add-mode>
<admin>false</admin>
<drop-mode>
<creator>false</creator>
<local>false</local>
</drop-mode>
</adhoc_conference>
<fastdial_list>
<fastdial_item>
<fastdial>1</fastdial>
<fastdial_number>1234</fastdial_number>
<fastdial_name>office</fastdial_name>
</fastdial_item>
</fastdial_list>
<feature-button_list>
<feature-button_item>
<feature-button>1</feature-button>
<feature_type>HLog</feature_type>
</feature-button_item>
<feature-button_item>
<feature-button>2</feature-button>
<feature_type>Park</feature_type>
</feature-button_item>
<feature-button_item>
<feature-button>3</feature-button>
<feature_type>Privacy</feature_type>
</feature-button_item>
</feature-button_list>
<url-button_list>
<url-button_item>
<url-button>1</url-button>
<url-button_type>em</url-button_type>
</url-button_item>
<url-button_item>
<url-button>3</url-button>
<url-button_type>myphoneapp</url-button_type>
</url-button_item>
<url-button_item>
<url-button>6</url-button>
<url-button_type>service</url-button_type>
<url-button_url>hello</url-button_url>
<url-button_name>helloworld</url-button_name>
</url-button_item>
</url-button_list>
<features_blocked>Pickup Park GPickup</features_blocked>
<keep-conference>
<hangup>false</hangup>
<drop-last>false</drop-last>
<endcall>false</endcall>
<local-only>false</local-only>
</keep-conference>
<keypad-normalize>false</keypad-normalize>
<keyphone>false</keyphone>
<mlpp>
```

```
<indication>true</indication>
<preemption>true</preemption>
<max_priority>-1</max_priority>
</mlpp>
<mtp>false</mtp>
<multicast-moh>true</multicast-moh>
<night-service_bell>false</night-service_bell>
<privacy />
<privacy-button>false</privacy-button>
<phone_service>
<param_list>
<param_item>
<param>displayOnTime</param>
<text>170</text>
</param_item>
</param_list>
</phone_service>
<softkeys>
<alerting_keys />
<connected_keys />
<hold_keys />
<idle_keys />
<remote-in-use_keys>CBarge Newcall</remote-in-use_keys>
<ringing_keys />
<seized_keys />
</softkeys>
<transfer-park>
<blocked>false</blocked>
</transfer-park>
<transfer-pattern>
<blocked>false</blocked>
</transfer-pattern>
<busy-trigger-per-button>0</busy-trigger-per-button>
<emergency-resp_location>0</emergency-resp_location>
<max-calls-per-button>0</max-calls-per-button>
<network_locale>0</network_locale>
<nte-end-digit-delay>0</nte-end-digit-delay>
<transfer_max-length>0</transfer_max-length>
<user_locale>0</user_locale>
<keepalive>
<timeout>30</timeout>
<aux_timeout>30</aux_timeout>
</keepalive>
<lpcor>
<type>none</type>
</lpcor>
<exclude-services>
<em_service>false</em_service>
<directory_service>true</directory_service>
<myphoneapp_service>true</myphoneapp_service>
</exclude-services>
<park>
<reservation-group>1234</reservation-group>
</park>
<paging-dn>
<dn>0</dn>
<mode>multicast</mode>
</paging-dn>
<speed-dial_list>
<speed-dial_item>
<index>1</index>
<phone_number>1234</phone_number>
<label>play</label>
</speed-dial_item>
```

```
</speed-dial_list>
<ssh>
<userid>test</userid>
<password>test</password>
</ssh>
<phone_type>
<name>7960</name>
<addon_list>
<addon_item>
<addon>1</addon>
<addon_type>7914</addon_type>
</addon_item>
</addon_list>
</phone_type>
<url_services_list>
<url_services_item>
<services_id>1</services_id>
<url>http</url>
<name>HTTP</name>
</url_services_item>
</url_services_list>
</ISDeviceTemplate>
</ISDeviceTemplates>
</response>
```

ISgetExtension

Use ISgetExtension to retrieve configuration and status information for extension numbers.

Use any combination of the following parameters in the request message to specify one or more extensions:

- ISExtID with the extension ID number to be queried.
- ISExtNumber with the extension number to be queried.
- ISKeyword with one of the following options:
  - all—Displays details of all extension numbers configured
  - allTag—Displays a list of all extension ID numbers configured
  - available—Next available extension ID number to be configured

Request: Example

