CHAPTER 4

Monitoring WAAS Using XML API

This chapter describes how to use the WAAS API to monitor your WAAS devices and how to use soapUI with the WAAS API interface.

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Information About the XML-Based API

The WAAS Central Manager Web Service provides an XML-based API that supports monitoring device status and information, alarms, and statistics. It does not support device configuration.

For more information about the XML API, see the *Cisco Wide Area Application Services API Reference*.

The following services are offered:

- Device Configuration Service (DeviceConf)
- Traffic Acceleration Service (TrafficStats)
- CIFS Statistics Service (CIFSStats)
- Video Streaming Statistics Service (VideoStats)
- HTTP and HTTPS Statistics Service (HttpStats and HttpsStats)
- MAPI Statistics Service (MapiStats)
- NFS Statistics Service (NfsStats)
- SSL Statistics Service (SslStats)
- Events Service (AlarmStatus)
- Status Service (DeviceStatus)

To obtain the WSDL file defined for a particular service in the WAAS Central Manager monitoring API implementation, you submit a URL to the service with a ?wsdl suffix as follows:

https://<host/ip>:8443/ws/*service_name*?wsdl

To query a service for information, you send an XML-formatted SOAP request to the service at the following URL:

https://<host/ip>:8443/ws/*service_name*

Using the Traffic Acceleration Service

You can retrieve traffic and application statistics for individual WAEs, device groups, and for the WAAS network using the Traffic Acceleration service (TrafficStats Web Service), which performs one or more of the following actions:

- retrieveTrafficStats—Retrieves the overall statistics collected on either a WAAS device, WAEs within a device group, or all system-wide WAEs.
- getMonitoredApplications—Retrieves a list of all types of applications known in the scope of the system.
- retrieveAppTrafficStats—Retrieves overall traffic statistics collected on either a WAAS device, WAEs within a device group, or all system-wide WAEs. The traffic is further filtered based on the specified application names.
- retrieveCPUUtilization—Retrieves the CPU utilization information for a specified WAE.
- retrieveConnection—Retrieves overall connection details for the current time.
- retrieveConnectionTrendStats—Retrieves overall connection trend details of applications collected on a device.
- retrievePeakThroughPutStats—Retrieves the peak throughput values collected on a device.
- retrieveAverageThroughPutStats—Retrieves the average throughput values collected on a device.

Using the Events and Status Service

You can retrieve alarm information, device status, and disk status using the Events and Status service (AlarmStatus Web Service), which performs one or more of the following actions:

- retrieveAllAlarms—Retrieves all alarms.
- retrieveAlarmByName—Retrieves a list of all alarms filtered by the name of the WAE or WAE group, the object type, or the alarm name.
- retrieveAlarmBySeverity—Retrieves a list of all active alarms for the specified WAE or WAE group, further filtered on alarm severity.
- getDeviceStatus—Retrieves the device status.
- getDiskStatus—Retrieves the physical disk status.
- getDiskInformation—Retrieves information about the disk.
- getDiskEncryptStatus—Retrieves the disk encryption status.
- getMonitoredAOs—Retrieves the operational status of application accelerators for either a WAAS device, WAEs within a device group, or all system-wide WAEs.
- getMonitoredAOsByWaeIDs—Retrieves the operational status of application accelerators for a list of device IDs.

