

CloudBond 365™ Standard / Standard+ Box Editions

Version 7.4.0

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Abbreviations and Terminology

Each abbreviation, unless widely used, is spelled out in full when first used.

Related Documentation

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CloudBond 365 Administration and Maintenance Manual

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26368	Initial document release for Version 7.2.
26369	Updates for default IP address information and for references to the CloudBond Installation Manual (a new manual consolidating previous related documents).
26370	Updates for new AudioCodes logo and URLs.

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1 Introduction

Thank you for purchasing the AudioCodes CloudBond 365 solution. Please read this guide before starting your deployment.

The guide provides:

- Default configuration of the AudioCodes CloudBond 365 unit
- Four steps to deploy the AudioCodes CloudBond 365 Standard / Standard+ Box Edition into an enterprise environment
- CloudBond 365 architecture and an overview of the IP addresses in relation to CloudBond 365 Skype for Business.

The document is intended as a summary only, for experienced AudioCodes CloudBond 365 installers to reference. For detailed instructions on each of the steps, refer to the *CloudBond 365 Administration and Maintenance Manual*.

For the latest documentation go to

Figure 1-1: CloudBond 365 with ISDN PRI



Figure 1-2: CloudBond 365 with 8 x ISDN BRI



Note: Multiple configurations of AudioCodes' Mediant 800 gateway are available with CloudBond 365. The figures above show two examples.

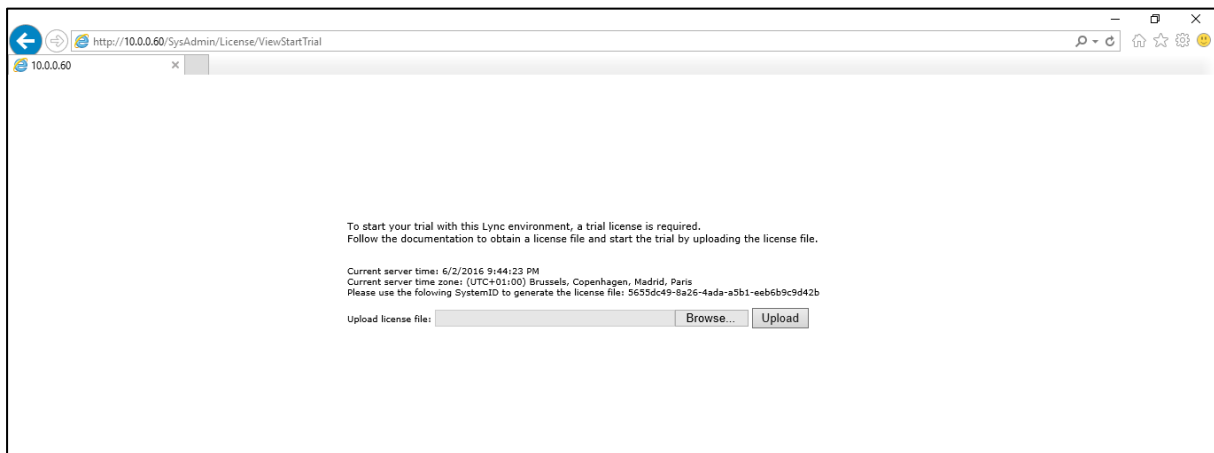
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2 CloudBond 365 Licensing

Your CloudBond 365 Standard Box Edition is shipped with only the software installed, but is not licensed. The supplied USB software key is for re-installation of the software should that become necessary.

When the SysAdmin utility is accessed for the first time on a new CloudBond 365 system, you're required to upload and install a License file. With each system, AudioCodes supplies either a demonstration, time-limited, trial license, or a full license.

Figure 2-1: SysAdmin License Required



Note:

- The System ID required for licensing is displayed in this 'first-time' screen.
- If a license has already been installed, the System ID will be displayed in the 'Licensing info' page (**System Configuration > Licensing info**).



Important: Before applying a CloudBond 365 license, make sure all CloudBond 365 servers (DC, FE and Edge) are configured with the correct time zone and date / time.

2.1 Activating a CloudBond 365 License

This section shows how to activate your CloudBond 365 license.

➤ **To activate your CloudBond 365 license:**

1. Install the product (see the instructions in the *Installation Manual*).
2. Obtain the product's Fingerprint (System ID) (for instructions, see "Licensing the Product" in the *CloudBond 365 Installation Manual*).

