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1 AuthControl Desktop

2 Introduction

AuthControl Desktop is the brand name for Swivel Secure's custom Windows Credential Provider.

The detailed article can be found under Windows Credential Provider.

3 Biometric Fingerprint for Windows Credential Provider

4 Overview

With Biometric for WCP, you can enrol the user's fingerprint or palm, use it as a 2FA, or just to identify the username.

5 Prerequisites

AuthControl Sentry v4.0.5 onwards

AuthControl Credential Provider v5.4.5 onwards

Windows 10

Nitgen biometric reader, Fujitsu PalmSecure-F Pro biometric reader or Laptop supporting biometric authentication (Windows Hello) with integrated fingerprint reader

5.1 Supported models

Nitgen Fingkey Hamster

Fujitsu PalmSecure-F Pro

Dell, HP and Lenovo Laptops with Windows 10 using Windows Biometric Framework

The following have been tested successfully:

- Dell Vostro 15 5568

- HP Probook 6550b

- Lenovo Thinkpad 13 Gen 2

- Lenovo Thinkpad T520

6 Nitgen Reader vs Laptop Reader

There are some relevant differences with both types of readers that need to be considered.

1) Enrolment

- Nitgen Reader: enrolment is done during the first login

- Laptop Reader: the user cannot be enrolled during login, so enrolment is done inside AuthControl Credential Provider Configuration

2) Authentication in multiple devices

- Nitgen Reader: allows to authenticate in several devices with only one enrolment

- Laptop Reader: enrolment in each one of the devices is necessary

7 Configuration for Nitgen Biometric Reader

7.1 Configure Third Party Authentication Nitgen

In AuthControl Sentry Management Console, add the following Third Party to Server > Third Party Authentication

Identifier: FingerprintNitgen

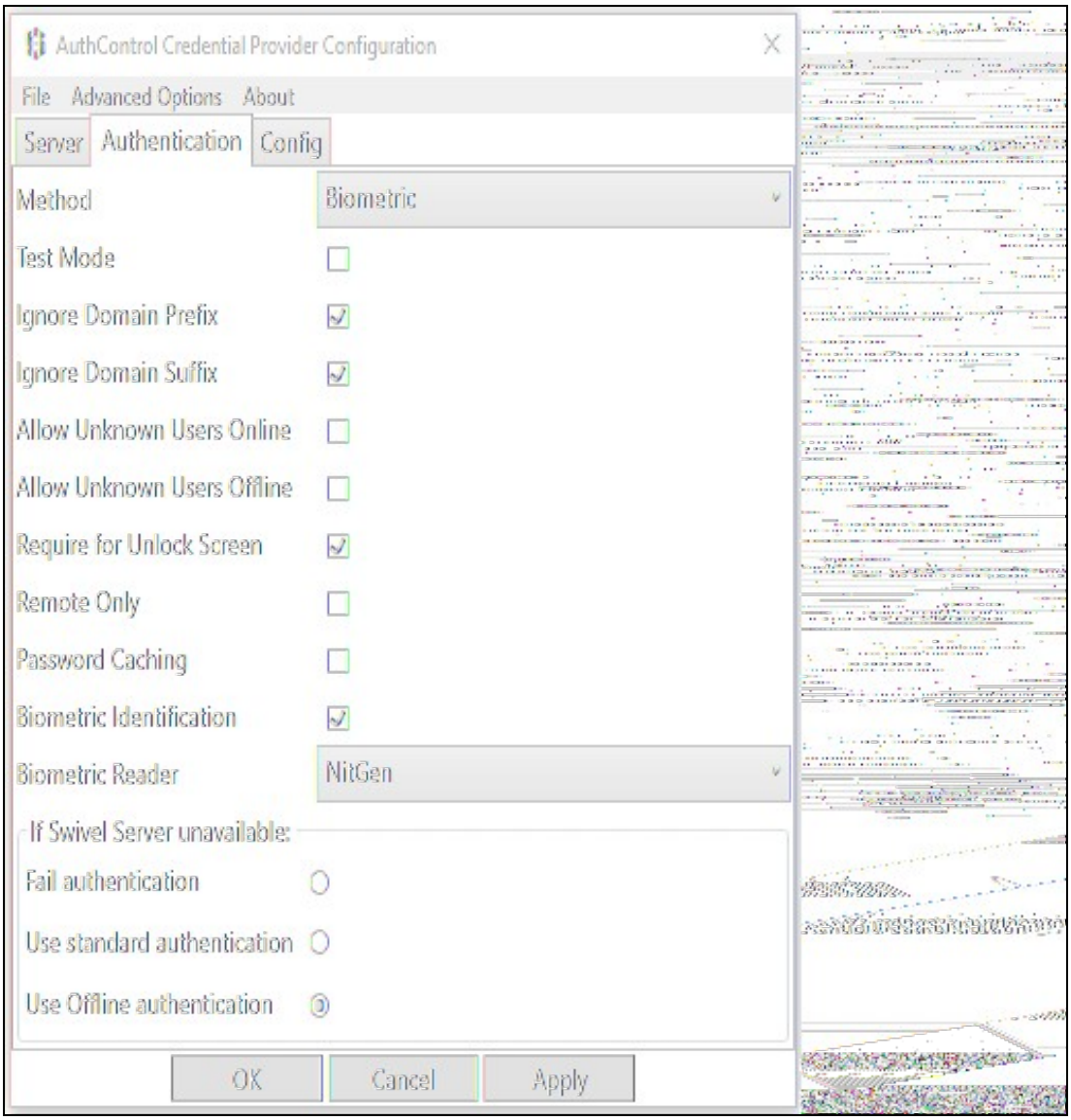
Class: com.swiveltechnologies.pinsafe.server.thirdparty.FingerprintNitgen

Enabled: yes

7.1.1 Configure Credential Provider

Select in Authentication -> Method the option "Biometric".

Select in Authentication -> Biometric Reader the option "Nitgen".



7.1.2 Enrol the user with Nitgen

When the user is not enrolled, the user is requested, after login with username and password, to enrol the fingerprint.

1) Select the finger to enrol

2) Place the finger on the sensor the necessary times untill the enrolment is successfull

7.1.3 Authenticating with Nitgen

After authenticationg with username and password, when requested, place the finger on the sensor


Place finger on the sensor
ADJUST
CANCEL
NITGEN
biometric solutions

8 Configuration for Laptop Biometric Reader

8.1 Configure Third Party Authentication

In AuthControl Sentry Management Console, add the following Third Party to Server > Third Party Authentication

Identifier: WinBioFingerprint

Class: com.swiveltechnologies.pinsafe.server.thirdparty.FingerprintNitgen

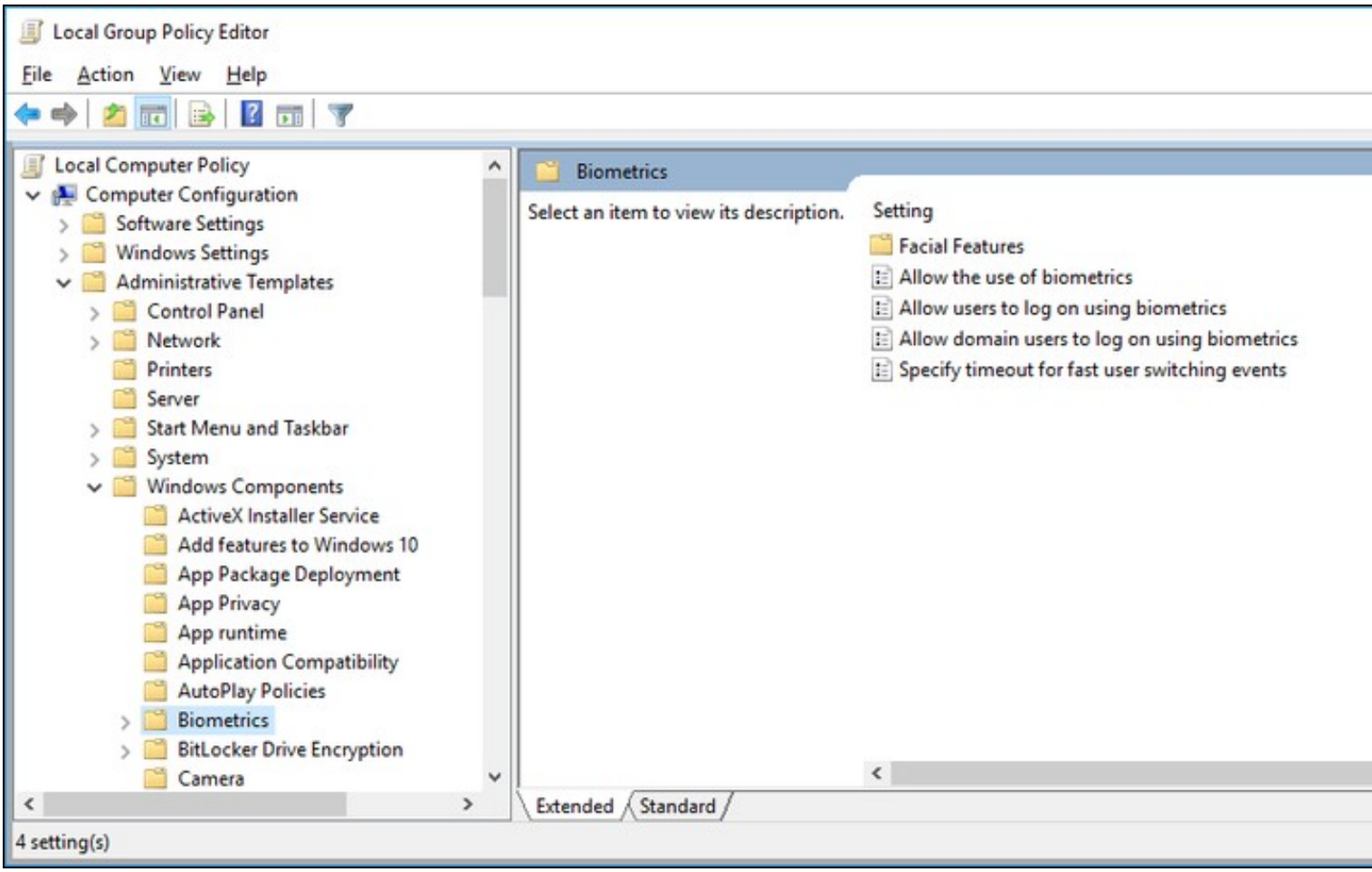
Enabled: yes

8.1.1 Disable Windows Hello

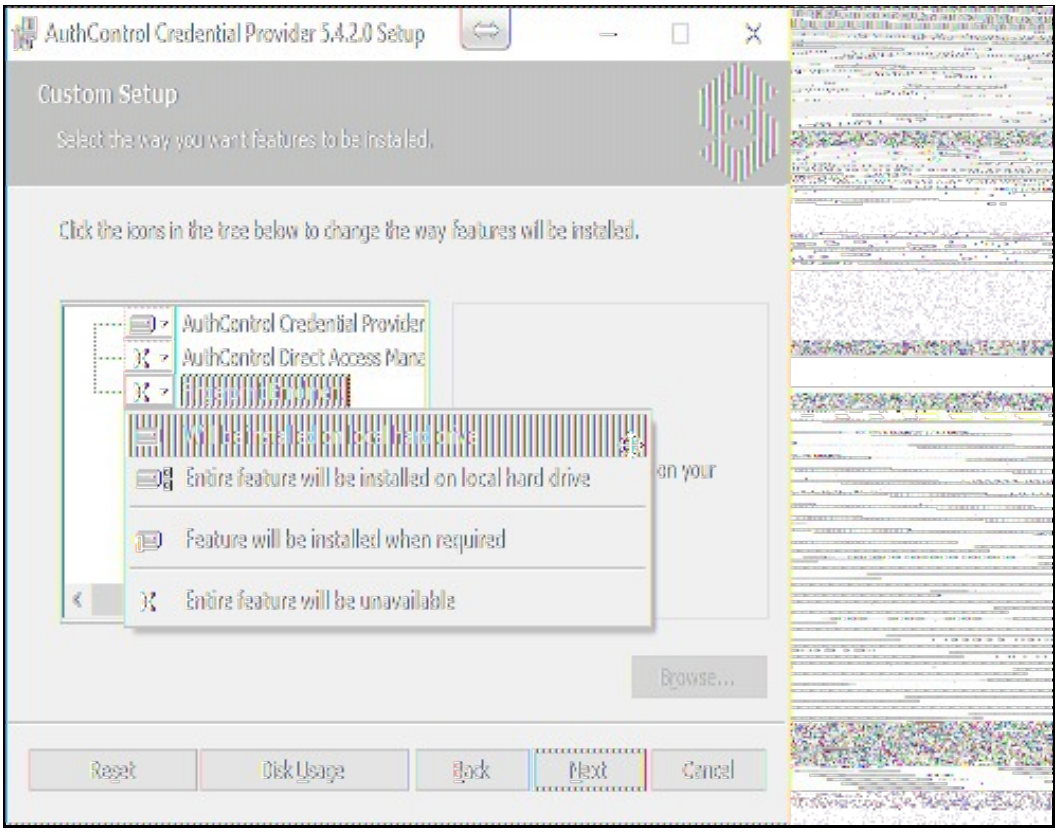
Windows Hello Biometric usage must be disabled in Local Group Policy:

- Access the Windows Local Group Policy Editor.

- Go to: Computer Configuration > Administrative Templates > Windows Components > Biometrics and disable the setting "Allow users to log on user biometrics".



8.1.2 Install Credential Provider with Fingerprint Enrolment

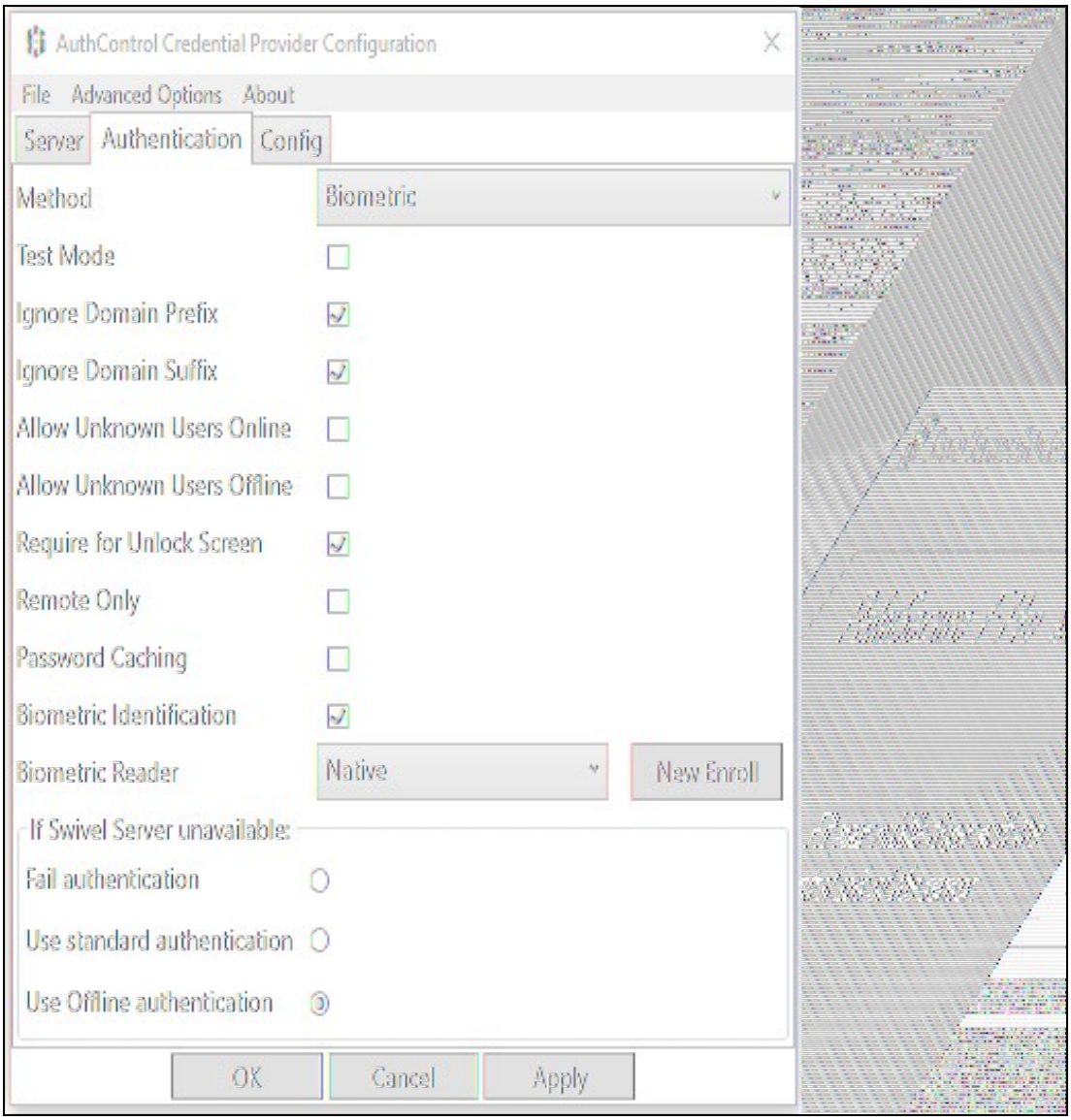


8.1.3 Configure Credential Provider

Select in Authentication -> Method the option "Biometric".

Select in Authentication -> Biometric Reader the option "Native".

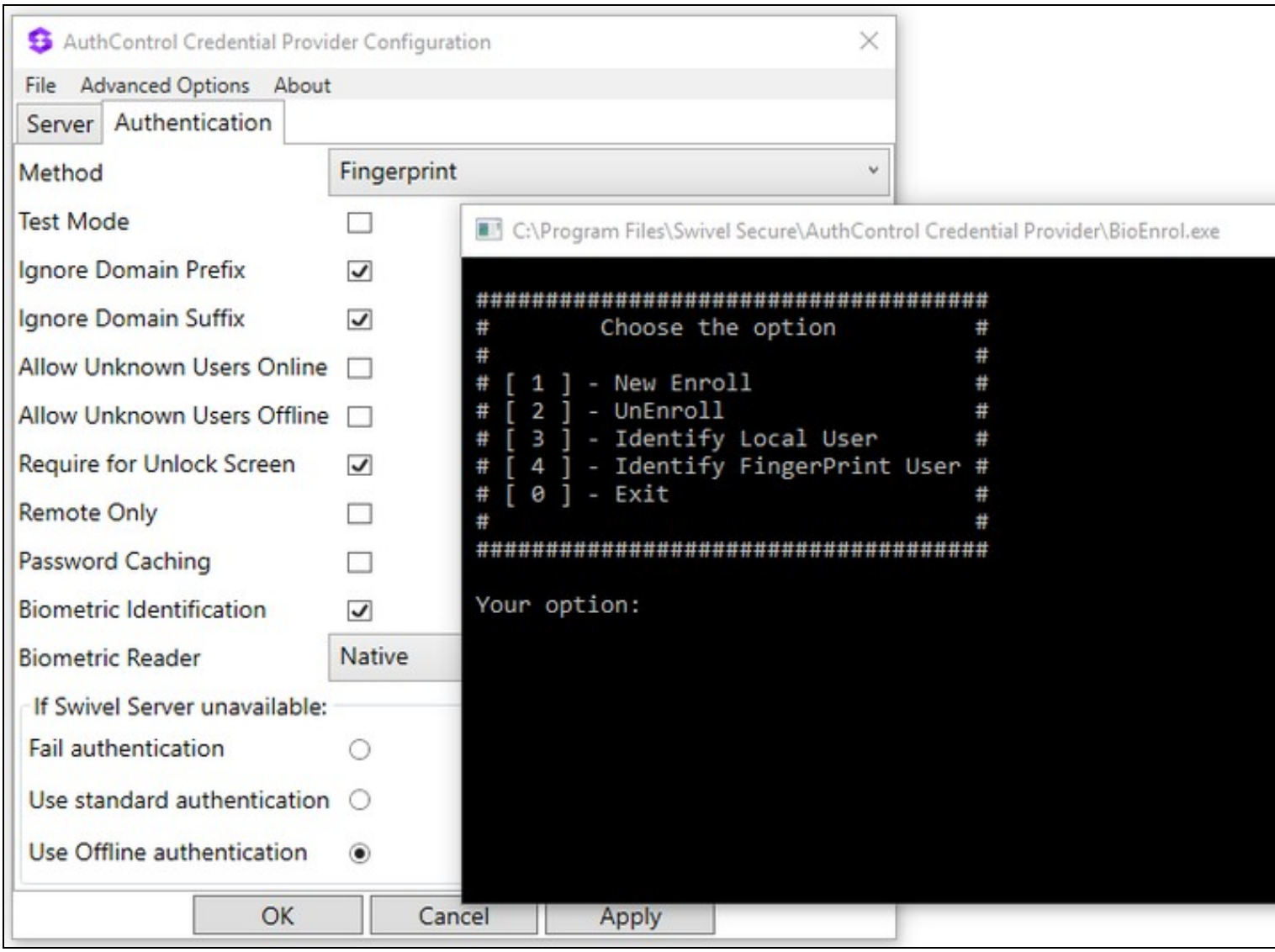
Click Apply.



8.1.4 Enrol the user

After selecting "Native" **and clicking Apply**, click in the button ?New Enroll? to open the "BioEnrol" executable.

Select option 1 to start a new enrol to current user and follow the steps presented.



8.1.5 Authenticating

With all configurations done, go to the Windows login page and access using your registered fingerprint when prompted.


Biometric Native
Swipe your finger
Sign-in options

9 Configuration for Fujitsu PalmSecure-F Pro Biometric Reader

(This section is under construction / The Fujitsu PalmSecure-F Pro Biometric Reader is in Beta testing)

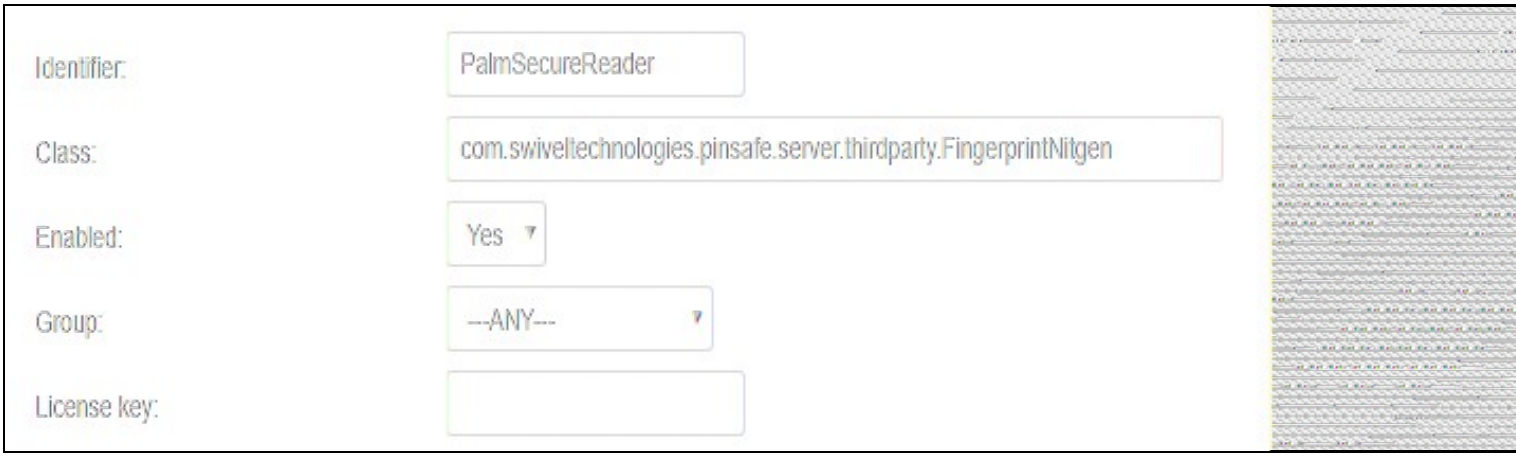
9.1 Configure Third Party Authentication PalmSecure

In AuthControl Sentry Management Console, add the following Third Party to Server > Third Party Authentication

Identifier: PalmSecureReader

Class: com.swiveltechnologies.pinsafe.server.thirdparty.FingerprintNitgen

Enabled: yes

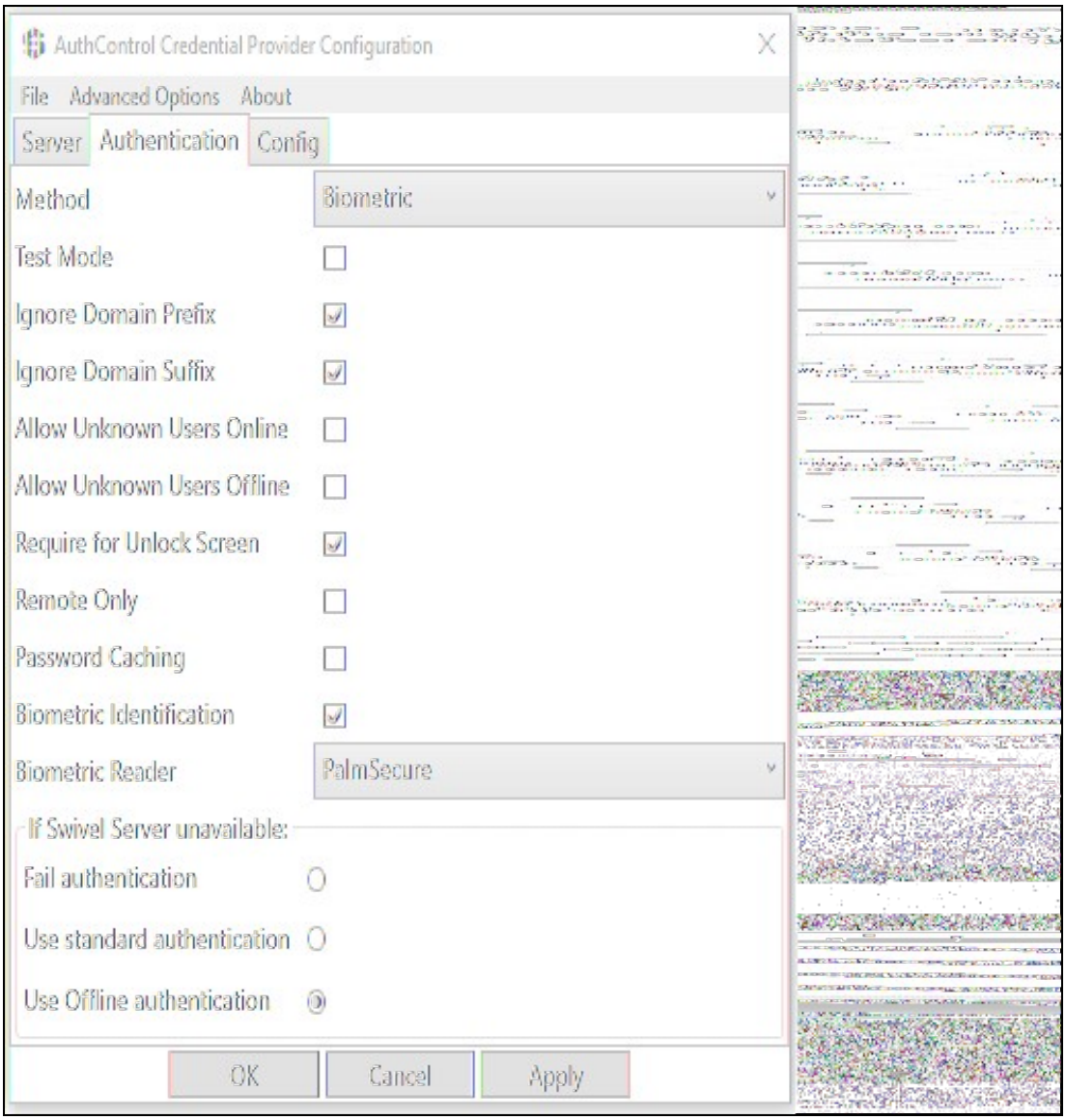


9.1.1 Configure Credential Provider PalmSecure

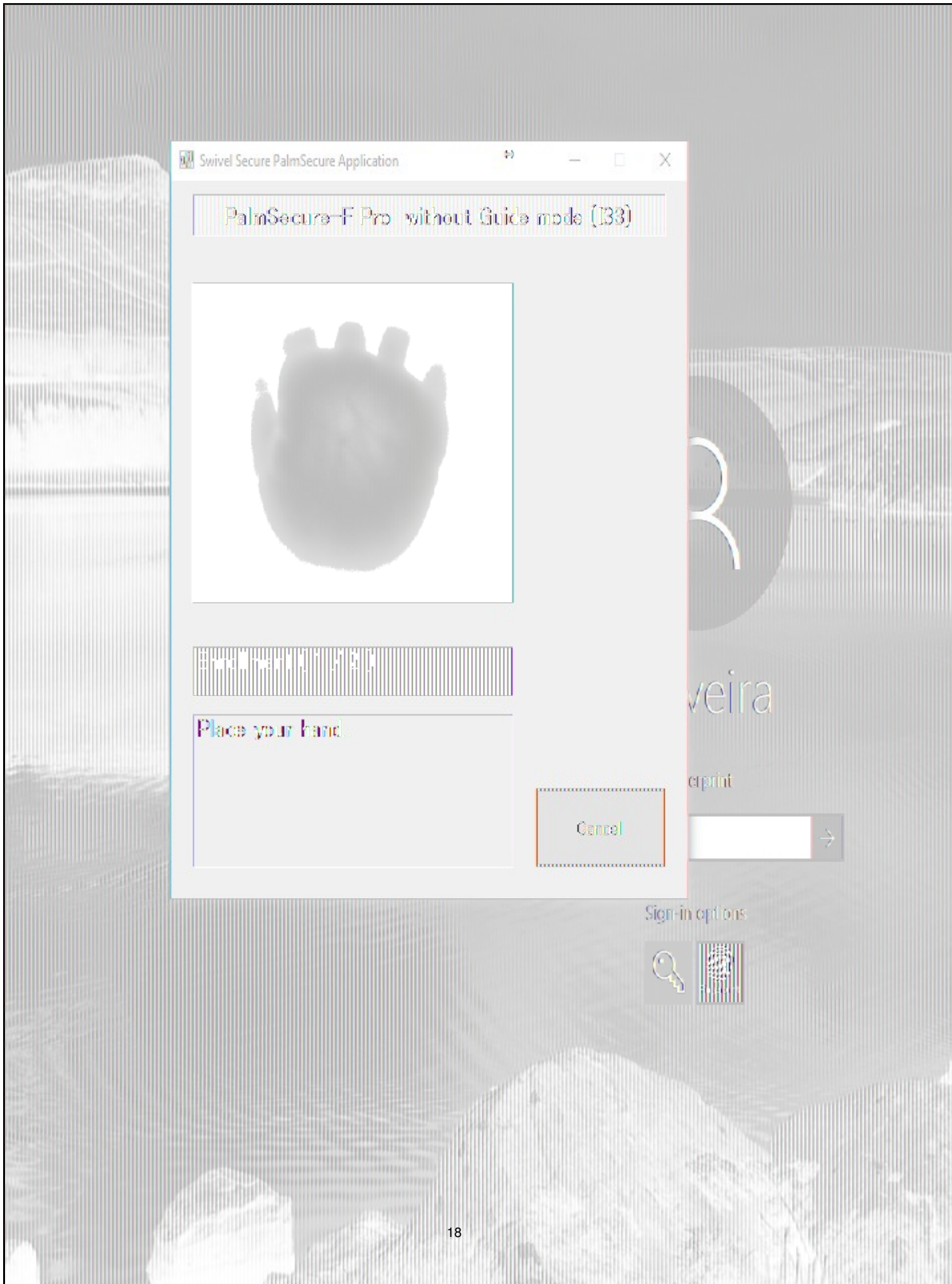
Select in Authentication -> Method the option "Biometric".

Select in Authentication -> Biometric Reader the option "PalmSecure".

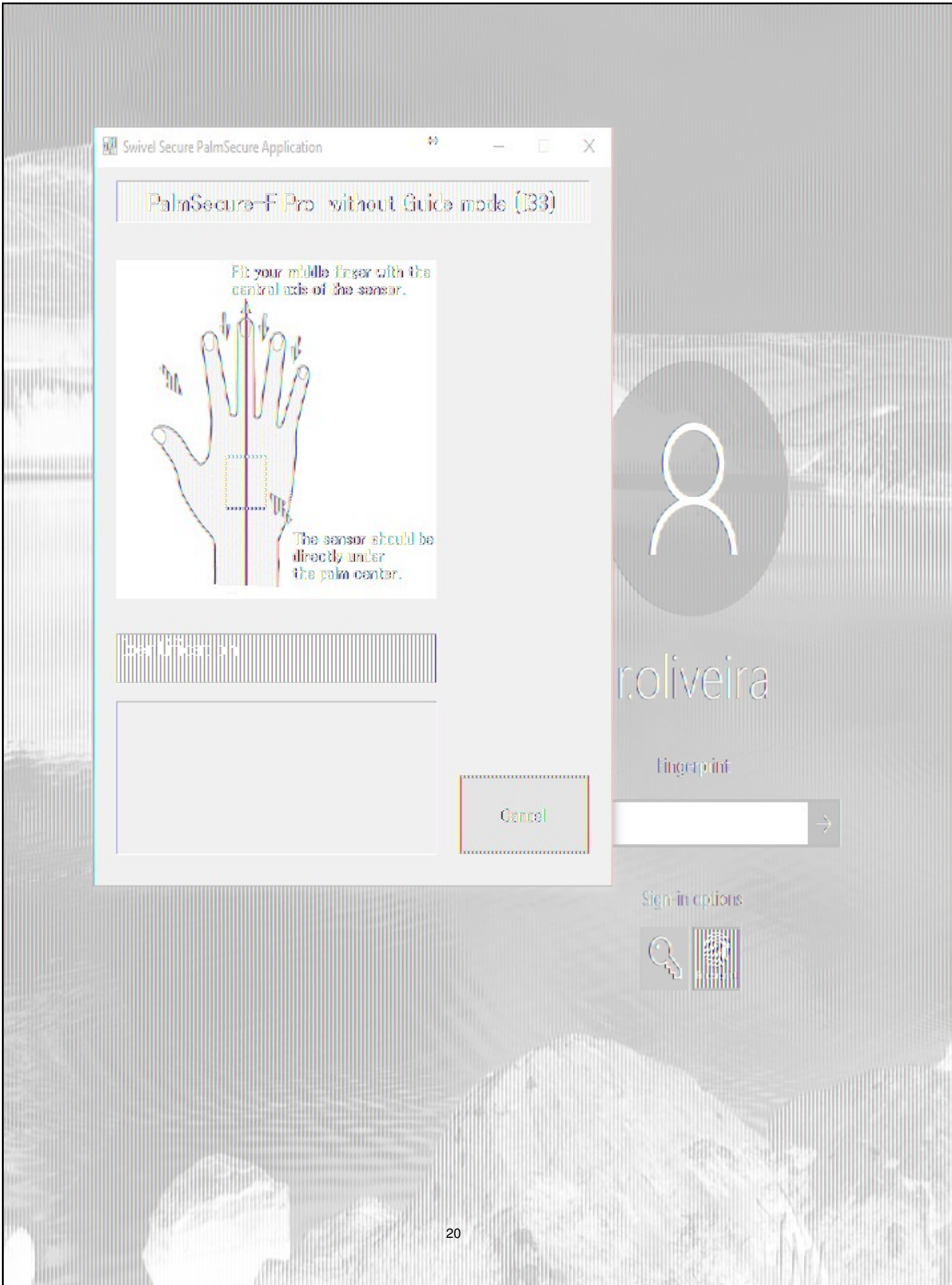
Click Apply.



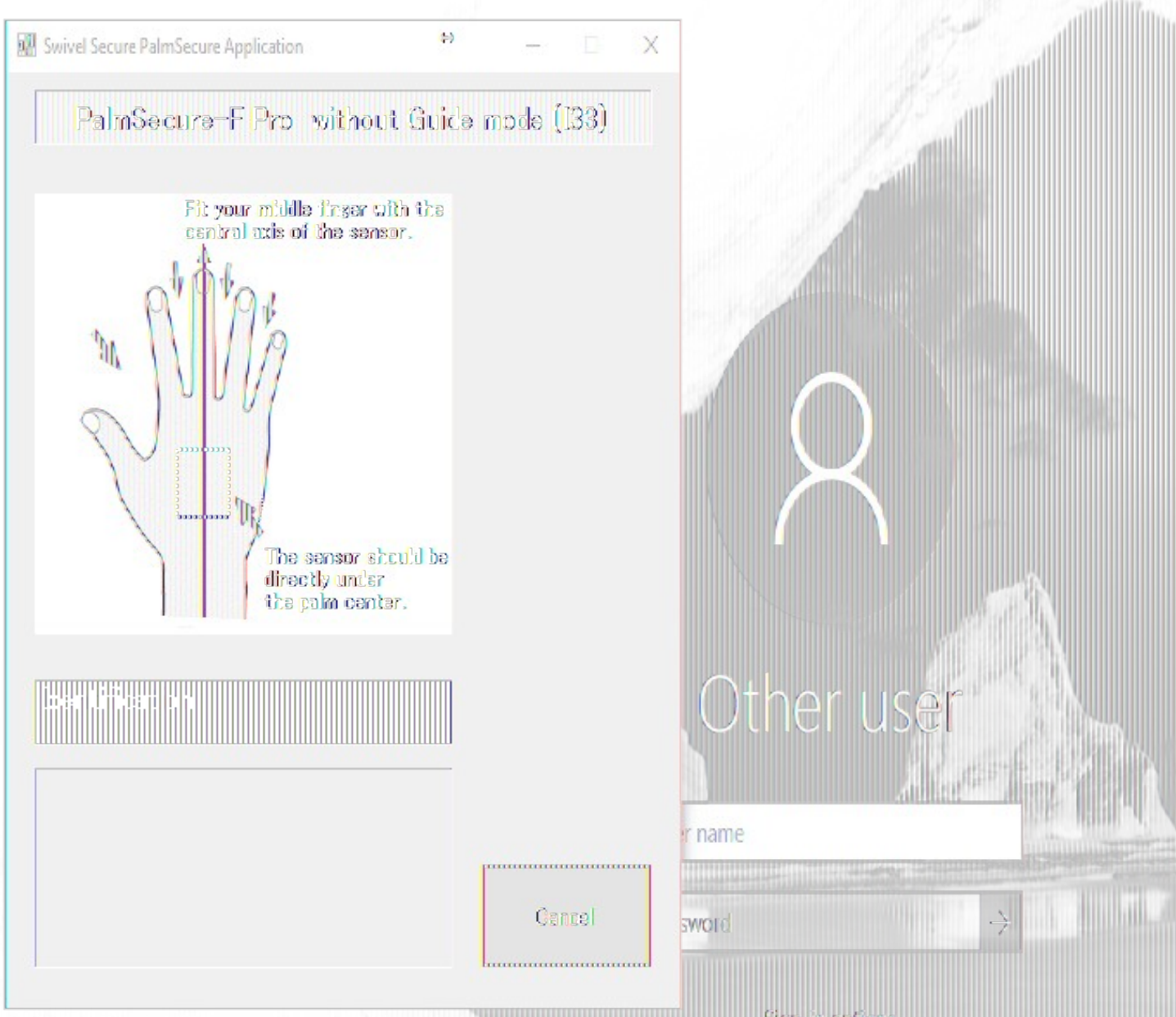
9.1.2 Enrolment with PalmSecure


Swivel Secure PalmSecure Application
PalmSecure-F Pro without Guide mode (133)
Place your hand
Cancel
Sign-in options

9.1.3 Authenticating with PalmSecure

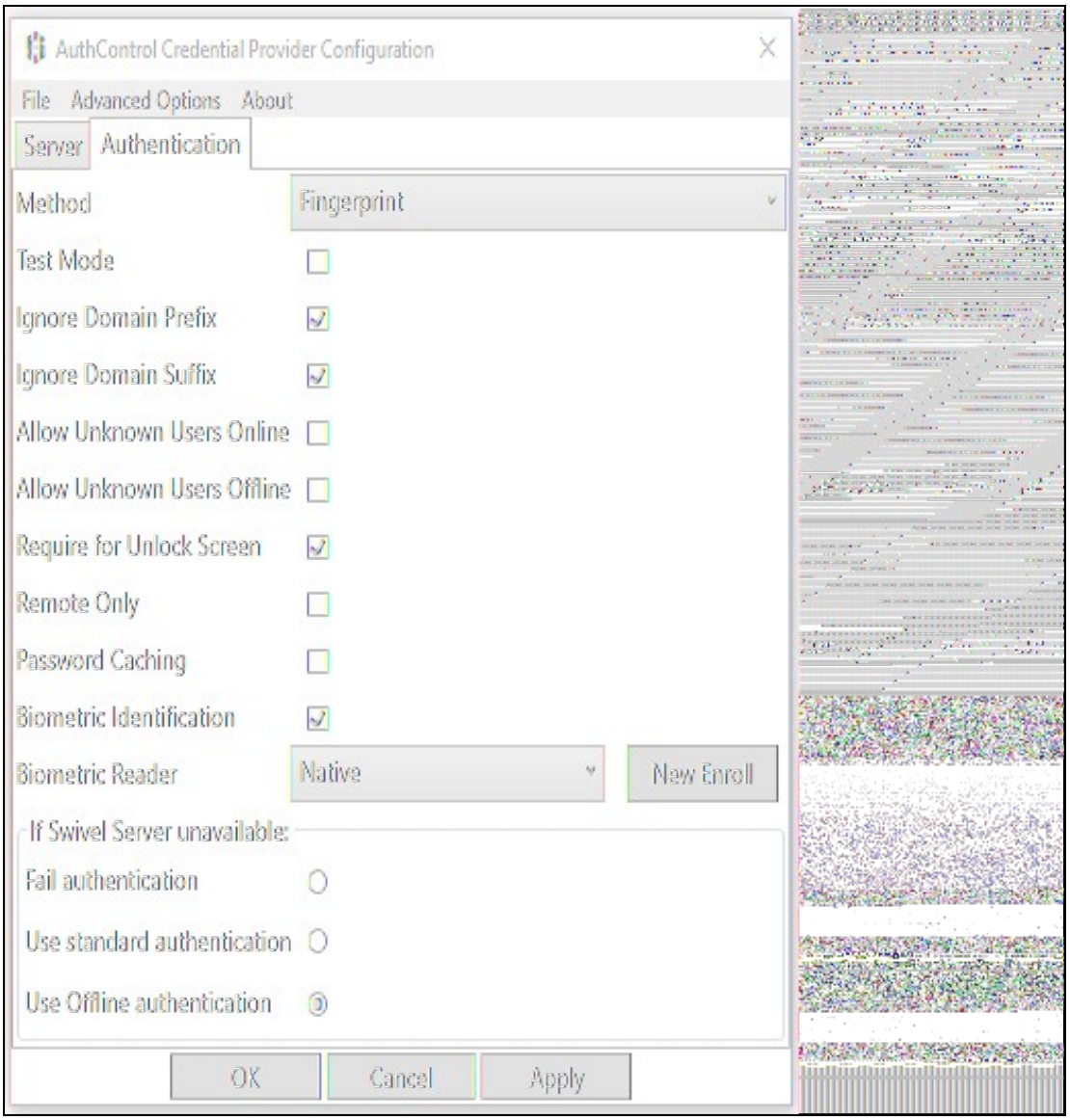

Swivel Secure PalmSecure Application
PalmSecure-F Pro without Guide mode (133)
Fit your middle finger with the central axis of the sensor.
The sensor should be directly under the palm center.
Cancel
roliveira
Fingerprint
Sign-in options

9.1.4 Identification with PalmSecure

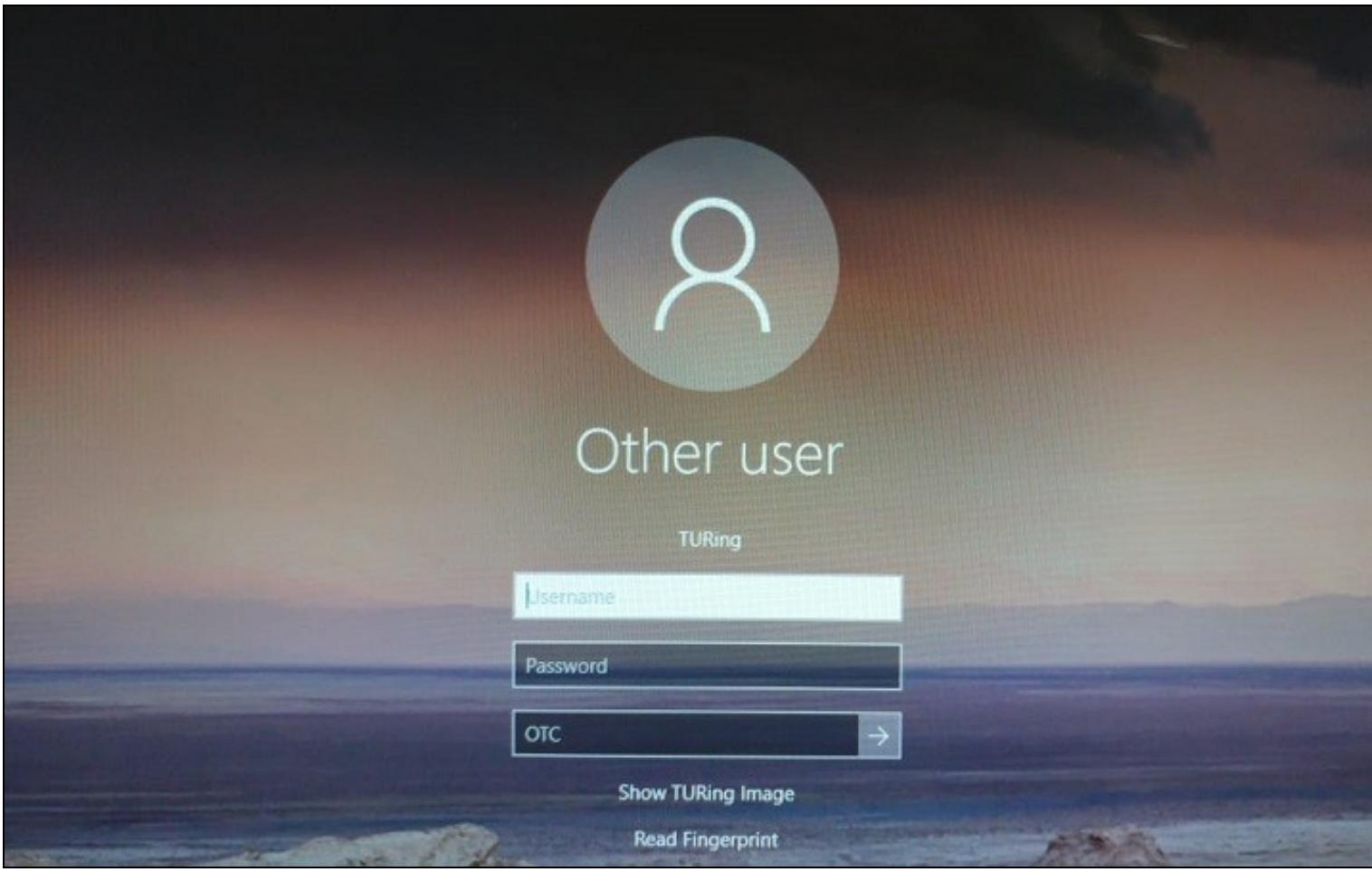

Swivel Secure PalmSecure Application
PalmSecure-F Pro without Guide mode (133)
Fit your middle finger with the central axis of the sensor.
The sensor should be directly under the palm center.
Cancel
Other user
Sign-in options

10 Biometric Identification

It's possible to use Biometric Identification instead of entering the username. First enable "Biometric Identification" under "Authentication" inside the Configuration.

