

SonicWall SSL VPN Integration

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Introduction

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

If Strong authentication is required using Single Channel such as [TURING](#), [Pinpad](#) then the image can be displayed in the login page or in the [Taskbar](#). The image is served from the PINsafe server to the client.

This document will use the following steps:

- Configuring the PINsafe server
- Configuring the SonicWall login page
- Configuring the SonicWall authentication

To use the Single Channel Image such as the Turing Image, the PINsafe server must be made accessible. The client requests the images from the PINsafe server, and is usually configured using Network Address Translation, often with a proxy server. The PINsafe virtual or hardware appliance is configured with a proxy port to allow an additional layer of protection.

Prerequisites

Swivel 3.x configured with users and SMS gateway

SonicWALL SSL VPN

Swivel login script for the SonicWall SSL VPN

The customisation script can be downloaded from [here](#)

A customisation script that also includes refresh for the TURING is [\[1\]](#) here

Swivel server must be accessible by client when using Single Channel Images, such as the TURING Image.

Baseline

SonicWALL SMA

SonicWALL SRA

SonicWALL SSL VPN 200 and 4200 and Firmware 3.5 onwards

SonicOS SSL-VPN 7.5.0.6-23sv

Architecture

The SSL VPN appliance and the Swivel server are usually located within the DMZ. Authentication requests are made from the SonicWall SSL VPN using RADIUS.

Swivel Configuration

Configuring the RADIUS server

Configure the RADIUS settings using the RADIUS configuration page in the Swivel Administration console. In this example (see diagram below) the RADIUS Mode is set to ?Enabled? and the HOST IP (the Swivel server) is set to 0.0.0.0. (leaving the field empty has the same result). This means that the server will answer all RADIUS requests received by the server regardless of the IP address that they were sent to.

Note: for virtual or hardware appliances, the Swivel appliance VIP should not be used as the server IP address, see [VIP on PINsafe Appliances](#)

RADIUS>Server

Please enter the details for the RADIUS server.

| | |
|---|--------------------------------------|
| Server enabled: | <input type="text" value="Yes"/> |
| IP address: | <input type="text" value="0.0.0.0"/> |
| Authentication port: | <input type="text" value="1812"/> |
| Accounting port: | <input type="text" value="1813"/> |
| Maximum no. sessions: | <input type="text" value="50"/> |
| Permit empty attributes: | <input type="text" value="No"/> |
| Filter ID: | <input type="text" value="No"/> |
| Additional RADIUS logging: | <input type="text" value="Both"/> |
| Enable debug: | <input type="text" value="Yes"/> |
| Radius Groups: | <input type="text" value="Yes"/> |
| Radius Group Keyword: | <input type="text" value="POLICY"/> |
| <input type="button" value="Apply"/> <input type="button" value="Reset"/> | |

Setting up the RADIUS NAS

Set up the NAS using the Network Access Servers page in the Swivel Administration console. Enter a name for the SonicWall SSL VPN server. The IP address has been set to the IP of the VPN virtual or hardware appliance, and the secret that will be used on both the Swivel appliance and VPN RADIUS configuration.

RADIUS>NAS

Please enter the details for any RADIUS network access servers. A NAS is permitted to access the authentication via the RADIUS interface.

| | |
|---|--|
| NAS Identifier: | <input type="text" value="Device Name"/> |
| Hostname/IP: | <input type="text" value="192.168.0.1"/> |
| Secret: | <input type="password" value="•••••"/> |
| EAP protocol: | <input type="text" value="None"/> |
| Group: | <input type="text" value="---ANY---"/> |
| Authentication Mode: | <input type="text" value="All"/> |
| Change PIN warning: | <input type="text" value="No"/> |
| <input type="button" value="Apply"/> <input type="button" value="Reset"/> | |

You can specify an EAP protocol if required, others CHAP, PAP and MSCHAP are supported. All users will be able to authenticate via this NAS unless authentication is restricted to a specific repository group.

Enabling Session creation with username

The Swivel appliance can be configured so that it returns an image stream containing a TURING image by presenting the username via the XML API or the SCImage servlet. It is this mechanism that is used to return the TURING image to the VPN sign in page.

Go to the ?Single Channel? Admin page and set ?Allow Session creation with Username:? to YES.

