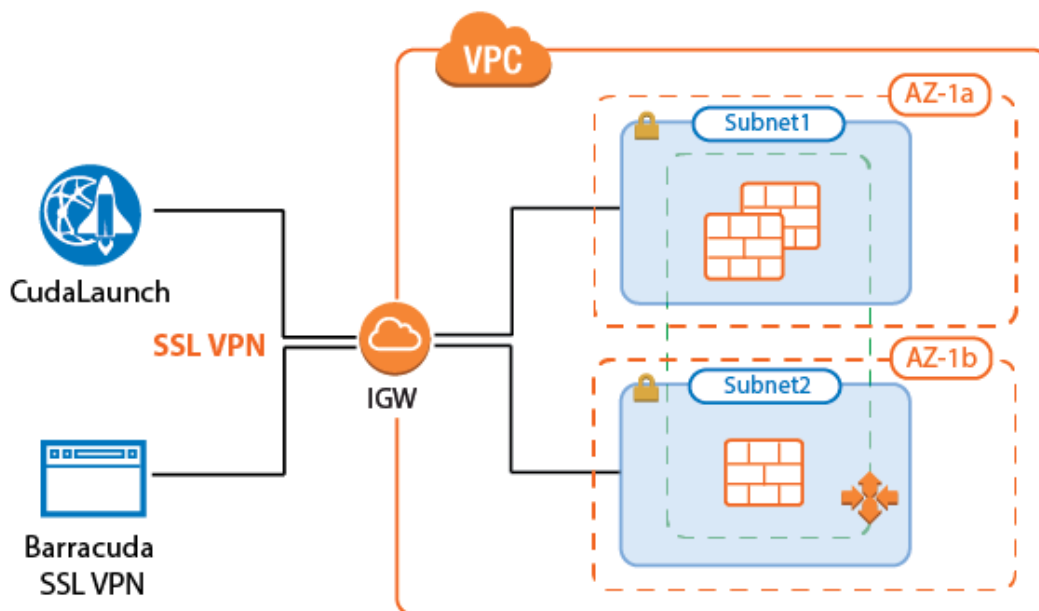


How to Configure the SSL VPN Services for AWS Auto Scaling Clusters

<https://campus.barracuda.com/doc/79462854/>

Let your users connect to a network in an AWS Auto Scaling cluster using SSL VPN. Enable the SSL VPN service and CudaLaunch, create a group access policy, and configure the login and authentication settings for the SSL VPN connections. To use SSL VPN, you must upload a certificate to the AWS certificate manager. For CudaLaunch on iOS, CloudGen Firewall Auto Scaling Clusters are supported for CudaLaunch 2.3.0 or higher.



Before You Begin

- Configure an external authentication server or NGF local authentication. For more information, see [Authentication](#).

Step 1. Disable Port 443 for Site-to-Site and Client-to-Site VPN

1. Go to **CONFIGURATION > Configuration Tree > Box > Assigned Services > VPN-Service > VPN Settings**.
2. Click **Lock**.
3. Set **Listen on port 443** to **No**.
4. Click **OK**.

5. Click **Send Changes** and **Activate**.

Step 2. Enable the SSL VPN Service

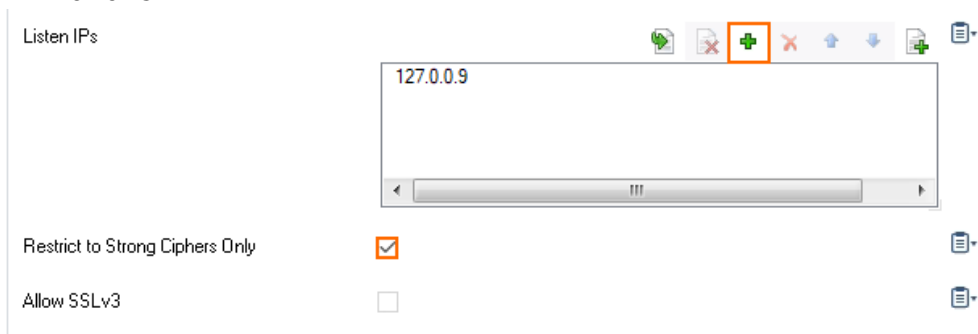
1. Go to **CONFIGURATION > Configuration Tree > Box > Assigned Services > VPN-Service > SSL-VPN**.
2. In the left menu, click **SSL VPN Settings**.
3. Click **Lock**.
4. Set **Enable SSL VPN** to **Yes**.



5. Click **Send Changes** and **Activate**.

Step 3. Configure SSL VPN General Service Settings

1. Go to **CONFIGURATION > Configuration Tree > Box > Assigned Services > VPN-Service > SSL-VPN**.
2. In the left menu, select **Service Setup**.
3. Expand **Configuration Mode** and click on **Switch to Advanced View**.
4. Click **Lock**.
5. Verify that the **Listen IP** for the SSL VPN service is correct, or click **+** to add a **Listen IP**. E.g., 127.0.0.9



6. Enable **Restrict to Strong Ciphers Only**.
7. (optional) Configure a custom **SSL Cipher Spec** string to be used by the SSL VPN service.
8. Set **Strict SSL Security** to **yes**.

This setting might break access for some older client SSL implementation. Disable if you experience problems when using older browsers.

