## Symantec<sup>™</sup> Managed PKI<sup>®</sup>

Integration Guide for Juniper<sup>®</sup> SA VPN



# Symantec<sup>™</sup> Managed PKI<sup>®</sup> Integration Guide for Juniper<sup>®</sup> SA VPN

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## Integrating Managed PKI Certificates with Juniper<sup>®</sup> VPN

The enterprise workplace has moved beyond the walls of the organization into a global, mobile environment. To maintain productivity, your end users need to access company resources using a mobile platform. However, you need to be able to trust the end users accessing your systems, and the mobile device they use, no matter if you have provided their devices or if they are using their own mobile devices.

Symantec Managed PKI's digital certificates can provide that trust without the burden of user names, passwords, or additional hardware tokens. Managed PKI is scalable from a few to thousands of devices, and its in-the-cloud solution provides quick deployment and easy management while also offering Symantec's industry leading security that is unmatched by in-house PKI solutions.

Symantec's Managed PKI issues certificates that can be used to authenticate users for secure communications with company resources, such as VPNs and web sites.

This document describes how to integrate Managed PKI 8.7 or higher certificates with the Juniper<sup>®</sup> Secure Access (SA) VPN to authenticate users to protected resources, and to secure communications between them.

## **Partner Information**

Table 1 1

These procedures have been tested on the following platforms:

Doute ou Information

Table 1-1 Par	
Partner Name	Juniper® Networks
Product Name	Juniper® Secure Access (SA) Series VPN
Version and Platform	SA 2000 Junos OS Release 7.1 and Junos Pulse 4.2.1

## How the Juniper VPN Works

The following diagram describes how the Managed PKI certificates integrate with Juniper SA Series VPN to provide secure authentication.

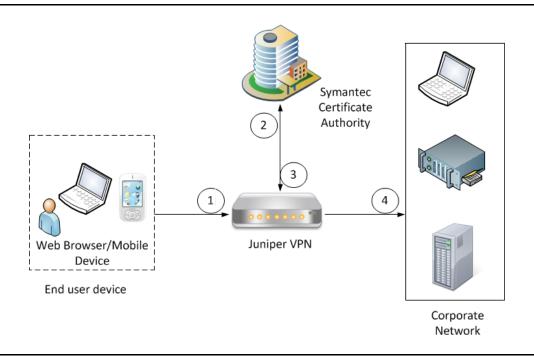
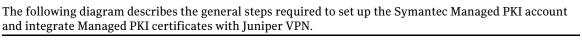


Figure 1-1 Authenticating Juniper VPN with a Managed PKI certificate

- 1 The end-user device accesses the corporate network through the Juniper VPN.
- 2 Depending upon how the VPN is configured, it attempts to obtain the status of the certificate:
  - If Online Certificate Status Protocol (OCSP) is configured, the VPN communicates to the Symantec CA to obtain the real-time status of the certificate.
  - If Certificate Revocation List (CRL) is configured, the VPN communicates to the Symantec CA to
    obtain the status of the certificate based on the most recent certificate revocation list. CRLs are
    updated on a regular basis.
- **3** When the Juniper VPN receives the certificate status, it authenticates the end-user's certificate based on the CAs it has been configured to trust.
- **4** Based on this authentication, the end user device is allowed access to the corporate network, and the Juniper VPN secures communication with the corporate network.

### **Integration Workflow**



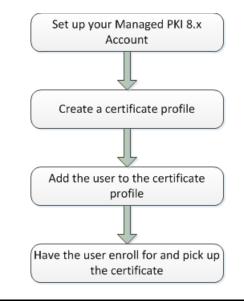


Figure 1-2Managed PKI Integration Workflow

### Task 1. Set up your Managed PKI 8.x account

Contact your Symantec Sales representative to set up your Managed PKI account. Your representative will provide you with the necessary information to begin defining your account and certificate profile.

