Microsoft Exchange Server 2013 and 2016 Deployment

https://campus.barracuda.com/doc/19333236/

Barracuda Networks has conducted interoperability tests using the Barracuda Load Balancer ADC and Microsoft® Exchange Server 2013 and Microsoft Exchange Server 2016. Follow the steps in this guide to deploy the Barracuda Load Balancer ADC to increase the scalability and reliability of your Microsoft Exchange Server deployment. Using a Barracuda Load Balancer ADC allows load balancing of a Client Access Server (CAS).

Product Versions and Prerequisites

You must have:

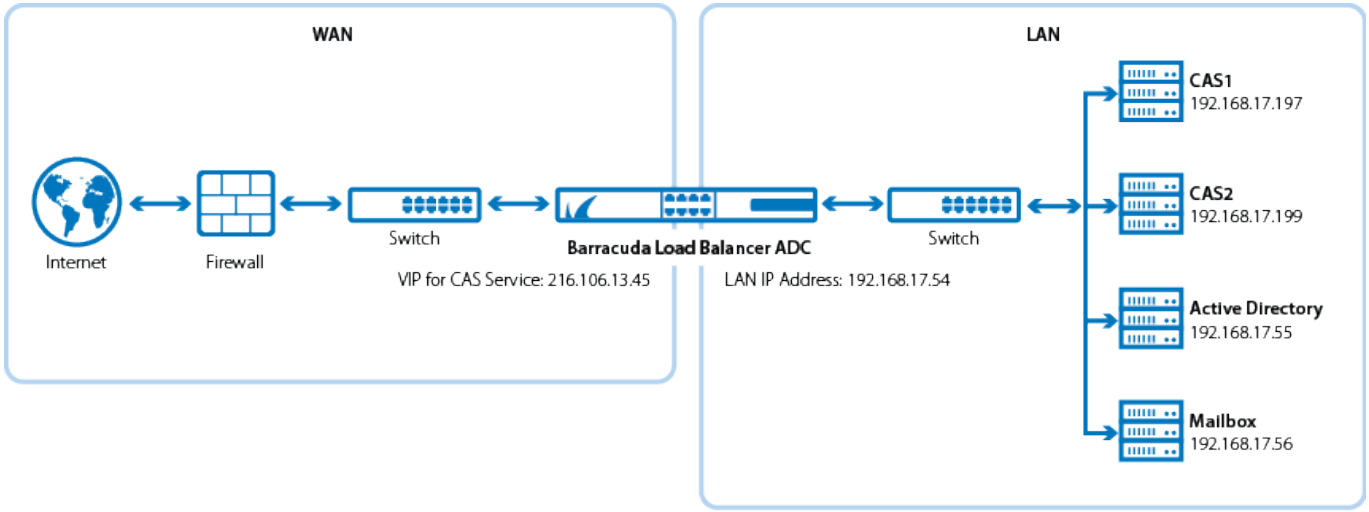
- Barracuda Load Balancer ADC version 5.1 or above.
- Microsoft Exchange Server 2013 or Microsoft Exchange Server 2016.
- Installed your Barracuda Load Balancer ADC(s), connected to the web interface, and activated your subscription(s).
- If you want to deploy the Microsoft Exchange Server with high availability, clustered your Barracuda Load Balancer ADCs . For more information, see High Availability.

