External Authentication with Checkpoint R75.40 Authenticating Users Using SecurAccess Server by SecurEnvoy

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1 Contents

2 Checkpoint R75.40 Integration Guide

This document describes how to integrate a Checkpoint® R75.40 with SecurEnvoy two-factor Authentication solution called 'SecurAccess'.

Checkpoint® R75.40 provides - Secure Application Access to the internal corporate network.

SecurAccess provides two-factor, strong authentication for remote Access solutions (such as Checkpoint® R75.40) without the complication of deploying hardware tokens or smartcards.
Two-Factor authentication is provided by the use of your PIN and your Phone to receive the one time passcode.

SecurAccess is designed as an easy to deploy and use technology. It integrates directly into any LDAP directory server such as Microsoft's Active Directory and negates the need for additional User Security databases. SecurAccess authentication server is directly integrated with LDAP or Active Directory in real time.

SecurEnvoy Security Server can be configured in such a way that it can use the existing Microsoft password. Utilising the Windows password as the PIN, allows the User to enter their UserID, Windows password and One Time Passcode received upon their mobile phone. This authentication request is passed to the SecurEnvoy Security Server via the RADIUS protocol, where it carries out a Two-Factor authentication. It provides a seemless login into the corporate network environment by the remote User entering three pieces of information. SecurEnvoy utilises a web GUI for configuration, whereas the Checkpoint® R75.40 Server environment uses a GUI application. All notes within this integration guide refer to this type of approach.

The equipment used for the integration process is listed below:

Checkpoint®
Checkpoint R75.40

Microsoft (for installation of SecurEnvoy Security Server)
Windows 2008 server
IIS installed with SSL certificate (required for management and remote administration)
Access to Active Directory with an Administrator Account

SecurEnvoy
SecurAccess software release v6.2.500

3 Pre Requisites

It is assumed that the Checkpoint® R75.40 is setup and operational. It is also assumed that the SecurEnvoy Security Server has a suitable account created that has read and write privileges to the Active Directory, if firewalls are between the SecurEnvoy Security server, Active Directory servers, and Checkpoint® R75.40, additional open ports will be required.

NOTE: SecurEnvoy requires LDAP connectivity either over port 389 or 636 to the Active Directory servers and port 1645 or 1812 for RADIUS communication from the Checkpoint® R75.40.

Only a single configuration is required, this will then support users with SMS sent via Pre-Load and Real Time as well as Soft Tokens, as Checkpoint® R75.40 supports RADIUS (Challenge Response). Configuration in this guide refers to this type of approach.

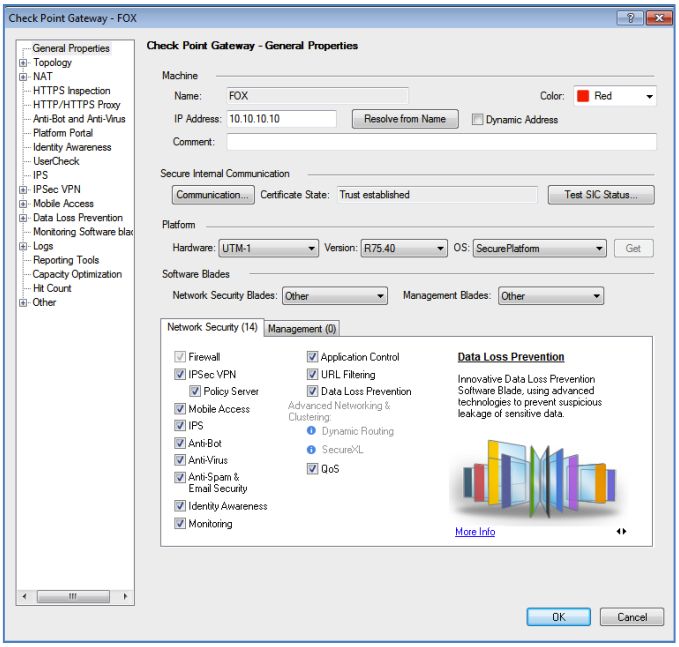
4 Tokenless Authentication (All Types)

4.1 Configuration of Checkpoint® R75.40

Launch the Checkpoint® R75.40 admin interface through the management GUI.

