

How to: Two-Factor Authentication with ClearPass and RSA SecureID

```
<css> .page-How to: Two-Factor Authentication with ClearPass and RSA SecureID #commentform { display: none; }</css>
```

Introduction

This Guide will show you how to configure two-factor authentication using ClearPass, RSA SecurID Authentication Manager ^[1] and the Windows 802.1X supplicant with the Aruba EAP-GTC plug-in.

Configuring ClearPass Policy Manager

This section provides instructions for configuring ClearPass Policy Manager with RSA SecurID Authentication. This document is not intended to suggest optimum installations or configurations.

Create an RSA Authentication Source

Go to **Configuration > Authentication > Sources** and click **Add**. Select **Token Server** as the **Type**. This will expose the remainder of the configuration options for this authentication source. Provide a **Name** for the source, and optionally a **Description**. It's suggested that you uncheck the **Use for Authorization** option, as it's unlikely that the RSA authentication source is providing any additional authorization information. If you have replica (redundant) RSA Authentication Manager servers, click the **Add Backup** button for each backup server you want to add. This will expose additional tabs for configuring the backup servers.

Configuration » Authentication » Sources » Add

Authentication Sources

General	Primary	Attributes	Backup 1	Backup 2	Summary
Name:	RSA Authentication Manager				
Description:					
Type:	Token Server				
Use for Authorization:	<input type="checkbox"/> Enable to use this Authentication Source to also fetch role mapping attributes				
Authorization Sources:	<input type="text"/> <input type="text"/> -- Select --				<input type="button" value="Remove"/> <input type="button" value="View Details"/>
Server Timeout:	10 seconds				
Backup Servers Priority:	Backup 1 Backup 2				<input type="button" value="Move Up"/> <input type="button" value="Move Down"/>
	<input type="button" value="Add Backup"/>				<input type="button" value="Remove"/>

Go to the **Primary** tab, and enter the FQDN or IP Address of the primary RSA Authentication Manager as the **Server Name**. The default **Port** of 1812 should be appropriate for most applications. Then enter the RADIUS shared secret as the **Secret**. If you have added backup servers, complete the same configuration under the **Backup** tabs.

Configuration » Authentication » Sources » Add

Authentication Sources

General	Primary	Attributes	Backup 1	Backup 2	Summary
Connection Details					
Server Name:	pe081.pe-lab.com				
Port:	1812				
Secret:				

On the **Summary** tab, verify that the configuration is what you want and then click **Save**.

Configuration » Authentication » Sources » Add

Authentication Sources

Authentication Source has not been saved

General	Primary	Attributes	Backup 1	Backup 2	Summary
General:					
Name:	RSA Authentication Manager				
Description:					
Type:	TokenServer				
Use for Authorization:	Disabled				
Authorization Sources:	-				
Primary:					
Server Name:	pe081.pe-lab.com				
Port:	1812				
Secret:	*****				
Backup 1:					
Server Name:	pe082.pe-lab.com				
Port:	1812				
Secret:	*****				
Backup 2:					
Server Name:	pe083.pe-lab.com				
Port:	1812				
Secret:	*****				
Attributes:					
Type	Name	Type	Enabled as Role		
◀ Back to Authentication Sources					
					Next Save Cancel

Create a Service for RSA Authentications

NOTE: The following instructions assume the use of Aruba Wireless infrastructure. If your network infrastructure is different, these instructions may need to be altered.

Go to **Configuration > Services** and click **Add**. Select **Aruba 802.1X Wireless** as the service **Type**. Provide a **Name** for the service.

Configuration » Services » Add

Services

Service	Authentication	Roles	Enforcement	Summary
Type: Aruba 802.1X Wireless				
Name: RSA Authentication Service				
Description: Aruba 802.1X Wireless Access Service				
Monitor Mode: <input type="checkbox"/> Enable to monitor network access without enforcement				
More Options: <input type="checkbox"/> Authorization <input type="checkbox"/> Posture Compliance <input type="checkbox"/> Audit End-hosts <input type="checkbox"/> Profile Endpoints				
Service Rule				
Matches <input type="radio"/> ANY or <input checked="" type="radio"/> ALL of the following conditions:				
Type	Name	Operator	Value	
1. Radius:IETF	NAS-Port-Type	EQUALS	Wireless-802.11 (19)	
2. Radius:IETF	Service-Type	BELONGS_TO	Login-User (1), Framed-User (2), Authenticate-Only (8)	
3. Radius:Aruba	Aruba-Essid-Name	EXISTS		
4. Click to add...				

Click **Next** to move to the **Authentication** tab. Under **Authentication Sources**, select the RSA authentication source you created in the previous section.

