

SafeNet Authentication Manager Integration Guide

Using SAM as an Identity Provider for Blue Coat ProxySG

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Third-Party Software Acknowledgement

This document is intended to help users of Gemalto products when working with third-party software, such as Blue Coat ProxySG.

Material from third-party software is being used solely for the purpose of making instructions clear. Screen images and content obtained from third-party software will be acknowledged as such.

Description

SafeNet Authentication Manager (SAM) is a versatile authentication solution that allows you to match the authentication method and form factor to your functional, security, and compliance requirements. Use this innovative management service to handle all authentication requests and to manage the token lifecycle.

The Blue Coat ProxySG appliances provide complete control over all of your web traffic, delivering world-class threat protection. Robust features include user authentication, web filtering, data loss prevention, inspection, and visibility of SSL-encrypted traffic (including the ability to stream decrypted content to an external server with an Encrypted Tap license), content caching, bandwidth management, stream-splitting, and more.

The Blue Coat Secure Web Gateway Virtual Appliance (SWG VA) combines the market-leading security capabilities of Blue Coat ProxySG with the flexibility of virtualization to provide a cost-effective enterprise branch office solution. With the Blue Coat SWG VA, businesses can support web security and other critical remote office infrastructure on a common platform, reducing costs and IT resource requirements.

This document describes how to:

- Deploy multi-factor authentication (MFA) options in Blue Coat ProxySG using SafeNet one-time password (OTP) tokens managed by SafeNet Authentication Manager.
- Configure SAML authentication in Blue Coat ProxySG using SafeNet Authentication Manager as an identity provider.

It is assumed that the Blue Coat ProxySG environment is already configured and working with static passwords prior to implementing multi-factor authentication using SafeNet Authentication Manager.

Blue Coat ProxySG can be configured to support multi-factor authentication in several modes. The SAML authentication will be used for the purpose of working with SafeNet Authentication Manager.

Applicability

The information in this document applies to:

- **SafeNet Authentication Manager**—A server version of SAM that is used to deploy the solution on-premises in the organization.

Environment

The integration environment that was used in this document is based on the following software versions:

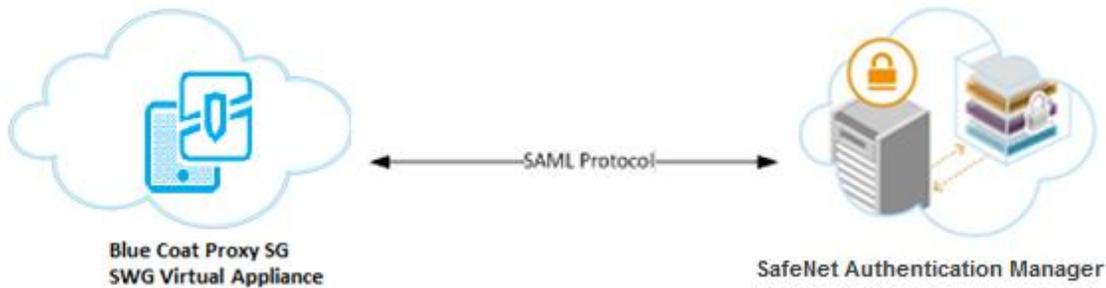
- **SafeNet Authentication Manager**—Version 8.2 (Hotfix 721)
- **Blue Coat ProxySG** (Virtual Appliance)—Model No. VA-100
- **Blue Coat ProxySG** (Software)—Version SGOS 6.5.6.4 SWG Edition

Audience

This document is targeted to system administrators who are familiar with Blue Coat ProxySG, and are interested in adding multi-factor authentication capabilities using SafeNet Authentication Manager.

SAML Authentication using SAM

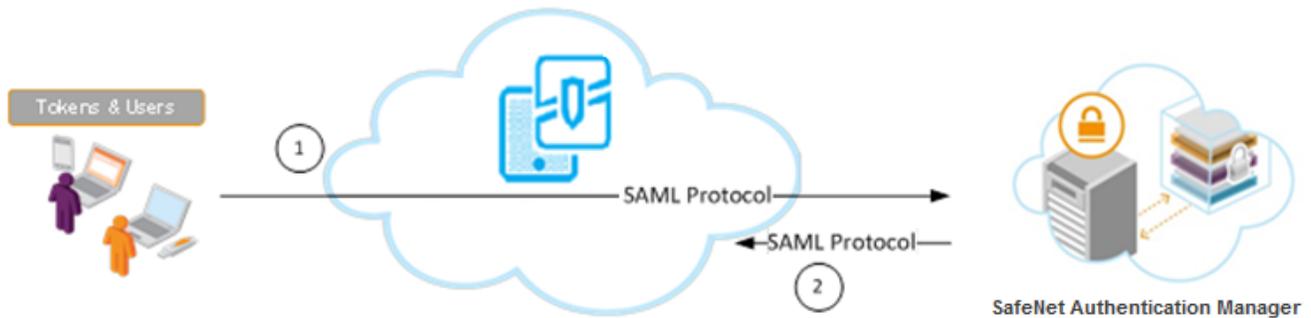
SAM provides a SAML authentication option that is already implemented in the SAM environment and can be used without any installation.



Authentication Flow using SAM

SafeNet Authentication Manager communicates with a large number of service providers and cloud-based services solutions using the SAML protocol.

The image below describes the dataflow of a multi-factor authentication transaction for Blue Coat ProxySG.



1. A user attempts to log on to Blue Coat ProxySG. The user is redirected to SAM. SAM collects and evaluates the user's credentials.
2. SAM returns a response to Blue Coat ProxySG, accepting or rejecting the user's authentication request.

SAML Prerequisites

To enable SafeNet Authentication Manager to receive SAML authentication requests from Blue Coat ProxySG, ensure the following:

- End users can authenticate from the Blue Coat ProxySG environment with a static password.
- The Blue Coat ProxySG virtual appliance should be configured as a reverse proxy with HTTPS services.

Configuring SafeNet Authentication Manager

Using SAM as an identity provider for Blue Coat ProxySG requires the following:

- Synchronizing User Stores to SAM, page 6
- Assigning a Token in SAM, page 6
- Configuring SAM as an Identity Provider, page 7
- Exporting the SAM Certificate, page 9
- Downloading the Blue Coat ProxySG Metadata, page 10
- Configuring SAM for SAML-based User Federation, page 10

Synchronizing User Stores to SAM

SAM manages and maintains tokens information in its data store, including the token status and the token assignment to users. For user information, SAM can be integrated with an external user store. During the design process, it is important to identify which user store the organization is using, such as Microsoft Active Directory.

If the organization is not using an external user store, SAM uses an internal (“stand-alone”) user store created and maintained by the SAM server.

SAM 8.2 supports the following external user stores:

- Microsoft Active Directory 2003, 2008, 2008 R2, 2012, and 2012 R2
- Novell eDirectory
- Microsoft ADAM/AD LDS
- OpenLDAP
- Microsoft SQL Server 2005 and 2008
- IBM Lotus Domino
- IBM Tivoli Directory Server

Assigning a Token in SAM

SAM supports a number of token methods that can be used as a second authentication factor for users authenticating through Blue Coat ProxySG.

The following tokens are supported:

- eToken PASS
- SafeNet GOLD
- SafeNet eToken 3400
- SafeNet eToken 3500
- eToken NG-OTP
- MobilePASS
- SafeNet eToken Virtual products

- MobilePASS Messaging
- SafeNet Mobile Authentication (iOS)

Tokens can be assigned to users as follows:

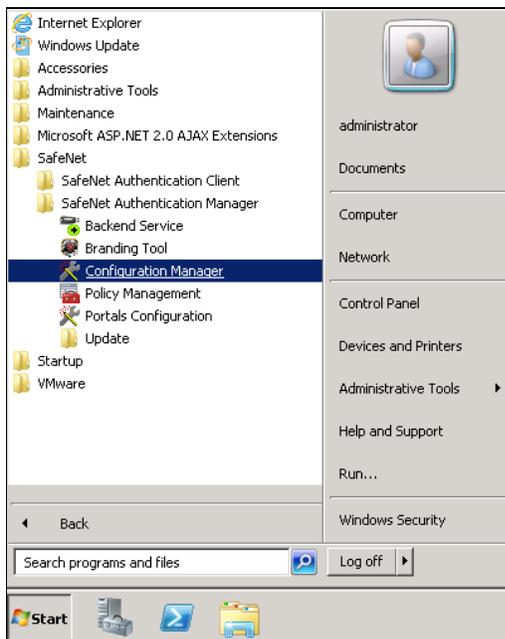
- **SAM Management Center**—Management site used by SAM administrators and helpdesk personnel for token enrollment and lifecycle management.
- **SAM Self-Service Center**—Self-service site used by end users for managing their tokens.
- **SAM Remote Service**—Self-service site used by employees not on the organization's premises as a rescue website to manage cases where tokens are lost or passwords are forgotten.