You will need to complete and return the following documents. As needed, your Symantec representative will assist you with obtaining and completing these forms.

- Master Service Agreement
- Issuing Authority Naming Application (also known as the CA Naming Document)
- Symantec Services Order Form
- Purchase Order, credit card, or reference number

You will need to obtain your initial Managed PKI administrator ID, which is your credential to access your Managed PKI account. Your Symantec representative will assist you with obtaining your Managed PKI administrator ID. You will use your Managed PKI administrator ID to log into PKI Manager, configure your Managed PKI account, and obtain your RA certificate. For more information on configuring Managed PKI, refer to PKI Manager and its online help.

### Task 2. Create a certificate profile

To obtain a certificate for the router, you first create the certificate profile that will define the certificates you will issue to your end users. Complete the following steps to create your Managed PKI Client Authentication certificate profile:

- 1 Log into Managed PKI's PKI Manager using your administrator certificate. You will be prompted for your PKI Client PIN.
- 2 On PKI Manager, click **Manage certificate profiles** or select **Manage certificate profiles** from the Tasks menu on the bottom navigation bar.

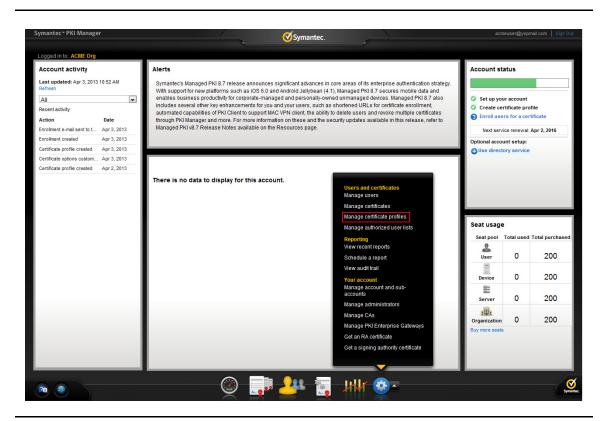


Figure 1-3Manage Certificate Profile

- **3** Click **Add Certificate profiles** from the top of the resulting Manage certificate profiles page. The Create profile page appears.
- 4 Select whether these certificates will be issued in Test mode or Production Mode, and click **Continue**. The Create profile page appears.
- **5** Select **Client Authentication** as the certificate template and click **Continue**. The Customize certificate options page appears.
- 6 Set the certificate options that suits your needs, but the following configurations are required:
  - Enter a profile name.

Manage Certificate profiles	Add Certificate profiles 🧿	Manage custom scripts	e					
Search operations:	6 Certificate profiles							
Search by: Show all	Adobe PDF Test Adobe® CDS Production	Create profile: Select mode Select template Customize options Customize services						
Show all	Adobe Test Adobe® CDS Production	Review and change the template options for this profile. Certificate friendly name:						
Search	Adobe9DF Adobe9 CDS Test	Client Auth - iOS Juniper  Primary certificate options  E						
	Microsoft Wi-Fi Microsoft Wi-Fi Production	Certificate authority: SYNC QA Team One Level						
	SecureEmail Secure Email Production	Envolment method:     IOS     IOS     Optowar     Optowar						
	SecureEmail Test Secure Email Production	Authentication method:						
		Private key security level: Good T Back Cancel Preview Save						

Figure 1-4 Client Authentication Certificate options

- Select the appropriate Enrollment method from the following:
  - Select **iOS** if your user will enroll for certificates using iOS devices.
  - Select **OS/browser** if your user will enroll for certificates using desktop or laptop.
  - Select **PKI Client** if your user will enroll for certificates using PKI Client.

Click Advanced options to view certificate options and define any additional attributes you may need.

7 Click Save.

On the confirmation page, you can view the attribute used for the seat ID, a mandatory attribute that authenticates the user for third party configurations or during the enrollment process. This is typically the user's email address.

You can also customize the profile further, such as adding custom scripts, and customizing languages or email notifications on this page.