Configuration » Services » Add

Services

Service	Authentication	Roles	Enforcement	Summary
Authentication Methods:				
<input type="checkbox"/> [EAP PEAP] <input type="checkbox"/> [EAP FAST] <input type="checkbox"/> [EAP TLS] <input type="checkbox"/> [EAP TTLS]		<div style="text-align: right;"> <input type="button" value="Move Up"/> <input type="button" value="Move Down"/> <input type="button" value="Remove"/> <input type="button" value="View Details"/> <input type="button" value="Modify"/> </div>		
--Select to Add--				
Authentication Sources:				
<input checked="" type="checkbox"/> RSA Authentication Manager [Token Server]		<div style="text-align: right;"> <input type="button" value="Move Up"/> <input type="button" value="Move Down"/> <input type="button" value="Remove"/> <input type="button" value="View Details"/> <input type="button" value="Modify"/> </div>		
--Select to Add--				
Strip Username Rules: <input type="checkbox"/> Enable to specify a comma-separated list of rules to strip username prefixes or suffixes				

On the **Roles** and **Enforcement** tabs, make changes to suit your environment. On the **Summary** tab, verify that the configuration is what you want, then click **Save**.

Configuration » Services » Add

Services

Service	Authentication	Roles	Enforcement	Summary
Service:				
Type:	Aruba 802.1X Wireless			
Name:	RSA Authentication Service			
Description:	Aruba 802.1X Wireless Access Service			
Monitor Mode:	Disabled			
More Options:	-			
Service Rule				
Match ALL of the following conditions:				
Type	Name	Operator	Value	
1. Radius:IETF	NAS-Port-Type	EQUALS	Wireless-802.11 (19)	
2. Radius:IETF	Service-Type	BELONGS_TO	Login-User (1), Framed-User (2), Authenticate-Only (8)	
3. Radius:Aruba	Aruba-Essid-Name	EXISTS		
Authentication:				
Authentication Methods:	1. [EAP PEAP] 2. [EAP FAST] 3. [EAP TLS] 4. [EAP TTLS]			
Authentication Sources:	RSA Authentication Manager [Token Server]			
Strip Username Rules:	-			
Roles:				
Role Mapping Policy:	-			
Enforcement:				
Use Cached Results:	Disabled			
Enforcement Policy:	[Sample Allow Access Policy]			
Back to Services <input type="button" value="Next >"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/> 				

Configuring the Network Supplicant

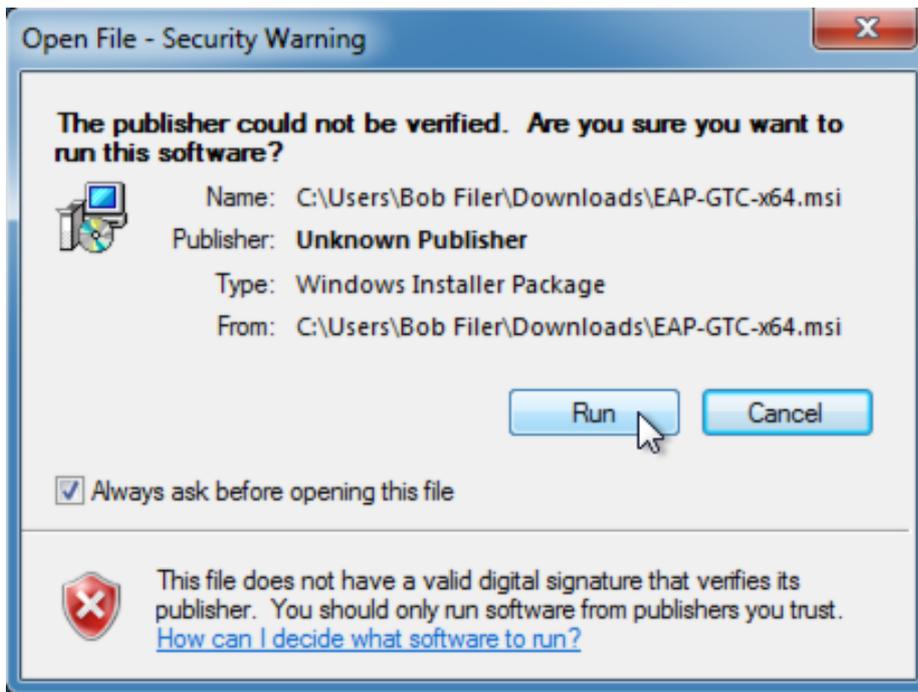
After you have configured ClearPass Policy Manager to use RSA SecurID authentication, a compatible 802.1X supplicant is required to fully implement the solution. Any supplicant used for RSA SecurID authentication must support either EAP-GTC (Generic Token Code) or native SecurID authentication. The additional functionality in these supplicants enables the endpoint to respond to challenges from the RSA Authentication Manager. These challenges manifest themselves in the form of prompts to the end user for events such as NEW PIN or NEXT TOKENCODE. The native supplicants supplied with operating systems such as Windows and Mac OS X do not contain support for 2-factor authentication systems such as RSA SecurID, but may be modified to include such support. Third-party supplicants such as the Juniper Odyssey Access Client may also be used in place of the native supplicants. You can explore additional supplicant options on the RSA Ready ^[2] community.