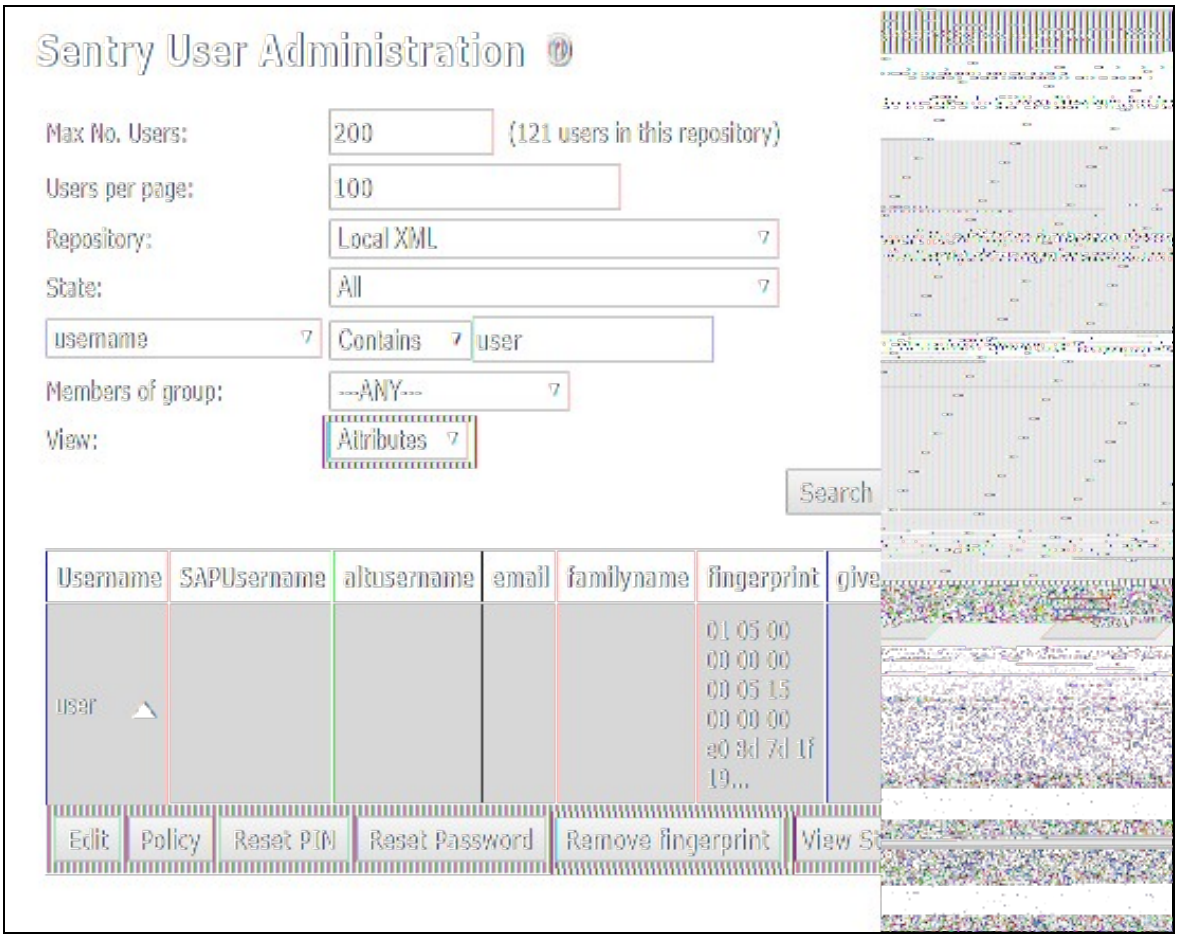


When authenticating, select option "Read Fingerprint" and place your finger on the sensor when requested. If the fingerprint is enrolled, the username is automatically filled.


Other user
TURing
Username
Password
OTC
Show TURing Image
Read Fingerprint

11 Removing user fingerprint

To remove a user fingerprint from the appliance, the administrator can go to User Administration, Select View -> Attributes, click the user and select "Remove fingerprint".



12 Troubleshoot

If you have issues with enrolment on the Integrated Laptop Reader, you might need to stop "Windows Biometric Service" or "WbioSrvc" under your Windows Services and then delete the files located at "WinBioDatabase" in C:\Windows\System32\WinBioDatabase.

13 Deploy ACD using MS group policies

14 Introduction

These are the instructions to use the windows group policies to "deploy" the AuthControl Desktop (Credential Provider).

15 Steps

1 - Install the Credential Provider on a single machine. Configure it as required, then use File, Export Settings from the configuration program to create a settings file named acd.xml. Alternatively, if you have a pre-configured build, there is no need for this step.

2 - Create a network share that can be accessed by all computers. Copy both the credential provider MSI and acd.xml (if required) to that folder.

3 - From the domain controller, in Server Manager, select the Tools menu, then "Group Policy Management".

4 - Select the domain node on the left-hand window. Right-click and choose "Create a GPO in this domain and link it here".

5 - Give the GPO a name, such as "AuthControl Credential Provider", and click OK.

6 - Under Group Policy Objects, find the GPO you just created, right-click on it and click Edit.

7 - Choose Computer Configuration, Policies, Software Settings, Software installation. Right-click and select New -> Package.

8 - From the file browser, enter the location of the MSI. It must be entered as a network share, i.e. \\Computer\Share\AuthControlCredentialProvider.msi. Leave deployment method as "Assigned".

9 - Choose User Configuration, Policies, Software Settings, Software installation and repeat the last 2 steps, except this time, the deployment method should be "Published".

10 - Close the editor and left-click on the GPO. Under Scope you should see the domain name in the Links section. Right-click on it and check "Enforced". Note that this will install the CP on every computer in the domain. It should be possible to restrict the policy to a single Organisational Unit, by applying the GPO link to that OU. You can only apply policies to domains or OUs, not ordinary containers. You can also restrict the policy by creating a group of computers and adding that group to Security Filtering.

9a) Choose User Configuration, Policies, Software Settings, Software installation. Right-click and select New -> Package.

9b) From the file browser, enter the location of the MSI. It must be entered as a network share, i.e. \\Computer\Share\AuthControlCredentialProvider.msi. Set deployment method to "Published".

16 Notes

Our understanding is that steps 7 and 8 make the software available for network installation. This step installs the software automatically if it is not yet installed, the next time each user connects to the domain.

The notes on the final step suggest how you can restrict which computers have the WCP installed.

Check the link below for more details:

https://support.microsoft.com/en-gb/help/816102/how-to-use-group-policy-to-remotely-install-software-in-windows-server

17 Changing Settings

If you want to change the settings for computers that already have AuthControl Desktop installed, for example, to enable or disable test mode, currently the only way to do this is to change the registry settings directly.

All the settings are in the following registry key:

\\HKEY_LOCAL_MACHINE\SOFTWARE\Swivel Secure\AuthControl Desktop

You will need to know the names of the settings in the registry: please contact Swivel Secure support for specific requests. We will give an example below of enabling or disabling Test Mode, for which the setting name is "TestMode".

1. Open "Group Policy Management" from a Domain Controller.
2. Right-click on the domain, or an OU if you only want to apply the policy to a subset
3. Select "Create a GPO in this domain and link it here". Give the GPO a name.
4. Right-click on the GPO and select "Edit"
5. Expand the tree for "Computer Configuration" -> "Preferences" -> "Windows Settings" -> "Registry"
6. Right-click on "Registry" and select New -> Registry Item
7. Make sure that action is "Update" and Hive is "HKEY_LOCAL_MACHINE"
8. Enter Key Path as "SOFTWARE\Swivel Secure\AuthControl Desktop". Make sure you type this correctly, including the correct spacing
9. Enter the Value name as "TestMode". To change a different value, enter the name as given by Swivel Secure
10. Set the value type to REG_DWORD (this is for numeric or on/off settings - for text settings use REG_SZ)
11. Set the value data to 1 to enable TestMode, or 0 to disable it.
12. Click OK

Note two points:

- The settings are only applied when a computer is restarted
- The settings are not applied immediately, so it is possible that the first login after restart will still use the old settings.

18 HOB Remote Desktop VPN

19 Introduction

This document outlines the integration of PINsafe with the HOB Remote Desktop VPN.

20 Prerequisites

PINsafe 3.x

HOB RD VPN WebSecureProxy

If the graphical single Channel image is to be used, then the image must be accessible by the client from the internet, this is usually done by a NAT to the PINsafe server.

HOB RD VPN WebSecureProxy PINsafe Integration files

21 Baseline

PINsafe 3.7

HOB RD VPN WebSecureProxy 2.2 0108

22 Architecture

Users connect to the HOB RD VPN WebSecureProxy login page and enter their username and One Time Code. The authentication information is sent to the PINsafe server by RADIUS. RADIUS ChangePIN and Two Stage Challenge and Response authentication are also supported through RADIUS.

23 Swivel Configuration

23.1 Configuring the RADIUS server

On the Swivel Administration console configure the RADIUS Server and NAS, see RADIUS Configuration

23.2 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.

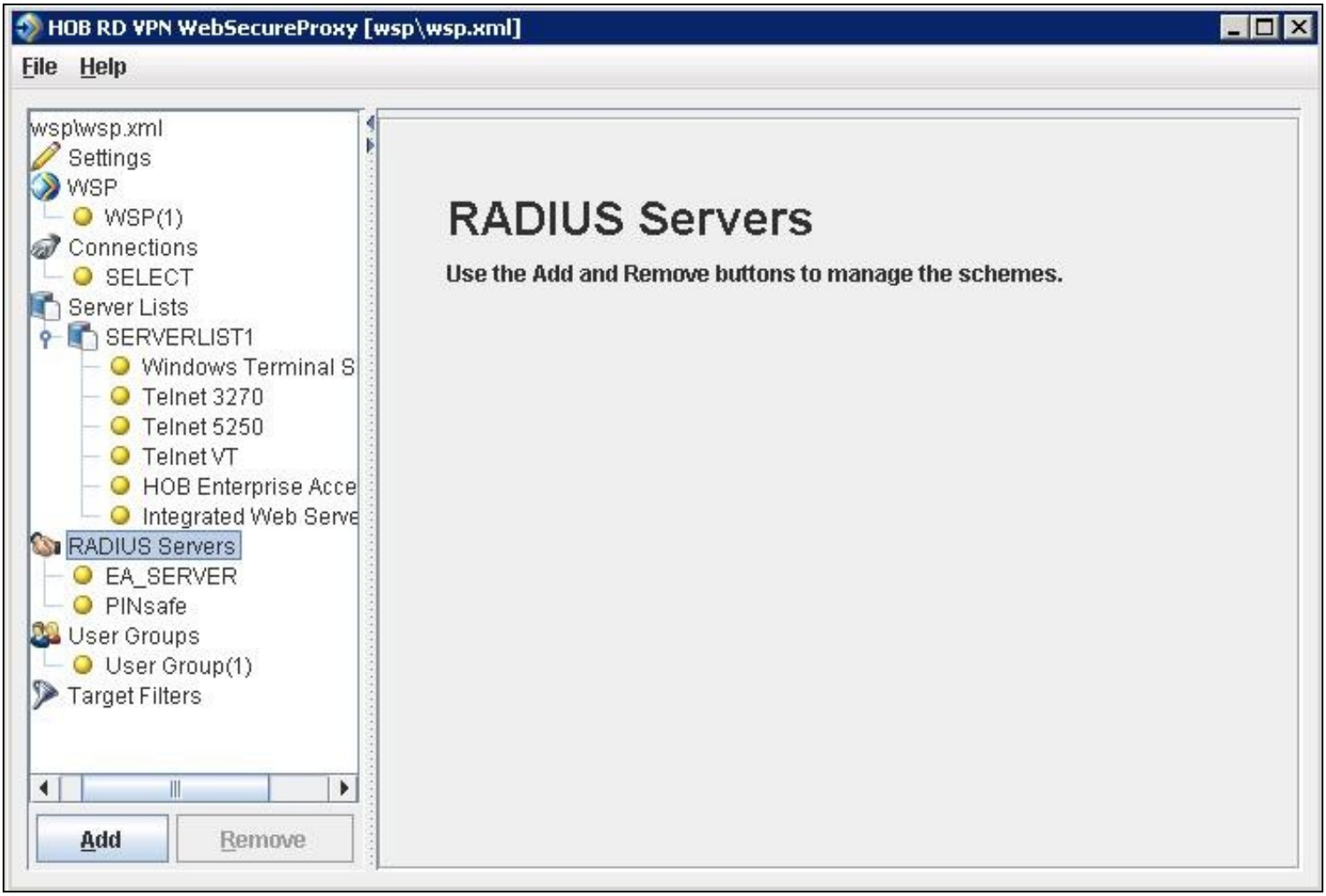
23.3 Setting up Swivel Dual Channel Transports

See Transport Configuration

24 HOB RD VPN WebSecureProxy Integration

24.1 Create a RADIUS Server

On the HOB RD VPN WebSecureProxy Administration Configuration select RADIUS Servers then Add.



Enter the details for the PINsafe RADIUS server, the following information is required:

Name: A descriptive name such as PINsafe

Host IP Address: The hostname or IP address of the PINsafe server

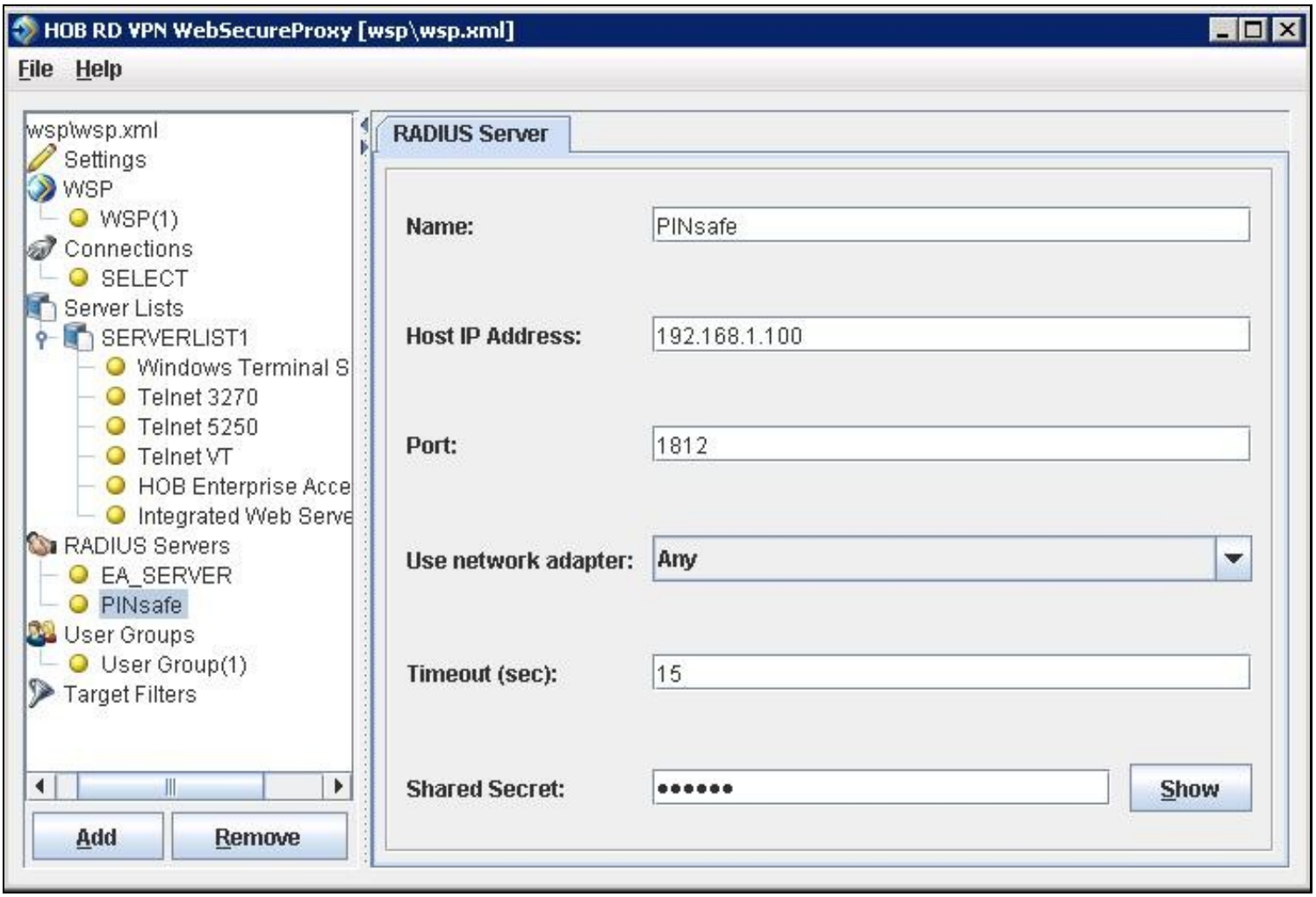
Port The port used for RADIUS authentication on the PINsafe server, usually 1812

Use network adapter: The network adapter from which authentication requests are sent from.

Timeout (sec): The length of time to wait for a RADIUS authentication attempt fails.

Shared Secret: A value that is also entered and must match on the PINsafe RADIUS NAS.

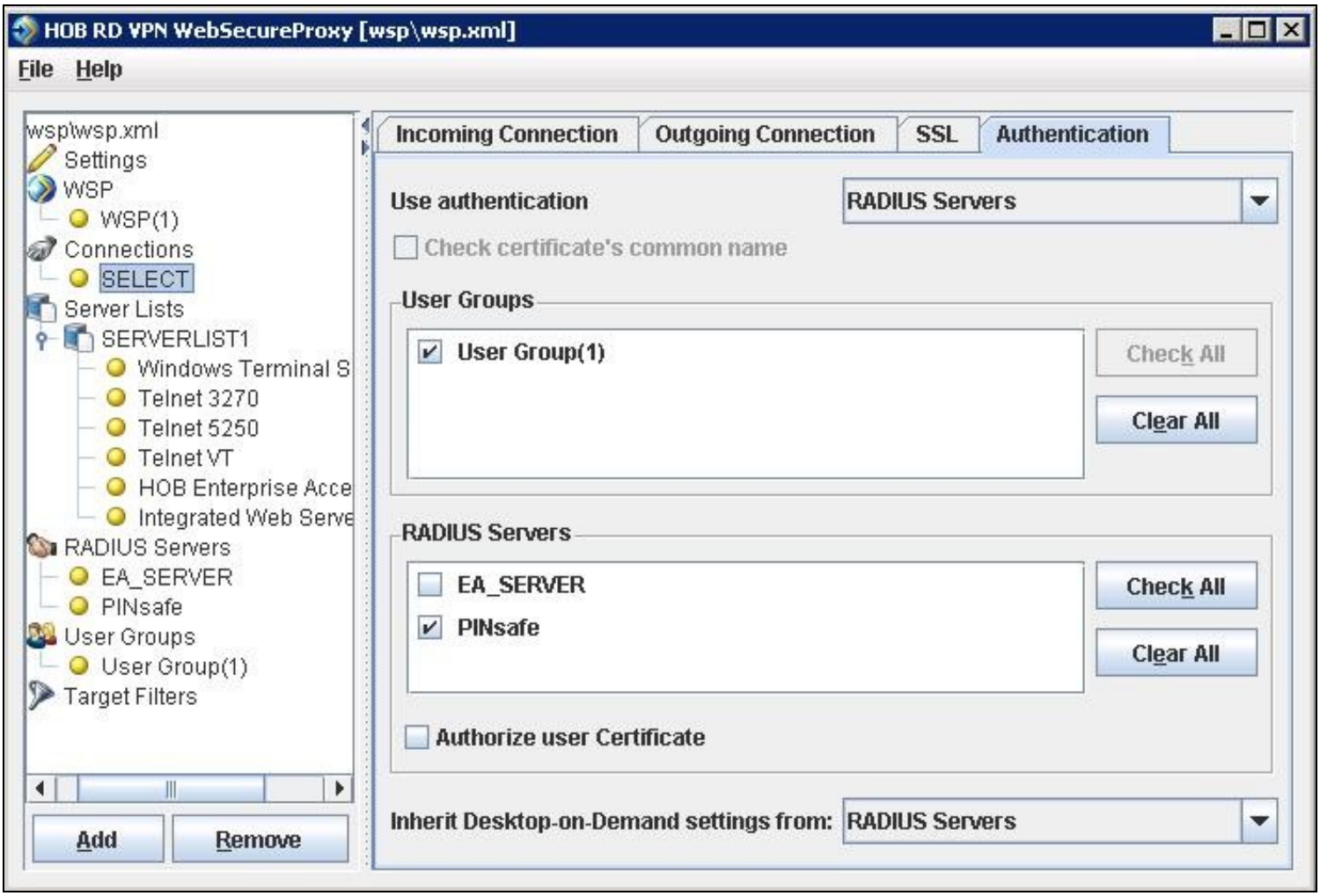
When complete click on File, then Save. For settings to take affect the HOB WebSecureProxy may need to be restarted.



24.2 Assign the PINsafe RADIUS server to a Connection

On the HOB RD VPN WebSecureProxy Administration Configuration select Connections, then the name of the required connection, then select the Authentication tab. Set the Use authentication to RADIUS and ensure that the PINsafe RADIUS server is selected.

When complete click on File, then Save. For settings to take affect the HOB WebSecureProxy may need to be restarted.



24.3 Additional Installation Options

24.3.1 Single Channel, Index and Message request

The HOB RD VPN WebSecureProxy will now be configured to allow authentication for Dual channel such as SMS and mobile phone applet. To configure additional options such as the graphical single channel image, and the security string index the login page must be modified. See also Multiple Security Strings How To Guide

Edit the pinsafe.js file and change the IP address of the PINsafe server to be that of the public NAT address of the PINsafe server.

```
pinsafeUrl = "http://192.168.1.100:8443/proxy/";
```

For a Swivel virtual or hardware appliance this will usually need to be: pinsafeUrl = "https://192.168.1.100:8443/proxy/";

For a software only install see Software Only Installation

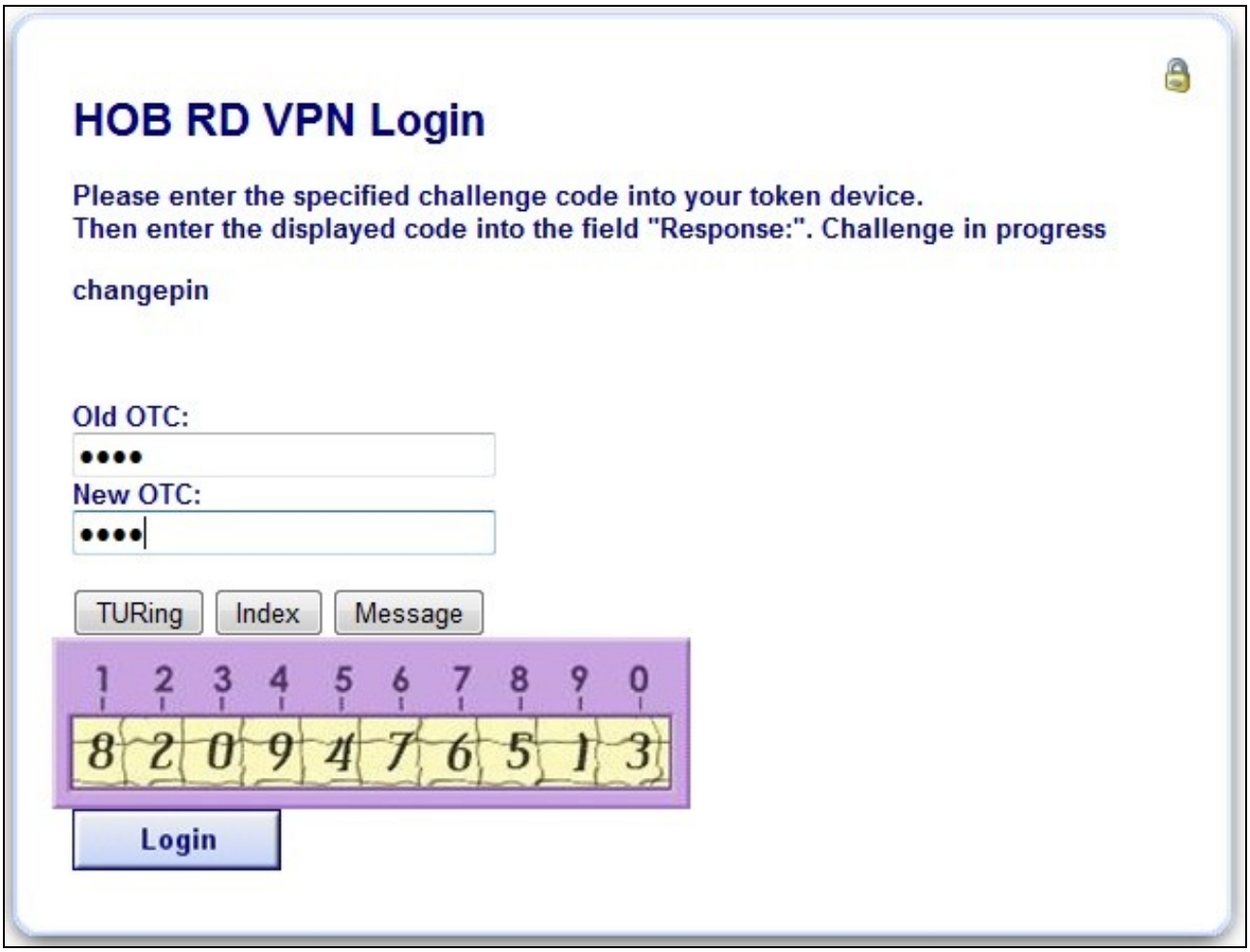
Backup the original files and then upload the modified files and login pages to the Hob RD VPN server, <path to install>\HOB\rdvpn\www\login

The default installation path is: c:\Program Files\HOB\rdvpn\www\login

For changes to the login page to take effect the HOB WebSecureProxy may need to be restarted.

24.3.2 Change PIN

To enable ChangePIN, on the PINsafe administration console select RADIUS/NAS then set ChangePIN Warining to Yes. Upload the modified login pages as detailed above. When a user is required to change their PIN they are automatically redirected to the ChangePIN page. Remember that the PIN number is never entered during the changePIN process, instead old and new one time codes are entered. A user may use SMS or tthe mobile phone to change their PIN. If a PINsafe password is being used, they must use <password><OTC>.



24.3.3 Challenge and Response and Two Stage Authentication

To enable Challenge and Response and Two Stage Authentication:

1. Upload the modified login pages as detailed above.

2. On the PINsafe administration console select RADIUS/NAS then set Two Stage Auth to Yes.

3. On the PINsafe administration console select RADIUS/Server and set Use Challenge/Response to Yes.

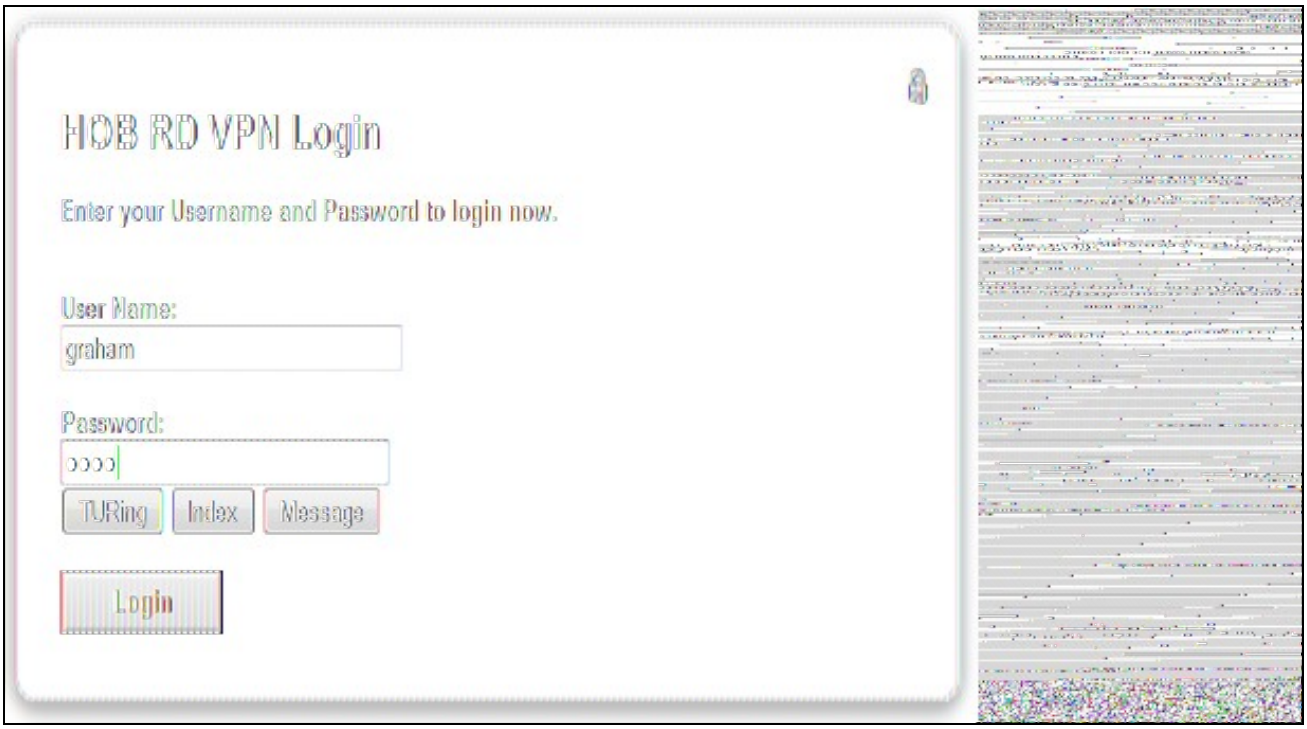
4. On the PINsafe administration console select Policy/Password and set Require Password to Yes, and Check Password with Repository to Yes. In PINsafe 3.8 this option is located under RADIUS/NAS.

When a user logs in they will be prompted to enter their password, and if correct will be redirected to another page where they can enter their one time code. The Challenge and Response option allows the user to be sent an SMS message on a correct password being entered.

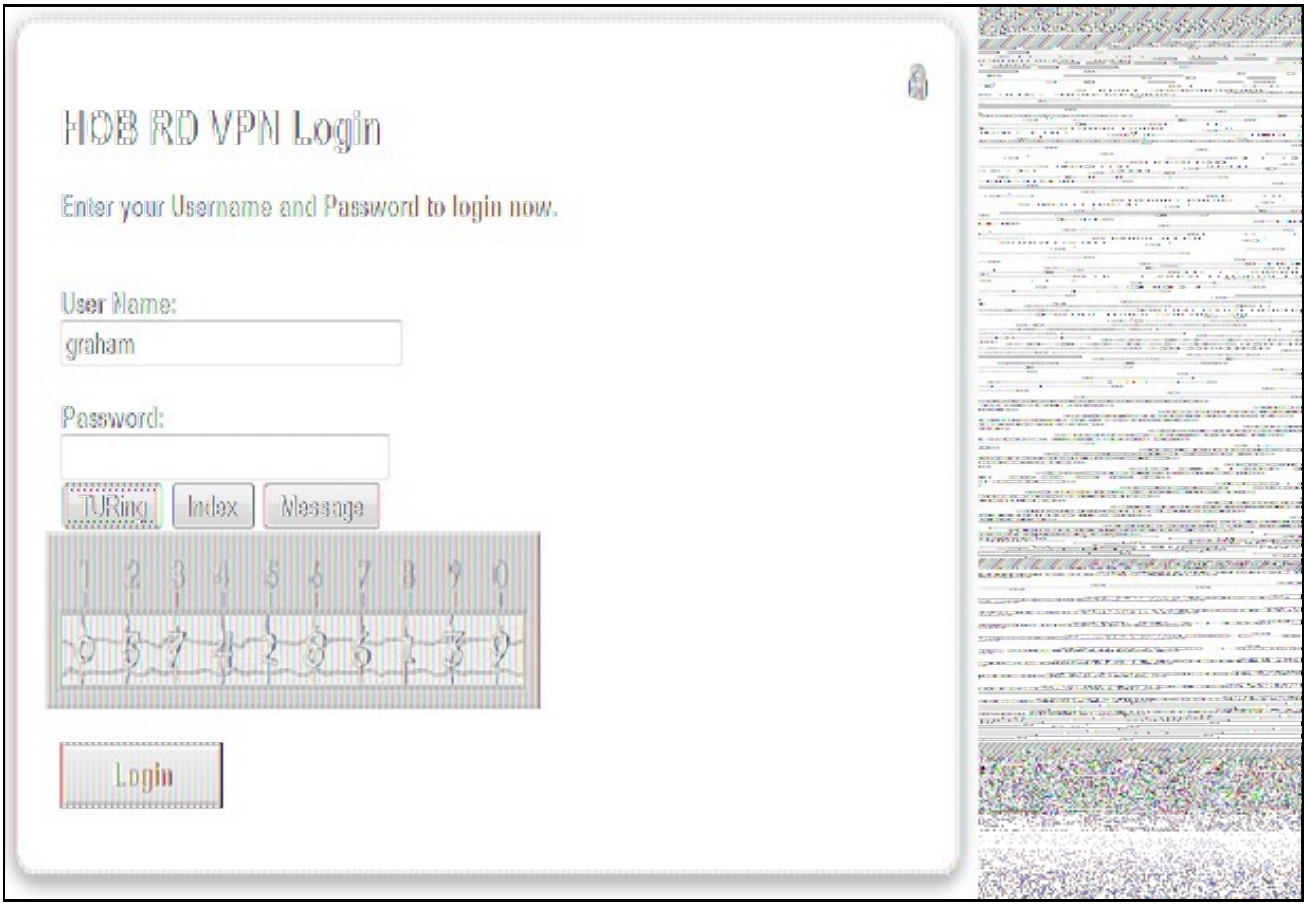
25 Verifying the Installation

Attempt a login using the username and One Time Code.

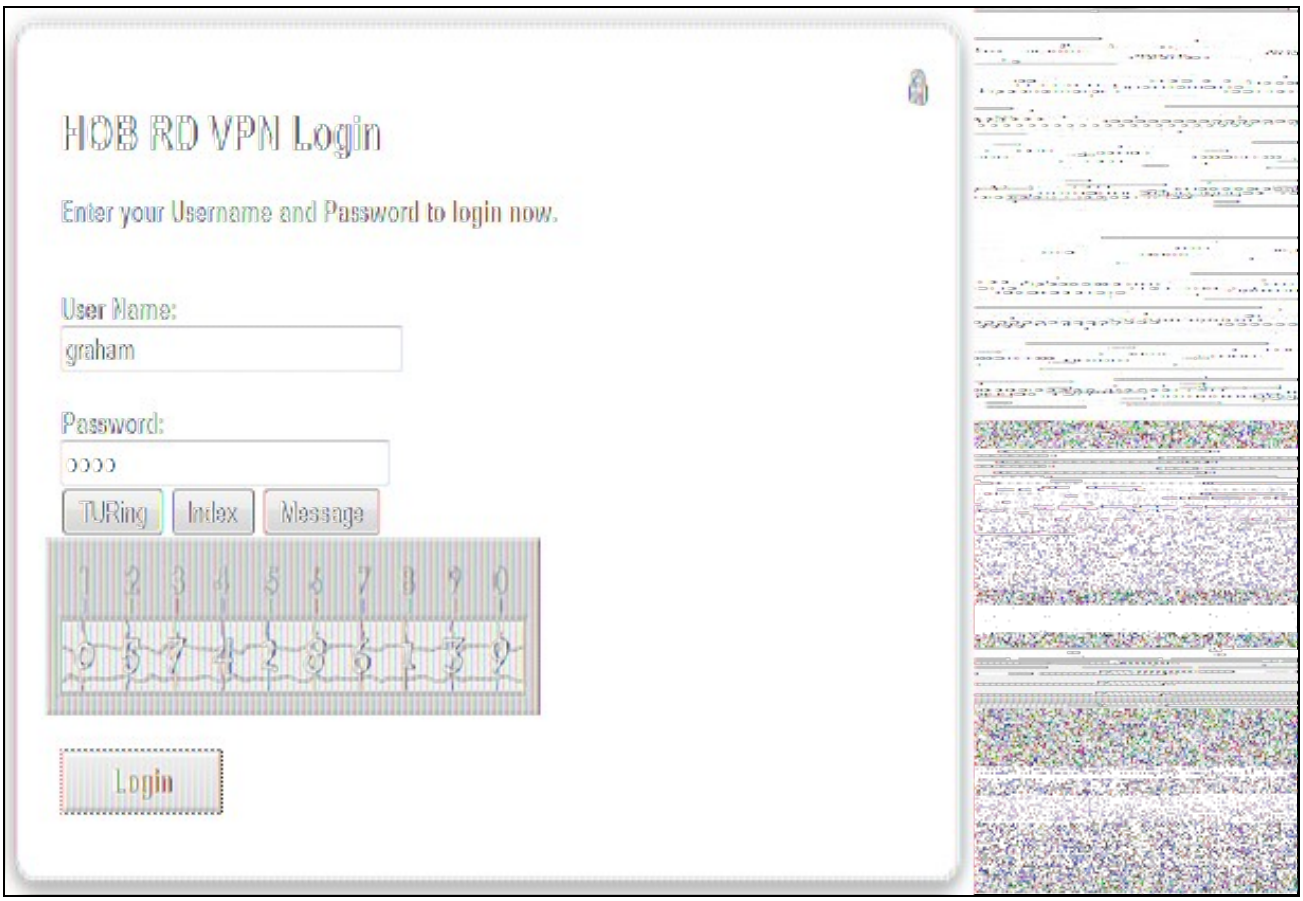
For the dual channel login using SMS or mobile phone applet, enter the username, and then the One Time Code. Do not click on the TURing button. If the Message button has been added, then this can be used to request a new SMS message after the username has been entered.



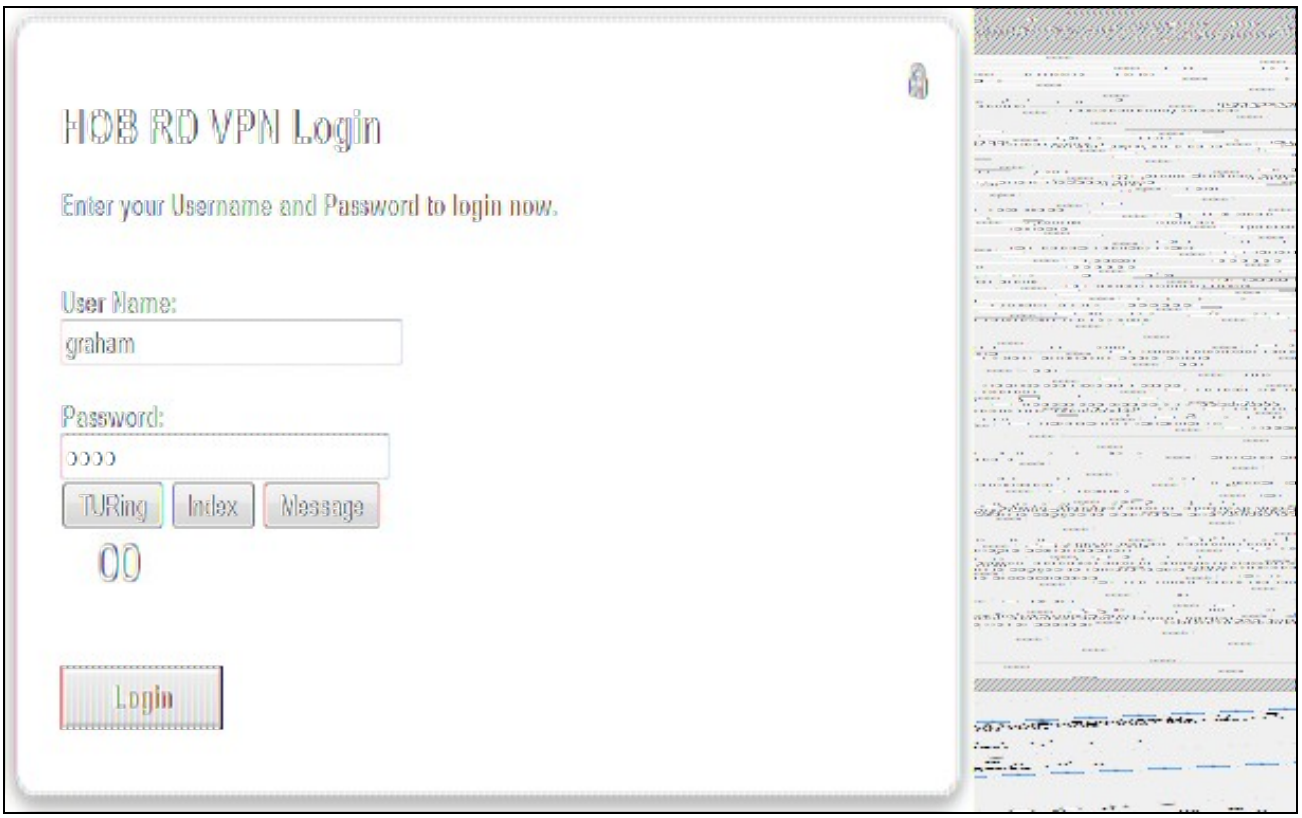
For the Single Channel authentication enter username and click on TURing.



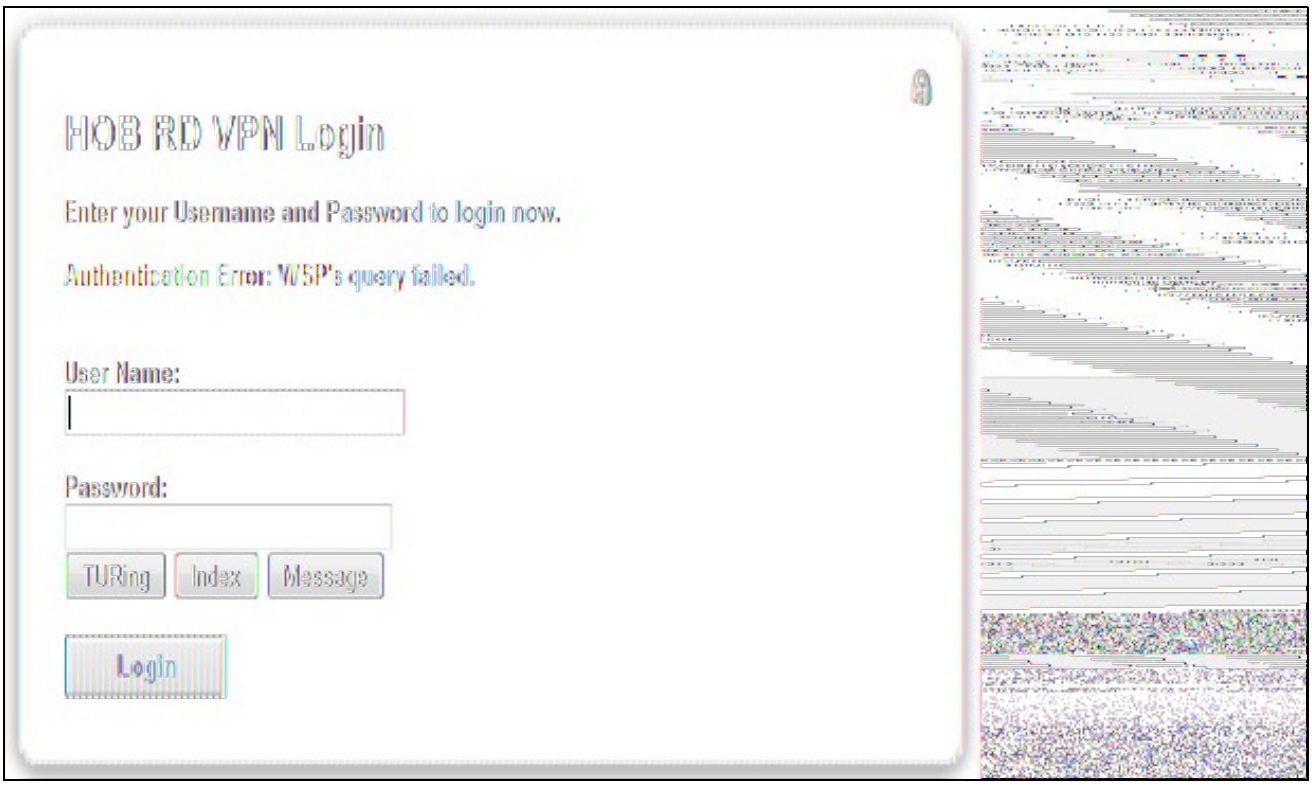
Enter the One Time Code then click on login.



If multiple Security Strings are being sent by SMS, then the string index can be requested to tell the user which security string should be used. Enter the username then click on Index. Enter the one time code associated with that number.



Verify that entering an incorrect one time code fails an authentication.



26 Uninstalling the PINsafe Integration

Copy the original files back on the HOB RD VPN server, and remove the PINsafe RADIUS server from the HOB RD VPN WebSecureProxy. Remove the PINsafe RADIUS server entry under RADIUS Servers.

27 Troubleshooting

Check the PINsafe logs for error messages. Specifically look for RADIUS requests to see if they are reaching the PINsafe server and Session Started messages to verify Single Channel images are being requested where used.

28 Known Issues and Limitations

29 Additional Information

30 Microsoft RD Web Access

31 Introduction

This filter allows you to protect Windows Remote Desktop Services (RDS) Web Access with Swivel authentication.

- 

MS RD Web & TURing

- 

MS RD Web & SMS / Mobile App.

32 Prerequisites

Swivel version 3.x or 4.x

Windows Server 2012 R2 or Windows Server 2016 with RDS Web Access already installed

Microsoft.Net Framework version 4.5, full edition (rather than client-only) installed

A version compatible with Windows Server 2008 is also available. This requires Microsoft.Net framework 4.0 only.

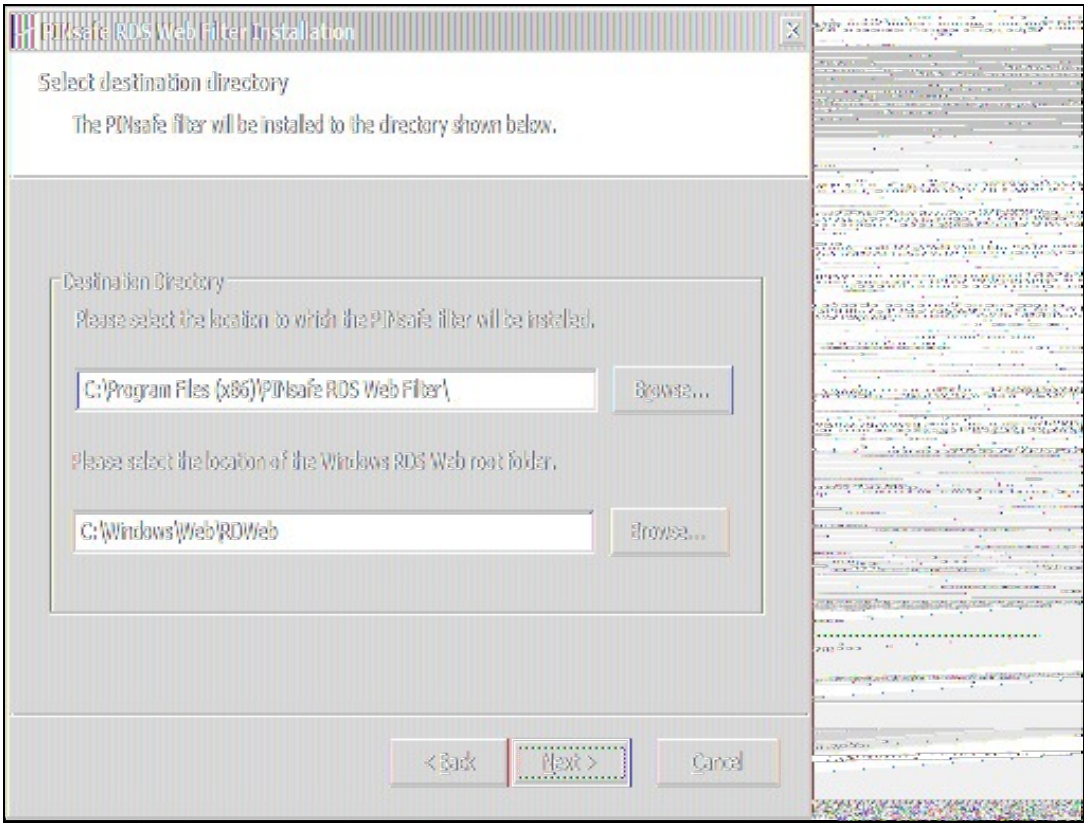
33 Swivel Server Configuration

The only configuration you need to do on the Swivel server is to ensure that the RDS server is configured as an Agent for Swivel (under Server -> Agents), and if you are using the TURing image or PINpad, that under Server -> Single Channel, the option Allow session request by username is set to Yes.

34 Installation

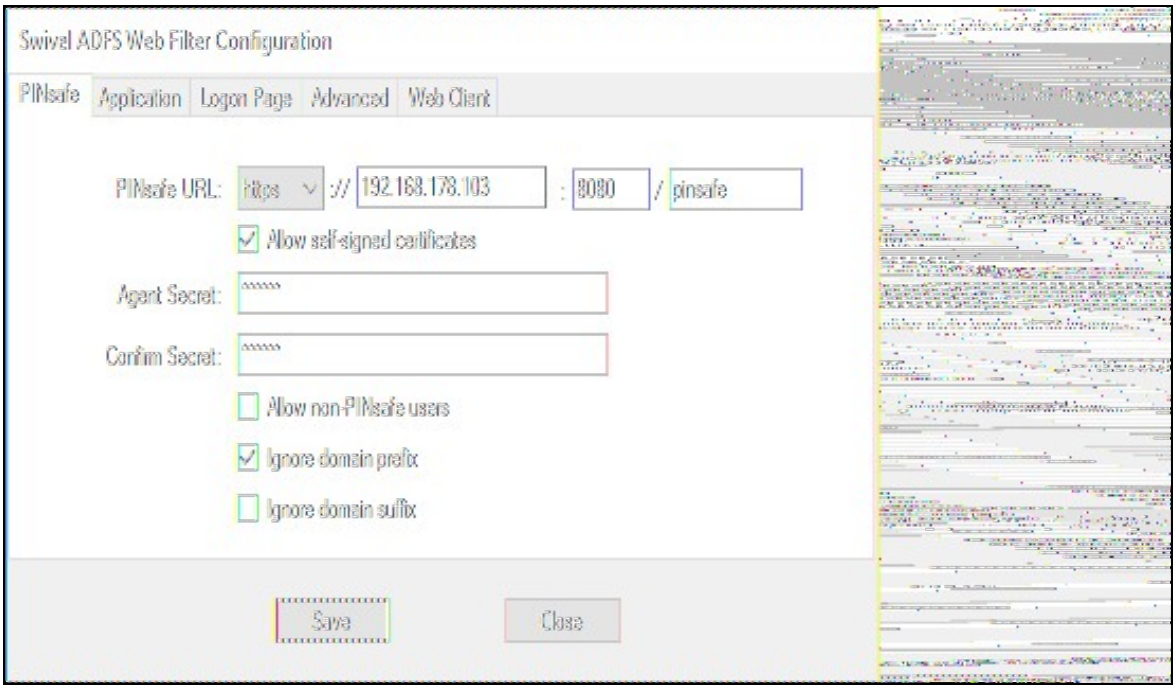
You can download the Windows Server 2019 filter from here, the Windows Server 2016 filter from here and the Windows Server 2012 R2 filter from here. The version compatible with Windows Server 2008 is available from here.