Activate the product through the AudioCodes License Activation tool, at <http://www.audiocodes.com/swactivation>. You'll need your Product Key and Fingerprint (System ID) for the activation process. An email will subsequently be sent to you with your Product License.

3. Install the Product License. Follow the instructions in "Installing the Product License" in the *CloudBond Installation Manual*.

The Product Key is a unique key representing the initial order for CloudBond 365, used for online license generation. The key is also used after acquiring a future version of the product in order (for example) to upgrade the initial order.

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3 Default Configuration CloudBond 365 Unit

3.1 AudioCodes Mediant 800 Information

3.1.1 Login

Username: **Admin**

Password: **Admin**

3.1.2 IP Address Information

- Mediant 800 Gateway 192.168.0.2

3.2 CloudBond 365 Server Information

3.2.1 Login

Username: **cloudbond365\Administrator**

Password: **R3m0t3Supp0rt**

3.2.2 IP Address Information

- Host (UC-DC) 192.168.0.101
- UC-FE 192.168.0.102
- UC-EDGE 192.168.0.103 (internal)
- UC-EDGE 192.168.254.103 (external)
- Gateway (Mediant 800) 192.168.0.2
- All subnet masks 255.255.255.0

3.2.3 CloudBond 365 Domain Information

- Internal FQDN cloudbond365.com
- NetBIOS domain cloudbond365

3.2.4 CloudBond 365 Certificate

Private certificates are dynamically generated during software installation. Refer to “Configuring Certificates” in the *CloudBond 365 Installation Manual* for further requirements.



Note: If you intend to use CloudBond 365 for external connectivity (External users, External conferencing, Federation, etc.), or to join with an existing domain, you will need to obtain additional certificates.

3.2.5 CloudBond 365 Default Skype for Business Topology

- Default SIP domain
 - cloudbond365.com
- Simple URLs
 - <https://meet.cloudbond365.com/dialin>
 - <https://meet.cloudbond365.com/meet>
- Standard Box Edition FE Pool
 - uc-fe.cloudbond365.com
 - External Web ewslync.cloudbond365.com
- Edge Pool
 - uc-edge.cloudbond365.com
 - Access Edge sip.cloudbond365.com:5061
 - Web Conferencing sip.cloudbond365.com:444
 - A/V Edge sip.cloudbond365.com:443



Note: A PSTN Gateway for the Mediant 800 is defined within the Topology and using the Mediant 800 default address. The Mediant 800, however, is not configured.



Note: You will need to modify the Skype for Business Topology during deployment when configuring external access or enterprise voice. You must change or add a valid SIP domain for external access. Refer to “Changing or Adding SIP Domain” in the *CloudBond 365 Installation Manual*.

