

# Configure and Manage User Accounts on an RV34x Series Router

## Objective

The objective of this article is to show you how to configure and manage the local and remote user accounts on an RV34x Series Router. This includes, how to configure local users password complexity, configure/edit/import local users, configure remote authentication service using RADIUS, Active Directory, and LDAP.

## Applicable Devices | Firmware Version

- RV34x Series | 1.0.01.16 ([Download latest](#))

## Introduction

The RV34x Series Router provides user accounts in order to view and administer settings. Users can be from different groups or belong to logical groups of Secure Sockets Layer (SSL) Virtual Private Networks (VPN) that share the authentication domain, Local Area Network (LAN) and service access rules, and idle timeout settings. User management defines which type of users can utilize a certain type of facility and how that can be done.

The external database priority is always Remote Authentication Dial-In User Service (RADIUS)/Lightweight Directory Access Protocol (LDAP)/Active Directory (AD)/Local. If you add the RADIUS server on the router, the Web Login Service and other services will use the RADIUS external database to authenticate the user.

There is no option to enable an external database for Web Login Service alone and configure another database for another service. Once RADIUS is created and enabled on the router, the router will use the RADIUS service as an external database for Web Login, Site to Site VPN, EzVPN/3rd Party VPN, SSL VPN, Point-to-Point Transport Protocol (PPTP)/ Layer 2 Transport Protocol (L2TP) VPN, and 802.1x.

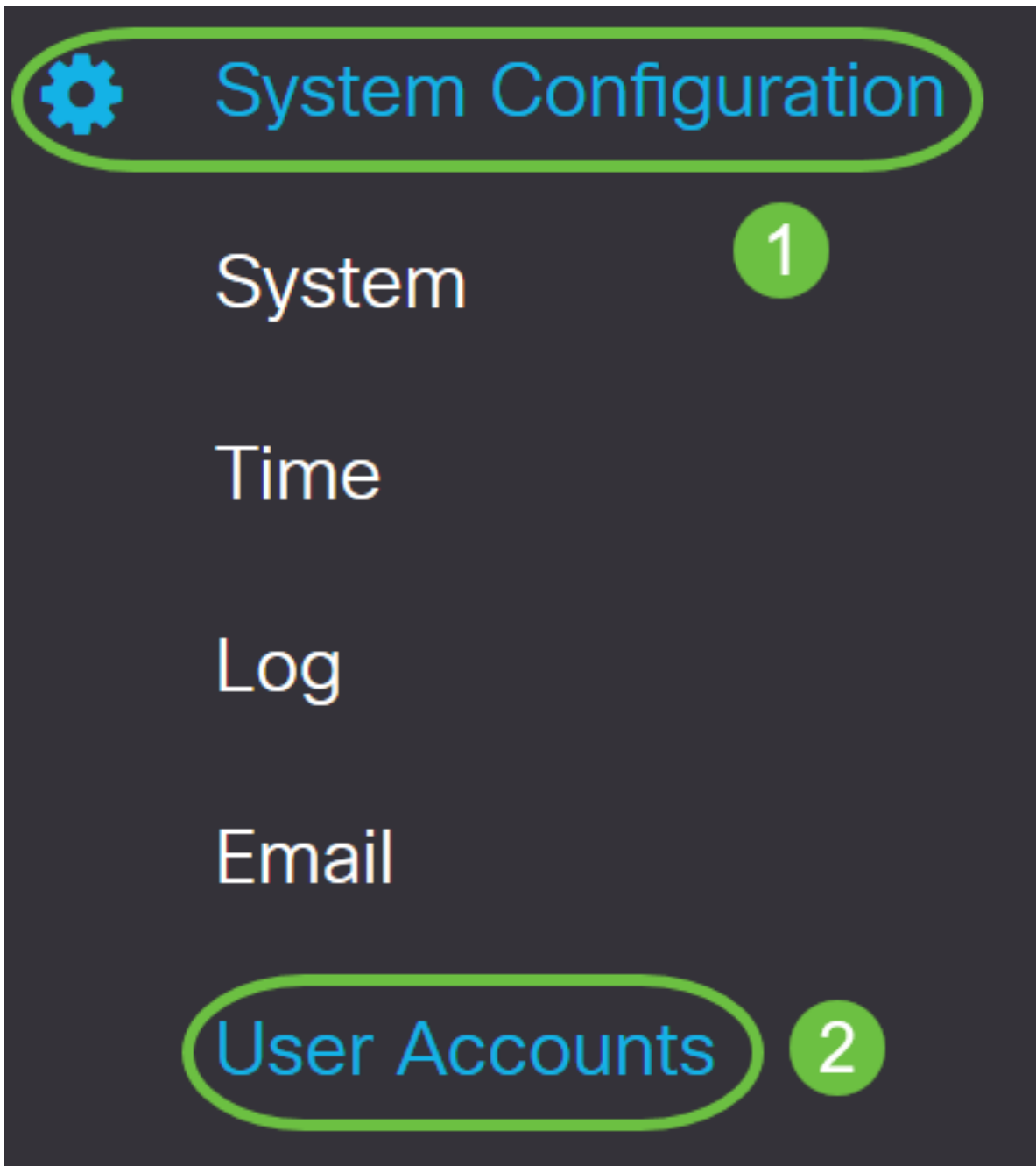
## Table of Contents

- [Configure a Local User Account](#)
- [Local Users Password Complexity](#)
- [Configure Local Users](#)
- [Edit Local Users](#)
- [Import Local Users](#)
- [Configure Remote Authentication Service](#)
- [RADIUS](#)
- [Active Directory Configuration](#)
- [Active Directory Integration](#)
- [Active Directory Integration Settings](#)
- [LDAP](#)

## Configure a Local User Account

## Local Users Password Complexity

Step 1. Log in to the web-based utility of the router and choose **System Configuration > User Accounts**.



Step 2. Check the **Enable Password Complexity Settings** check box to enable password complexity parameters.

If this is left unchecked, skip to [Configure Local Users](#).

# Local Users Password Complexity

Password Complexity Settings:



Enable

Step 3. In the *Minimal password length* field, enter a number ranging from 0 to 127 to set the minimum number of characters a password must contain. The default is 8.

For this example, the minimum number of characters is set to **10**.

## Local Users Password Complexity

Password Complexity Settings:



Enable

Minimal password length:

10

(Range: 0 - 127, Default: 8)

Step 4. In the *Minimal number of character classes* field, enter a number from 0 to 4 to set the class. The number entered represents the number minimum or maximum characters of the different classes:

- Password is composed of upper case characters (ABCD).
- Password is composed of lower case characters (abcd).
- Password is composed numerical characters (1234).
- Password is composed of special characters (!@#\$).

In this example, **4** is used.

## Local Users Password Complexity

Password Complexity Settings:



Enable

Minimal password length:

10

(Range: 0 - 127, Default: 8)

Minimal number of character classes:

4

(Range: 0 - 4, Default: 3)

The four classes are: upper case (ABCD...), lower case(abcd...), numerical(1234...) and special characters(!@#\$...).

Step 5. Check the **Enable** check box for the new password must be different than the current one.

## Local Users Password Complexity

Password Complexity Settings:  Enable

Minimal password length:  (Range: 0 - 127, Default: 8)

Minimal number of character classes:  (Range: 0 - 4, Default: 3)

The four classes are: upper case (ABCD...), lower case(abcd...), numerical(1234...) and special characters(!@#\$...).