Verify that the Check Point firewall is currently VPN "Enabled"

Go to "Network Objects" "CheckPoint" and selecting the Checkpoint firewall you wish to configure. "Properties"



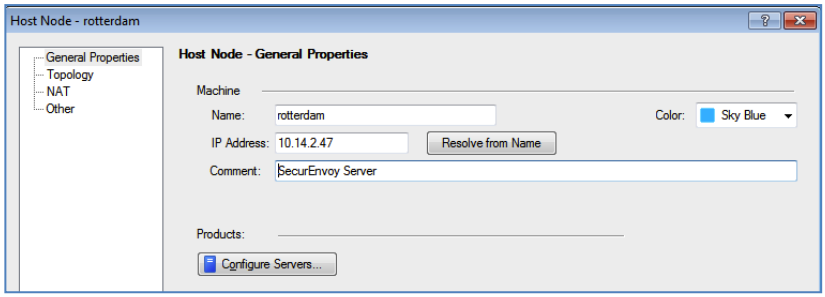
The next step is to add the SecurEnvoy RADIUS Server as a host object, define it as a valid machine on the network.

Go to "Network Objects" "Right-Click" Node _ New node to add.

Populate the required information.

See diagram.

Click OK to Save.

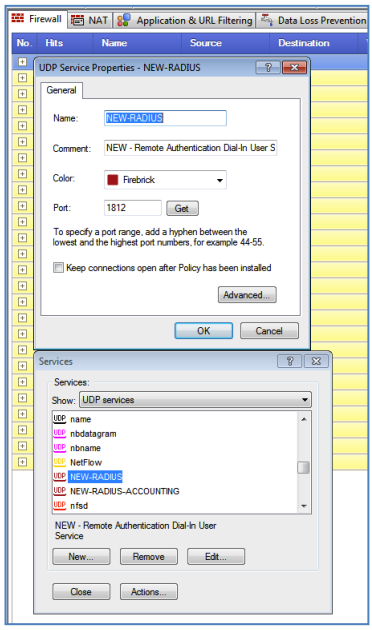


The SecurEnvoy RADIUS Server is configured by default to communicate on Port 1812, using Protocol UDP.

Under the "Services" tab, select "UDP" as the Protocol type, and browse to "New-RADIUS".

On the properties of "New-RADIUS", make sure that it is set to "Port 1812".

See diagram.

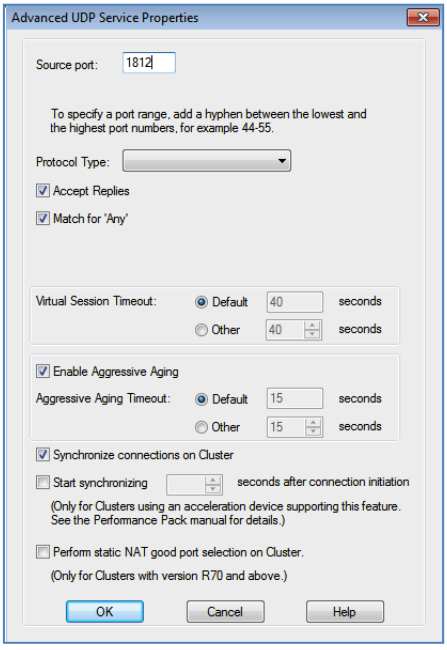


Select the "Advanced…" tab and make sure that the Source port is set to "1812".

Also make sure that the "Accept Replies" check-box has been enabled.

See diagram.

Click OK to Save.



Specify SecurEnvoy RADIUS server and the details regarding version and protocol types supported.

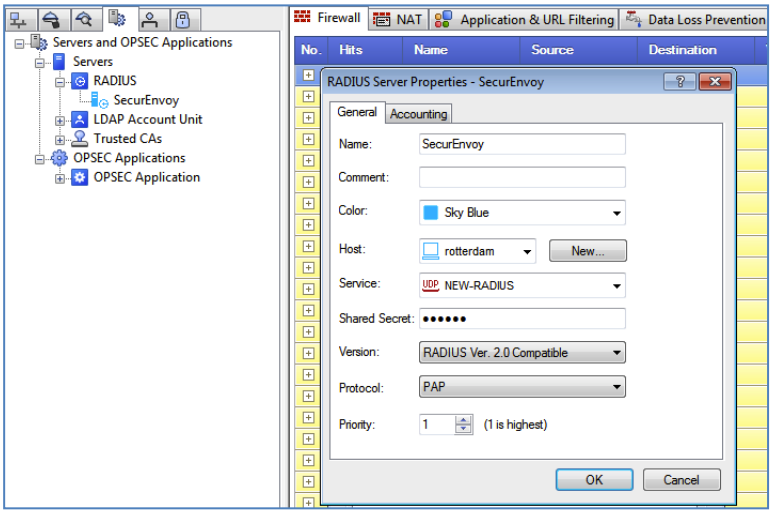
Under the "Servers and OPSEC Applications" tab

Select "Radius" _ New RADIUS… and then add in the new RADIUS server details.