For more information on SafeNet's tokens and service portals, refer to the *SafeNet Authentication Manager 8.2 Administrator's Guide*.

Configuring SAM as an Identity Provider

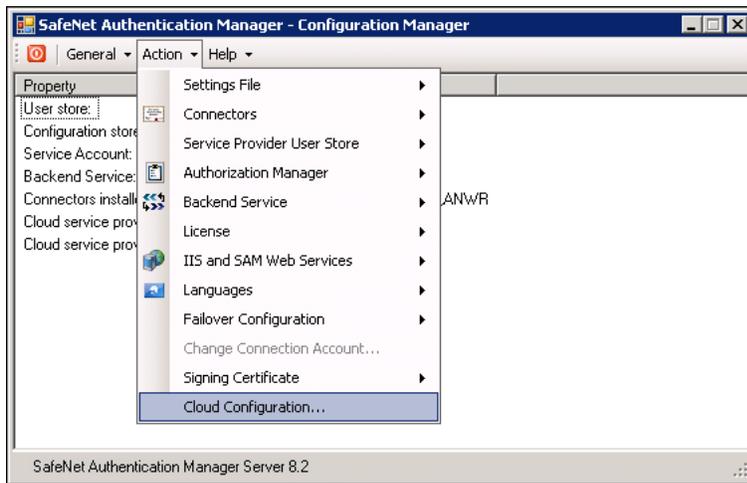
To use Blue Coat ProxySG as a service provider and SAM as an identity provider, SAM must be configured as an identity provider.

1. From the Windows **Start** menu, click **Programs > SafeNet > SafeNet Authentication Manager > Configuration Manager**.

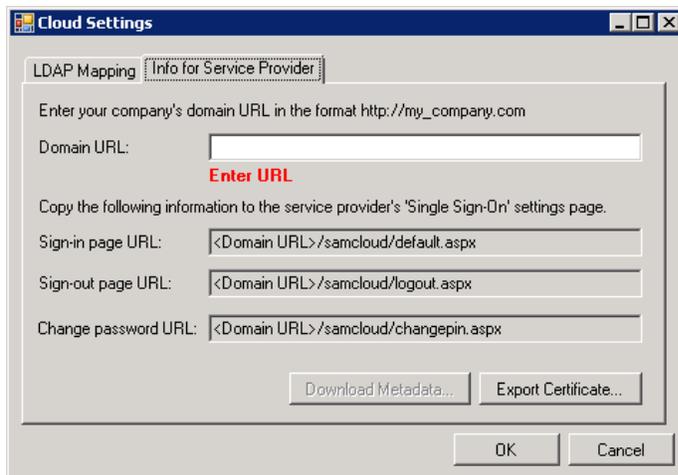


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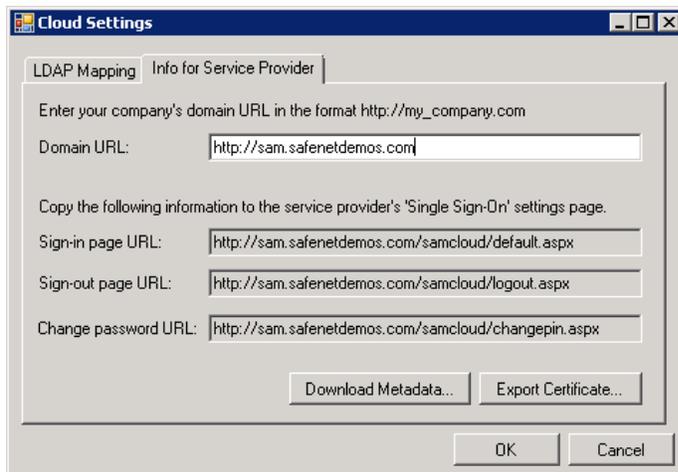
2. Click the **Action** tab, and then select **Cloud Configuration**.



3. Click the **Info for Service Provider** tab.
4. Type the web address of the SAM portal server in the **Domain URL** field.



The remaining fields are generated according to the Domain URL that was entered.

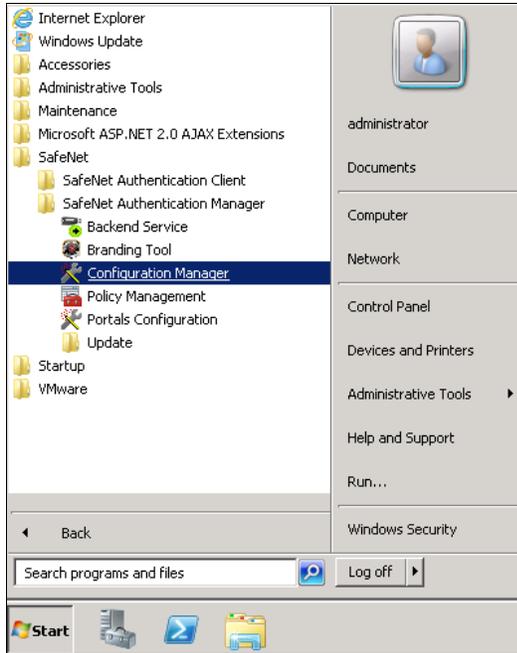


5. Click **OK**.

Exporting the SAM Certificate

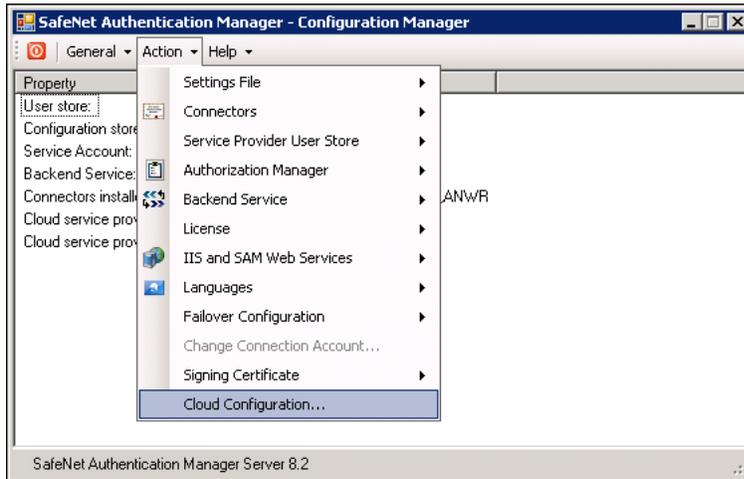
SAM's certificate is shared between SAM and Blue Coat ProxySG. The certificate will be used to sign the authentication requests.

1. From the Windows **Start** menu, click **Programs > SafeNet > SafeNet Authentication Manager > Configuration Manager**.



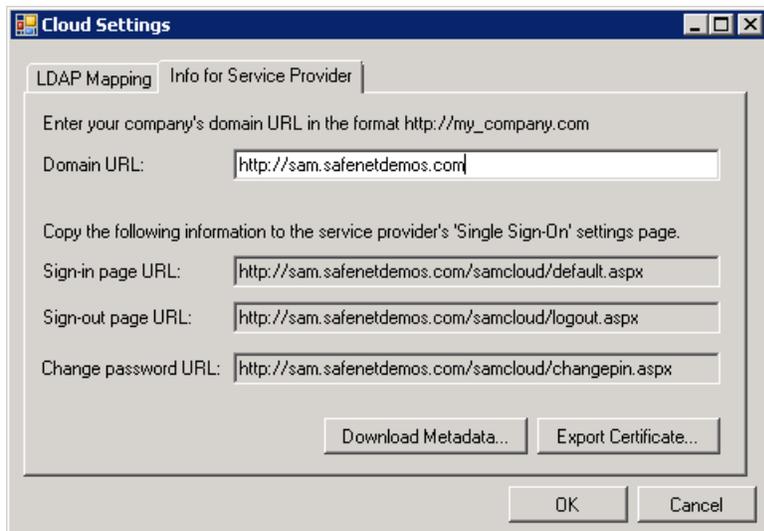
(The screen image above is from Microsoft®. Trademarks are the property of their respective owners.)