```
<request>
<ISExtension>
<ISVExtID>1</ISExtID>
<ISExtNumber>1</ISExtNumber>
</ISExtension>
</request>
```

Response: Example

```
<response>
<ISExtensions>
<ISExtension>
<ISExtID>1</ISExtID>
<ISExtNumber>6001</ISExtNumber>
<ISExtSecNumber>6111</ISExtSecNumber>
<ISExtType>normal</ISExtType>
<ISExtStatus>up</ISExtStatus>
```

```
<ISExtChangeTime>3122733</ISExtChangeTime>
<ISExtUsage>0</ISExtUsage>
<ISExtHomeAddress>0.0.0.0</ISExtHomeAddress>
<ISExtMultiLines>0</ISExtMultiLines>
<ISExtPortName>EFXS 50/0/1</ISExtPortName>
<ISExtLineMode>DUAL_LINE</ISExtLineMode>
<ISExtCallStatus>IDLE</ISExtCallStatus>
<Mobility>false</Mobility>
<SNRnumber>1111</SNRnumber>
<SNRdelay>10</SNRdelay>
<SNRtimeout>5</SNRtimeout>
<SNRnoanNumber />
<ISAllowWatch>true</ISAllowWatch>
<ISSessionServerIDs>
<ISSessionServerID>1</ISSessionServerID>
</ISSessionServerIDs>
<firstName />
<lastName>ephoneDnOne</lastName>
<callForwardAll>1234</callForwardAll>
<ISDevList>
<ISDeviceID>8</ISDeviceID>
</ISDevList>
<allow>
<watch>true</watch>
</allow>
<call-forward>
<all>
<number>1234</number>
</all>
<busy>
<number>9000</number>
<option>secondary</option>
<dialplan-pattern>false</dialplan-pattern>
</busy>
<max-length>
<number />
</max-length>
<night-service-activated>
<number>2323</number>
</night-service-activated>
<noan>
<number>1234</number>
<timeout>80</timeout>
<dialplan-pattern>true</dialplan-pattern>
<option />
</noan>
</call-forward>
<call-waiting>
<cw_beep>
<accept>true</accept>
<generate>true</generate>
</cw_beep>
<cw_ring>true</cw_ring>
</call-waiting>
<corlist>
<incoming />
<outgoing />
</corlist>
<cti>
<notify>true</notify>
<watch>true</watch>
</cti>
<description>ephoneDnOne</description>
<hold-alert>
```

```
<timeout>15</timeout>
<mode>idle</mode>
<ring-silent-dn>true</ring-silent-dn>
</hold-alert>
<huntstop>
<channel>8</channel>
</huntstop>
<moh-group>0</moh-group>
<mwi>
<type>qsig</type>
<mode />
</mwi>
<mwi-type>both</mwi-type>
<pickup-group />
<transfer-recall_timeout>0</transfer-recall_timeout>
<translate>
<called>1</called>
<calling>2</calling>
</translate>
<translation-profile>
<incoming>in</incoming>
<outgoing>out</outgoing>
</translation-profile>
<application>
<name>calling</name>
<out-bound>calling</out-bound>
</application>
<port-caller-id>
<block>false</block>
<local>false</local>
<transfer_passthrough>false</transfer_passthrough>
</port-caller-id>
<conference_dn>
<mode />
<unlocked>false</unlocked>
</conference_dn>
<ephone-dn-template>0</ephone-dn-template>
<ephone-hunt_login>true</ephone-hunt_login>
<feed>
<ip_addr>0.0.0.0</ip_addr>
<port>0</port>
<route>0.0.0.0</route>
<out-call />
</feed>
<fwd-local-calls>true</fwd-local-calls>
<intercom>
<dn-plar />
<barge-in>false</barge-in>
<label />
<no-mute>true</no-mute>
<ptt>false</ptt>
<no-auto-answer>true</no-auto-answer>
</intercom>
<label />
<loopback-dn>
<dn>0</dn>
<auto-con>false</auto-con>
<loopback-codec />
<forward>0</forward>
<prefix />
<retry>0</retry>
<strip>0</strip>
<suffix />
</loopback-dn>
```