Installation consists of a single executable, RDSWebFilterInstaller.exe. In most cases you can accept the default settings during installation. When you get to the destination folder, make sure that the RDS web root folder is selected correctly. In most cases, C:\Windows\Web\RDWeb will be correct, but make sure if your configuration is not a default installation that the right folder is selected.



35 Configuration

When installation is completed, you will be presented by the configuration page, as shown here.



35.1 Configuration Options

PINsafe URL: select https or http, enter the Swivel IP or hostname. Use port 8080, unless you have a custom installation. The context will be "pinsafe" for version 3.x and "sentry" for version 4.x.

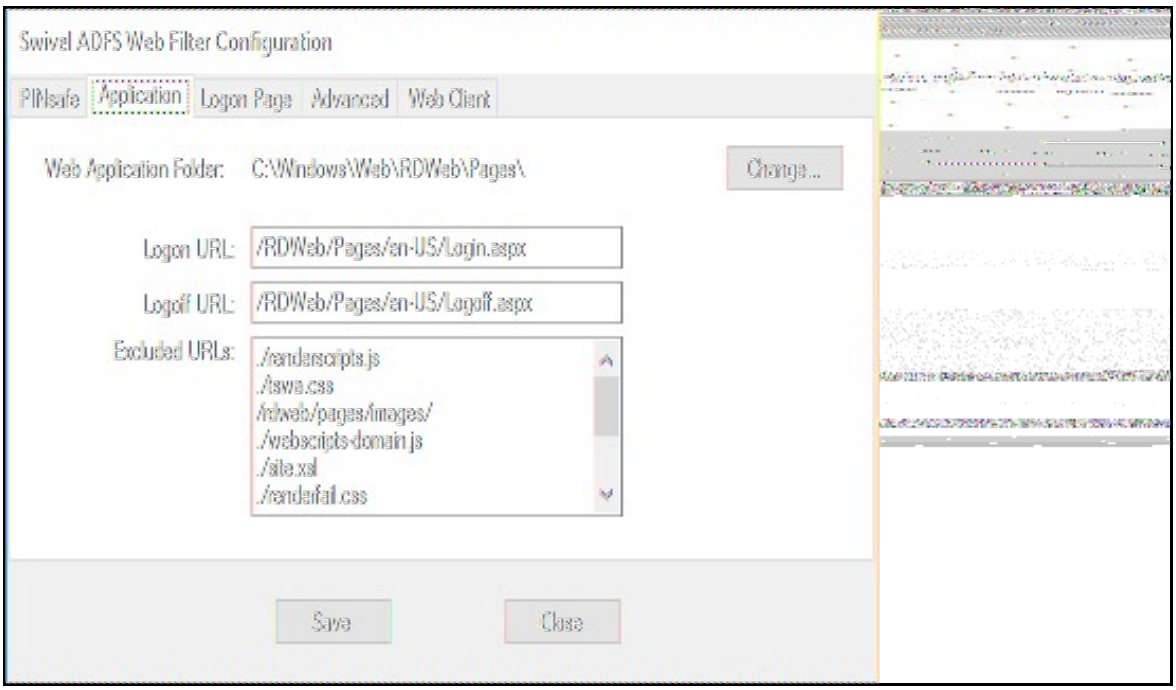
Note: do not use the ?:8443/proxy? URL, as that is not valid for authentication.

Allow self-signed certificates Check box, Check the box to ignore certificate errors

Agent Secret: and **Confirm Secret:** The shared secret entered on the Swivel instance under Server/Agents

Allow non-PINsafe Users if checked permits users that do not have PINsafe accounts to log in with just username and password.

Ignore domain prefix and **Ignore domain suffix** if checked remove the domain name before or after the username before passing to PINsafe. The fully-qualified name is always passed to Windows for authentication.



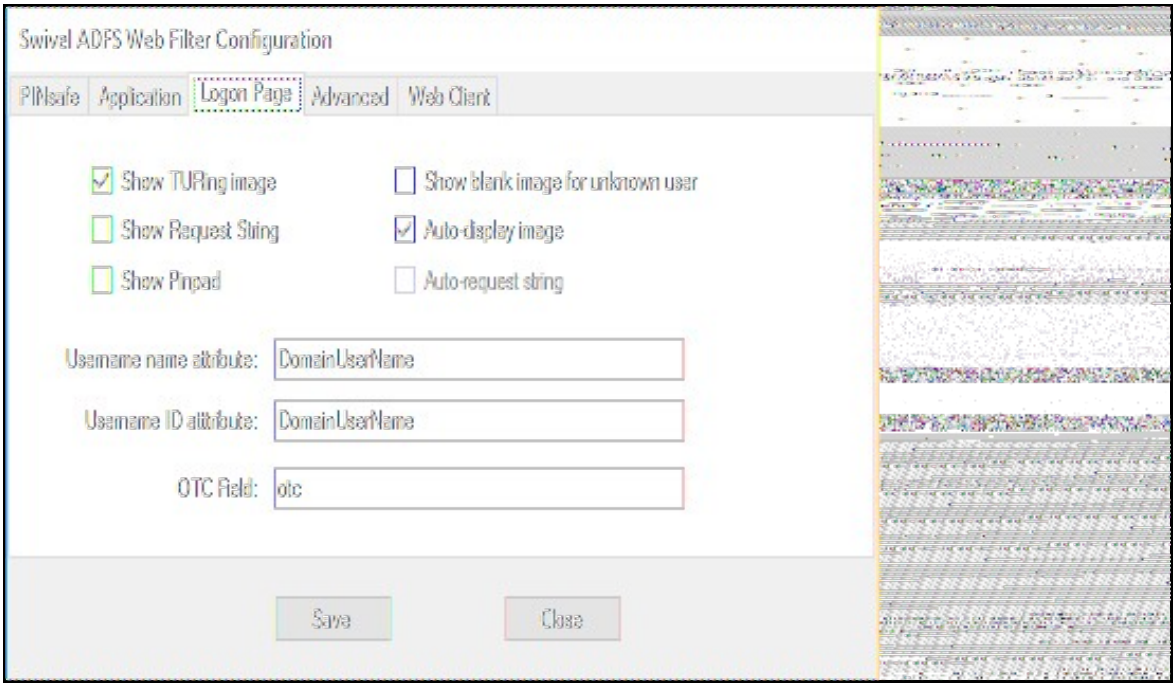
Web Application Folder: Change allows a new path to be specified

The following settings you will probably not need to change, unless you have customised your login page. In this case, make sure that any images, scripts or stylesheets you have added are listed under the Excluded URLs. An entry beginning with ?./? will match any path that ends with the remaining part of the path: for example, ?./renderscripts.js? will match the file renderscripts.js wherever it is in the web hierarchy. Any files not listed under Excluded URLs, or the logon or logoff path, will be blocked by the Swivel filter, until you have authenticated to Swivel.

Logon URL: default: /RDWeb/Pages/en-US/Login.aspx

Logoff URL: default: /RDWEB/Pages/en-US/Logoff.aspx

Excluded URLs: list of URLs for which authentication is excluded. NOTE: URLs must be entered one per line, but unfortunately, it is not possible to enter new lines into this box. To change it, you must therefore copy the current list into a text editor, make any changes required and then paste the new list back.



Show TURing image check to display the TURing image

Show Request String check to display a button to request the dual channel security string to send to the user

Show Pinpad check to display a Pinpad keypad

Show blank image for unknown user if checked, no image is shown if the user is not know. If unchecked, a random image is shown.

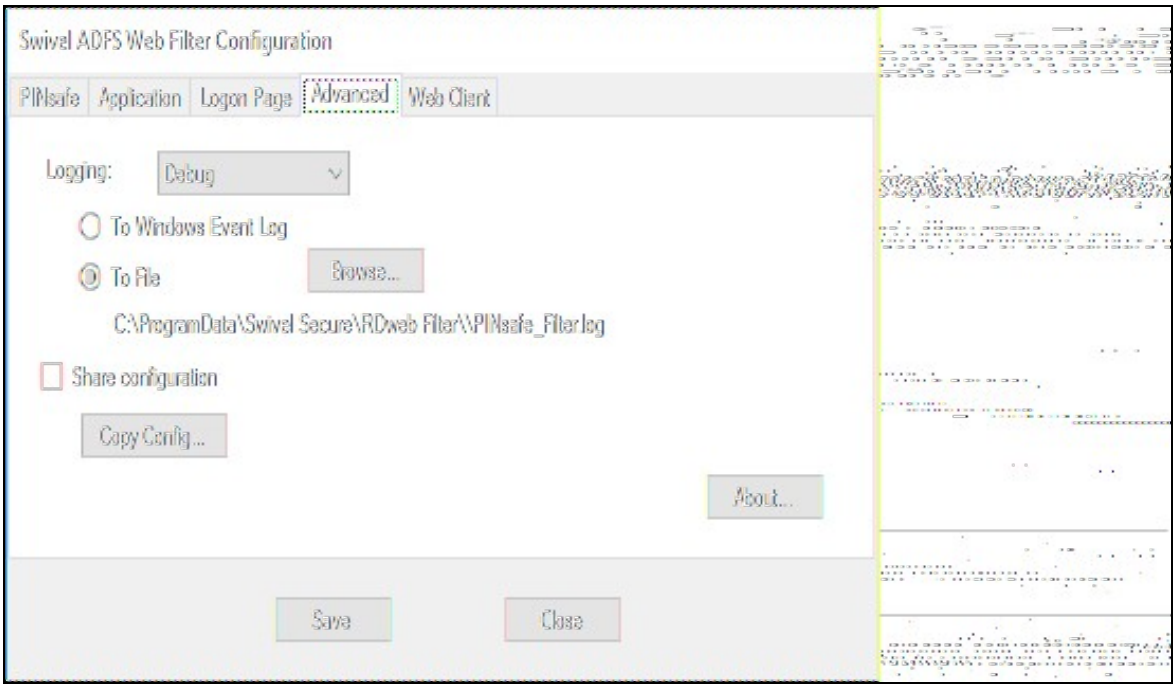
Auto-display image if checked, the TURing or Pinpad is automatically displayed after entering the username.

Auto-request string if checked, a security string is automatically requested after entering the username.

Username name attribute the HTML "name" attribute for the username field. Do not change this unless instructed.

Username ID attribute the HTML "id" attribute for the username field. Do not change this unless instructed.

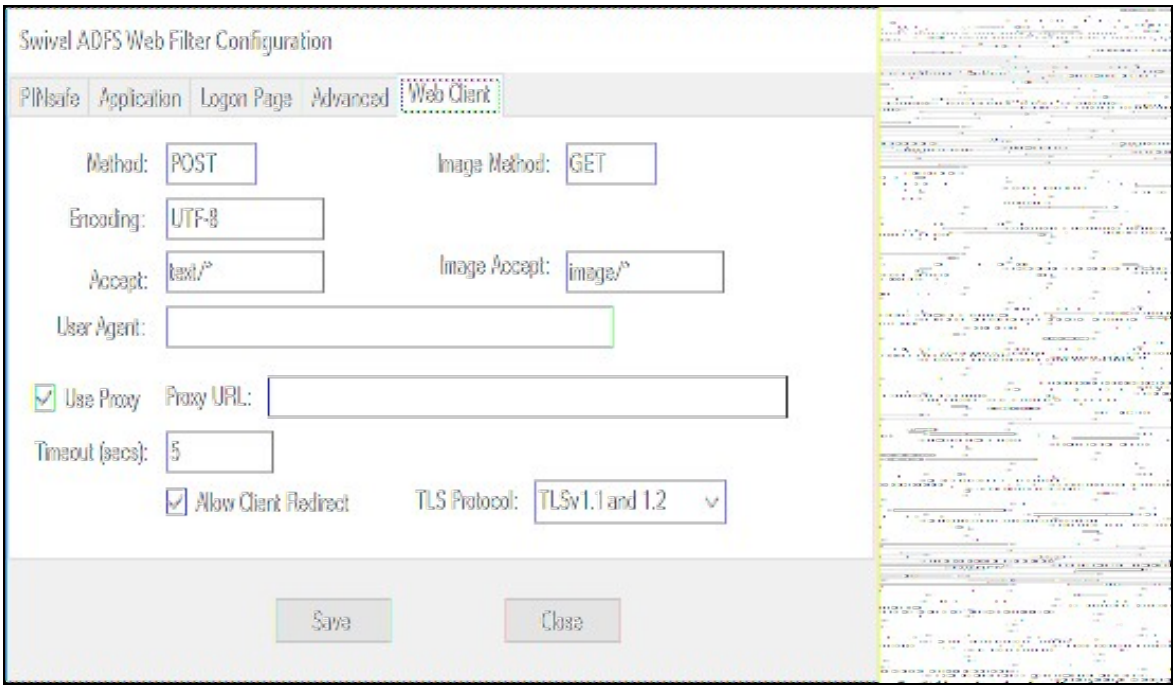
OTC Field the HTML "name" attribute for the OTC field. Do not change this unless instructed.



Logging enables the recording of certain information by the filter. The different levels indicate more detailed logs. Logs can either be written to the Windows Event Log, or to a chosen file. When writing to a file, make sure that the account used to run the RDWeb application has write access to the appropriate folder.

Share configuration allows you to export the configuration and import it to another RDWeb server.

About displays the version number and copyright information.



Most of the settings on this page should be left unchanged, unless instructed. The one exception is

TLS Protocol Version 2 Swivel appliances do not support TLS versions 1.1 or 1.2. Version 3 and 4 appliances do not support anything lower than TLS 1.1 unless specifically enabled, so unless you have a version 2 appliance, please ensure that you select "TLSv1.1 and 1.2".

If you need to change any of these settings later, a link to the configuration program is provided on the shortcut menu.

36 Changes to Existing Files

The installer will make modifications to three files within the RDS web hierarchy:

- Login.aspx from within the language folder. The appropriate buttons to display a TURing image are added if required. If you have significantly altered the login page, the installer may not be able to make its changes. Contact Swivel Secure for advice in this case.
- Renderscripts.js. A new function is added to display a TURing image, or to request a message on demand.
- Web.config. The Swivel filter is added as a new module, and the Swivel server details are stored under appSettings.

Additionally, the filter copies two DLLs to the bin folder of RDWeb/Pages: the filter itself and the Swivel client. It also copies a TURing image proxy, pinsafe_image.aspx, to the language folder.

37 Troubleshooting

We have seen in one instance, a problem whereby the TURing image could not be displayed even though the settings were correct, and the TURing image could be directly requested from the RDS Web server to the Swivel virtual or hardware appliance. The conclusion in this case was that the problem was due to permissions issues with the RDSWeb application pool account. Although we were unable to identify the exact problem, we resolved it by changing a setting on the application pool (under Advanced Settings) to enable Load User Profile.

38 Uninstalling

An uninstall program is provided, so you can either uninstall from the Windows Control Panel, or from the uninstall link on the shortcut menu.

The uninstall process requires that the files login.aspx.sav and renderscripts.js.sav, which are created when the appropriate files are modified, remain in their initial locations. These are the original files, without the PINsafe modifications. If these files do not exist, the filter cannot be properly uninstalled.

39 Microsoft Windows Credential Provider Integration (Legacy OS)

40 Introduction

Microsoft Windows Credential Provider is used in the desktop operating systems Windows Vista, 7, 8 and 8.1, and in the server operating systems Windows Server 2008 and 2012, including Remote Desktop Gateway. For newer operating systems (Windows Vista and Server 2012 R2 onwards), see Windows Credential Provider. For integration with the older Windows GINA used in Windows 2000, 2003 and XP see Microsoft Windows GINA login.

Users can authenticate using the Swivel Credential Provider allowing 2FA (Two Factor Authentication), or strong authentication at the Windows Logon. Offline authentication is also supported for single Channel authentication, following at least one successful authentication against the Swivel server with Third Party Authentication configured.

For new features in recent releases of the Credential Provider, see below.

40.1 Swivel Credential Provider FAQ

Q). Does the Credential provider support offline authentication? A). Offline authentication is permissible for Swivel users who have previously authenticated to the device. Offline local authentication is always single channel, even if single channel is normally disabled.

Q). Do all users have to authenticate using Swivel? A). Swivel does have the option to *Allow Unknown Users*, users known to Swivel will be prompted for authentication in this instance.

Q). Is it possible to define users who do not have Swivel authentication? A). Only by using the *Allow Unknown Users* for non Swivel user authentication.

Q). Is it possible to login without AD password, A). No the AD password is required.

41 Prerequisites

Swivel 3.x Server

Connectivity to Swivel server during installation (with Third Party Authentication for GINA enabled)

Microsoft Windows Vista, 7 or 8 (including 8.1); Microsoft Windows 2008 or 2012 Server (including R2).

Microsoft.Net Framework version 4.

Swivel Windows Credential Provider 64 bit (version 4.6) or

Swivel Windows Credential Provider 32 bit (version 4.6) or

Both of the above files in a single zip

Documentation only

A separate Swivel Credential Provider license is not required, but the users authenticating to Swivel must be licensed.

User with AD account and valid password.

42 Baseline

Swivel 3.7

Windows 7, Windows 2008 Server R2

43 Architecture

Swivel is installed as a Windows Credential Provider, and when a Windows login is made, AD username and password is checked against AD and the username and Swivel OTC is sent to the Swivel server using XML authentication, or locally if offline authentication is enabled.

43.1 Offline Authentication

Swivel allows offline authentication using single channel but not dual channel authentication. For offline authentication the user attempting to authenticate must have made at least one successful authentication against the Swivel server while Offline Authentication has been enabled. Swivel caches a limited number of strings for authentication, and cycles through these so there is no limit on the number of authentications which can be made. Swivel Account lockout is disabled for Swivel offline authentication. ChangePIN will not function when the Swivel server is not contactable. Local authentication is always single channel, even if single channel is normally disabled.

44 Swivel Integration Configuration

44.1 Configure a Swivel Agent

1. On the Swivel Management Console select Server/Agent

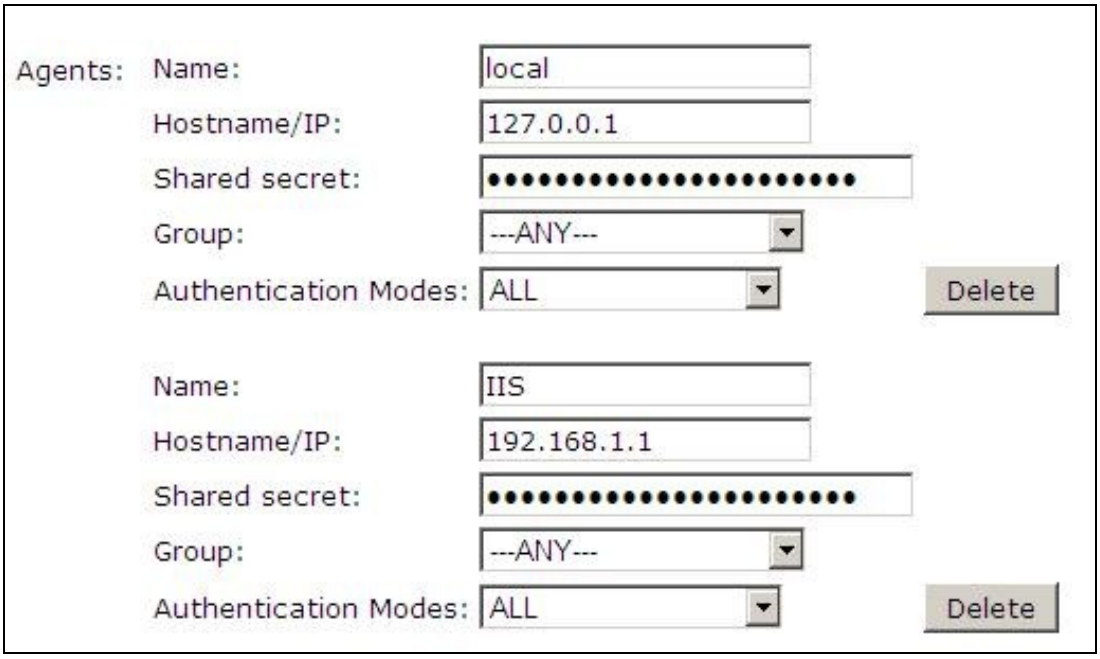
2. Enter a name for the Agent

3. Enter the Credential Provider IP address. You can limit the Agent IP to an IP address range like: 192.168.0.0/255.255.0.0 where the mask of 255 requires an exact match and 0 allows any value, so the previous example would allow any Agent in the range 192.168, or you can use an individual IP address for the Credential Provider.

4. Enter the shared secret used above on the Credential Provider

5. Enter a group, (Note in this instance ANY is not a valid group and will cause authentication to fail)

6. Click on Apply to save changes

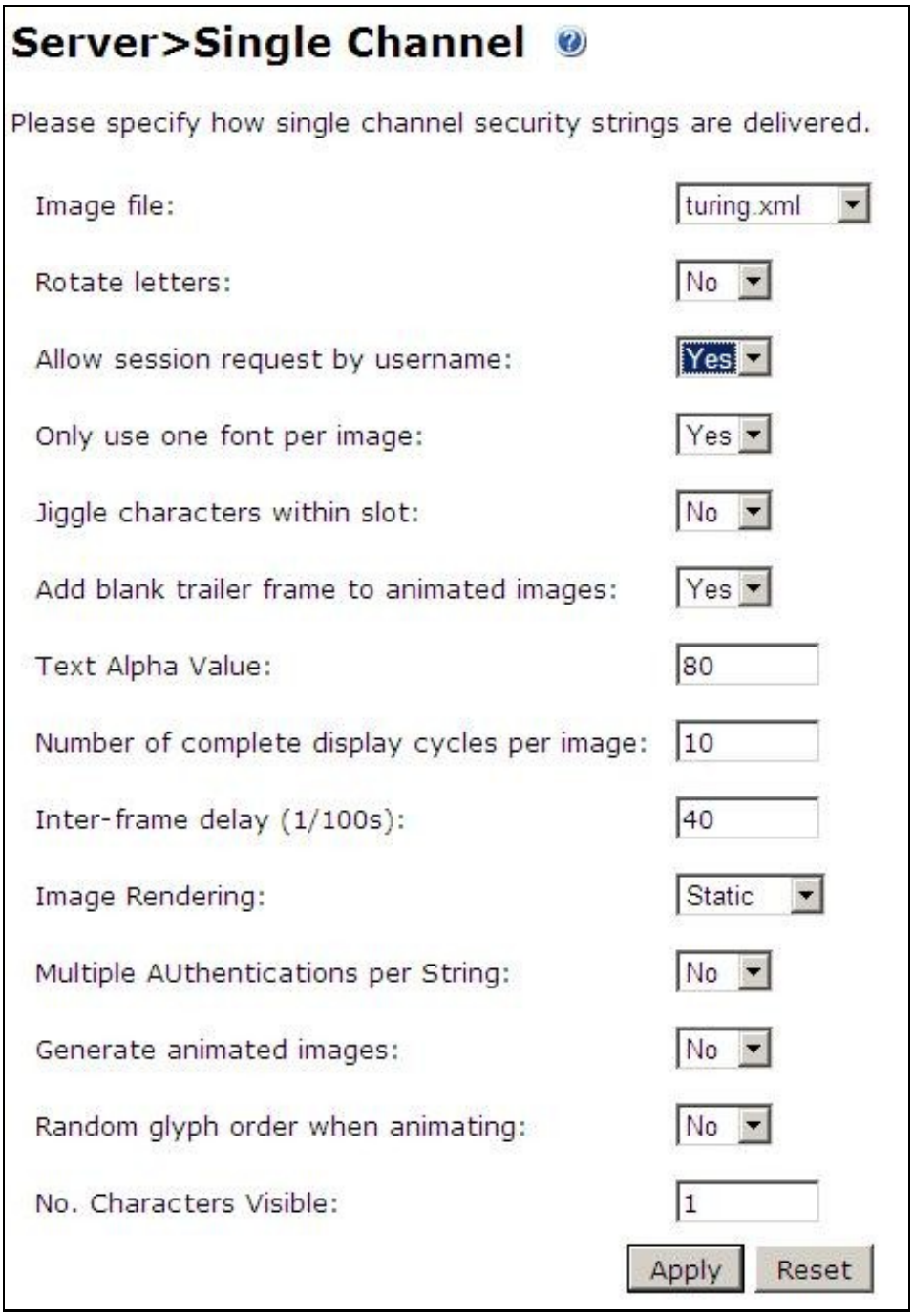


Note that this creates a GINA menu item, but there are no configurable options, so is not selectable.

44.2 Configure Single Channel Access

1. On the Swivel Management Console select Server/Single Channel

2. Ensure ?Allow session request by username? is set to YES



44.3 Create a Third Party Authentication

If offline authentication is to be allowed, a third party authentication must be created with an Identifier of WindowsGINA. (Even though the GINA is not part of Credential Provider the third party authentication module is still used and must be configured)

1. On the Swivel Management Console select Server/Third Party Authentication

2. For the Identifier Name enter: WindowsGINA (Even though the GINA is not used, this must be entered as WindowsGINA)

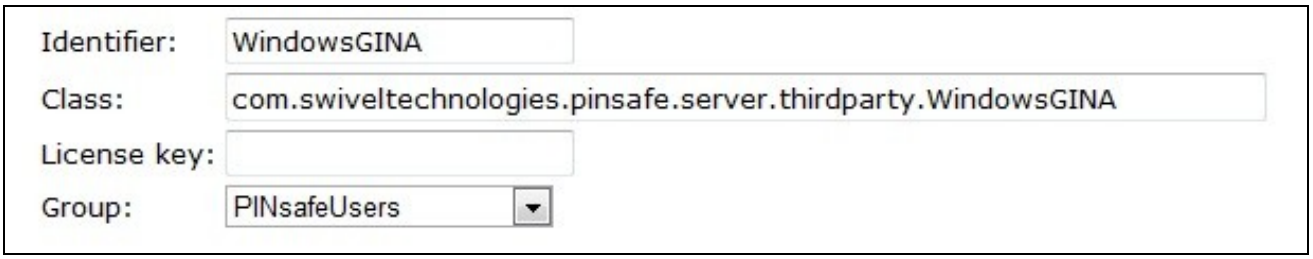
3. For the Class enter: com.swiveltechnologies.Swivel.server.thirdparty.WindowsGINA

4. For the License Key, leave this empty as it is not required

5. For the Group select a group of users (Note: the option Any cannot be selected)

6. Click Apply to save the settings

To allow offline authentication to be made a successful authentication must be made with the third party authentication in place.


Identifier:
WindowsGINA
Class:
com.swiveltechnologies.pinsafe.server.thirdparty.WindowsGINA
License key:
Group:
PINsafeUsers

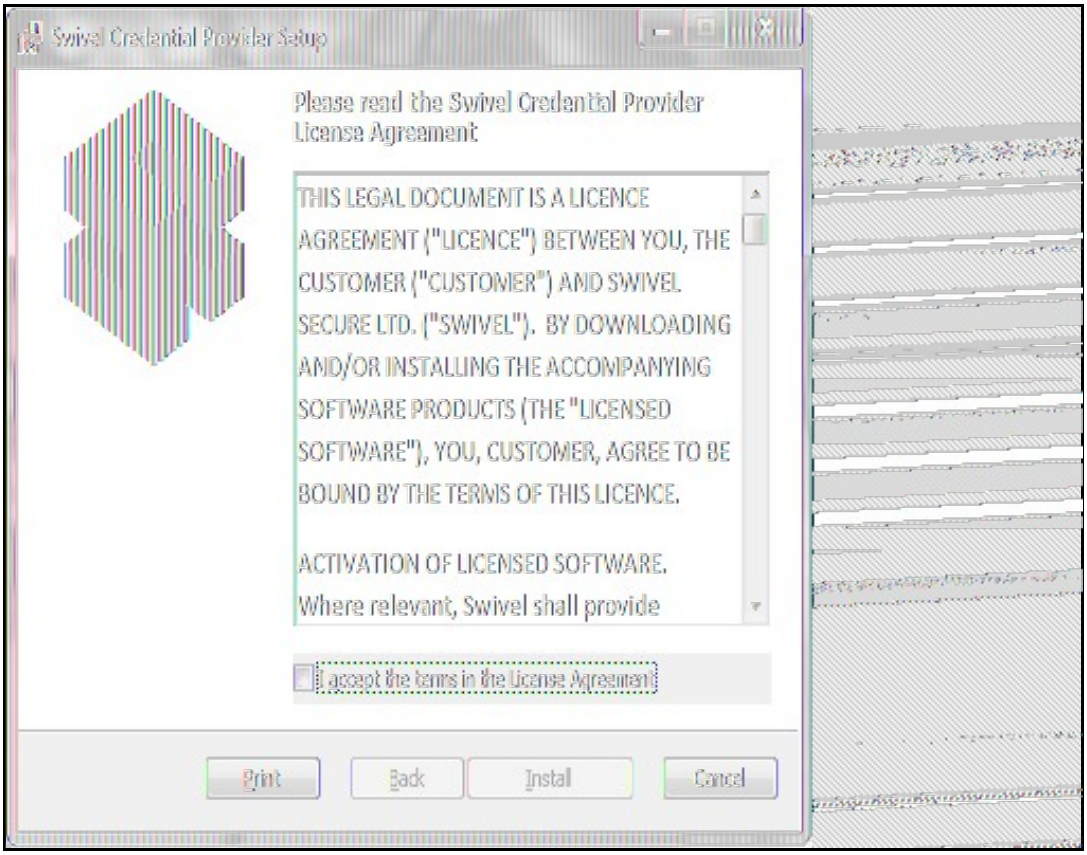
45 Microsoft Windows Swivel Credential Provider Installation

The Credential Provider is provided as a Microsoft Installer .msi file. You must run this as an administrator.

Ensure that the correct Swivel Windows Credential Provider is used: SwivelCredentialProvider_x86.msi for 32-bit or SwivelCredentialProvider_x64.msi for 64-bit.

Double-click the .msi file to run it. Alternatively, you can install from the command line, using the msiexec command.

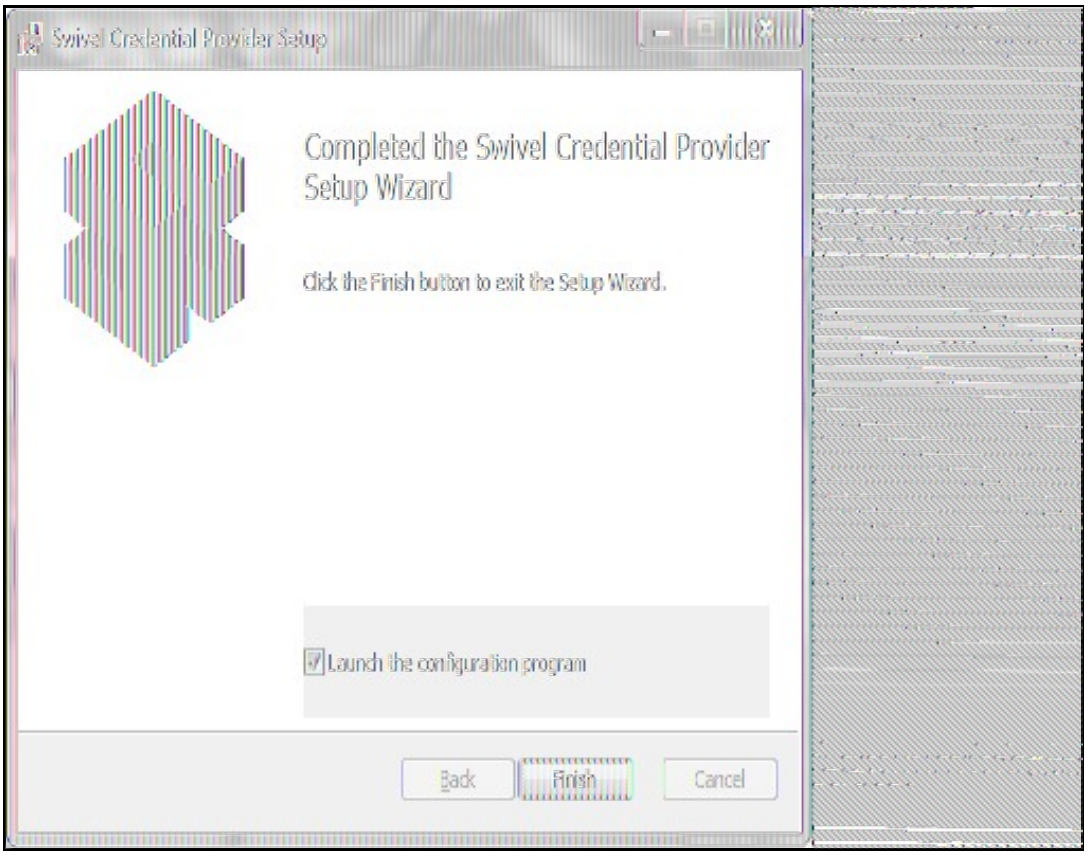
The first page is the licence agreement:



Read the licence agreement (yeah, right!), and check the box to acknowledge it. Click Next to continue.

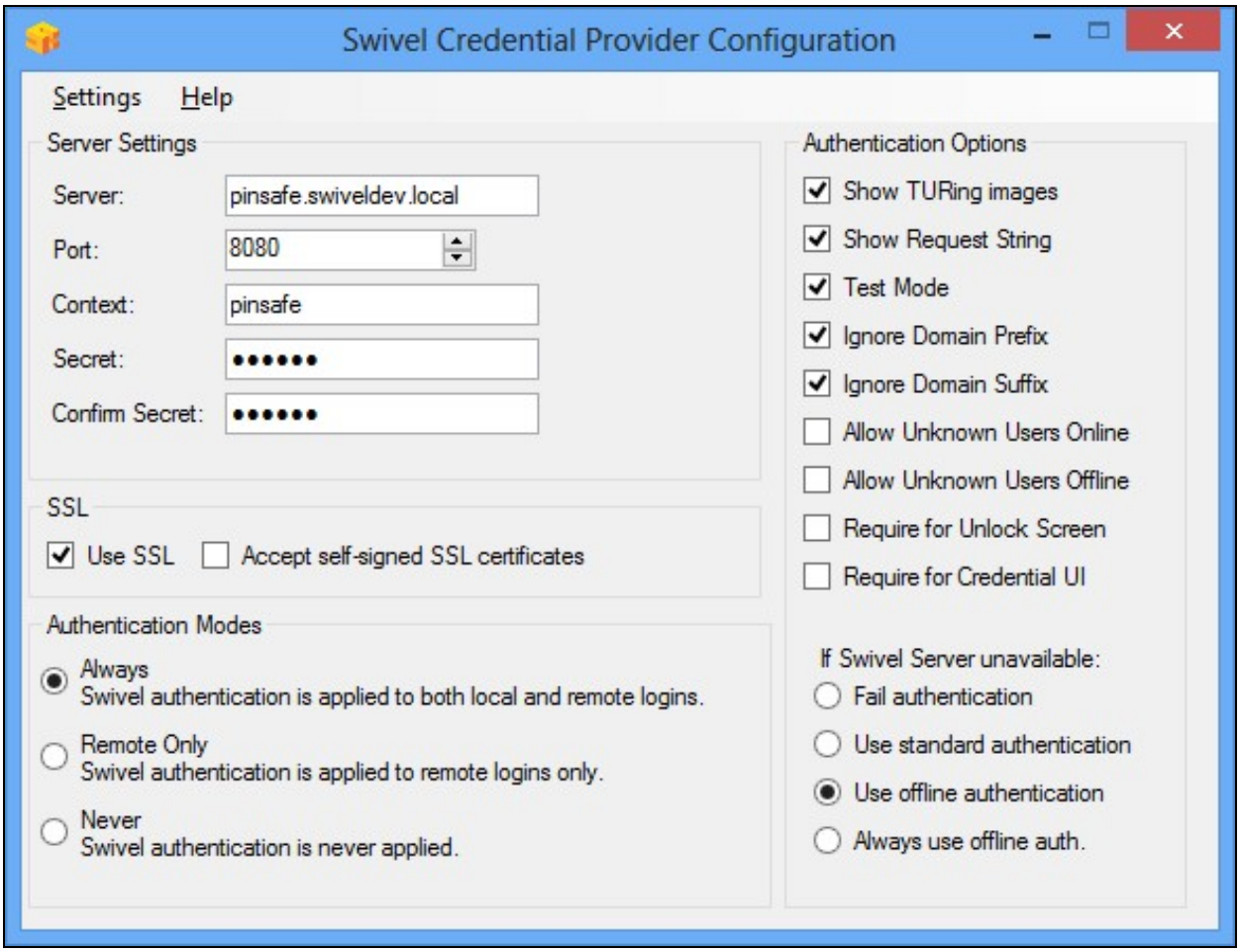
The application will be installed to C:\Program Files\Swivel Secure\Swivel Credential Provider. If you have reconfigured the program files directory elsewhere, it will be installed there, but otherwise you cannot control where the application is installed.

When the install has completed, the following dialog is shown:



Ensure that the tick box is checked for *Launch the configuration program* to configure the Swivel instance then click on Finish.

45.1 Windows Swivel Credential Provider configuration



The following options are available:

Server: The Swivel virtual or hardware appliance or server IP or hostname. To add resilience for use the VIP on a swivel virtual or hardware appliance, see VIP on PINsafe Appliances

NOTE: it has been observed in testing that DNS is not always available when logging on. It is therefore recommended that you use IP address, rather than host name in this section.

Port: The Swivel virtual or hardware appliance or server port

Context: The Swivel virtual or hardware appliance or server installation instance

Secret: and **Confirm Secret:** A shared secret which must be entered onto the Swivel virtual or hardware appliance or server

Use SSL The Swivel server or virtual or hardware appliance uses SSL communications

Accept self signed SSL certificates Check this box if Use SSL is enabled, and you do not have a commercial certificate on your Swivel server (or a certificate signed by an authority that the client machine trusts).

Authentication Mode, Always Swivel authentication is required for remote and local logins

Authentication Mode, Remote Only Swivel authentication is required for remote logins only

Authentication Mode, Never Swivel authentication is not used

Show TURing images Show TURing images if requested

Show Request String Show the Request string image to allow the user to obtain a new security string by dual channel

Test Mode With test mode the user can switch user to a standard authentication, see below

Ignore Domain Swivel will remove any domain prefix (domain\username) or suffix (username@domain) before matching username. This does not affect Windows authentication usernames.

Allow Unknown Users Online If the username is not recognized by Swivel, the user can authenticate using Windows credentials only. Any Swivel OTC entered will be ignored. If the user is known then they must authenticate using Swivel authentication.

Allow Unknown Users Offline If offline authentication is used, users that do not have credentials cached locally can authenticate using Windows credentials only. Any OTC entered will be ignored. If the user has previously authenticated in online mode, then they must enter the correct one-time code.

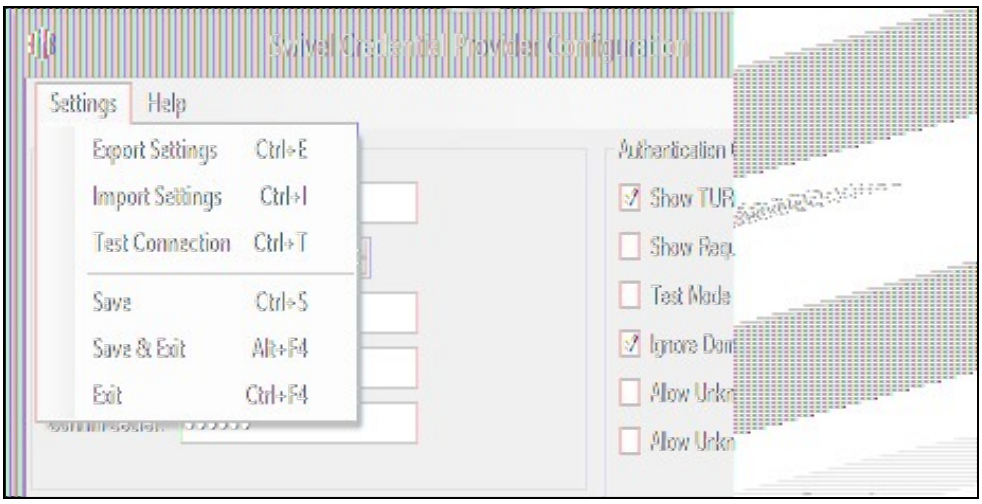
If Swivel unavailable, Fail authentication If the Swivel server cannot be contacted then authentication will fail

If Swivel unavailable, Use standard authentication If the Swivel server is unavailable use standard authentication, the OTC field is displayed but ignored.

If Swivel unavailable, Use offline authentication If the Swivel server cannot be contacted a locally generated Turing image can be used for authentication. If this option is enabled, users will be able to force offline mode using a checkbox on the login dialog.

Always use local auth A local Turing image is always used and the Swivel server is not contacted. All users must previously have authenticated using online authentication (unless the option "Allow unknown users offline" is enabled).

The remaining options are available from the Settings menu:



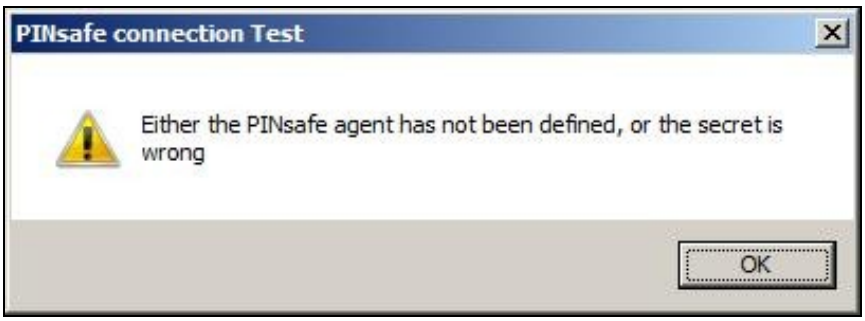
Export Settings Export settings as an XML file. These can be used to import settings elsewhere.

Import Settings Import settings from an XML file exported elsewhere.

Test Connection Tests link to Swivel server:

A correct configuration should produce a dialogue box with **Swivel Connection settings are correct.**

Incorrect settings will produce a dialogue box with **Either the Swivel agent has not been defined, or the secret is wrong**



Save Save the current settings.

Save and Exit Save the current settings and close the program.

Exit Close the program without saving the settings. You will be prompted to confirm if any settings have been changed.

45.2 Additional Installation Options

45.2.1 Manually configuring the Swivel Login

NOTE: It is recommended to use the Swivel Login Configuration Tool where possible.

If it is not possible to use the configuration utility the Swivel Login settings may be edited manually in the registry. The following values found within the "HKEY_LOCAL_MACHINE\SOFTWARE\Swivel Secure\Swivel Credential Provider" key are used by the Login:

PINsafeServer - The name or IP of the Swivel server

PINsafePort - The Swivel server port

PINsafeContext - The Swivel server context

PINsafeSecret - The Swivel agent secret

PINsafeProtocol - 1 for https, 0 for http

PINsafeAllowSelfCert - 1 to allow SSL requests to a Swivel server with certificate errors, 0 not to

PINsafeLoginSelect - determines when Swivel authentication is required: always, remote or disabled.

PINsafeShowTURing - 1 to show the TURing request link, 0 not to

PINsafeRequestString - 1 to show the request string link, 0 not to

PINsafeAllowDefaultLogin - 1 to allow default login if Swivel unavailable, 0 not to

PINsafeUseLocalAuth - When to use local TURing authentication: always, fallback or never.

PINsafeDisableFilter - 1 to enable test mode, 0 to hide the standard authentication option

PINsafeAllowUnknownUsers - 1 to allow unknown users in online mode

PINsafeAllowUnknownOffline - 1 to allow unknown users in offline mode

PINsafeIgnoreDomain - 1 to ignore the domain prefix when checking Swivel users

The following values may be seen in this registry key also, but should not be changed:

PINsafeBackgroundsFolder

PINsafeFontsFolder

PINsafeResourceDLL

PINsafeHelpUrl

Directory

Uninstaller

Version

45.3 Test Mode

In Test Mode the Windows Credential Provider has an additional login that can be used as a standard user login. In test mode the last successful login will be selected for login.

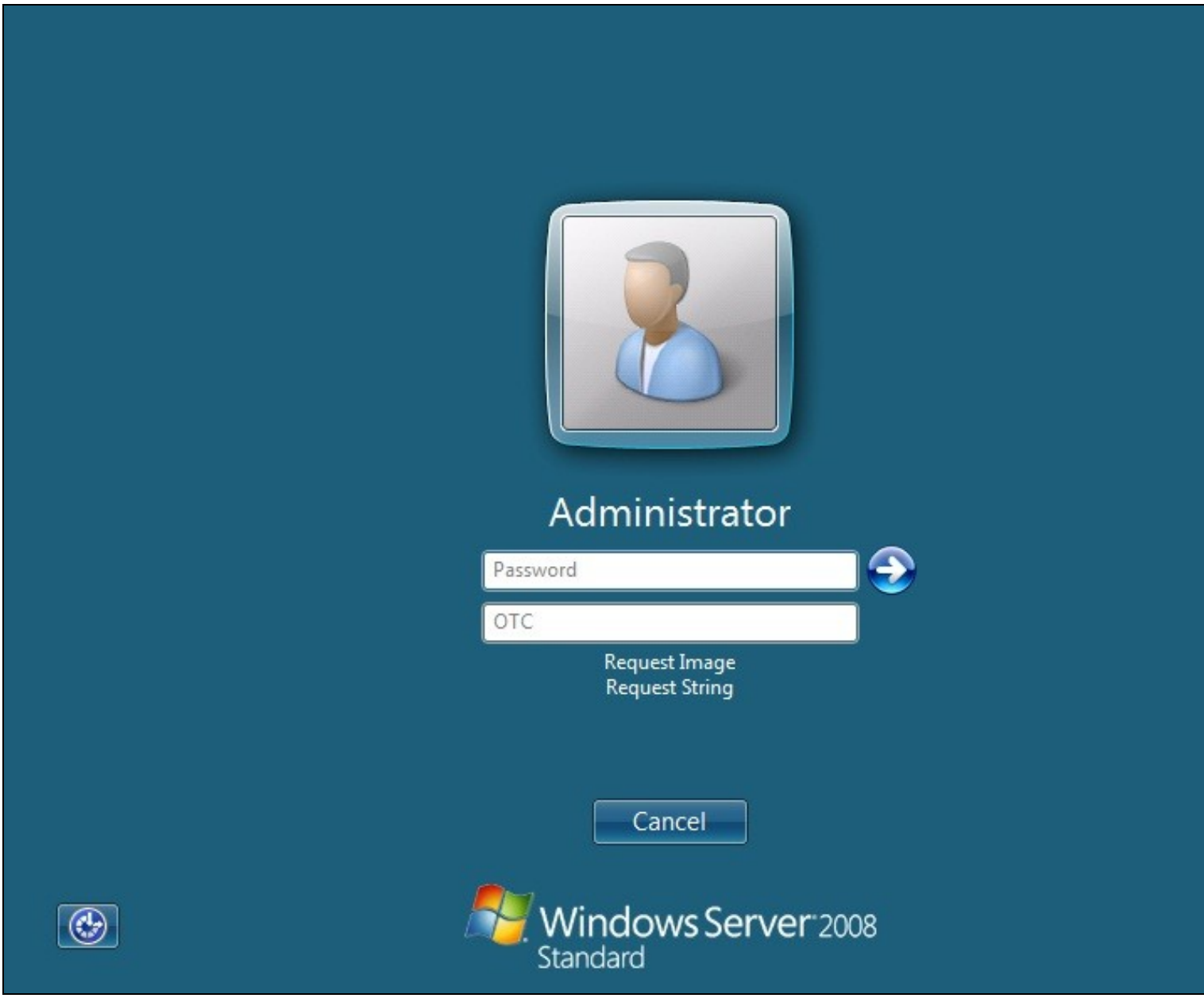
The Swivel credentials will always be on the left, the standard credentials on the right.

