

Barracuda SSL VPN Integration

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Introduction

This document describes steps to configure a Barracuda SSL VPN with Swivel as the authentication server.

Swivel can provide Two Factor authentication with [SMS](#), [Token](#), [Mobile Phone Client](#) and strong Single Channel Authentication [TURING](#), [Pinpad](#) or in the [Taskbar](#) using RADIUS.

To use the Single Channel Image such as the [TURING](#) Image, the Swivel server must be made accessible. **The client requests the images from the Swivel server, and is usually configured using a NAT** (Network Address Translation), often with a proxy server. The Swivel appliance is configured with a proxy port to allow an additional layer of protection.

Prerequisites

Barracuda SSL VPN 380 or higher. Note the SSL VPN 280 does not support RADIUS authentication.

Barracuda Documentation

Swivel 3.x, 3.5 for RADIUS groups

The Swivel server must be accessible from the Barracuda SSL VPN using RADIUS.

The Swivel server must be accessible by client when using Single Channel Images, such as the Turing Image, and security string number, **for external access this is usually through a NAT**.

Baseline

Barracuda SSL VPN 2.2.2.203 and 2.2.2.115

Swivel 3.9

Architecture

The Barracuda SSL VPN makes authentication requests against the Swivel server by RADIUS.

The client makes TURING requests against the Swivel server using HTTP/HTTPS

Swivel Configuration

Configuring the RADIUS server

On the Swivel Administration console configure the RADIUS Server and NAS, see [RADIUS Configuration](#)

Enabling Session creation with username

To allow the TURING image, PINpad and other single channel images, under Server/Single Channel set [Allow session request by username](#) to Yes.


Barracuda SSL VPN Configuration

Login to the Barracuda SSL VPN administration console, usually through the ssladmin login.

The user must exist as a user on the Barracuda SSL VPN, the user can be created through the Access Control Tab then select Accounts. Other user data sources may be configurable such as AD.

Create an authentication scheme

From the Access Control tab select Authentication schemes.



SSL VPN 180Vx

BASIC

RESOURCES

ACCESS CONTROL

ADVANCED

Accounts

Groups

Policies

User Databases

Access P...

NAC Exceptions

Authentication Schemes

Security Settings

Configuration

Sessio...

Create Authentication Scheme

User Database:Global View

Name:

Available modules

Authentication Key

Client Certificate

IP Authentication

One-Time Password (Secondary)

Password

...

Add >>

<< Remove

Up

Down

Select...

Available Policies

Administrators

Auditors

Everyone

Help Desk Administrators

Help Desk Users

Power Users

Add >>

Add All >>

<< Remove

<< Remove All

Select...

Add

Authentication Schemes

Apply Filter

Reset

Name	User Database
<div></div> Password	Super Users
<div></div> Password	Default
<div></div> WebDAV	Global View

Serial #BAR-V5-423856
Firmware 2.2.2.115 2013-05-03 04:00
Model: V380

Enter a name for Authentication Scheme, such as **Swivel RADIUS**. From Available Modules select RADIUS then click on Add >>, so it appears on the right as a Selected module., and then select from Available policies the policy required and click Add >>. When complete click Add. A default policy can be used, in this example it is using a custom policy created under Access Control/Policies.

Details

Name:

Swivel RADIUS

Description:

Modules

Available modules

Authentication Key
Client Certificate
IP Authentication
One-Time Password (Secondary)
Password
PIN
Security Questions (Secondary)

Add >>

Add All >>

<< Remove

<< Remove All

Up

Down

Selected modules

RADIUS

Policies

Available Policies

Administrators
Auditors
Everyone
Help Desk Administrators
Help Desk Users
Power Users

Add >>

Add All >>

<< Remove

<< Remove All

Selected Policies

Swivel

Show Personal Policies

☐

Save

Cancel

If required move the **Swivel RADIUS** authentication scheme to the top of the list, the top entry is the default entry presented to the user at login, click More to change the priority.

Barracuda RADIUS Configuration

On the SSL VPN administration console select the Access Control tab then select configuration.

RADIUS

RADIUS Server:

localhost

Hostname

Backup RADIUS Servers:

Add >>

<< Remove

Hostnames

Authentication Port:

1812

This is the port number stipulated for the RADIUS authentication port between 0 and 65535. Default (1812).

Accounting Port:

1813

This is the port number stipulated for the RADIUS accounting port between 0 and 65535. Default (1813).

Shared Secret:

The RADIUS shared secret which has been set up on the RADIUS server.

Authentication Method:

CHAP

If your server does not use a specific authentication method, this dropdown lists the methods that are currently supported in this configuration are **PAP**, **CHAP**.

Time Out:

30

The timeout for a RADIUS message.

Authentication Retries:

2

The number of retries for a RADIUS message.

RADIUS Attributes:

Add >>

<< Remove

Attributes

NAS-IP-Address = %NASIP%
User-Name = %USERNAME%
User-Password = %PASSWORD%

Username Case:

☒ As Entered
☐ Force Upper Case
☐ Force Lower Case

Setting that defines what case the username is sent to the RADIUS server. If the username is entered, force to upper case or force to lower case.