Using soapUI to Access the WAAS API Interface

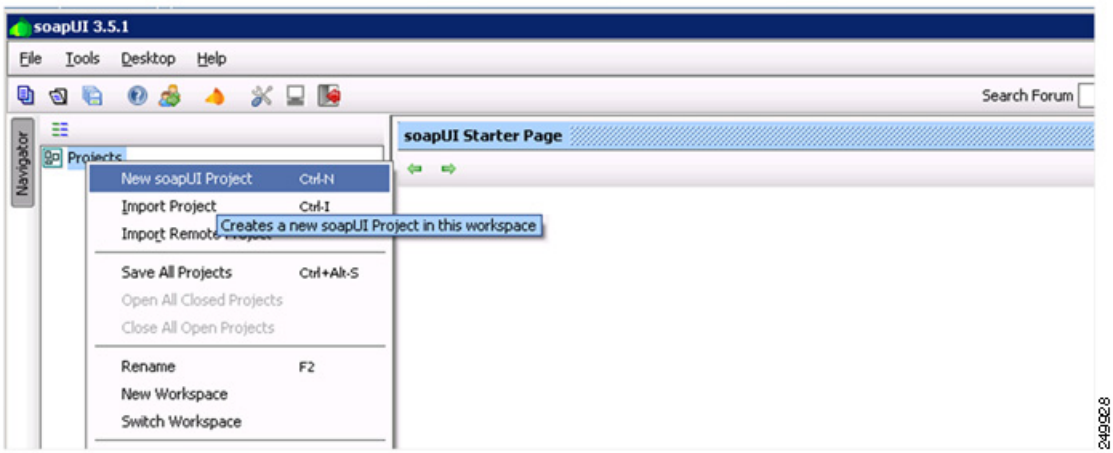
You can access the WAAS API interface using third-party tools such as soapUI, WebInject, ApacheCXF, and so forth. The soapUI website (http://www.soapui.org/) offers a free software version that you can download and install on a client PC. The procedure in this section describes how to create a project using soapUI after you install and start the software.

Procedure

Step 1 Right-click the project to create a project (Figure 4-1).

For example, WAAS-Project.

Figure 4-1 soapUI: Create New Project



The New soapUI Project pop-up window appears.

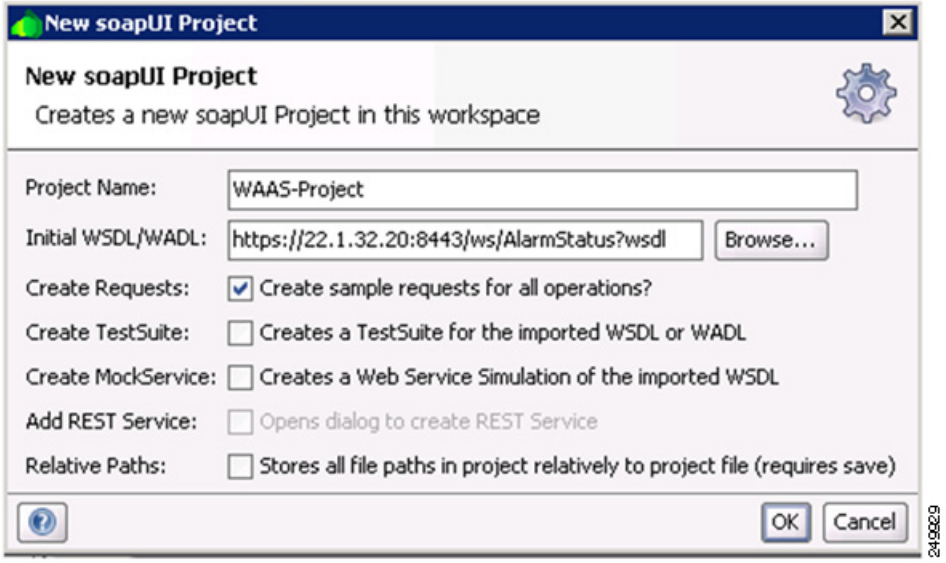
Step 2 From the New soapUI Project pop-up window (Figure 4-2), do the following:

a. Enter the WSDL URL.

b. Check the **Create Requests** check box.

c. Click **Ok**. A progress window appears while the data is gathered, which may take several seconds to load.