45.4 Importing Configurations

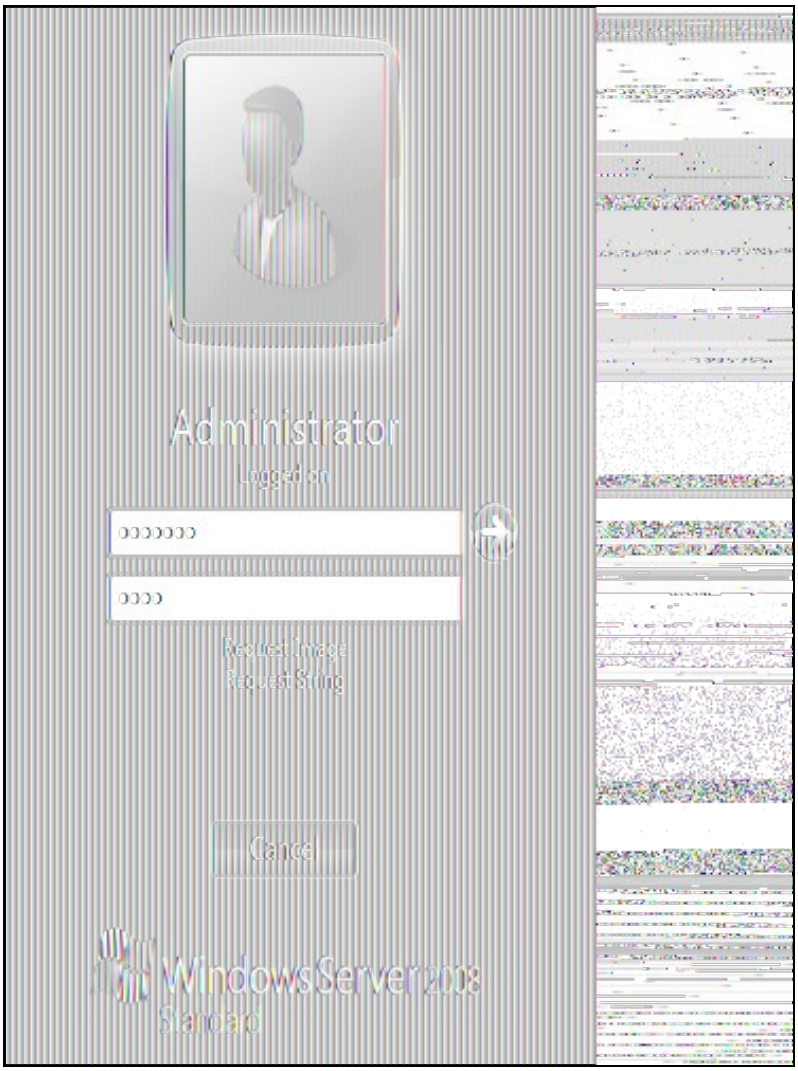
You can import credentials exported from other installations using the Import Settings menu item. Alternatively, if you need to install the Credential Provider on a large number of machines, you can modify the .msi file and replace the blank LoginSettings.xml file included with your own custom version. If you do not have the ability to modify MSI files, you can email your settings to support@swivelsecure.com and request a custom build.

46 Verifying the Installation

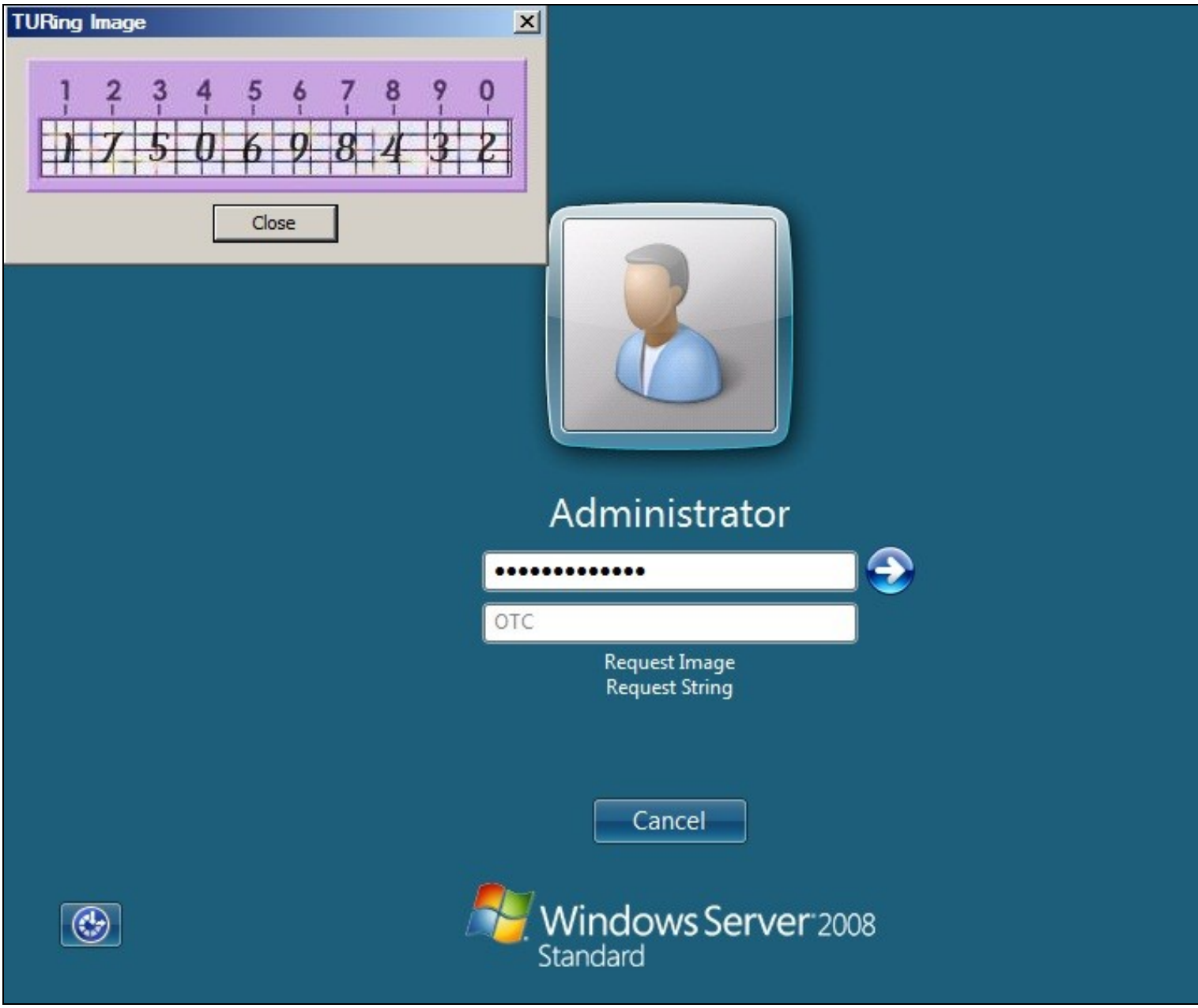
At the windows login a password and OTC login field should be available with Request Image and Request String options available.



If a Dual Channel login is made then the user should be able to enter their OTC. Note the Get Image should not be pressed, otherwise the log will be expecting a Single Channel login for the length of the session timeout (default 2 minutes).



Selecting the Request Image button should generate a Single channel Image for authentication. The Swivel log should show a session request message: *Session started for user: username.*



A successful login should appear in the Swivel log: *Login successful for user: username*

A failed login should not allow a login, and the following message should be displayed in the Swivel log: *Login failed for user: username*

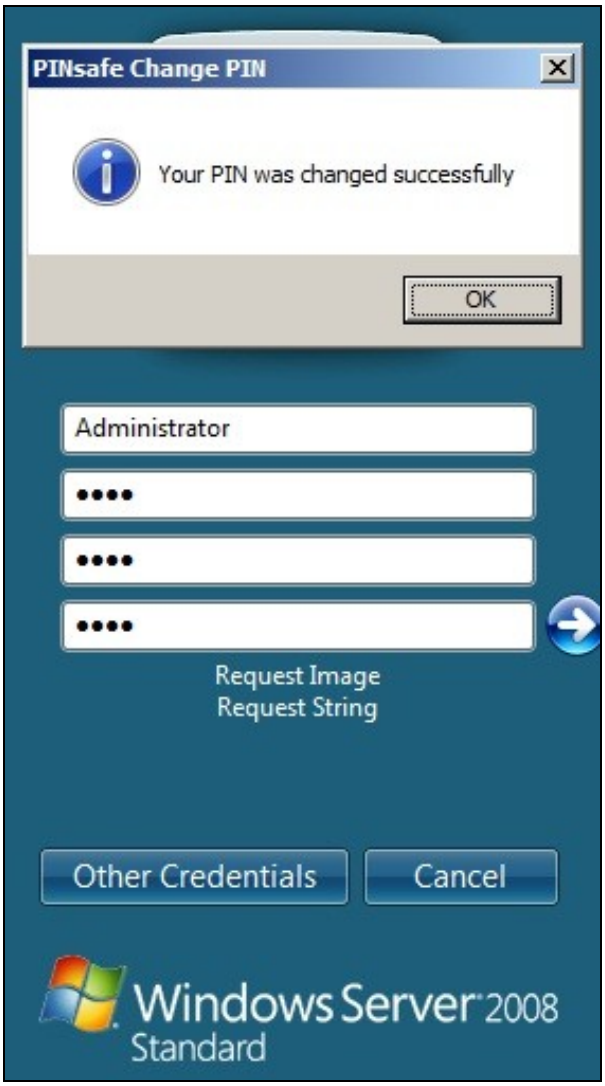
47 ChangePIN

A user is usually able to change the password by using the Ctrl-Alt-Del keys (CTL-Alt-End for remote sessions). With the Windows Swivel Credential Provider installed, an additional option exists when the Change Password is selected, by clicking on the Other Credentials. This will not function for Offline authentication.

With Swivel authentication a user never changes enters PIN and this is true for ChangePIN. A user enters their current OTC, and then enters an OTC for what they wish their new PIN to be. PIN enforcement may be in place to the Swivel server to prevent the choosing of poor PIN numbers.

A user may use a single channel image or a dual channel security string to change their PIN.

A successful Change PIN will show the message **Your PIN was changed successfully**



The Swivel server will also display in the logs a changePIN message **Change PIN successful for user: username**

48 Uninstalling the Swivel Integration

Use the Uninstall option from the Program menu, right click on the Windows Credentials provider and click on Uninstall. Note that uninstalling and reinstalling the Credential Provider will remove the settings, so if you need to reinstall at any point, make sure you have an exported settings file saved.

49 Troubleshooting

Test Mode enables you to login using the Standard Windows authentication and not Swivel authentication. If you disable Test Mode the additional logon users disappear and the machine will then be purely using Swivel.

If there is a problem then use Windows Safe Mode to login and enable Test Mode again. Safe Mode uses Standard Windows authentication.

Pressing Ctrl+Alt+Del reverts user back to login screen

A normal login may be attempted after a short period. This can occur as the Windows login screen may appear before a network connection has been made during boot. To prevent the login screen from not being accessible, enable the option in group policy to Wait until network is ready before user logon.

User must select the back button and select Other User to logon

This occurs when the system is running in Test mode. Disable the Test mode to allow normal login.

Change Pin is displayed instead of the logon screen

This has been seen on Dell laptops that have the *Dell Control Point Security Manager* installed. Remove this prior to the Windows Swivel Credential Provider installation.

FLUSHING_IMAGE_CACHE, ClientAbortException: java.net.SocketException: Connection reset

This error message can be seen in the Swivel log when a Windows login is attempting to use an animated gif. Turn off animated gifs and switch to 'Static', on Swivel - This is set under Server > Single Channel > Image Rendering.

Double User Entry at login, enforced test mode when test mode is disabled

Some fingerprint scanning software may cause this issue, this has been seen on an IBM Thinkpad. Check in the registry under the following

\\HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Authentication\Credential Provider Filters

look for keys which have values of: Fingerprint Logon Credential Provider Filter

and

\\HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Authentication\Credential Providers

look for keys which have values of: Fingerprint Logon Credential Provider

To test if these are the cause, on a test system, either remove the fingerprint software (disabling may still leave the registry keys) or backup the keys by exporting them, then remove them.

49.1 Disabling the Swivel Login

If the Swivel Login fails to load correctly it can be disabled using the following process:

Using the F8 boot menu start Windows in safe mode

Either run the Swivel Login Configuration and edit the settings or

Using regedit.exe remove the "HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\WindowNT\CurrentVersion\WinLogon\ginadll" registry value

Reboot Windows

Following this process the standard Windows Login should be restored allowing access.

49.2 Error Messages

Unable to contact PINsafe server

Version 4.x only supports TLSv1 which means if you are running a version 3 Appliance, you must enable TLSv1 under Tomcat > SSL Protocols > Enable TLS1.0.

Wrong Parameter or **Parameter is incorrect**

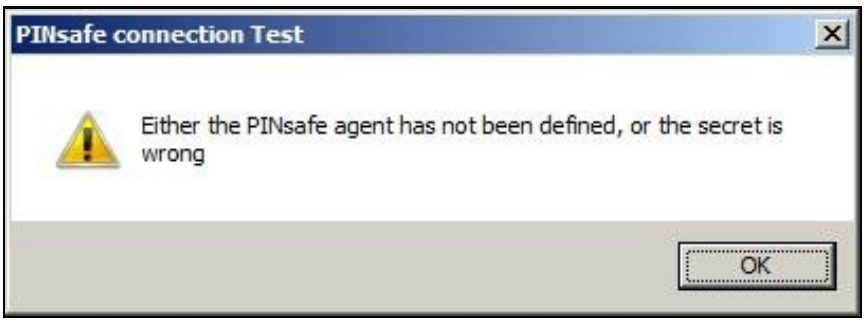
This message is displayed at the Windows login and can have several causes, check the Swivel logs for errors:

- The user must exist in AD and Swivel
- When an incorrect OTC is entered, when using local authentication. Unfortunately, local authentication will not work with the "Connect To" dialog. However, you should still get the remote desktop login displayed, and will be able to authenticate to this.
- The user account is locked in Swivel
- The Swivel Sever Agent has not been configured correctly

Please enter a one-time code first

A One Time Code was not entered in the OTC field during login.

Either the Swivel agent has not been defined, or the shared secret is wrong



AgentXML request failed, error: The agent is not authorised to access the server.

The credential Provider is not permitted to connect to the Swivel server. Add an Agent for communication.

The user name or password is incorrect.

Check Password with Repository: If this setting is enabled against the Agent, then you should disable it to prevent it attempting to check for a password against the repository. This is a potential cause when receiving "The user name or password is incorrect".

AgentXML request failed, error: No suitable authentication method for the user "Administrator" was found. The user may be missing from the user repository or a synchronisation has not yet occurred.

The user Administrator is not defined as a Swivel user

Session start failed for user: x, error: No Data for user was found. or **error: No data for the user was found**
The requested user does not exist in the database. If the user does exist in the repository (e.g. Active Directory) then Swivel needs to sync with that repository.

Dual channel message request failed, error: On-demand dual channel delivery is disabled.

A dual channel message request was made but the On-demand delivery is not enabled. If it should be enabled, on the Swivel Administration console select Server/Dual Channel, then set On-demand delivery to Yes.

AgentXML request contained third party data for a third party class that does not exist. Third Party Class ID: WindowsGINA.

and

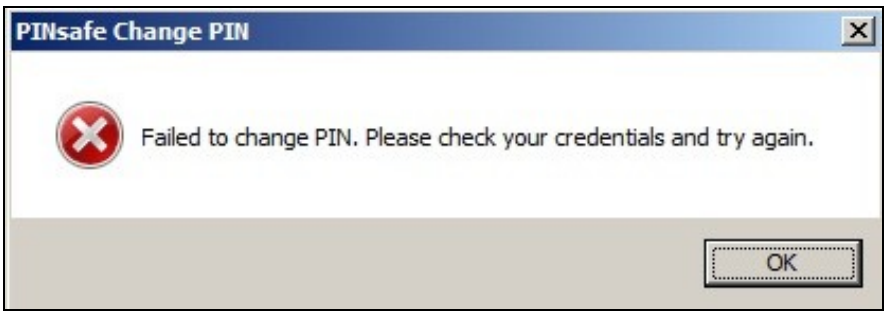
error: The third party class could not be found.

The Third Party Authentication class does not exist or has been created incorrectly. Create the class, see Create a Third Party Authentication

The third party class could not be found

This error can also be created when the Swivel Administration console Server/Agents, Group is set to Any. A group should be specified.

Failed to change PIN. Please check your credentials and try again.



The user has failed to change the PIN number. This could occur if the Swivel server cannot be contacted.

Unhandled exception has occurred in your application. If you click Continue the application will ignore this error and attempt to continue. If you click Quit, the application will close immediately.

The remote Server returned an error: (502) Bad Gateway.

This error has been seen when a Test Connection is made from the Credential Provider and can be caused by being unable to connect to the Swivel server. Check for network settings such as proxy settings on the local server, and if an SSL connection is required.

50 Release Notes

50.1 Release of Version 4.6

4.6.2.1, released 27th June 2016.

The main change in version 4.6 is that there is better support for offline authentication: it has been observed in previous versions that the strings ran out after a number of offline authentications. This has now been resolved.

There is a known issue with version 4.6, in that it requires Microsoft Update KB2999226 to have been applied. This should be applied automatically by Windows Update, but if you have a problem installing or running the program, check that this update has been applied.

50.2 Release of Version 4.5

4.5.4.1, released 4th February 2015.

Version 4.5 includes the following fixes and enhancements over previous versions:

- Swivel authentication is optionally applied to the Unlock screen as well as the login screen
- Swivel authentication may be disabled (and by default is disabled) when connecting to remote computers
- The image window resizes dynamically depending on the type of image. The scale option is on the Settings drop-down menu.

50.3 Release of Version 4.4

Version 4.4 includes the following fixes and enhancements over the previous releases:

- It is fully-compatible with Windows 8 and Windows 2012 Server.
- It switches to single-channel mode if local authentication is enabled and the Swivel server is not available.
- Unlike the previous beta, version 4.3, this version is compatible with ALL Windows Operating Systems from Windows Vista onwards.
- If the user's password has expired, they are correctly redirected to the change password page.
- A problem which occasionally caused crashes when entering the username has now been resolved.
- You can now import settings exported from other installations.
- The installer is now a standard Windows MSI file. This makes it possible to customise the installation to contain your company's settings file, if you have the tools to modify MSI files. Alternatively, you can send your exported settings to support@swivelsecure.com, who can create a custom installer for your organisation.

51 Known Issues and Limitations

This version of the Swivel Credential Provider is not compatible with the Swivel version 3 appliance. An update will be available shortly.

The Swivel Windows Credential Provider does not support the use of

- Pinpad
- Animated gifs

for Single Channel authentication.

It has been observed in testing that DNS is not always available when logging on. It is therefore recommended that you use IP address, rather than host name for the Swivel server.

Local authentication only works in single channel mode: the dual channel strings are not available offline. To use offline authentication, TURing image display must be enabled, even if normal authentication is dual channel.

If a Swivel server has been configured with a Single Channel login configuration that is not viewable, the following options are available to recover access:

- Login using dual channel
- Login using an image generated elsewhere such as on the Swivel Administration console or Taskbar on another server
- Alter the settings on the Swivel server to serve a permitted image
- Login offline if permitted
- Login to safe mode as described elsewhere

In Windows 8 and Windows Server 2012, the Credential Provider appears as a single key icon, which you must select before logging on. In some cases, where Windows should show the last used credential, you will need to click the back arrow and then select the Credential Provider. A similar problem occurs with the Unlock screen. An updated version, specific to Windows 8 and Windows Server 2012, will be released in due course.

By default, the credential provider assumes that administrator is the local administrator, rather than the domain administrator, so you have to explicitly state the domain name to logon as domain administrator. This is a feature of the default credential provider as well.

In the Swivel administration console, the Windows GINA menu item is present, but there are no configurable options, so is not selectable.

52 Microsoft Windows GINA login

53 Introduction

Windows GINA (graphical identification and authentication) is the login for Windows 2000 Server, 2003 Server and XP. Also available is the Windows GINA login User Guide.

The Winlogon GINA has been replaced in Vista, 2008 Server, Windows 7 and Windows 8, by the Windows Credential Provider, See Microsoft Windows Credential Provider Integration

The PINsafe GINA supports the use of Dual Channel (in advance, not on-demand) and Single Channel authentication for Terminal Services using Windows 2000 and 2003 server. It does not support an offline authentication mode, whereas the Windows Credential provider does, thus the PINsafe GINA should only be used for networked machines or for Terminal Services.

This version of the PINsafe GINA supersedes an earlier version which would overwrite the AD password. The current version of the PINsafe GINA does not overwrite the AD password.

54 Prerequisites

PINsafe 3.x

Recommended platform is Windows 2003 with Microsoft.Net Framework 2 and Terminal Services

A separate PINsafe GINA license is not required, but the users authenticating to PINsafe must be licensed.

Microsoft Visual C++ 2010 SP1 redistributable. For the 32-bit version of the GINA, the x86 redistributable is required. For the 64-bit version, **both** the x86 redistributable **and** the x64 redistributable are required. These must be installed before the GINA, as they are required by the installer.

PINsafe GINA 32 bit software

PINsafe GINA 64 bit software

NOTE: the latest version is version 3.6.1. This adds support for dual-channel message on-demand and allowing unknown users to authenticate without Swivel credentials.

55 Baseline

56 Architecture

The 64-bit GINA is the same as the (32-bit) Terminal Services GINA, except built for 64-bit operating systems.

57 Swivel Configuration

57.1 Configure a Swivel Agent

1. On the Swivel Management Console select Server/Agent

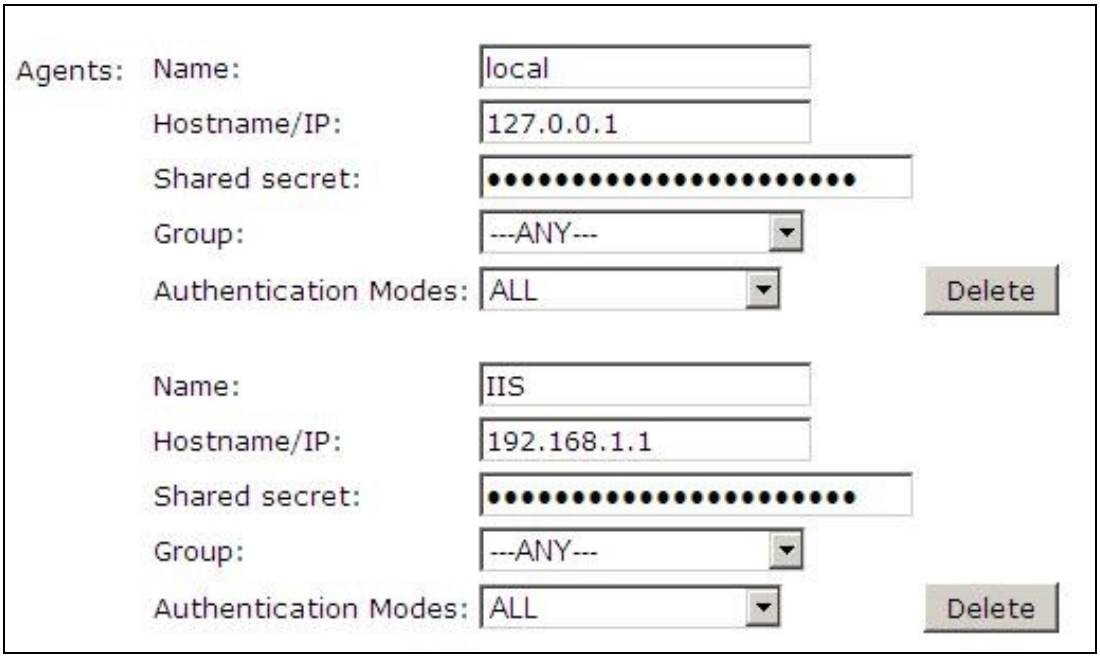
2. Enter a name for the Agent

3. Enter the GINA IP address. You can limit the Agent IP to an IP address range like: 192.168.0.0/255.255.0.0 where the mask of 255 requires an exact match and 0 allows any value, so the previous example would allow any Agent in the range 192.168, or you can use an individual IP address for the Credential Provider.

4. Enter the shared secret used above on the GINA

5. Enter a group, (Note in this instance ANY is not a valid group and will cause authentication to fail)

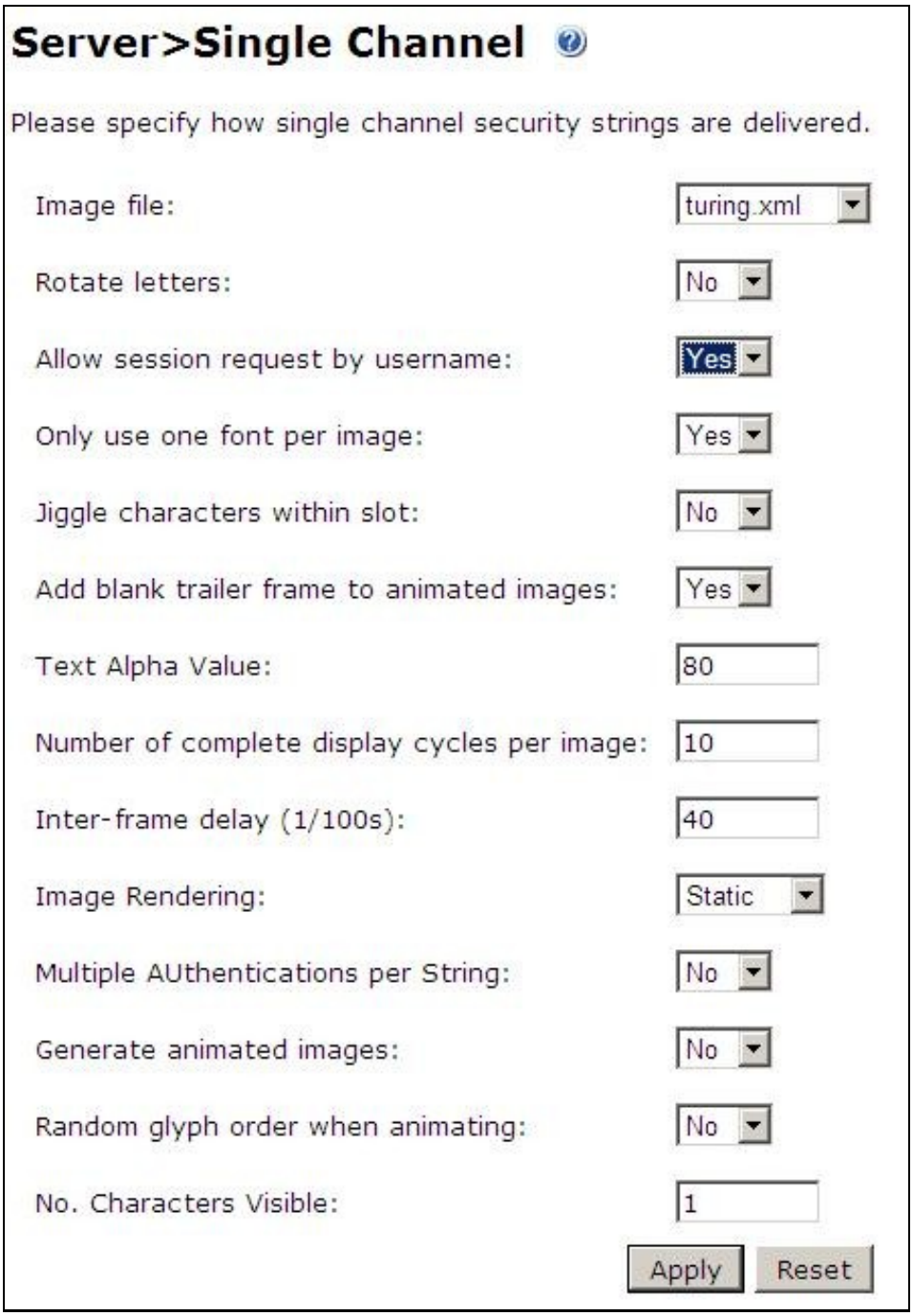
6. Click on Apply to save changes



Configure Single Channel Access

1. On the PINsafe Management Console select Server/Single Channel

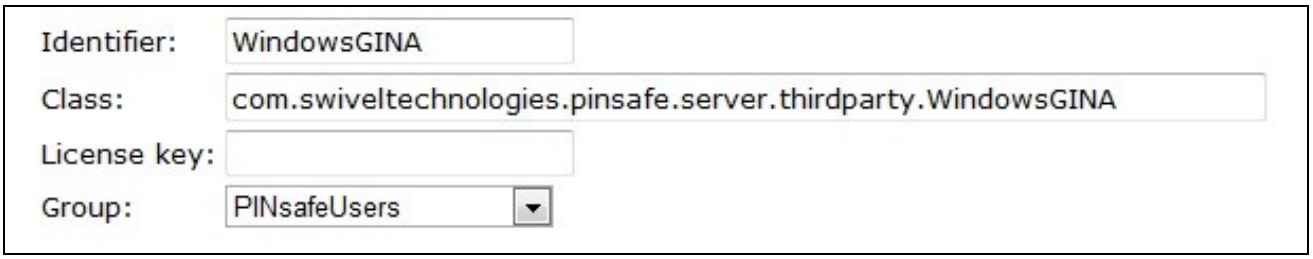
2. Ensure ?Allow session request by username? is set to YES



57.2 Create a Third Party Authentication

A third party authentication must be created with an Identifier of WindowsGINA.

1. On the PINsafe Management Console select Server/Third Party Authentication
2. For the Identifier Name enter: WindowsGINA
3. For the Class enter: com.swiveltechnologies.pinsafe.server.thirdparty.WindowsGINA
4. For the License Key, leave this empty as it is not required
5. For the Group select a group of users
6. Click Apply to save the settings



Note that this creates a GINA menu item, but there are no configurable options, so is not selectable.

58 Terminal Services GINA Integration

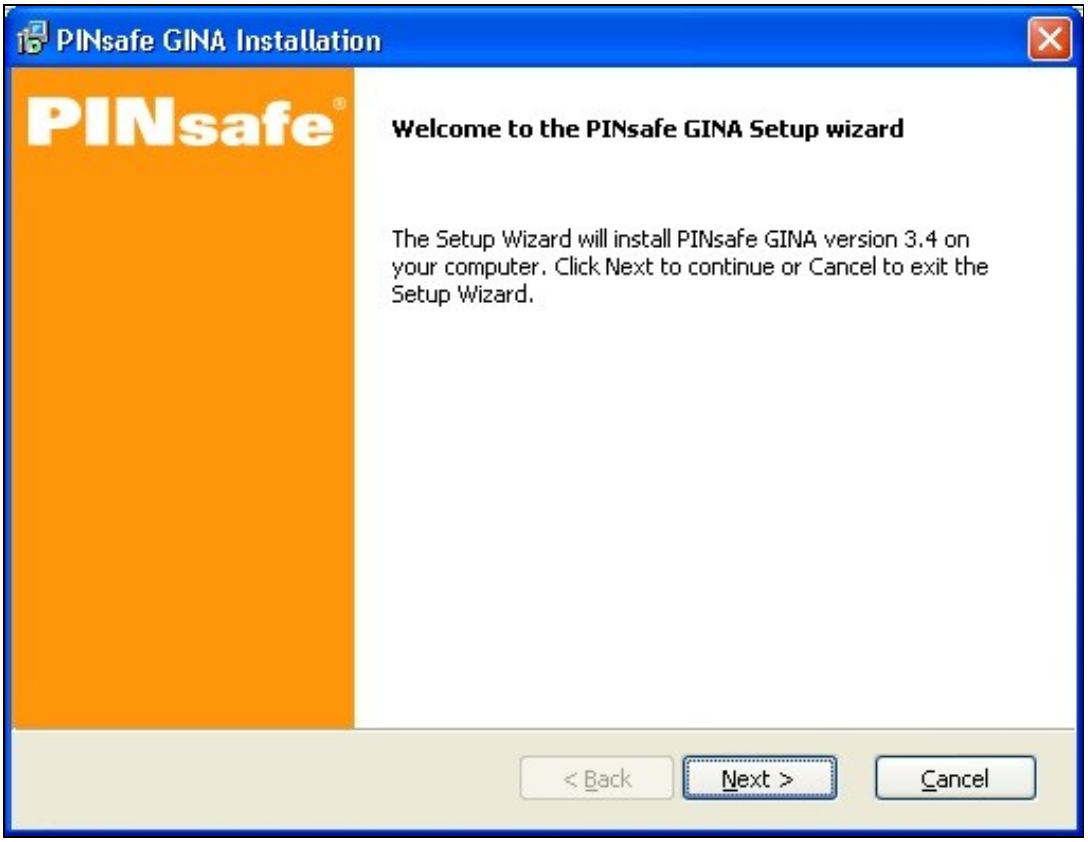
The PINsafe GINA Configuration utility provides a convenient means of configuring the installed PINsafe GINA.

Microsoft.Net 2 is only required for the configuration application. The GINA will work without .Net 2, but you will have to configure it manually. If your system does not meet the requirements, when you click "Next", you will see a dialog showing what components are missing. You can still install, but with the provisos mentioned above.

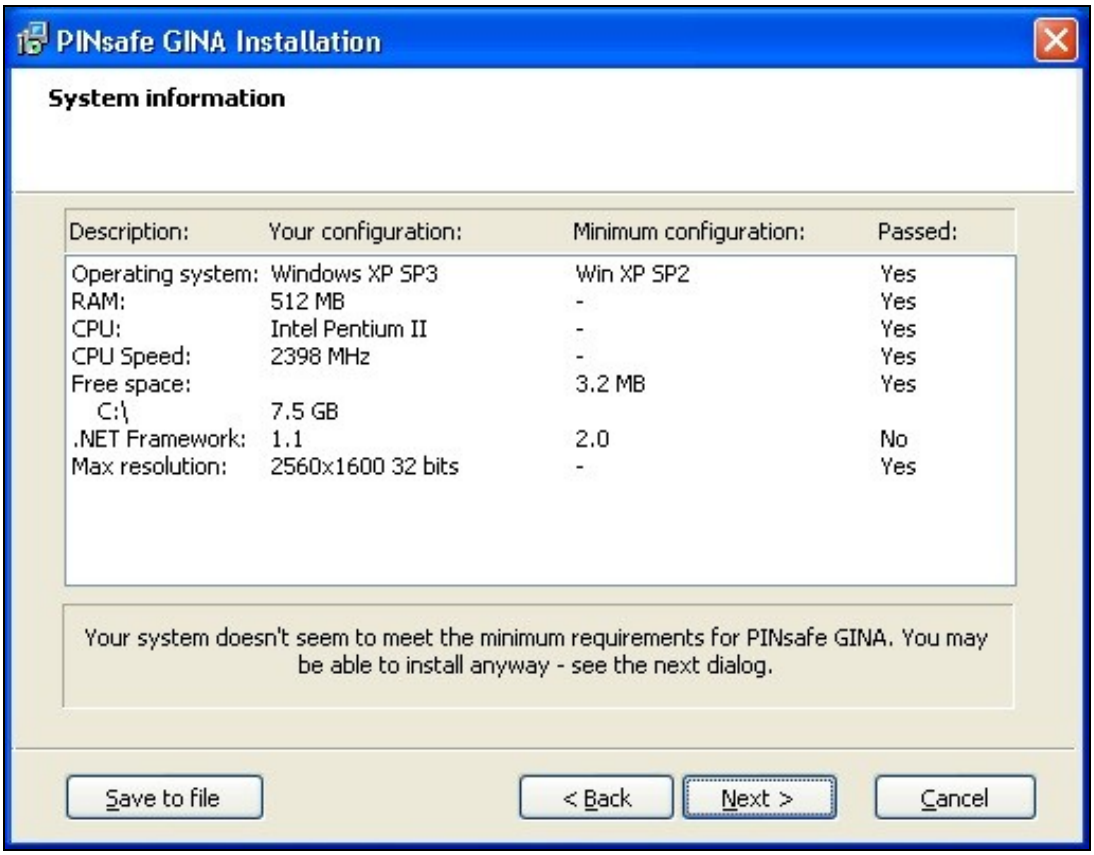
Install the GINA software on the Windows Terminal Server.

58.1 Terminal Services GINA Installation

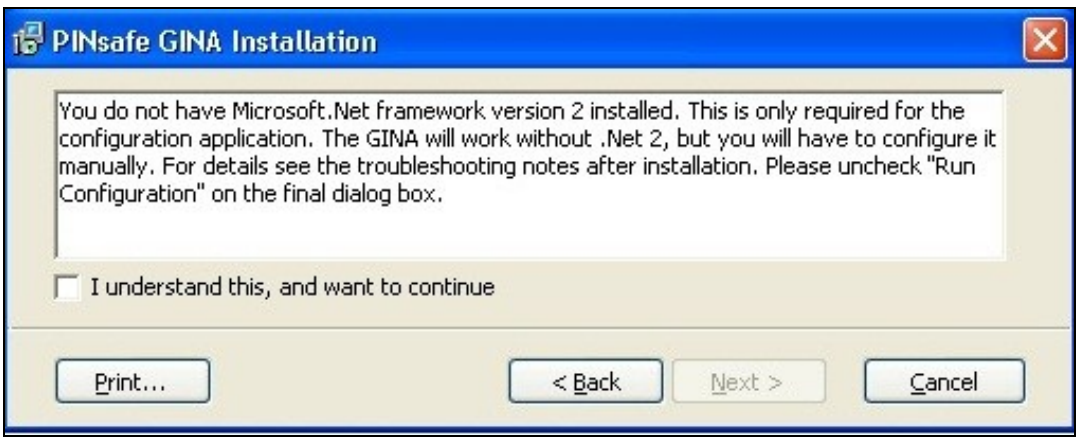
Start the PINsafe installation Wizard



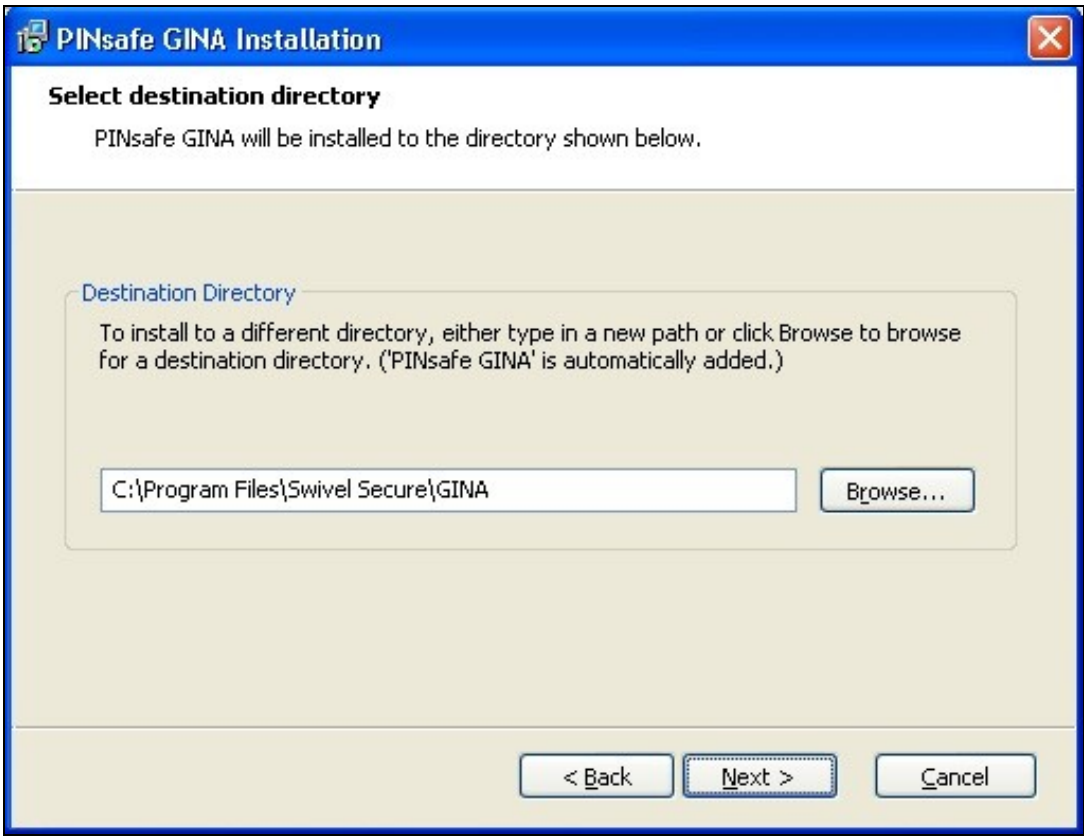
The system summary will report on any requirements which are not met, in this example .Net



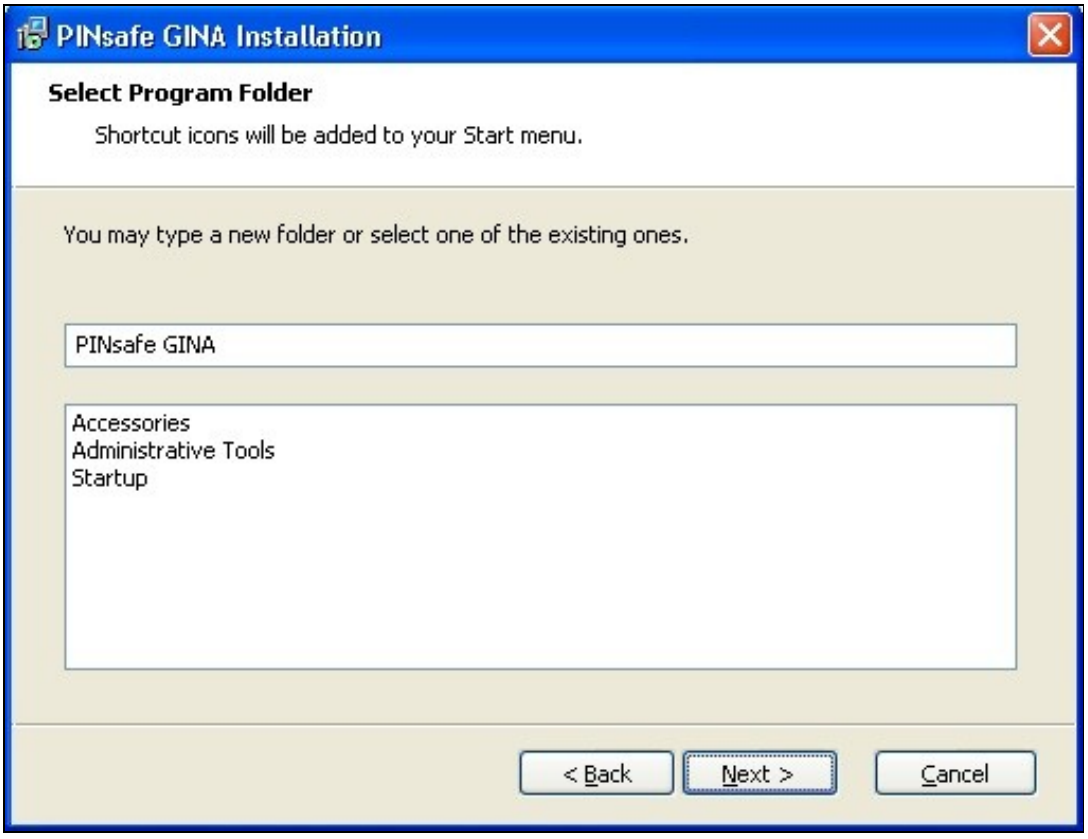
The PINsafe GINA may optionally be installed without .Net, the PINsafe GINA configuration utility requires .Net to install, but may be configured manually



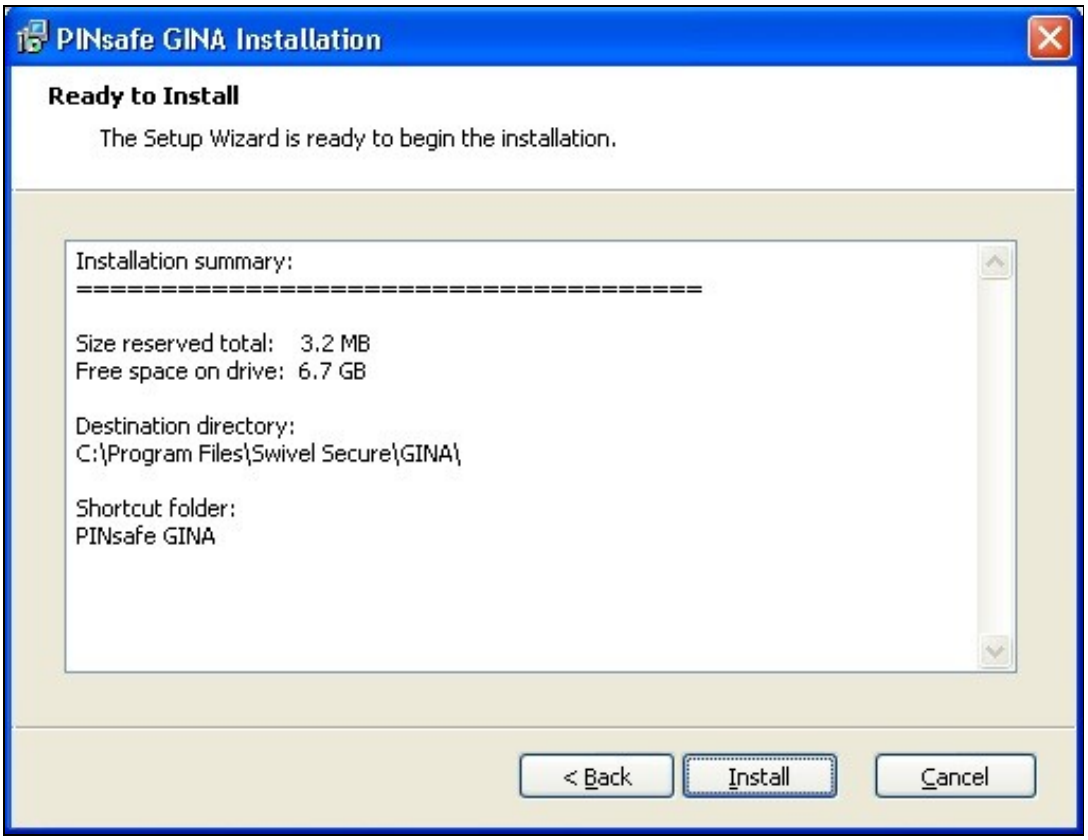
Select the install directory



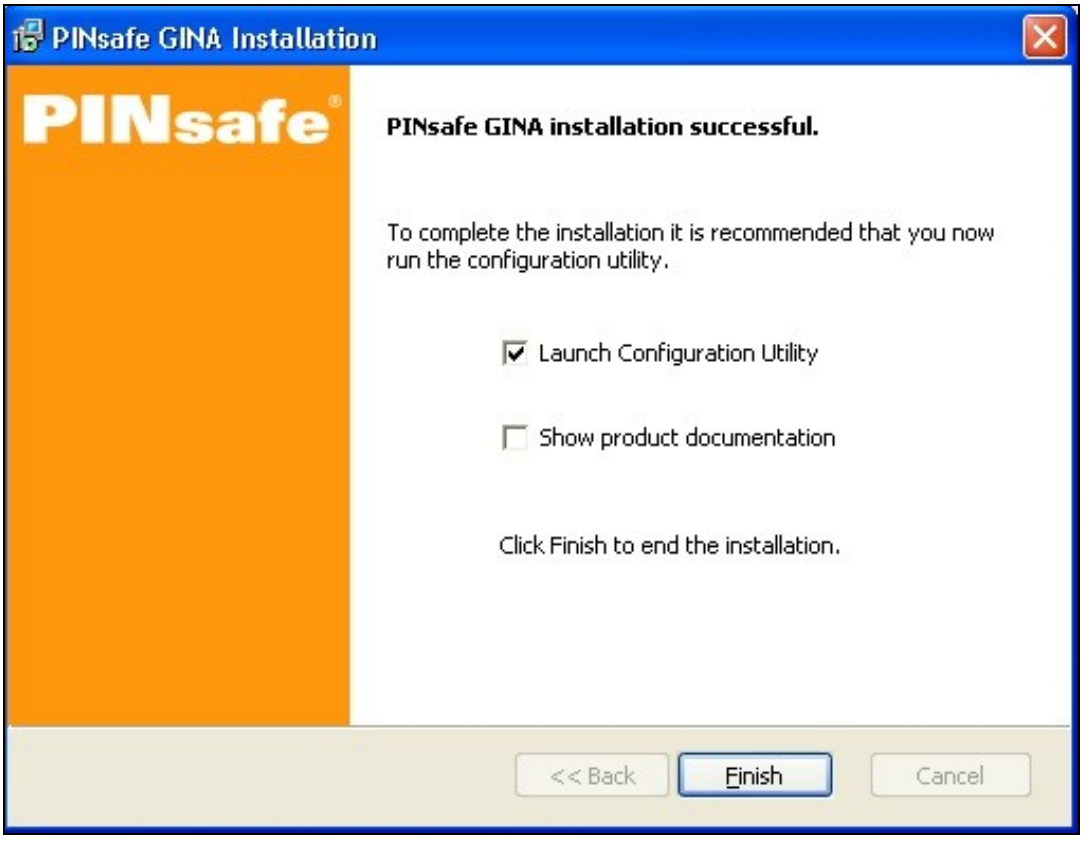
Select the Start Program files group



Check the installation details

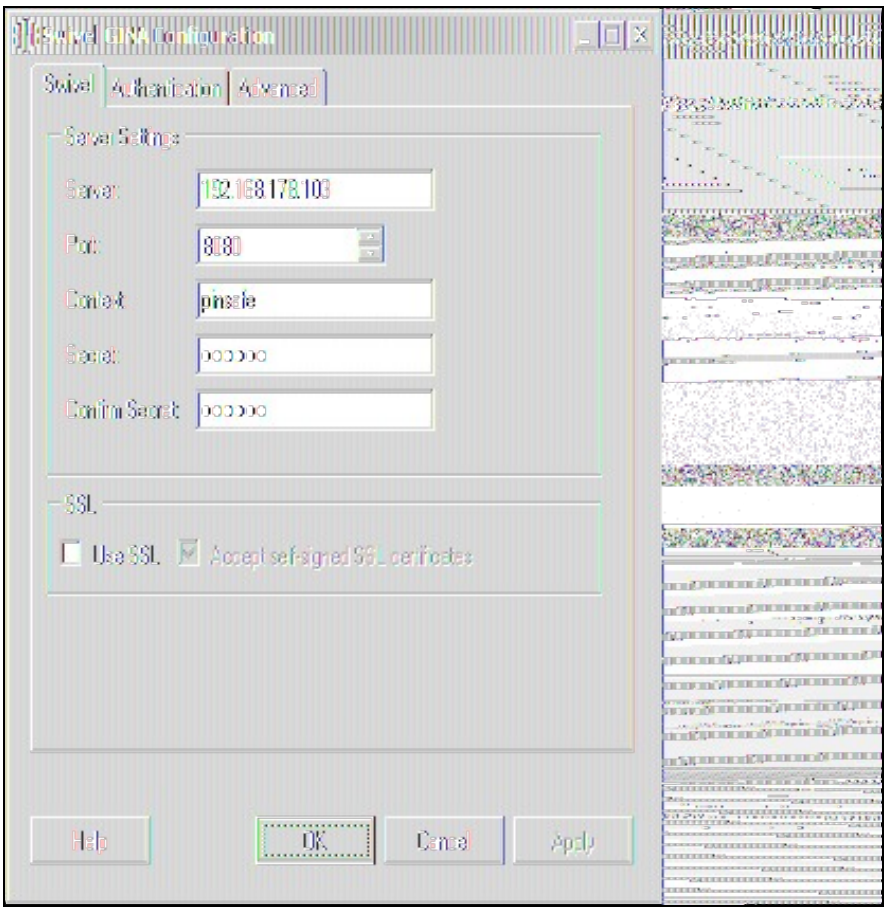


The PINsafe GINA installation reports when it is complete and allows the configuration utility to be run



58.2 Terminal Services GINA Configuration

58.2.1 Server Settings



Server The IP address or hostname of the PINsafe server to use for authentication.