Select the "SecurEnvoy-Radius" host you created earlier, set the Service type to use "udp NEW-RADIUS", and specify the common "Shared Secret" key to be used.

(The "Share Secret" key is configured on both the Check Point firewall and SecurEnvoy RADIUS Server). Make sure the Protocol type is set to "PAP".

Click Ok to Save.



There are many ways of setting up VPN users in CheckPoint. Configuration can be set to authenticate users by various methods, Users can be setup and authenticated directly upon Checkpoint, they can be setup as LDAP users and authenticate against Microsoft Active Directory, or can be authenticated against RADIUS.

In this example, we are going to configure CheckPoint to authenticate all external users to the SecurEnvoy RADIUS Server.

An External User Profile will be created that mandates RADIUS Authentication for all users that do not have a Check Point user account.

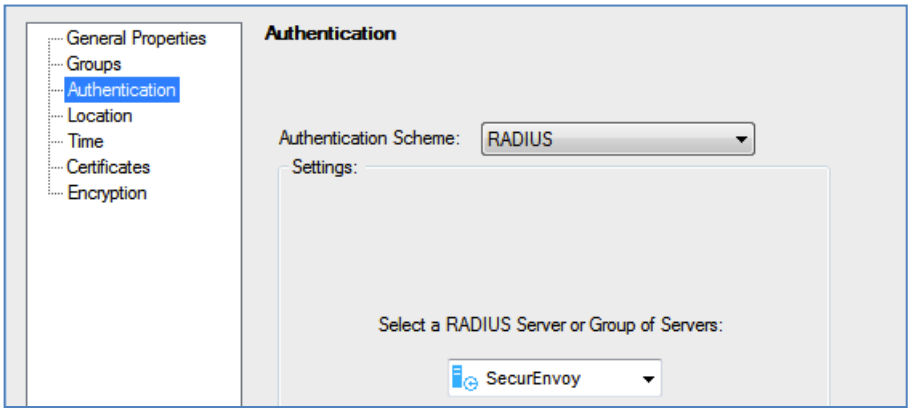
The Match all users profile with the profile name generic* is limited to only one property set. CheckPoint applies the restrictions specified for an ordinary user in the User Properties tabs (for example **Groups**).

For authentication purposes Check Point uses the name typed in by the user instead of generic*.

The following steps describe the process to configure an External Profile of "Match All Users".

Go to **Manage > Users and Administrators > New > External User Profile > Match All Users**.

The user generic* is created and a new window opens.
Select Authentication from the left tool bar.
Select RADIUS from the drop down box, as the user's Authentication Scheme.



Click **OK** to save changes.

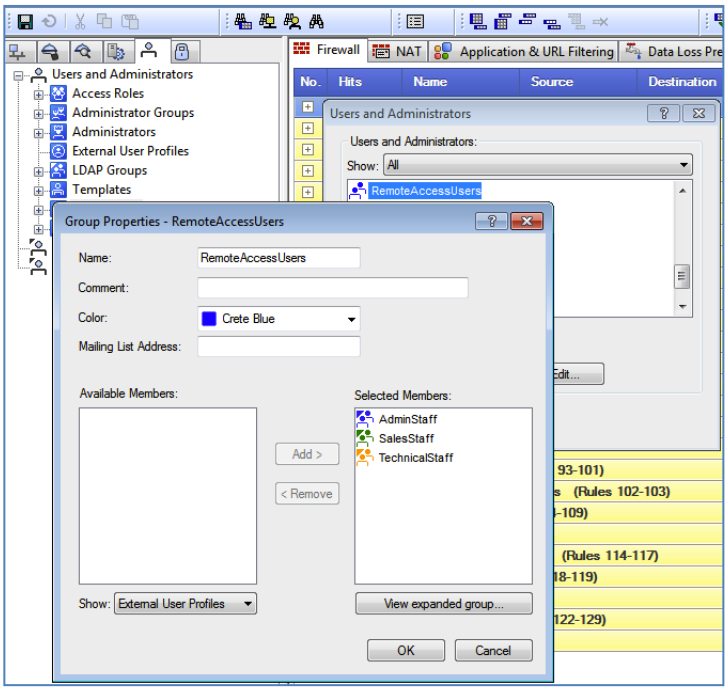
From the "Users and Administrators" tab, "Right-Click" "User Groups" _ New User Group…

Create a "Remote_Access_VPN_Group" for external users.