```
<mailbox-selection>
<last-redirect-num>false</last-redirect-num>
</mailbox-selection>
<moh>
<ip_addr>0.0.0.0</ip_addr>
<port>0</port>
<route>0.0.0.0</route>
<out-call />
</moh>
<name>ephoneDnOne</name>
<night-service_bell>false</night-service_bell>
<telephony_number>
<primary>6001</primary>
<secondary>6111</secondary>
<no-reg>true</no-reg>
<no-reg_option />
</telephony_number>
<paging>
<group />
<ip_addr>0.0.0.0</ip_addr>
<port>0</port>
</paging>
<park-slot>
<directed>false</directed>
<reserved-for />
<reservation-group />
<timeout>0</timeout>
<limit>0</limit>
<notify />
<only>false</only>
<transfer_destination />
<recall>true</recall>
<alternate />
<retry>0</retry>
<retry_limit>0</retry_limit>
</park-slot>
<pickup-call>
<any-group>false</any-group>
</pickup-call>
<dn_preference>
<order>0</order>
<secondary>9</secondary>
</dn_preference>
<queueing-dn>
<mode />
<timeout>180</timeout>
<transfer_number />
</queueing-dn>
<ring>
<type>external</type>
<line>primary</line>
</ring>
<session-server>
<server>1</server>
</session-server>
<snr_info>
<value>1111</value>
<delay>10</delay>
<timeout>5</timeout>
<cfwd-noan />
</snr_info>
<transfer-mode />
<trunk>
<number />
```

```
<timeout>3</timeout>
<transfer-timeout>0</transfer-timeout>
<monitor-port />
</trunk>
<whisper-intercom>
<speed-dial />
<label />
</whisper-intercom>
</ISExtension>
</ISExtensions>
</response>
```

ISgetExtensionTemplate

Use the ISgetExtensionTemplates to retrieve configuration and status information for extension templates.

Use any combination of the following parameters in the request message to specify one or more extensions:

- ISExtTemplateID with the extension template ID number to be queried.
- ISKeyword with one of the following options:
  - all—Displays details of all configured extension templates
  - allTag—Displays a list of all configured extension template ID numbers
  - available—Next available extension template ID number to be configured

Request: Example

```
<request>
<ISExtensionTemplates>
<ISExtensionTemplateID>1</ISExtensionTemplateID>
</ISgetExtensionTemplate>
</request>
```

Response: Example

```
<response>
<ISExtensionTemplates>
<ISExtensionTemplate>
<ISExtTemplateID>1</ISExtTemplateID>
<allow>
<watch>false</watch>
</allow>
<call-forward>
<all>
<number>1234</number>
</all>
<busy>
<number>3456</number>
<option>primary</option>
<dialplan-pattern>false</dialplan-pattern>
</busy>
<max-length>
<number>4</number>
</max-length>
<night-service-activated>
<number>7777</number>
</night-service-activated>
```

```
<noan>
<number>9999</number>
<timeout>80</timeout>
<dialplan-pattern>false</dialplan-pattern>
<option>secondary</option>
</noan>
</call-forward>
<call-waiting>
<cw_beep>
<accept>true</accept>
<generate>true</generate>
</cw_beep>
<cw_ring>true</cw_ring>
</call-waiting>
<caller-id_blocked>true</caller-id_blocked>
<corlist>
<incoming />
<outgoing />
</corlist>
<cti>
<notify>false</notify>
<watch>false</watch>
</cti>
<description>ephoneDnTemplate</description>
<hold-alert>
<timeout>15</timeout>
<mode>idle</mode>
<ring-silent-dn>true</ring-silent-dn>
</hold-alert>
<huntstop>
<channel>8</channel>
</huntstop>
<moh-group>0</moh-group>
<mwi>
<type>sip</type>
<mode>on-off</mode>
</mwi>
<mwi-type>both</mwi-type>
<pickup-group>1</pickup-group>
<transfer-recall_timeout>400</transfer-recall_timeout>
<translate>
<called>1</called>
<calling>0</calling>
</translate>
<translation-profile>
<incoming>1</incoming>
<outgoing>1</outgoing>
</translation-profile>
</ISExtensionTemplate>
</ISExtensionTemplates>
</response>
```

ISgetUser

Use ISgetUser to retrieve information for a particular user in Cisco Unified CME. The request must include the ISuserID parameter with a user name that is configured in Cisco Unified CME. If the request contains a valid ISuserID, the response includes the user-name tag number (ISuserTag) and type for this user.

The value for ISuserType corresponds to how a username is configured in Cisco Unified CME, as follows:

- 0—INVALID_CME_USER
- 1—EPHONE_USER
- 2—LOGOUT_PROFILE_USER
- 3—USER_PROFILE_USER

If the request contains an invalid ISuserID, the value for ISuserTag and ISuserType will both be “0.”

Request: Example