Terminology

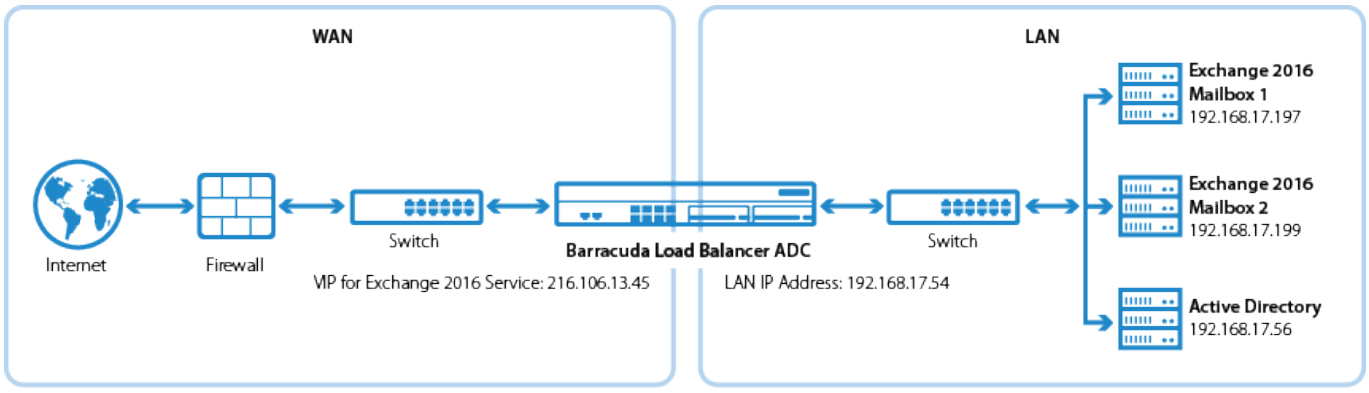
Term	Description
Microsoft Exchange Server	A Microsoft Exchange Server deployment consists of Client Access Servers (CAS) and Exchange Mailbox servers.
Fully Qualified Domain Name (FQDN)	The unique name for a specific computer or host that can resolve to an IP address (e.g., `www.example.com`).
Virtual IP (VIP) Address	The IP address assigned to a service. Clients use the virtual IP address to connect to the load-balanced service.
Service	A combination of a virtual IP address and one or more TCP/UDP ports that the Barracuda Load Balancer ADC listens on. Traffic arriving on the specified port(s) is directed to one of the real servers associated with a service.
Instant SSL	Instant SSL provides SSL (HTTPS) access to content on servers without having to modify the servers or the content on the servers. The Barracuda Load Balancer ADC rewrites the "http" links in the response to "https".
Client Access Server (CAS)	Client Access Server supports various protocols used by end users to access their mailboxes. This includes services such as RPC Client Access, IMAP, POP3, OWA, and ActiveSync.

Real Server	A server associated with a service that handles the requests forwarded to it by the Barracuda Load Balancer ADC.
Outlook Web App (OWA)	Originally called Outlook Web Access, OWA is the Webmail component of Microsoft Exchange Server 2010.

Deployment Topology for Microsoft Exchange Server 2013



Deployment Topology for Microsoft Exchange Server 2016



Deploying Exchange Services on the Barracuda Load Balancer ADC

Configuring Clustered Barracuda Load Balancer ADCs

If your Barracuda Load Balancer ADCs are clustered, the configuration between the active and passive units is synchronized; you only need to configure the active Barracuda Load Balancer ADC.

To deploy the Exchange servers with the Barracuda Load Balancer ADC, complete the following steps:

Certificates

Barracuda Networks recommends that you use the same certificate on the Barracuda Load Balancer ADC and each CAS.

Step 1. Create the Exchange Services

1. Log into the Barracuda Load Balancer ADC as the administrator.
2. Go to the **BASIC > Certificates** page, and create or upload a certificate for the service.
3. Go to the **BASIC > Services** page and add the following services. Click **Add Service** and enter the values in the corresponding fields (each service must be added separately).

Name	Type	IP Address	Port	HTTP Service Port	Session Timeout	SSL Settings	Certificate	Load Balancing
Exchange_InstantSSL	Instant SSL	VIP address for the FQDN that clients use to access the Outlook Web Access (OWA) and Exchange Admin Center.	443	80	1200	**Secure Site Domain** – Enter the domain name of your Exchange server. If the internal and external domain are different, you can use wildcard characters. For example: `*.barracuda.com` If your Barracuda Load Balancer ADC is running version *5.1.1 and above*, set the **Rewrite Support** option to **Off**. For versions *below 5.1.1*, this option is named **Instant SSL**.	Select the certificate that you uploaded for the service.	**Persistence Type**: Cookie Insert **Persistence Time (Barracuda Load Balancer ADC 5.4 and earlier)**: 1200 seconds **Cookie Expiry (Barracuda Load Balancer ADC 6.0 and later)**: 1200 seconds **Cookie Name** – Choose a cookie name.
Exchange_SMTP	TCP Proxy	VIP address for the FQDN that Microsoft Exchange server uses to receive mail.	25	N/A	1200	N/A	N/A	**Persistence Type**: Source IP **Persistence Time**: 1200

4. Click **Create**.

5. If you have the Barracuda Load Balancer ADC 540 and above, you can enable **Application Security** for the service.
    1. For **Application Security**, select **Enable**.
    2. For **Security Mode**, select the **Passive** mode. It is recommended that you run the service in Passive mode before going active.
    3. From the **Security Policy** list, select **owa2013**. This policy is predefined for all Exchange applications and applies to both Exchange Server 2013 and 2016.
    4. You need to modify the default **owa2013** policy. Go to the **SECURITY > Security Policies** page and select the **owa2013** security policy. In the **Cookie Security** section, set **Tamper Proof Mode** to **None**.

