Microsoft Windows GINA login

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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.

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.

Baseline

Architecture

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

Swivel Configuration

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

Agents:	Name:	local	
	Hostname/IP:	127.0.0.1	
	Shared secret:	•••••	
	Group:	ANY	
	Authentication Modes:	ALL	Delete
	Name:	IIS	
	Name: Hostname/IP:	IIS 192.168.1.1	
	Name: Hostname/IP: Shared secret:	IIS 192.168.1.1	1
	Name: Hostname/IP: Shared secret: Group:	IIS 192.168.1.1 ANY	1

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

Server>Single Channel @	
Please specify how single channel security strir	ngs are delivered.
Image file:	turing.xml 💌
Rotate letters:	No 💌
Allow session request by username:	Yes 🔽
Only use one font per image:	Yes 💌
Jiggle characters within slot:	No 💌
Add blank trailer frame to animated images:	Yes 💌
Text Alpha Value:	80
Number of complete display cycles per image	: 10
Inter-frame delay (1/100s):	40
Image Rendering:	Static 💌
Multiple AUthentications per String:	No 💌
Generate animated images:	No 💌
Random glyph order when animating:	No 💌
No. Characters Visible:	1
	Apply Reset

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

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

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

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.

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

Description:	Your configuration:	Minimum configuration:	Passed:
Operating system:	Windows XP SP3	Win XP SP2	Yes
RAM:	512 MB	-	Yes
CPU:	Intel Pentium II	11. The second	Yes
CPU Speed:	2398 MHz	-	Yes
Free space:		3.2 MB	Yes
C:\	7.5 GB		
.NET Framework:	1.1	2.0	No
Max resolution:	2560×1600 32 bits		Yes
Your system does	n't seem to meet the min be able to install anyv	imum requirements for PINsafe (vay - see the next dialog,	SINA. You may

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

🕼 PINsafe GINA	Installation			
You do not have configuration app manually. For del Configuration'' or	Microsoft.Net framev lication. The GINA wi ails see the troublesh the final dialog box.	vork version 2 installed ill work without .Net 2, nooting notes after ins	l. This is only requ but you will have tallation, Please u	ired for the to configure it incheck "Run
T I understand	his, and want to con	tinue		
Print		< <u>B</u> ack	Next >	Cancel

Select the install directory

🔂 PINsafe GINA Installation	×
Select destination directory PINsafe GINA will be installed to the directory shown below.	
Destination Directory To install to a different directory, either type in a new path or click Browse to browse for a destination directory. ('PINsafe GINA' is automatically added.) C:\Program Files\Swivel Secure\GINA Browse	
< <u>B</u> ack <u>Next</u> > <u>Cancel</u>	

Select the Start Program files group

🕼 PINsafe GINA Installation	×
Select Program Folder Shortcut icons will be added to your Start menu.	
You may type a new folder or select one of the existing ones.	
PINsafe GINA	
Accessories Administrative Tools Startup	
< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel)

Check the installation details

	safe GINA Installation
Read	ly to Install The Setup Wizard is ready to begin the installation.
Ins == Siz Fre De	stallation summary: e reserved total: 3.2 MB se space on drive: 6.7 GB stination directory:
C:1 Shi PIN	,Program Files\Swivel Secure\GINA\ ortcut folder: \safe GINA
	< <u>B</u> ack Install Cancel

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

🔀 PINsafe GINA Installatio	m 🛛 🔀
PINsafe	PINsafe GINA installation successful.
	To complete the installation it is recommended that you now run the configuration utility.
	🔽 Launch Configuration Utility
	Show product documentation
	Click Finish to end the installation.
	Cancel Cancel

Terminal Services GINA Configuration Server Settings

{][:Servel GINA Cor	fiouration		
Swizel Authentic	ation Advanced		and designed and the second
– Server Selfinge			x
Server:	192.168.178.103		
Parc	8180		
Context	prisele		
Siecret:	000000		
Continn Search	000000		
- 001			SECTION OF THE
oon. E Use SSL 1	🗹 Acceptisef-signed SSL cerifice	ics.	
Hep	0K	a Apoly	er faller og en so
			自然中的"2010年代中国的中国的中国

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.

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.