To test your configuration you can use the following URL using a valid PINsafe username:

Virtual or hardware appliance

https://PINsafe_server_IP:8443/proxy/SCImage?username=testuser

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

For further information see [Single Channel How To Guide](#)

Setting up Swivel Dual Channel Transports

See [Transport Configuration](#)

Using AD Password Authentication

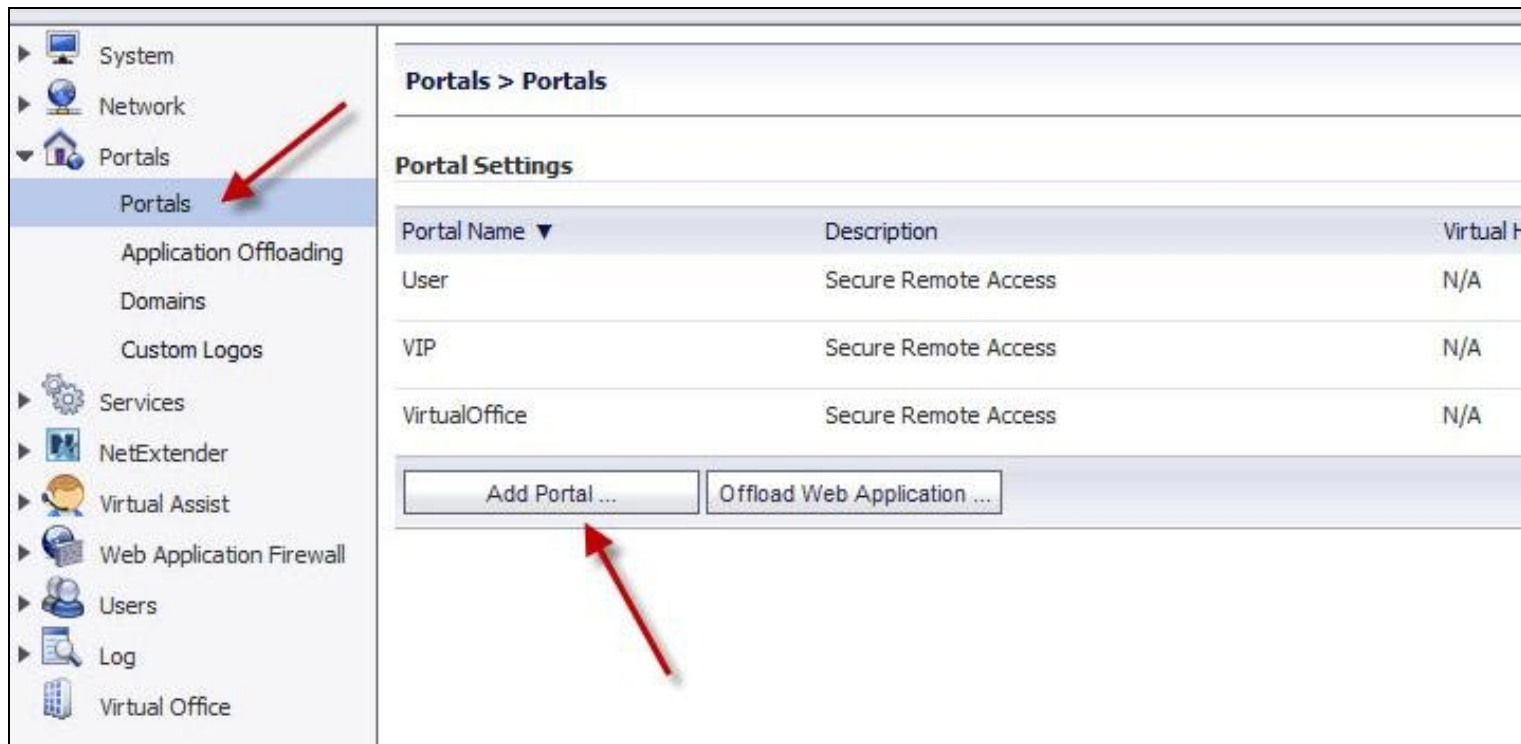
This is an option to enter the AD password of users for authentication

See [Check Password With Repository](#)

SonicWall SSL VPN Configuration

Login Page Customisation

On the SonicWall SSL VPN select Portals, then click on Add Portal to open the add portal page.



