



Cradlepoint and Zscaler Internet Access Deployment Guide

July 2019

Version 1.0

1111 W Jefferson St, Boise, ID 83702
Toll Free: 855.813.3385
Local: 208.424.5054
Fax: 208.429.6852

cradlepoint.com



Cradlepoint NetCloud and Zscaler Internet Access (ZIA)

Zscaler Internet Access (ZIA) is a cloud-based solution providing a secure web gateway for business networks and users. Zscaler high availability and robust policy specification in with Cradlepoint's industry leading Elastic Edge and NetCloud Manager platform provides customers a comprehensive, easily deployable, and centrally managed security solution.

For more information on Zscaler Internet Access, please visit the URL below, or check Appendix A: <https://www.zscaler.com/products/zscaler-internet-access>

For more information on Cradlepoint NetCloud, please visit: the URL below, or check Appendix B: <https://customer.cradlepoint.com/s/NetCloud>

How Cradlepoint works with Zscaler Internet Access

Administrators will perform a two-phase configuration process to configure and deploy the solution. The first involves using the Zscaler Internet Access web administration portal to create and define security policies, while the second involves using Cradlepoint NetCloud Manager to associate Cradlepoint routers with Zscaler gateways, creating a full IPSec VPN tunnel between the two.

Zscaler Configuration

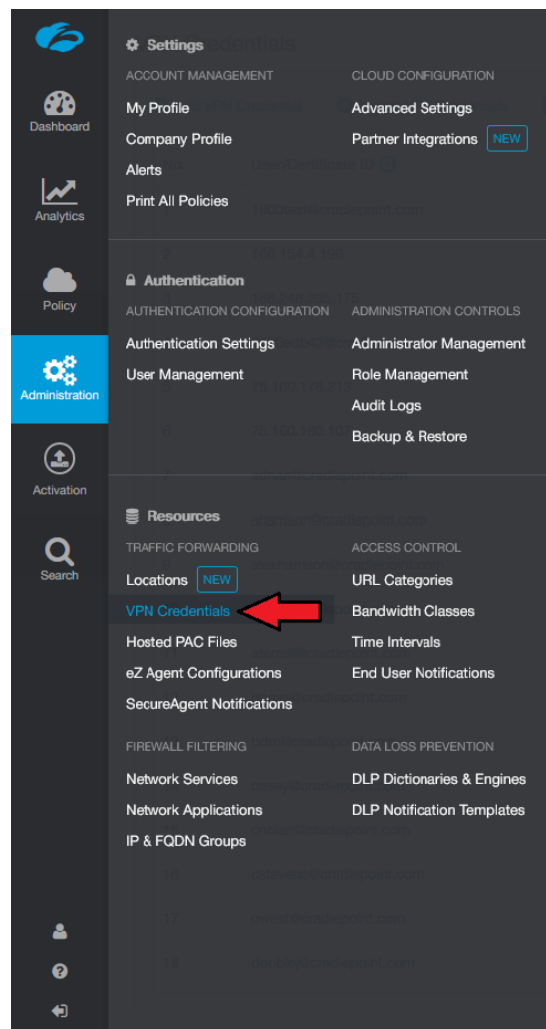
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Step 1: Log into the Zscaler Internet Access web gateway portal. The login URL is based on the Zscaler cloud you are provisioned in. If you do not know which cloud you are provisioned in, please open a support ticket using the resources in the Appendix section.

Step 2: Create a VPN connection for a location – From the sidebar on the left, click on **Administration** and select **VPN Credentials**.



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Step 3: Select **Add VPN Credential** at the top of the VPN Credentials page. Choose the **Authentication Type**, and specify the **User ID**, **Pre-Shared Key** to be used for this credential, and any **Comments** if desired. **Save** when finished.

Note: This article shows setup using **FQDN**. **XAUTH** and **IP** are also able to be specified as authentication types with the only difference being that for the IP authentication type, you must first contact and provide Zscaler with the IP address of the specific device to be added to Zscaler Internet Access.