```
<request>
<ISgetUser>
<ISuserID>a</ISuserID>
</ISgetUser>
</request>
```

Response: Example

```
<response>
<ISuser>
<ISuserID>a</ISuserID>
<ISuserType>3</ISuserType>
<ISuserTag>1</ISuserTag>
</ISuser>
</response>
```

ISgetUserProfile

Use the ISgetUserProfile to retrieve the status and configuration information for a specific user profile.

Use any combination of the following:

- ISUserProfileID with the user profile ID of a specific user.
- ISuserID with user ID of a specific user.
- ISKeyword with one of the following options:
  - all—Displays details of all configured user profiles.
  - allTag—Displays a list of all configured user profile IDs.
  - available—Next available user profile.

Request: Example

```
<request>
<ISgetUserProfile>
<ISUserProfileID>1</ISUserProfileID>
</ISgetUserProfile>
</request>
```

Response: Example

```
 <response>
<ISUserProfiles>
<ISUserProfile>
<ISUserProfileID>1</ISUserProfileID>
<ISuserID>a</ISuserID>
<ISpassword>a</ISpassword>
<ISuserPin>12</ISuserPin>
```

```
<ISPrivacyButton>no</ISPrivacyButton>
<ISuserMaxIdleTime>0</ISuserMaxIdleTime>
<SpeedDials>
<SpeedDial>
<SpeedDialIndex>1</SpeedDialIndex>
<SpeedDialNumber>901</SpeedDialNumber>
<SpeedDialLabel />
<SpeedDialBLF>no</SpeedDialBLF>
</SpeedDial>
<SpeedDial>
<SpeedDialIndex>2</SpeedDialIndex>
<SpeedDialNumber>902</SpeedDialNumber>
<SpeedDialLabel />
<SpeedDialBLF>no</SpeedDialBLF>
</SpeedDial>
<SpeedDial>
<SpeedDialIndex>3</SpeedDialIndex>
<SpeedDialNumber>2002</SpeedDialNumber>
<SpeedDialLabel>2002Label</SpeedDialLabel>
<SpeedDialBLF>no</SpeedDialBLF>
</SpeedDial>
<SpeedDial>
<SpeedDialIndex>5</SpeedDialIndex>
<SpeedDialNumber>2004</SpeedDialNumber>
<SpeedDialLabel>2004</SpeedDialLabel>
<SpeedDialBLF>yes</SpeedDialBLF>
</SpeedDial>
</SpeedDials>
<UserNumbers>
<UserNumber>
<ISExtNumber>2003</ISExtNumber>
<ISExtMode>NORMAL</ISExtMode>
<ISExtOverlayGroup>0</ISExtOverlayGroup>
<ISExtCombo>no</ISExtCombo>
</UserNumber>
<UserNumber>
<ISExtNumber>201</ISExtNumber>
<ISExtMode>NORMAL</ISExtMode>
<ISExtOverlayGroup>0</ISExtOverlayGroup>
<ISExtCombo>no</ISExtCombo>
</UserNumber>
<UserNumber>
<ISExtNumber>202</ISExtNumber>
<ISExtMode>NORMAL</ISExtMode>
<ISExtOverlayGroup>0</ISExtOverlayGroup>
<ISExtCombo>no</ISExtCombo>
</UserNumber>
</UserNumbers>
<ISuserCurrentPhone>
<CurrentPhoneType>Unknown</CurrentPhoneType>
<CurrentPhoneID>0</CurrentPhoneID>
</ISuserCurrentPhone>
</ISUserProfile>
</ISUserProfiles>
</response>
```

ISgetUtilityDirectory

Use the ISgetUtilityDirectory to retrieve status and configuration information for directory information.

Request: Example

```
<request>
<ISgetUtilityDirectory>
</ISgetUtilityDirectory>
</request>
```

Response: Example