Installing the EAP-GTC Plug-In

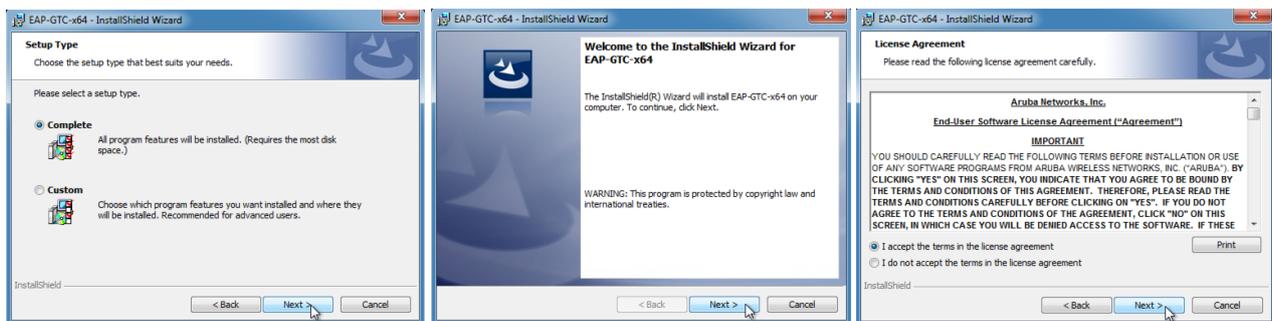
In the following example, the EAP-GTC plug-in (supplied by Aruba Networks) for Windows is used. This plug-in is available for download from the Aruba Networks support site ^[3], and supports 32- and 64-bit versions of Windows XP, Vista, and 7. Follow the instructions included in the EAP-GTC Plug-In User's Guide to install the plug-in on Windows.

NOTE: Windows 7 is used for the client examples.

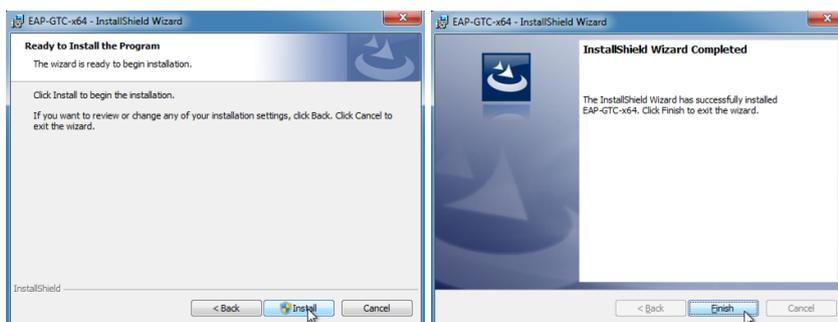
Launch the downloaded Windows installer package. The package is unsigned so you will have click **Run** to accept the Security Warning to proceed.



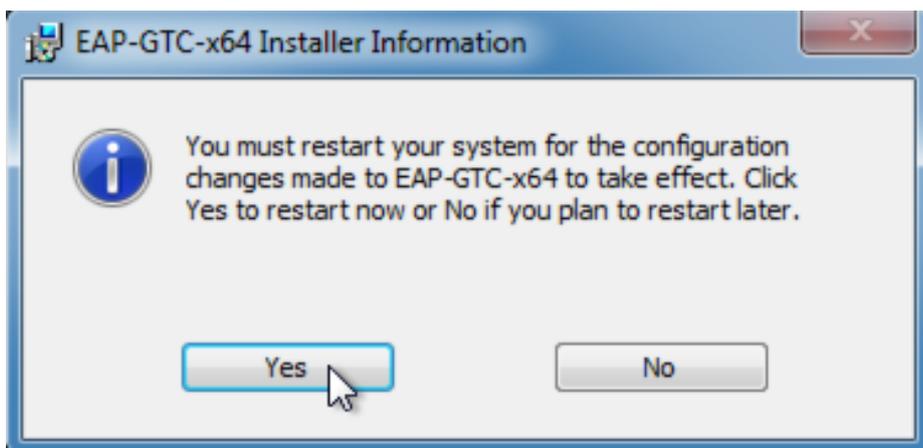
Click **Next**, then **Accept** the License Agreement and click **Next**. Select the **Complete** Setup Type and click **Next**.