This group is used as a Global Authentication Group for "Check Point Secure/Remote Client"

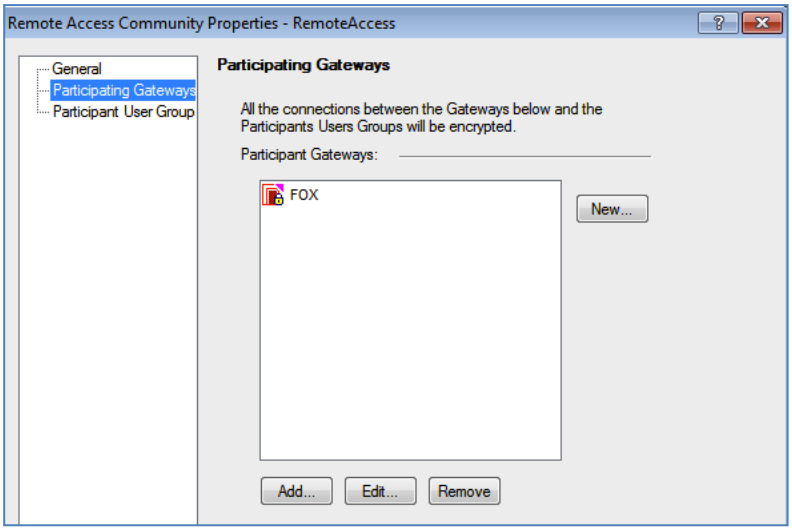
Remote Access VPN users.

Click Ok to Save



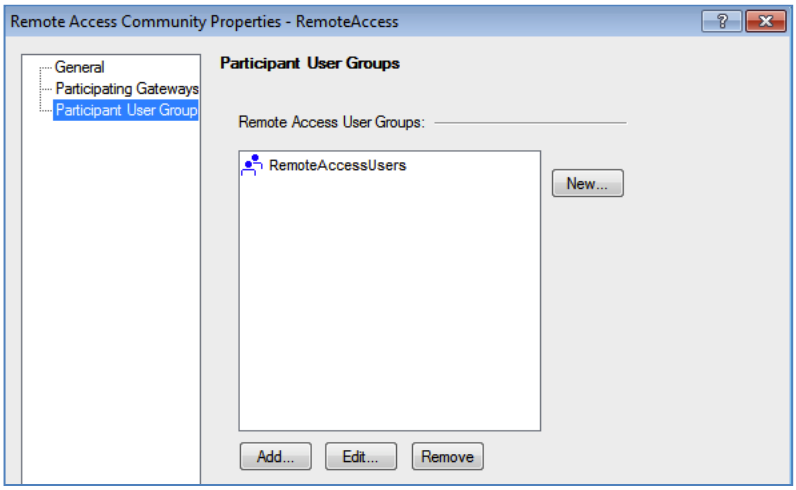
Select the "VPN Communities" tab, then "Right-Click" Remote Access,
_ New Remote Access Community, and configure.

On the "Participating Gateways" tab, select your CheckPoint.



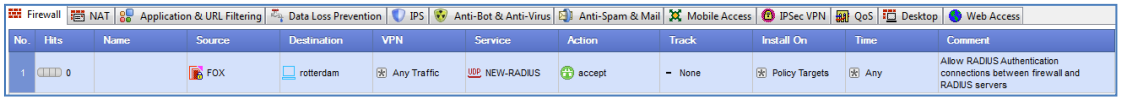
Then, on the "Participating User Groups", select the "Remote_Access_VPN_Group" you created earlier.

Add this group into the Check Point "VPN Communities" properties.



Click Ok to Save.

Depending on your current Check Point firewall rule-base configuration, you may need to add a rule "Permitting" "NEW-RADIUS" communication between the "SecurEnvoy-RADIUS" server and CheckPoint.



Once the above details have been configured, and the policy has been saved, it can be pushed to the relevant Check Point Enforcement Modules.