Port The TCP/IP port used by the PINsafe server. Commonly "8080" or "8443" if SSL is enabled.

Context The web application context used by the PINsafe server. Commonly "pinsafe" for standard installations.

Secret The shared secret configured for the GINA agent.

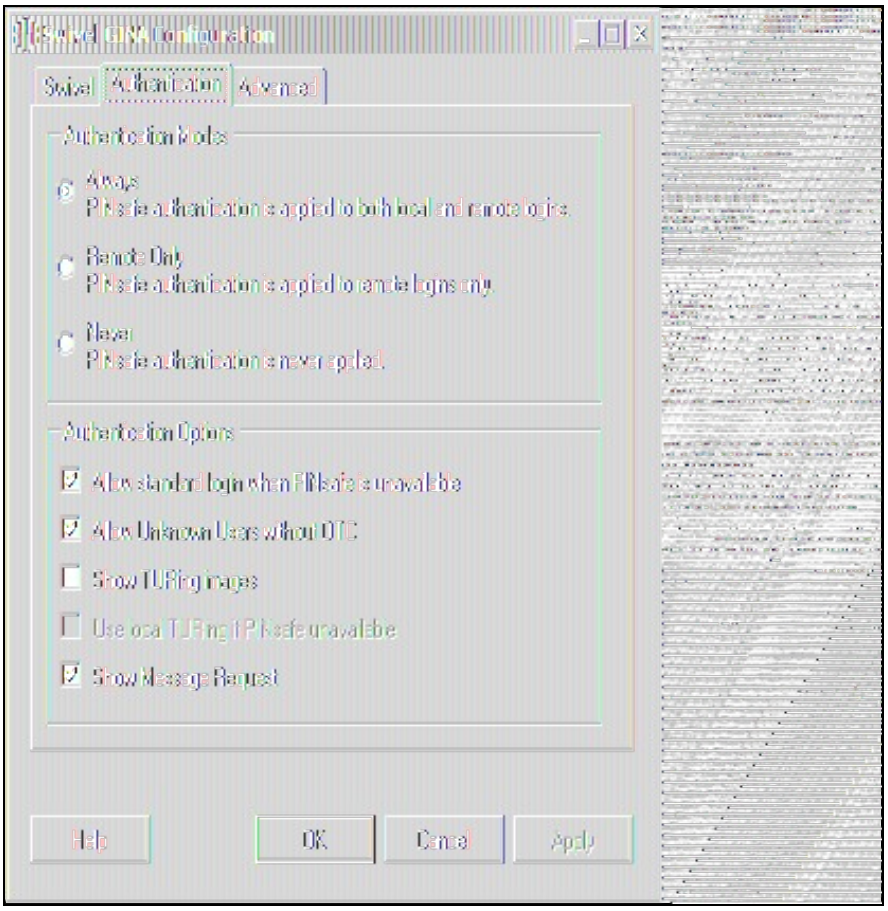
Confirm Secret Repeat the shared secret to ensure it has been entered correctly.

SSL

Use SSL Enable the use of SSL when communication with the PINsafe server. In order to use this option SSL must have been configured on the PINsafe server with an appropriate certificate.

Allow self-signed SSL certificates Accept an SSL certificate from the PINsafe server that has not been signed by a recognised certificate authority.

58.2.2 Authentication Settings



Always Selecting this mode enables PINsafe authentication for local and remote logins.

Remote Only Selecting this mode enables PINsafe authentication for remote logins only. Local logins continue to only require a standard Windows username and password combination.

Never Selecting this mode disables the use of PINsafe authentication by the GINA.

Authentication Options

Allow standard login when PINsafe is unavailable When enabled this option temporarily disables PINsafe authentication if the GINA determines that the PINsafe server is not available for authentication.

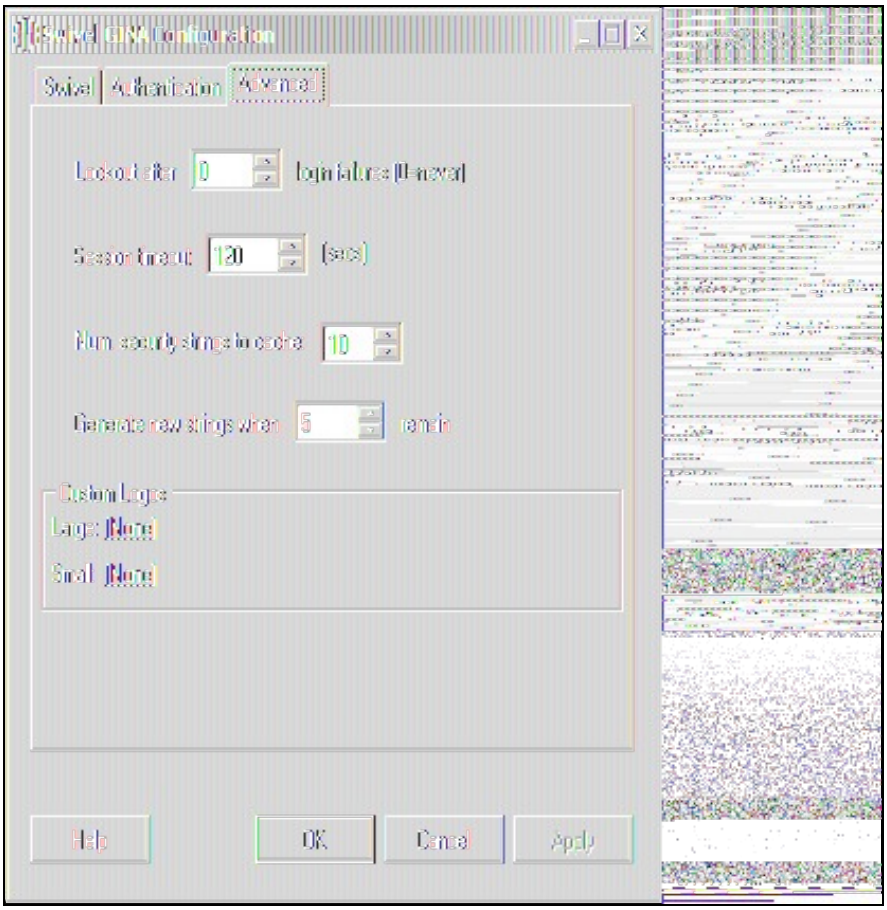
Allow unknown users without OTC When enabled, if a user is not known to PINsafe, they are not required to enter a one-time code to authenticate. There is no visible indication that the user is not known to PINsafe.

Show TURing images Enable the ability for users to request a single-channel TURing image from the PINsafe server.

Use local TURing if PINsafe unavailable When enabled, if the GINA is unable to connect to PINsafe, it will display a locally-generated TURing image to users who have previously authenticated to this computer. Users who have not previously authenticated on-line will not be able to authenticate.

Show Message Request When enabled, a button is shown to request a new security string to be sent to the user's designated transport (email or SMS). This cannot be selected together with TURing: disable TURing to use this option.

58.2.3 Advanced Settings



Lockout after # failures The number of authentication failures before a user is locked out. This only applies to local authentication: Swivel authentication is managed by policies on the Swivel Server.

Session timeout The length of time to wait before closing the login dialog.

Num. security strings to cache The number of security strings to request from the Swivel server for local authentication.

Generate new strings when # remain Controls the minimum number of cached local security strings.

Custom logos This allows you to re-brand the GINA with your own logos. The large logo is displayed when the GINA is first displayed, and must be 413 by 88 pixels. The small logo is displayed at the top of the login screen, and must be 413 by 72 pixels.

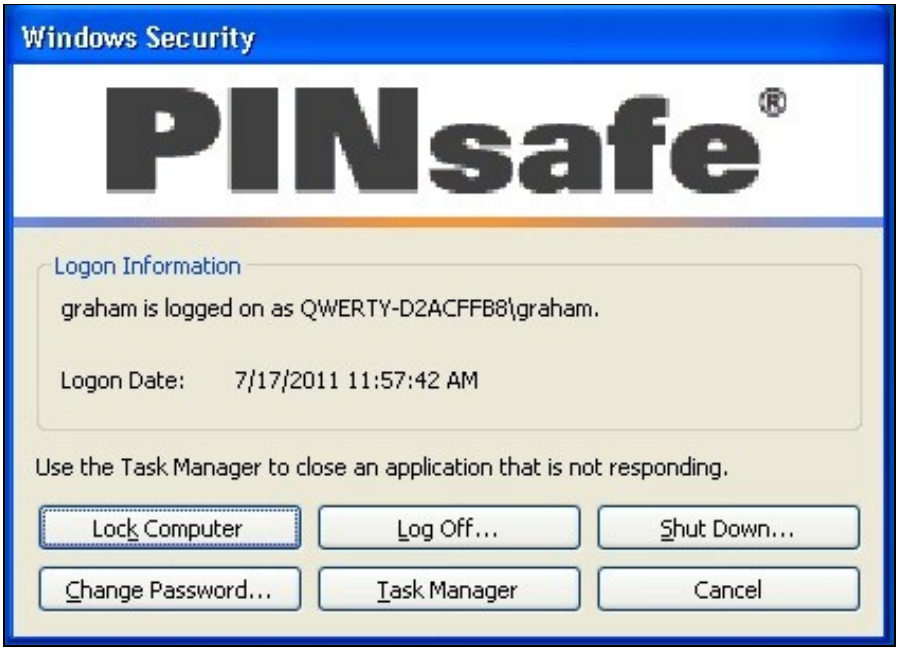
59 ChangePIN

Users may change their PIN using the Change Password option, or if automatically directed at login time.

Remember that to use ChangePIN, a user does not enter their PIN, but uses an OTC and generates a OTC for which they want the new PIN to be. Dual channel and mobile Phone Clients may be used with the ChangePIN as well as the TURing image.

59.1 User Requested ChangePIN using Change Password

From the Windows menu select Ctrl-Alt-Delete



The user may change their PIN and or password. To ChangePIN, password details can be left blank.

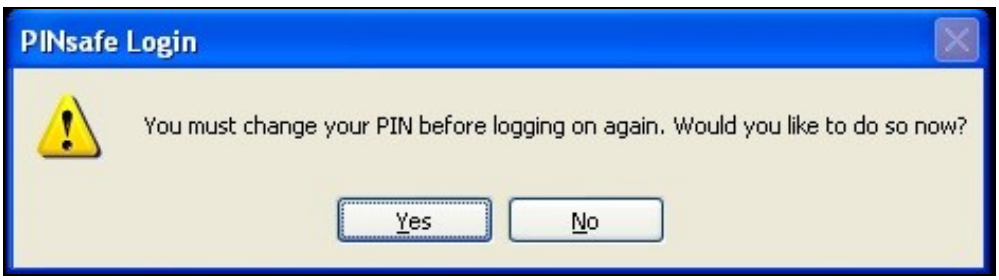
ChangePIN using dual channel or mobile phone client

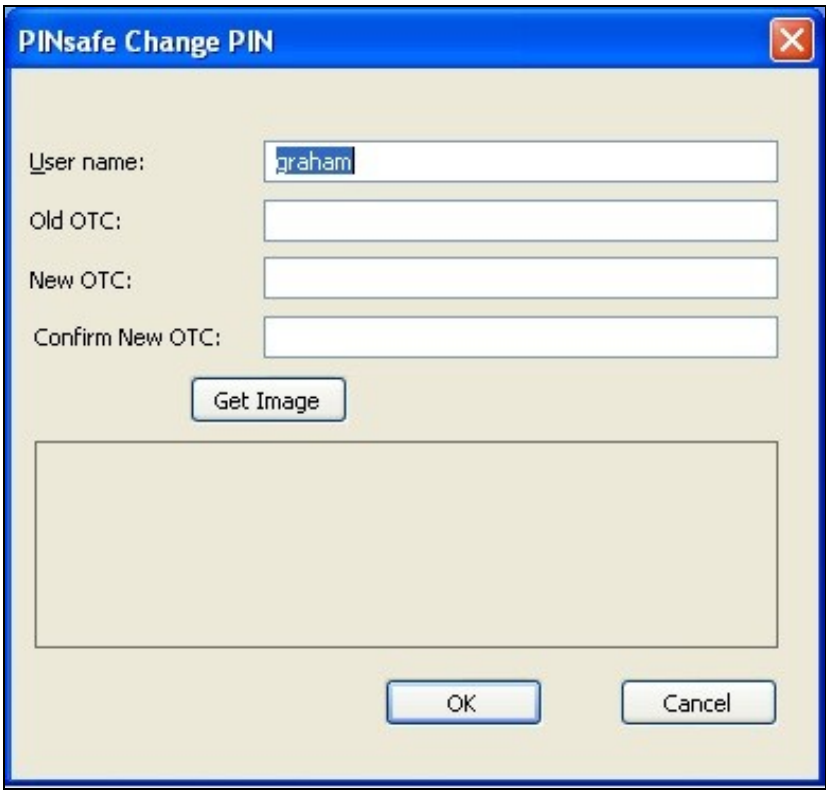
ChangePIN using TURing

ChangePIN successful

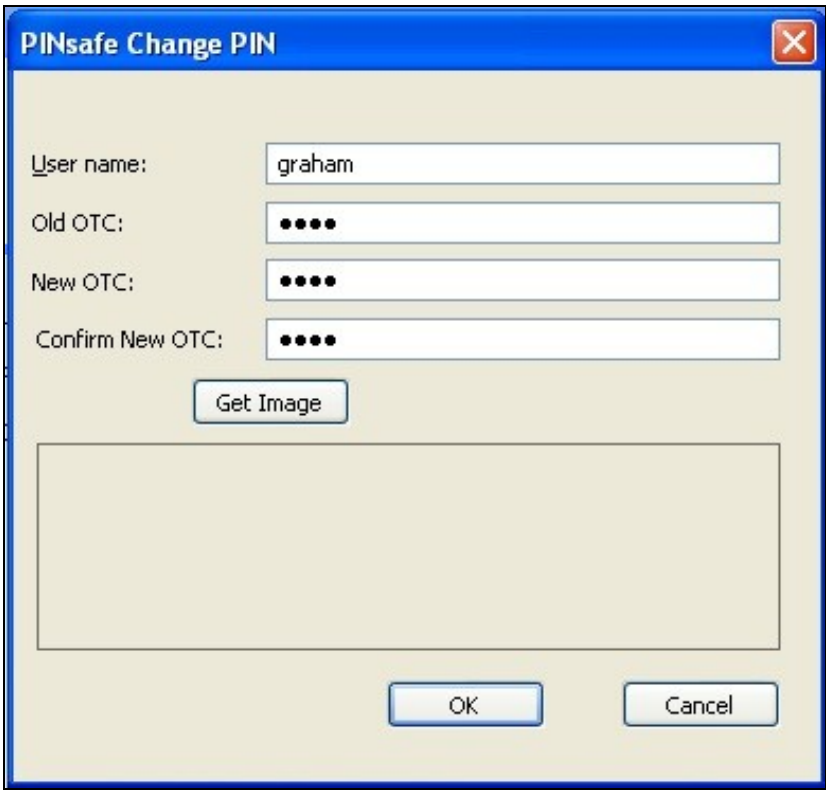
59.2 ChangePIN redirect at login

Where the user is required to ChangePIN the user is redirected at login.

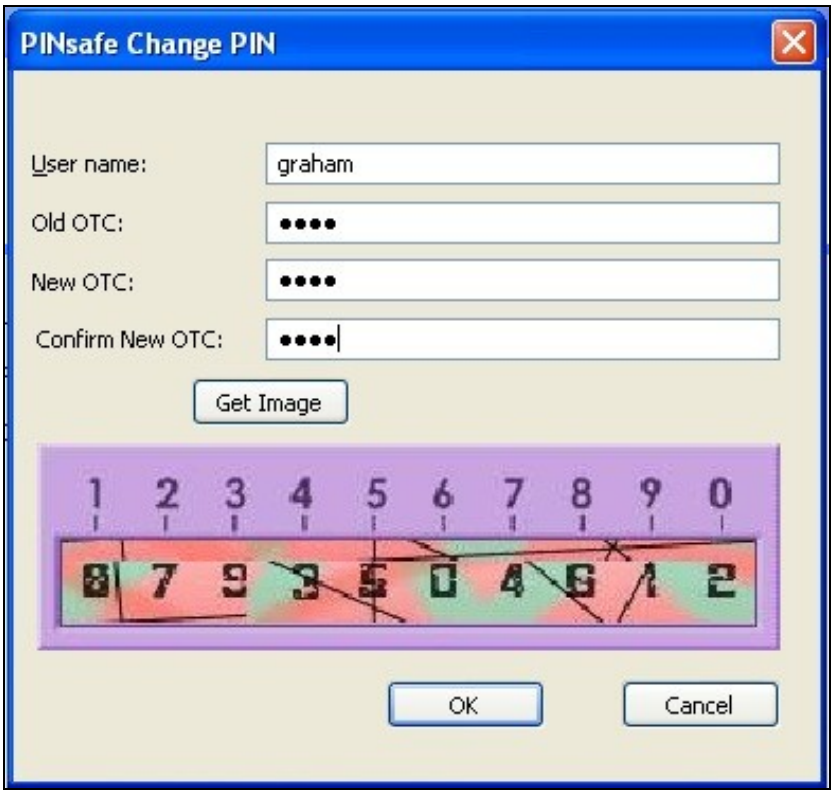




ChangePIN using dual channel or mobile phone client



ChangePIN using TURing



ChangePIN successful

60 Additional Installation Options

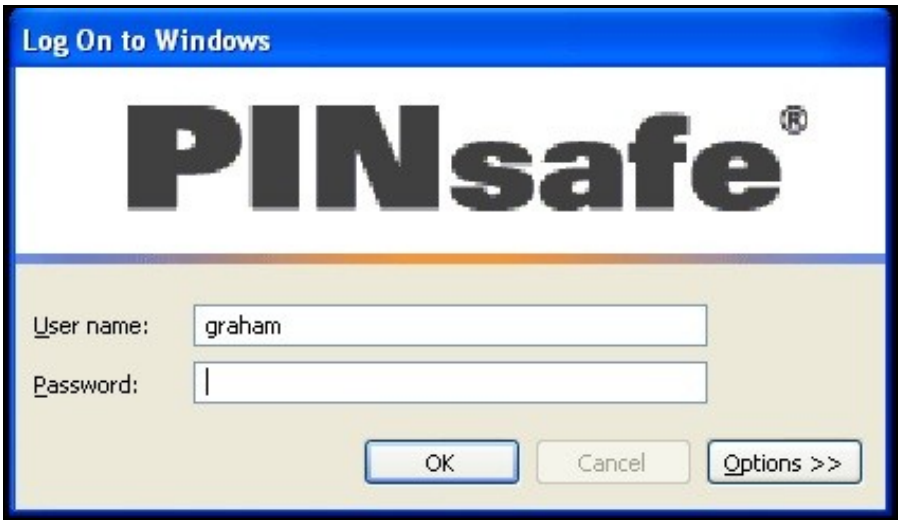
61 Verifying the Installation

When a user logs out they should be prompted for PINsafe authentication

A user may use dual channel authentication to login by entering AD password and One Time Code.

A user can also authenticate using single channel by generating a TURing image.

Standard authentication when the PINsafe server cannot be contacted.



62 Uninstalling the PINsafe Integration

To uninstall the PINsafe GINA select Start, Programs, PINsafe GINA, PINsafe GINA Uninstaller or Start, Control panel, Add or Remove Programs, select PINsafe GINA then remove.

Follow the instructions to remove the PINsafe installation.

63 Troubleshooting

PINsafe login options not displayed

If the "Allow standard login when PINsafe is unavailable" is enabled then the GINA will only display PINsafe login options if it is able to contact the PINsafe server. If PINsafe options are not displayed check the server settings and connectivity to the PINsafe server.

Manually configuring the PINsafe GINA

If it is not possible to use the configuration utility the PINsafe GINA settings may be edited manually in the registry. The following values found within the "HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\WindowNT\CurrentVersion\WinLogon" key are used by the GINA:

PINsafeServer

PINsafePort

PINsafeContext

PINsafeSecret

PINsafeProtocol

PINsafeLoginSelect

PINsafeShowTURing

PINsafeAllowDefaultLogin

PINsafeAllowSelfCert

Disabling the PINsafe GINA

If the PINsafe GINA fails to load correctly it can be disabled using the following process:

Using the F8 boot menu start Windows in safe mode

Using regedit.exe remove the "HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\WindowNT\CurrentVersion\WinLogon\ginadll" registry value

Reboot Windows

Following this process the standard Windows GINA should be restored allowing access.

63.1 Error Messages

The one-time code is incorrect. Please retype your one-time code

The One Time Code is incorrect

The password is incorrect. Please retype your password. Letters in passwords must be typed using the correct case.

The Active Directory Password is incorrect

The system could not log you on. Make sure your username and domain are correct, then type your password again. Letters in passwords must be typed using the correct case.

The PINsafe account may be locked contact the PINsafe system Administrator

To recover a locked system protected by PINsafe see PINsafe GINA

Installing without Microsoft.Net Framework 2.0

The GINA itself does not require the .Net Framework - only the configuration utility. Therefore, if you are unwilling to install Microsoft.Net 2.0, you can ignore the warning about this being missing and install GINA anyway. However, you will have to configure the application manually, as described below.

Unable to find a runtime of the runtime to run this application

The PINsafe configuration utility is being un without the .Net version 2.0

FLUSHING_IMAGE_CACHE, ClientAbortException: java.net.SocketException: Connection reset

This error message can be seen in the PINsafe log when a Windows login is attempting to use an animated gif. Turn off animated gifs and switch to 'Static', on Swivel - This is set under Server > Single Channel > Image Rendering.

The third party class could not be found

This error can also be created when the Swivel Administration console Server/Agents, Group is set to Any. A group should be specified.

64 Known Issues and Limitations

Installation on a Windows 2003 server without Terminal Services, will only provide administrator logon, and only 3 simultaneous logins (including the console session).

Installation on Windows XP will work, but only one user can log on at a time, and then only if no-one is logged on directly to the machine.

There is a usability issue with Windows 2000: it takes about 20 seconds to display a TURing image. For this reason, we are not supporting Windows 2000 in this release, and recommend that if you absolutely have to use it, you should use Dual Channel only.

The following are not supported for Single Channel Authentication when using the Windows GINA:

- BUTton
- PATtern
- Animated Gifs

Dual channel on-demand is not supported.

The Windows GINA menu item is present, but there are no configurable options, so is not selectable.

65 Additional Information

66 Swivel Windows Credential Provider

67 Introduction

Version 5 of the Credential Provider is now released. Documentation on it can be found at Windows Credential Provider. This documentation is out of date, and is not being maintained

This version has been tested on Windows 8, Windows 10 and Windows Server 2012 R2

The current version only works for 64 bit operating systems.

Swivel Windows Credential Provider is used in the desktop operating systems Windows 8 and 10 and the server operating system Windows Server 2012. For integration with Windows Vista and 7 and Server 2008, see Microsoft Windows Credential Provider Integration.

Users can authenticate using the Swivel Credential Provider allowing 2FA (Two Factor Authentication), or strong authentication at the Windows Logon. Offline authentication is also supported for single Channel authentication, following at least one successful authentication against the Swivel server with Third Party Authentication configured.

Supported methods are:

- **TURing** Lets the user sign into windows by using TURing.
- **PINpad** Lets the user sign into windows by using PINpad.
- **On Demand** Lets the user sign into windows by requesting a security string to their preferred method (SMS or email). More information.
- **Other Two Factor** Lets the user sign into windows by entering a one-time code based on a security string received previously or OATH token.

NOTE: One Touch is not currently supported.

67.1 Downloads

Swivel Windows Credential Provider 64 bit (version 5.1.0)

67.2 Swivel Credential Provider FAQ

Q). Does the Credential provider support offline authentication? A). Offline authentication is permissible for Swivel users who have previously authenticated to the device. Offline local authentication is always single channel, even if single channel is normally disabled.

Q). Do all users have to authenticate using Swivel? A). Swivel has the option to *Allow Unknown Users*, users known to Swivel will be prompted for authentication in this instance. There is also a "Trusted Users" list where specific users can be added.

Q). Is it possible to define users who do not have Swivel authentication? A). Yes either by the *Allow Unknown Users* for non Swivel user authentication or by adding the user to the "Trusted Users" list

Q). Is it possible to login without AD password, A). No the AD password is required.

68 Prerequisites

Swivel version 3.11.3 or later.

Connectivity to Swivel server during installation (with Third Party Authentication for GINA enabled).

Microsoft Windows 8 (including 8.1) and 10 or Windows Server 2012.

Microsoft.Net Framework version 4.

Swivel Windows Credential Provider 64 bit (version 5.1.0)

A separate Swivel Credential Provider license is not required, but the users authenticating to Swivel must be licensed.

User with AD account and valid password.

69 Baseline

Swivel 3.10.4

Windows 8, 10, Server 2012 R2.

70 Installation

70.1 Basic Installation

To install the Swivel Windows Credential Provider run the installer and follow the on-screen instructions. At the end of the on-screen instructions you will be given the option to launch the configuration program to customise the Credential Provider. This can normally be found in the start menu under "Swivel Secure" and in "C:\Program Files\Swivel Secure\Swivel Credential Provider".

After installation and configuration:

- On Windows 8, 8.1 and 10 the computer must be restarted.
- On Windows Server 2012 R2 the Administration account can be signed out rather than doing a full restart.

70.2 Multiple Installation

If a configured Swivel Windows Credential Provider has been set up then the settings can be imported automatically on new installations.

1. Extract the settings using the existing Credential Provider from the "File > Export Settings" option, keeping the default name.
2. Copy this file and the installation file onto the new computer, they must be in the same location (example both files on the desktop).
3. Run the installation as described above and the settings will be automatically loaded during installation.

71 Architecture

Swivel is installed as a Windows Credential Provider, and when a Windows login is made, AD username and password is checked against AD and the username and Swivel OTC is sent to the Swivel server using XML authentication, or locally if offline authentication is enabled.

71.1 Offline Authentication

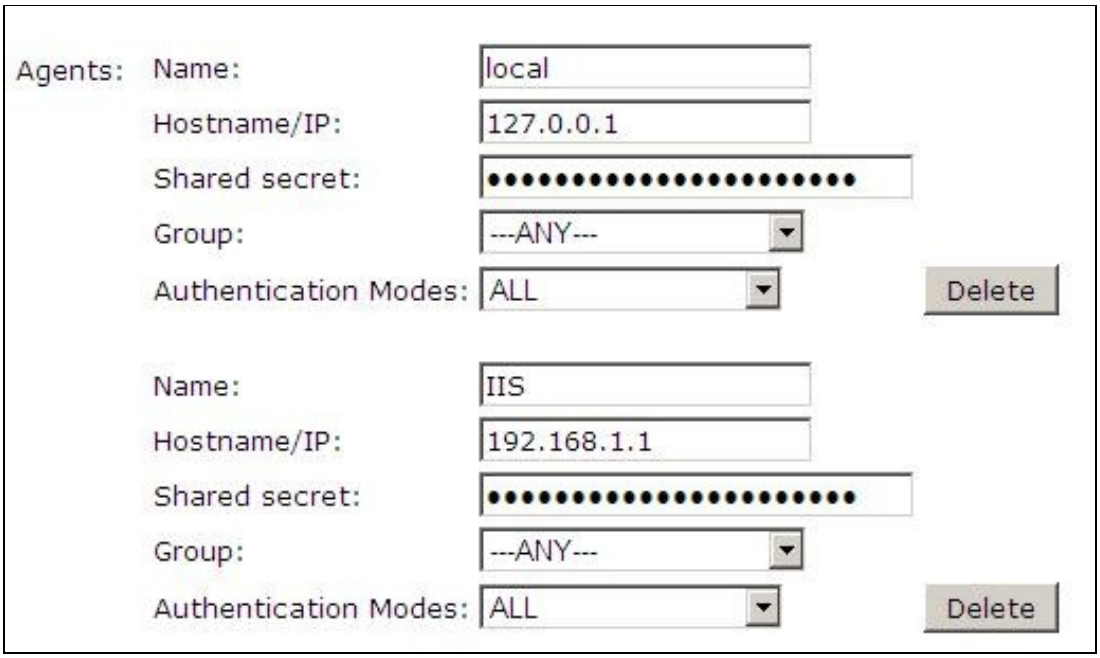
Swivel allows offline authentication using single channel but not dual channel authentication. For offline authentication the user attempting to authenticate must have made at least one successful authentication against the Swivel server while Offline Authentication has been enabled. Swivel caches a limited number of strings for authentication, when one is shown then it's classed as used and will not be re-shown, if the user makes a successful offline authentication then the number of strings will be replenished however if the user runs out of strings then they will need to authenticate online to get some more. Swivel Account lockout is disabled for Swivel offline authentication. ChangePIN will not function when the Swivel server is not contactable. Local authentication is always single channel, even if single channel is normally disabled.

Update: from version 5.4 onwards, offline is also supported for OATH tokens and for mobile app in OATH mode. This requires Sentry version 4.0.5 or later.

72 Swivel Integration Configuration

72.1 Configure a Swivel Agent

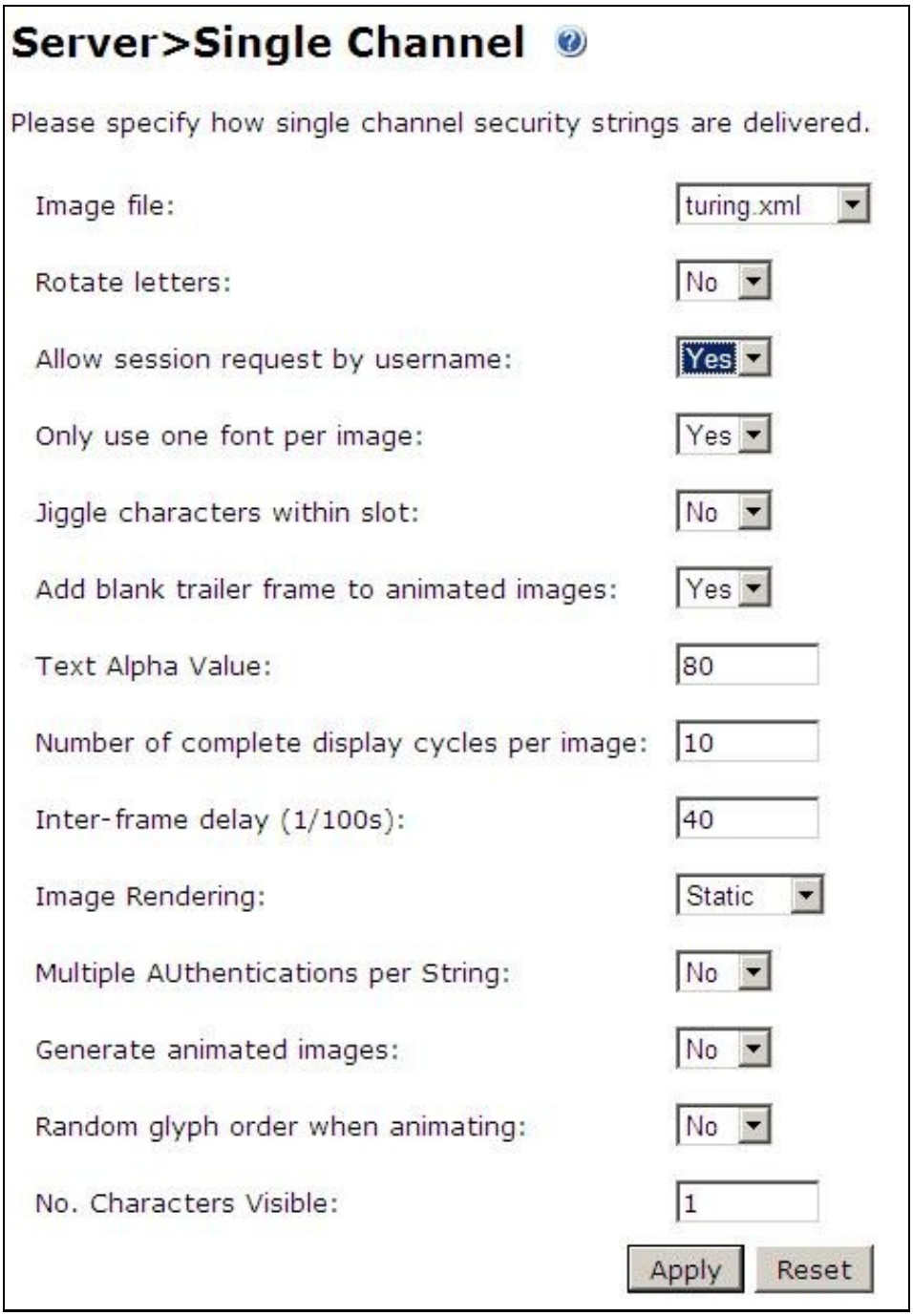
1. On the Swivel Management Console select Server/Agent.
2. Enter a name for the Agent.
3. Enter the Credential Provider IP address. You can limit the Agent IP to an IP address range like: 192.168.0.0/255.255.0.0 where the mask of 255 requires an exact match and 0 allows any value, so the previous example would allow any Agent in the range 192.168, or you can use an individual IP address for the Credential Provider.
4. Enter the shared secret used above on the Credential Provider.
5. Enter a group, (Note in this instance ANY is not a valid group and will cause authentication to fail).
6. Click on Apply to save changes.



Note that this creates a GINA menu item, but there are no configurable options, so is not selectable.

72.2 Configure Single Channel Access

1. On the Swivel Management Console select Server/Single Channel.
2. Ensure ?Allow session request by username? is set to YES.

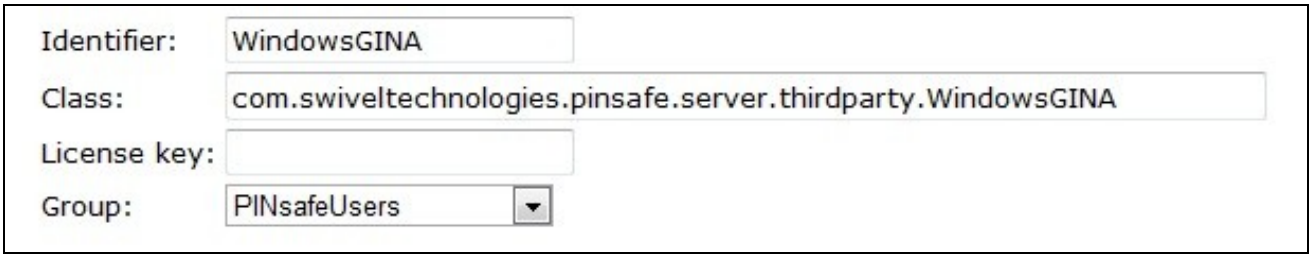


72.3 Create a Third Party Authentication

If offline authentication is to be allowed, a third party authentication must be created with an Identifier of WindowsGINA. (Even though the GINA is not part of Credential Provider the third party authentication module is still used and must be configured).

1. On the Swivel Management Console select Server/Third Party Authentication.
2. For the Identifier Name enter: WindowsGINA (Even though the GINA is not used, this must be entered as WindowsGINA).
3. For the Class enter: com.swiveltechnologies.Swivel.server.thirdparty.WindowsGINA.
4. For the License Key, leave this empty as it is not required.
5. For the Group select a group of users (Note: the option Any cannot be selected).
6. Click Apply to save the settings.

To allow offline authentication to be made a successful authentication must be made with the third party authentication in place.

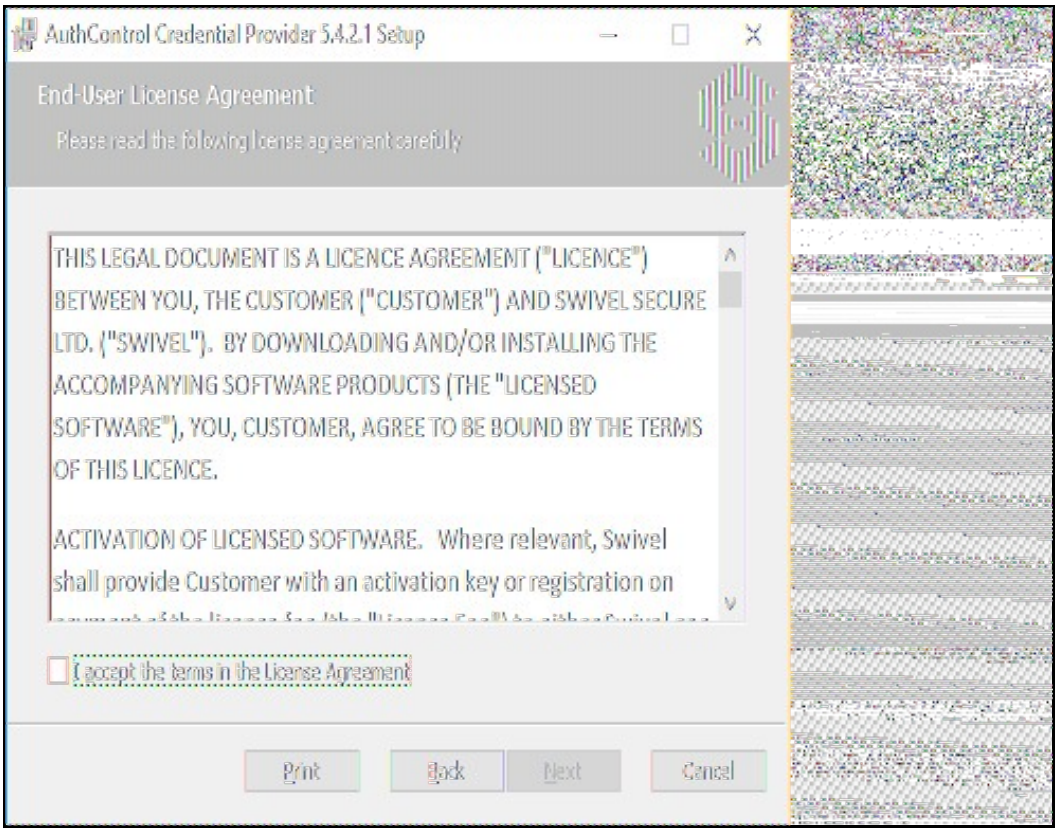


73 Microsoft Windows Swivel Credential Provider Installation

The Credential Provider is provided as a Microsoft Installer .msi file. You must run this as an administrator.

Double-click the .msi file to run it. Alternatively, you can install from the command line, using the msiexec command.

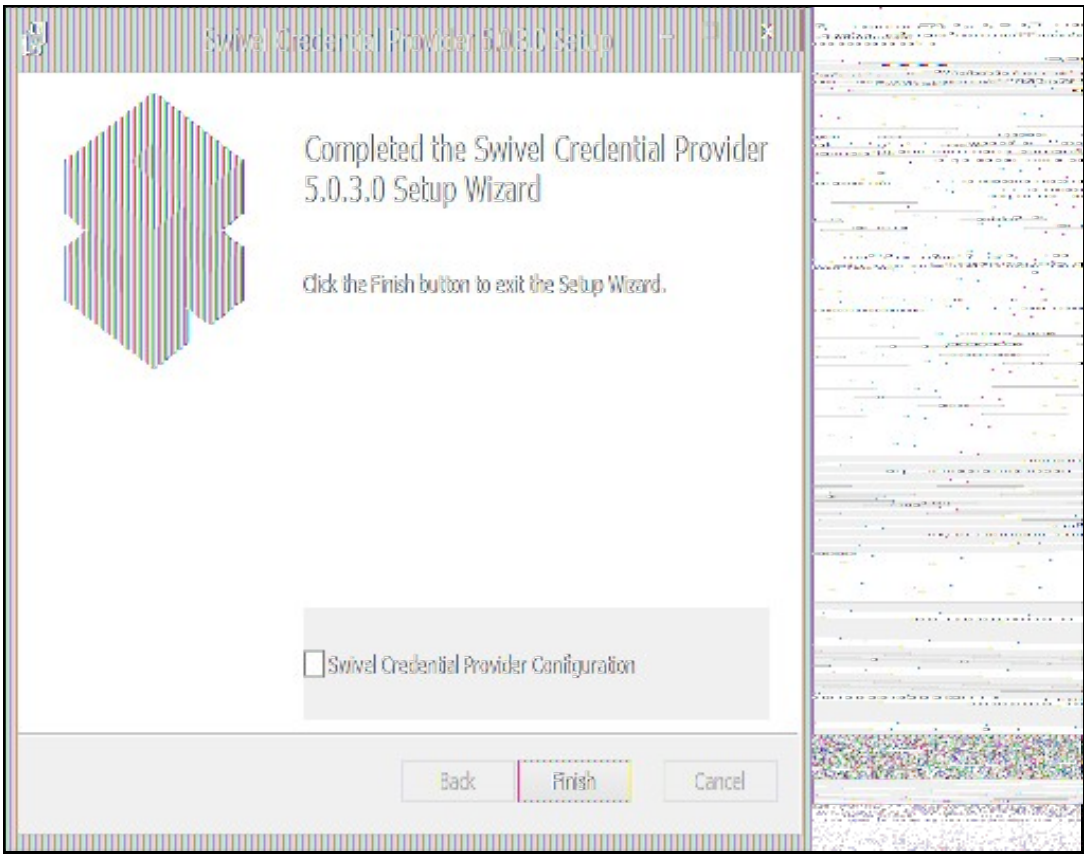
The first page is the licence agreement:



Read the licence agreement (yeah, right!), and check the box to acknowledge it. Click Next to continue.

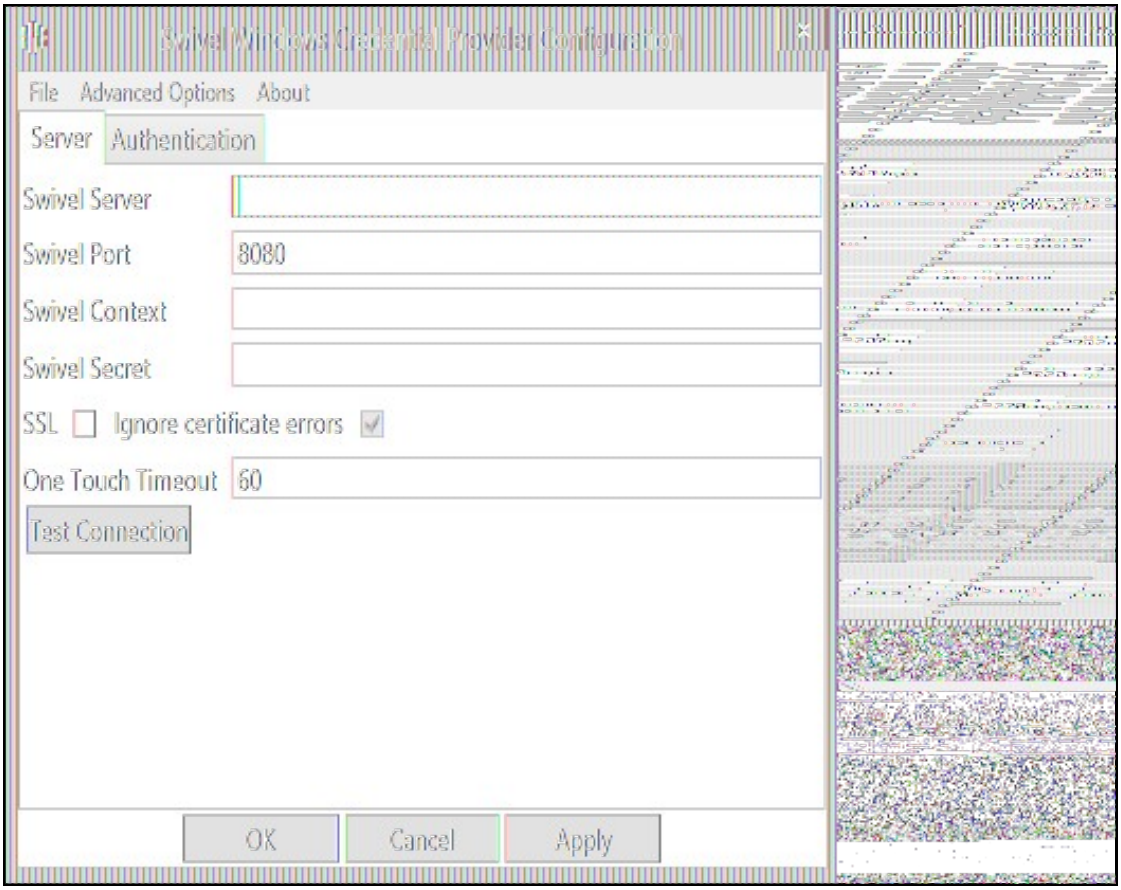
The application will be installed to C:\Program Files\Swivel Secure\Swivel Credential Provider. If you have reconfigured the program files directory elsewhere, it will be installed there, but otherwise you cannot control where the application is installed.

When the install has completed, the following dialog is shown:



73.1 Windows Swivel Credential Provider configuration

73.1.1 Server



Server: The Swivel virtual or hardware appliance or server IP or hostname. To add resilience, use the VIP on a swivel virtual or hardware appliance. See VIP on PINsafe Appliances.

NOTE: it has been observed in testing that DNS is not always available when logging on. It is therefore recommended that you use IP address, rather than host name in this section.

Port: The Swivel virtual or hardware appliance or server port.

Context: The Swivel virtual or hardware appliance or server installation instance.

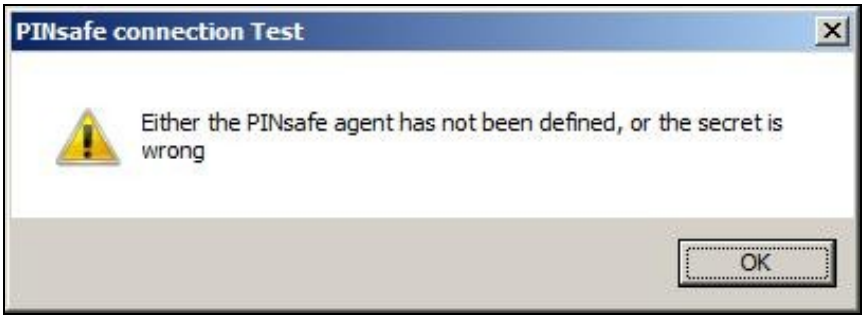
Secret: and **Confirm Secret:** A shared secret which must be entered onto the Swivel virtual or hardware appliance or server.

Use SSL The Swivel server or virtual or hardware appliance uses SSL communications.