2. Click the **Action** tab, and then select **Cloud Configuration**.



3. On the **Info for Service Provider** tab.

4. Click **Export Certificate**, and then save the certificate file. This certificate file will be imported later into Blue Coat ProxySG.



5. Copy the values of the **Sign-in page URL**, **Sign-out page URL**, and **Change password URL** fields, and save them in a text file. These URLs will be required while configuring Blue Coat ProxySG.
6. Click **OK**.

Downloading the Blue Coat ProxySG Metadata

You can export the ProxySG metadata using the following link:

<https://<IP-address of ProxySG>:8082/saml/metadata/<realm-name>/sp>

For **realm-name**, see “Creating a SAML Realm” on page 13.

Configuring SAM for SAML-based User Federation

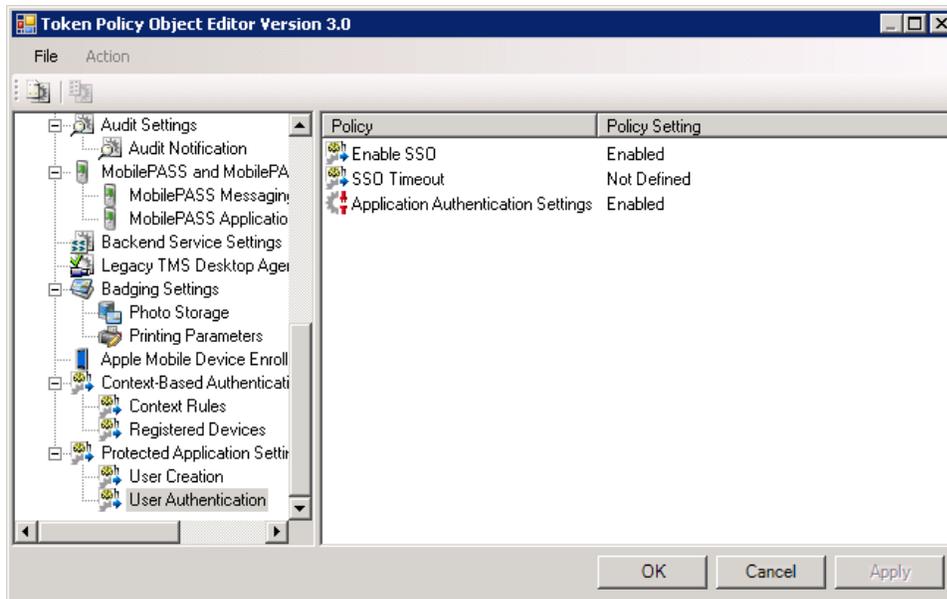
SAM’s Token Policy Object (TPO) policies include application authentication settings for SAML service providers. These settings are used by SAM’s portal to communicate with service providers.

For general portal configuration, refer to the *SafeNet Authentication Manager 8.2 Administrator’s Guide*.

To edit the TPO for SAM’s portal configuration:

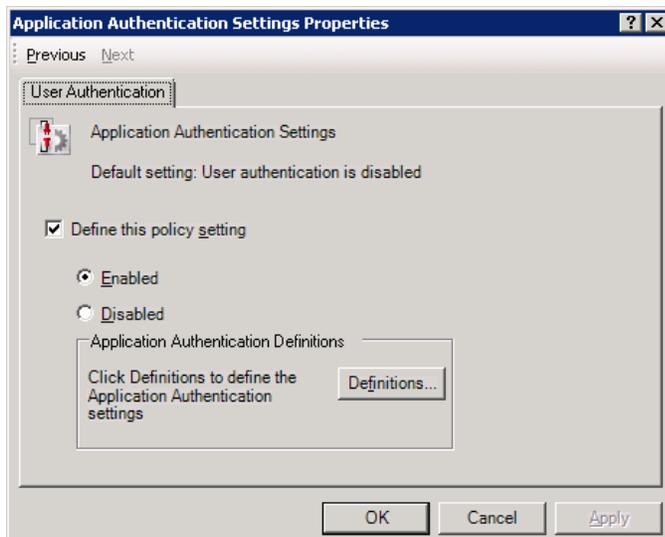
1. Open the **Token Policy Object Editor** for the appropriate group. See the *SafeNet Authentication Manager 8.2 Administrator’s Guide* for more information.

2. In the left pane, click **Protected Application Settings > User Authentication**.



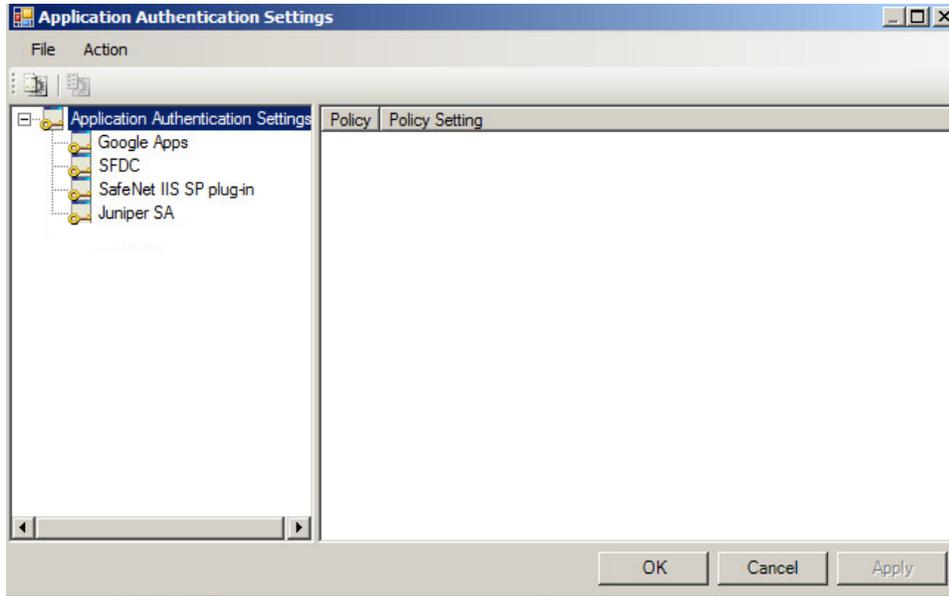
(The screen image above is from Microsoft®. Trademarks are the property of their respective owners.)

3. In the right pane, double-click **Application Authentication Settings**.
4. On the **Application Authentication Settings Properties** window, perform the following steps:
 - a. Select **Define this policy setting**.
 - a. Select **Enabled**.
 - b. Click **Definitions**.



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- On the **Application Authentication Settings** window, right-click **Application Authentication Settings**, and then click **Create a new profile**.



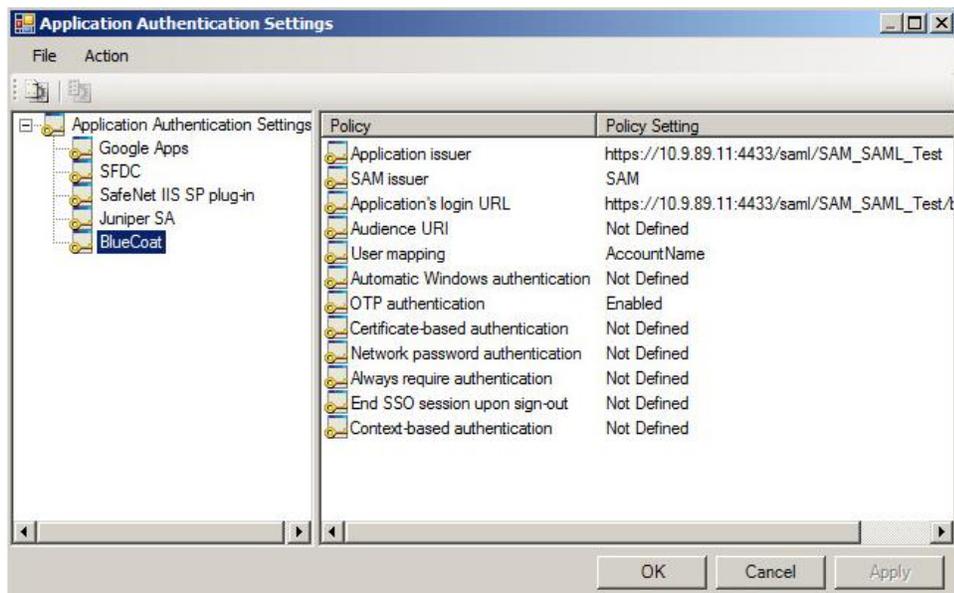
(The screen image above is from Microsoft®. Trademarks are the property of their respective owners.)