4 Deployment of CloudBond 365

Figure 4-1: Rear View

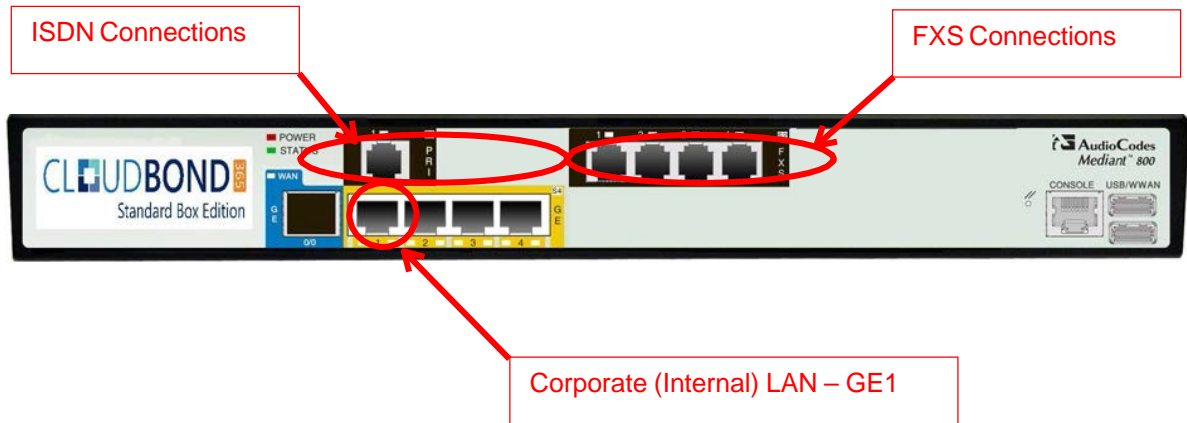
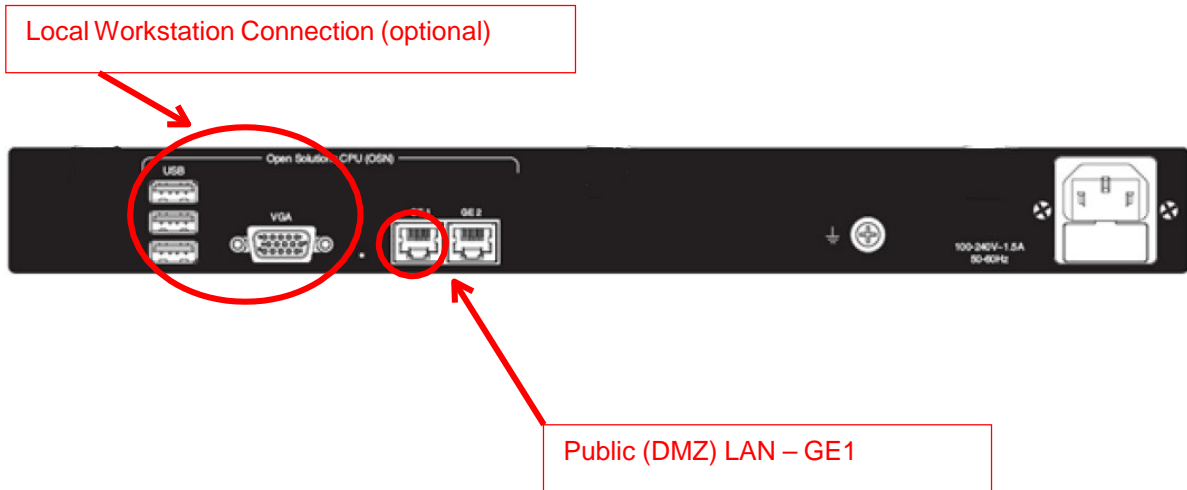


Figure 4-2: Front View



4.1 Step 1: Deploying CloudBond 365

This section shows how to deploy CloudBond 365.

➤ To deploy CloudBond 365:

1. Connect to your network:
 - a. Connect the corporate network side via GE1 on the front side of the CloudBond 365 unit
 - b. Note that the front side has four Ethernet connections. GE1 and GE2 are paired together for redundancy in an Active / Passive configuration. (The first that gets connected is the Active connection).
 - c. Connect the public internet side via GE1 on the rear side of the CloudBond 365 unit.
 - d. Optionally, you can connect a VGA Display, USB Keyboard and mouse device.
2. Verify time and time zone settings on all CloudBond 365 servers.
3. DNS:
 - a. Set up a forward lookup stub-zone for the Enterprise FQDN in the CloudBond 365 DNS pointing to a DNS server in the enterprise forest.
 - b. Set up a forward lookup stub-zone for the CloudBond 365 FQDN in the enterprise DNS pointing to the IP address of the CloudBond 365 virtual Domain Controller.
 - c. On the Enterprise DNS server(s), create the required records for the Skype for Business client to be able to sign on automatically.
4. Set up integration with the Enterprise forest:
 - a. Set up a two-way forest trust between the CloudBond 365 and the Enterprise forest.
 - b. Allow the CloudBond 365 Administrator account to update SIP addresses in the corporate AD.

Obtain and install replacement Certificates for internal use.

Refer also to "Configuring Certificates" in the *CloudBond 365 Installation Manual*.

4.2 Step 2: Configuring CloudBond 365 for Basic Use

This step shows how to configure CloudBond 365 for basic use.

➤ To configure CloudBond 365 for basic use:

1. CloudBond 365 Management Suite
2. Import users from the Enterprise Active Directory
3. Install and test the Skype for Business Client application

4.3 Step 3: Configure for Enterprise Voice

This step shows how to configure enterprise voice.

➤ To configure enterprise voice:

1. Connect with SIP trunk and/or Voice Gateway
2. Set up Voice policy's and Voice routing rules
3. Set up a Skype for Business Dial plan matching an existing Exchange UM Dial plan
4. Set up response groups
5. Enable the Enterprise network for Skype for Business phone edition devices

4.4 Step 4: Configure Skype for Business for External User Access and Federation

This step shows how to configure Skype for Business for external user access and federation.