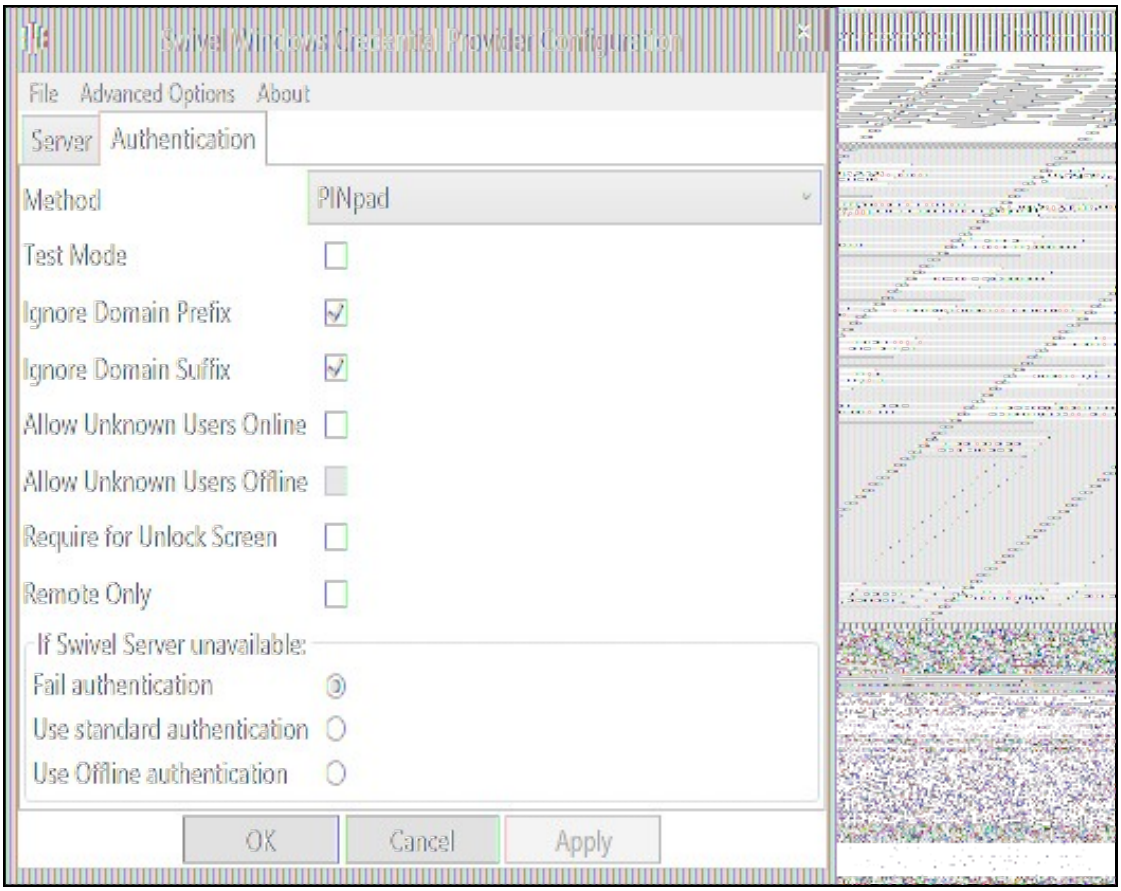
Accept self signed SSL certificates Check this box if Use SSL is enabled, and you do not have a commercial certificate on your Swivel server (or a certificate signed by an authority that the client machine trusts). You should also check this box if you are using IP address rather than host name, as recommended above.

Test Connection Tests link to Swivel server. A correct configuration should produce a dialogue box with **Swivel Connection settings are correct.**

Incorrect settings will produce a dialogue box with **Either the Swivel agent has not been defined, or the secret is wrong**, Please check that the machine can contact Swivel and that the entered settings are correct.



73.1.2 Authentication



Method Select the method of authenticating with Swivel, see above.

Test Mode With test mode the user can switch to a standard authentication, see below.

Ignore Domain Prefix Swivel will Remove any domain prefix (domain\username) before matching username. This does not affect Windows authentication usernames.

Ignore Domain Suffix Swivel will Remove any domain suffix (username@domain) before matching username. This does not affect Windows authentication usernames.

Allow Unknown Users Online If the username is not recognized by Swivel, the user can authenticate using Windows credentials only. Any Swivel OTC entered will be ignored. If the user is known then they must authenticate using Swivel authentication.

Allow Unknown Users Offline If Swivel is not found and the user has not authenticated with Swivel before then the user can authenticate using Windows credentials only.

Require for Unlock Screen Shows the selected authentication method on the unlock screen.

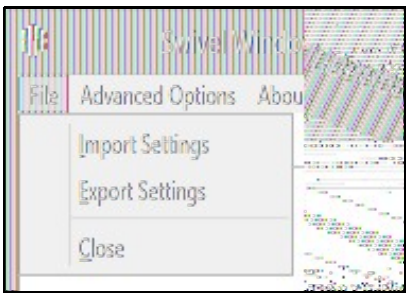
Remote Only The selected authentication method will only be shown for users logging into the machine remotely.

If Swivel unavailable, Fail authentication If the Swivel server cannot be contacted then authentication will fail.

If Swivel unavailable, Use standard authentication If the Swivel server is unavailable use standard authentication, the OTC field is displayed but ignored.

If Swivel unavailable, Use offline authentication If the Swivel server cannot be contacted a locally generated Turing image can be used for authentication. If this option is enabled, users will be able to force offline mode using a checkbox on the login dialog. (Only works for single channel authentication methods)

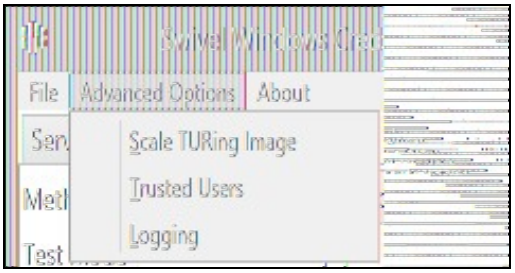
73.1.3 File menu



Export Settings Export settings as an XML file. These can be used to import settings elsewhere.

Import Settings Import settings from an XML file exported elsewhere.

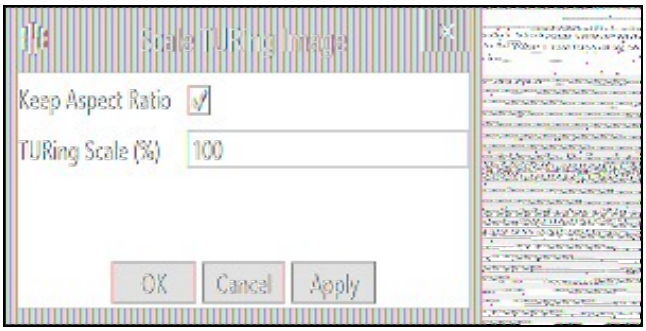
73.1.4 Advanced Options



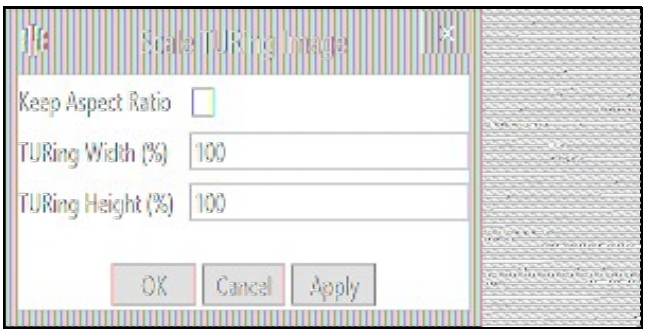
73.1.4.1 Scale TURing Image

Scale TURing Image... Opens a dialog to let you scale the size of the TURing shown.

If **Keep Aspect Ratio** is selected then select the scale (%) of the TURing.

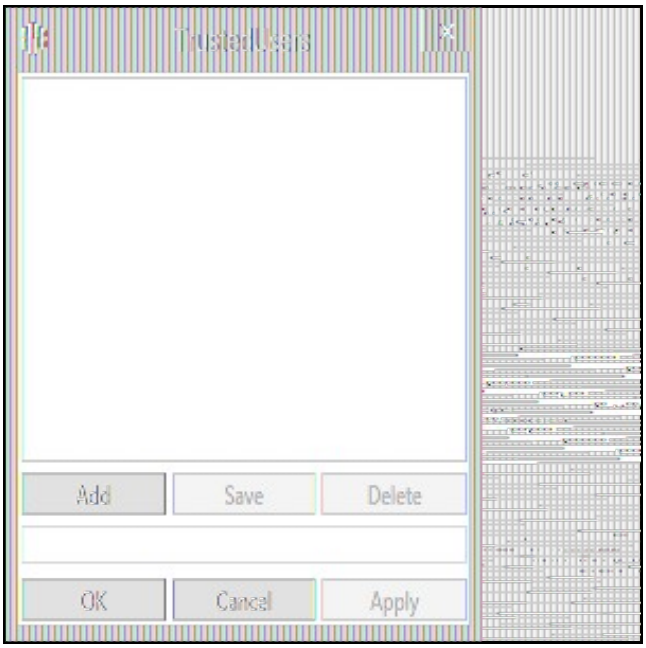


If its not selected then you can select the width and hight independently.



73.1.4.2 Trusted Users

""Trusted Users"" Lets listed users Authenticate without Swivel.



To add a trusted user you must first click ""Add"" then enter the username in the text-box and click ""Save"", repeat these sets to add more users.

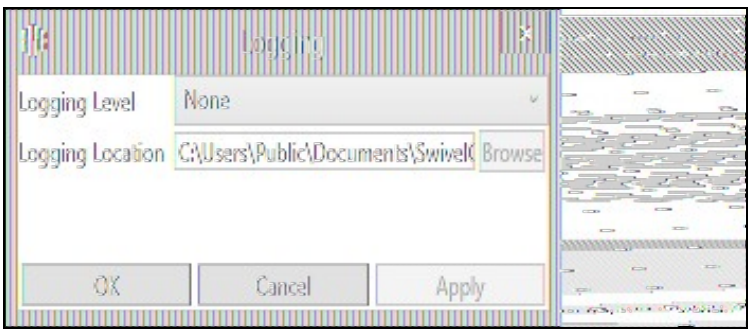
To edit a username select the username from the list, change the name in the text-box and click ""Save"".

To delete a username select the username from the list and press delete.

Make sure that the ""Apply"" or ""OK"" button to save these settings.

73.1.4.3 Logging

""Logging"" change settings relating to logging, recommended to be turned off unless problem are found.

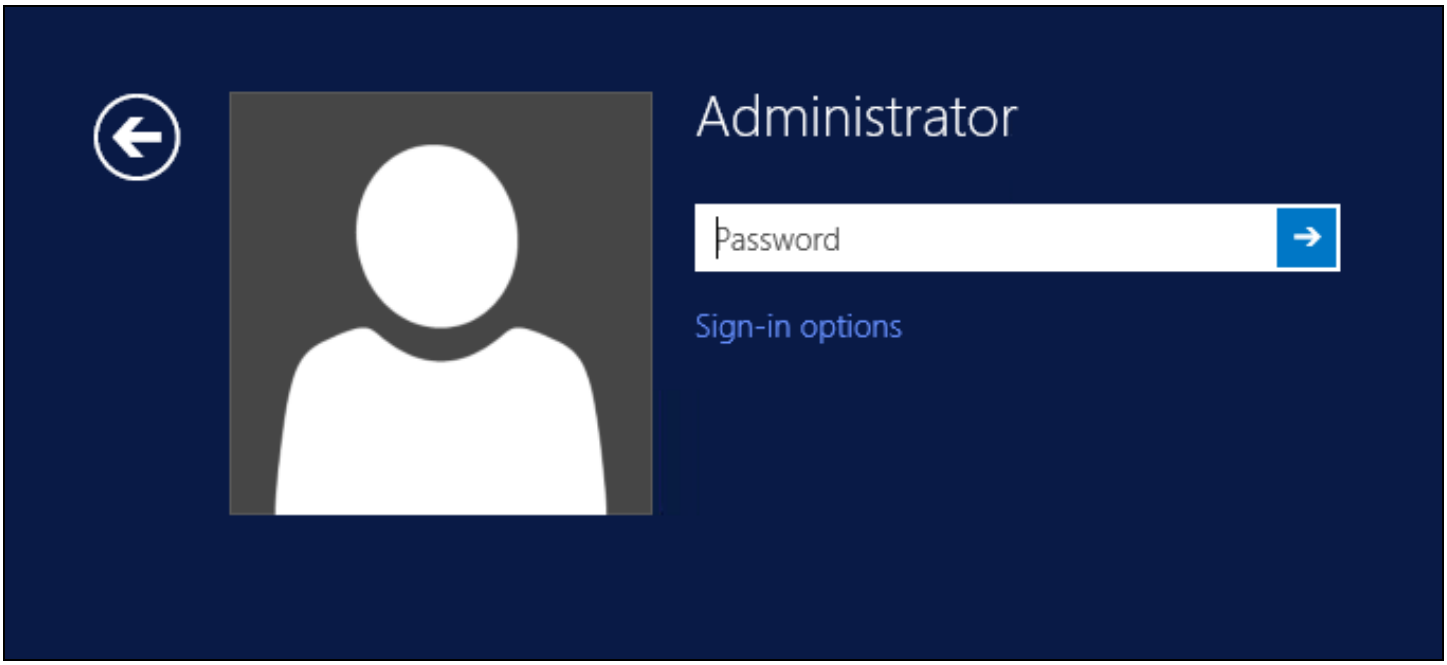


""Logging Level"" The account of message that will be logged.

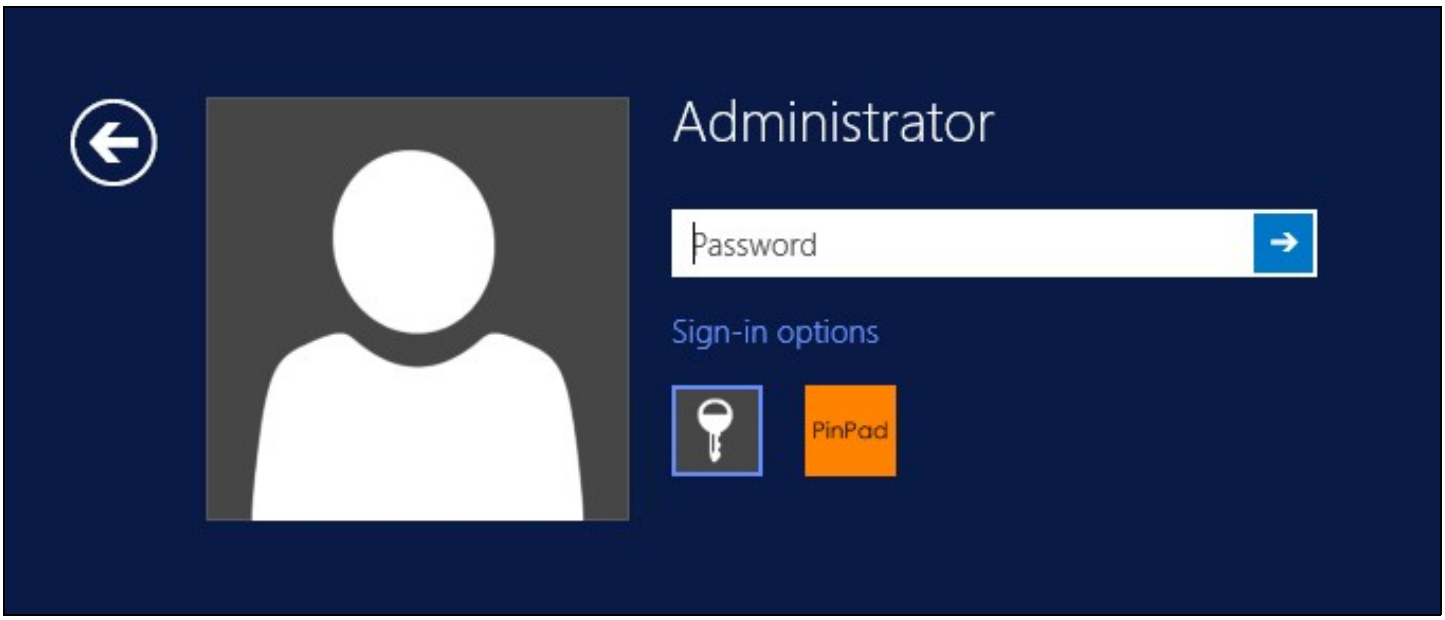
""Logging Location"" The location the logs will be created, this must be somewhere any account has access to.

73.2 Test Mode

With Test Mode enabled the user will be able to select how they will authenticate



The **Sign-in options** button is shown to let users select from the list which method they would like to use.



The last successful authentication method will be selected by default when the credential is loaded.

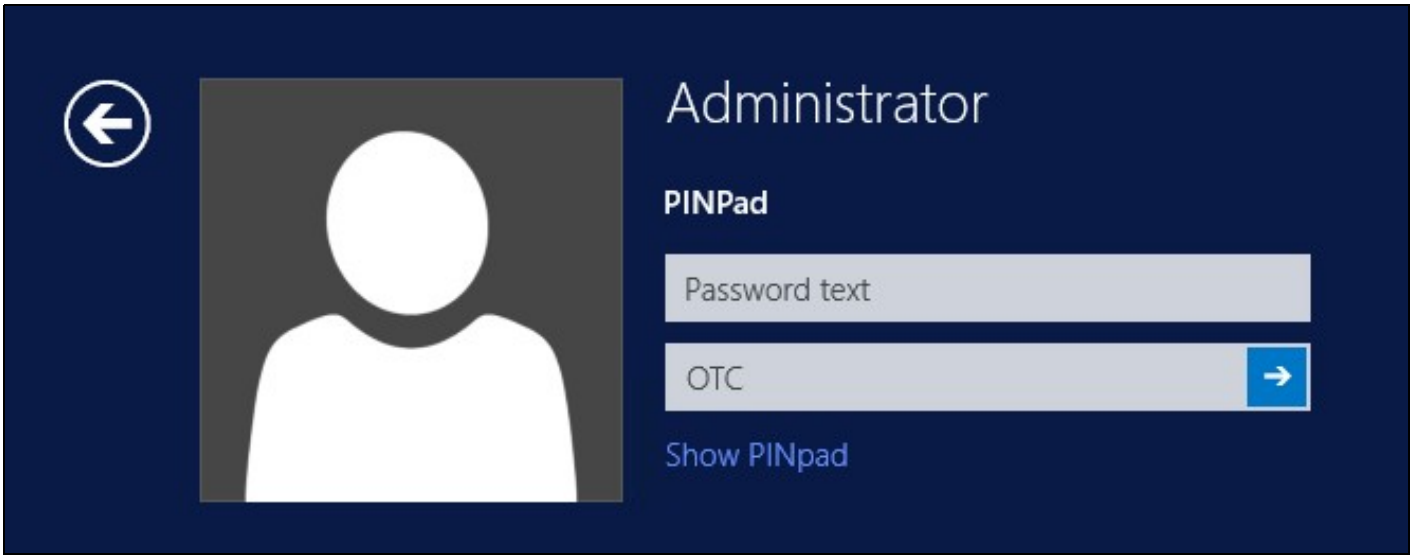
73.3 Importing Configurations

You can import credentials exported from other installations using the Import Settings menu item.

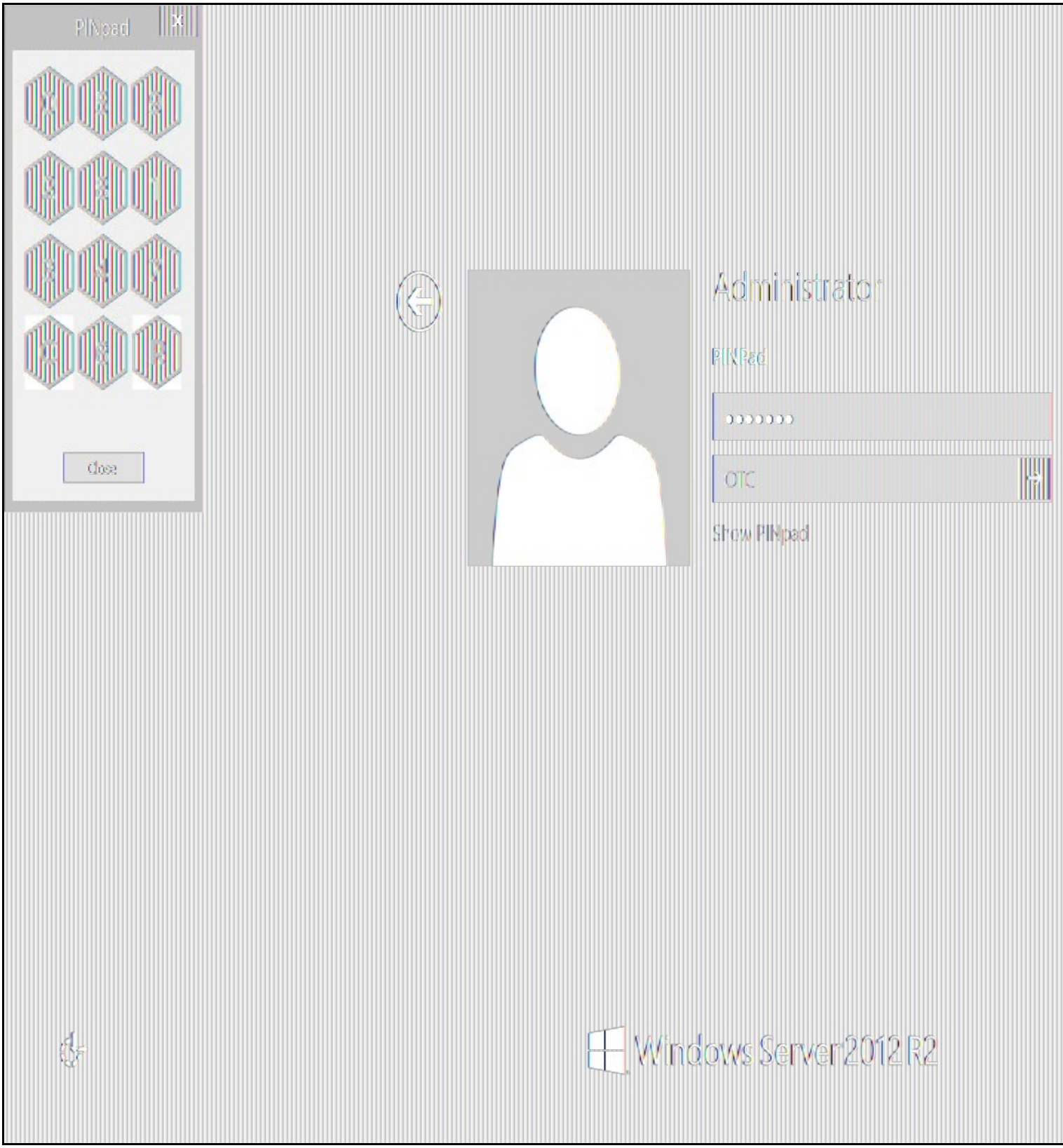
74 Verifying the Installation

This will be an example of one of the credentials.

At the windows login screen a password and OTC login field should be available with a "Show PINpad" Button.



Pressing the "Show PINpad" button will generate a PINpad image for authentication. The Swivel log should show a session request message: *Session started for user: username.*



A successful login should appear in the Swivel log: *Login successful for user: username*.

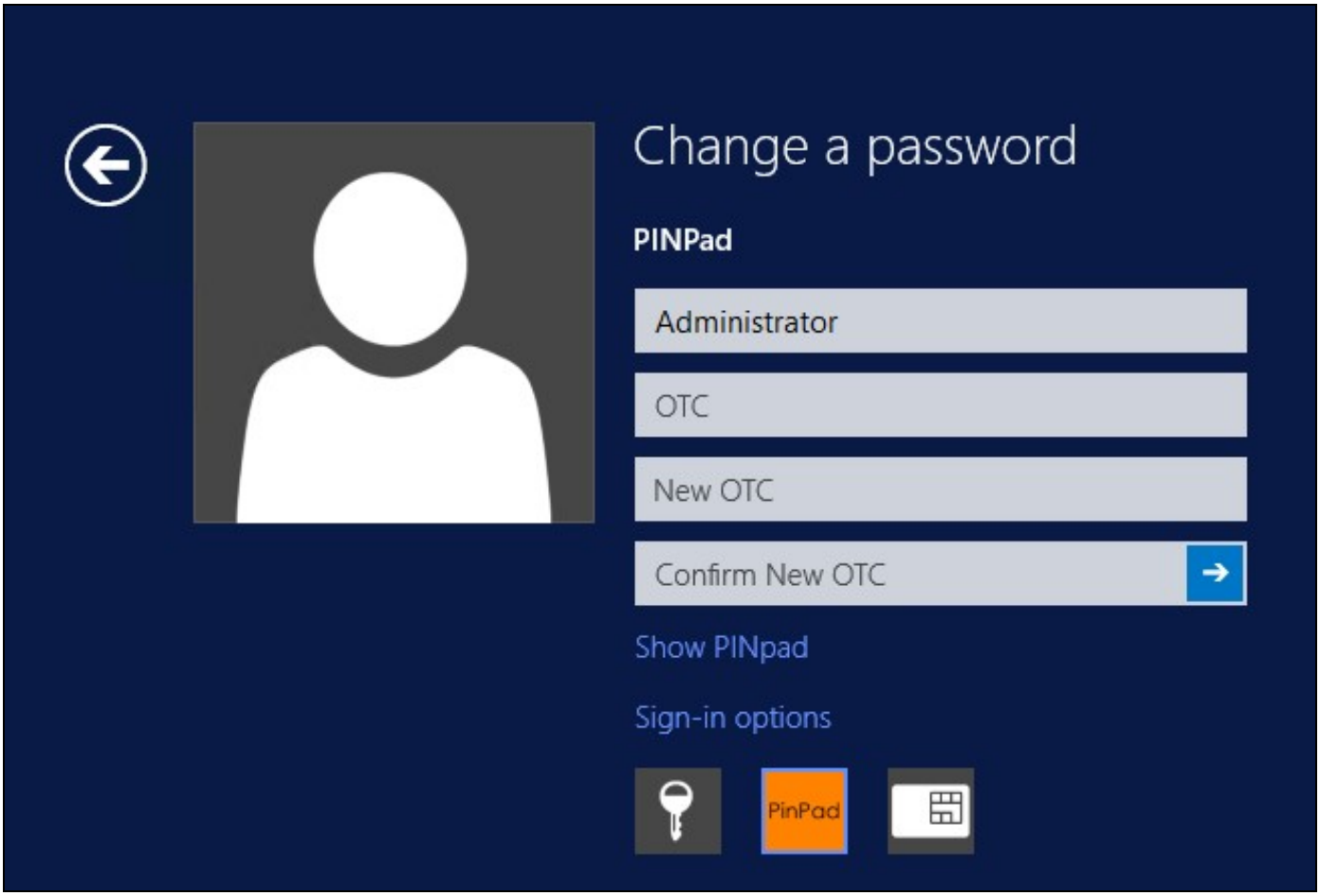
A failed login should not allow a login, and the following message should be displayed in the Swivel log: *Login failed for user: username*.

75 ChangePIN

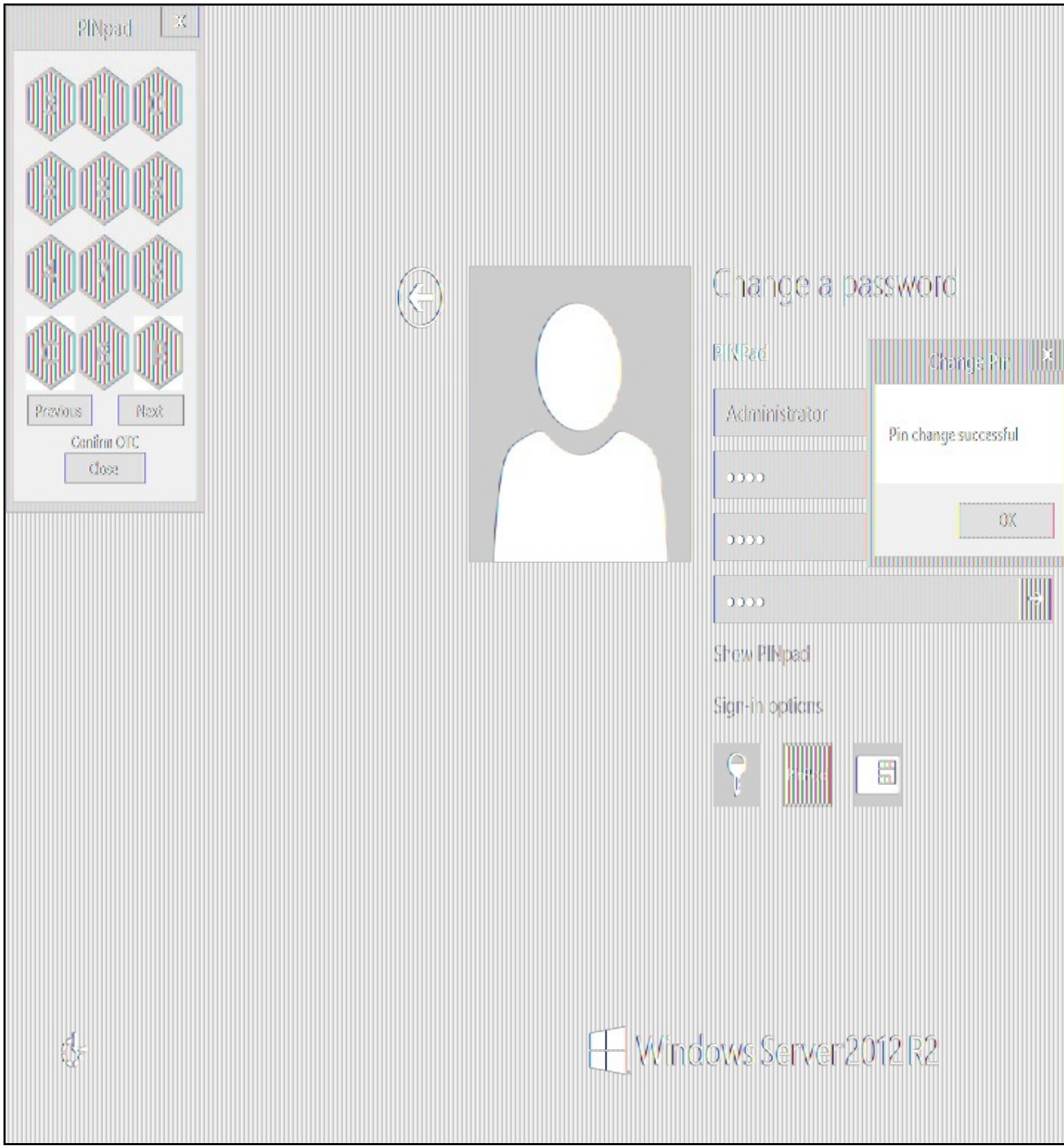
A user is usually able to change the password by using the Ctrl-Alt-Del keys (Ctrl-Alt-End for remote sessions). With the Swivel Credential Provider installed, an additional option exists when the Change Password is selected, by clicking on the "Sign-in options" button and selecting the Swivel credential. This will not function for Offline authentication.

With Swivel authentication a user never changes enters PIN and this is true for ChangePIN. A user enters their current OTC, and then enters an OTC for what they wish their new PIN to be. PIN enforcement may be in place to the Swivel server to prevent the choosing of poor PIN numbers.

A user may use a single channel image or a dual channel security string to change their PIN.



A successful Change PIN will show the message **Your PIN was changed successfully**, the Swivel server will also display in the logs a changePIN message **Change PIN successful for user: username**.



Other Changes to PINpad are that the PINpad dialog has buttons to select which text-box the numbers will be entered and text to show which text-box is currently selected.

76 Uninstalling the Swivel Integration

Use the Uninstall option from the Program menu, right click on the Windows Credentials provider and click on Uninstall. Note that uninstalling and reinstalling the Credential Provider will remove the settings, so if you need to reinstall at any point, make sure you have an exported settings file saved.

76.1 Disabling the Credential Provider

If the Credential Provider needs to be disabled temporarily, use the following procedure:

If the credential provider is preventing the machine starting normally, boot the machine into safe mode and log in as an administrator.

Try each of the following in turn. Only one of the following is required, so use the first one that works.

- Run the Swivel Login Configuration and edit the settings to disable the provider.
- Using regedit.exe, edit the following registry keys. Add a DWORD value named "disabled" to each one, set to 1. To re-enable it, you can set disabled to 0, rather than deleting the value.
    - "HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Authentication\Credential Providers\{6AD69A51-00E9-4BE9-A3D6-9D26255DA4E1}"
    - "HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Authentication\Credential Provider Filters\{6AD69A51-00E9-4BE9-A3D6-9D26255DA4E1}"
- Uninstall the Credential Provider.
- Using regedit.exe, remove the following registry keys:
    - "HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Authentication\Credential Providers\{6AD69A51-00E9-4BE9-A3D6-9D26255DA4E1}"
    - "HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Authentication\Credential Provider Filters\{6AD69A51-00E9-4BE9-A3D6-9D26255DA4E1}"
    - "HKEY_CLASSES_ROOT \CLSID\{6AD69A51-00E9-4BE9-A3D6-9D26255DA4E1}"

77 Known Issues and Limitations

- The Swivel Windows Credential Provider does not support the use of Animated gifs for Single Channel authentication.
- It has been observed in testing that DNS is not always available when logging on. It is therefore recommended that you use IP address, rather than host name for the Swivel server.
- Local authentication only works in single channel and OATH modes: the dual channel strings are not available offline.
- If the user gets an online TURing with a different scale then gets an offline TURing, the TURing is broken, the fix is to close the dialog and request an new TURing.
- If **Allow Unknown Users Offline** is enabled then users that have not previously authenticated to Swivel online can bypass Swivel by checking the offline box and authenticating with AD only.
- On Windows server 2012 R2 there is an update from Microsoft to fix an issue where dialogues will not be displayed, please ensure that windows update 2919355 is installed.
- Local authentication does not know if a users PIN has expired or even if the account is locked or deleted. Once a user has successfully authenticated they are allowed offline until their offline strings are deleted or the offline option is deselected.

78 VMware View (Horizon)

78.1 Introduction

This document describes steps to configure VMware View with Swivel as the authentication server. The solution is tested with VMware View 5.1. using RADIUS authentication protocol with SMS, Token, Mobile Phone Client, and Taskbar Authentication

The VMware View Client also functions on a number of mobile phone client devices including iPhone, iPad and Android.

78.2 Credits

Swivel would like to thank the following contributors to this document:

Barry Coombs (VMware vExpert) of Computerworld Systems LTD www.computerworld.co.uk

78.3 Prerequisites

VMware View 5.1 or higher

VMware View documentation

Swivel 3.x,

78.4 Baseline

VMware View 5.1

Swivel 3.8

78.5 Architecture

The VMware View makes authentication requests against the Swivel server by RADIUS.

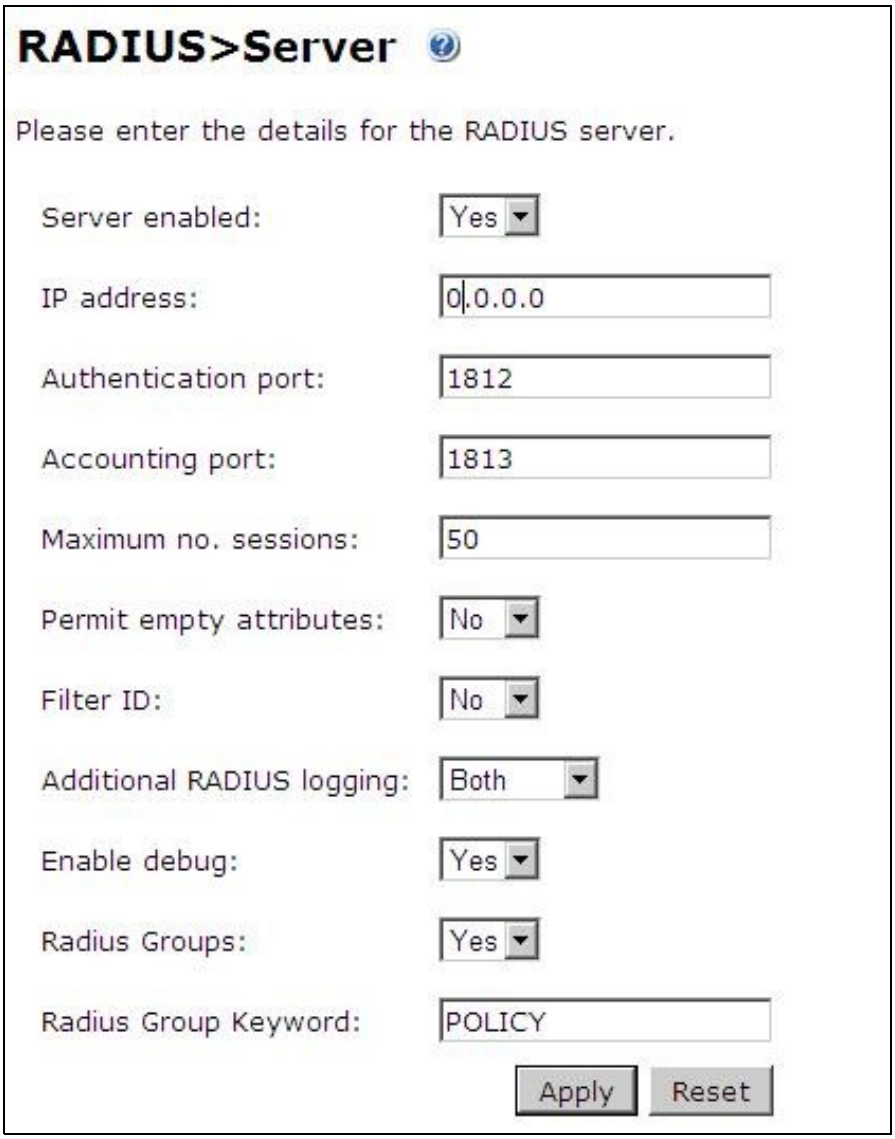
78.6 Swivel Configuration

78.6.1 Configuring the RADIUS server

Configure the RADIUS settings using the RADIUS configuration page in the Swivel Administration console by selecting RADIUS Server. To turn on RADIUS authentication set **Server Enabled** to YES. The Host or IP address is the interface which will accept RADIUS requests, leave this blank to allow RADIUS requests on any interface. (In this example the HOST IP is set to 0.0.0.0 which is the same as leaving it blank).

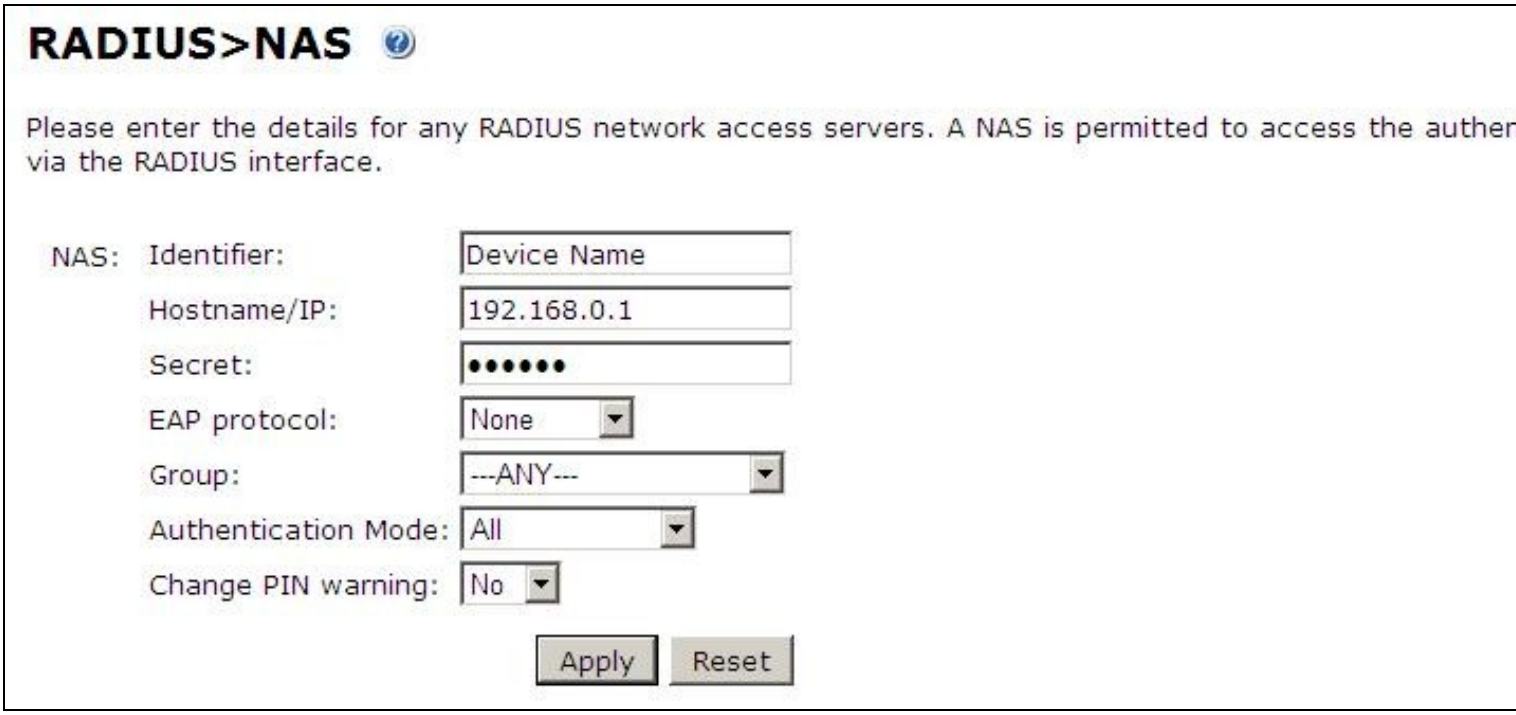
For troubleshooting RADIUS debug can be enabled together with the debug log option, see Debug how to guide

Note: for appliances, the Swivel VIP should NOT be used as the server IP address, see VIP on PINsafe Appliances



78.6.2 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 NAS Client. The IP address has been set to the IP of the NAS Client, and the secret ?secret? assigned that will be used on both the Swivel server and the NAS Client.



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.

78.6.3 Enabling Session creation with username

The Swivel server can be configured to return an image stream containing a TURing image in the Taskbar

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 Swivel username:

Appliance

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

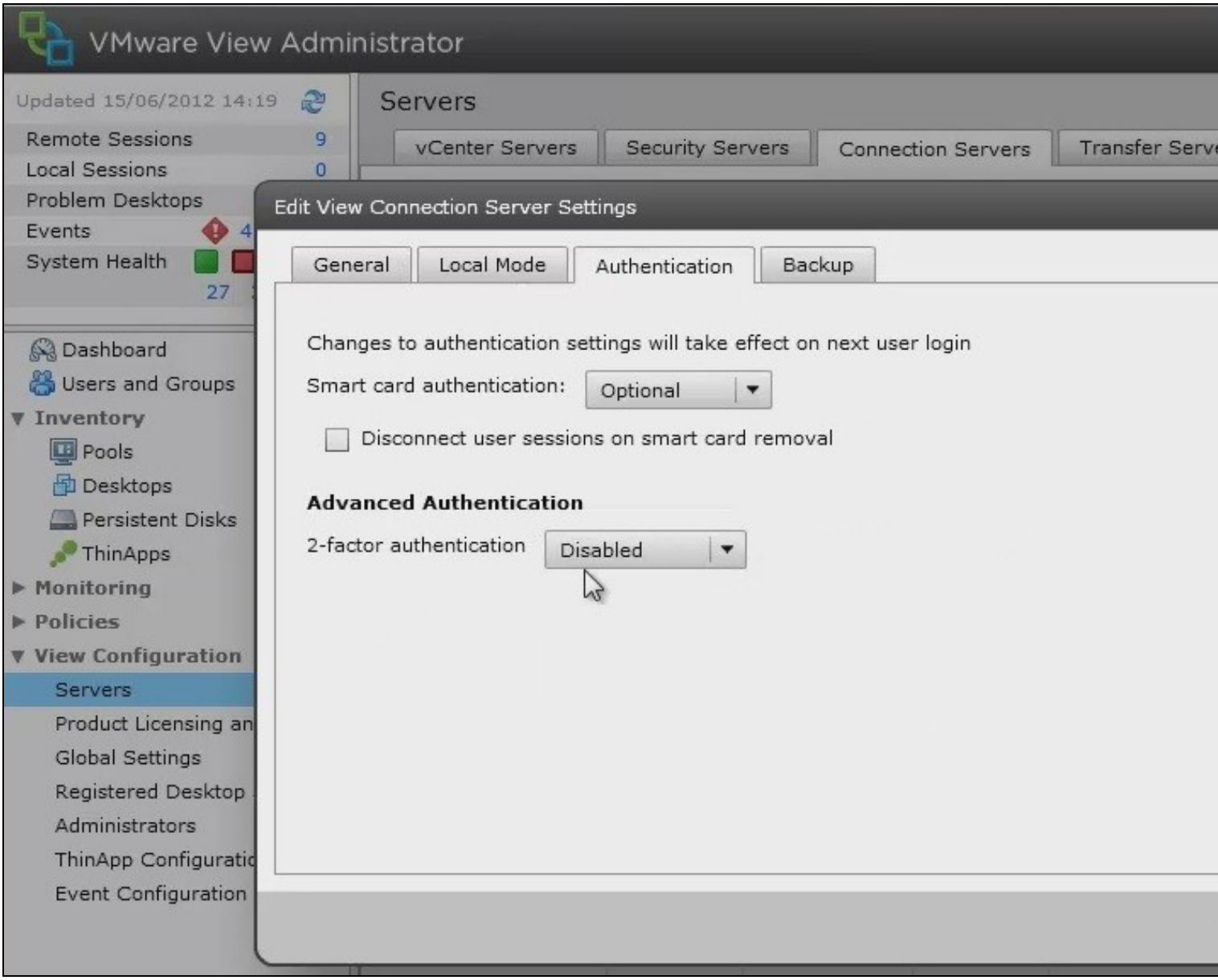
For a software only install see Software Only Installation

78.7 VMware View Configuration

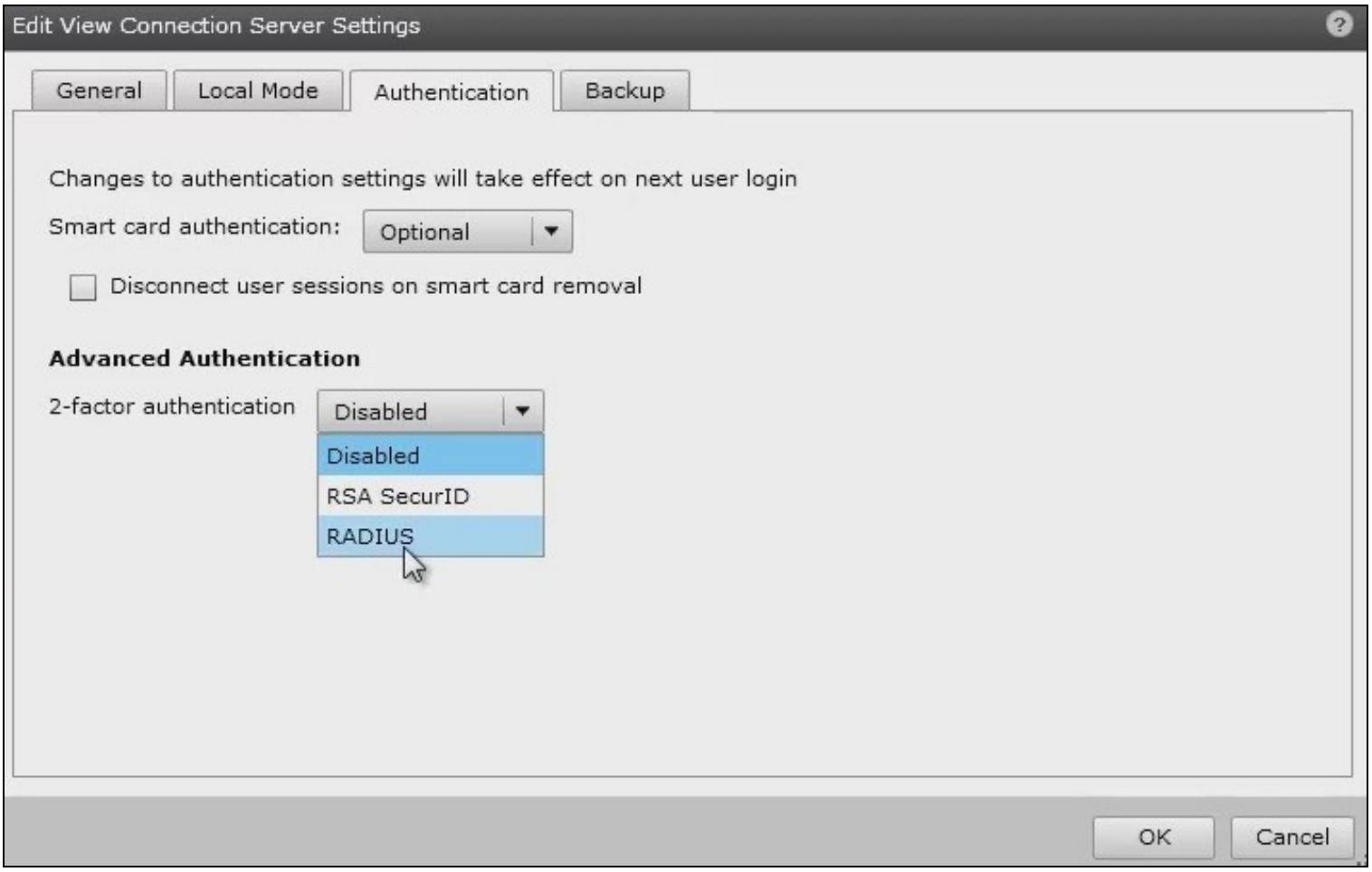
Ensure that the VMware View is fully functioning using standard authentication, then start the Swivel integration configuration.