Figure 4-2 soapUI: New Project PoP-Up Window

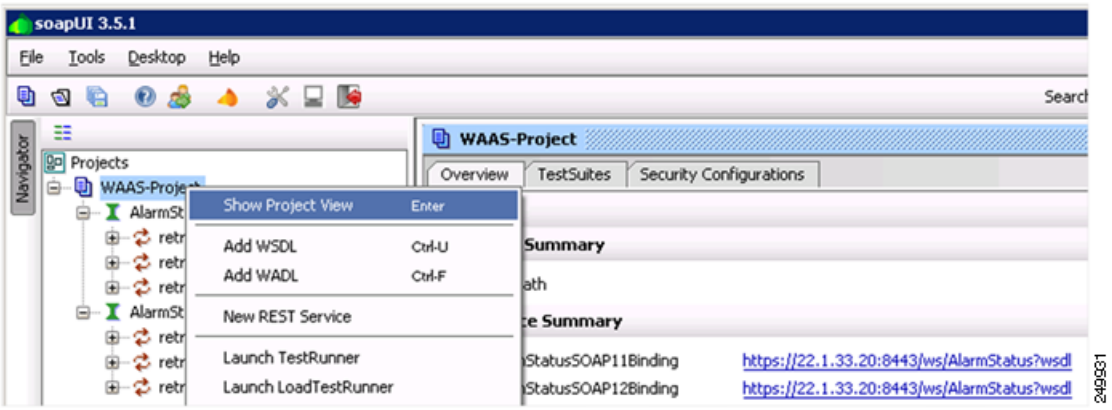


After the WSDL loads, the available navigation options appear.

Step 3 Specify security credentials by doing the following:

a. Right-click the new project (such as WAAS-Project) to display the pop-up menu and click **Show Project View** from the menu (Figure 4-3).

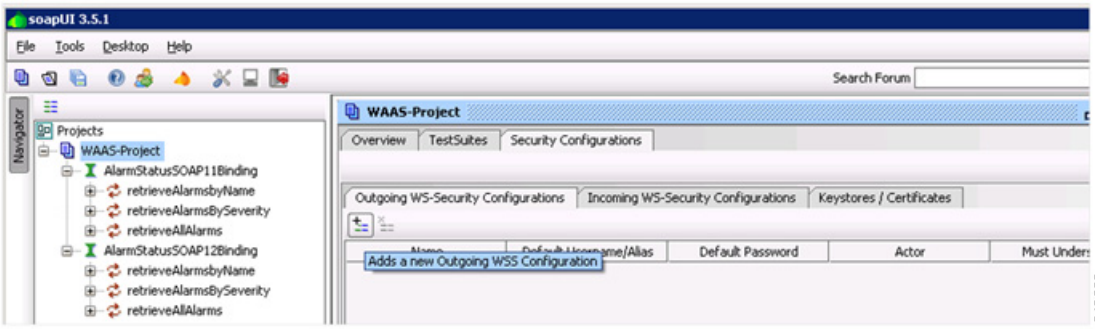
Figure 4-3 soapUI: Show Project View



The project window appears.

b. From the project window, add a new WSS by clicking the **Security Configurations** tab and click the plus sign (+) below the Outgoing WS-Security Configurations tab (Figure 4-4).

Figure 4-4 soapUI: Add New WSS



The New Outgoing WSS Configuration pop-up window appears.

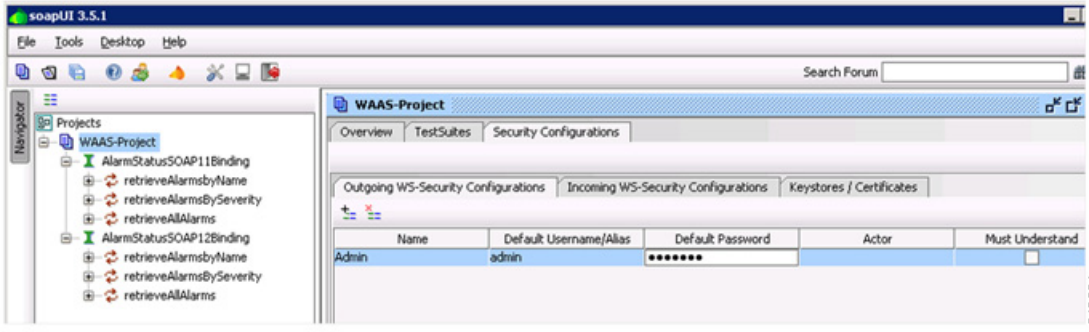
c. From the New Outgoing WSS Configuration pop-up window, enter a name for the new WSS (such as Admin) and click **OK** (Figure 4-5).