- In the left pane, right-click the new profile, and then rename it to a user-friendly name.
- In the left pane, click the new profile.
- In the right pane, double-click on the following policies, and enter the appropriate information:

Application Issuer	Enter the Entity ID of Blue Coat ProxySG (for example, https://<Virtual IP of ProxySG>:4433/saml/SAM_SAML).
SAM issuer	Enter a unique SAM ID to be identified in SAML authentication. This entity ID should match the entity ID of the SAM metadata file.
Application's login URL	Enter the ACS URL of Blue Coat ProxySG (for example, https://<Virtual IP of ProxySG >:4433/saml/SAM_SAML/bcsamlpost).
User mapping	Select AccountName .

9. Enable the appropriate authentication methods for your organization. See the *SafeNet Authentication Manager Version 8.2 Administrator's Guide* for detailed information about authentication methods.

The following is an example of the completed policy fields in the **Application Authentication Settings** window:



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10. Click **OK** until all of the **Token Policy Object Editor** windows are closed.\

Configuring Blue Coat ProxySG

Adding SafeNet Authentication Manager as an identity provider in Blue Coat ProxySG requires the following:

- Creating a SAML Realm, page 13
- Configuring the CA Certificate List, page 17
- Configuring an Authentication Policy, page 19

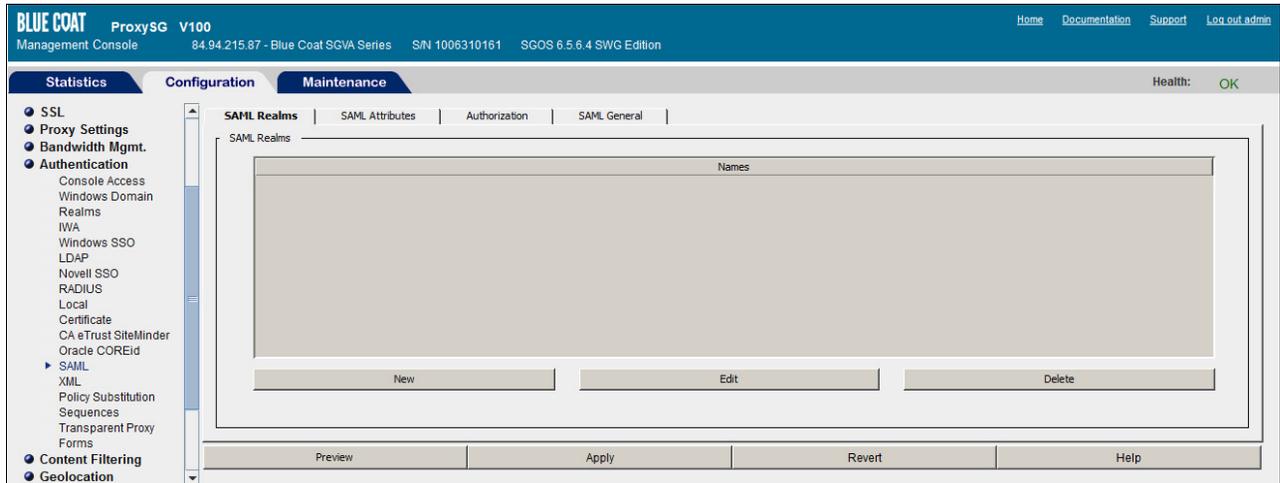
Creating a SAML Realm

1. In a web browser, open the following URL and log in as an administrator:

https://<ProxySG_IP_Address>:8082

where **ProxySG_IP_Address** is the IP address of the ProxySG virtual appliance, and **8082** is the default management port.

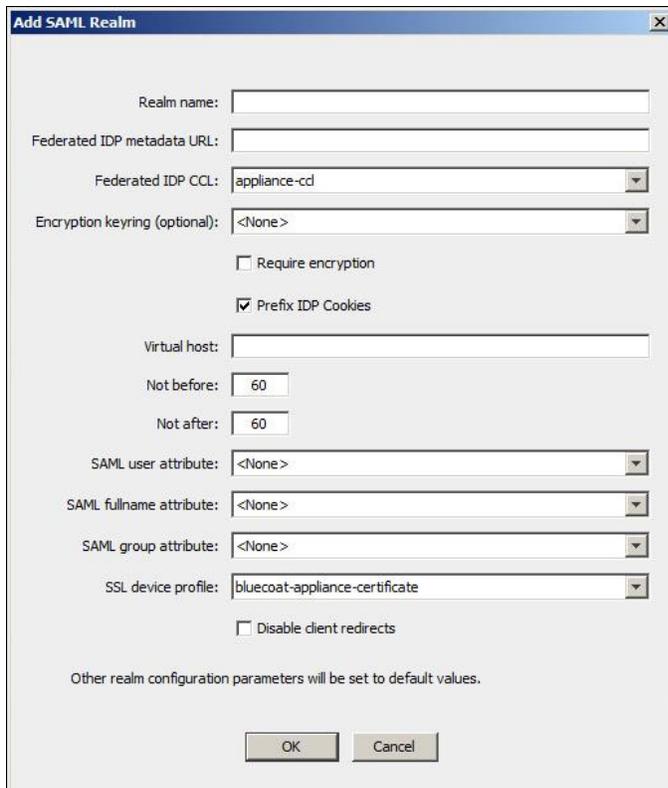
- On the **Blue Coat Management Console** window, click the **Configuration** tab, and then in the left pane, click **Authentication > SAML**.



(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

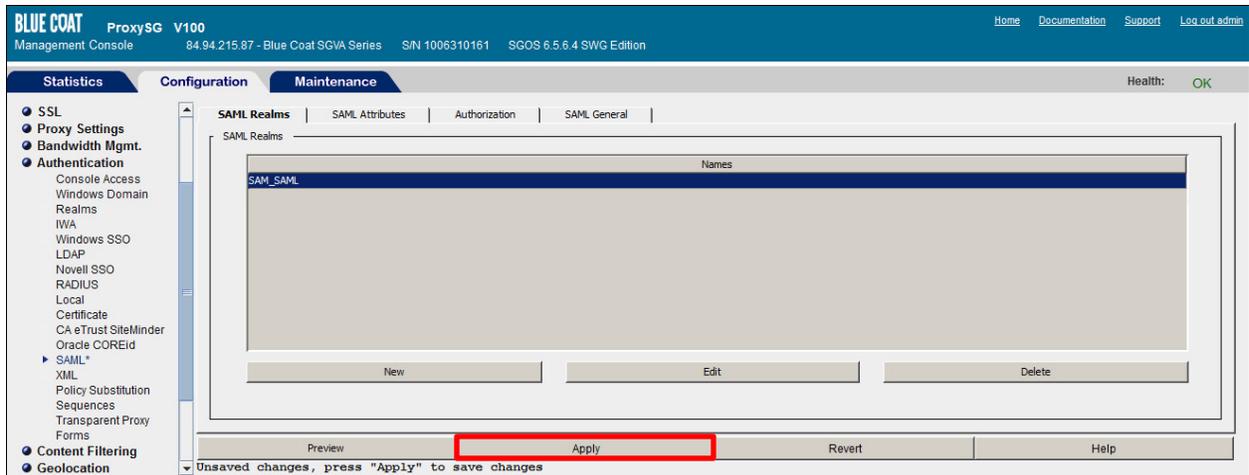
- In the right pane, on the **SAML Realms** tab, click **New**.
- On the **Add SAML Realm** window, complete the following fields, and then click **OK**.

Realm name	Enter a valid name for the new SAML realm (for example, SAM_SAML).
Federated IDP CCL	Select the browser-trusted CCL.
Virtual host	Specify the hostname for the SAML endpoint.



