

Chapter 10

Sending E-Mail to Subscribers

This chapter describes the sample application IDP E-Mailer, an application that maps an IP address associated with problem traffic to a subscriber, then send e-mail to that subscriber about the problem. This chapter contains the following sections:

- Overview of IDP E-Mailer on page 165
- Configuring Deployment Properties for IDP E-Mailer on page 167
- Configuring Application Properties for IDP E-Mailer on page 167
- Deploying IDP E-Mailer on page 172

Overview of IDP E-Mailer

You can also manage subscribers who have sent or received problem traffic by sending them an e-mail message that gives them information about the problem detected. The SDX application library provides a demonstration application, named IDP E-Mailer, that uses the gateway extension feature for Dynamic Service Activator to send e-mail notifications to subscribers. For information about developing gateway clients that use the gateway extension, see *Chapter 3, Activating Services Through SOAP*.

The SDX software lets you map an IP address, which IDP identifies to be associated with problem traffic, to a subscriber so that a message can be sent to the subscriber. In the sample application, you specify a domain to append to subscriber names to formulate an e-mail address. In a production implementation, you could integrate information from a customer database to gain access to actual e-mail addresses. You can use the sample IDP E-Mailer as a basis for an application specific to your environment.

The *idpemail.war* file comprises the files for the IDP E-Mailer servlet. You can locate this file on the SDX application library CD in the */webapp* directory. You can deploy the file as it is as a demonstration application, or you can customize the files in the WAR file. The SDX application library supplies complete source code for the IDP E-Mailer servlet in the *WEB-INF/src* directory in the *idpemail.war* file.

How IDP E-Mailer Responds to Incidents Reported by IDP

When an incident activates the IDP E-Mailer application for a subscriber, the following arguments are provided to the application in the following order:

1. Source of the incident
2. Destination of the incident
3. Description of the incident

The application uses this information when it creates the e-mail message.

The demonstration IDP E-Mailer application is a servlet that maps a subscriber's IP address (for addresses identified as the source or destination of detrimental traffic) to an e-mail address and then sends e-mail to the designated subscriber in the following manner:

1. Uses NIC to locate the SAE that manages the specified IP address.
2. Uses the SAE CORBA remote API to obtain the subscriber session for the IP address.
3. If the subscriber session is active, obtains the login name associated with the subscriber session.
4. Creates the e-mail address by appending a domain name that is specified in the IDP E-Mailer configuration to the subscriber login name. For example, for a domain specified as mycompany.com, and a subscriber login of ChrisB, the e-mail address would be ChrisB@mycompany.com.
5. Creates a message that includes the text received from IDP that specifies the IP address of the source of the detrimental traffic received, or the destination of the detrimental traffic being sent, and a description of the incident.
6. Sends the message.

The configuration for IDP E-Mailer specifies:

- Text to appear on the subject line of the e-mail
- Introductory text to appear in the body of an e-mail message for detrimental traffic sent by the subscriber
- Introductory text to appear in the body of an e-mail message for detrimental traffic sent to the subscriber

Configuring Deployment Properties for IDP E-Mailer

The configuration for the application specifies that the directory server resides on the local system. If the directory server resides on another system, edit the *WEB-INF/bootstrap.properties* file.

To customize files and properties for the IDP E-Mailer application:

1. Copy the *idpemail.war* file to a temporary folder, and work in that folder.
2. Extract the *bootstrap.properties* file from the *idpemail.war* file.

jar xvf idpemail.war WEB-INF/bootstrap.properties

3. (Optional) With a text editor, edit the *WEB-INF/bootstrap.properties* file.

The file provides the default local directory location. To change the location of the directory server, edit the `Config.java.naming.provider.url` property.

4. Replace the *WEB-INF/bootstrap.properties* file and any other updated files in the *idpemail.war* file. To replace the *WEB-INF/bootstrap.properties* file, enter:

jar uvf idpemail.war WEB-INF/bootstrap.properties

Configuring Application Properties for IDP E-Mailer

You configure the IDP E-Mailer application as you would other gateway applications, including configuration for Dynamic Service Activator and logging. For information about configuring a gateway client, see *Chapter 3, Activating Services Through SOAP*.

The *idpEmailer.xml* file provides the configuration properties for the IDP E-Mailer application. You can use the template file *idpEmailer.conf* to create other configuration files for IDP E-Mailer.

Tasks to configure properties for IDP E-Mailer are:

- Configuring General Properties for IDP E-Mailer on page 168.
- Configuring a NIC Proxy for IDP E-Mailer on page 169
- Configuring Logging for IDP E-Mailer on page 169
- Configuring E-Mail Properties for IDP E-Mailer on page 170

Configuring General Properties for IDP E-Mailer

The general properties for IDP E-Mailer specify the configuration namespaces used by parts of the application.

To use SDX Configuration Editor to configure general properties for IDP E-Mailer:

1. In the navigation pane, select the *IdpEmailer.xml* configuration file.
2. Select the IDP E-Mailer tab.

The IDP E-Mailer pane appears.