8 For certificate profiles using the iOS Enrollment method only, click **Edit** from **Provide certificate instructions** under Manage this profile. Table 1-2 describes the values that you can enter to configure VPN settings for this profile:

Field Name	Value
Connection Type	Juniper (VPN)
Connection name	Enter a unique name as a connection name.
Server Host/IP	The Fully Qualified Domain Name of the VPN. For example, https:// vpn. <company>.com</company>
Account	Enter a valid server name that hosts the Juniper VPN.
Realm	This value must match the realm name you will use for user authentication on the VPN. Refer to "Creating User Realm for User Authentication" on page 10 for details.
Role	This value must match the role name you will use for user authentication on the VPN. Refer to "Configuring User Roles on the VPN device" on page 11 for details.
Enable VPN On Demand	Select this option for networks that use certificate-based authentication.

 Table 1-2
 VPN Settings for iOS Enrollment Method

### Task 3. Add the user to the certificate profile

You must add the user to the certificate profile in PKI Manager before the user can enroll for and pick up a certificate.

- 1 In PKI Manager, click **Manage users**, or select **Manage users** from the Tasks menu on the bottom navigation bar.
- 2 Click Add Users from the top of the resulting Manage users page.
- 3 Enter the seat ID (typically the end user's email address) and click Continue.
  - Enroll for a single user by entering end user's email address.
  - Enroll for multiple users at one time by uploading a comma-separated value (csv) file with your user data. You can skip step 4 if you are enrolling multiple users using a .csv file.
- 4 Enter the First Name, Last Name, and select the **I want to enroll this user for a certificate** check box and click **Continue**.
- 5 Select the certificate profile you created in Task 2, "Create a certificate profile" on page 3 and click **Continue**.
- 6 Enter the **Other Name (UPN)**, **Email**, and select the **Have the system send the enrollment email to the user** check box (optional) and click **Continue**.

The enrollment link is displayed to the administrator along with the enrollment code required for authentication. Symantec recommends that you send the enrollment code separately from the enrollment link, and that you do not send the enrollment code by email.

Note: The enrollment link will not be displayed if you have selected **Have the system send the enrollment email to the user** in step 6.

### Task 4. Have the user enroll for and pick up the certificate

Once added to the certificate profile, the user must enroll for and pick up the certificate. The following are the steps for picking up certificates for different enrollment methods.

Table 1-3	Steps for picking up certificates
-----------	-----------------------------------

Enrollment Method	Но	w Certificates are Picked Up
iOS	1	Download the <b>Junos Pulse</b> application from the App Store <sup>SM</sup> .
	2	Open a browser on the iOS device.
	3	Paste the enrollment link from the enrollment email into the browser.
	4	Enter the User Id and enrollment code (provided by the administrator) and tap <b>Continue</b> . The Identity Confirmed page appears.
	5	Tap <b>Continue</b> . The Install Profile page appears.
	6	Tap Install, then tap Install Now from the pop-up window.
	7	Enter your device passcode and click <b>Done</b> .
	8	To verify the configuration settings, click <b>Configuration</b> .

Enrollment Method	How Certificates are Picked Up				
OS/browser	Supported Browsers:				
	■ For Windows XP or Windows 7 - Internet Explorer or Firefox				
	■ For Apple OS X - Safari or Firefox				
	Refer the Managed PKI documentation for the exact version numbers.				
	1 Click the enrollment link in the email or paste it into your browser.				
	2 Enter the email address used for enrollment and click <b>Continue</b> .				
	<b>3</b> Enter the enrollment code provided by the administrator or received in an ema and click <b>Continue</b> .				
	This step authenticates the end user to ensure the correct user is picking the certificate.				
	4 Click <b>Continue</b> .				
	5 Click <b>Install certificate</b> to install the certificate.				
PKI Client	If PKI Client is not already installed on the user's machine, the user will be prompted install it during enrollment.				
	1 Click the enrollment link in the email or paste it into your browser.				
	2 Enter the email address used for enrollment and click <b>Continue</b> .				
	<b>3</b> Enter the enrollment code provided by the administrator or received in an ema and click <b>Continue</b> .				
	This step authenticates the end user to ensure the correct user is picking the certificate.				
	4 Click <b>Continue</b> .				
	5 Click Install Certificate.				
	6 Enter the PIN for the certificate store (PKI Client) when prompted and click <b>OK</b>				