```
<response>
<ISUtilityDirectory>
<ISDirectoryEntry>
<ISDirectoryTag>1</ISDirectoryTag>
<ISDirectoryNumber>12345</ISDirectoryNumber>
<firstName>first</firstName>
<lastName>last</lastName>
</ISDirectoryEntry>
<ISDirectoryEntry>
<ISDirectoryTag>2</ISDirectoryTag>
<ISDirectoryNumber>67890</ISDirectoryNumber>
<firstName>first2</firstName>
<lastName>last 2</lastName>
</ISDirectoryEntry>
</ISUtilityDirectory>
</response
```

ISgetVoiceRegGlobal

Use the ISgetVoiceRegGlobal to retrieve status and configuration information of global parameters for SIP,

Request: Example

```
<request>
<ISgetVoiceRegGlobal>
</ISgetVoiceRegGlobal>
</request>
```

Response: Example

```
<response>
<ISSipGlobal>
<ISAddress>10.10.10.1</ISAddress>
<ISMode>cme</ISMode>
<ISVersion>7.1</ISVersion>
<ISAuthModes>
<ISAuthMode>ood_refer</ISAuthMode>
<ISAuthMode>presence</ISAuthMode>
</ISAuthModes>
<ISPortNumber>5060</ISPortNumber>
<ISMaxPool>10</ISMaxPool>
<ISMaxDN>100</ISMaxDN>
<ISMaxRedirect>5</ISMaxRedirect>
</ISSipGlobal>
</response>
```

ISgetSipDevice

For SIP phones, use any combination of the following parameters in the request message to specify one or more SIP phones:

- ISPoolID with the voice register pool tag number of SIP phone to be queried.
- ISPoolName with the voice register pool name of the SIP phone to be queried.
- ISKeyword with one of the following options:
  - all—All configured SIP phones
  - allTag—Voice register pool tag numbers for all configured SIP phones
  - available—Next available phone tag number to be configured

Request: Example

```
<request>
<ISgetSipDevice>
<ISPoolID>1</ISPoolID>
</ISgetSipDevice>
</request>
```

Response: Example

```
<response>
<ISSipDevices>
<ISSipDevice>
<ISPoolID>1</ISPoolID>
<ISDevMac>0013.1978.3CA5</ISDevMac>
<ISSessionServerID>0</ISSessionServerID>
<ISDevAddr>
<Xipv4Address>0</Xipv4Address>
</ISDevAddr>
<ISSipPhoneLineList>
<ExtMapStatus>
<LineId>1</LineId>
<ExtId>1</ExtId>
<ExtNumber>901</ExtNumber>
<LineState>idle</LineState>
</ExtMapStatus>
<ExtMapStatus>
<LineId>2</LineId>
<ExtId>2</ExtId>
<ExtNumber>902</ExtNumber>
<LineState>idle</LineState>
</ExtMapStatus>
</ISSipPhoneLineList>
<ISPoolMaxRegistration>42</ISPoolMaxRegistration>
<ISPoolDtmfRelay>rtp-nte</ISPoolDtmfRelay>
<ISDevCodec>g729r8</ISDevCodec>
</ISSipDevice>
</ISSipDevices>
</response>
```

ISgetSipExtension

Use ISgetSipExtension to retrieve configuration and status information for extension numbers.

Use any combination of the following parameters in the request message to specify one or more extensions:

- ISVoiceRegDNID with the extension ID number to be queried.
- ISVoiceRegNumber with the extension number to be queried.
- ISKeyword with one of the following options:
  - all—Displays details of all configured extension numbers
  - allTag—Displays a list of all configured extension ID numbers
  - available—Next available extension ID number to be configured

Request: Example

```
<request>
<ISgetSipExtension>
<ISVoiceRegDNID>1</ISVoiceRegDNID>
</ISgetSipExtension>
</request>
```

Response: Example