Password Prompt Text:

RADIUS Password

Customize the RADIUS password prompt text.

Reject Challenge:

☒ Yes ☐ No

Reject a challenge-response request from the RADIUS server. Default is Yes.

Challenge Image URL:

A URL for generated challenge images. Leave blank to disable.

Allow Untrusted Challenge Image URL:

☐ Yes ☒ No

Allow Challenge Images to be server from untrusted servers.

Enter the following information:

RADIUS Server: Swivel RADIUS server hostname or IP (Note do not use the Swivel VIP address if this is being used, but the real IP address, see [VIP on PINsafe Appliances](#)).

Backup RADIUS Servers: Additional Swivel RADIUS instances as required.

Authentication Port: The Swivel server RADIUS authentication port, default 1812.

Accounting Port: The Swivel server RADIUS accounting port, default 1813.

Shared Secret: The shared secret entered into the NAS entry on the Swivel server.

Authentication Method: Use PAP for Challenge and Response/Two Stage Authentication and mobile clients.

Password Prompt Text: The text to be displayed in the login field, usually set to OTC or One Time Code.

Reject Challenge: Set to No if Two Stage Authentication/Challenge and Response is to be used.

Challenge Image URL: Enter Swivel server details for graphical images to be used for authentication.

Allow Untrusted Challenge Image URL: Set to Yes.

Save the RADIUS settings.

At this stage it should be possible to authenticate by **SMS**, hardware **Token**, **Mobile Phone Client** and **Taskbar** to verify that the RADIUS authentication is working for users. Browse to the SSL VPN login page, and enter Username and if being used, the password. From the Swivel Administration console select User Administration and the required user then **View Strings**, and select an appropriate authentication string or OTC for the user. At the SSL VPN login enter the required OTC. Check the Swivel logs for a RADIUS success or rejected message. If no RADIUS message is seen, check that the Swivel RADIUS server is started and that the correct ports are being used.

Additional Configuration options

Additional RADIUS configuration Options: Single Channel TURING graphical image

This allows the graphical single channel TURING image to be displayed to the user for authentication. If this is not required, such as if SMS and Mobile Phone Client authentication is to be used, then this step should be skipped and the **Challenge Image URL:** left blank.

To configure the single channel graphical image set **Challenge Image URL:** to:

For an Appliance

```
https://Swivel_server_public_hostname:8443/proxy/SCImage?username=${radius:userName}
```

For a software only install see [Software Only Installation](#)

Allow Untrusted Challenge Image URL: Set to Yes.

Save the RADIUS settings.

Additional RADIUS configuration Options: Multiple String delivery index display

When a user logs in the user can be displayed an image telling them which of their security strings to use for authentication. See also [Multiple Security Strings How To Guide](#)

Set **Challenge Image URL:** to:

For an Appliance

```
https://Swivel_server_public_hostname:8443/proxy/DCIndexImage?username=${radius:userName}
```

For a software only install see [Software Only Installation](#)

Save the RADIUS settings.

Login

Welcome to Barracuda SSL VPN, a secure gateway to your network.

00

Refresh

OTC

Login

Cancel

There are other methods of authentication available. Click [here](#) to choose a different Authentication

 [Virtual Keyboard](#)

Additional RADIUS configuration Options: Two Stage Authentication

This allows the user to enter a username, then on the second screen a password and then on the third screen will be required to enter their One Time Code. Note that where the graphical TURING image or other image is used, then this will be displayed on the second and third screens even though it is not required on the second screen. See also [Two Stage Authentication How to Guide](#)

This requires the Barracuda SSL VPN setting **Reject Challenge:** to be set to No if Two Stage Authentication/Challenge and Response is to be used, and **Authentication Method:** should be set to PAP, save the RADIUS settings. On the Swivel administration console the RADIUS/NAS/Two stage authentication needs to be set to Yes, then click Apply. The user also needs to have a repository password, see [Password How to Guide](#).

Testing

Select the Barracuda SSL VPN login page, enter a username, then select login.




Login

Welcome to the Barracuda SSL VPN, a secure gateway to your network.

Username:

Login

 [Virtual Keyboard](#)

Enter the One Time Code and click login.

Login

Welcome to Barracuda SSL VPN, a secure gateway to your network.

1	2	3	4	5	6	7	8	9	0
5	3	8	1	4	2	0	6	7	9

Refresh

OTC

Login

Cancel

There are other methods of authentication available. Click [here](#) to choose a different Authentication

 [Virtual Keyboard](#)

Troubleshooting

Check the Swivel logs for Turing images and RADIUS requests.

Known Issues and Limitations

Two Stage authentication will display an image at each stage.

Change PIN is not currently supported to redirect to a Swivel Change PIN page.

Additional Information

For assistance in Swivel installation and configuration please firstly contact your reseller and then email Swivel Secure support at support@swivelsecure.com