4.2 Configuration of SecurEnvoy

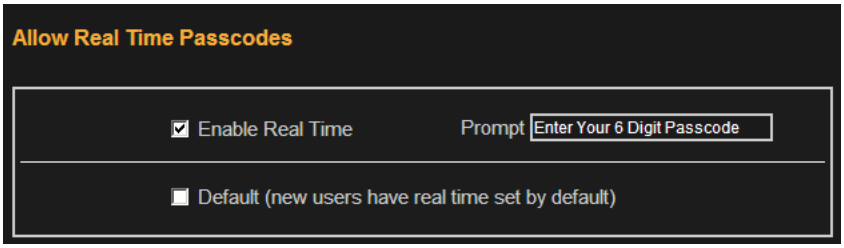
Launch the SecurEnvoy admin interface, by executing the Local Security Server Administration link on the SecurEnvoy Security Server.

To Support Pre-Load and Real-Time SMS as well as Soft Tokens the following configuration is required.

Go to Config-Real Time Passcodes

Enable the checkbox

Click Update to complete

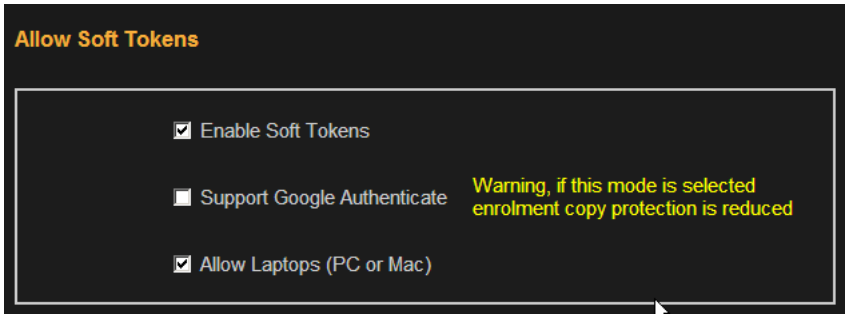


Go to Config-Soft Tokens

Enable Soft Tokens

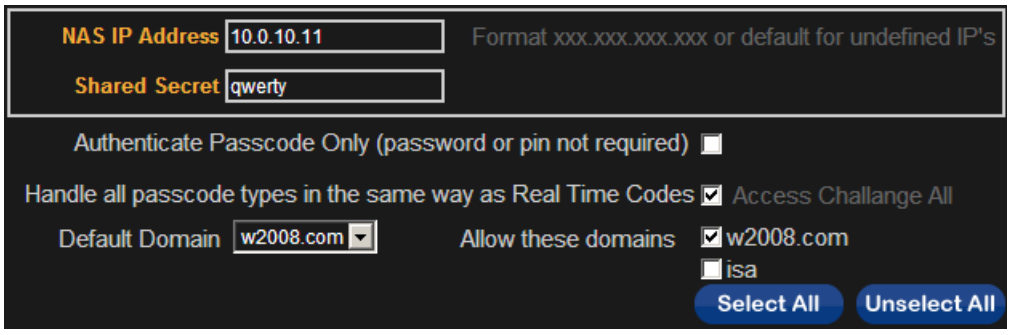
Enable PC Soft Tokens (If Required)

Click Update to complete



Click the **"Radius"** Button

Enter IP address and Shared secret for each Checkpoint®R75.40 that wishes to use **SecurEnvoy** Two-Factor authentication.



Click checkbox "Handle all passcodes in the same way as Real Time"

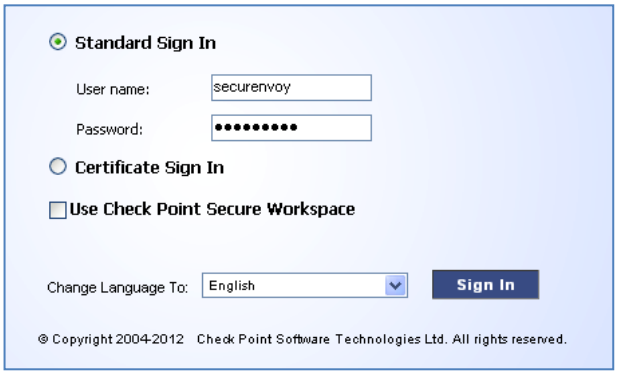
Click **"Update"** to confirm settings.

Click **"Logout"** when finished. This will log out of the Administrative session.

4.3 Test Logon (SSL VPN)

Navigate to the relevant URL for the SSL VPN e.g. Https://remote.office.com

User enters their Domain UserID and password, click "Sign In"



User is then prompted for their 6 digit Passcode.

Click "Submit" to complete the logon.

4.4 Test Logon

User launches the Endpoint VPN Client.

User enters their Domain UserID and password then clicks "Connect"

User is then prompted for their 6 digit Passcode.

Click "Connect" to complete the logon