(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

5. Click **Apply**.



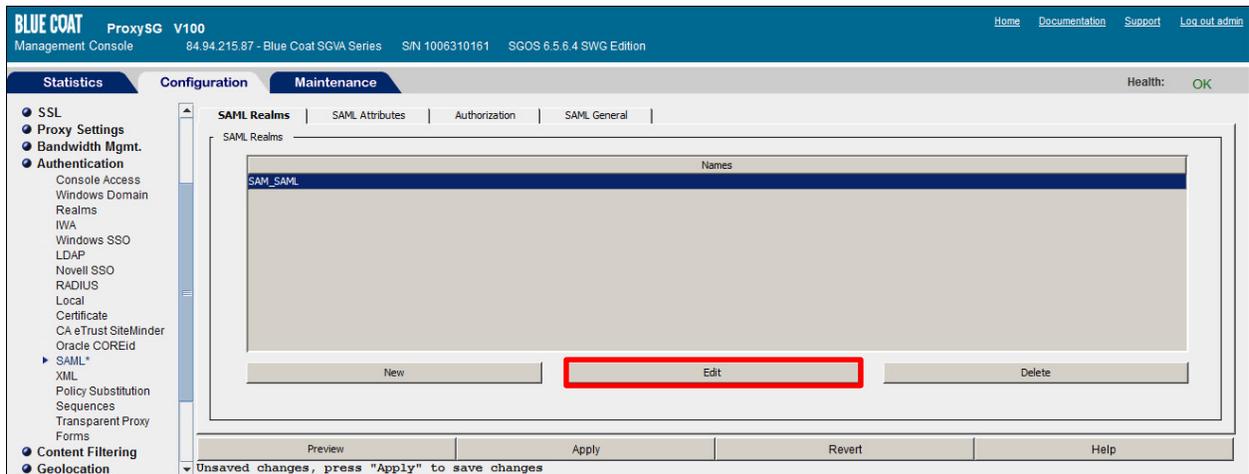
(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

6. Click **OK**.



(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

7. Select the newly created SAML realm (for example, **SAM_SAML**), and then click **Edit**.



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8. On the **Edit SAML Realm** window, complete the following fields, and then click **OK**.

Federated IDP entity ID	Enter the entity ID of SAM.
Federated IDP POST URL	Enter http://<IP Address of SAM Server>/samcloud/default.aspx .
Federated IDP Redirect URL	Enter http://<IP Address of SAM Server>/samcloud/default.aspx .

(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

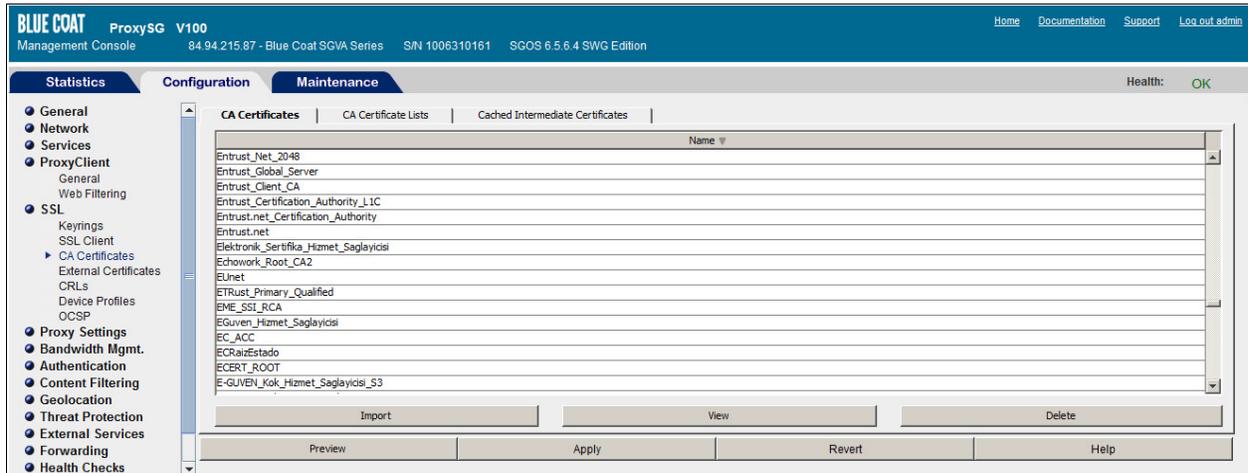
9. Click **Apply**, and then click **OK**.

Configuring the CA Certificate List

The ProxySG appliance CA certificate list (CCL) must contain the IDP's signing certificates.

Importing the IDP Certificate

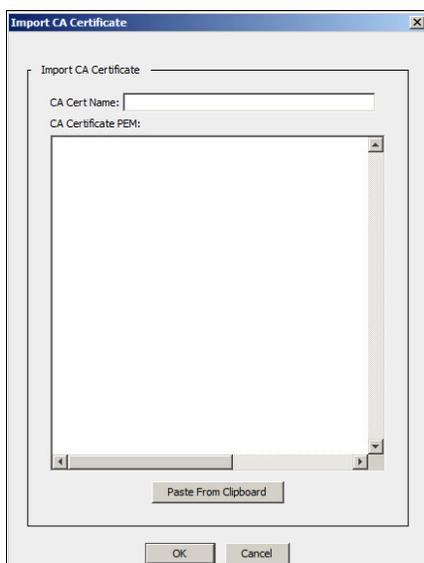
1. On the **Blue Coat Management Console** window, click the **Configuration** tab, and then in the left pane, click **SSL > CA Certificates**.



(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

2. In the right pane, on the **CA Certificates** tab, click **Import**.
3. On the **Import CA Certificate** window, complete the following fields, and then click **OK**.

CA Cert Name	Enter the name of the certificate.
CA Certificate PEM	Paste the identity provider certificate you download in “Exporting the SAM Certificate” on page 9.

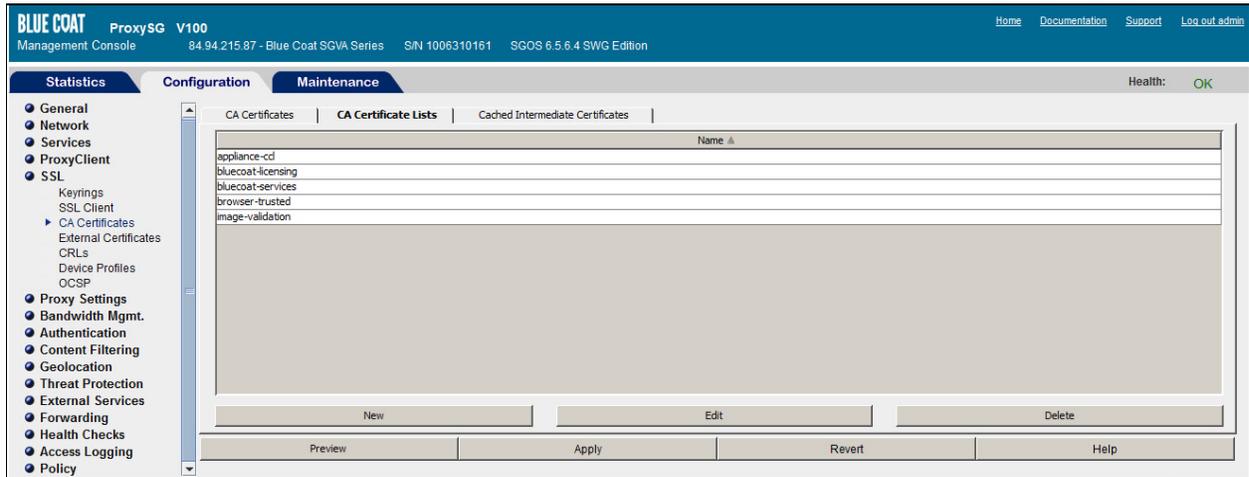


(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

4. Click **Apply**, and then click **OK**.

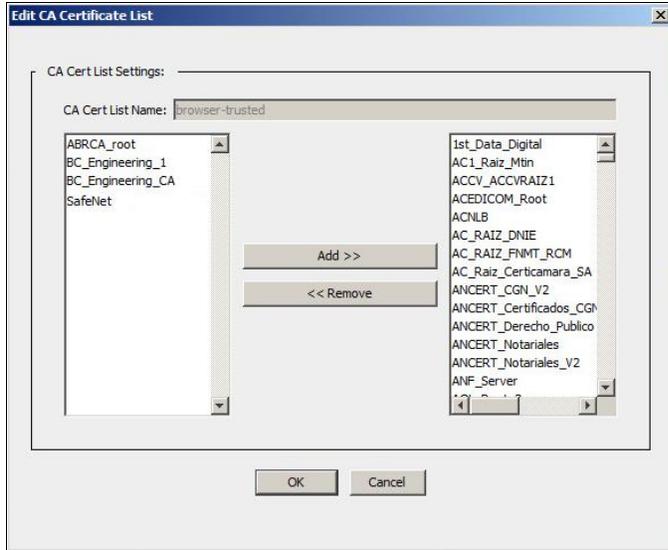
Creating a CA Certificate Lists

1. On the **Blue Coat Management Console** window, click the **Configuration** tab, and then in the left pane, click **SSL > CA Certificates**.