Advanced Settings

() (Surved GINA Contigonation
Swizel Authentication A.M.n.a.
Lookout efter 🔟 🚔 login faluras (0-navar)
Sesson finacus 120 📻 (sus)
Num securiy sira sio orone 🔢 📑
Generato naw strings whan 🧧 🚍 remain
- Custon Logra
Large: <u>(Nore</u>)
Small <u>(Note)</u>
Help OK Cencel Apply

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.

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.

User Requested ChangePIN using Change Password

From the Windows menu select Ctrl-Alt-Delete

Windows Security			
PINsa	fe®		
Logon Information graham is logged on as QWERTY-D2ACFFB8\graham. Logon Date: 7/17/2011 11:57:42 AM			
Use the Task Manager to close an application that is not responding.			
Lock Computer Log Off	Shut Down		
hange Password	Cancel		

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

Change Password	
PI	Nsafe®
User name:	graham
Log on to:	QWERTY-D2ACFFB8 (this compute 🗸
Old Password:	
New Password:	
Confirm New Password:	
Old OTC:	
New OTC:	
Confirm New OTC:	
	Get Image
	Backup OK Cancel

ChangePIN using dual channel or mobile phone client

Change P	assword	
	PI	Nsafe®
<u>U</u> ser name	:	graham
Log on to:		QWERTY-D2ACFFB8 (this compute 🔽
<u>O</u> ld Passwo	ord:	
<u>N</u> ew Passw	vord:	
<u>⊂</u> onfirm Ne	w Password:	
Old OTC:		••••
New OTC:		••••
Confirm Ne	w OTC:	••••
		Get Image
Γ		
		Backup OK Cancel

ChangePIN using TURing

Change Password	
PI	Nsafe®
User name:	graham
Log on to:	QWERTY-D2ACFFB8 (this compute 🗸
Old Password:	
New Password:	
<u>⊂</u> onfirm New Password:	
Old OTC:	••••
New OTC:	••••
Confirm New OTC:	••••
	Get Image
1 2	3 4 5 6 7 8 9 0 7 5 4 6 5 1 8 8
	Backup OK Cancel

ChangePIN successful



ChangePIN redirect at login

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

PINsafe Login 🛛 🕅	
	You must change your PIN before logging on again. Would you like to do so now?
	Yes No

PINsafe Change PI	Ń	
User name:	graham	
Old OTC:		
New OTC:		
Confirm New OTC:		
Get	(mage	

ChangePIN using dual channel or mobile phone client

PINsafe Change PI	4	
User name:	graham	
Old OTC:	••••	
New OTC:	••••	
Confirm New OTC:	••••	
Get 1	mage	
	ОК	Cancel

ChangePIN using TURing

N	×
graham]
••••]
••••]
••••]
Image	
4 5 6 7 8 9 0	
3504612	
OK Cancel	J
	graham ••••• ••••• Image 4 5 6 7 8 9 0 3 5 0 4 6 1 2 OK Cancel

ChangePIN successful



Additional Installation Options Verifying the Installation

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

PINsafe L	Login
	PINsafe®
	This computer is in use and has been locked. Only QWERTY-D2ACFFB8\graham (graham) or an administrator can unlock this computer. User name: graham Password: OTC: Get Image
	OK Cancel

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

PINsafe Log	in
	PINsafe®
User name: Password: OTC:	graham ••••• Get Image OK Cancel Shut Down Options <<

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

PINsafe L	ogin
	PINsafe®
	This computer is in use and has been locked. Only QWERTY-D2ACFFB8\graham (graham) or an administrator can unlock this computer. User name: graham Password: •••••• OTC: ••••• Get Image
	1 2 3 4 5 6 7 8 9 0 7 3 2 1 0 5 5 9 4 8
	OK Cancel

Standard authentication when the PINsafe server cannot be contacted.

Log On to W	'in dows
	PINsafe®
<u>U</u> ser name: <u>P</u> assword:	graham OK Cancel Options >>

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.

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.

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

Logon M	lessage 🛛 🔀
<u>.</u>	The system could not log you on. Make sure your User name and domain are correct, then type your password again. Letters in passwords must be typed using the correct case.
	ОК

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

PINsafeGINAConfig.exeNET Framework Initialization Error		×
⊗	Unable to find a version of the runtime to run this application.	
	OK	

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.

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.

Additional Information