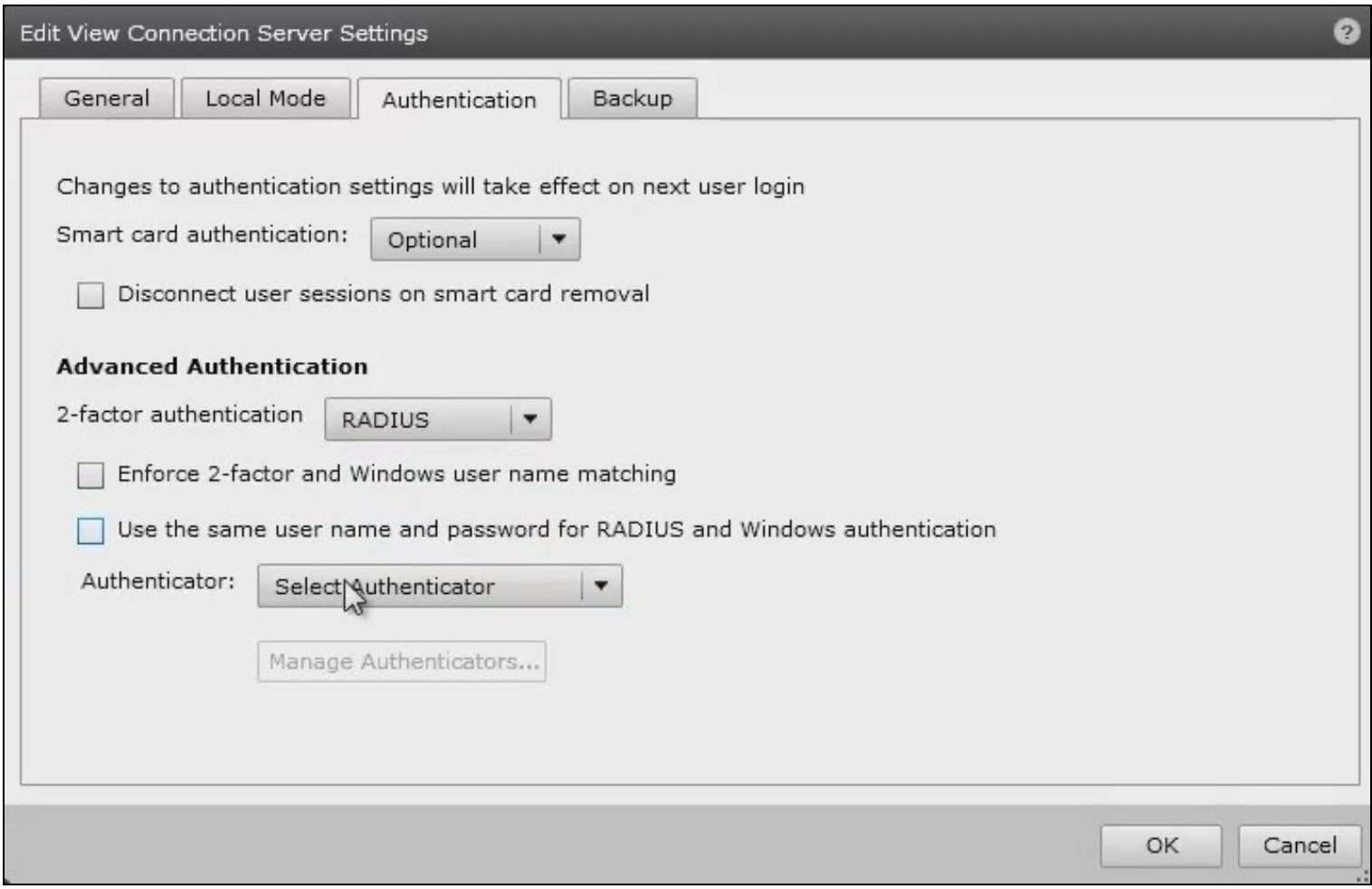
78.7.1 Create a Radius Authentication Server Group

On the VMware View Administrator select **View Configuration**, then **Servers**, select the **Connection Servers** tab and then **Edit** to bring up the Edit View Connection Server Settings and select the **Authentication** tab.



Under Advanced Authentication choose, for 2-factor authentication, the **RADIUS** tab.


Edit View Connection Server Settings
General
Local Mode
Authentication
Backup
Changes to authentication settings will take effect on next user login
Smart card authentication:
Optional
Disconnect user sessions on smart card removal
Advanced Authentication
2-factor authentication
Disabled
Disabled
RSA SecurID
RADIUS
OK
Cancel



Under Authenticator select Create new, this opens the Add RADIUS Authenticator screen, this allows a Primary and Secondary RADIUS authentication servers to be configured, enter the following:

Label: A label shown to clients

Primary Authentication Server

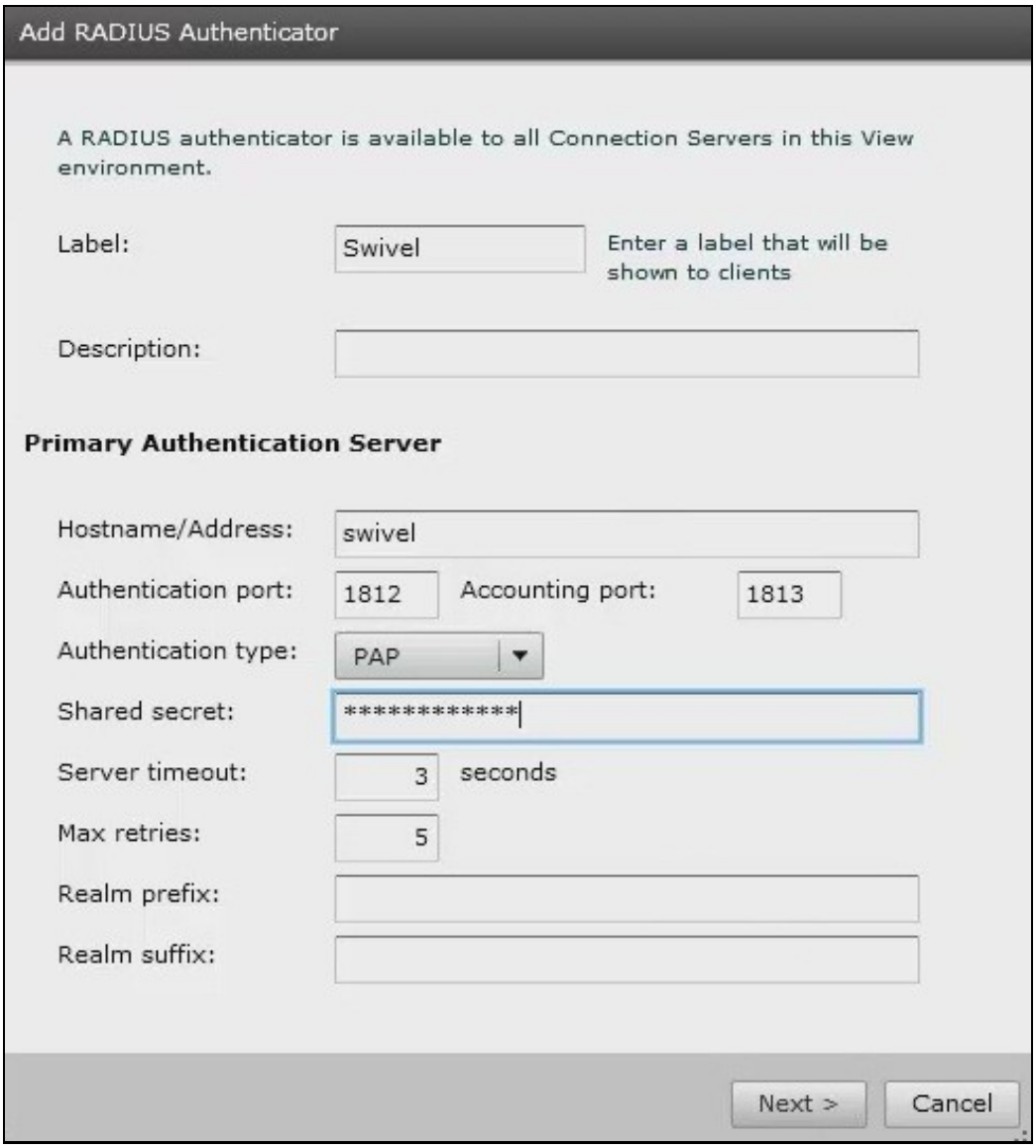
Hostname/Address: IP address of the Swivel server (This must not be a Swivel VIP for Active/Active appliances)

Authentication Type: select RADIUS authentication type, use PAP for initial setup.

Shared secret: The shared secret, the same as entered on the Swivel server

Domain Prefix: Allows a domain name to be added, and to be sent to the Swivel server in the format domain\username

Domain Suffix: Allows a domain name to be added, and to be sent to the Swivel server in the format username@domain



Clicking OK returns to to the Authentication tab.

It is possible to specify here the option **Enforce 2-factor and Windows name matching** so that the AD username is used for the Swivel authentication.

78.8 Additional Configuration Options

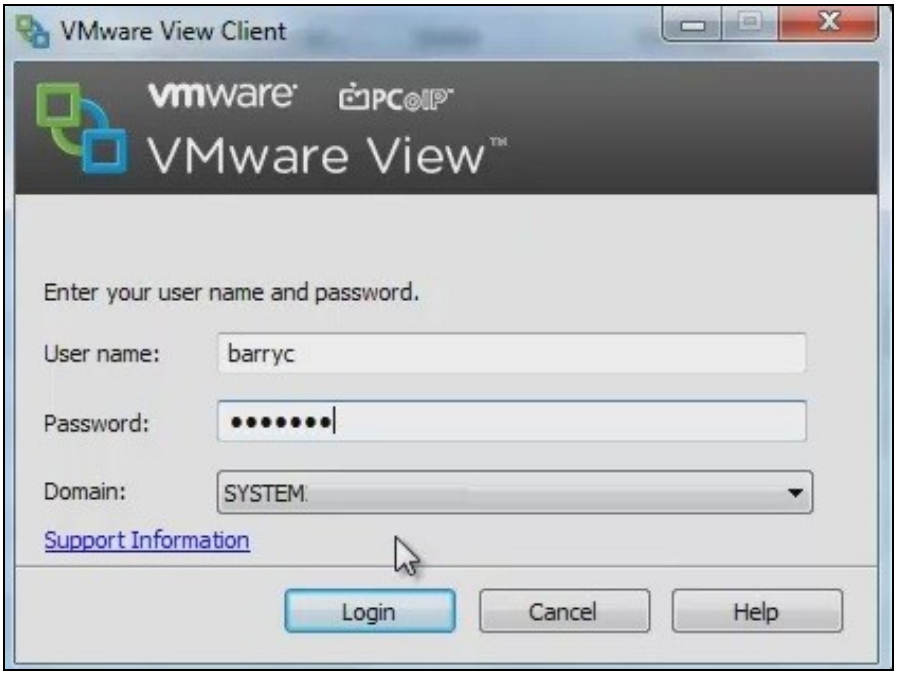
78.8.1 Challenge and Response with Two Stage Authentication

Challenge and Response is supported by using Two Stage authentication and Check Password with Repository using RADIUS PAP authentication. See Challenge and Response How to Guide. Using the option to allow the Same Username and Password for Windows and RADIUS authentication allows the AD username and password to be entered once and then challenge for a One Time Code.

78.9 Testing

The VMware View client will display fields for Username and Password. The username should be entered followed by the Swivel One Time Code in the Passcode field.

If the OTC is correct the user will be prompted for a AD Password



78.10 Troubleshooting

Check the Swivel logs for RADIUS requests. RADIUS requests should be seen even if the OTC is incorrect.

78.11 Known Issues and Limitations

None

78.12 Additional Information

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

79 Windows Credential Provider

80 Introduction

Swivel Secure AuthControl Desktop (formerly Windows Credential Provider) is used in the desktop operating systems Windows 8, 10 and 11 and the server operating system Windows Server 2012 and 2019. For integration with Windows Vista and 7 and Server 2008, use version 5.3 or later, or see Microsoft Windows Credential Provider Integration (Legacy OS).

Users can authenticate using the Swivel Credential Provider allowing 2FA (Two Factor Authentication), or strong authentication at the Windows Logon. Offline authentication is also supported for single Channel authentication, following at least one successful authentication against the Swivel server with Third Party Authentication configured.

Supported methods are:

- **TURing** Lets the user sign into windows by using TURing.
- **PINpad** Lets the user sign into windows by using PINpad.
- **On Demand** Lets the user sign into windows by requesting a security string to their preferred method (SMS or email). More information.
- **Other Two Factor** Lets the user sign into windows by entering a one-time code based on a security string received previously or OATH token.
- **Push** for Windows 8 and Server 2012 R2 onwards.
- **Fingerprint** (From v5.4.2 onwards and requires AuthControl Sentry v4.0.5) Lets the user sign into windows using Biometric Fingerprint.

80.1 Downloads

Latest Release Version:

Swivel AuthControl Desktop 64-bit version MSI 5.7.31.1

Swivel AuthControl Desktop 64-bit version executable 5.7.31.1

Swivel AuthControl Desktop 32-bit version MSI 5.7.31.1

If you have difficulties downloading these files, please contact teamsupport@swivelsecure.com for an alternative method.

The two versions install identical products. The difference is that the executable will copy the current settings from version 5.x and reapply them after installation. The MSI will always overwrite the settings with either blank settings or the contents of acd.xml or scps.xml if provided (see later). As of 5.7, old settings are no longer removed on upgrade, but that only applies to the version that is uninstalled, so upgrading to 5.7 from an earlier version will still remove the old settings.

Settings from versions earlier than 5 cannot be imported automatically on upgrade: you will need to export the settings, uninstall the version 4 credential provider and then install the new version and import the settings.

Important: the Credential Provider requires Microsoft Visual Studio C++ redistributable to work. Recent operating systems already include this, but it will need to be installed on older operating systems if it has not already been installed. You can retrieve it from here. If you have already installed the credential provider, it is not necessary to uninstall it before installing the redistributable.

Note that this article has not yet been fully updated to reflect the changes in version 5.6 or 5.7. See below for release notes.

Older Versions:

Swivel AuthControl Desktop 64-bit version executable 5.6.10.1

NOTE: we discovered a bug in version 5.6.3.1 whereby the stored secret fails to be decrypted at unpredictable times. We therefore recommend using the following version, 5.6.10.1, which stores the secret unencrypted. This version also fixes a problem with Push authentication, which did not work in 5.6.3.1 or 5.6.9.1.

Swivel AuthControl Desktop 64-bit version MSI 5.6.10.1

Swivel AuthControl Desktop 64-bit version executable 5.5.11.1

Swivel AuthControl Desktop 64-bit version MSI 5.5.11.1

Swivel AuthControl Credential Provider 64 bit version 5.4.4.2

Swivel AuthControl Credential Provider 64 bit version 5.4.3.2

Swivel AuthControl Credential Provider 64 bit version 5.4.2.1

Swivel AuthControl Credential Provider 64 bit version 5.3.1.5

Swivel Windows Credential Provider 64 bit version 5.1.1

Swivel Windows Credential Provider 64 bits version 5.3.0.1

80.2 Swivel Credential Provider FAQ

```
Q). Does the Credential provider support offline authentication?
A). Offline authentication is permissible for Swivel users who have previously authenticated to the device. Offline local authentication is a

Q). Do all users have to authenticate using Swivel?
A). Swivel has the option to Allow Unknown Users. Users known to Swivel will be prompted for authentication in this instance. There is also a

Q). Is it possible to define users who do not have Swivel authentication?
A). Yes either by the Allow Unknown Users for non Swivel user authentication or by adding the user to the "Trusted Users" list

Q). Is it possible to login without AD password?
A). Yes, there is an option to log in without the AD password, but you must previously have logged in with the AD password.
```

81 Prerequisites

Swivel version 3.11.3 or later. For password caching, version 4.0.4 or later is required.

Connectivity to Swivel server during installation (with Third Party Authentication for GINA enabled).

Microsoft Windows 8 (including 8.1), 10 and 11 or Windows Server 2012 (including R2) and Windows Server 2019. Version 5.3 and later have backward support for Windows Vista or later, and Windows Server 2008 or later.

Microsoft.Net Framework version 4.5.

AuthControl Windows Credential Provider 64-bit - see above for links.

A separate Swivel Credential Provider license is not required, but the users authenticating to Swivel must be licensed.

User with AD account and valid password.

82 Baseline

Swivel 3.11.3

Windows 8, 10, 11 Server 2012 R2, Server 2019.

83 Installation

83.1 Basic Installation

To install the Swivel Windows Credential Provider run the installer and follow the on-screen instructions. At the end of the on-screen instructions you will be given the option to launch the configuration program to customise the Credential Provider. This can normally be found in the start menu under "Swivel Secure" and in "C:\Program Files\Swivel Secure\Swivel Credential Provider".

After installation and configuration:

- On Desktop Windows versions the computer must be restarted.
- On Windows Server versions the Administration account can be signed out rather than doing a full restart.

83.2 Multiple Installation

If a configured Swivel Windows Credential Provider has been set up then the settings can be imported automatically on new installations.

1. Extract the settings using the existing Credential Provider from the "File > Export Settings" option, naming the output file either "acd.xml" or "scps.xml". Alternatively, you can export the settings as encrypted and name the file "acd.enc". Note that for the file to be imported automatically you must not specify a password (the default password will be used).
2. Copy this file and the installation file onto the new computer. They must be in the same location (for example both files on the desktop).
3. Run the installation as described above and the settings will be automatically loaded during installation.

NOTE: in version 5.6.9.1 and later builds, the configuration file can be named "acd.xml" instead of "scps.xml". The latter will be used by preference if both files exist.

Alternatively, you can build an pre-configured installer executable. Please contact Swivel Secure support to get the necessary build script.

1. Extract the files from the zip link above into a folder
2. Extract the settings using the existing Credential Provider from the "File > Export Settings" option, naming the output file "acd_in.xml".
3. Replace acd_in.xml in the extracted folder with your customised one
4. Compile the executable using ACDInstall.nsi with Nullsoft installation system. If you don't have a copy of Nullsoft, it can be downloaded from here.

84 Release Notes

84.1 AuthControl Desktop 5.7

84.1.1 New Features

84.1.1.1 Generate offline strings outside ACD

The credential manager application allows you to authenticate to Sentry and to download offline security strings. These strings can then be exported to another machine and used there to authenticate users offline

84.1.1.2 All displayed text is customisable

The configuration program allows you to customise the text displayed in the Windows credential. Additionally, you can copy the customised text to the same folder as the ACD installer and it will be imported to the target machine on installation. Currently, only one set of strings is possible per installation, but it is hoped in the future to support multiple languages.

84.1.1.3 Proxy for Sentry connections

You can optionally specify an HTTP proxy for connecting to the Sentry server.

84.1.1.4 Enhancements to Import and Export Settings

Version 5.6 introduced encrypted settings files using a password. Version 5.7 expands on this by allowing for a fixed password, used automatically if encryption is selected but no password is given. Automatic import of settings on installation works with encrypted settings, provided the fixed password is used for encryption. Automatic import of settings will look for the following file names, in this order:

- scps.xml (previously the only name that worked)
- acd.xml
- scps.enc ? assumes the settings are encrypted using the default password
- acd.enc ? as above

Note that the MSI installation no longer deletes the old settings on uninstallation. However, this only applies to upgrading FROM 5.7 or reinstalling. Since the settings are deleted by uninstalling the old version, upgrading from a version older than 5.7 will still remove the old settings.

84.1.1.5 Change PIN for locked users

Previously, if a user attempted to log in and the account was locked due to PIN expiry, authentication would fail. Now, the PIN change screen is shown. It should be noted that in order to change a PIN when the account is locked, you need Sentry version 4.1.4 or later.

84.1.1.6 Optionally, OTC field is not shown initially for Other User

It is possible to specify that the OTC field is not initially shown for the ?Other User? credential. This is the credential that is shown with an empty username field. In the case where users unknown to Sentry are permitted to log on without MFA, it might be preferable not to show the OTC field, in case it is not required. If a user logs in with username and password, and it is subsequently discovered that an OTC is required, the login form is redisplayed with the OTC field.

84.1.1.7 Offline OATH works with On Demand credential

Previously, offline OATH only worked if the authentication method was set to ?Other Two-Factor? (and that not reliably ? see bug fixes). Now it also works with ?On Demand?.

84.1.2 Bug Fixes / Improvements

84.1.2.1 Error messages displayed for PIN change errors

Previously, if an error occurred in the PIN change screen, no message was displayed. The screen was simply redisplayed with no additional information. Now, an error is displayed on the screen indicating why the PIN change failed.

84.1.2.2 Improved configuration for Single Sign-On

In 5.6 and earlier, the use of Single Sign-On (SSO) to check if MFA is required was indicated simply by providing a port and context for SSO. This could result in the settings being entered when they were not really needed, just because the fields are there. Version 5.7 shows a check-box to indicate that SSO is active. Activating SSO will display a pop-up dialog requesting the SSO settings, which includes a host name as well as port and context, so the SSO server does not have to be the same as the Sentry Core.

84.1.2.3 Push authentication not working

Version 5.6 (prior to 5.6.10.1) did not support Push authentication due to incompatible changes in the code. Version 5.7 now supports Push correctly.

84.1.2.4 Offline OATH not working

Version 5.6 did not always work for OATH if the token details were stored locally. This was due to an error in the encryption code that affected several features. This has now been corrected.

84.1.2.5 Fixed problems with Secret not encrypting/decrypting on occasions

This problem was caused by the same encryption issue as the previous one. As a workaround, versions 5.6.9.1 and 5.6.10.1 were released with the secret being stored unencrypted, as it was in version 5.5 and earlier. Now that the encryption issue has been resolved, the secret is once again stored in encrypted format, although the encryption is not backward-compatible with 5.6, so copying the secret registry entry from 5.6 to 5.7 will not work. Exporting and importing will work, provided the secret is not encrypted in the export file.

84.1.2.6 Allow unknown users online

It was discovered that version 5.6 did not correctly handle the situation where users were not known to Sentry but could authenticate with password only. This has now been fixed.

85 Architecture

Swivel is installed as a Windows Credential Provider. When a Windows login is made, AD username and password is checked against AD and the username and Swivel OTC is sent to the Swivel server using XML authentication, or locally if offline authentication is enabled.

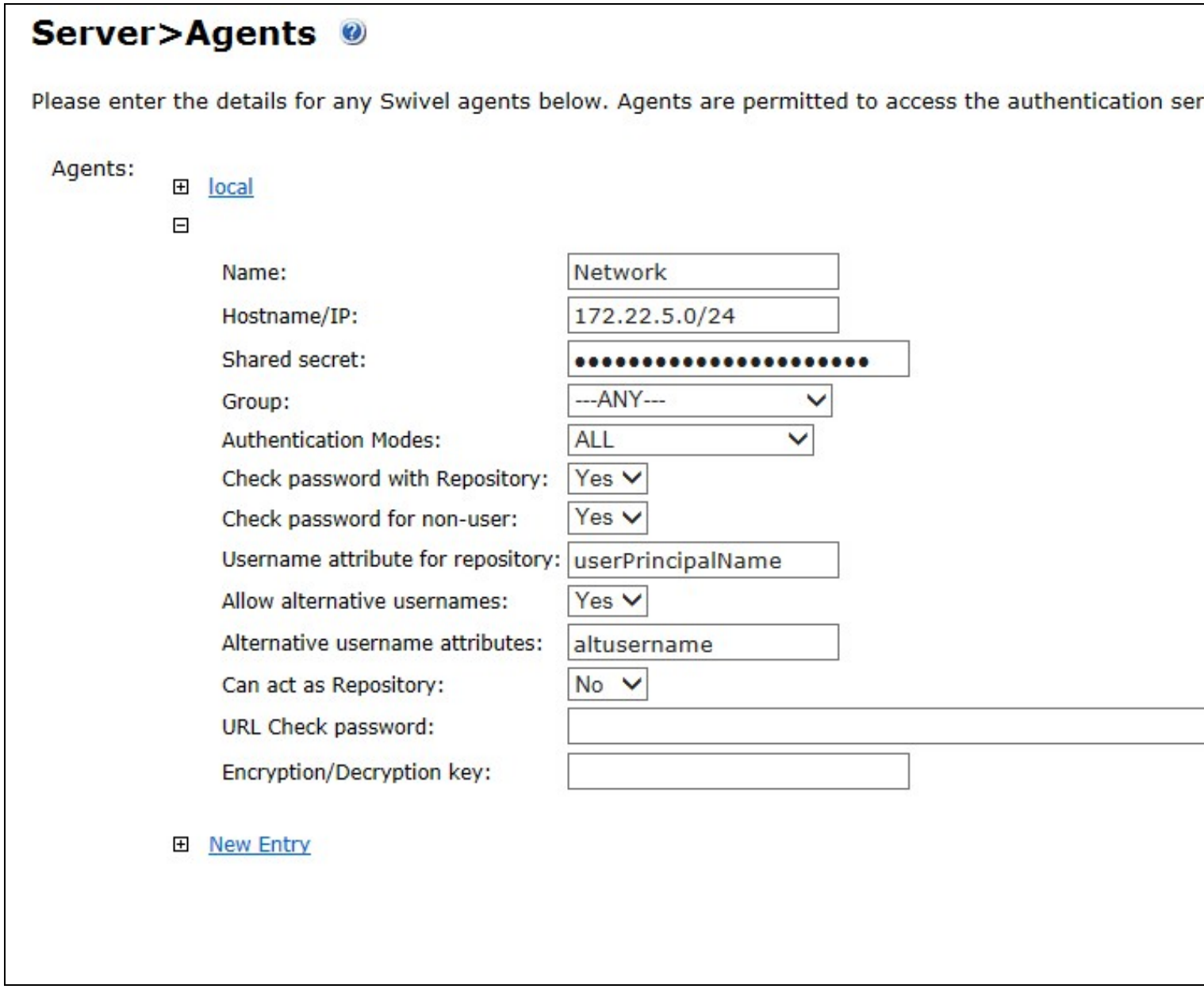
85.1 Offline Authentication

Swivel allows offline authentication using single channel or OATH, but not dual channel authentication. For offline authentication the user attempting to authenticate must have made at least one successful authentication against the Swivel server while Offline Authentication has been enabled. Swivel caches a limited number of strings for authentication: when one is shown then it's classed as used and will not be re-shown. If the user makes a successful offline authentication then the number of strings will be replenished: however if the user runs out of strings then they will need to authenticate online to get some more. Swivel Account lockout is disabled for Swivel offline authentication. ChangePIN will not function when the Swivel server is not contactable. Local authentication is always single channel, even if single channel is normally disabled. The exception is that OATH authentication is also supported offline, provided the user has previously authenticated online using the same token.

86 Swivel Integration Configuration

86.1 Configure a Swivel Agent

1. On the Swivel Management Console select Server/Agent.
2. Enter a name for the Agent.
3. Enter the Credential Provider IP address. You can use an individual IP address for the Credential Provider, such as 192.168.0.99, or you can specify an IP address range like 192.168.0.0/24, which means the first 24 bits, or 3 numbers, are significant or you (i.e. 192.168.0.x).
4. Enter the shared secret used above on the Credential Provider.
5. Select a group, or leave it as "Any" to allow all users to authenticate.
6. Click on Apply to save changes.

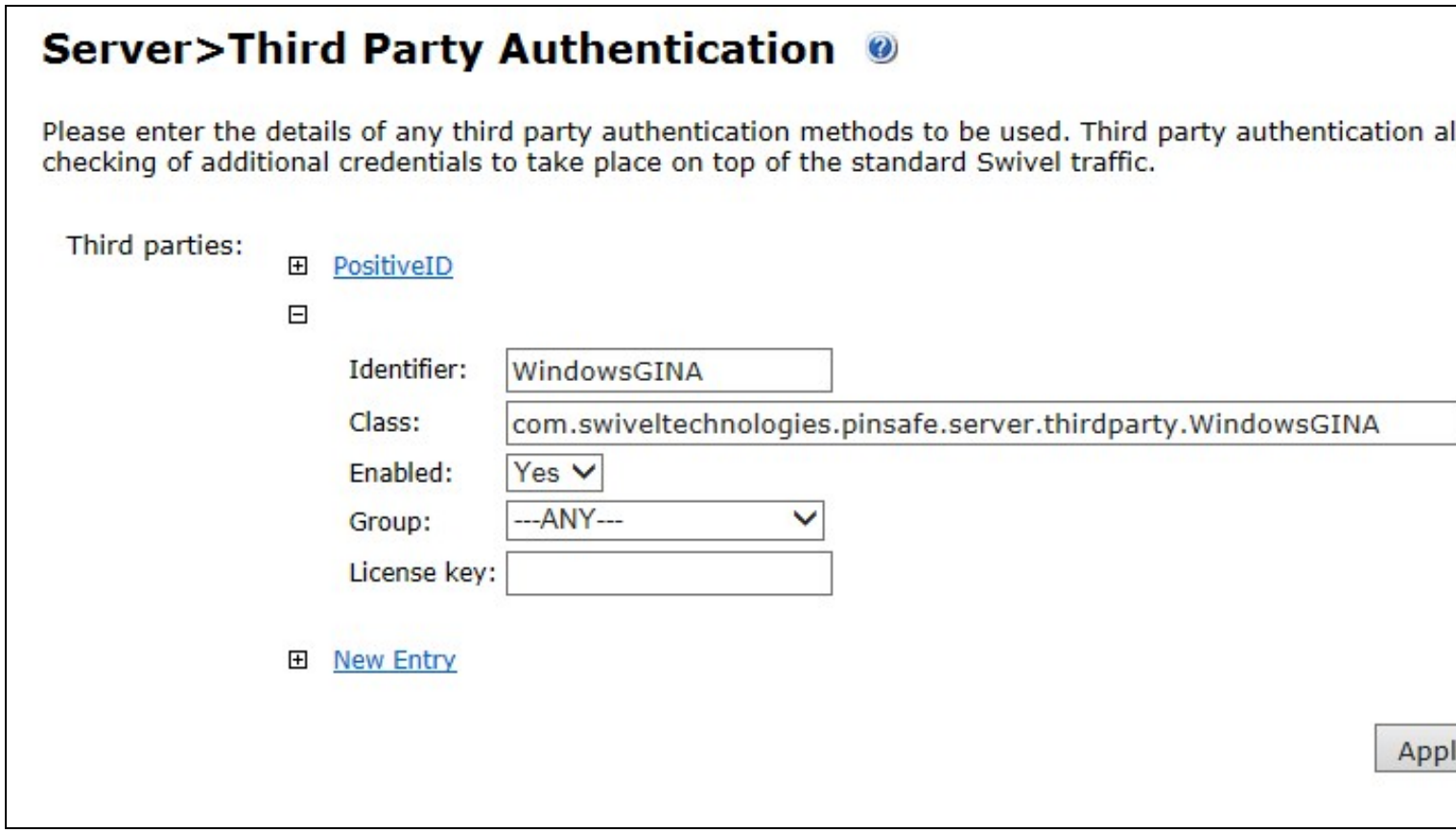


Note that this creates a GINA menu item, but there are no configurable options, so is not selectable.

86.2 Create a Third Party Authentication

If offline authentication is to be allowed, a third party authentication must be created with an Identifier of WindowsGINA. The name must be exactly as shown. This entry should already exist, but check that the settings are as shown.

1. On the Swivel Management Console select Server/Third Party Authentication.
2. For the Identifier Name: WindowsGINA.
3. For the Class: com.swiveltechnologies.Swivel.server.thirdparty.WindowsGINA.
4. Ensure that Enabled is set to Yes.
5. For the Group select a group of users, or Any to allow any users to authenticate using this third party.
6. For the License Key, leave this empty as it is not required.
7. Click Apply to save the settings.

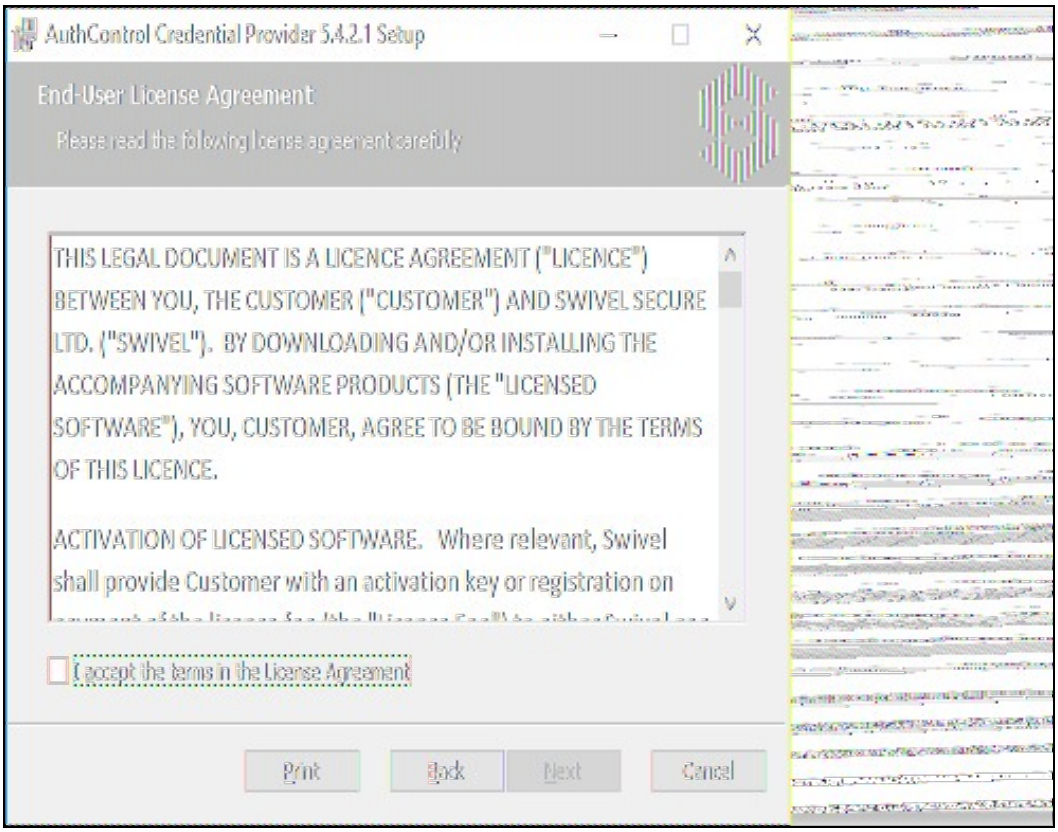

Server>Third Party Authentication
Please enter the details of any third party authentication methods to be used. Third party authentication al
checking of additional credentials to take place on top of the standard Swivel traffic.
Third parties:
PositiveID
Identifier:
WindowsGINA
Class:
com.swiveltechnologies.pinsafe.server.thirdparty.WindowsGINA
Enabled:
Yes
Group:
---ANY---
License key:
New Entry
Appl

87 Microsoft Windows AuthControl Credential Provider Installation

The Credential Provider is provided as a Microsoft Installer .msi file. You must run this as an administrator.

Double-click the .msi file to run it. Alternatively, you can install from the command line, using the msiexec command.

The first page is the licence agreement:

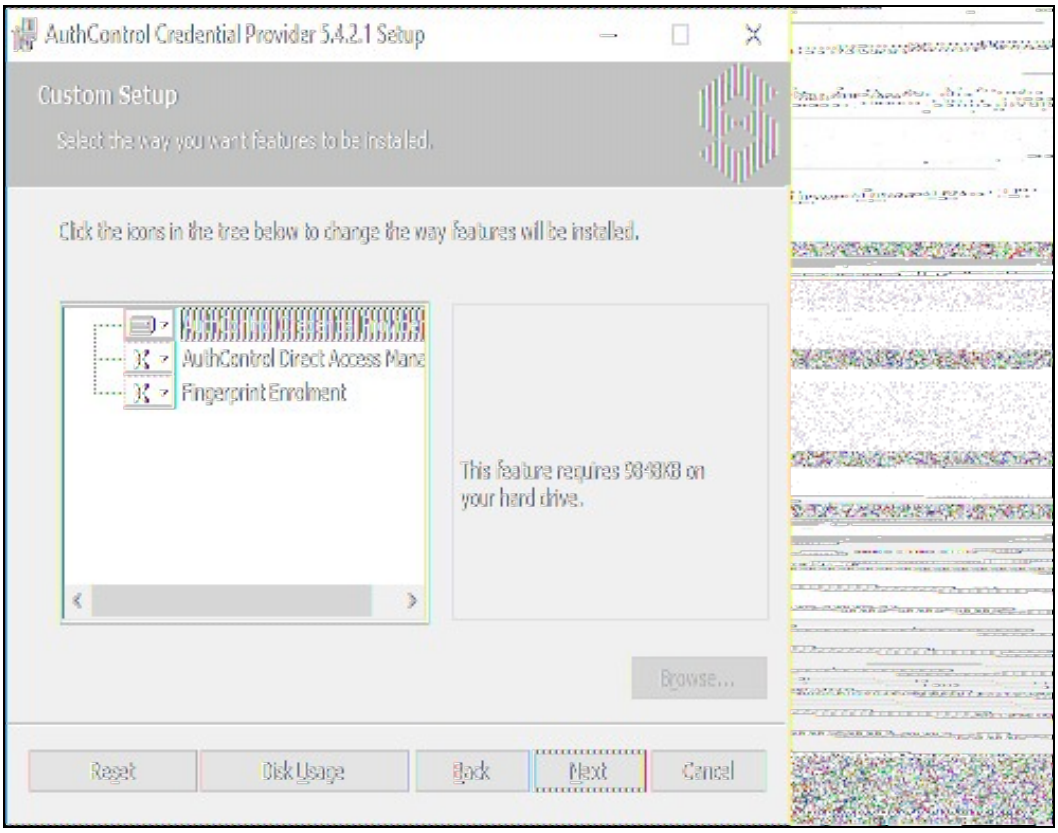


Read the licence agreement (yeah, right!), and check the box to acknowledge it. Click Next to continue.

Select the neccessary addons:

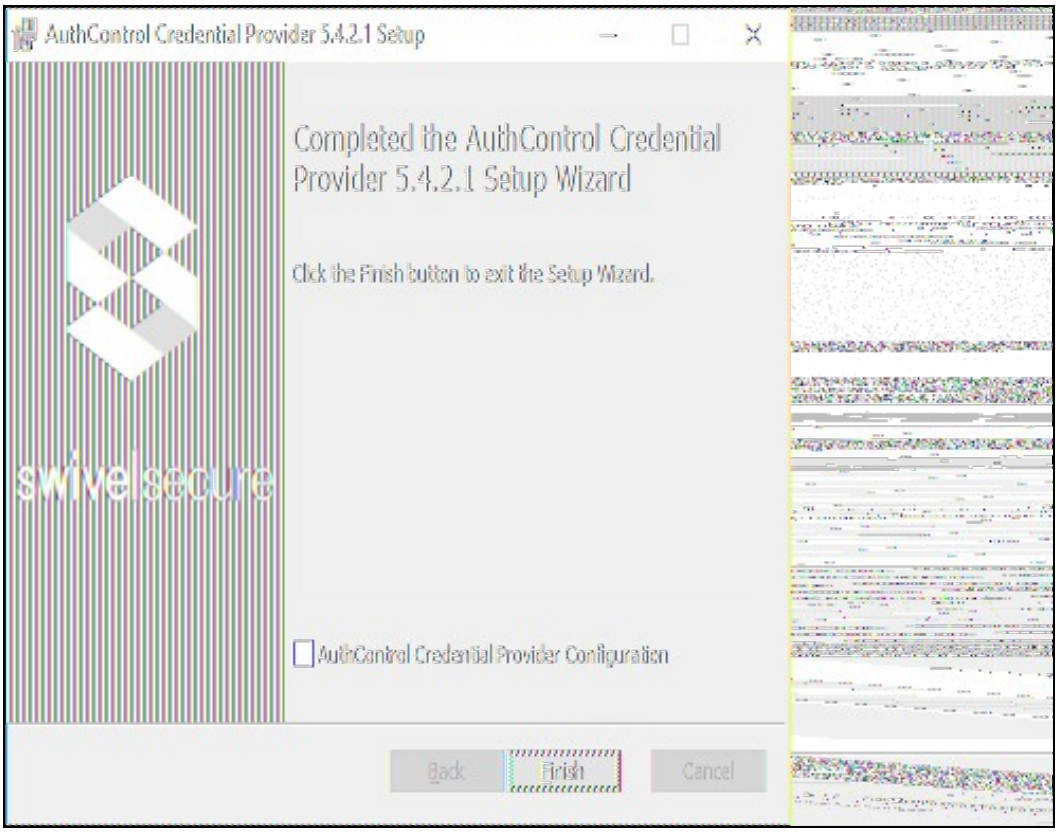
AuthControl Direct Access Manager - for integration with Direct Access

Fingerprint Enrolment - for Biometric Fingerprint enrolment and use Biometric authentication



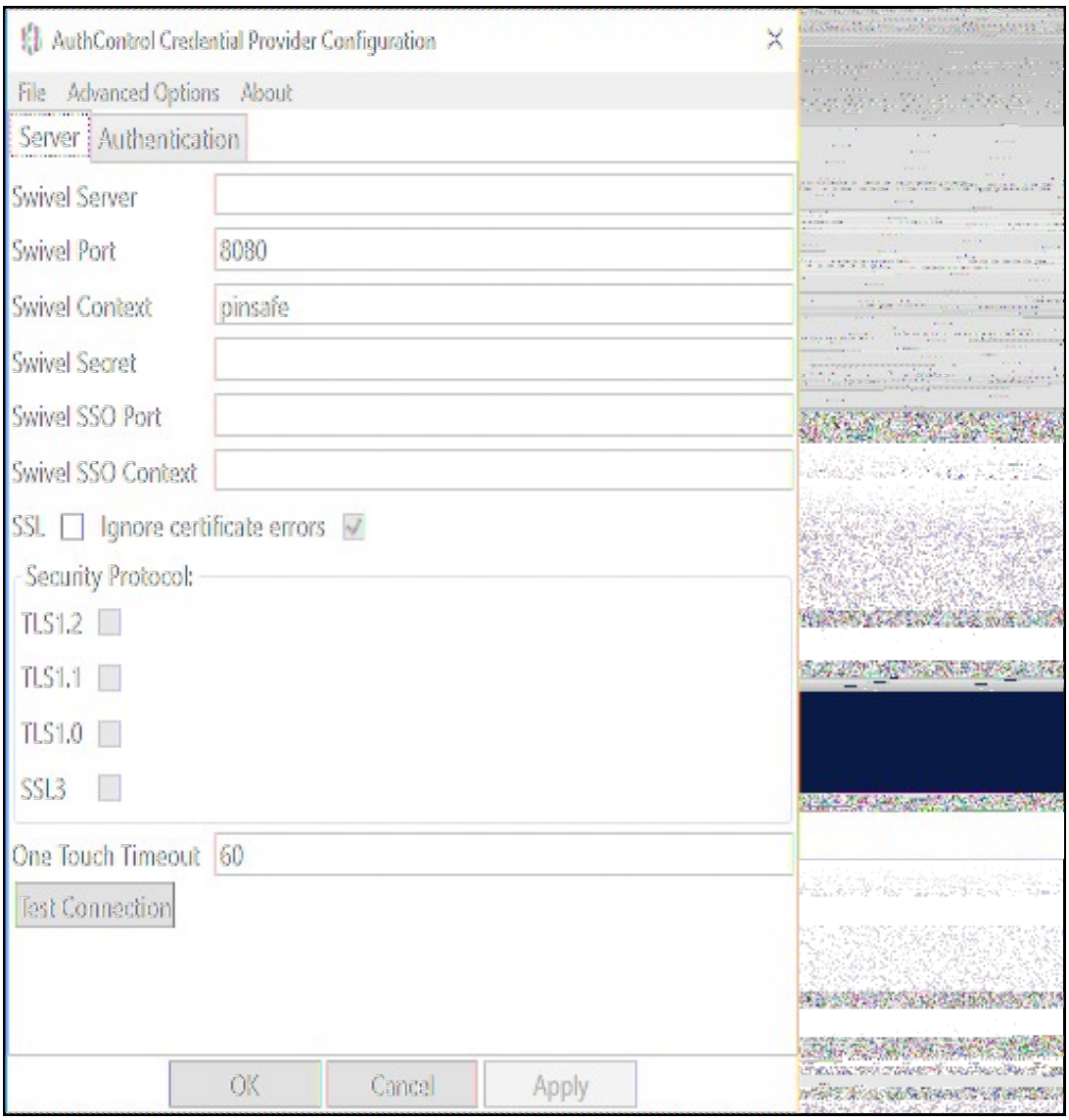
The application will be installed to C:\Program Files\Swivel Secure\Swivel Credential Provider. If you have reconfigured the program files directory elsewhere, it will be installed there, but otherwise you cannot control where the application is installed.

When the install has completed, the following dialog is shown:



87.1 AuthControl Credential Provider configuration

87.1.1 Server



Server: The Swivel virtual or hardware appliance or server IP or hostname. To add resilience, use the VIP on a swivel virtual or hardware appliance. See VIP on PINsafe Appliances.

NOTE: it has been observed in testing that DNS is not always available when logging on. It is therefore recommended that you use IP address, rather than host name in this section.

Port: The Swivel virtual or hardware appliance or server port.

Context: The Swivel virtual or hardware appliance or server installation instance.

Secret: and **Confirm Secret:** A shared secret which must be entered onto the Swivel virtual or hardware appliance or server.

SSO Port: (Sentry v4.0.5 required) The AuthControl Sentry SSO port to allow RBA usage. (ex: 8443)

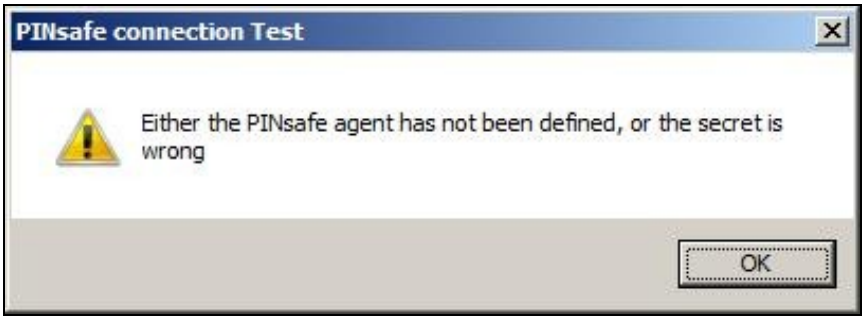
SSO Context: (Sentry v4.0.5 required) The AuthControl Sentry SSO context to allow RBA usage. (ex: sentry)

Use SSL The Swivel server or virtual or hardware appliance uses SSL communications.