9. Select the **Identification Type**:
 - **Generated-Certificate** - The certificate and the private key is automatically created by the firewall.
 - **Self-Signed-Certificate** - Click **New Key** to create a Self-Signed Private Key and then **Edit** to create the **Self-Signed Certificate**.
 - **External-Certificate** - Click **Ex/Import** to import the CA-signed **External Certificate**

and the **External-Signed Private Key**.

Service Identification

Identification Type	Generated-Certificate		
Self-Signed Private Key	New Key...	Ex/Import	No key present
Self-Signed Certificate	Show	Edit...	No certificate present
External-Signed Private Key	New Key...	Ex/Import	No key present
External-Signed Certificate	Show...	Ex/Import	No certificate present

10. Configure the following settings:
 - **Use Max Concurrent Users** – Set to **no**.
 - **Session Timeout (m)** – Set to 30. This setting must match with the timeout on the ELB.
11. Click **Send Changes** and **Activate**.

Step 4. Configure a User Identity Access Control Policy

1. Go to **CONFIGURATION > Configuration Tree > Box > Assigned Service > VPN-Service > SSL-VPN**.
2. In the left menu, click **Access Control Policies**.
3. Click **Lock**.
4. Click **+** to add an Access Control Policy.
5. Enter the **Name** for the access control policy.
6. Click **OK**.
7. In the **Access Control Policy** section, select the **Active** check box.

Access Control Policy

Active ☒

8. In the **Group Access** section, click **+** to add **Allowed Groups** and **Blocked Groups**. Click **x** to remove an entry from the table.

In **Allowed Groups**, either add an asterisk (*) to allow all groups, or enter one or more group names. Leaving the **Allowed Groups** empty causes the **Access Control Policy** to block all authentication attempts.

9. In the **Authentication** section, click **+** to add an **Authentication Scheme**.

Authentication

Authentication Schemes

Authentication Scheme

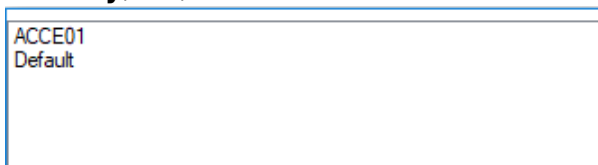
10. Select **Use Identity** from the **Authentication Scheme** drop-down list and click **OK**.
11. Click **OK** to exit the configuration.
12. Click **Send Changes** and **Activate**.

Step 5. Configure Login to Log In with User Identity

1. Go to **CONFIGURATION > Configuration Tree > Box > Assigned Services > VPN-Service > SSL-VPN**.
2. In the left menu, click **SSL VPN Settings**.
3. Click **Lock**.
4. In the **Access** section, set the **Identity Scheme** to your preferred authentication method, e.g., MS-Active Directory.
5. Click **+** to add your access control policy to the list of **Access Control Policies**.



6. From the pop-up menu, select the access control policy that you configured in Step 4 for **Use Identity**, i.e., ACCE01.




7. (optional) In the **Dynamic App Super Users** field, add user groups that should be allowed to enable and disable dynamic apps.
8. (optional) Customize the login messages and logos:
 - Import a 200 x 66-pixel PNG or JPG image to customize the **Logo**.
 - Enter a plain text **Login Message**. E.g., Welcome to the Barracuda CloudGen Firewall SSL VPN.
 - Enter a **Help Text (HTML)**.
9. Click **Send Changes** and **Activate**.

Step 6. Create Access Rules

Verify the the access rule CLOUD-SERVICE-VPN-ACCESS is present in the forwarding ruleset. If not, create the rule. Use the following settings:

- **Action** – Select **App Redirect**.
- **Source** – Select **Any**.
- **Service** – Select **NGF-VPN-HTTPS**.
- **Destination** – Select the network object containing all firewall IPs.
- **Redirection** – Enter the IP address of the VPN service. E.g., 127.0.0.9.


App Redirect

Cloud-Service-VPN-Access
UDP 691 and TCP 443 to the VPN service listening on the virtual server IP address.

☐ Bi-Directional
☐ Dynamic Rule
☐ Deactivate Rule

Source VR Instance: default
Destination VR Instance: Same as Source

Source	Service	Destination
Any 0.0.0.0/0	NGF-VPN-HTTPS Ref: HTTPS Ref: NGF-VPN	All Firewall IPs Ref: Management IP Ref: Service IPs

Redirection
Local Address
127.0.0.9

Authenticated User
Any

Policies
IPS Policy: Default Policy
Application Policy: No AppControl
SSL Inspection Policy: N.A.
Schedule: Always
QoS Band (Fwd): No-Shaping
QoS Band (Reply): Like-Fwd

OK Cancel

Troubleshooting

- If the **sslvpn** log contains the following line: `http_listener: failed to listen on <IP address>@443` verify that no other service on the firewall is running on that port and that no Dst NAT access rules are forwarding TCP port 443 (HTTPS) traffic.
- Updating certificates requires the SSL VPN service to be restarted. To do this in an ASG, scale the ASG to a size of one. Then restart the VPN (SSL VPN) service. Then scale out, or wait for the scaling policies to scale your ASG out to the desired size.

Figures

1. aws_autoscale_cluster_sslvpn.png
2. sslvpn01.png
3. sslvpn00.png
4. sslvpn02.png
5. activate_auth_scheme_00.png
6. add_authentication_scheme_00.png
7. add_access_control_policy_00.png
8. select_access_control_policy_00.png
9. ssl_vpn_rule.png

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