(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

2. In the right pane, on the **CA Certificate Lists** tab, select **browser-trusted**, and then click **Edit**.
3. On the **Edit CA Certificate List** window, perform the following steps:
 - a. In the list box on the left, select the imported identity provider certificate (for example, **SafeNet**).
 - b. Click **Add >>** to move the selected certificate to the list box on the right.
 - c. Click **OK**.



(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

4. Click **Apply**, and then click **OK**.

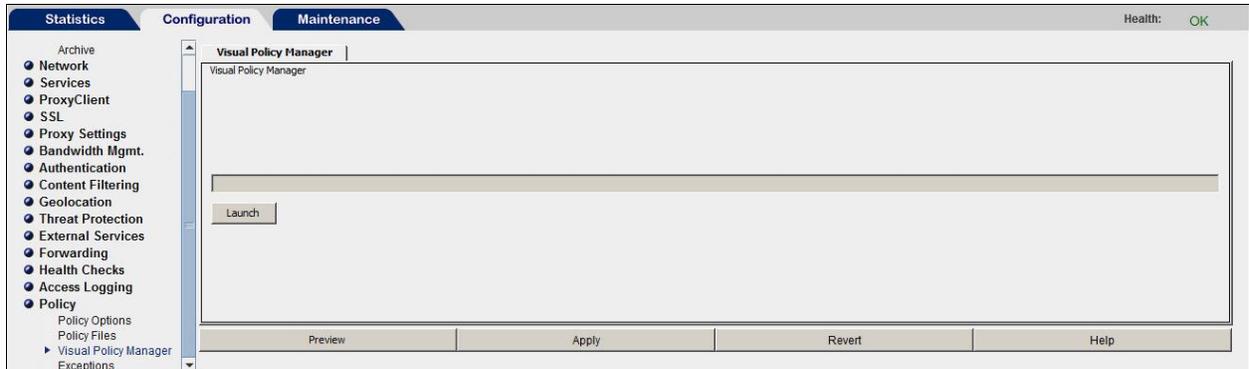
Configuring an Authentication Policy

With an authentication realm configured, now configure a policy on the ProxySG appliance to authenticate, log, and control user access to the web server.

The sections below explain setting up rules to authenticate users, restrict access for specific users and groups, and deny all other access to the web server.

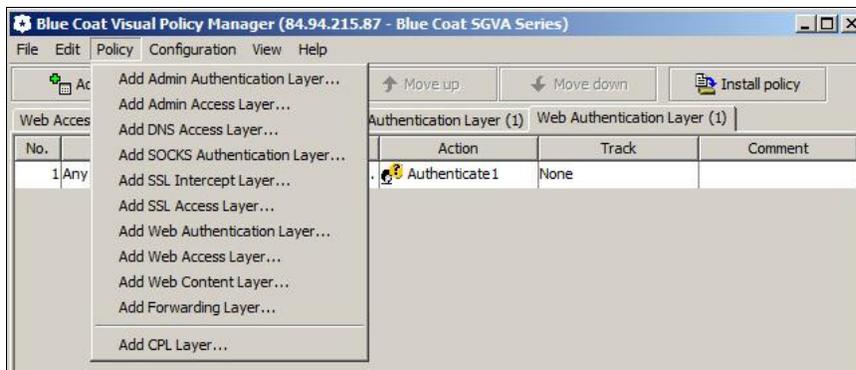
Creating the Web Authentication Layer

1. On the **Blue Coat Management Console** window, click the **Configuration** tab, and in the left pane, click **Policy > Visual Policy Manager**.



(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

2. In the right pane, click **Launch**.
3. On the **Visual Policy Manager** window, click **Policy**, and then select **Add Web Authentication Layer**.



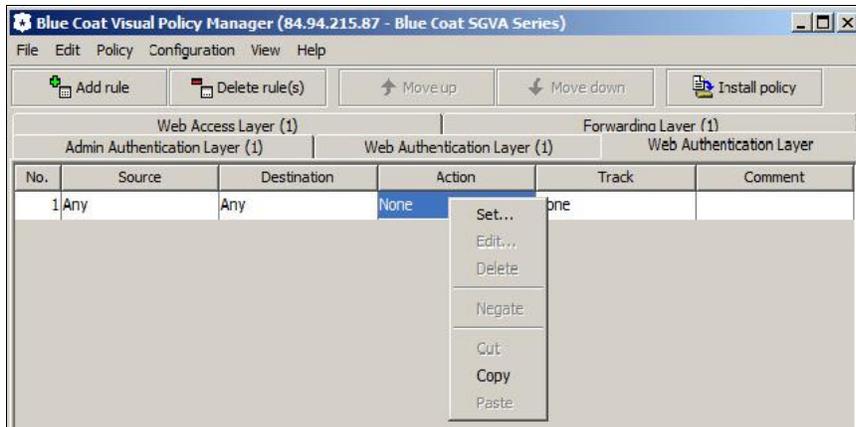
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4. On the **Add New Layer** window, enter a descriptive name for the Web Authentication Layer, and then click **OK**.



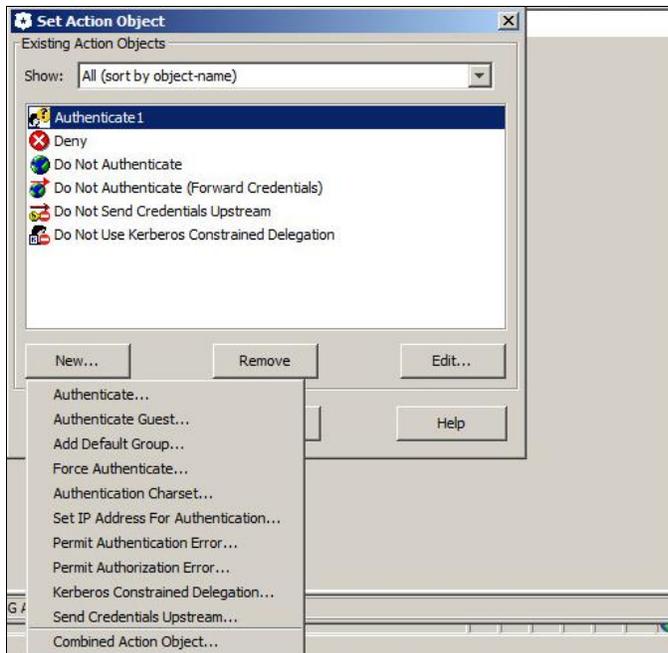
(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

5. Right-click on the **Action** column of the default rule, and then select **Set**.



(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

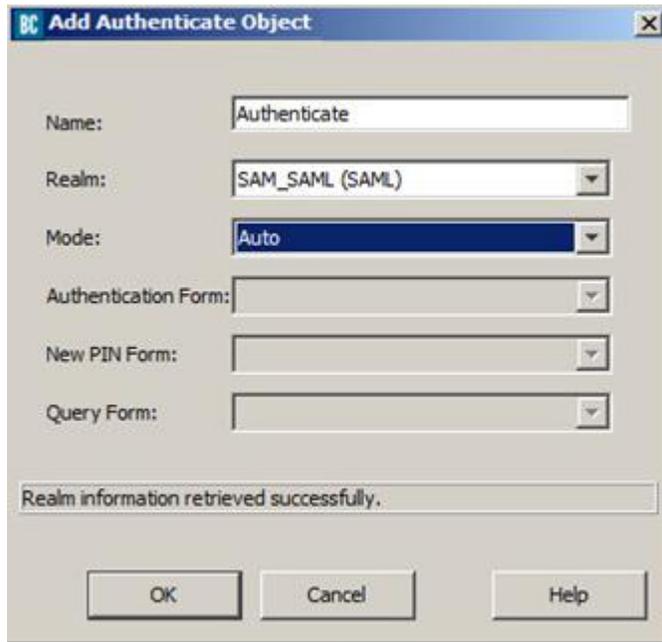
6. On the **Set Action Object** window, click **New**, and then select **Authenticate**.