➤ **To configure Skype for Business for external user access and federation:**

1. Change or Add a SIP Domain.
See also *CloudBond 365 Installation Manual* see *Changing or Adding SIP Domain* chapter.
2. Obtain public certificates.
3. Set up external access policies.
4. Configure enhanced Federation.

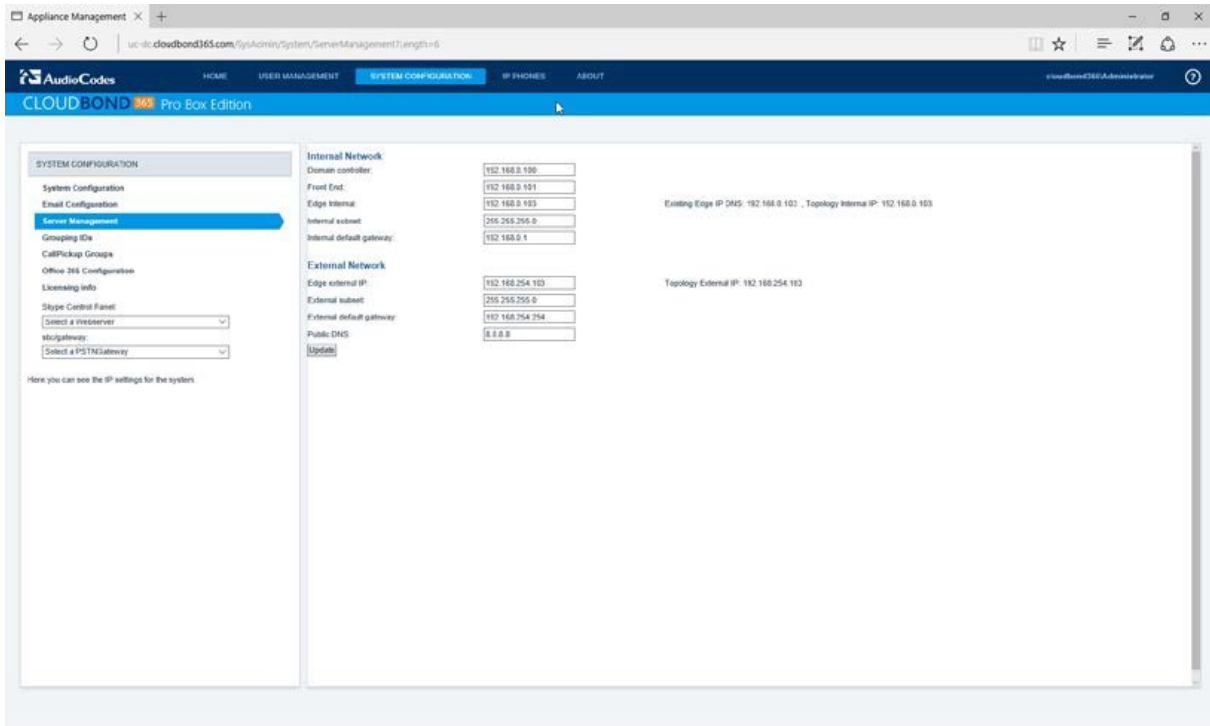
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5 Changing the Default Configuration

This step shows how to change the default configuration. You can change CloudBond Network settings through <http://192.168.0.101/sysadmin>.