Click **Install** to begin the installation and then click **Finish** once the installation is complete.

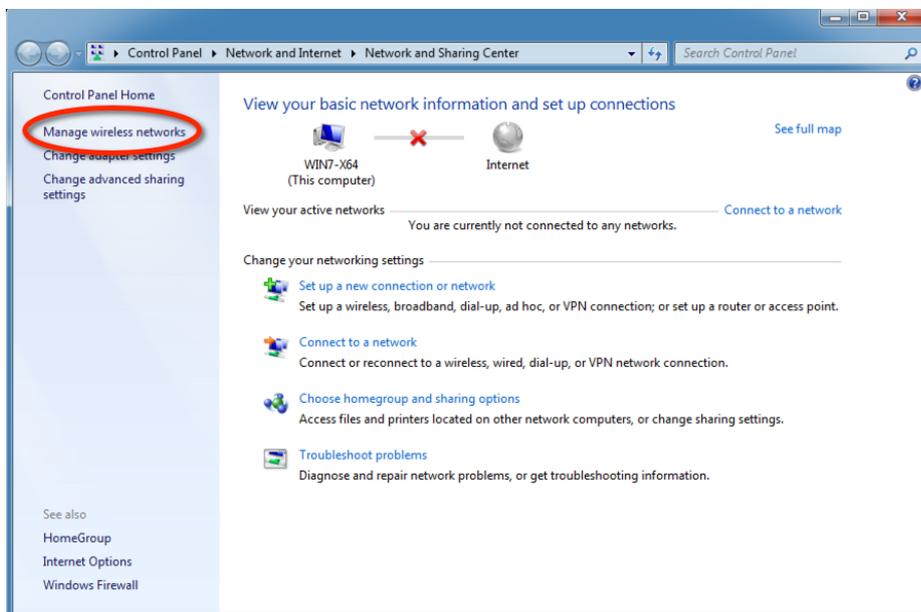


Finally, **restart** your system to complete the installation.



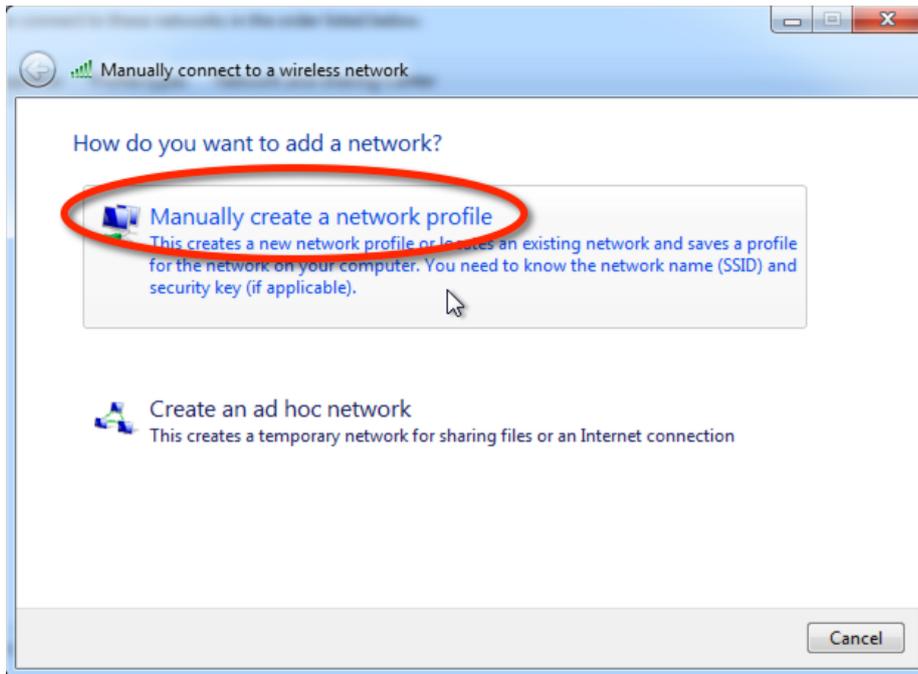
Configuring the EAP-GTC Plug-In

After installation of the EAP-GTC plug-in, you need to manually create a Network Profile for the SSID that will use RSA SecurID. Open the Network and Sharing Center and click **Manage wireless networks**.