Enter the following information:

Portal Name: Name for the Portal, Example, PINsafe

Portal Site Title: Name for Portal Site, Example Virtual Office

Portal Banner Title: Name for Page, Example Virtual Office

Login Message: optional login message. If the Single channel TURING image is to be used then the login script needs to be pasted into this section. Ensure the relevant scripts are modified with the External IP NAT address of the PINsafe server:

```
$('#psImage').attr('src', 'https://192.168.0.35:8443/proxy/SCImage?username=' + encodeURIComponent(username));
```

For a PINsafe virtual or hardware appliances this would need to be:

<https://192.168.0.35:8443/proxy/SCImage?username=>

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

Portal URL: The name of the login portal

Display custom login page: Ensure this is ticked

Display login message on custom login page: Ensure this is ticked

Enable HTTP meta tags for cache control (recommended): Usually selected

Enable ActiveX web cache cleaner: Optional

Enforce login uniqueness: Ensure this is ticked

Click OK to save the settings.

General

Home Page

Virtual Assist

Virtual Host

Logo

Portal Settings

Portal Name:

Pinsafe

Portal Site Title:

Virtual Office

Portal Banner Title:

Virtual Office

Login Message:

<h1>Welcome to the
SonicWALL Virtual
Office</h1>
<p>The SonicWALL Virtual
Office provides easy and

Portal URL:

https://192.168.200.1/portal/Pinsafe

☒ Display custom login page

☒ Display login message on custom login page

☒ Enable HTTP meta tags for cache control (recommended)