Add VPN Credential

VPN CREDENTIAL

Authentication Type

FQDN XAUTH IP

User ID

@ cradlepoint.com

New Pre-Shared Key

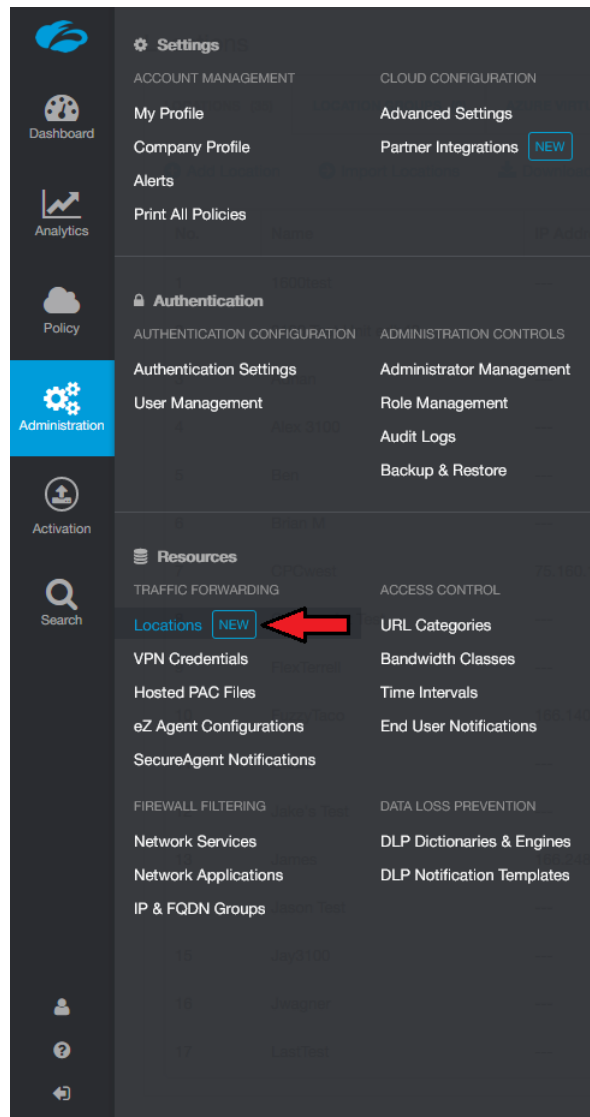
Confirm New Pre-Shared Key

Comments

Save Cancel



Step 4: Associate a location with the newly created VPN credential - From the sidebar on the left, click on **Administration** and select **Locations**.



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Step 5: Select **Add Location** at the top of the Locations page. Enter a **Name** and any desired location information, specify the credential created in Step 3 under the **VPN Credentials** drop down menu, and select any **Gateway Options** and/or **Enforce Bandwidth Control** to be enabled for this configuration.

Add Location ✕

LOCATION

Name	Country
<input type="text"/>	NONE ▼
State/Province	Time Zone
<input type="text"/>	NONE ▼
Group	
None ▼	

ADDRESSING

Static IP Addresses
None ▼
VPN Credentials
None ▼

GATEWAY OPTIONS

Enable XFF Forwarding	Enable Authentication
<input type="checkbox"/> ✕	<input type="checkbox"/> ✕
Enable Caution	
<input type="checkbox"/> ✕	
Enable AUP	
<input type="checkbox"/> ✕	
Enable SSL Inspection	Enforce Firewall Control
<input type="checkbox"/> ✕	<input type="checkbox"/> ✕