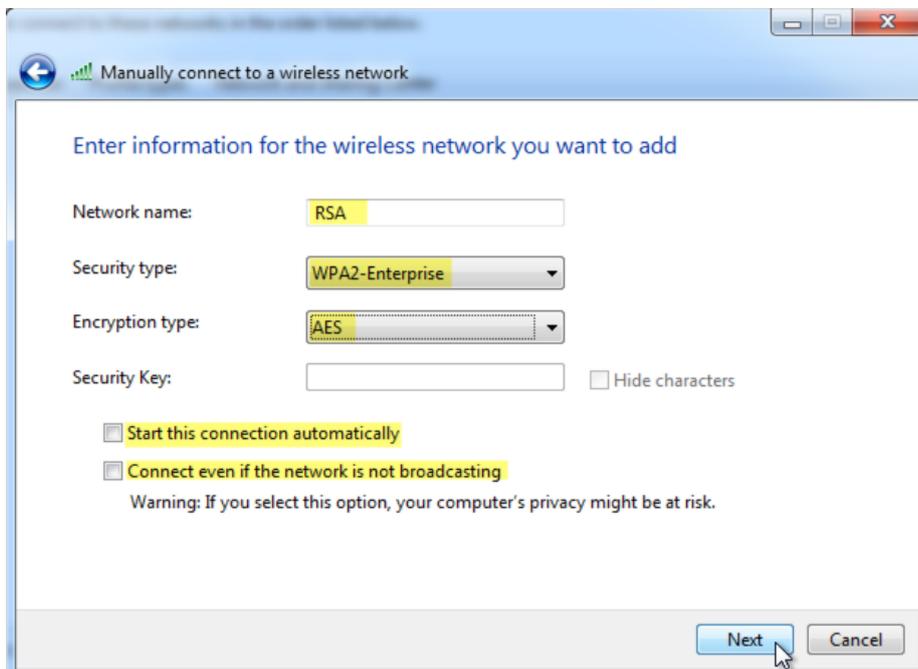
Click **Add** to create a new wireless network configuration.

Click **Manually create a network profile** to create a new network profile.

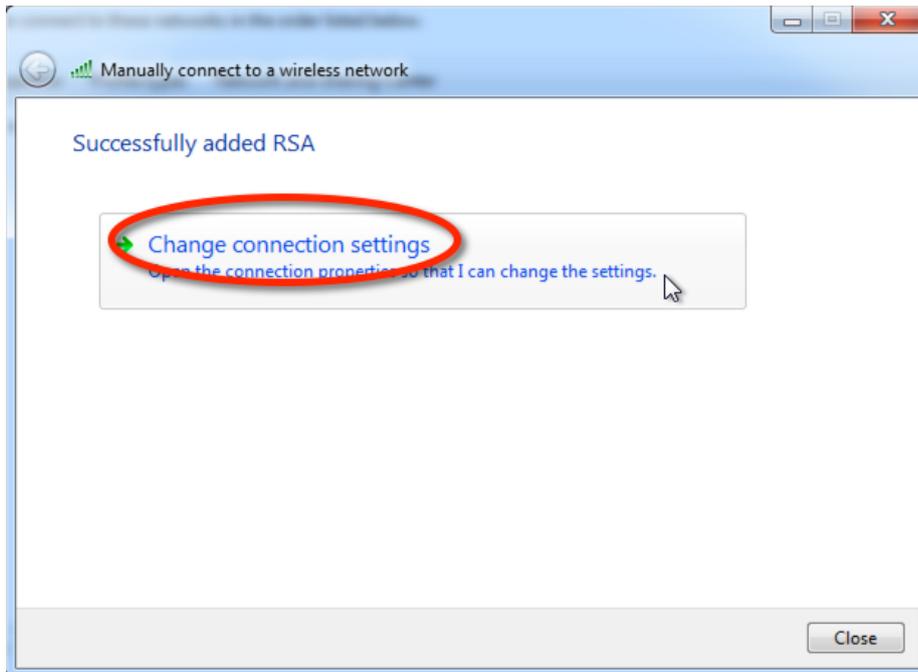


Enter the following information into the Wireless Network Information window, then click **Next**:

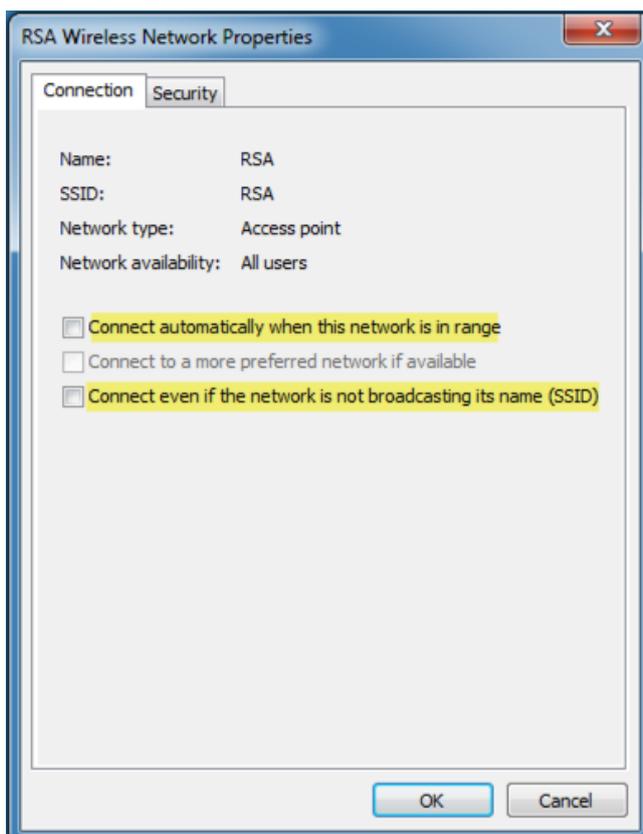
- **Network name:** Enter the network **SSID**
- **Security type:** Select **WPA2-Enterprise**, **WPA-Enterprise**, or **802.1X** from the pull-down list. This selection should match your network settings.
- **Encryption type:** Select **AES**, **TKIP**, or **WEP** as appropriate from the pull-down list.



Click **Change connection settings**.

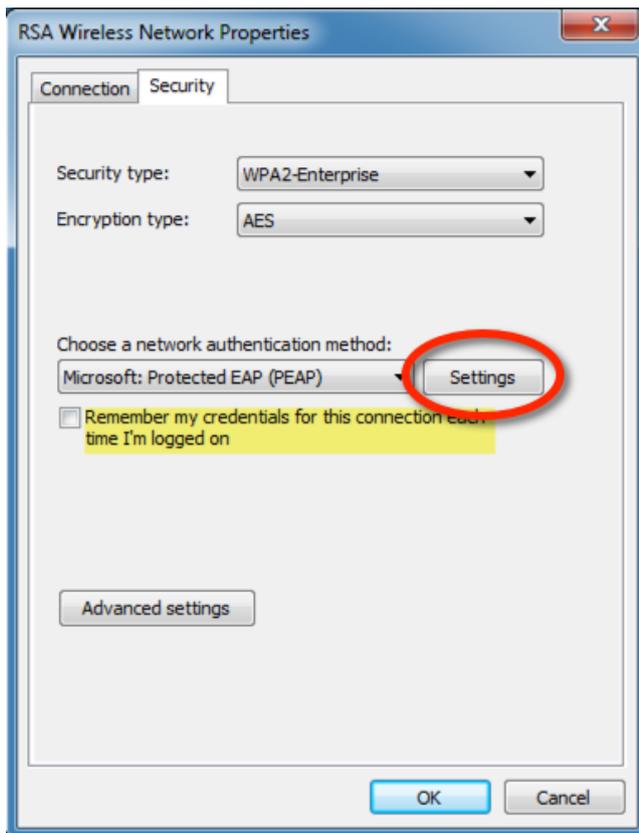


The **Wireless Network properties** dialog box appears with the **Connection** tab selected. Make changes as appropriate for your environment, then click on the **Security** tab.



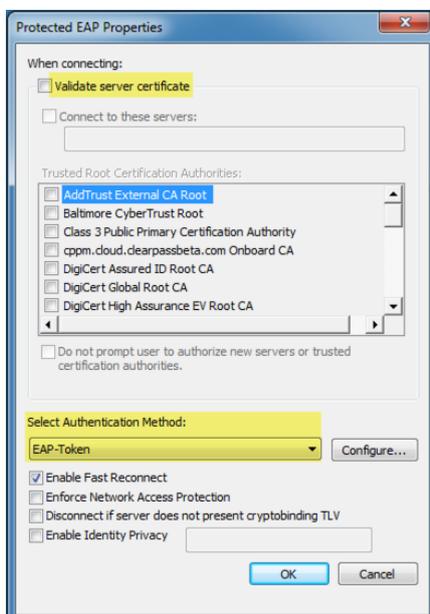
Select **Microsoft: Protected EAP (PEAP)** from the **Choose a network authentication method** pull-down menu. Make other changes as appropriate, then click **Setting**.

NOTE: While EAP-Token appears in both the inner and outer authentication method lists, you should only select it as an inner method. Select PEAP as the outer method.