Figure 4-5 soapUI: New Outgoing WSS Configuration Pop-Up Window

The pop-up window closes and the Outgoing WS-Security Configuration tab displays the new WSS.

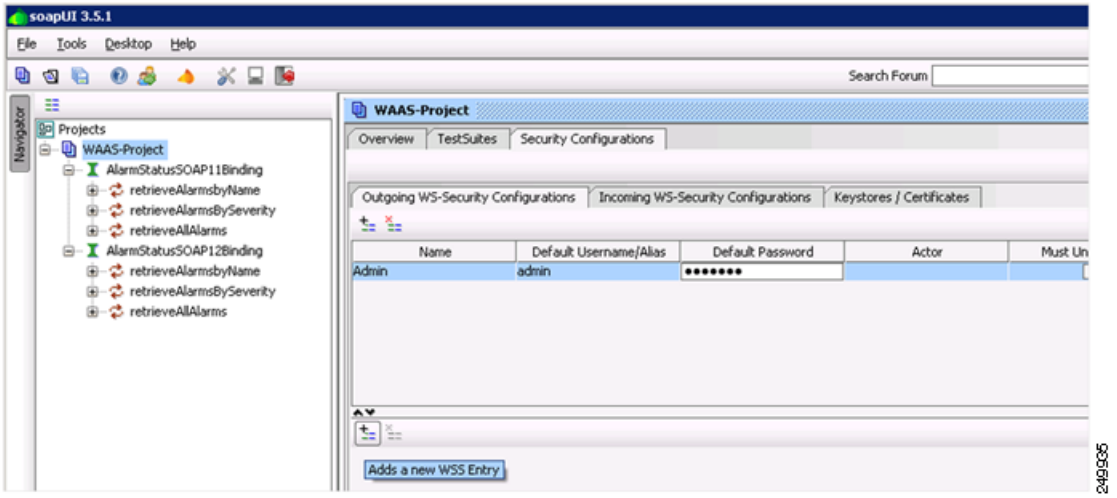
d. From the Outgoing WS-Security Configuration tab, enter the device username and password (Figure 4-6).

Figure 4-6 soapUI: WSS Username and Password



e. Click the plus sign (+) in the lower pane to add a new WSS Entry (Figure 4-7).

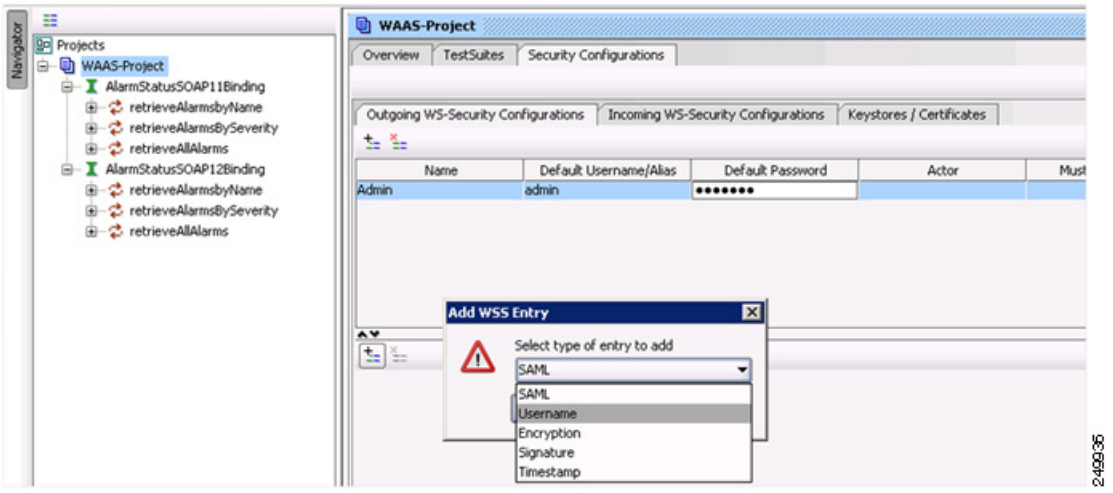
Figure 4-7 soapUI: Add WSS Entry



The Add WSS Entry pop-up window appears.

f. From the Add WSS Entry pop-up window's Select Type of Entry to Add drop-down list, choose **Username** (Figure 4-8).