### Table 1-3Steps for picking up certificates

## **Renewing Certificates**

You must renew the certificate before it expires (typically a year after initially enrolling for it). The following are the steps for renewing certificates for different enrollment methods.

**Table 1-4**Steps for renewing certificates

Enrollment Method	How Certificates are Renewed				
iOS	If renewal notifications are enabled, the user receives an email containing a renewal link at some period before the certificate expires. Clicking the link prompts the user to select a credential to authenticate the renewal. The user is then taken to the PKI Certificate Services page and the renewed certificate is installed.				
OS/browser	If renewal notifications are enabled, the user receives an email containing a renewal link at some period before the certificate expires. Clicking the link takes the user to the PKI Certificate Services page for certificate renewal, where the user follows a renewal process similar to the enrollment process.				
PKI Client	PKI Client prompts the user to renew for certificates that are PIN-protected. For certificates that are not PIN-protected, PKI Client performs the renewal and installs the new certificate transparently.				

8 | Integrating Managed PKI Certificates with Juniper® VPN Integration Workflow



## Configuring Juniper SA VPN

This chapter discusses how to configure the Juniper SA VPN to use Managed PKI certificates for authentication. For more information, refer to the Juniper SA VPN documentation for details.

You must complete the following procedures to complete the configuration of Juniper VPN:

- "Accessing Juniper VPN" on page 9
- "Configuring the Authentication Server" on page 9
- "Creating User Realm for User Authentication" on page 10
- "Configuring User Roles on the VPN device" on page 11
- "Configure the User Realm for User Authentication" on page 11
- "Configuring Sign-In Page for the Network Connect Client" on page 12
- "Configure Sign-In Policies for the Network Connect Client" on page 13

### **Accessing Juniper VPN**

- 1 Click the Juniper VPN admin URL.
- 2 Enter the user name and password.
- 3 Click Submit. The Junos Pulse Secure Access Service page is displayed.

### Task 1. Configuring the Authentication Server

- **1** Click **Authentication** → **Auth Servers**. The Authentication Servers page appears.
- 2 In the **New** drop-down list, set the server type to **Certificate Server**, and click **New Server**. The New Certificate Server page appears.

unos Pulse Secure Ac	cess Service		Help   Guidance   Sign
System Status  Configuration Network Clustering	Auth Servers > New Certificate	Server	
IF-MAP Federation > Log/Monitoring >	* Name:		Label to reference this server.
	User Name Template:	<certdn.cn></certdn.cn>	Template for constructing user names from certificate attributes.
Signing In → Endpoint Security →		The template can con the same as those us	tain textual characters as well as variables for substitution. Variables should be enclosed in angle brackets like this <variable>. The variables are ed in role mapping custom expressions and policy conditions. All of the certificate variables are available.</variable>
Auth. Servers		Examples:	
Administrators		<certdn.cn></certdn.cn>	First CN from the subject DN
Admin Realms >			r> Certificate serial number <> Where xxx can be:
Admin Roles >		<certattr.aitivame.xxx< td=""><td></td></certattr.aitivame.xxx<>	
			Email The Email alternate name UPN The Principal Name alternate name
User Realms >			etc
User Roles >		<certdntext></certdntext>	The complete subject DN
Resource Profiles >		cert-scertDN.CN>	The text "cert-" followed by the first CN from the subject DN
Resource Policies >		cert scerton.cas	The text cert followed by the first of from the subject of
Junos Pulse >			
	User Record Synchronizatio	n	
System > Import/Export >	Enable User Re	ecord Synchronizati	on
Push Config > Archiving >	Logical Auth S	Server Name:	
Troubleshooting >	Save Changes?		
	bave changes?		