☐ Enable ActiveX web cache cleaner

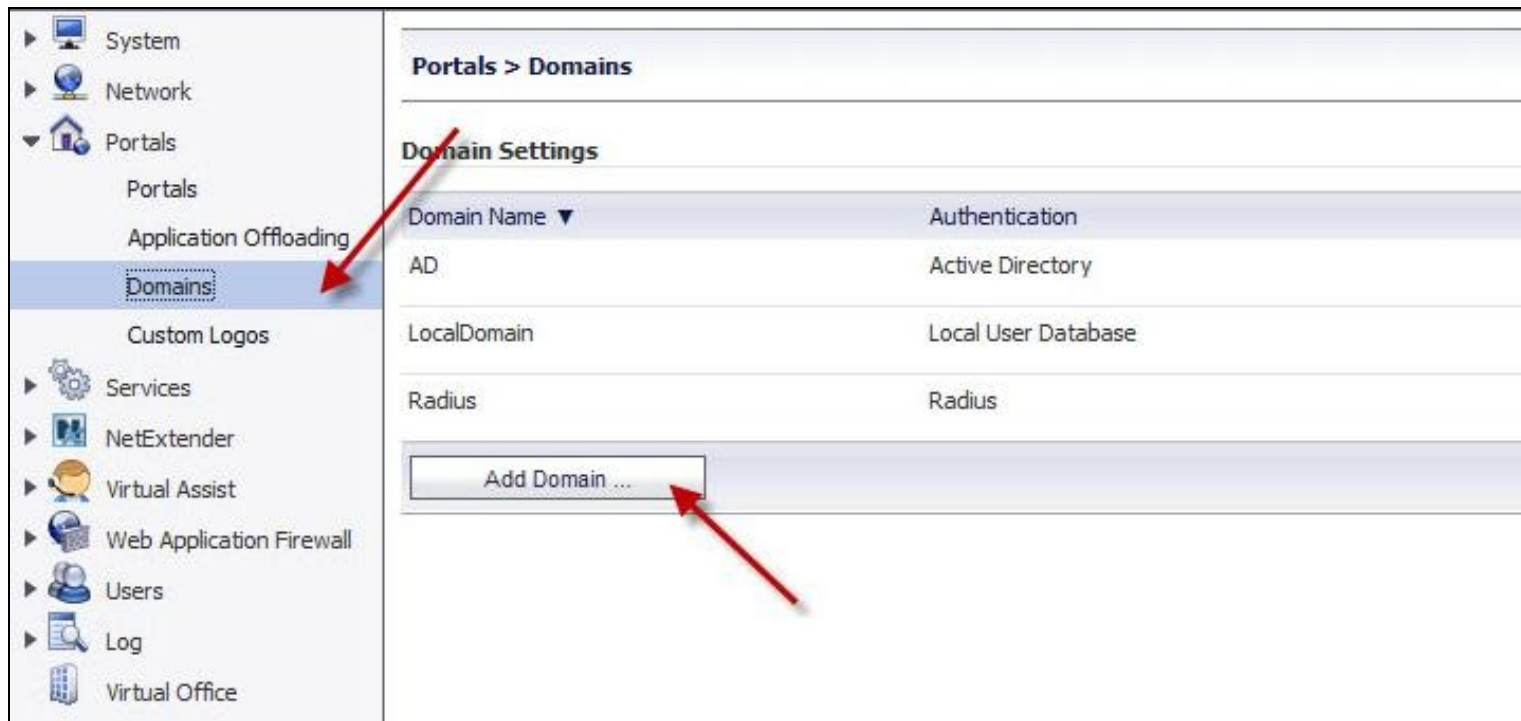
☒ Enforce login uniqueness

OK

Close

Configuring SonicWall SSL VPN Domain Settings

On the SonicWall SSL VPN select Portals then domains and click on Add Domain.



On the Add Domain page configure the Authentication server

Authentication type: select RADIUS

Domain name: Name for the domain

Authentication Type: Select the required authentication

RADIUS server address: Hostname or IP address of the PINsafe server

RADIUS server port: Usually 1812

Secret password: Enter a shared secret that needs to be also entered on the PINsafe server NAS entry

Portal Name: Select the Portal Name created above.

Click OK to save the settings.

Add Domain

Authentication type: Radius

Domain name: pin

Authentication Protocol: MSCHAP

Primary Radius server

Radius server address: 192.168.168.3

Radius server port: 1812

Secret password: ●●●●●●●●

Radius Timeout (Seconds): 5

Max Retries: 2

Backup Radius server

Radius server address:

Radius server port: 1812

Secret password:

☐ Use Filter-ID For RADIUS Groups

Portal name: VirtualOffice
User
VIP
Pinsafe

☐ Enable client certificate enforcement

☐ Delete external user accounts on logout

☐ One-time passwords

Add Cancel

Additional Configuration Options

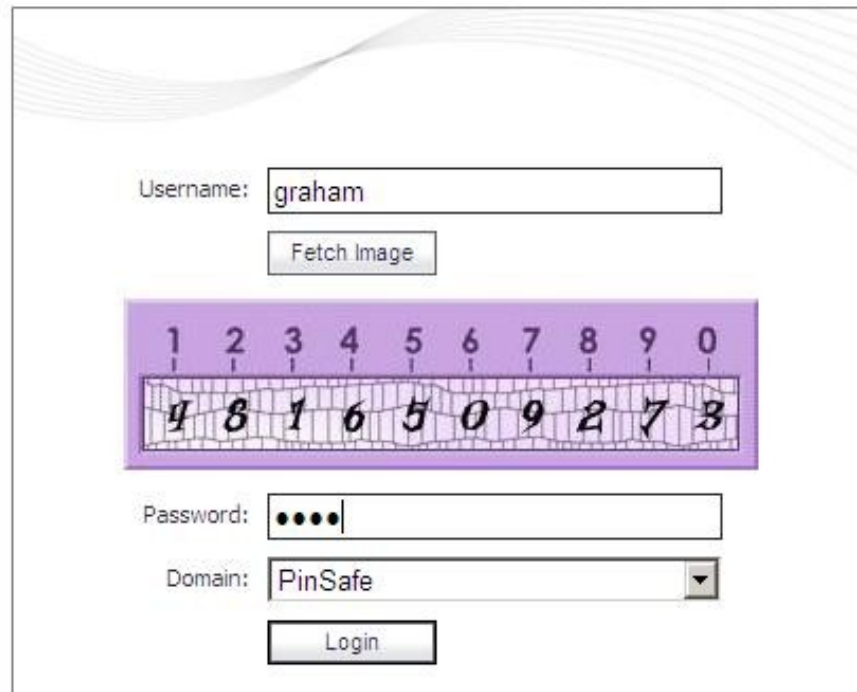
Testing

Browse to the login page and verify the login

Login page showing the TURING image where OTC is entered as the Password

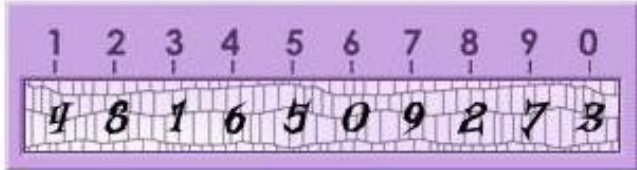
Welcome to the SonicWALL Virtual Office

The SonicWALL Virtual Office provides easy and secure remote access to your corporate network from anywhere on the Internet.