1. Go to the System Configuration page.
2. Select **Server Management**.

Figure 5-1: Server Management

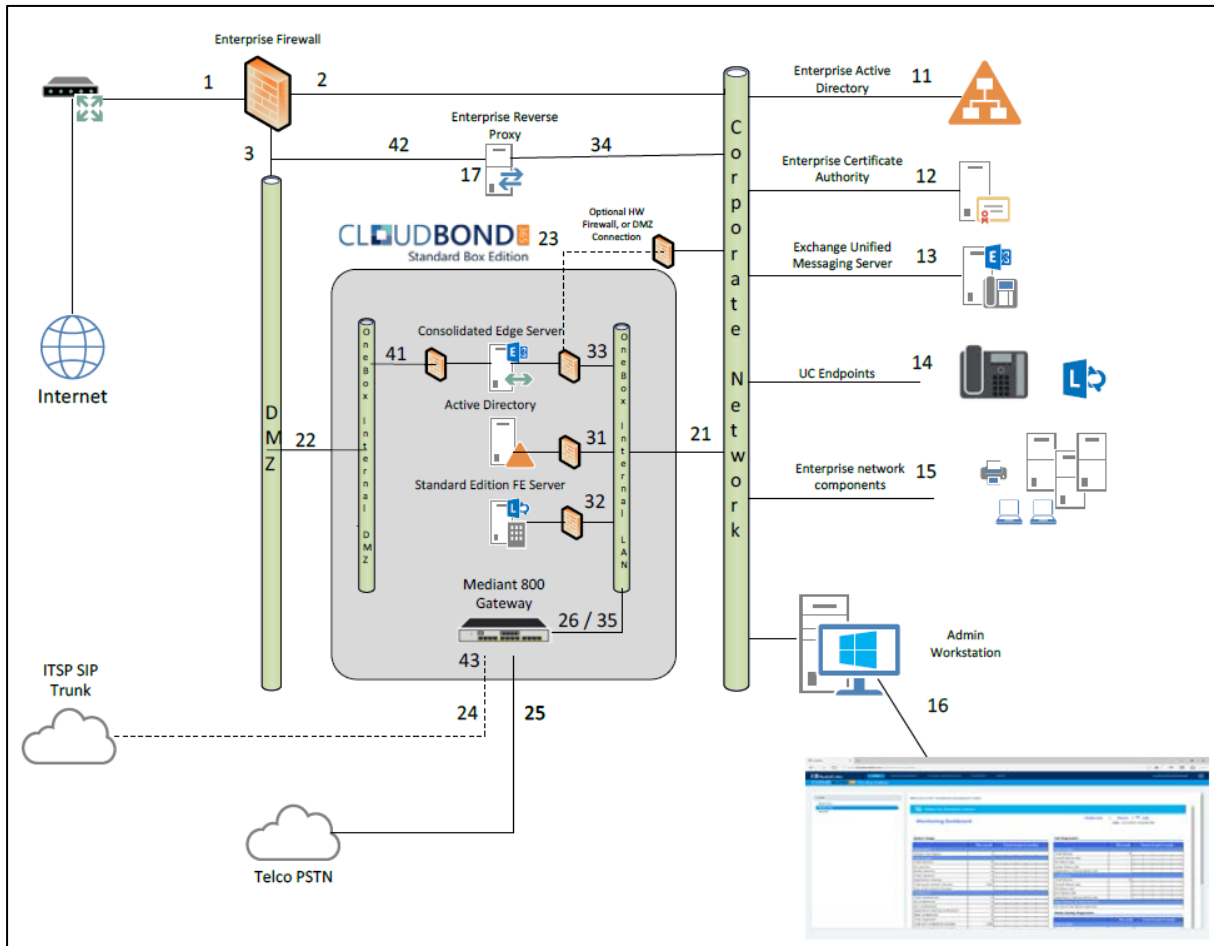


See the *CloudBond 365 Administration Guide* for further details.

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A CloudBond 365 Architecture & IP Address Overview

Figure A-1: CloudBond 365 Network



A.1 References

The items below correspond to the entries in the network diagram.

A.1.1 Existing Corporate Firewall

Each customer will have their own existing Internet access, Firewall, and network configuration. Each will vary in capacity, features and capabilities.

The Enterprise Firewall and networks shown in the diagram are examples only. Each CloudBond 365 installation will need to be adapted to suit the customer environment.

- The public internet side of the corporate firewall:
 - This IP address may be required if NATing is used to access the Edge server.
 - If NATing is used, Public DNS records for SIP will point here.
 - If the Firewall is also a Reverse Proxy server, other DNS records may point here.
- The private internal corporate LAN:
 - This IP address may be used as a gateway address for internal servers to access the internet, e.g., Windows Updates.
- The DMZ or other network for servers with external access.

- This IP address will be used as a gateway address for externally accessible servers, such as Edge and Reverse Proxy.

