Deploying Acano with Skype for Business on NetScaler

Solution Guidelines

Deploy the Acano Solution with Skype for Business hosted on NetScaler
Introduction
Overview
Citrix NetScaler is a world-class product with the proven ability to load balance, accelerate, optimize, and secure enterprise applications. It provides availability, scalability, optimization and security for Microsoft Skype for Business deployments.

Acano is an enterprise collaboration platform that enables teams within an enterprise to collaborate using ‘Spaces’, Acano’s version of the virtual meeting room. The Acano communications platform unites previously incompatible audio, web and video conferencing technologies. It can be deployed as a stand-alone solution or as middleware in your existing communications infrastructure. The Acano platform provides functionality such as cost-efficient audio and video conferencing bridging, interoperability (e.g. Skype/Lync) and browser access through a multitude of devices.

Solution Description
Configuration Details
The following product versions were used for this configuration –

<table>
<thead>
<tr>
<th>Product</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>NetScaler</td>
<td>11.0 (Enterprise/Platinum License)</td>
</tr>
<tr>
<td>Acano</td>
<td>1.8.8</td>
</tr>
</tbody>
</table>

**NetScaler features to be enabled**

The essential NetScaler features that need to be enabled for deploying Dynamics CRM are explained below. Please ensure these features are enabled in the NetScaler system.

Note: These features are required for implementing basic load balancing of Skype for Business with NetScaler.

- Load balancing
- Content Switching

Here is a quick explanation of how these features work.

**Load balancing**

NetScaler load balancing evenly distributes requests to backend servers. Multiple algorithms (such as LEASTCONNECTION, ROUNDROBIN, etc.) are supported to provide efficient load balancing logic for every application server.

**Content Switching**

By redirecting requests to the appropriate load balancing virtual servers based on predefined policies, Content Switching is a powerful feature that allows a lot of customization to the way traffic is processed by the NetScaler appliance.

**Deploying Acano with a load balanced Skype for Business environment**

This guide will only describe the necessary configuration for setting up a functional Acano and Skype for Business hybrid environment. For details about the configuration of Skype for Business, please refer to the Skype for Business deployment guide for NetScaler.

For this setup, the following Skype for Business virtual server addresses/IPs have been used.

<table>
<thead>
<tr>
<th>Role</th>
<th>FQDN</th>
<th>IP Network Interfaces</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acano Server</td>
<td>Acano.yourdomain.com</td>
<td>10.105.157.113</td>
<td>Acano Core Server</td>
</tr>
<tr>
<td>Front End Server Pool</td>
<td>Pool.yourdomain.com</td>
<td>10.105.157.182</td>
<td>Front End Server Pool (Skype for Business)</td>
</tr>
<tr>
<td>Edge Server Pool</td>
<td>Edge.ctxnssfb.com</td>
<td>10.105.157.183 192.168.1.245</td>
<td>Edge Server Pool (Skype for Business)</td>
</tr>
</tbody>
</table>
Configuring Acano with Skype for Business

To enable Acano-Skype for Business client connectivity over a load balanced Skype for Business environment, first complete basic configuration at the Acano command line interface. You will need to configure network interfaces (for a standalone server, you will need one internal and one external interface) and also the XMPP server and call bridge. After completing this configuration, login to your Acano server’s web interface and perform the following steps –

Step 1- General Settings

Use the menu in the top left hand corner of the screen to navigate to Configuration>General. Here, the screen shown above is presented. In the XMPP server settings section, give a unique call bridge name (this can by any name that is convenient), then put the domain for your Active Directory in the Domain text field. Put the server address as 127.0.0.1:5223 (this is a default value)

In the Lync Edge settings section, enter the server address as the address of the Skype for Business Front End pool and the username of a user that is added on the users list for Skype for Business.
Step 2: Active Directory Configuration

The next step is to configure the Active Directory settings, which Acano will use for authentication. From the Configuration Menu, select Active Directory –

Here, enter the following –

Address: IP address of the Active Directory (AD) Domain Controller (DC) server.

Port: Port for AD queries (default is 389 for LDAP queries, 636 for secure LDAP (LDAP-S) queries)

Secure Connection – Enable or disable according to your setup. This is related to the port setting above, if port 636 is provided (secure LDAP) then enable this.

Username – Provide the complete DN (Distinguished Name) for a user with administrative rights to the DC. This can be found by right clicking the username in the Users list on the AD server, then selecting Properties>Attributes.

For Import Settings, use the following –

Base Distinguished Name – The Base DN from which users are to be extracted. Verify the same as described for the Username setting.

Filter – This determines the usernames that are extracted from the Active Directory database to act as Acano users. The filters use a regular expression based format and support wildcards and standard operators such as =. More information on putting together these expressions can be found in the Acano documentation.
For Field Mapping Expressions, provide the following –

Display name – The name to be shown in the Acano client as the user’s display name.
Username – The actual Acano username to be used when logging in.
Space Name - The name of the coSpace dedicated to the user. A coSpace is similar to a persistent chatroom.

For all of these values, use the AD name of the attribute enclosed within $ signs – such as $mail$.

**Step 3: Call Setting Configuration**
The next step is to configure the call settings, which Acano will use for routing and handling of calls.

On the call settings page, make sure SIP media encryption is set to Allowed. This is necessary for communications with Lync or Skype for Business to work. Other settings can be left as they are.

**Step 4: Outbound call configuration**

For outbound calls, configure the following rule –
Domain – Provide the domain used by your Skype for Business deployment
SIP Proxy to use – Leave blank, or provide the FQDN for your front end server pool
Local Contact Domain – the domain to be used for local contact calling by the Acano server. This is what Acano will use as the local domain to contact.
Local from Domain – the domain that will be shown as the FROM domain.
Trunk Type – Set this value to Lync
Behaviour – Set to Continue.
Encryption – Set to Auto.
This completes required basic configuration for Acano to function with a Skype for Business server load balanced by NetScaler.

Note: The required configuration to be performed on the Skype for Business server will still need to be performed as per the Acano guidelines available at https://www.acano.com/publications/2015/09/Acano-server-single-combined-1.8-Deployment-Guide.pdf
Conclusion

A leading application delivery solution, Citrix NetScaler provides a complete load balancing solution for Skype for Business deployments. Working closely with Microsoft’s engineering and test teams, Citrix has designed NetScaler to optimize the delivery of traffic, achieving significant TCO savings while providing increased availability, capacity, performance, security and manageability. By also supporting seamless integration with external solutions such as Acano, NetScaler ensures that enterprises have a transparent and easy configuration experience for their deployments.

To learn more about how NetScaler can bring these benefits or address other application delivery requirements, please visit http://www.citrix.com.