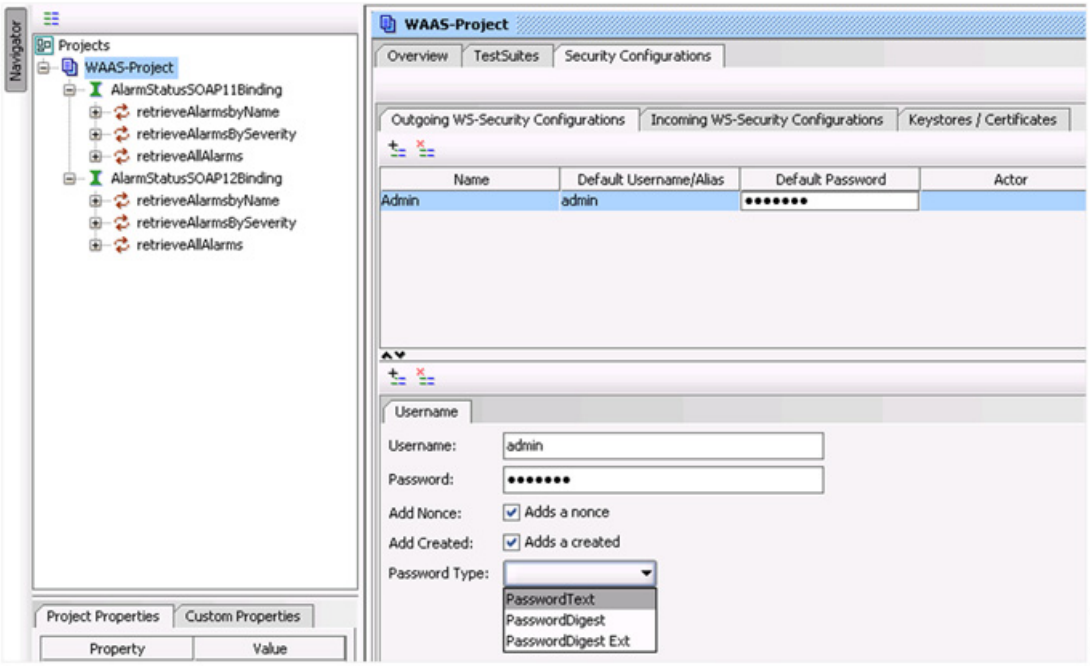
Figure 4-8 soapUI: Add WSS Entry



The pop-up window closes and the lower pane of the Outgoing WS-Security Configuration tab displays the Username tab with your username and password already populated.

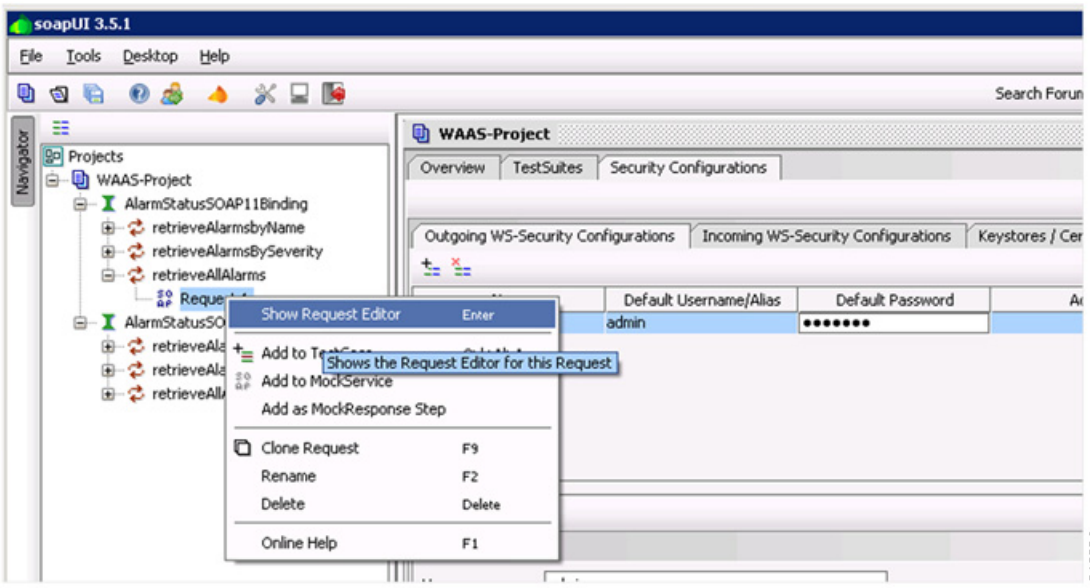
g. From the Username tab's Password Type drop-down list, choose **PasswordText** (Figure 4-9).