The new password must be different than the current one:  Enable

Step 6. In the *Password Aging Time* field, enter number of days (0 - 365) for password expiry. In this example, **180** days has been entered.

## Local Users Password Complexity

Password Complexity Settings:  Enable

Minimal password length:  (Range: 0 - 127, Default: 8)

Minimal number of character classes:  (Range: 0 - 4, Default: 3)

The four classes are: upper case (ABCD...), lower case(abcd...), numerical(1234...) and special characters(!@#\$...).

The new password must be different than the current one:  Enable

Password Aging Time:  days (Range: 0 - 365, 0 means never expire)

You have now successfully configured the Local Users Password Complexity settings on your router.

## Configure Local Users

Step 1. In the Local User Membership List table, click **Add** to create a new user account. You will be taken to the Add User Account page.

# Local Users

## Local User Membership List



<input type="checkbox"/>	#	User Name	Group *
<input type="checkbox"/>	1	cisco	admin
<input type="checkbox"/>	2	guest	guest

\* Should have at least one account in the "admin" group

Under the *Add User Account* header, the parameters defined under Local Password Complexity steps are displayed.

# User Accounts

## Add User Account

The current minimum requirements are as follows.

- Minimal password length: 8
- Minimal number of character classes: 3
- The new password must be different than the current one

Step 2. In the *User Name* field, enter a user name for the account.

In this example, **Administrator\_Noah** is used.

User Name	<input type="text" value="Administrator_Noah"/>	
New Password	<input type="password" value="Password may not be left blank"/>	( Range: 8 - 127 )
New Password Confirm	<input type="password" value="Password may not be left blank"/>	
Password Strength Meter	<div><div style="width: 25%; background-color: red;"></div><div style="width: 75%; background-color: gray;"></div></div>	
Group	<input type="text" value="admin"/>	

Step 3. In the *New Password* field, enter a password with the defined parameters. In this example, the minimum password length must be composed of 10 characters with a combination of upper case, lower case, numerical, and special characters.

User Name	<input type="text" value="Administrator_Noah"/>	
New Password	<input type="password" value="●●●●●●●●●●"/>	( Range: 8 - 127 )
New Password Confirm	<input type="password" value="Password may not be left blank"/>	Must match the previous entry
Password Strength Meter	<div><div style="width: 25%; background-color: red;"></div><div style="width: 25%; background-color: yellow;"></div><div style="width: 50%; background-color: gray;"></div></div>	
Group	<input type="text" value="admin"/>	

Step 4. In the *New Password Confirm* field, re-enter the password to confirm. A text beside the field will appear if the passwords do not match.

User Name	<input type="text" value="Administrator_Noah"/>	
New Password	<input type="password" value="●●●●●●●●"/>	( Range: 8 - 127 )
New Password Confirm	<input type="password" value="●●●●●●●●"/>	
Password Strength Meter		
Group	<input type="text" value="admin"/>	▼

The Password Strength Meter changes depending on the strength of your password.



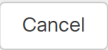
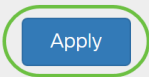
Step 5. From the *Group* drop-down list, choose a group to assign a privilege to a user account. The options are:

- admin - Read & write privileges.
- guest - Read-only privileges.

For this example, **admin** is chosen.

User Name	<input type="text" value="Administrator_Noah"/>	
New Password	<input type="password" value="●●●●●●●●"/>	( Range: 8 - 127 )
New Password Confirm	<input type="password" value="●●●●●●●●"/>	
Password Strength Meter		
Group	<input type="text" value="admin"/>	▼
	<input type="text" value="admin"/>	
	<input type="text" value="guest"/>	

Step 6. Click **Apply**.



## Add User Account

The current minimum requirements are as follows.

- Minimal password length: 8
- Minimal number of character classes: 3
- The new password must be different than the current one

User Name	<input type="text" value="Administrator_Noah"/>	
New Password	<input type="password" value="••••••••"/>	( Range: 8 - 127 )
New Password Confirm	<input type="password" value="••••••••"/>	
Password Strength Meter		
Group	<input type="text" value="admin"/>	▼

You have now successfully configured the Local User Membership on an RV34x Series Router.

## Edit Local Users

Step 1. Check the check box beside the user name of the local user in the Local User Membership List table.

For this example, **Administrator\_Noah** is chosen.



# Local Users

## Local User Membership List



#  User Name  Group \*

<input checked="" type="checkbox"/>	1	Administrator_Noah	admin
<input type="checkbox"/>	2	cisco	admin
<input type="checkbox"/>	3	guest	guest

Step 2. Click **Edit**.

# Local Users

## Local User Membership List



<input type="checkbox"/>	#	User Name	Group *
<input checked="" type="checkbox"/>	1	Administrator_Noah	admin
<input type="checkbox"/>	2	cisco	admin
<input type="checkbox"/>	3	guest	guest

The user name cannot be edited.

Step 3. In the *Old Password* field, enter the password that was previously configured for the local user account.

## Edit User Account

User Name

Old Password

Step 4. In the *New Password* field, enter a new password. The new password must meet the minimum requirements.

## Edit User Account

User Name

Old Password

New Password

( Range: 0 - 127 )

Step 5. Enter the new password once more in the *New Password Confirm* field to confirm. These passwords must match.

## Edit User Account

User Name

Old Password

New Password

( Range: 0 - 127 )

New Password Confirm

Step 6. (Optional) From the Group drop-down list, choose a group to assign a privilege to a user account.

In this example, **guest** is chosen.

# Edit User Account

User Name

Old Password

New Password

( Range: 0 - 127 )

New Password Confirm

Group

admin

guest

Step 7. Click **Apply**.

User Accounts

Apply

Cancel

## Edit User Account

User Name

Old Password

New Password

( Range: 0 - 127 )

New Password Confirm

Group

You should now have successfully edited a local user account.

# Local Users

## Local User Membership List




<input type="checkbox"/>	#	User Name	Group *
<input type="checkbox"/>	1	Administrator_Noah	guest
<input type="checkbox"/>	2	cisco	admin
<input type="checkbox"/>	3	guest	guest

\* Should have at least one account in the "admin" group

## Import Local Users



Step 1. In the Local Users Import area, click  .

Step 2. Under Import User Name & Password, click **Browse...** to import a list of users. This file is typically a spreadsheet saved in a Comma Separated Value (.CSV) format.

In this example, **user-template.csv** is chosen.

# Local Users Import

Import User Name & Password

Browse...

user-template.csv

(Import User Name + Password via CSV files)

Import

Download User Template:

Download

Step 3. (Optional) If you do not have a template, click on the **Download** in the Download User Template area.

# Local Users Import

Import User Name & Password

Browse...

user-template.csv

(Import User Name + Password via CSV files)

Import

Download User Template:

Download

Step 4. Click **Import**.

# Local Users Import

Import User Name & Password

Browse...

user-template.csv

(Import User Name + Password via CSV files)

Import

Download User Template:

Download

A message beside the import button will appear that the import was successful.

You have now successfully imported a list of local users.

## Configure Remote Authentication Service

### RADIUS

Step 1. In the Remote Authentication Service Table, click **Add** to create an entry.



# Remote Authentication Service Table



Enable       Name 

Step 2. In the *Name* field, create a username for the account.

For this example, **Administrator** is used.