Figure 2-1 New Certificate Server page

- 3 Enter a unique name in the **Name** field.
- 4 Enter certDN.CN in the User Name Template field.
- 5 Click Save Changes.

### Task 2. Creating User Realm for User Authentication

1 Click **Users** → **User Realms** → **New User Realm**. The New Authentication Realm page appears.

juniper.					
Junos Pulse Secure Ac					Help   Guidance   Sign Out
- System	ress Service				Help   Guidance   Sign Out
Status >	New Authentication Re	alm			
Configuration >	New Authentication Re	ann			
Network >					
Clustering >					
IF-MAP Federation →	* Name:			Label to reference this realm	
Log/Monitoring >	Description:		*		
Authentication					
Signing In →			*		
Endpoint Security >					
Auth. Servers		When editing, sta	art on the Role Mapping pa	age	
Administrators					
Admin Realms >	Servers				
Users	our cub				
	Specify the servers to use for authenticat	on and authorization. To creat	te or manage servers, see the	Servers page.	
User Realms > User Roles >					
Resource Profiles >	Authentication:	Administrators	-	Specify the server to use for authenticating users.	
Resource Policies >					
Junos Pulse >	Directory/Attribute:	None	•	Specify the server to use for authorization.	
- Maintenance	Accounting:	None	•	Specify the server to use for Radius accounting.	
System >					
Import/Export >	Additional authentication se	wor			
Push Config >		vei			
Archiving >					
Troubleshooting >	Dynamic policy evaluation				
	Save changes?				
	Save Changes				
	* indicates required field				
Licensed to 0152MWKP Copyright © 2001-2011	DOVKNOAS 1 Juniper Networks, Inc. All rights reserved.				



- 2 Enter a unique value in the **Name** field.
- **3** Enter a description for the name in the **Description** field.
- 4 In the **Authentication** drop-down list, select the server you created in "Configuring the Authentication Server" on page 9.

Use the default configuration settings for other fields.

5 Click Save Changes.

### Task 3. Configuring User Roles on the VPN device

1 Click **Users** → **User Roles** → **New User Role**. The New Role page appears.

JUNIPEr.	
- NETWORKS	
Junos Pulse Secure Ac	Help   Guidance   Sign Out
- System	Roles >
Status  Configuration	New Role
Network +	
Clustering +	
IF-MAP Federation →	
Log/Monitoring >	Name:
- Authentication	None.
Signing In >	Description:
Endpoint Security >	
Auth. Servers	
- Administrators	
Admin Realms >	Options
H Users	
User Realms	Session and appearance options are specified in <u>Default Options</u> . Check the following if this role should override these defaults.
User Roles >	
Resource Profiles >	VLAN/Source IP
Resource Policies >	✓ Session Options
Junos Pulse >	✓ UI Options
- Maintenance	
System +	Access features
Import/Export >	
Push Config  Archiving	Check the features to enable for this user role, and specify any role-based options. Note that features disabled here may be granted by other roles assigned to the user.
Troubleshooting	
noobleshooting .	Web
	Files, Windows
	Files, UNIX/NFS
	Secure Application Manager
	Windows version Note: On Windows Mobile, WSAM functionality is delivered via Junos Pulse
	Java version
	Telnet/SSH
	Terminal Services
	Virtual Desktops
	Meetings
	Email Client
	Network Connect
	Network Connect

Figure 2-3 New Role page

- 2 Enter a unique name in the Name field.
- 3 Enter a description for the name in the **Description** field.
- 4 Select the appropriate options and access features for the role you are creating. You must select at least one access feature for a role. Refer to the Juniper SA VPN documentation for details.
- 5 Click Save Changes.