Figure 4-9 soapUI: Password Type



Step 4 From the Projects tree on the left, click **+** to expand one of the listed items, double-click **Request x** to display the pop-up menu, and choose **Show Request Editor** from the menu (Figure 4-10).

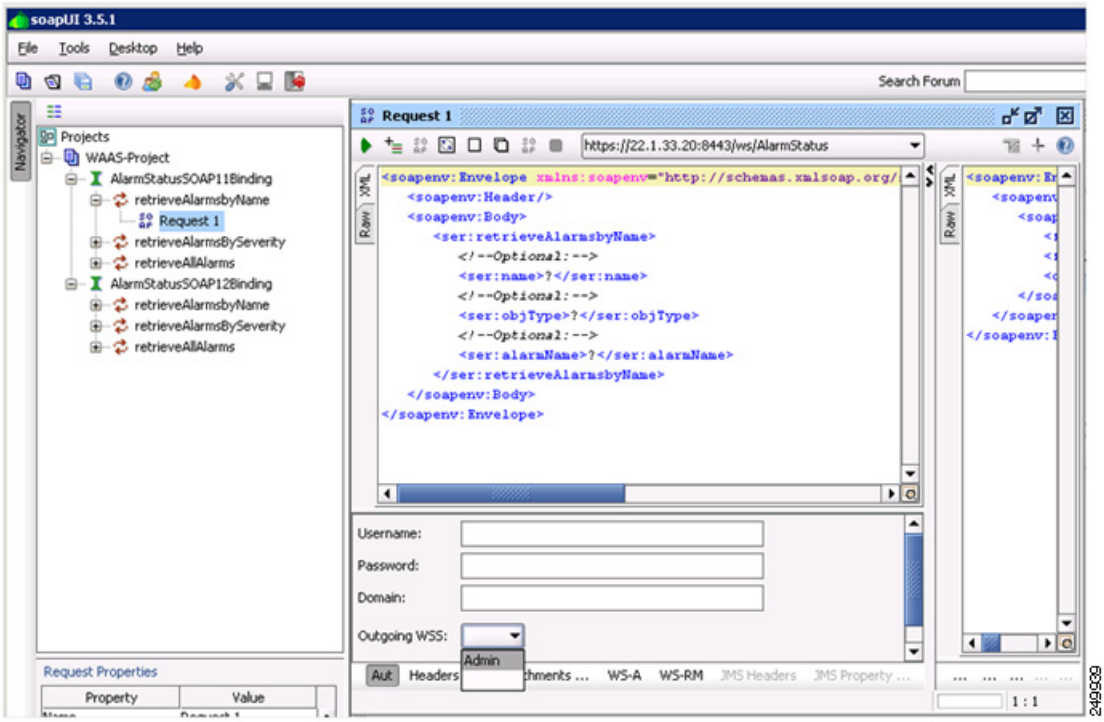
Figure 4-10 soapUI: Show Request Editor



The Request Editor window appears.

Step 5 From the Request Editor window, click **Aut** at the bottom and choose **Admin** from the Outgoing WSS drop-down list (Figure 4-11).