BANDWIDTH CONTROL

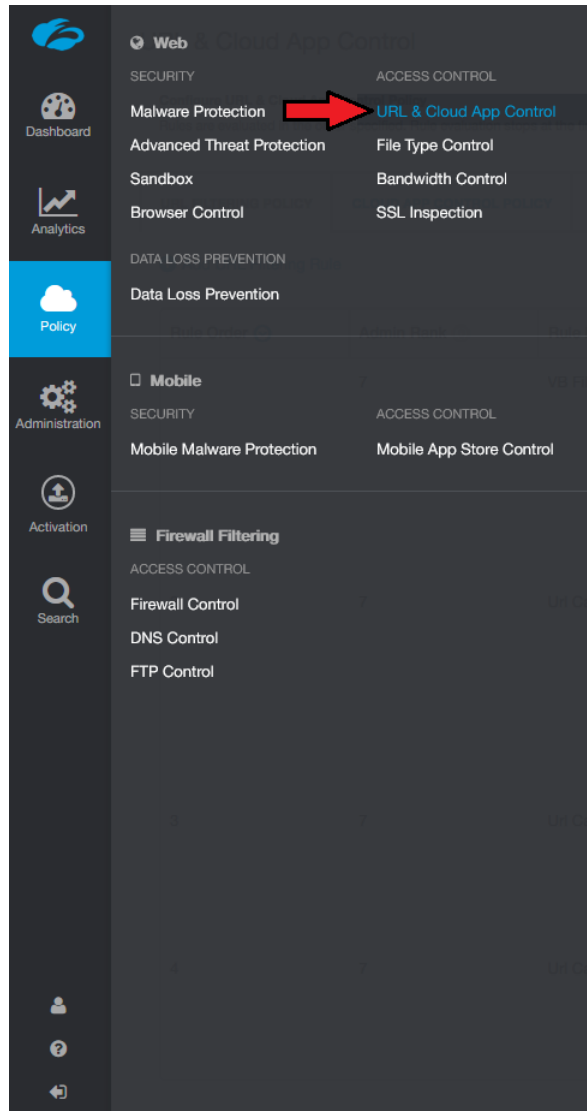
Enforce Bandwidth Control
<input type="button" value="Enable"/> <input checked="" type="button" value="Disable"/>

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Step 6: Configure Filtering Policies – From the sidebar on the left, click on **Policy** and select **URL & Cloud App Control**.



Step 7: Click on **Add URL Filtering Rule** at the top of the URL & Cloud App Control page. Select a **Rule Order** and **Admin Rank** from the drop-down menus to specify precedence for the rule and enter a **Rule Name**. Settings for the URL Filtering rule can be specified within the **Criteria** section, as well as **Web Traffic** default action and any desired **Quotas** from the **Action** section. Click **Save** when finished.



Add URL Filtering Rule ✕

URL FILTERING RULE

Rule Order 1	Admin Rank 1
Rule Name URL_Filtering_1	Rule Status Enabled

CRITERIA

URL Categories Any	HTTP Requests All
Users Any	Groups Any
Departments Any	Locations Any
Time Always	Protocols FTP over HTTP; HTTP; HTTPS; Native F...

ACTION

Web Traffic

Allow Caution Block

Daily Bandwidth Quota (MB) _____ Daily Time Quota (min) _____

DESCRIPTION

Save **Cancel**

Step 8: Once all changes are made, **Activation** on the left sidebar will be highlighted with a number indicating changes that need to be committed. Select **Activation** and click on **Activate** to commit the changes for your Zscaler account.