(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

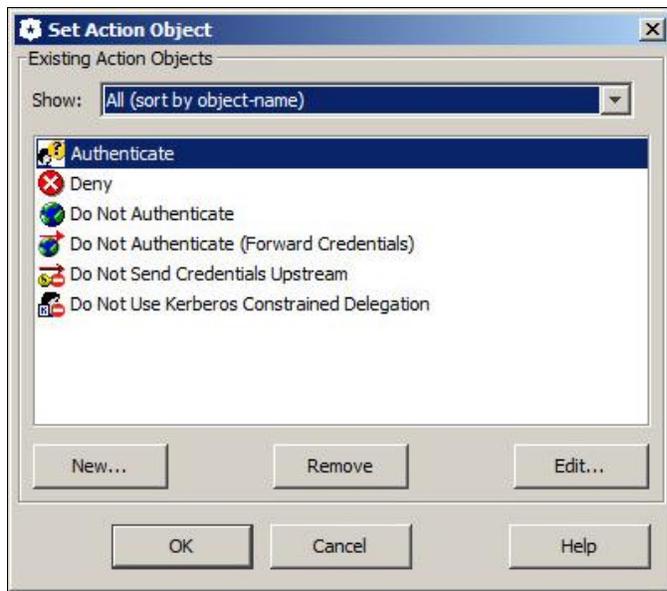
7. On the **Add Authenticate Object** window, complete the following fields, and then click **OK**.

Name	Enter the name of the Authenticate Object (for example, Authenticate).
Realm	Select the SAML realm that you created in “Creating a SAML Realm” on page 13 (for example, SAM_SAML).
Mode	Select Auto . The appliance will automatically determine which mode to use.



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8. On the **Set Action Object** window, click **OK**.

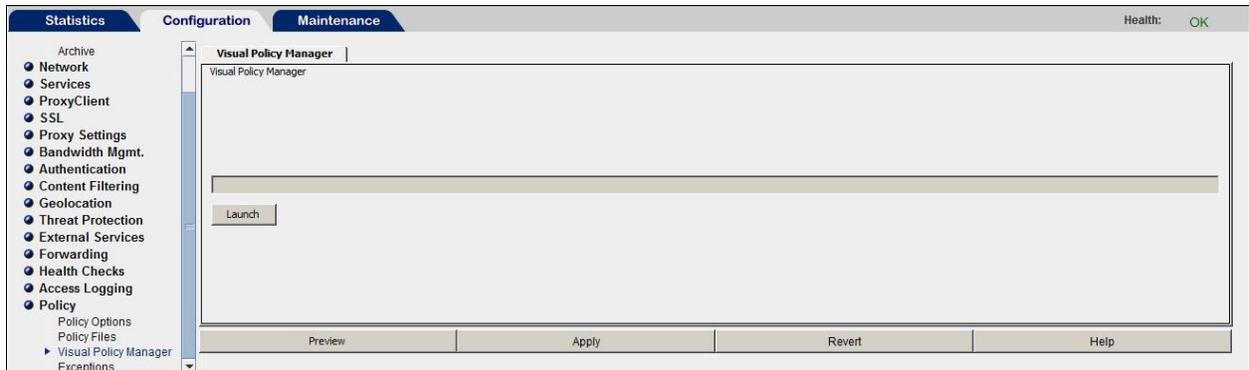


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Creating a Web Access Rule

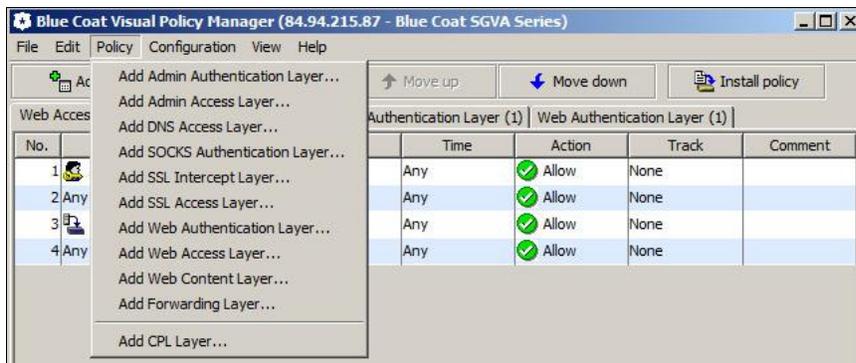
Create a policy rule that enables the ProxySG appliance to grant users access to the network.

1. On the **Blue Coat Management Console** window, click the **Configuration** tab, and in the left pane, click **Policy > Visual Policy Manager**.



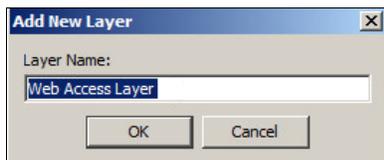
(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

2. In the right pane, click **Launch**.
3. On the **Visual Policy Manager** window, click **Policy**, and then select **Add Web Access Layer**.



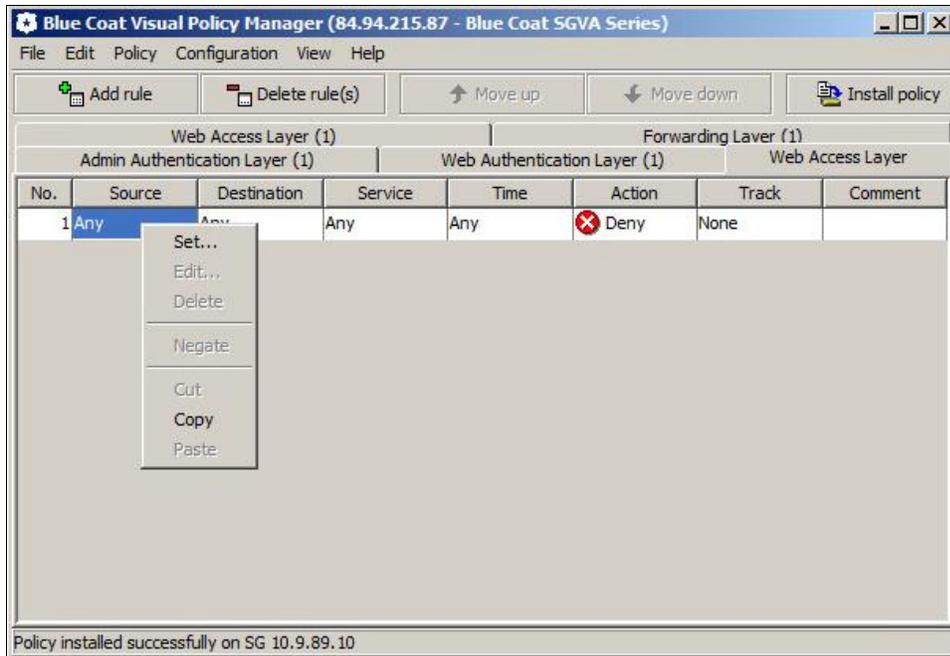
(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

4. On the **Add New Layer** window, enter a descriptive name for the Web Access Layer, and then click **OK**.



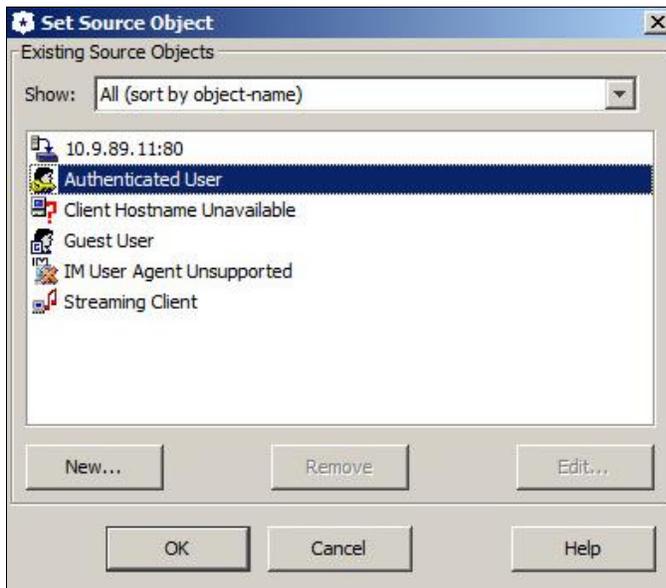
(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

