

## Example - Reverse Proxy for Exchange Services

<https://campus.barracuda.com/doc/73719407/>

The reverse proxy redirects incoming requests from Microsoft Exchange Server services to clients without providing the origin details. This example configuration shows how to configure a reverse proxy for the following Microsoft Exchange services:

- Autodiscover
- ActiveSync
- Outlook Web Access
- RPC

The example setup uses the following server and service settings:

Server/Service	Settings
<b>Exchange Server</b>	<ul style="list-style-type: none"> <li>• FQDN: mailserver.company.com</li> <li>• Internal IP Address: 192.168.0.206</li> </ul>
<b>HTTP Proxy Service</b>	<ul style="list-style-type: none"> <li>• FQDN: No DNS record is available.</li> <li>• External IP Address: 62.99.0.221</li> </ul>
<b>Internal DNS Server</b>	<ul style="list-style-type: none"> <li>• Internal IP Address: 192.168.0.239</li> </ul>

### System Requirements

- Microsoft Exchange Server 2010 SP3

### Before You Begin

- Create a HTTP Proxy service on the Barracuda CloudGen Firewall as described in [How to Configure Services](#). Enable the service, choose a descriptive **Service Name** (e.g., RPX) and enter a brief description (e.g., HTTP Proxy + the location of the customer).
- Ensure that the matching host access rule allows inbound HTTP/S traffic on port 443. For the inbound host firewall rule named **OP-SRV-PX**, edit the **Service** setting to include **HTTP+S**. For more information on configuring host firewall rules, see [Host Firewall](#).

- For some changes to take effect, it might be necessary to stop and restart the squid process on the Barracuda CloudGen Firewall.
- To prevent DNS issues with internal/external domain resolution, use IP addresses instead of DNS names in the reverse proxy settings.

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## Step 1. Configure the Proxy Service

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Configure the HTTP Proxy service in reverse proxy mode.

### Step 1.1 Add the External IP Address of the HTTP Proxy

1. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > your virtual server > Assigned Services > HTTP-Proxy > Service Properties**.
2. Click **Lock**.
3. From the **Service Availability** list, select **Explicit**.
4. In the **Explicit Service IPs** table, add 62.99.0.221.
5. Click **Send Changes** and **Activate**.

### Step 1.2. Configure the Proxy Settings

1. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > your virtual server > Assigned Services > HTTP-Proxy > HTTP Proxy Settings**.
2. From the **Configuration Mode** menu, select **Switch to Advanced View**.
3. Click **Lock**.
4. Enter the admin proxy email address in the **Contact Mail** field.
5. In the **Visible Hostname** field, enter the hostname, e.g.: rpx.company.com
6. Select **Reverse Proxy** as the **Proxy Mode**.
7. In the left menu, select **IP Configuration**.
8. In the **Networking Settings** section, specify the following details:
  - o **TCP Listening Port** - Enter 443.
  - o **TCP Outgoing Address** - Select **Dynamic**.
  - o **UDP Incoming Address** - Select **First-IP**.
  - o **UDP Outgoing Address** - Select **First-IP**.
  - o **DNS Server IP addresses** - Add 192.168.0.239.
9. Click **Send Changes** and **Activate**.

## Step 2. Configure Access Control Settings

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Create ACL entries for all Exchange services that must access the Barracuda CloudGen Firewall and for the source IP address range. Then configure the settings for access priority.

### Step 2.1. Configure ACL Entries

1. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > your virtual server > Assigned Services > HTTP-Proxy > HTTP Proxy Settings**.
2. From the **Configuration Mode** menu, select **Switch to Advanced View**.

3. In the left menu, select **Access Control**.
4. Click **Lock**.
5. From the **Default Access** list, select **Deny**.
6. Create an ACL entry for the Exchange URLs:
  1. In the **ACL Entries** section, click the plus sign (+).
  2. Enter a name for the list (e.g., ExchangeURLs), select **URL** from the drop down menu and click **OK**.
  3. In the **URL Extensions** table, add the following entries. IP Addresses or FQDNs.
    - https://62.99.0.221/owa/\*
    - https://62.99.0.221/rpc/\*
    - https://62.99.0.221/Autodiscover/\*
    - https://62.99.0.221/Microsoft-Server-ActiveSync/\*
  4. Click **OK**.
7. Create an ACL entry for the source IP range:
  1. In the **ACL Entries** section, click the plus sign (+).
  2. Enter a name for the list (e.g., World), select **Source IP** from the drop down menu and click **OK**.
  3. From the **IP Configuration** list, select **Rangemode**.
  4. In the **IP Ranges** section, enter:
    - **From:** 0.0.0.0
    - **To:** 255.255.255.255
  5. Click **OK**.

### Step 2.2. Configure ACL Policies

1. Create an ACL policy to allow the ACL entries that you created.
  1. In the **Access Control Policies** section, click the plus sign (+).
  2. Enter a name for the policy (e.g., ACCE00) and click **OK**.
  3. In the **ACL Priority** field, enter 10.
  4. From the **Action** list, select **Allow**.
  5. In the **ACL Entries** section, click the plus sign (+) and then select the following entries:
    - **ExchangeURLs**
    - **World**
  6. Click **OK**.
2. Create an ACL policy with a lower priority that denies the **World** ACL entry that you created.
  1. In the **Access Control Policies** section, click the plus sign (+).
  2. Enter a name for the policy, (e.g., ACCE01) and click **OK**.
  3. In the **ACL Priority** field, enter 99.
  4. From the **Action** list, select **Deny**.
  5. In the **ACL Entries** section, click the plus sign (+) and then select **World**.
  6. Click **OK**.
3. Click **Send Changes** and **Activate** .

### Step 3. Configure the Reverse Proxy Settings

Enable SSL encryption, specify the back-end web site, and map the addresses of the Exchange services.

### Step 3.1. Configure the Reverse Proxy Settings

1. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > your virtual server > Assigned Services > HTTP-Proxy > HTTP Proxy Settings**.
2. In the left menu, select **Reverse Proxy Settings**.
3. From the **Configuration Mode** menu, select **Switch to Advanced View**.
4. Click **Lock**.
5. In the **Backend Web Site** field, enter 62.99.0.221 or the FQDN.
6. From the **Use SSL** list, select **Yes**.
7. In the **SSL Listening Port** field, enter 443.
8. Import the **SSL Certificate** and the **SSL Private Key**.  
 The certificate must contain the **Name** (\*.company.com) and **SubAltName** (DNS:owa.company.com).
9. In the **Backend IP Addresses** section, click the plus sign ( + ) and then enter 192.168.0.206.
10. From the **Round Robin** and **Domain-based Virtual Host** lists, select **no**.

### Step 3.2. Configure Domain to Backend Mapping

Map the domains of the Exchange services to the backend web site.

Complete the following steps for each Exchange service:

1. In the **Domain to Backend Mapping** section, click the plus sign (+).
2. Enter the name of the Exchange service that you are mapping (e.g., Autodiscover) and click **OK**.
3. From the **Mapping Type** list, select **Url-Regex**.
4. In the **Url-Regex** field, enter the domain of the Exchange service that you are mapping:

Exchange Service	Domain
Autodiscover	https://62.99.0.221/Autodiscover
ActiveSync	https://62.99.0.221/Microsoft-Server-ActiveSync
Outlook Web Access	https://62.99.0.221/owa
RPC	https://62.99.0.221/rpc

5. From the **Backend** list, select 192.168.0.206 and click **OK**.
6. Click **Send Changes** and **Activate**.

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