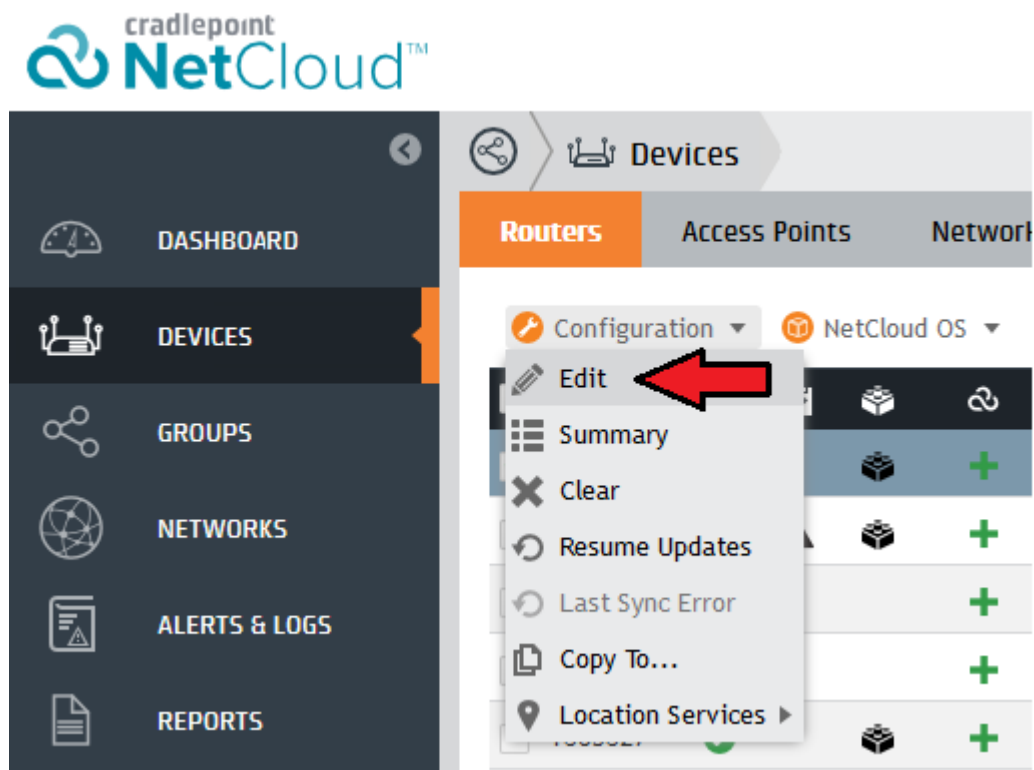


NetCloud Configuration

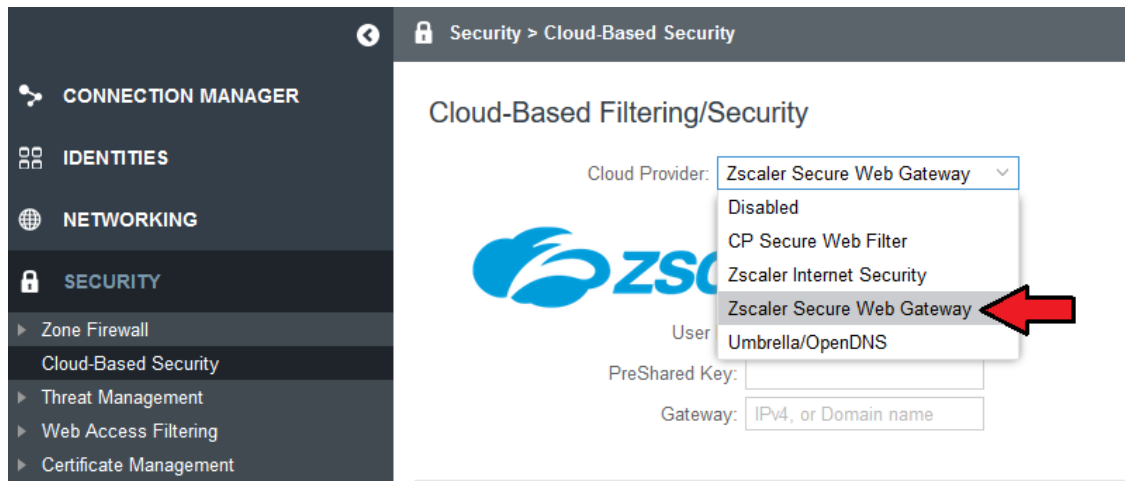
Note: This is an optional feature which requires an active NetCloud license subscription as well as an active Zscaler account to enable the functionality on Cradlepoint devices.