#### Task 4. Configure the User Realm for User Authentication

- 1 Click Users → User Realms → New User Realm. The New Authentication Realm page appears. You can select an existing user realm or create a new user realm. For information on creating user realm, see "Creating User Realm for User Authentication" on page 10.
- 2 Click the Authentication Policy tab.
  - a Click the **Certificate** link.

- **b** Click the **Only allow users with a client-side certificate signed by Trusted Client CAs to sign in** option.
- c Click the Trusted Client CA link. The Configuration page appears.
- d Click Import CA Certificate on the Configuration page.

JUNETWORKS						
os Pulse Secure Ad	ccess Se	ervice				Help   Guidance   Sign O
ystem catus onfiguration etwork ustering -MAP Federation		Configuration Certificates	ificates DMI Agent		//	al Desktops   User Record Synchronization   IKEv2   SAM
g/Monitoring → uthentication gning In → idpoint Security → uth. Servers	User	s can be required to pre lorities.	sent valid client-side c	ertificates to sign in (se	ee the realm-specific <u>Certificate</u> .	Authentication Policy page). Specify trusted certificate
dministrators		Auto-import options	Proxy Settings	Import CA Certifica	te Delete	
dmin Realms > dmin Roles > Isers		Trusted Client CA		Trusted for client authentication?	Valid dates	Status checking
ser Realms → ser Roles →		VeriSign Class 2 TES Certification Authori		Yes	2004/03/2 - 2036/07/16	None
esource Profiles > esource Policies >		Symantec Class 2 TEST Certificate A		Yes	2011/03/1 - 2021/02/28	None
inos Pulse → laintenance		VeriSign Class 2 M Subscriber TEST C		Yes	2009/06/5 - 2019/06/4	None
stem >		Symantec Magnum	1.1 Private Test CA	Yes	2011/08/16 - 2021/08/15	None
sh Config >		SYMC QA Team One	Level Test CA	Yes	2011/10/3 - 2021/10/2	None
hiving >		General MPKI Test C	A	Yes	2010/05/11 - 2020/05/10	None
oubleshooting >		Charles 2k8		Yes	2011/02/25 - 2023/02/25	None
		Mangmun PKI - 1 Le	vel - Test CA	Yes	2011/01/20 - 2021/01/19	Use CRLs
		testpkiclient		Yes	2011/03/11 - 2020/03/10	None
		E Sympositor Managed	PKI Online Test Drive	Yes	2011/08/18 - 2021/08/17	Use OCSP with CRL fallback

Figure 2-4 Import CA Certificate

- e Click **Browse** to import the root and the intermediate CA certificates of the end user certificates downloaded from PKI Manager. These certificates must be installed on the VPN machine so that VPN can trust the users' certificate.
- f Click Import Certificate.
- g Choose Client certificate status checking.
- h Click Save Changes.
- 3 Click the **Role Mapping** tab to allow end user to sign-in to VPN and get the required access.
  - a Click New Rule.
  - **b** Select a rule based on the user name.
  - c Enter the rule name in the **Name** field.
  - d Provide a rule for the user name.
  - e Assign the role created in "Configuring User Roles on the VPN device" on page 11.
  - f Click Save Changes.

### Task 5. Configuring Sign-In Page for the Network Connect Client

- 1 Click **Authentication** → **Signing In** → **Sign-In Pages**. The Signing In page appears.
- 2 Click **New Page**. The New Sign-In Page appears.