## Add/Edit New Domain

Name

Administrator

Step 3. From the Authentication Type drop-down menu, choose **Radius**. This means that user authentication will be made through a RADIUS server.

Only a single remote user account under RADIUS can be configured.

Authentication Type

RADIUS



RADIUS

Active Directory

LDAP

Primary Server

Backup Server

Step 4. In the *Primary Server* field, enter the IP address of the primary RADIUS server.

In this example, **192.168.3.122** is used as the primary server.

Primary Server  Port

Step 5. In the *Port* field, enter the port number of the primary RADIUS server.

For this example, **1645** is used as the port number.

Primary Server  Port

Step 6. In the *Backup Server* field, enter the IP address of the backup RADIUS server. This serves as a failover in case the primary server goes down.

In this example, the backup server address is **192.168.4.122**.

Backup Server  Port

Step 7. In the *Port* field, enter the number of backup RADIUS server.

Backup Server  Port

In this example, **1646** is used as the port number.

Step 8. In the *Preshared-Key* field, enter the pre-shared key that was configured on the RADIUS server.

Pre-shared Key

Step 9. In the *Confirm Preshared-key* field, re-enter the preshared-key to confirm.

Confirm Pre-shared Key

Step 10. Click **Apply**.

## Add/Edit New Domain

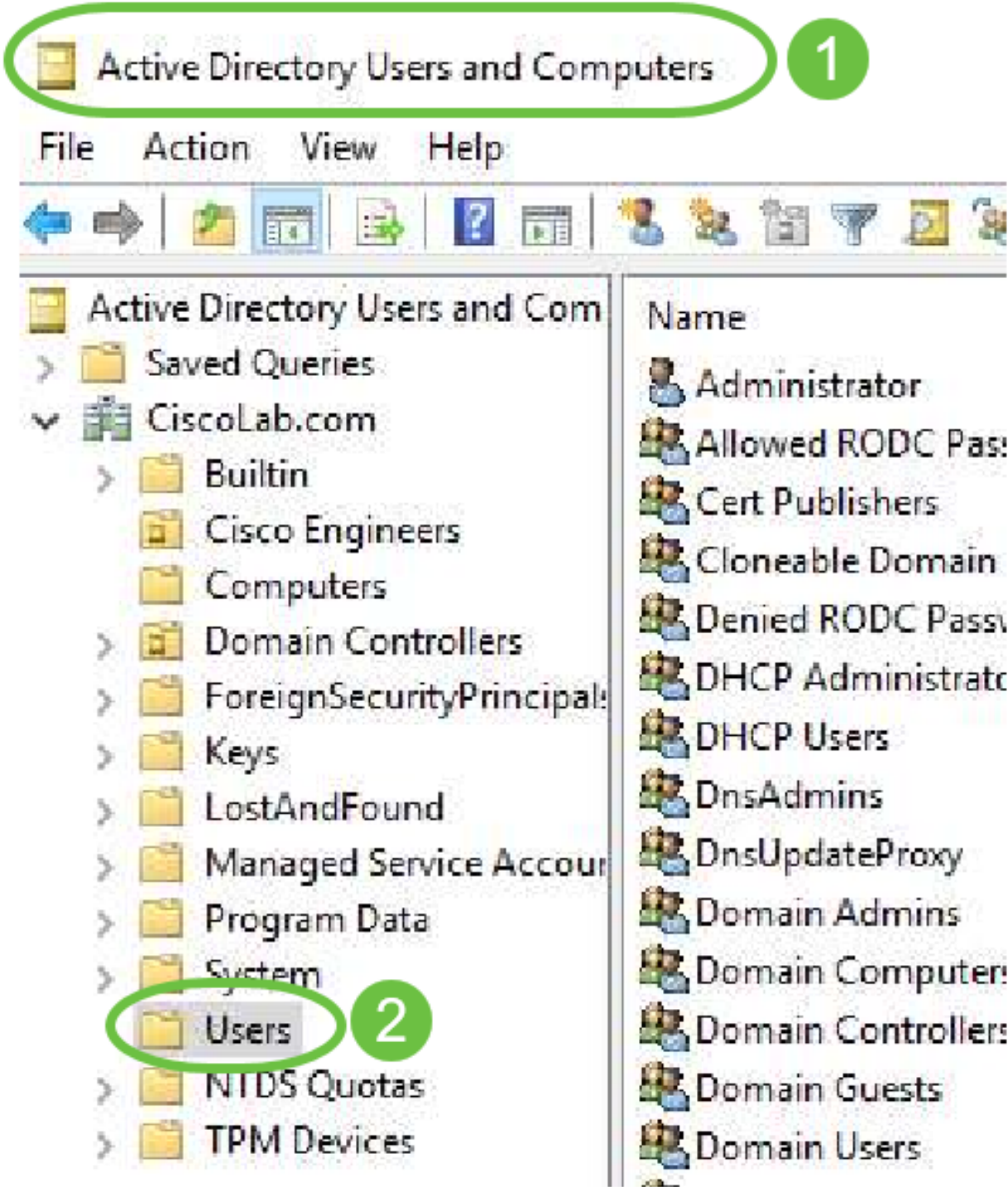
Name	<input type="text" value="Administrator"/>		
Authentication Type	<input type="text" value="RADIUS"/>		
Primary Server	<input type="text" value="192.168.3.122"/>	Port	<input type="text" value="389"/>
Backup Server	<input type="text" value="192.168.4.122"/>	Port	<input type="text" value="389"/>
Pre-shared Key	<input type="password" value="●●●●●●●●"/>		
Confirm Pre-shared Key	<input type="password" value="●●●●●●●●"/>		

You will be taken to the main user account page. The recently configured account now appears in the Remote Authentication Service table.

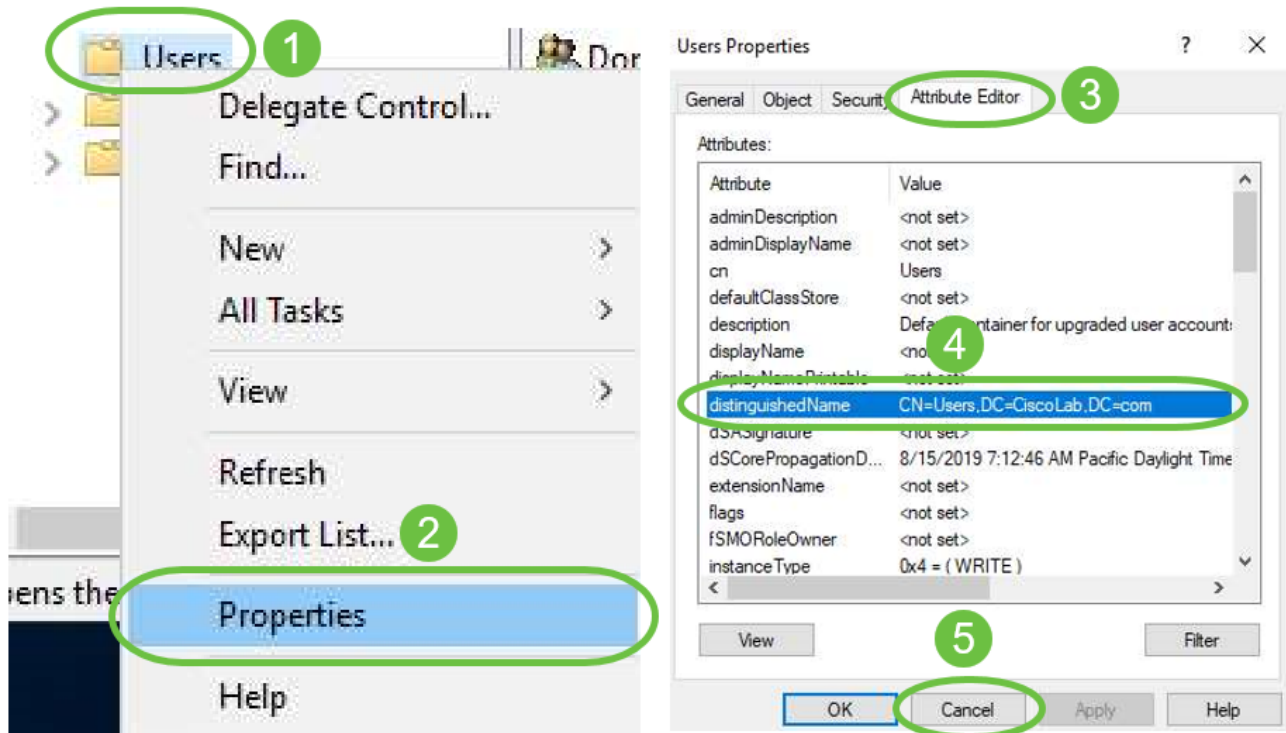
You have now successfully configured RADIUS authentication on an RV34x Series Router.