Step 1: Log into NetCloud Manager at accounts.cradlepointcm.com

Step 2: From the **Devices** tab on the left navigation bar, select the device you wish to configure for Zscaler and choose **Configuration -> Edit**.

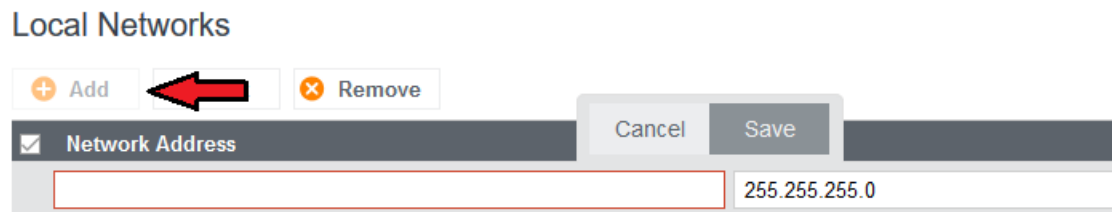


Step 3: Within the Edit Configuration window, navigate to the **Security** tab and select **Cloud-Based Security**. In the **Cloud Provider** drop-down menu, select **Zscaler Secure Web Gateway**.



Step 4: In the **User ID** and **PreShared Key** sections, enter the information for the VPN credential that was created in Step 3 of the Zscaler configuration section above. For the **Gateway**, input the IP address or Domain name provided to you by Zscaler.

Step 5: Under the **Local Networks** section, click **Add** and specify the local network address and subnet mask for the local network behind the Cradlepoint router you wish to associate with the Zscaler policy. Click **Save**. Multiple local networks can be specified.



Step 6: Click **Save** to enable the Zscaler configuration for the device, and then click **Commit Changes** to have NetCloud Manager push the configuration to the router.

Step 7: Configure the tunnel to use NULL encryption for IPSec Phase 2. This configuration must be done through the device command line interface (CLI). To perform this step:

- Select the Cradlepoint router in the devices list, Select the **Remote Connect** drop down menu and choose **Console**. After a few moments, a console window will pop up for the device.
- From within the console window, type in **cd /config/vpn/tunnels** and hit **enter**.



- Type in **ls** and hit **enter**. If ZIA is the only tunnel configuration on the device, the directory contents will return 0/. If there are other VPN tunnels configured on the device, additional numbers (1/, 2/, etc) will also be returned as directories. The tunnel for ZIA will be 0, or the highest listed number for devices with other tunnels already present.
- Type in **cd 0** (or other number, as discussed above) and hit **enter**.
- Type in **set ike2_encryption "null"** and hit enter.
- Close the device console window by selecting **X** in the upper right corner, or by typing **quit** and hitting **enter**.
- The ZIA tunnel will rebuild and connect to Zscaler using NULL encryption.



Appendix A: Zscaler Resources

Zscaler: Getting Started

<https://help.zscaler.com/zia/getting-started>

Zscaler Knowledge Base:

<https://support.zscaler.com/hc/en-us/?filter=documentation>

Zscaler Tools:

<https://www.zscaler.com/tools>

Zscaler Training and Certification:

<https://www.zscaler.com/resources/training-certification-overview>

Zscaler Submit a Ticket:

<https://help.zscaler.com/submit-ticket>

ZIA Test Page

<http://ip.zscaler.com/>

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Appendix B: Cradlepoint Resources

Cradlepoint Connect Customer Portal:

<https://customer.cradlepoint.com>

Cradlepoint Support:

<https://customer.cradlepoint.com/s/contactsupport>

Cradlepoint Training and Certification:

<https://customer.cradlepoint.com/s/cpu>

Cradlepoint NetCloud:

<https://customer.cradlepoint.com/s/NetCloud>

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