3. In the IDP E-Mailer section, edit or accept the default values.
See *IDP E-Mailer Fields* on page 168.
4. Select File > Save.
5. Right-click the configuration file, select SDX System Configuration > Export to LDAP Directory.

IDP E-Mailer Fields

In SDX Configuration Editor, you can modify the following fields in the IDP E-Mailer pane in an *IdpEmailer.xml* configuration file.

Logging Subsystem Configuration Namespace

- Namespace that defines the properties for the logging operations.
- Value—Path, relative to the static configuration DN, that defines the object for the namespace
- Default—*/WebApplication*
- Property name—*loggingNamespace*

NIC Proxy Configuration Namespace for IP Subscriber

- Namespace that defines the properties for the NIC proxy operations.
- Value—Path, relative to the static configuration DN, that defines the object for the namespace

- Default—*/WebApplication/IdpEmailer/nicProxyIp*
- Property name—*nicProxyIpNamespace*

E-Mail Configuration Namespace for IDP E-Mailer

- Namespace that defines the properties for the IDP E-Mailer operations.
- Value—Path, relative to the static configuration DN, that defines the object for the namespace
- Default—*/WebApplication/IdpEmailer/email*
- Property name—*emailNamespace*

Configuring a NIC Proxy for IDP E-Mailer

To use SDX Configuration Editor to configure a NIC proxy for IDP E-Mailer:

1. In the navigation pane, select the *IdpEmailer.xml* configuration file.
2. Select the NIC Proxy Configurations tab.

The NIC Proxy Configurations pane appears.

3. Configure the NIC proxy for IDP E-Mailer as you would any NIC proxy. For the demonstration application set the following values:
 - Key Type—Subscriber's IP address
 - Value Type—SAE server ID

For information about configuring NIC proxies, see *SDX Network Guide: SAE, Juniper Networks Routers, and NIC, Chapter 7, Configuring Applications to Communicate with an SAE*.

4. Select File > Save.
5. Right-click the configuration file, and select SDX System Configuration > Export to LDAP Directory.

Configuring Logging for IDP E-Mailer

To configure logging for IDP E-Mailer, see *SDX Monitoring and Troubleshooting Guide, Chapter 2, Configuring Logging for SDX Components*.

Configuring E-Mail Properties for IDP E-Mailer

Configure retailer-specific properties for sending e-mail in the E-Mail Configurations pane.

To use SDX Configuration Editor to configure e-mail properties for IDP E-Mailer:

1. In the navigation pane, select the *IdpEmailer.xml* configuration file.
2. Select the E-Mail Configurations tab.

The E-Mail Configurations pane appears.



The screenshot shows a window titled "E-Mail Configurations" with a light gray background. It contains six input fields, each with a label to its left and a horizontal text box to its right. The fields are: "E-Mail Host", "E-Mail Domain", "E-Mail Sender Address", "E-Mail Subject", "Introductory Text for Intrusive Traffic Received", and "Introductory Text for Intrusive Traffic Sent". Each field is separated by a thin blue horizontal line.

3. In the E-Mail Configurations section, edit or accept the default values.
See *E-Mailer Configurations Fields* on page 171.
4. Select File > Save.
5. Right-click the configuration file, and select SDX System Configuration > Export to LDAP Directory.

E-Mailer Configurations Fields

In SDX Configuration Editor, you can modify the following fields in the E-Mail Configurations pane in an *IdpEmailer.xml* configuration file.

E-Mail Host

- Hostname or IP address of the Simple Mail Transport Protocol (SMTP) server to be used to send e-mail messages to subscribers in response to detection of malicious traffic sent or received by subscribers.
- Value— < hostname > or < IP address >
- Default—No value
- Property name—EmailHostName

E-Mail Domain

- Domain name to be added to a subscriber's login name to form the subscriber's e-mail address.
- Value— < domain name >
- Guidelines—This implementation of IDP E-Mailer identifies a single domain name for all subscribers who are notified by e-mail of incidents.
- Default—No value
- Property name—EmailDomainName

E-Mail Sender Address

- E-mail address from which e-mail messages are sent. These messages provide information about incidents that IDP detected.
- Value— < e-mail address >
- Default—No value
- Property name—EmailSenderName

E-Mail Subject

- Text to appear in the Subject line of each message sent in response to an incident detected by IDP for which e-mail is to be sent.
- Value—Text
- Default—No value
- Property name—EmailSubject

Introductory Text for Intrusive Traffic Received

- Introductory text to appear in the message body for detrimental traffic received by the subscriber. Text received from IDP that describes the incident appears after this introductory text.
- Value—Text
- Default—No value
- Property name—EmailSourceOfIntrusion

Introductory Text for Intrusive Traffic Sent

- Introductory text to appear in the message body for detrimental traffic sent by the subscriber. Text received from IDP that describes the incident appears after this introductory text.
- Value—Text
- Default—No value
- Property name—EmailDestinationOfIntrusion

Deploying IDP E-Mailer

To deploy the updated *idpemail.war* file:

- Copy the file to the deployment directory for your Web server.

If you are using JBoss, copy the file to the */opt/UMC/jboss/server/default/deploy* directory. JBoss automatically starts the Web application when a new WAR file is copied into the *deploy* directory.