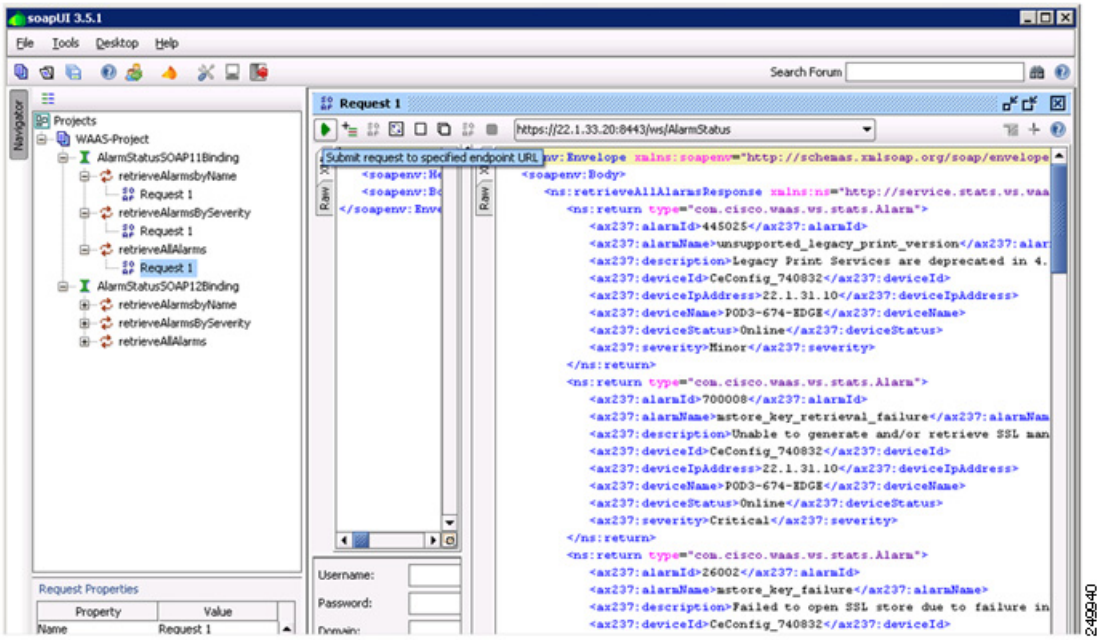
Figure 4-11 soapUI: Request Editor



Step 6 Verify the WSDL URL and click **Submit** to query the device.

After the request is complete, the data in XML format appears (Figure 4-12).

Figure 4-12 soapUI: Data in XML Format



Step 7 (Optional) To add more WSDL, right-click the project to display the pop-up menu and choose **Add WSDL** from the menu (Figure 4-13).

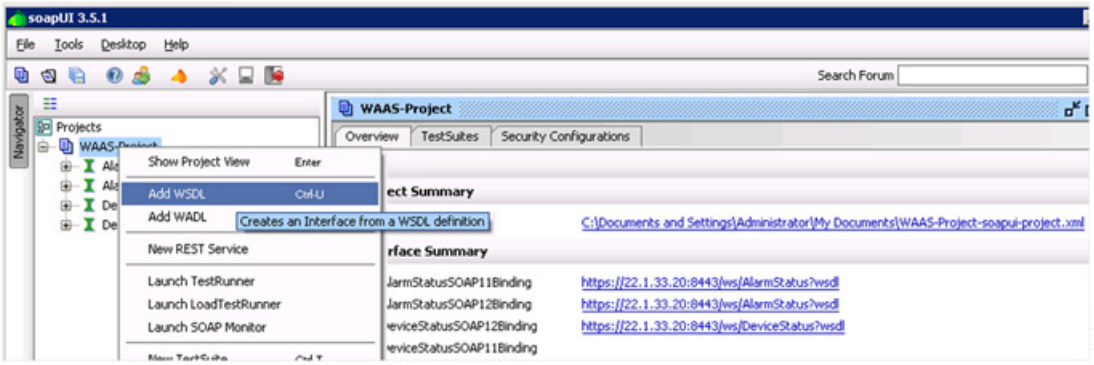



Figure 4-13 soapUI: Add WSDL