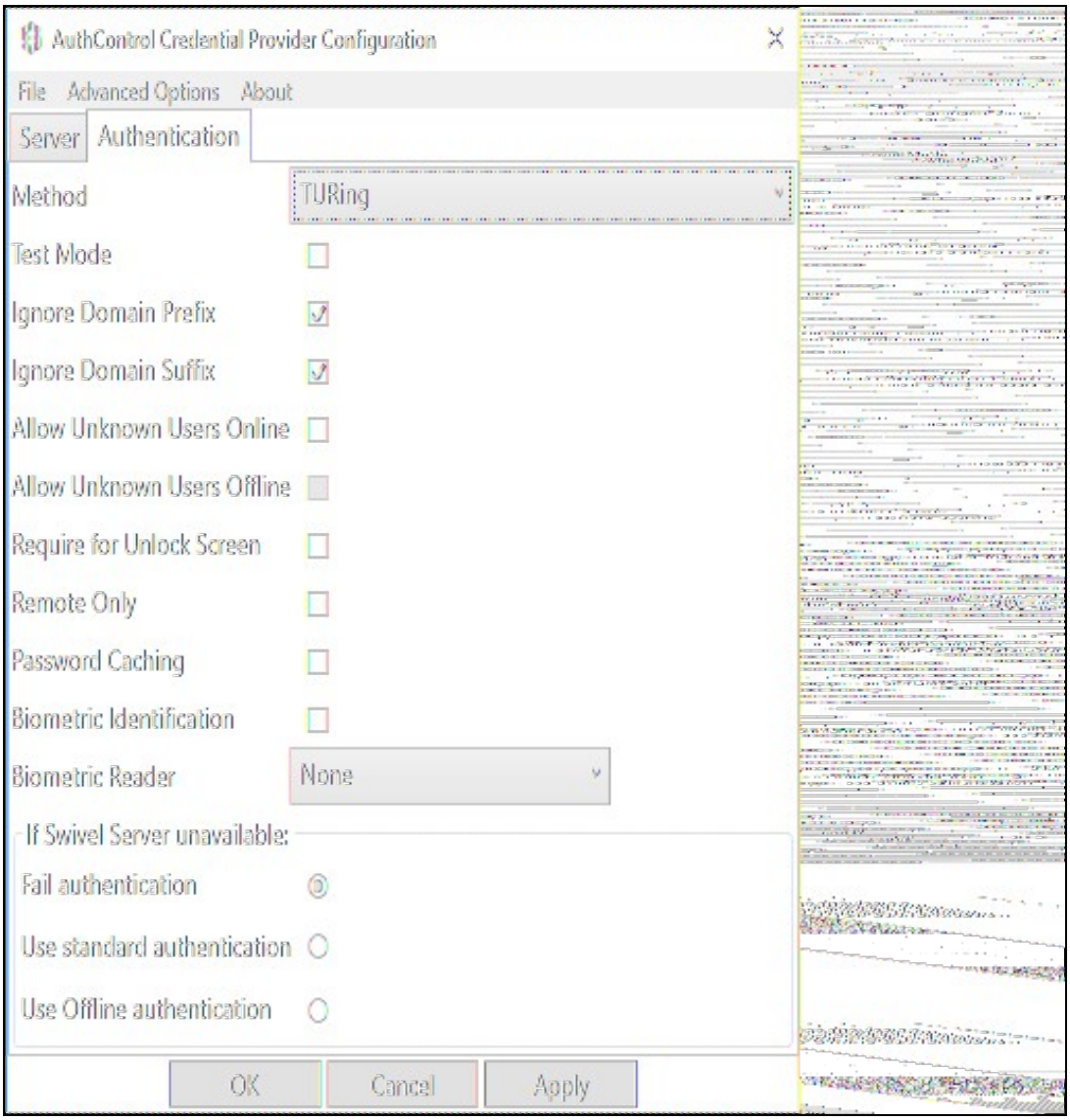
Accept self signed SSL certificates Check this box if Use SSL is enabled, and you do not have a commercial certificate on your Swivel server (or a certificate signed by an authority that the client machine trusts). You should also check this box if you are using IP address rather than host name, as recommended above.

Test Connection Tests link to Swivel server. A correct configuration should produce a dialogue box with **Swivel Connection settings are correct.**

Incorrect settings will produce a dialogue box with **Either the Swivel agent has not been defined, or the secret is wrong**, Please check that the machine can contact Swivel and that the entered settings are correct.



87.1.2 Authentication



Method Select the method of authenticating with Swivel, see above.

Test Mode With test mode the user can switch to a standard authentication, see below.

Ignore Domain Prefix Swivel will Remove any domain prefix (domain\username) before matching username. This does not affect Windows authentication usernames.

Ignore Domain Suffix Swivel will Remove any domain suffix (username@domain) before matching username. This does not affect Windows authentication usernames.

Allow Unknown Users Online If the username is not recognized by Swivel, the user can authenticate using Windows credentials only. Any Swivel OTC entered will be ignored. If the user is known then they must authenticate using Swivel authentication.

Allow Unknown Users Offline If Swivel is not found and the user has not authenticated with Swivel before then the user can authenticate using Windows credentials only.

Require for Unlock Screen Shows the selected authentication method on the unlock screen.

Remote Only The selected authentication method will only be shown for users logging into the machine remotely.

Password Caching Allows to cache the password and login using only 2fa. This option only works online.

Biometric Identification Allows to use the Biometric Reader to obtain the username.

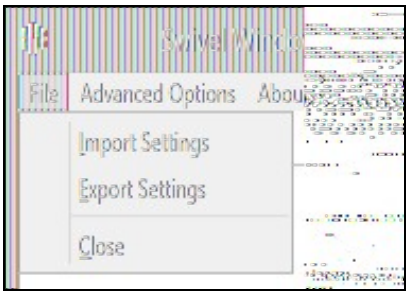
Biometric Reader The type of Biometric Reader: Nitgen or Native Laptop.

If Swivel unavailable, Fail authentication If the Swivel server cannot be contacted then authentication will fail.

If Swivel unavailable, Use standard authentication If the Swivel server is unavailable use standard authentication, the OTC field is displayed but ignored.

If Swivel unavailable, Use offline authentication If the Swivel server cannot be contacted a locally generated Turing image can be used for authentication. If this option is enabled, users will be able to force offline mode using a checkbox on the login dialog. (Only works for single channel authentication methods)

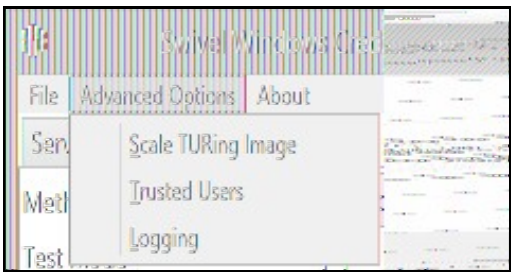
87.1.3 File menu



Export Settings Export settings as an XML file. These can be used to import settings elsewhere.

Import Settings Import settings from an XML file exported elsewhere.

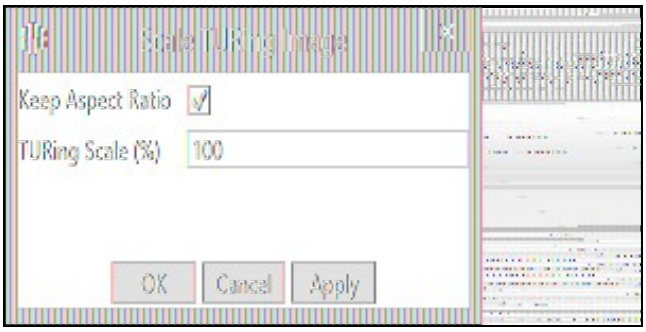
87.1.4 Advanced Options



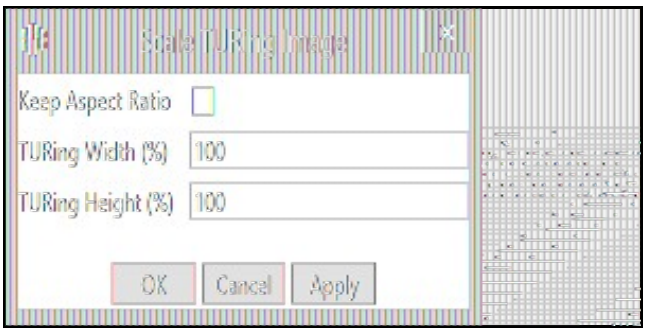
87.1.4.1 Scale TURing Image

Scale TURing Image... Opens a dialog to let you scale the size of the TURing shown.

If **Keep Aspect Ratio** is selected then select the scale (%) of the TURing.

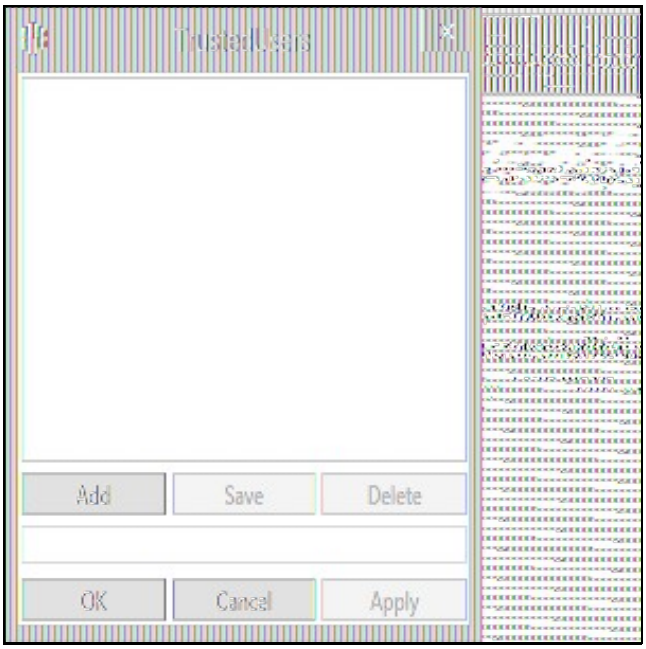


If its not selected then you can select the width and hight independently.



87.1.4.2 Trusted Users

""Trusted Users"" Lets listed users Authenticate without Swivel.



To add a trusted user you must first click ""Add"" then enter the username in the text-box and click ""Save"", repeat these sets to add more users.

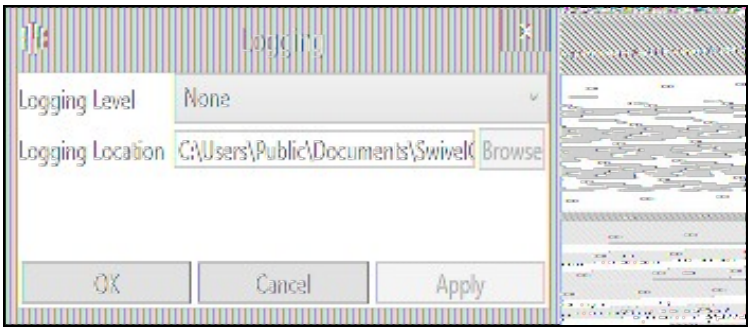
To edit a username select the username from the list, change the name in the text-box and click ""Save"".

To delete a username select the username from the list and press delete.

Make sure that the ""Apply"" or ""OK"" button to save these settings.

87.1.4.3 Logging

""Logging"" change settings relating to logging, recommended to be turned off unless problem are found.

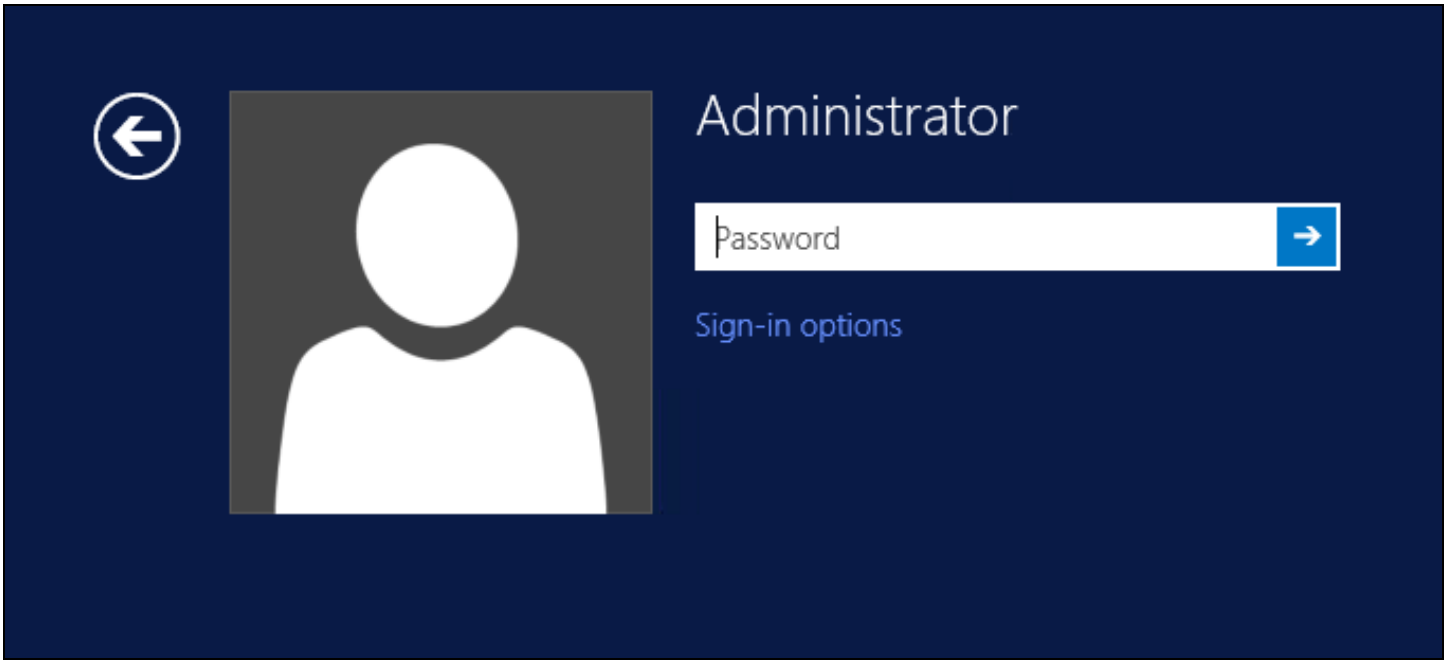


""Logging Level"" The account of message that will be logged.

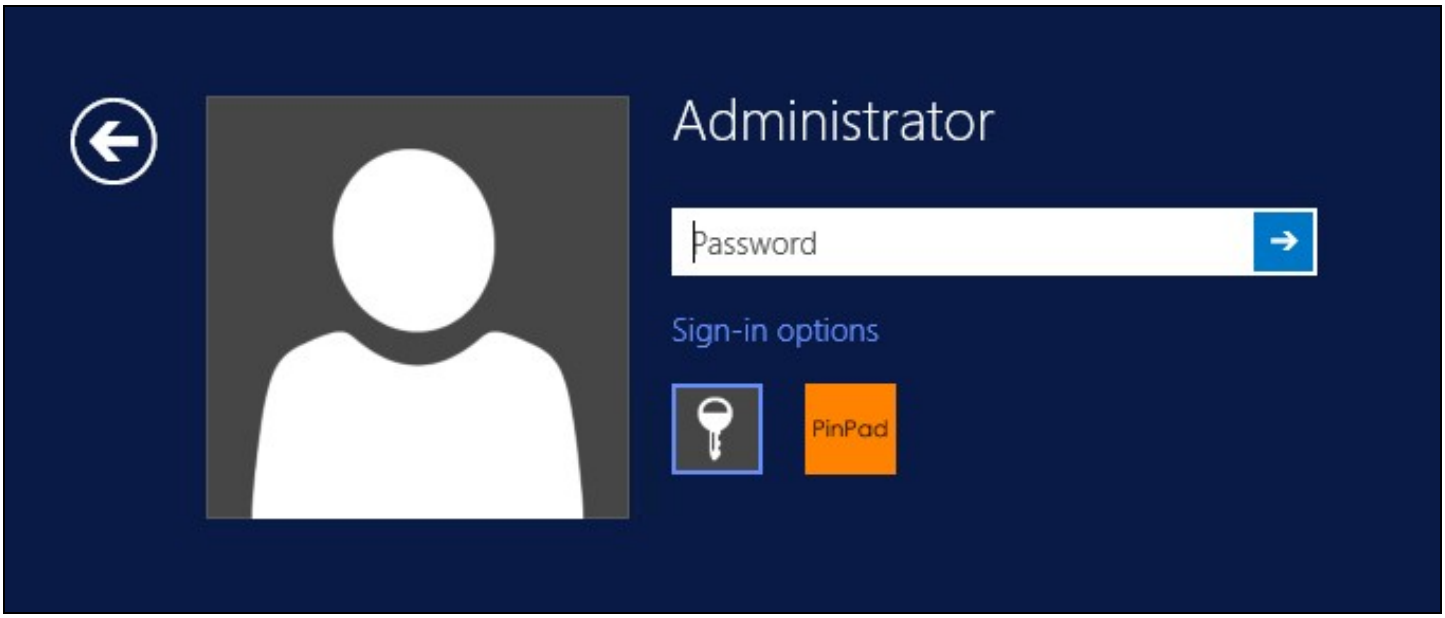
""Logging Location"" The location the logs will be created, this must be somewhere any account has access to.

87.2 Test Mode

With Test Mode enabled the user will be able to select how they will authenticate



The **Sign-in options** button is shown to let users select from the list which method they would like to use.



The last successful authentication method will be selected by default when the credential is loaded.

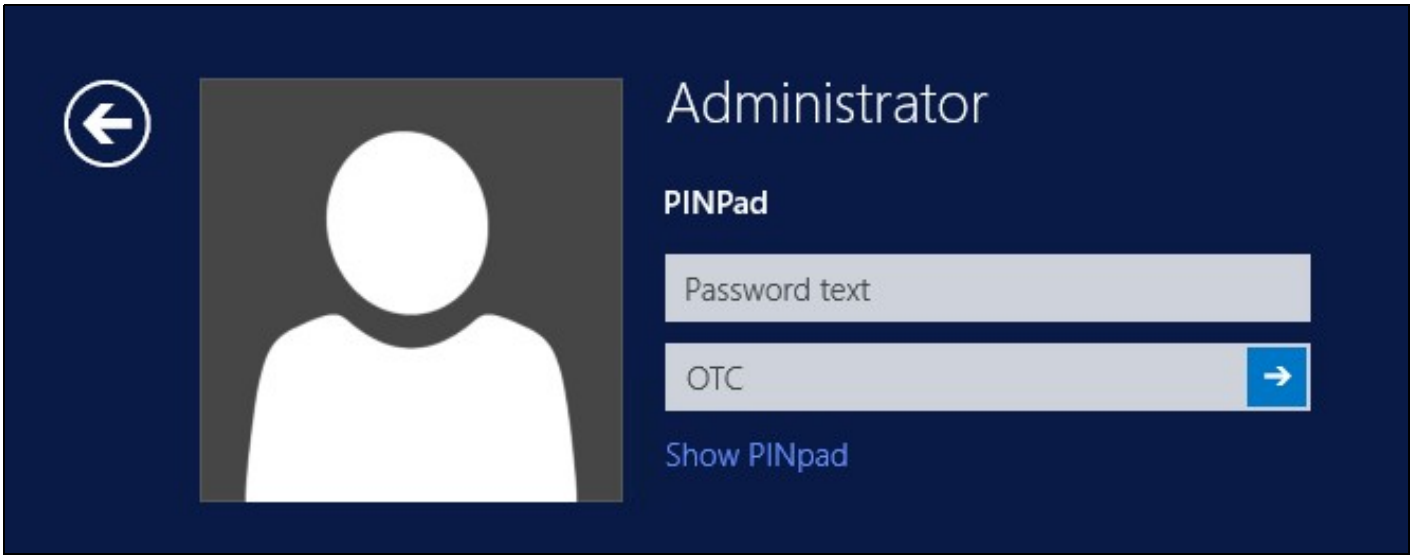
87.3 Importing Configurations

You can import credentials exported from other installations using the Import Settings menu item.

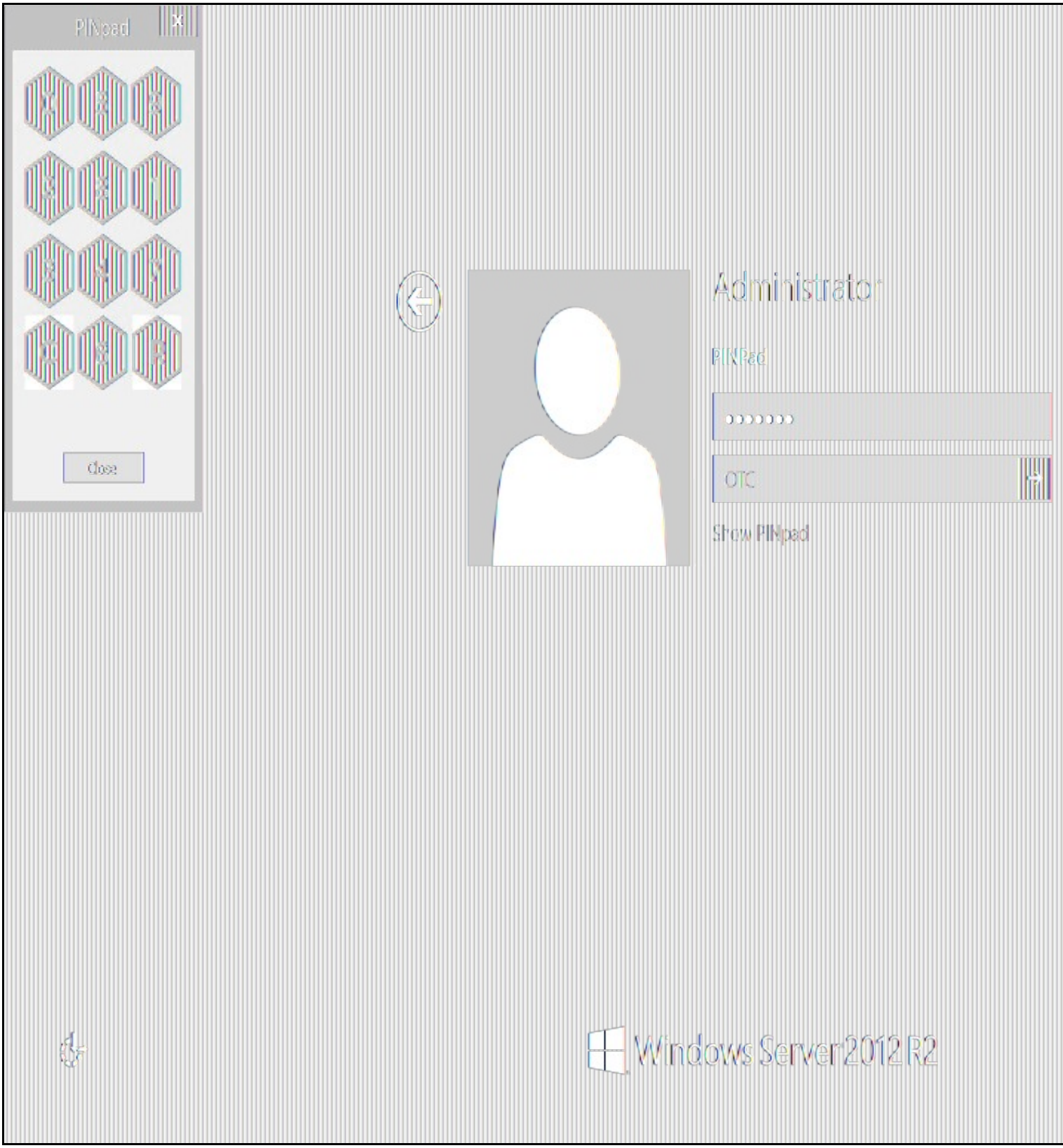
88 Verifying the Installation

This will be an example of one of the credentials.

At the windows login screen a password and OTC login field should be available with a "Show PINpad" Button.



Pressing the "Show PINpad" button will generate a PINpad image for authentication. The Swivel log should show a session request message: *Session started for user: username.*



A successful login should appear in the Swivel log: *Login successful for user: username*.

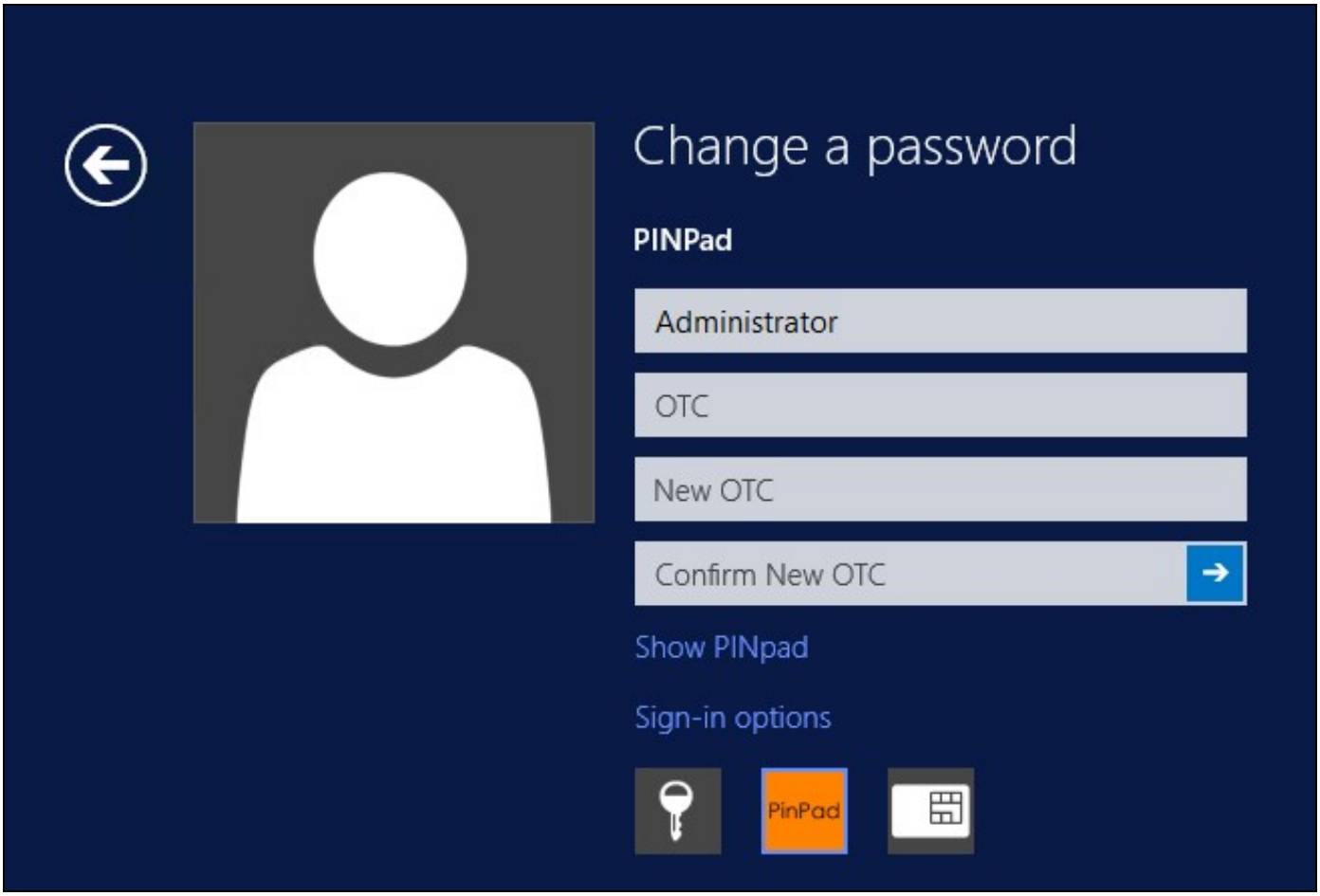
A failed login should not allow a login, and the following message should be displayed in the Swivel log: *Login failed for user: username*.

89 ChangePIN

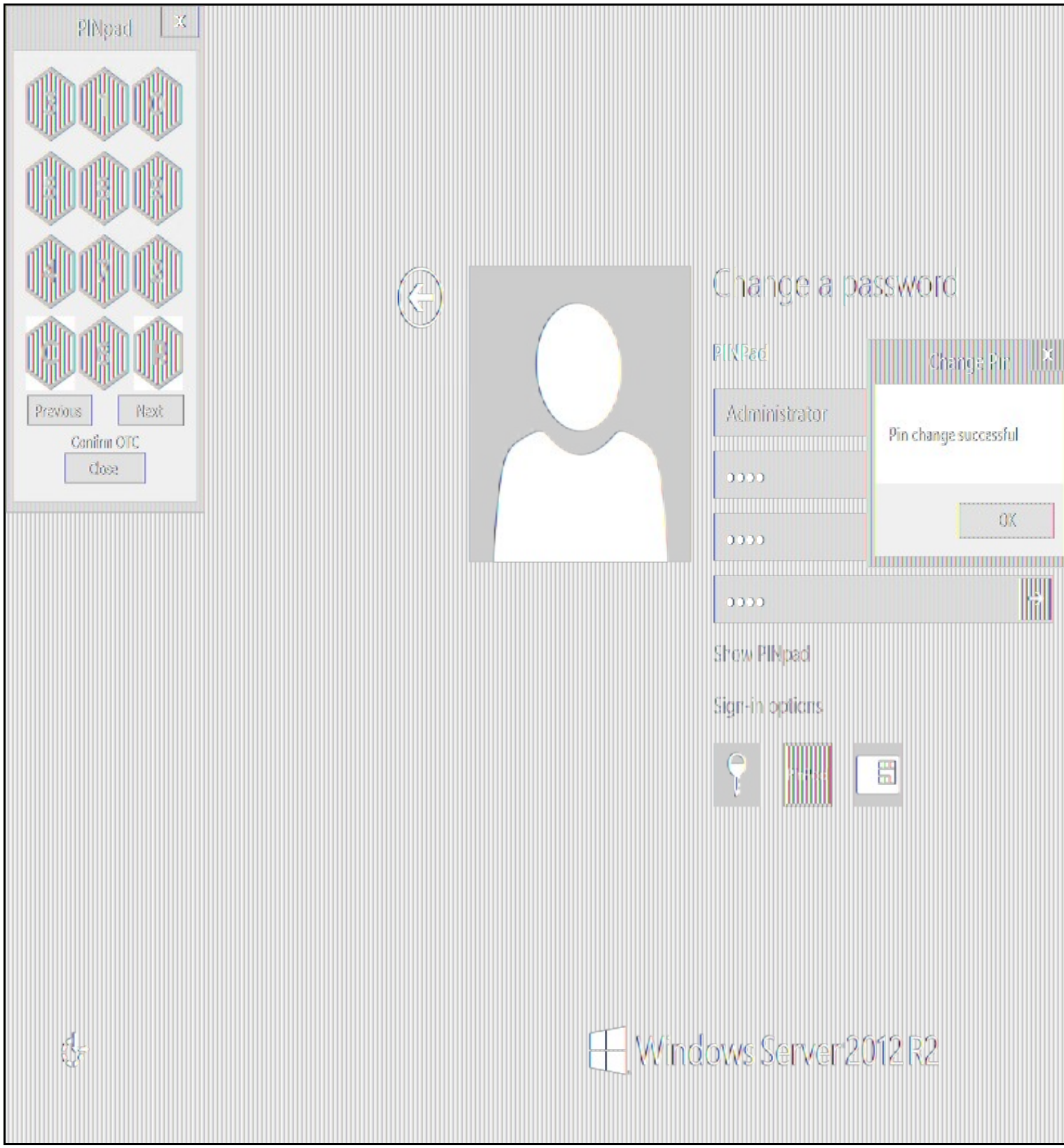
A user is usually able to change the password by using the Ctrl-Alt-Del keys (Ctrl-Alt-End for remote sessions). With the Swivel Credential Provider installed, an additional option exists when the Change Password is selected, by clicking on the "Sign-in options" button and selecting the Swivel credential. This will not function for Offline authentication.

With Swivel authentication a user never changes enters PIN and this is true for ChangePIN. A user enters their current OTC, and then enters an OTC for what they wish their new PIN to be. PIN enforcement may be in place to the Swivel server to prevent the choosing of poor PIN numbers.

A user may use a single channel image or a dual channel security string to change their PIN.



A successful Change PIN will show the message **Your PIN was changed successfully**, the Swivel server will also display in the logs a changePIN message **Change PIN successful for user: username**.



Other Changes to PINpad are that the PINpad dialog has buttons to select which text-box the numbers will be entered and text to show which text-box is currently selected.

90 Uninstalling the Swivel Integration

Use the Uninstall option from the Program menu, right click on the Windows Credentials provider and click on Uninstall. Note that uninstalling and reinstalling the Credential Provider will remove the settings, so if you need to reinstall at any point, make sure you have an exported settings file saved.

90.1 Disabling the Credential Provider

If the Credential Provider fails to load correctly it can be disabled using the following process:

Boot the machine into safe mode and log in as an administrator.

Try each of the following in turn. Only one of the following is required, so use the first one that works. Experience suggests that the first two options do not work in Windows 10.

- Run the Swivel Login Configuration and edit the settings to disable the provider.
- Uninstall the Credential Provider.
- Using regedit.exe add or alter the following registry values:
  - "HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Authentication\Credential Providers\{6AD69A51-00E9-4BE9-A3D6-9D26255DA4E1}\Disabled=1"
  - "HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Authentication\Credential Provider Filters\{6AD69A51-00E9-4BE9-A3D6-9D26255DA4E1}\Disabled=1"
- Using regedit.exe remove the following registry keys:
  - "HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Authentication\Credential Providers\{6AD69A51-00E9-4BE9-A3D6-9D26255DA4E1}"
  - "HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Authentication\Credential Provider Filters\{6AD69A51-00E9-4BE9-A3D6-9D26255DA4E1}"
  - "HKEY_CLASSES_ROOT \CLSID\{6AD69A51-00E9-4BE9-A3D6-9D26255DA4E1}"

The third option disables the credential provider, whereas the others actually remove it.

90.2 Temporarily Disabling the Credential Provider Remotely

If there is a problem with the Swivel Secure appliance, and you need to disable the AuthControl Credential Provider on a number of machines temporarily, you can do this using a PowerShell script.

90.2.1 Enabling Powershell Remoting

In order to be able to run PowerShell scripts on remote machines, you need to enable the WinRM service on both the target machines and the machine running the script. This article provides a step-by-step guide on setting up PowerShell remoting.

90.2.2 Setting up a List of Computers

The first step is to get a list of computers that you want to disable. This article suggests three alternative methods: hard-code the list in your script, read it from a file, or query the Active Directory. The last is only useful if you want to run the script on every computer on your domain. We will use the second method in our example, so assume there is a list of computer names, one per line, in "CPComputers.txt". This also assumes that the list is in the directory from which you are running the script, so you might want to use a full path in your script.

90.2.3 Setting up Credentials

For completeness, we will describe how to set up credentials to connect to the remote machines. If you are able simply to use the current logged-in user credentials on all remote PCs, then you can ignore this part.

To initialize a credential for use on the remote computers, use the following PowerShell command:

```
$cred = Get-Credential domain\adminuser
```

Replace "domain\adminuser" with the qualified name of the user whose credentials you will be using: note that you must include the domain. You will be prompted for the user's password.

If you are using the current user's credentials, leave off -Credential $cred from the Enter-PSSession command below.

90.2.4 The Script

Here is an example script for disabling the Credential Provider on a number of remote computers:

```
$cred = Get-Credential domain\adminuser
$computers = Get-Content -Path ".\CPComputers.txt"
foreach ($pc in $computers) {
 Enter-PSSession -ComputerName $pc -Credential $cred
 $filterPath = "HKLM:\SOFTWARE\Microsoft\Windows\CurrentVersion\Authentication\Credential Provider Filters\{6AD69A51-00E9-4BE9-A3D6-9D26255DA
 if (Test-Path $filterPath) { Set-ItemProperty -Path $filterPath -Name Disabled -Value 1 }
 $credPath = "HKLM:\SOFTWARE\Microsoft\Windows\CurrentVersion\Authentication\Credential Providers\{6AD69A51-00E9-4BE9-A3D6-9D26255DA4E1}"
 if (Test-Path $credPath) { Set-ItemProperty -Path $credPath -Name Disabled -Value 1 }
 Exit-PSSession
}
```

90.2.5 Known Limitations

Be aware that running this script may not immediately disable the Credential Provider. You may need to wait a few minutes, or restart the computer, for the change to take effect.

90.2.6 Re-enabling the Credential Provider

To re-enable the Credential Provider, use the same script, but change the Disabled Value to 0 in two lines. So the script between Enter-PSSession and Exit-PSSession becomes

```
 $filterPath = "HKLM:\SOFTWARE\Microsoft\Windows\CurrentVersion\Authentication\Credential Provider Filters\{6AD69A51-00E9-4BE9-A3D6-9D26255DA
```

```
if (Test-Path $filterPath) { Set-ItemProperty -Path $filterPath -Name Disabled -Value 0 }
$credPath = "HKLM:\SOFTWARE\Microsoft\Windows\CurrentVersion\Authentication\Credential Providers\{6AD69A51-00E9-4BE9-A3D6-9D26255DA4E1}"
if (Test-Path $credPath) { Set-ItemProperty -Path $credPath -Name Disabled -Value 0 }
```

91 Known Issues and Limitations

- The Swivel Windows Credential Provider does not support the use of Animated gifs for Single Channel authentication.
- It has been observed in testing that DNS is not always available when logging on. It is therefore recommended that you use IP address, rather than host name for the Swivel server.
- Local (offline) authentication only works in single channel and OATH modes: the dual channel strings are not available offline.
- If the user gets an online TURing with a different scale then gets an offline TURing, the TURing is broken, the fix is to close the dialog and request an new TURing.
- If **Allow Unknown Users Offline** is enabled then users that have not previously authenticated to Swivel online can bypass Swivel by checking the offline box and authenticating with AD only.
- On Windows server 2012 R2 there is an update from Microsoft to fix an issue where dialogues will not be displayed, please ensure that windows update 2919355 is installed.
- Local authentication does not know if a users PIN has expired or even if the account is locked or deleted. Once a user has successfully authenticated they are allowed offline until their offline strings are deleted or the offline option is deselected.

92 Windows Credential Provider with RBA

93 Introduction

From AuthControl Sentry v4.0.5, you can use your RBA rules with AuthControl Credential Provider to disable 2fa in case the user has enough points.

94 Prerequisites

AuthControl Credential Provider v5.4.2

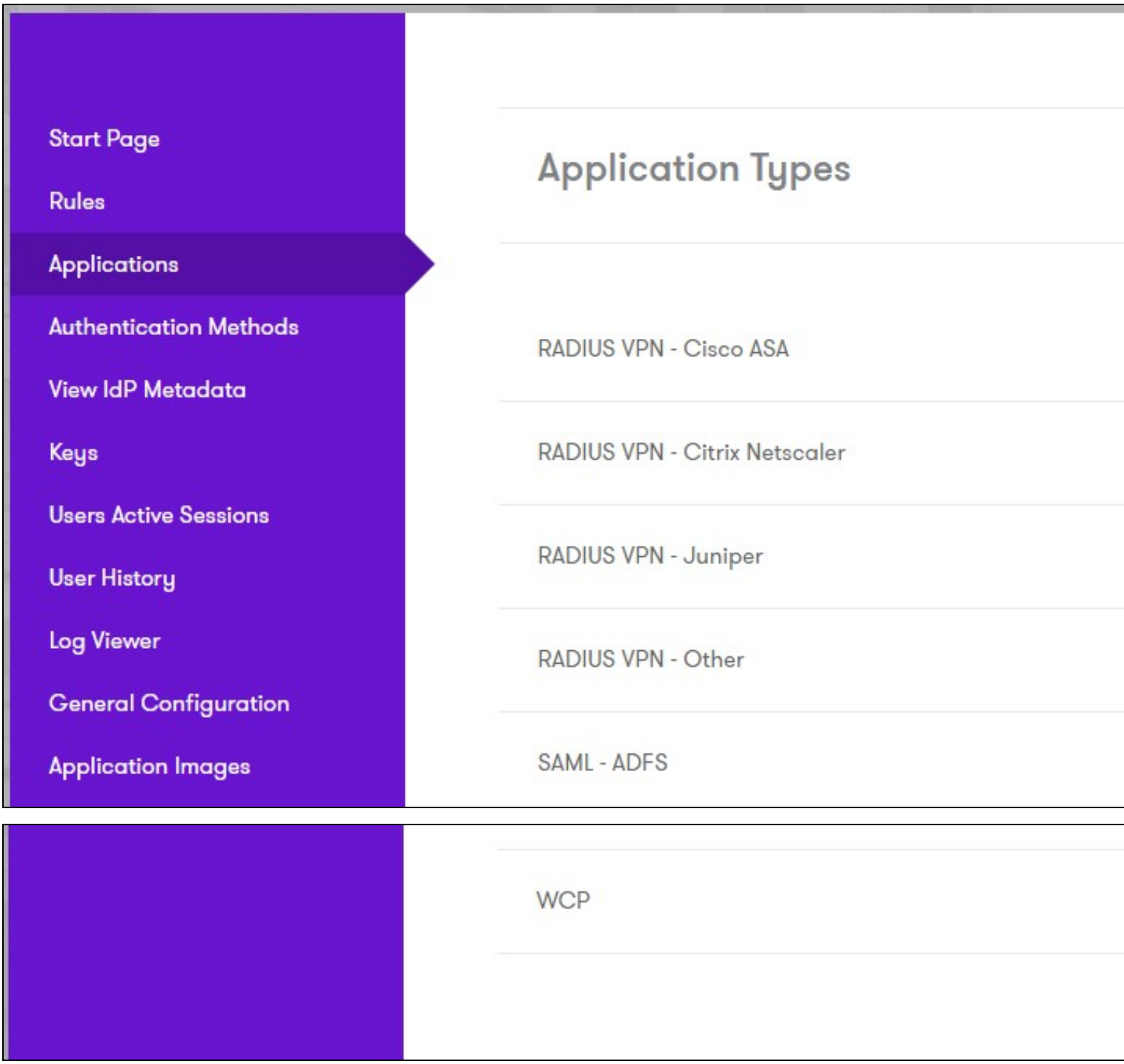
AuthControl Sentry v4.0.5

95 Limitations

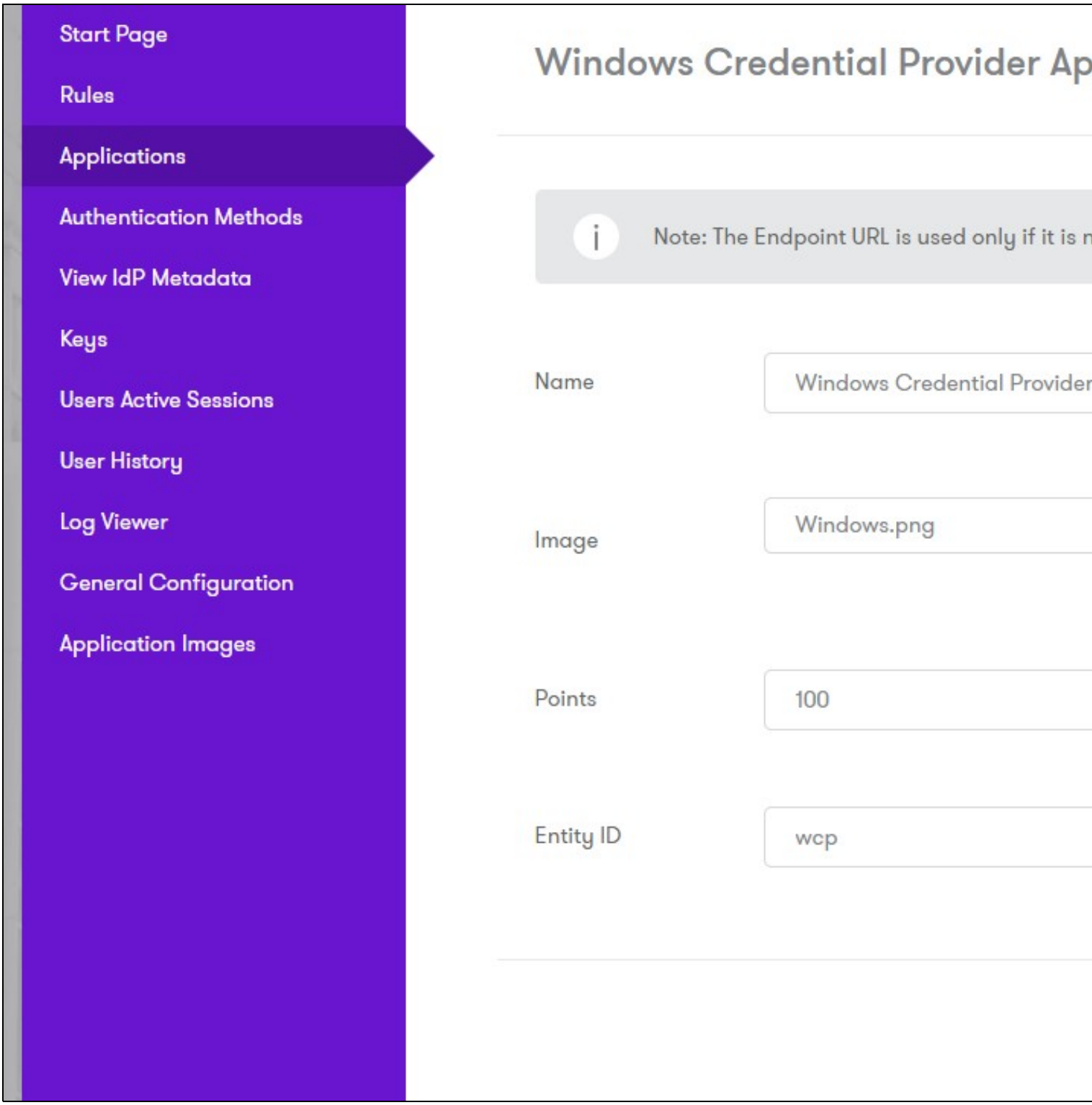
Certificate rule does not work with WCP

96 RBA Configuration

In AuthControl Sentry SSO administration page you have a new application type WCP. Add a new application.



Select WCP.

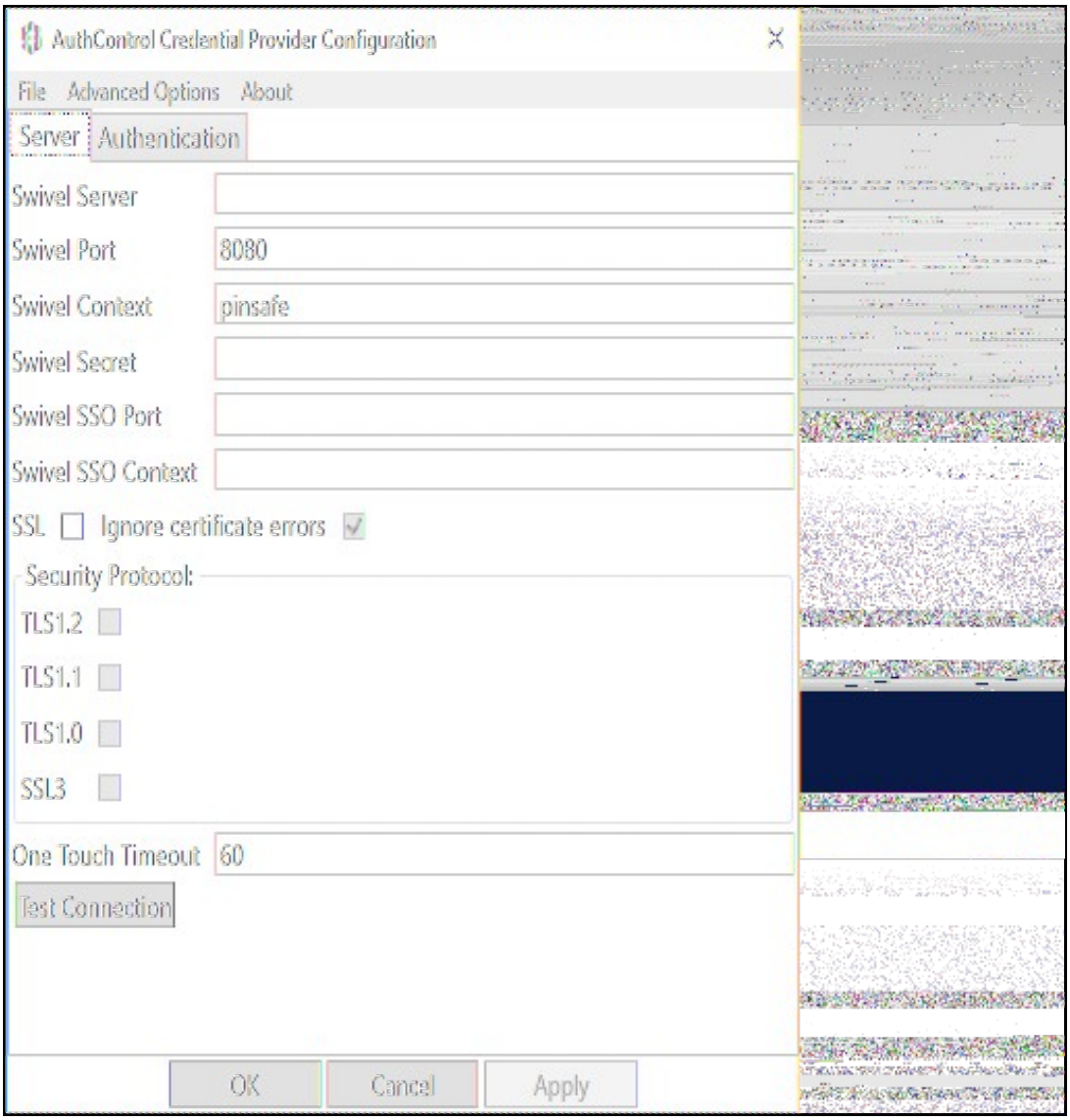


Enter a name, the required points for authentication without 2fa, **the entity ID must be wcp** and click Save.

If you haven't configure any rules, please look at Authcontrol v4 Sentry SSO and Adaptive Authentication.

97 WCP Configuration

Open AuthControl Credential Provider Configuration



enter the Swivel SSO Port as 8443 and Swivel SSO Context as sentry. This will enable the check for RBA rules in WCP.

98 Authenticating

When you try to login now it will check for the rules. If the user has enough points, it will allow authentication without using 2fa.

99 RBA with fingerprint

If you have Biometric Identification active, you can use this to give more points to RBA and disable 2fa.