5. Right-click on the **Source** column of the default rule, and then select **Set**.



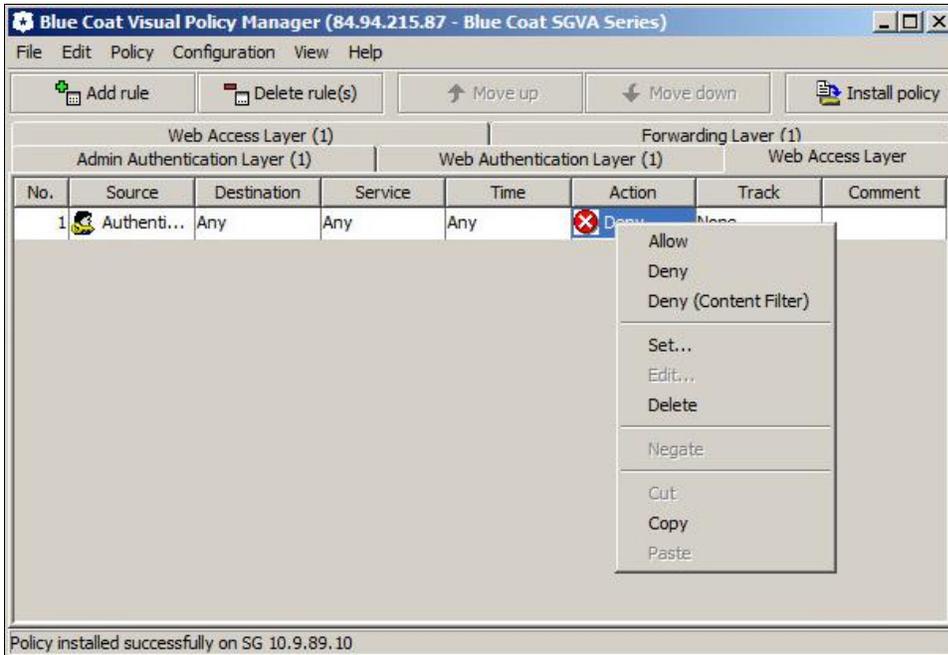
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6. On the **Set Source Object** window, select **Authenticated User**, and then click **OK**.



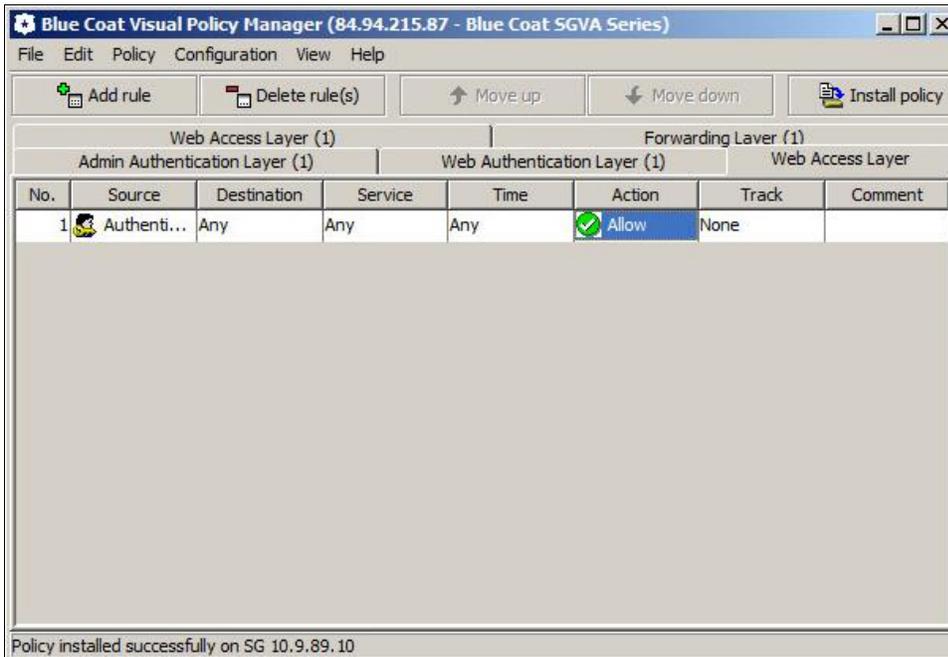
(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

- Right-click on the **Action** column of the default rule, and then select **Allow**. The icon in the **Action** column changes from red to green.



(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

- Click **Install policy**.



(The screen image above is from Blue Coat® software. Trademarks are the property of their respective owners.)

- Click **OK**.

Running the Solution

Before running the solution, ensure that the Blue Coat ProxySG virtual appliance is configured as a reverse proxy with HTTPS service.

In this solution, the SafeNet e-Token PASS is used as the enrolled token.

1. Open the following URL in a web browser: **https://<Virtual IP of Bluecoat>** where **Virtual IP of Bluecoat** is an IP address that is configured on the ProxySG appliance.
2. You are redirected to the SAM login page. In the **Username** field, enter your user name, and then click **OK**.

User Identification

Enter your username, select the computer's security level, and click 'OK'.



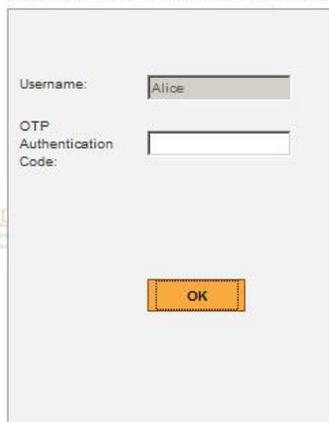
The form contains the following elements:

- Username:** A text input field.
- Remember my username
- Security:** Two radio button options:
 - This is a public computer that is used by others
 - This is a private computer for authorized users only
- OK** button

3. The **OTP Authentication** page is displayed. Generate a one-time password using the SafeNet token, enter it in the **OTP Authentication Code** field, and then click **OK**.

OTP Authentication

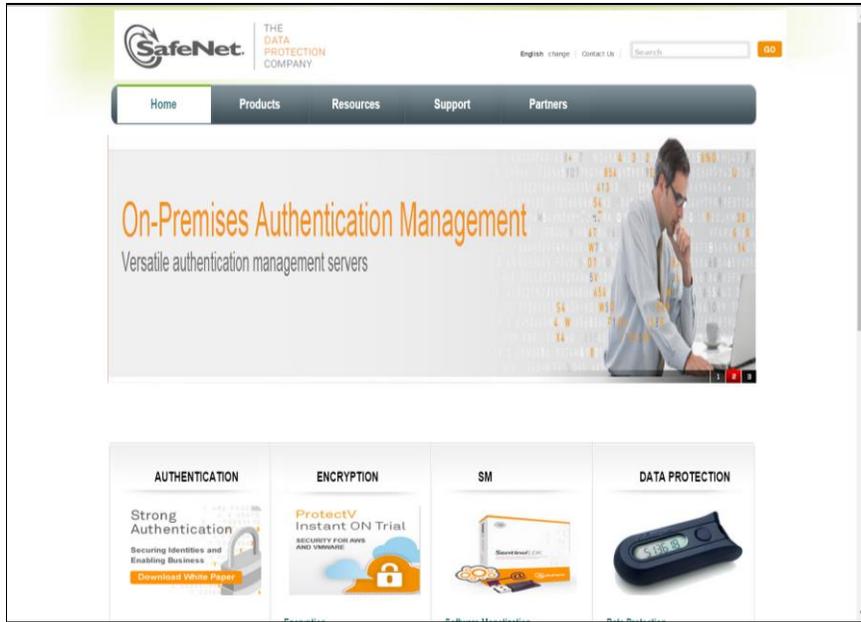
Generate an OTP Passcode, and use it to enter the OTP Authentication Code.



The form contains the following elements:

- Username:** A text input field containing the value "Alice".
- OTP Authentication Code:** A text input field.
- OK** button

After successful authentication, you are allowed to access the requested web page.



Support Contacts

If you encounter a problem while installing, registering, or operating this product, please make sure that you have read the documentation. If you cannot resolve the issue, contact your supplier or Gemalto Customer Support. Gemalto Customer Support operates 24 hours a day, 7 days a week. Your level of access to this service is governed by the support plan arrangements made between Gemalto and your organization. Please consult this support plan for further information about your entitlements, including the hours when telephone support is available to you.

Contact Method	Contact Information	
Address	Gemalto, Inc. 4690 Millennium Drive Belcamp, Maryland 21017 USA	
Phone	United States	1-800-545-6608
	International	1-410-931-7520
Technical Support Customer Portal	https://serviceportal.safenet-inc.com Existing customers with a Technical Support Customer Portal account can log in to manage incidents, get the latest software upgrades, and access the Gemalto Knowledge Base.	