## Active Directory Configuration

Step 1. To complete the Active Directory Configuration you will need to be logged in to the Active Directory Server. On your PC, open **Active Directory users and Computers** and navigate to the container that will have the user accounts used to login remotely. In this example, we will use the **Users** container.



Step 2. Right-Click the Container and select **Properties**. Navigate to the *Attribute Editor* tab and find the *distinguishedName* field. If this tab is not visible, you will need to enable the advanced features view in Active Directory Users and computers and start over. Make a note of this field and click **Cancel**. This will be the user container path. This field will also be needed when configuring the RV340 and must match exactly.



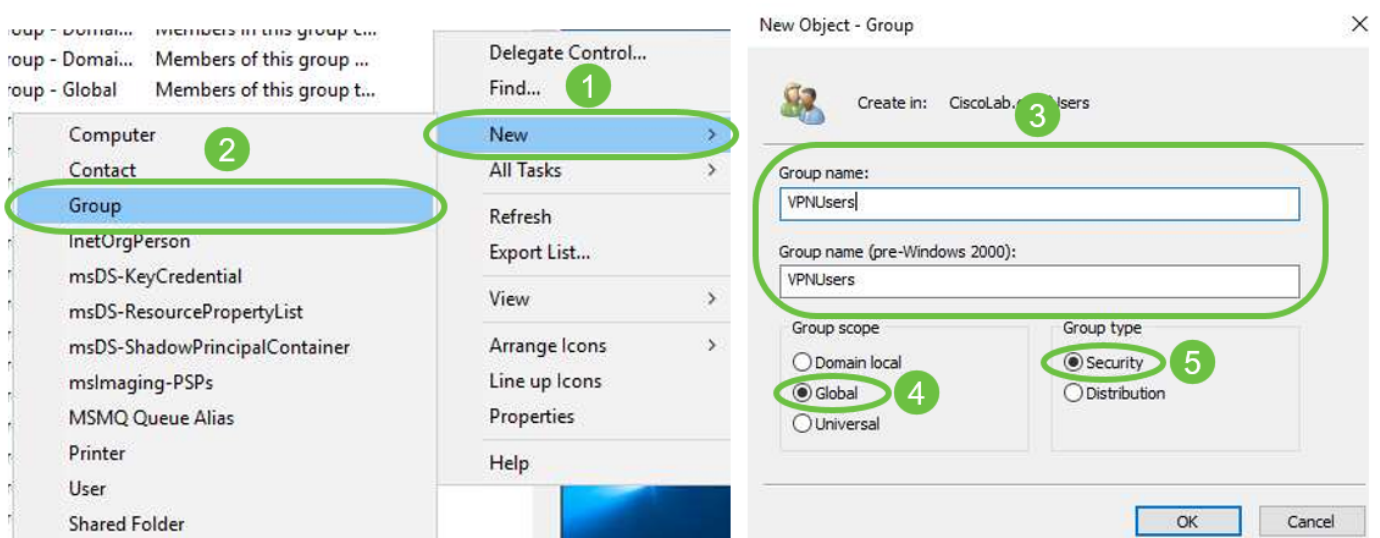
Step 3. Create a Global Security Group in the same container as the User Accounts that will be used.

In the selected Container, right-click on a blank area and select **New > Group**.

Select the following:

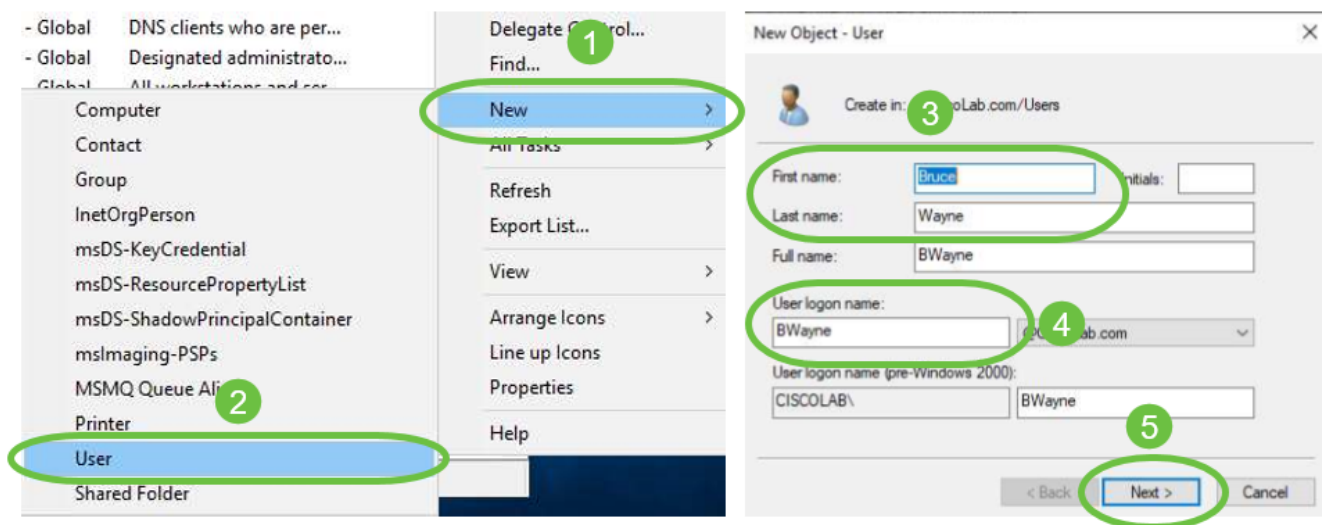
- Group Name - This name will have to be an exact match to the User Group name created on the RV340. In this example, we will use **VPNUsers**.
- Group Scope - Global
- Group Type - Security

Click **OK**.