        If you want to use Integrated Windows Authentication with the Exchange_InstantSSL service, go to the **Request Limits** section of the security policy settings and increase the **Max Header Value Length** to 800.

Step 2. Add the Real Servers

Add each CAS to your service. For each server, enable SSL and configure health checks. Certificate validation can be ignored.

1. On the **BASIC > Services** page, verify that the correct service for the server is displayed.
2. Click **Add Server**. Enter the values in the corresponding fields.

IP Address	Port	Server Monitor
IP address of the CAS	443	◦ **Testing Method**: Simple HTTPS ◦ **Port**: 443 ◦ **Test Target**: /owa/auth/logon.aspx (unless you modified the default path of logon.aspx) ◦ **Test Match**: Microsoft Corporation ◦ **Additional Headers**: User-Agent: Barracuda Load Balancer ADC Server Monitor ◦ **Status Code**: 200 ◦ **Test Delay**: 30

3. Click **Create**.
4. If SNI is enforced on the Microsoft Exchange server(s), click **Edit** for each affected server, expand **Settings** and set **Enable SNI** to **Yes**.

Step 3. Configure an HTTP Request Rewrite Rule

To simplify access to the Outlook Web Access site for your users, configure a rewrite rule to add `/OWA` to the end of the URL.

1. Go to the **TRAFFIC > Web Translations** page.
2. From the **Service** list, select the **Exchange_InstantSSL** service.
3. In the **HTTP Request Rewrite** section, add the following rule. Click **Add Rule** and enter the values in the corresponding fields.

Rule Name	Sequence number	Action	Old Value	Rewrite Value	Rewrite Condition
OWA	3	Redirect URL	/	/OWA	*