```
<response>
<ISSipExtensions>
<ISSipExtension>
<ISVoiceRegDNID>1</ISVoiceRegDNID>
<ISExtNumber>901</ISExtNumber>
<ISSessionServerIDs>
<ISSessionServerID>1</ISSessionServerID>
<ISSessionServerID>2</ISSessionServerID>
</ISSessionServerIDs>
<ISAllowWatch>true</ISAllowWatch>
<firstName>Henry</firstName>
<lastName>Mann</lastName>
<ISSipDevList>
<ISPoolID>1</ISPoolID>
<ISPoolID>2</ISPoolID>
</ISSipDevList>
</ISSipExtension>
</ISSipExtensions>
</response>
```

ISgetSessionServer

Use ISgetSessionServer to retrieve configuration information for session servers in Cisco Unified CME.

Use any combination of the following parameters in the request message to specify one or more session servers:

- ISSessionServerID with the session server tag number.
- ISSessionserverName with session server name.
- ISKeyword with one of the following keywords:
  - all—All configured session servers

  - allTag—Session server tag numbers for all configured session servers
  - available—Next available session server tag number to be configured

Request: Example

```
<request>
<ISgetSessionServer>
<ISSessionServerID>1</ISSessionServerID>
</ISgetSessionServer>
</request>
```

Response: Example

```
<response>
<ISSessionServers>
<ISSessionServer>
<ISSessionServerID>1</ISSessionServerID>
<ISSessionRegisterID>SS1</ISSessionRegisterID>
<ISSessionKeepAlives>60</ISSessionKeepAlives>
</ISSessionServer>
</ISSessionServers>
</response>
```

ISgetVoiceHuntGroup

Use the ISgetVoiceHuntGroupID to retrieve status and configuration information for voice hunt groups.

Use any combination of the following parameters in the request message to specify one or more voice hunt groups:

- ISVoiceHuntGroupID with the voice hunt group ID number.
- ISKeyword with one of the following keywords:
  - all—All configured voice hunt groups
  - allTag—Voice hunt group ID numbers for all configured voice hunt groups
  - available—Next available voice hunt group ID number to be configured

Request: Example

```
<request>
<ISgetVoiceHuntGroup>
<ISVoiceHuntGroupID>1</ISVoiceHuntGroupID>
</ISgetVoiceHuntGroup>
</request>
```

Response: Example

```
<response>
<ISVoiceHuntGroups>
<ISVoiceHuntGroup>
<ISVoiceHuntGroupID>1</ISVoiceHuntGroupID>
<ISVoiceHuntGroupType>longest-idle</ISVoiceHuntGroupType>
<ISVoiceHuntGroupPilotNumber>200</ISVoiceHuntGroupPilotNumber>
<ISVoiceHuntGroupPilotPeerTag>200</ISVoiceHuntGroupPilotPeerTag>
<ISVoiceHuntGroupPilotPreference>0</ISVoiceHuntGroupPilotPreference>
<ISVoiceHuntGroupSecPilotNumber />
<ISVoiceHuntGroupSecPilotPeerTag>-1</ISVoiceHuntGroupSecPilotPeerTag>
<ISVoiceHuntGroupSecPilotPreference>0</ISVoiceHuntGroupSecPilotPreference>
```

```
<ISVoiceHuntGroupListSize>2</ISVoiceHuntGroupListSize>
<ISVoiceHuntGroupListNums>
<ISVoiceHuntGroupListNum>201</ISVoiceHuntGroupListNum>
<ISVoiceHuntGroupListNum>202</ISVoiceHuntGroupListNum>
</ISVoiceHuntGroupListNums>
<ISVoiceHuntGroupFinalNum />
<ISVoiceHuntGroupTimeout>180</ISVoiceHuntGroupTimeout>
<ISVoiceHuntGroupHops>2</ISVoiceHuntGroupHops>
</ISVoiceHuntGroup>
</ISVoiceHuntGroups>
</response>
```

ISgetPresenceGlobal

Use ISgetPresenceGlobal to retrieve configuration information and status for the presence engine in Cisco Unified CME.

Request: Example