Step 4. To create new User Accounts, do the following:

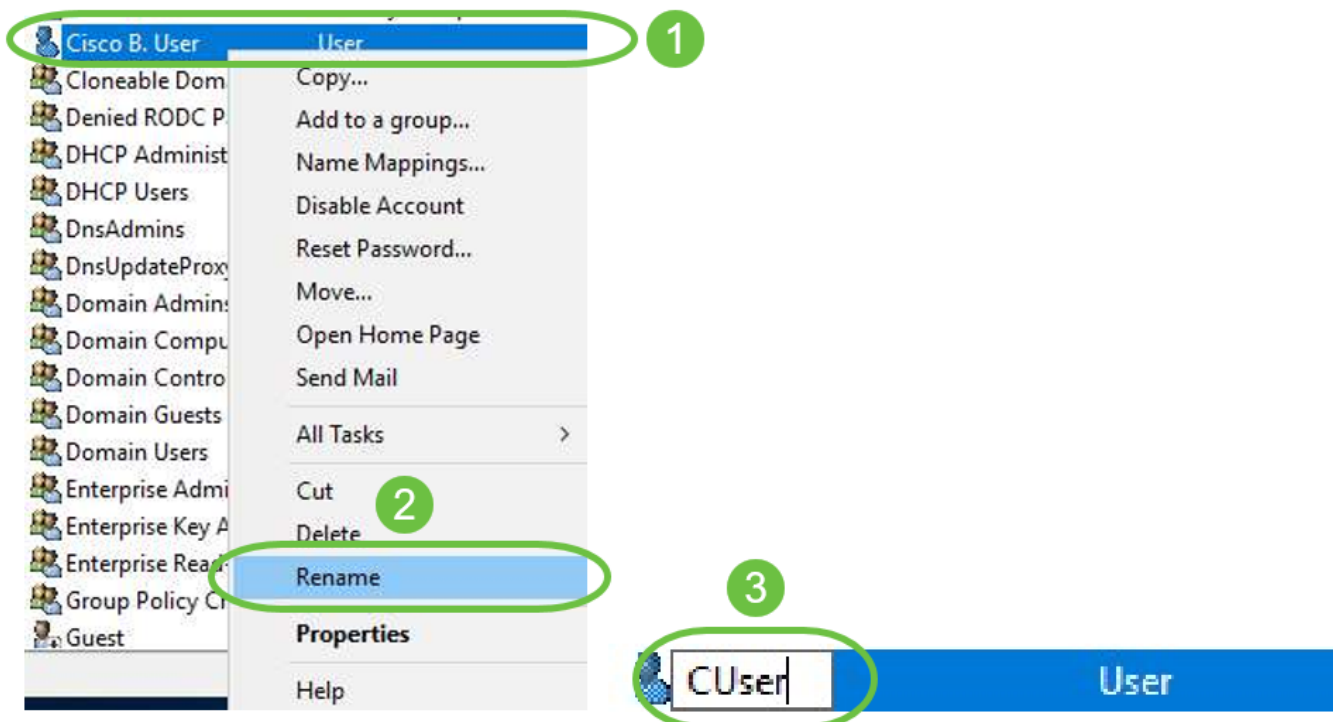
- Right-click an empty space in the Container and select **New > User**.
- Enter *First Name, Last Name*.
- Enter the *User Logon Name*.
- Click **Next**.



You will be prompted to enter a password for the user. If *User must change password at next logon* box is checked, the user will have to login locally and change password BEFORE logging in remotely.

Click **Finish**.

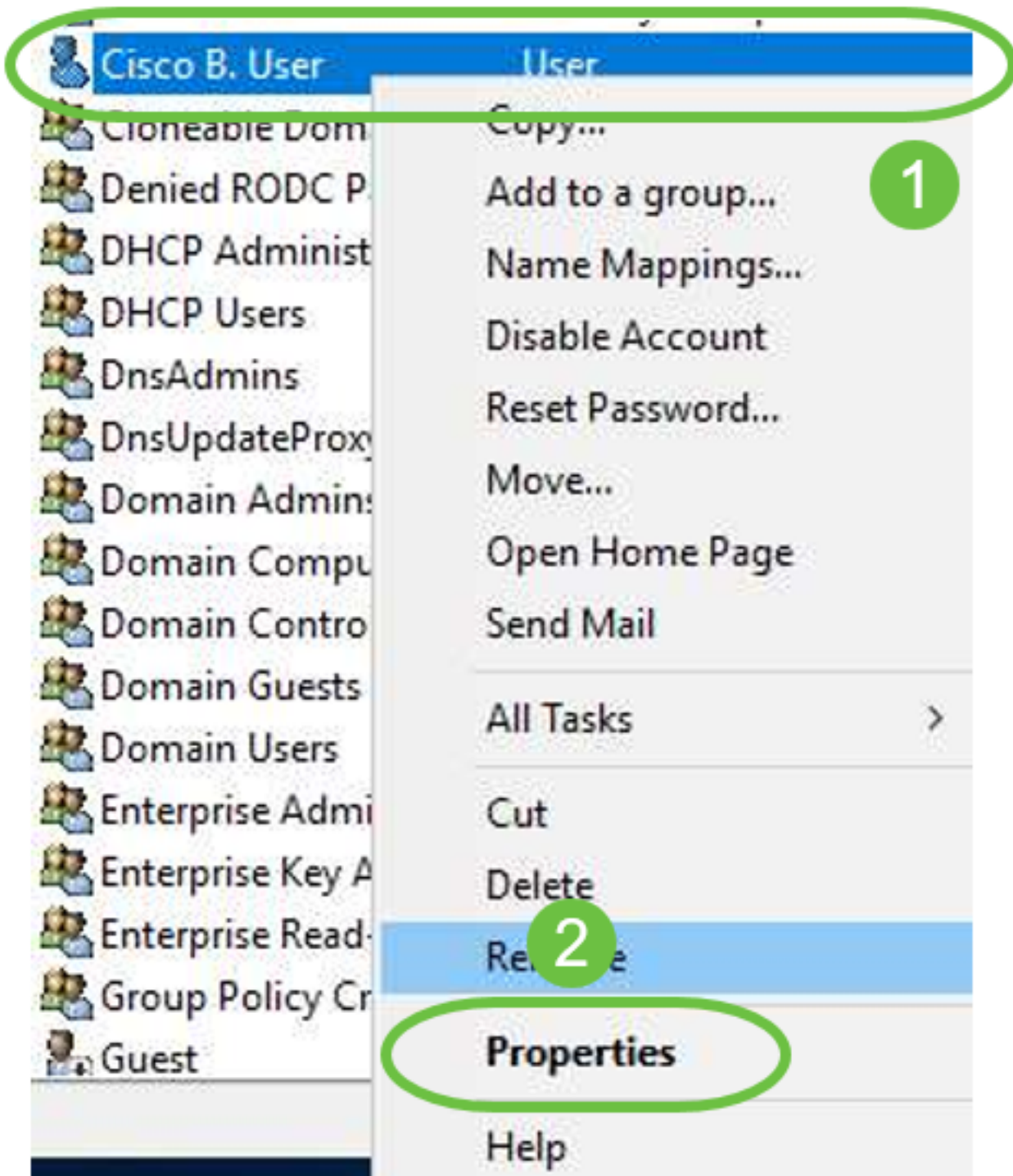
If User Accounts are already created that need to be used, adjustments may need to be made. To adjust a user's canonical name, select the user, right-click and select **Rename**. Ensure all spaces are removed and that it matches the user's Logon Name. This will NOT change the users Display Name. Click **OK**.