nos Pulse Secure Acc	ess Service		Help   Guidance   Sign C
System Status Configuration Network	<sup>Signing In &gt;</sup> New Sign-In Page		
Clustering >	Name:	New Sign-In Page	Label to reference the sign-in page.
Log/Monitoring	Page Type:	Osers/Administrato	urs 🔿 Meeting
Signing In	Custom text		
Auth. Servers Administrators	Welcome message:	Welcome to the	
Admin Realms	Portal name:	Junos Pulse Secure Acce	ass Service
Admin Roles >	Submit button:	Sign In	
Users User Realms >> User Roles >> Resource Profiles >> Resource Policies >> Junos Pulse >>>	Instructions:	Please sign in to session. davascript is disal This text appears on the ri	oscript>Note:
Maintenance	Username:	Username	
System >	Password:	Password	
Push Config → Archiving →	Realm:	Realm	This prompt appears when the sign in page supports more than one realm.
Troubleshooting >	Secondary username:	Secondary username	
	Secondary password:	Consider second	

Figure 2-5 New Sign-in page

- **3** Enter a name in the **Name** field and update the relevant fields.
- 4 Click Save Changes.

### Task 6. Configure Sign-In Policies for the Network Connect Client

This is standard configuration step in VPN to map between Realm and Sign-in policies. This mandatory configuration is required for successful sign-in.

- 1 Click **Authentication** → **Signing In** → **Sign-In Policies**. The Signing In page appears.
- 2 Select the user URLs created in "Configure the User Realm for User Authentication" on page 11, where you want to add the Realm and configure it as needed.

nos Pulse Secure	Access Service		Help	Guidance   Sign O
System Status Configuration	Signing In			
Network Clustering		-in Notifications		
IF-MAP Federation Log/Monitoring Authentication Signing In	Restrict access to administrators o	nly . Note that Administrators can attempt to sign in even if all	rules on this page are disabled.	
Endpoint Security Auth. Servers Administrators		num number of sessions per user per realm in Users > Use not select this check box, you limit the user to one session	r Realms > [Realm Name] > Authentication Policy > Limits page. By def 1 for all realms of this user.	fault, this is 1, or
Admin Realms Admin Roles Users	<ul> <li>Display open user session[s] warnin</li> <li>Check this option to notify users if they have proceed or cancel the login.</li> </ul>		o sign-in. The user has to follow the instructions on the warning notificat	tion page to
	proceed of cancer the logini			
User Roles Resource Profiles Resource Policies	<ul> <li>Select when to display a notification</li> <li>Always</li> </ul>			
User Realms User Roles Resource Profiles Resource Policies Junos Pulse Maintenance System Import/Export	Select when to display a notification Always If the maximum session limit per user for		C	Save Changes
User Roles Resource Profiles Resource Policies Junos Pulse Maintenance System Import/Export Push Config Archiving	Select when to display a notification Always If the maximum session limit per user for	r the realm has been reached	Authentication Realm(s)	Save Changes
User Roles Resource Profiles Resource Policies Junos Pulse Maintenance System Import/Export Aush Config Archiving	Select when to display a notification Aways 1 f the maximum session limit per user for New URL Delete Enable	or the realm has been reached	Authentication Realm(s) Admin Users	
User Roles Resource Profiles Resource Policies Junos Pulse Maintenance System Import/Export Push Config Archiving	Select when to display a notification Aveys If the maximum session limit per user for New URL Delete Enable [ Administrator URLs '*admin/	Sign-In Page	Admin Users	Enable
User Roles Resource Profiles Resource Policies Junos Pulse Maintenance System	Select when to display a notification Aways If the maximum session limit per user for New URL Delete Enable [] Administrator URLs	ir the realm has been reached Disable ( ) ( )		Enablec Enablec

Figure 2-6 Signing In Policy page

- 3 Set the page created in the previous step as the Sign-in page from the Sign-in page drop-down list.
- 4 To create a new Sign-in Policy, click **New URL**. The New Sign-In Policy page appears.