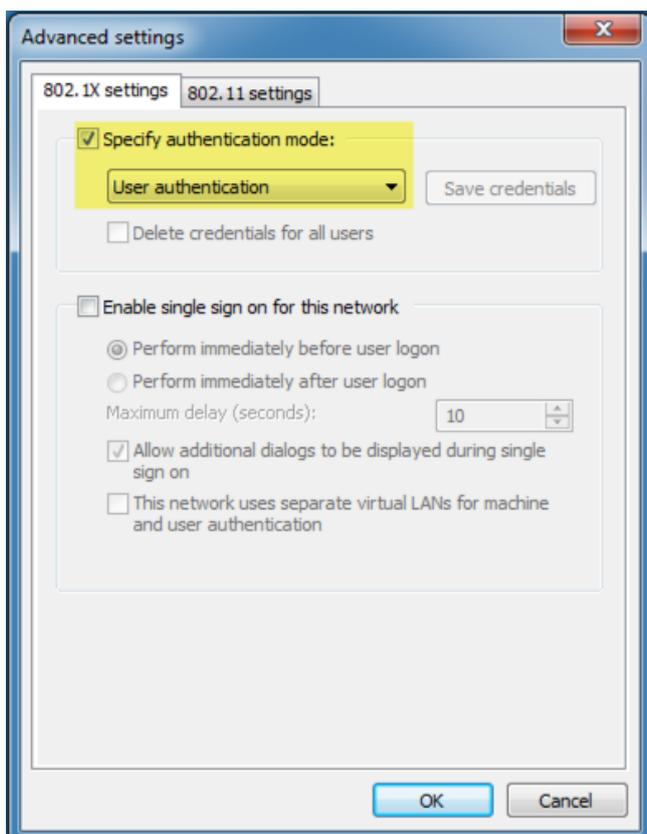


Select **EAP-Token** from the **Select Authentication Method** pull-down list. Make any other changes appropriate for your environment, then click **OK**.

NOTE: When you select EAP Token as the authentication method, no dialog box is displayed if you click on the Configure button.



Click the **Advanced** button if you need to make any changes to the **Advanced Properties** such as the Authentication Mode.



Click **OK** when you've made all the necessary changes.

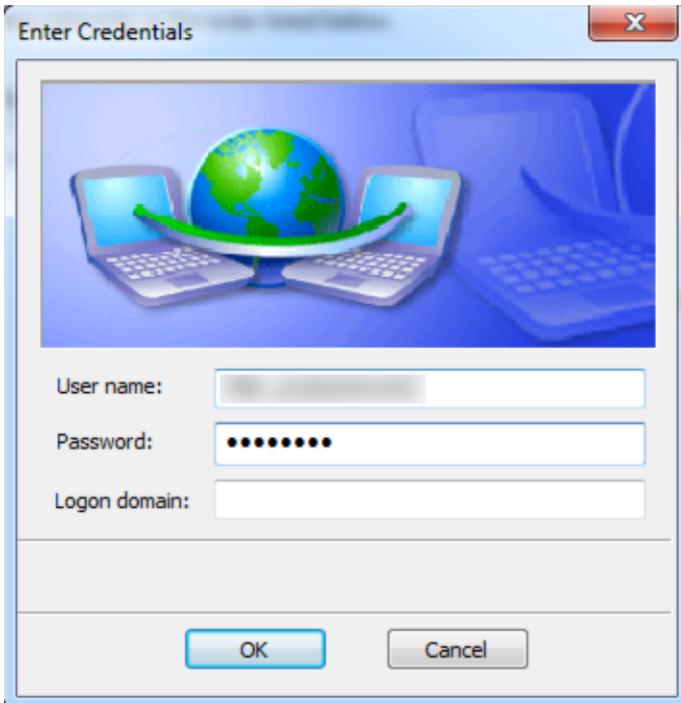
Configuring RSA Authentication Manager



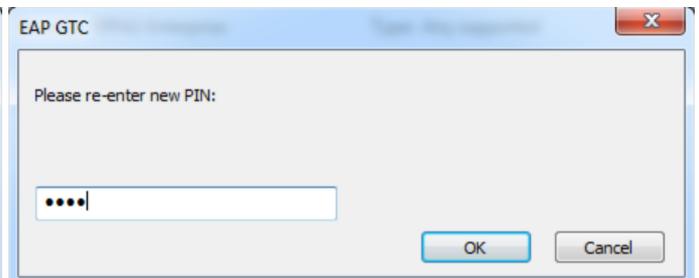
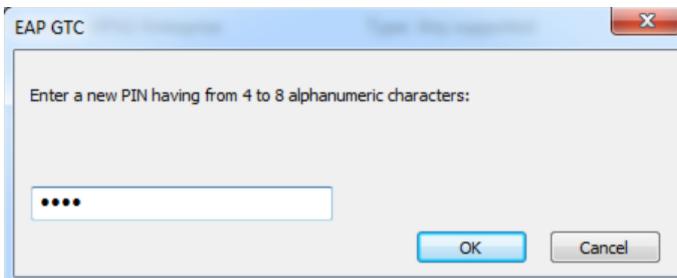
See the [RSA Authentication Manager Configuration Guide](#) for guidelines on setting up RSA Authentication Manager. Make sure you set up RSA Authentication Manager for RADIUS.