Step 5. Once User accounts are structured correctly they will need to be granted rights to login

remotely.

To do this, select the user account, right-click and select **Properties**.



In the *User Properties* select **Attribute Editor** tab and scroll down to *distinguishedName*. Ensure that the first *CN=* has the correct user logon name with no spaces.

CUser Properties 1 ? X

Security	Environment		Sessions		Remote control	
General	Address	Account	Profile	Telephones	Organization	
Published Certificates		Member Of	Password Replication		Dial	Object
Remote Desktop Services Profile			COM+		Attribute Editor	

Attributes:

Attribute	Value
desktopProfile	<not set>
destinationIndicator	<not set>
displayName	Cisco User <span style="border: 1px solid green; border-radius: 50%; padding: 2px 5px;">3</span>
displayableNamePrintable	<not set>
distinguishedName	CN=CUser,CN=Users,DC=CiscoLab,DC=com
division	<not set>

Select the **Member Of** tab and click on **Add**.



# Cisco B. User Properties



Security	Environment	Sessions	Remote control		
Remote Desktop Service	file	COM+	Attribute Editor		
General	Address	Account	Profile	Telephones	Organization
Published Certificates	Member Of	Password Replication	Dial-in	Object	

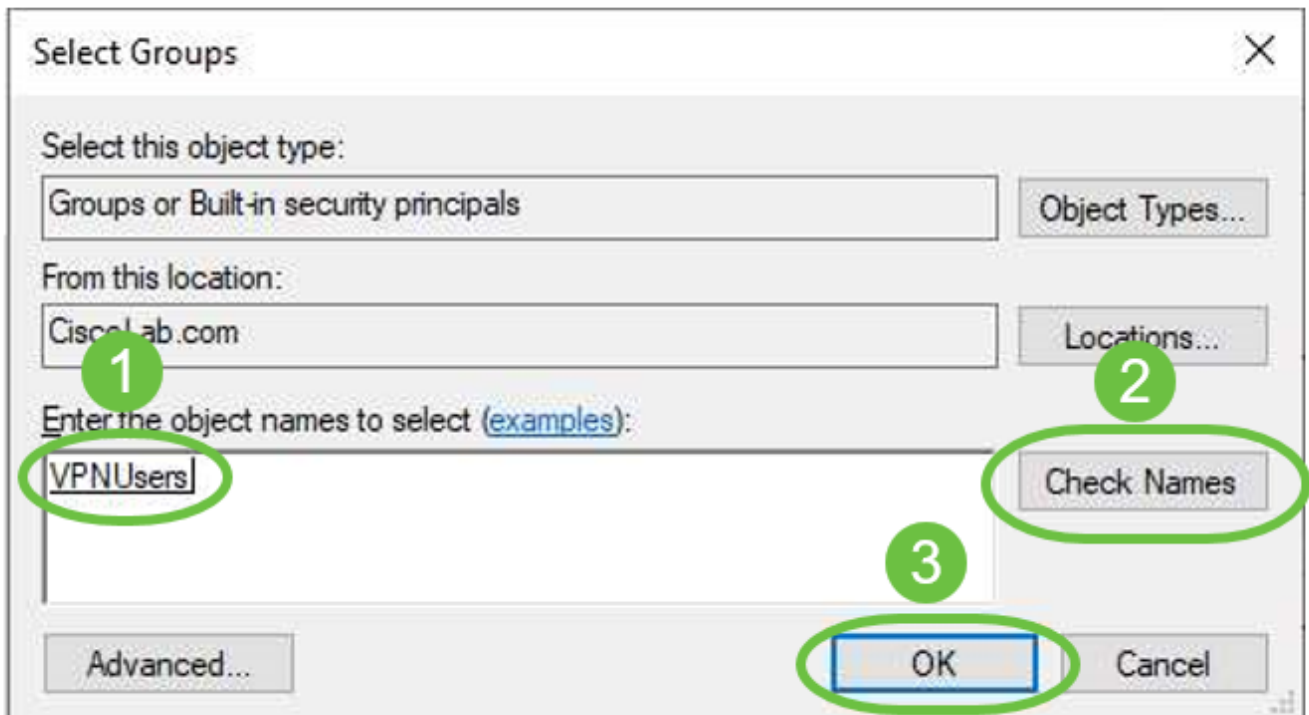
Member of:

Name	
Active Directory Domain Services Folder	
Domain Users	CiscoLab.com/Users

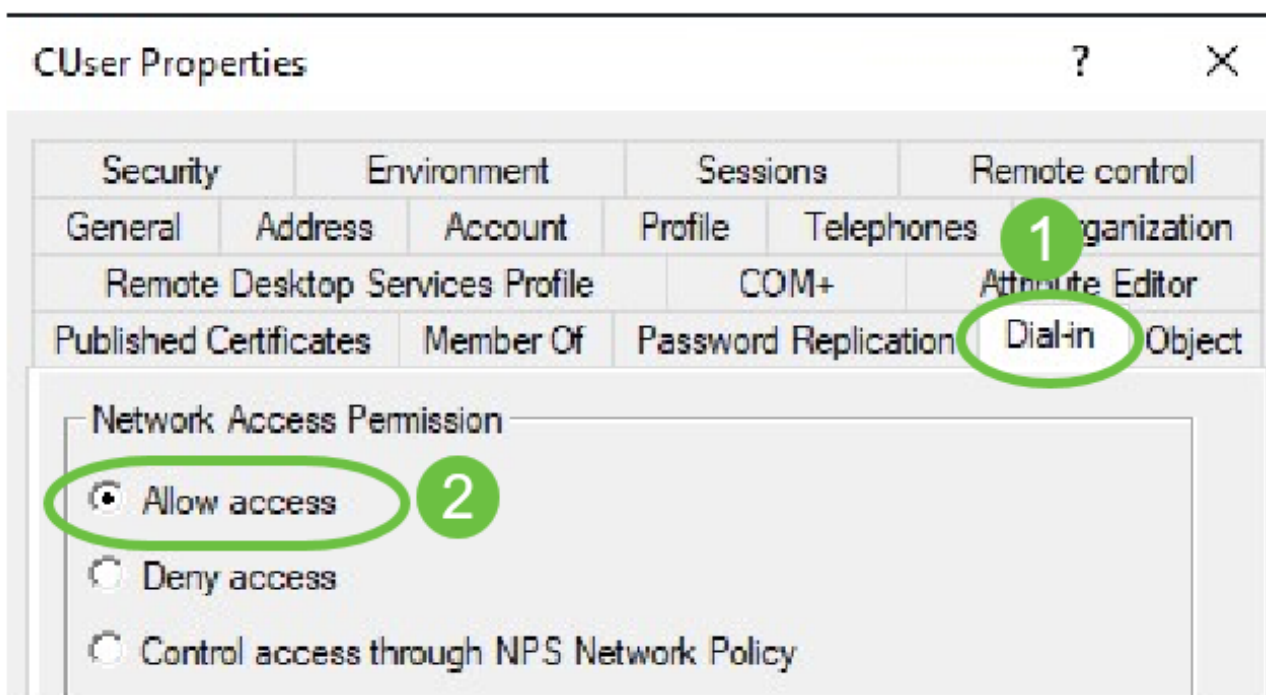
2

Add... Remove

Enter the name of the *Global Security Group* and select **Check Name**. If the entry is underlined, click **OK**.