A.1.2 Existing Internal Corporate Servers

- Enterprise Active Directory
 - Used for Forest trust and user replication. May also host corporate DHCP and DNS servers.
- Enterprise Certificate Authority
 - Used to issue internal private certificates for communication with Skype for Business servers.
- Exchange Unified Messaging Server
 - Used for enterprise Voice Voicemail features of Skype for Business.
- UC Endpoints
 - Skype for Business clients. May be either Skype for Business phone edition or Skype for Business Client Software.
 - Note that Skype for Business mobile clients are used externally to the corporate network.
- Enterprise Network Component
- Admin Workstation
 - Typical Administrators workstation, used to access CloudBond Management Suite application and also RDP to Skype for Business servers for maintenance activities
- Enterprise Reverse Proxy Server
 - A Reverse Proxy server is required for some external connectivity functions of Skype for Business, such as Skype for Business Mobile Clients. Microsoft best practice recommends a Reverse Proxy server rather than allowing direct external connections to the FE server.
 - If the customer has an existing Reverse Proxy server, it should be used in preference to the internal CloudBond 365 Reverse Proxy.

A.1.3 CloudBond 365 Physical Connections

All CloudBond 365 Editions require an internal network connection (21) for clients to connect.

It is highly recommended that an external network connection (22) is provided to maximize the features and usability of CloudBond 365.

All versions of CloudBond 365 have "spare" network adapters (23, 24) which can optionally be used to separate network traffic and enhance network security where required.

- Corporate LAN Connection (trusted network)
 - CloudBond 365 Standard Box Edition uses front GE1 connector
- DMZ Connector (untrusted public network)
 - CloudBond 365 Standard Box Edition uses rear GE1 connector
- Optional Edge firewall connector
 - CloudBond 365 Standard Box Edition uses rear GE2 connector
- Optional SBC ITSP Connection
 - CloudBond 365 Standard Box Edition uses front GE3 connector or WAN connector
- PSTN Connection (typically ISDN BRI or PRI)

26. Media Gateway internal IP Address
 - Typically the management connection address (OAMP)
 - May also be media address for IP calls, e.g., OAMP + Media + Control
 - Default CloudBond 365 Standard edition is 192.168.0.2

A.1.4 CloudBond 365 Internal Connections

The CloudBond 365 systems have an internal trusted network and an external untrusted network (DMZ).

A.1.4.1 Internal Trusted Networks

It is safe to connect this network directly to the Corporate LAN. All CloudBond 365 components with connections to this network are intended to act as internal servers.

Though a firewall can be placed between this network and the corporate LAN, doing so complicates the deployment and requires significant firewall configuration.

You may use the "spare" network adapters to provide traffic separation but doing so requires additional manual configuration of the CloudBond 365 component affected.

30. Hyper-V Host IP address (optional)
 - For CloudBond 365 Standard Box Edition, this is the same as 31
31. CloudBond 365 Management Server IP address (UC-DC)
 - Used for maintenance and access to CloudBond 365 Management Suite application
 - Used for Forest Trust with Enterprise DC
 - Default 192.168.0.101
32. Skype for Business Standard Box Edition Front End Server (UC-FE)
 - Used for all Skype for Business processing
 - Default 192.168.0.102
 - Entry in the internal DNS is typically sip.contoso.com and meet.contoso.com
33. Skype for Business Consolidated Edge Server (UC-Edge)
 - Used for Skype for Business external communications, including external users, Federation, etc.
 - Default 192.168.0.103
 - To enhance security, an additional rear Ethernet connector and internal hardware firewall can be used to separate this server from the corporate network. See 23.
34. Optional Reverse Proxy Server
 - Available in CloudBond 365 Standard+ Box Edition only
 - May exist as external Enterprise server
 - Used for mobile clients, web conferencing, address book expansion, etc.
 - Default 192.168.0.104
35. Optional AudioCodes SBC
 - Available as SBC component of Mediant 800 gateway in CloudBond 365 Standard Box Edition
 - ◆ Default address 192.168.0.2

A.1.4.2 External Untrusted Networks

This network may be connected directly to the corporate DMZ. All CloudBond 365 components connected to this network have their own firewalls enabled, and are designed for connection to untrusted networks.

You may use the "spare" network adapters to provide traffic separation but doing so requires additional manual configuration of the CloudBond 365 component affected.

41. Edge external connection

- Used for external user access, Federation, etc.
- May use NATing of Enterprise Firewall
- Default address 192.168.254.103
- Entry required in Public DNS and Certificates. Typically sip.contoso.com, plus SRV DNS records.

42. Reverse Proxy external address

- Used for mobile clients, conferencing, address book expansion, etc.
- Entry required in Public DNS and Certificates. Typically meet.contoso.com
- Skype for Business traffic forwarded to Front End server (UC-FE)

43. SBC External Address

- Used as SIP Trunk endpoint from ITSP

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