RSA SecurID Login Screens

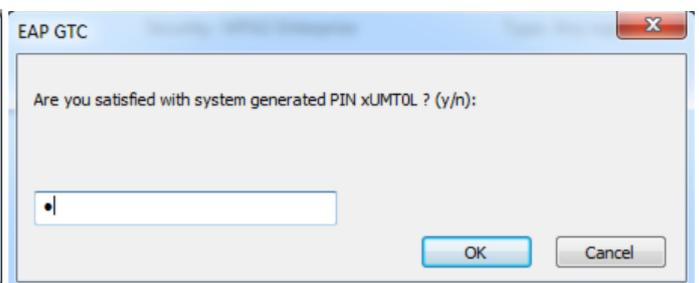
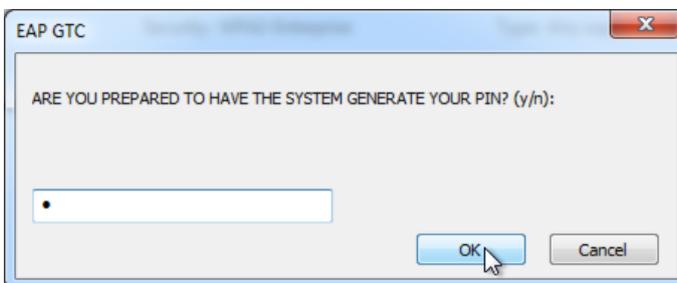
Login Dialog



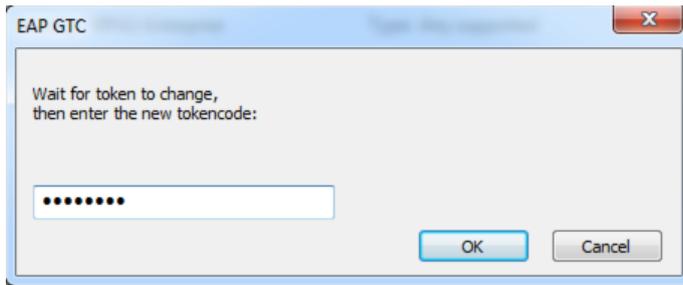
User-Defined New PIN



System-generated New PIN



Next Tokencode



Historical

FOR HISTORICAL REFERENCE: [Configure CPPM to use RSA Token server as Authentication Source.PDF](#)

References

- [1] <http://en.wikipedia.org/wiki/SecurID>
- [2] <https://community.emc.com/community/connect/rsaxchange/rsa-ready/content>
- [3] <http://support.arubanetworks.com/ToolsResources/tabid/76/DMXModule/514/EntryId/114/Default.aspx>

Article Sources and Contributors

How to: Two-Factor Authentication with ClearPass and RSA SecureID *Source:* <https://arubapedia.arubanetworks.com/hp/index.php?oldid=45373> *Contributors:* Rflifer

Image Sources, Licenses and Contributors

File:2014-11-13_11-53-48.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_11-53-48.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_11-56-04.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_11-56-04.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_11-59-31.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_11-59-31.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_12-07-53.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_12-07-53.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_12-12-26.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_12-12-26.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_12-15-04.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_12-15-04.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-14_11-03-52.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-14_11-03-52.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-14_11-03-55.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-14_11-03-55.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-14_11-03-53.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-14_11-03-53.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-14_11-03-54.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-14_11-03-54.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-14_11-03-56.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-14_11-03-56.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-14_11-03-58.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-14_11-03-58.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-14_11-03-59.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-14_11-03-59.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-14_12-12-01.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-14_12-12-01.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-14_12-12-19.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-14_12-12-19.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-14_12-12-49.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-14_12-12-49.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-14_12-12-59.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-14_12-12-59.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_14-43-28.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_14-43-28.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_14-43-39.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_14-43-39.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_14-44-04.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_14-44-04.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_14-45-13.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_14-45-13.png *License:* unknown *Contributors:* Maintenance script

File:Secured By RSA SecurID AM 8 0 Ready Test Guide.doc *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:Secured_By_RSA_SecurID_AM_8_0_Ready_Test_Guide.doc *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_11-41-12.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_11-41-12.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_11-41-18_01.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_11-41-18_01.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_11-41-20.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_11-41-20.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_11-41-14.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_11-41-14.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_11-41-15.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_11-41-15.png *License:* unknown *Contributors:* Maintenance script

File:2014-11-13_11-41-42.png *Source:* https://arubapedia.arubanetworks.com/hp/index.php?title=File:2014-11-13_11-41-42.png *License:* unknown *Contributors:* Maintenance script