Select the **Dial-In** tab. Under *Network Access Permission* section, select **Allow Access** and leave the rest as default.

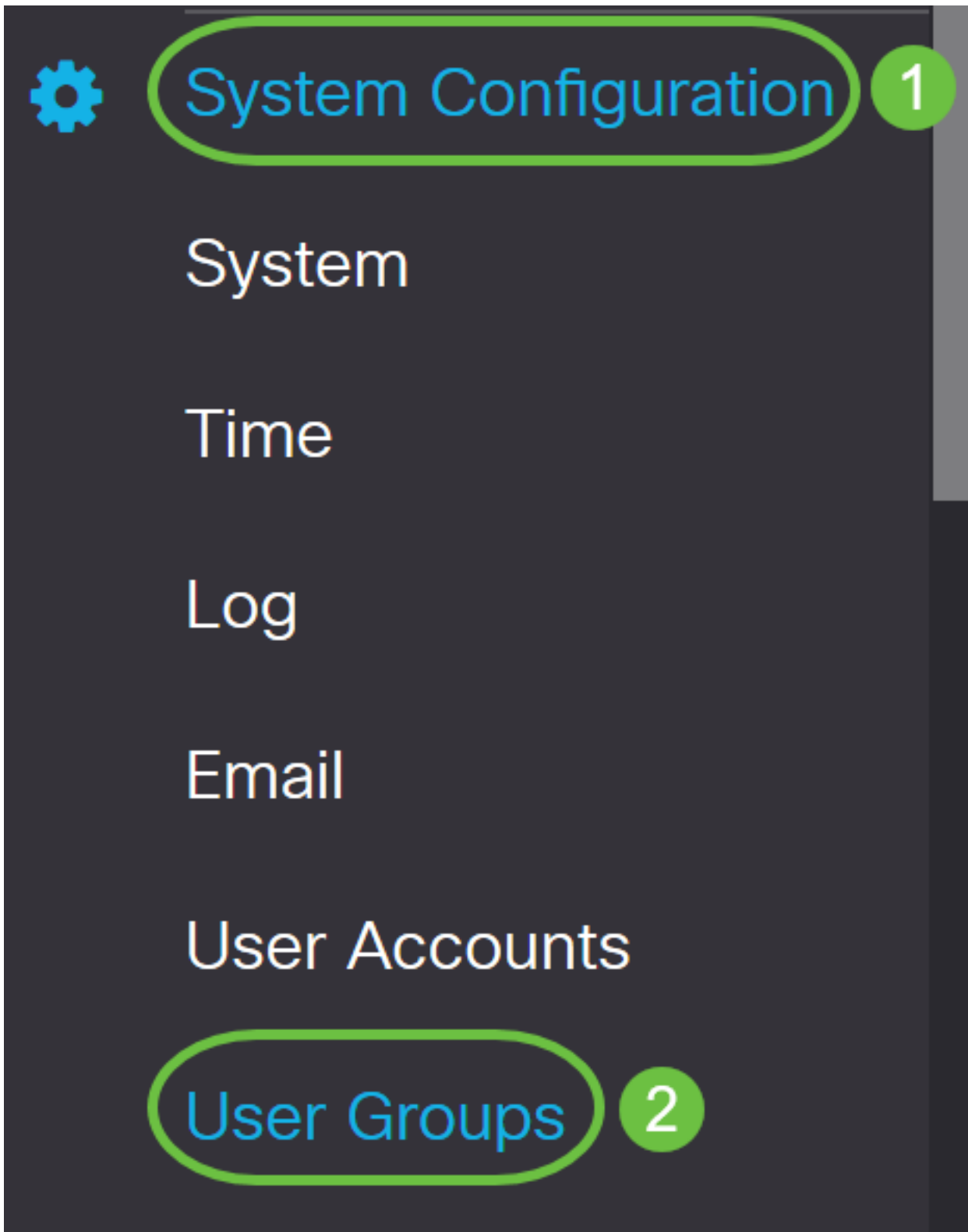


## Active Directory Integration

Active Directory requires that the time of the RV34x router match that of the AD Server. For steps on how to configure time settings on an RV34x series router, click [here](#).

AD also requires that the RV340 have a User Group that matches AD Global Security Group.

Step 1. Navigate to **System Configuration > User Groups**.



Step 2. Click on the **plus** icon to add a User Group.

# User Groups

## User Groups Table



Step 3. Enter the *Group Name*. In this example, it is **VPNUsers**.

Group Name:

Group Name must be the exact same as the AD Global Security Group.

Step 4. Under *Services*, *Web Login/NETCONF/RESTCONF* should be marked as **Disabled**. If AD Integration does not work immediately, you will still be able to access the RV34x.

## Services

Web Login/NETCONF/RESTCONF  Disabled  Read Only  Administrator

Step 5. You can add the VPN tunnels that will use AD Integration to log their users in.

1. To add a Client-to-Site VPN that has already been configured, go the *EZVPN/3rd Party* section and click the **plus** icon. Select the VPN profile from the drop-down menu and click **Add**.

## EzVPN/3rd Party

### EzVPN/3rd Party Profile Member In-use Table



#



Group Name



#### Add Feature List

Select a Profile: ShrewVPN 1

2

4. SSL VPN - If a SSL VPN tunnel will be used, select the policy from the drop-down menu next to *Select a Profile*.

SSL VPN

Select a Profile

SSLVPNDefaultPolicy



6. PPTP/L2TP/802.1x - To allow these to use AD, simply click the check box next to them to *Permit*.

PPTP VPN



Permit

L2TP



Permit

802.1x



Permit

Step 6. Click **Apply** to save your changes.

## User Groups

Apply

---

Site to Site VPN Profile Member In-use Table

+ 🗑️

<input type="checkbox"/>	#	Connection Name
--------------------------	---	-----------------

---

EzVPN/3rd Party

EzVPN/3rd Party Profile Member In-use Table

+ 🗑️

<input type="checkbox"/>	#	Group Name
--------------------------	---	------------

---

SSL VPN      Select a Profile      SSLVPNDefaultPolicy ▼

PPTP VPN       Permit

L2TP       Permit

802.1x       Permit

## Active Directory Integration Settings

Step 1. Navigate to **System Configuration > User Accounts** .



## System Configuration

System

1

Time

Log

Email

User Accounts

2

Step 2. In the Remote Authentication Service Table, click **Add** to create an entry.

# Remote Authentication Service Table



Enable ⇅

Name ⇅

Step 3. In the *Name* field, create a username for the account. In this example, **Jorah\_Admin** is used.

## Add/Edit New Domain

Name

Jorah\_Admin

Step 4. From the *Authentication Type* drop-down menu, choose **Active Directory**. AD is used to assign wide policies to all elements of the network, deploy programs to many computers, and apply critical updates to an entire organization.

Authentication Type

Active Directory

AD Domain Name

RADIUS

Active Directory

Primary Server

LDAP

Step 5. In the *AD Domain Name* field, enter the fully qualified domain name of the AD.



In this example, **sampledomain.com** is used.

AD Domain Name

Step 6. In the *Primary Server* field, enter the address of the AD.

In this example, **192.168.2.122** is used.

Primary Server  Port

Step 7. In the *Port* field, enter a port number for the Primary Server.

In this example, **1234** is used as the port number.