```
<request>
<ISgetPresenceGlobal />
</request>
```

Response: Example

```
<response>
<ISPresenceGlobal>
<ISPresenceEnable>true</ISPresenceEnable>
<ISMode>cme</ISMode>
<ISAllowSub>true</ISAllowSub>
<ISAllowWatch>true</ISAllowWatch>
<ISMaxSubAllow>100</ISMaxSubAllow>
<ISSipUaPresenceStatus>false</ISSipUaPresenceStatus>
</ISPresenceGlobal>
</response>
```

How to Configure XML API

This section contains the following tasks:

- Defining XML Transport Parameters, page 1655
- Defining XML Application Parameters, page 1656
- Defining Authentication for XML Access, page 1657
- Defining XML Event Table Parameters, page 1659
- Troubleshooting the XML Interface, page 1660

Note The following Cisco IOS commands that were previously used with the XML interface are no longer valid: **log password**, **xmltest**, **xmlschema**, and **xmlthread**.

Defining XML Transport Parameters

To define the XML transport method and associated parameters, perform the following steps.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **ip http server**
4. **ixi transport http**
5. **response size** *fragment- size*
6. **request outstanding** *number*
7. **request timeout** *seconds*
8. **no shutdown**
9. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**ip http server** **Example:** `Router(config)# ip http server`	Enables the Cisco web browser user interface on the local Cisco Unified CME router.
Step 4	**ixi transport http** **Example:** `Router(config)# ixi transport http`	Specifies the XML transport method and enters XML-transport configuration mode. • **http**—HTTP transport.
Step 5	**response size** *fragment-size* **Example:** `Router(conf-xml-trans)# response size 8`	Sets the response buffer size. • *fragment-size*—Size of fragment in the response buffer, in kilobytes. Range is constrained by the transport type and platform. See the CLI help for the valid range of values.
Step 6	**request outstanding** *number* **Example:** `Router(conf-xml-trans)# request outstanding 2`	Sets the maximum number of outstanding requests allowed for the transport type. • *number*—Number of requests. Range is constrained by the transport type and platform. See the CLI help for the valid range of values.

	Command or Action	Purpose
Step 7	**request timeout** *seconds* **Example:** `Router(conf-xml-trans)# request timeout 30`	Sets the number of seconds to wait, while processing a request, before timing out. • *seconds*—Number of seconds. Range is 0 to 60.
Step 8	**no shutdown** **Example:** `Router(conf-xml-trans)# no shutdown`	Enables HTTP transport.
Step 9	**end** **Example:** `Router(config-xml-app)# end`	Returns to privileged EXEC mode.

Defining XML Application Parameters

To set a response timeout for communication with the XML application that overrides the setting in transport configuration mode, perform the following steps.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **ixi application cme**
4. **response timeout** {**-1** | *seconds*}
5. **no shutdown**
6. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**ixi application cme** **Example:** `Router(config)# ixi application cme`	Enters XML-application configuration mode for configuring Cisco IOS XML infrastructure parameters for the Cisco Unified CME application. **Note** This command defines URL of Cisco Unified CME XML server as http://<routerIPaddress>/ios_xml_app/cme.

	Command or Action	Purpose
Step 4	**response timeout** {**-1** | *seconds*} **Example:** `Router(config-xml-app) response timeout 30`	Sets a timeout for responding to the XML application and overwrites the IXI transport level timeout. • **-1**—No application-specific timeout is specified. This is the default. • *seconds*—Length of timeout, in seconds. Range is 0 to 60.
Step 5	**no shutdown** **Example:** `Router(conf-xml-app)# no shutdown`	Enables XML communication with the application.
Step 6	**end** **Example:** `Router(config-xml-app)# end`	Returns to privileged EXEC mode.

Defining Authentication for XML Access

To authenticate users for XML access, perform the following steps:

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **telephony-service**
4. **xml user** *user-name* **password** *password privilege-level*
5. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**telephony-service** **Example:** `Router(config)# telephony-service`	Enters telephony-service configuration mode.

	Command or Action	Purpose
Step 4	**xml user** *user-name* **password** *password privilege-level* **Example:** `Router(config-telephony)# xml user user23 password 3Rs92uzQ 15`	Defines an authorized user. • *user-name*—Unique alphanumeric string that is authorized user name. Maximum length of string is 19 characters. • *password*—Alphanumeric string to use for access. Maximum length of string is 19 characters. • *privilege-level*—Level of access to Cisco IOS commands to be granted to this user. Only the commands with the same or a lower level can be executed via XML. Range is 0 (lowest) to 15 (highest).
Step 5	**end** **Example:** `Router(config-telephony)# end`	Returns to privileged EXEC mode.

Defining XML Event Table Parameters

The XML event table is an internal buffer that stores captured and time-stamped events, such as phones registering and unregistering and extension status. One event equals one entry in the table. To set the maximum number of events or entries that can be stored in the XML event table and the length of time that events are retained before they are deleted from the table, perform the following steps.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **telephony-service**
4. **log table max-size** *number*
5. **log table retain-timer** *minutes*
6. **end**
7. **show fb-its-log**
8. **clear telephony-service xml-event-log**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**telephony-service** **Example:** `Router(config)#`	Enters telephony-service configuration mode.
Step 4	**log table max-size** *number* **Example:** `Router(config-telephony)# log table max-size 100`	Sets the number of entries in the XML event table. • *number*—Number of entries. Range is 0 to 1000. Default is 150.
Step 5	**log table retain-timer** *minutes* **Example:** `Router(config-telephony)# log table retain-timer 30`	Sets the number of minutes to retain entries in the event table before they are deleted. • *minutes*—Number of minutes. Range is 2 to 500. Default is 15.

	Command or Action	Purpose
Step 6	**end** **Example:** `Router(config-telephony)# end`	Returns to privileged EXEC mode.
Step 7	**show fb-its-log** **Example:** `Router# show fb-its-log`	Displays the event logs.
Step 8	**clear telephony-service xml-event-log** **Example:** `Router# clear telephony-service xml-event-log`	Clears XML event logs.

Troubleshooting the XML Interface

Step 1 Use the **debug cme-xml** command to view debug messages for the Cisco Unified CME XML interface.

Configuration Examples for XML API

This section contains the following examples:

- XML Transport Parameters: Example, page 1660
- XML Application Parameters: Example, page 1660
- XML Authentication: Example, page 1661
- XML Event Table: Example, page 1661

XML Transport Parameters: Example

The following example selects HTTP as the XML transport method:

```
ip http server
ixi transport http
 response size 8
 request outstanding 2
 request timeout 30
 no shutdown
```

XML Application Parameters: Example

The following example sets the application response timeout to 30 seconds.

```
ixi application cme
 response timeout 30
 no shutdown
```

XML Authentication: Example

The following example selects HTTP as the XML transport method. It allows access for user23 with the password 3Rs92uzQ, and sets up access list 99 that accepts requests from the IP address 192.168.146.72.

```
ixi transport http
ip http server
!
telephony-service
 xml user user23 password 3Rs92uzQ 15
```

XML Event Table: Example

The following example sets the maximum number of entries in the XML event table to 100 and the number of minutes to retain entries at 30:

```
telephony-service
 log table max-size 100
 log table retain-timer 30
```

Where to Go Next

For developer information on the XML API, see the *XML Provisioning Guide for Cisco CME/SRST.*

Additional References

The following sections provide references related to Cisco Unified CME features.

Related Documents

Related Topic	Document Title
Cisco Unified CME configuration	• *Cisco Unified CME Command Reference* • Cisco Unified CME Documentation Roadmap
Cisco IOS commands	• *Cisco IOS Voice Command Reference* • Cisco IOS Software Releases 12.4T Command References
Cisco IOS configuration	• *Cisco IOS Voice Configuration Library* • Cisco IOS Software Releases 12.4T Configuration Guides
Phone documentation for Cisco Unified CME	• User Documentation for Cisco Unified IP Phones

Technical Assistance

Description	Link
The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies. To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds. Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.	http://www.cisco.com/techsupport

Feature Information for XML API

Table 100 lists the features in this module and enhancements to the features by version.

To determine the correct Cisco IOS release to support a specific Cisco Unified CME version, see the *Cisco Unified CME and Cisco IOS Software Version Compatibility Matrix* at http://www.cisco.com/en/US/docs/voice_ip_comm/cucme/requirements/guide/33matrix.htm.

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which Cisco IOS software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to http://www.cisco.com/go/cfn. An account on Cisco.com is not required.

Note Table 100 lists the Cisco Unified CME version that introduced support for a given feature. Unless noted otherwise, subsequent versions of Cisco Unified CME software also support that feature.

Table 100 Feature Information for XML API

Feature Name	Cisco Unified CME Version	Feature Information
Call Blocking Based on Date and Time	4.0	The XML API was modified and is now provided through the Cisco IOS XML infrastructure. It supports all Cisco Unified CME features. The **log password**, **xmltest**, **xmlschema**, and **xmlthread** commands were made obsolete.
	3.0	The XML API was introduced.