The login form is enclosed in a rectangular box with a light gray border. At the top, there is a decorative wavy line. Below it, the 'Username' field contains the text 'graham'. A 'Fetch Image' button is positioned below the username field. The central feature is a Turing image, which consists of a purple rectangular area containing a grid of numbers. The numbers are arranged in two rows: the top row shows digits 1 through 0, and the bottom row shows a distorted sequence of digits: 4, 8, 1, 6, 5, 0, 9, 2, 7, 3. Below the Turing image, the 'Password' field is shown with four black dots. The 'Domain' field is a dropdown menu currently set to 'PinSafe'. A 'Login' button is located at the bottom of the form.

Username:



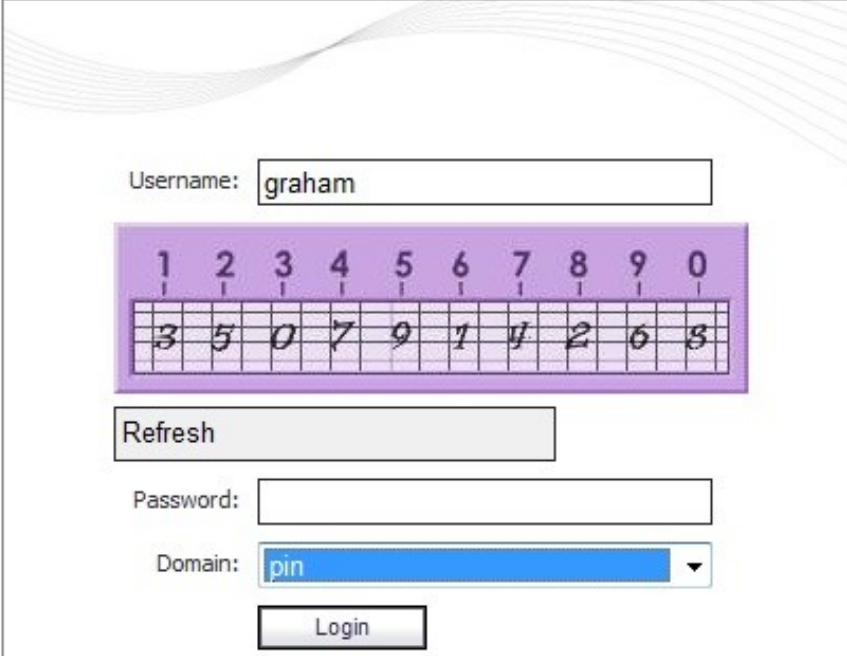
Password:

Domain:

Login page showing the TURING image with where OTC is entered as Password and a *Refresh Image* button

Welcome to the SonicWALL Virtual Office

The SonicWALL Virtual Office provides easy and secure remote access to your corporate network from anywhere on the Internet.

The login interface is contained within a light gray rectangular frame. At the top, there is a decorative graphic of several thin, curved, light gray lines. Below this, the 'Username:' label is followed by a text input field containing the text 'graham'. Underneath the username field is a PINsafe-style numeric keypad. The keypad has a top row of buttons labeled 1 through 0. Below this is a grid of 20 buttons arranged in two rows of ten. The top row of the grid contains the numbers 3, 5, 0, 7, 9, 1, 4, 2, 6, and 8. The bottom row of the grid contains 20 small, empty square buttons. Below the keypad is a 'Refresh' button. Underneath that is a 'Password:' label followed by a text input field. Below the password field is a 'Domain:' label followed by a dropdown menu currently showing 'pin'. At the bottom of the form is a 'Login' button.

Username:

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

Password:

Domain:

Troubleshooting

Check the PINsafe logs for Turing images and RADIUS requests.

Users can bypass Swivel authentication

When a user authenticates using RADIUS, a local account may be created on the SonicWall. With some SSO policies the user may then not be required to sign in using RADIUS authentication. Verify the SSO policy and adjust as required.

Known Issues and Limitations

None

Additional Information

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