Primary Server  Port

Step 8. (Optional) In the *User Container Path* field, enter a root path where the users are contained.

**Note:** In this example, **file:Documents/manage/containers** is used.

User Container Path

Step 9. Click **Apply**.

User Accounts

Add/Edit New Domain

Name

Authentication Type

AD Domain Name

Primary Server  Port

User Container Path

Step 10. Scroll down to *Service Auth Sequence* to set the login method for the various options.

- Web Login/NETFCNF/RESTCONF - This is how you login to the RV34x router. Uncheck the *Use Default* checkbox and set the Primary method to **Local DB**. This will ensure that you will not be logged out of the router even if Active Directory Integration fails.
- Site-to-site/EzVPN&3rd Party Client-to-site VPN - This is to set Client-to-Site VPN tunnel to use AD. Uncheck the *Use Default* checkbox and set the Primary method to **Active Directory** and Secondary Method to **Local DB**.

## Service Auth Sequence

\* Default Sequence is RADIUS > LDAP > AD > Local DB  
 \* Local DB must be enabled in Web Login/NETCONF/RESTCONF

### Service Auth Sequence Table

Service	Use Default	Customize: Primary	Customize: Secondary
Web Login/NETCONF/RESTCONF	<input type="checkbox"/>	Local DB	None
Site-to-site/EzVPN&3rd Party Client-to-site VPN	<input type="checkbox"/>	Active Directory	Local DB
AnyConnect SSL VPN	<input type="checkbox"/>	Active Directory	Local DB

Step 11. Click **Apply**.

## User Accounts

Apply

## Service Auth Sequence

\* Default Sequence is RADIUS > LDAP > AD > Local DB  
 \* Local DB must be enabled in Web Login/NETCONF/RESTCONF

### Service Auth Sequence Table

Step 12. Save your Running Configuration to Startup Configuration.

You have now successfully configured the Active Directory settings on an RV34x Series Router.

## LDAP

Step 1. In the Remote Authentication Service Table, click **Add** to create an entry.

# Remote Authentication Service Table



Enable ⇅

Name ⇅

Step 2. In the *Name* field, create a user name for the account.

Only a single remote user account under LDAP can be configured.

In this example, *Dany\_Admin* is used.

Name	<input type="text" value="Dany_Admin"/>
------	---

Step 3. From the Authentication Type drop-down menu, choose **LDAP**. Lightweight Directory Access Protocol is an access protocol that is used to access a directory service. It is a remote server that runs a directory serve to perform authentication for the domain.

Authentication Type	<input type="text" value="LDAP"/>
Primary Server	<input type="text" value="RADIUS"/>
Base DN	<input type="text" value="Active Directory"/>
	<input type="text" value="LDAP"/>

Step 4. In the *Primary Server* field, enter the server address of the LDAP.

In this example, **192.168.7.122** is used.

Primary Server  Port

Step 5. In the *Port* field, enter a port number for the Primary Server.

In this example, **122** is used as the port number.

Primary Server  Port

Step 6. Enter the base distinguished name of the LDAP server in the *Base DN* field. The base DN is the location where the LDAP server searches for users when it receives an authorization request. This field should match the base DN that is configured on the LDAP server.

In this example, **Dept101** is used.

Base DN

Step 7. Click **Apply**. You will be taken to the Remote Authentication Service Table.



User Accounts

Add/Edit New Domain

Name:

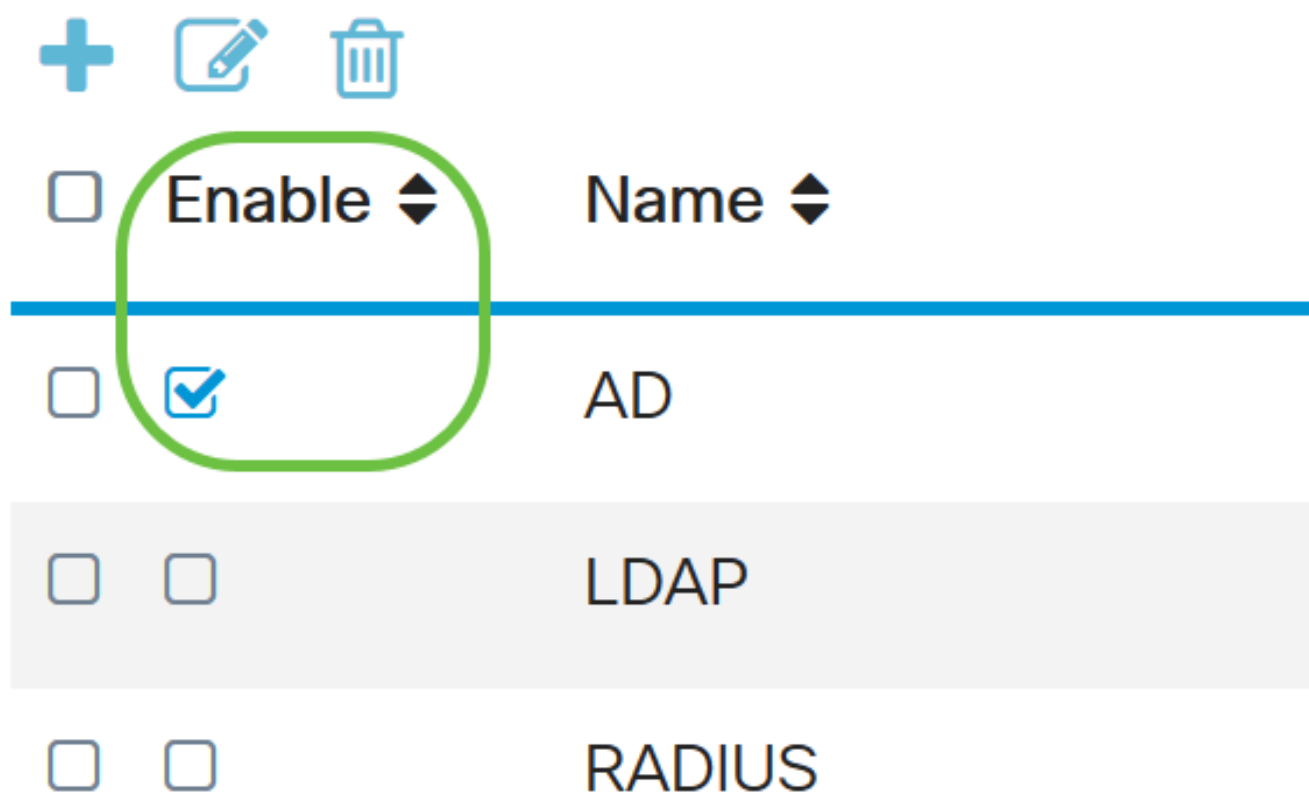
Authentication Type:



Primary Server:  Port:

Base DN:

Step 8. (Optional) If you want to enable or disable the remote authentication service, check or uncheck the check box next to the service you want to enable or disable.

# Remote Authentication Service Table



<input type="checkbox"/>	Enable 	Name 
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AD
<input type="checkbox"/>	<input type="checkbox"/>	LDAP
<input type="checkbox"/>	<input type="checkbox"/>	RADIUS

Step 9. Click **Apply**.

User Accounts

Apply

You have now successfully configured the LDAP on an RV34x Series Router.

**View a video related to this article...**

[Click here to view other Tech Talks from Cisco](#)