4. Click **Save**.

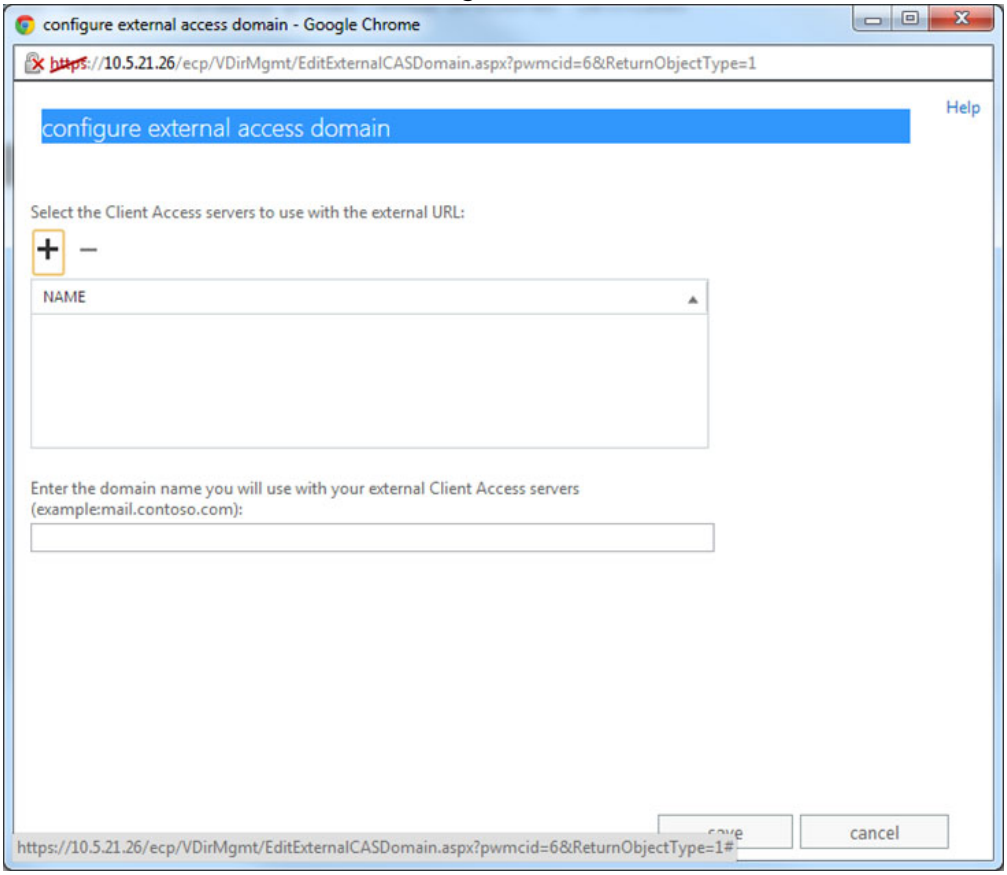
Step 4. Configure DNS

Configure the VIP address on the CAS virtual directories. Configure the DNS for the following domain names to point to the VIP address that you created for the Exchange_InstantSSL service:

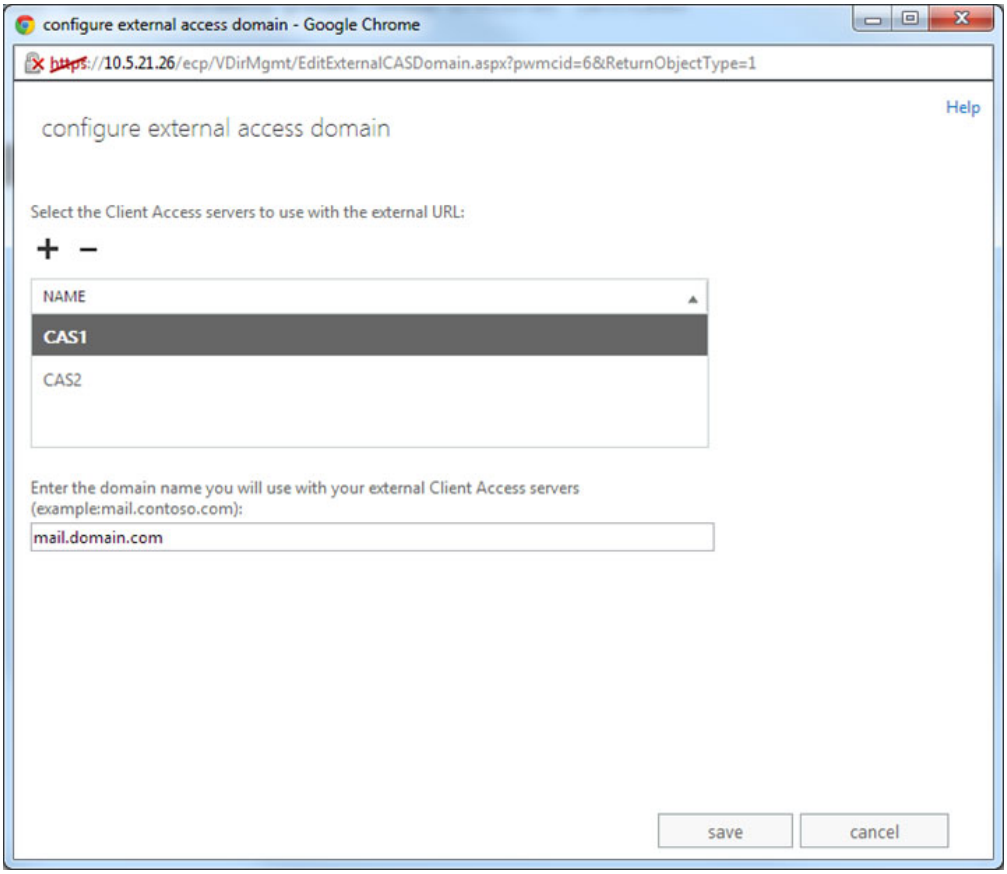
- mail.domain.local
- autodiscover.domain.local
- eas.domain.local
- outlook.domain.local
- oab.domain.local
- ecp.domain.local

Configure HTTPS namespace on the Exchange Admin Center:

1. Log into your Microsoft Exchange Admin Center.
2. Click **Servers > Virtual Directories**.
3. Select **CAS1**, click **Edit** , and configure external access domain.



4. Add both servers to the list and configure the external domain.



5. Click **Save**.

Next Step

You can configure authentication and access control for your applications. For more information, see Access Control.

Figures

1. Exchange_deployment_new.png
2. Exchange2016_deployment.png
3. 2013_01.jpg
4. 2013_02.jpg