Junos Pulse Secure A	ccess Service Help   Guidance   Sign Out
Status	Signing In >
Configuration >	New Sign-In Policy
Network >	
Clustering > IF-MAP Federation >	Save Changes
Log/Monitoring >	
Authentication	User type:      O Administrators      Authorization Only Access
Signing In >	Sign-in URL: Formati <host>/; Use * as wildcard in the beginning of the host name.</host>
Endpoint Security > Auth, Servers	Description:
Administrators	
Admin Realms >	•
Admin Roles >	Sign-in page: (Select Sign-In Page)
- Users	To create or manage pages, see <u>Sign-In pages</u> .
User Realms > User Roles >	Meeting URL: */meeting/ -
Resource Profiles >	
Resource Policies >	Authentication realm
Junos Pulse →	Specify how to select an authentication realm when signing in.
System >	Iser types the realm name
Import/Export   Push Config	The user must type the name of one of the available authentication realms.
Archiving >	
Troubleshooting >	O User picks from a list of authentication realms
	The user must choose one of the following selected authentication realms when they sign in. If only one realm is selected, it is automatically used (the sign-in page will not display the list). To create or manage realms, see the <u>User Authentication</u> page or the <u>Administrator Authentication</u> page.
	Available realms: Selected realms:
	Abbay (all) Move Up
	Abhay  ABHAY-NEW  Remove  Move Down
	Abhi1_LDAP_Realm
	Abhi1_Realm -
	Configure Sign-in Notifications
	Pre-Auth Sign-in Notification
	Dest-Auth Sign-in Notification
	Save changes?

- **5** Enter the Sign-in URL.
- 6 Select the **Sign-in page** that you created in the previous step and select the appropriate **Authentication realm** options.
- 7 Click Save Changes.

## **Specify CDP Options**

You can enable and periodically download Certificate Revocation Lists (CRLs) from the CRL Distribution Points (CDPs) to verify the ongoing validity of client-side certificates. For instructions to verify client-side certificates, refer to Juniper documentation available at https://www.juniper.net/techpubs/en\_US/sa/topics/task/operational/secure-access-certificates-distribution-points-specifying.html.

## **Connecting to VPN**

The following are various scenarios through which an end user can connect their devices to the Juniper VPN to securely access company resources.

### Connecting an iOS device to VPN

- 1 Open the Junos Pulse Application on the iOS device.
- 2 Tap **Connect**. The status is displayed as connected and VPN is **On**.



### Connecting Desktop/Laptop to VPN

- 1 Open the browser where the certificate is installed.
- 2 Access the VPN URL.
- 3 Select the certificate and click **OK**.
- 4 Select the Client Application Session and click Start.

JUNIPER			Home	Meetings	Preferences	O Help	Sign Ou
	Welcome to the Junos Pulse Secure Access Service, . You last signed in on Mr	on, 15-Apr-2013 02:58:54 PDT from 192.92	.94.23				
	Web Bookmarks				-		
	You don't have any web bookmarks.						
	You don't have any files bookmarked.				-		
	Terminal Sessions		_				
	You don't have any terminal sessions.						
	Client Application Sessions				-		
	A Network Connect			Start			
	Virtual Desktops			2	*		
	You don't have any virtual desktops.						

Figure 2-9

Junos Pulse Secure Access Service for Desktop/Laptop

## Connecting Desktop/Laptop to VPN (PKI Client)

- 1 Open the browser where the certificate is installed.
- 2 Access the VPN URL.
- 3 Select the certificate and click **OK**.
- 4 Enter the PIN for PKI Client when prompted, and click OK.
- 5 Select the Client Application Session and click **Start**.

JUNIPER		Home Meetings	Preferences	Nelp Sign C
	Welcome to the Junos Pulse Secure Access Service, . You last signed in on Mon, I	15-Apr-2013 02:58:54 PDT from 192.92.94.23		
	Web Bookmarks		-	
	You don't have any web bookmarks.			
	Files		-	
	You don't have any files bookmarked.			
	Terminal Sessions		÷.	
	You don't have any terminal sessions.			
	Client Application Sessions		-	
	A Network Connect	Start		
	Virtual Desktops		*	
	You don't have any virtual desktops.			

Figure 2-10 Junos Pulse Secure Access Service for PKI Client