



# BeyondTrust

## Secure Remote Access Hardware Installation

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# BeyondTrust Appliance B Series Installation Overview

A number of steps are necessary to install and configure your B Series Appliance. This task list can be used as a quick reference, or a checklist to track completion of the essential configuration requirements. Detailed instructions for each step can be found further on in this guide.

## Configure the Required DNS Records

1. Create a DNS A-record for the fully qualified domain name (FQDN) of your new site (e.g., *appliance.example.com*).
  - If your B Series Appliance will be located in your DMZ or internal network, an internal A-record pointing to the internal IP address of the B Series Appliance is required.
  - If you plan to support access for external customers, a public DNS A-record must be registered for the external IP address of the B Series Appliance.

**i** For BeyondTrust network deployment, see [The BeyondTrust Appliance B Series in the Network at www.beyondtrust.com/remote-support/getting-started/docs/deployment/dmz](https://www.beyondtrust.com/remote-support/getting-started/docs/deployment/dmz).

## Install and Configure the B Series Appliance

1. Install the B Series Appliance according to "[BeyondTrust Appliance B Series Installation Prerequisites](#)" on page 5.
2. Obtain an SSL certificate that matches your FQDN (e.g. *appliance.example.com*).
3. Import the certificate chain to your B Series Appliance, and assign it to the appliance IP address.
4. Export the root portion of the certificate chain (with matching **Issued To** and **Issued By** values) without private key information, and save the root certificate for the next step.

**i** For detailed instructions on obtaining an SSL certificate, please see the [SSL Certificate Guide](#) at [www.beyondtrust.com/docs/remote-support/how-to/ssl/certificates](https://www.beyondtrust.com/docs/remote-support/how-to/ssl/certificates).

## Obtain the Software License Package

1. Email the following three items to BeyondTrust Technical Support:
  - The FQDN of the B Series Appliance.
  - The root SSL certificate segment saved during the B Series Appliance setup.
  - A screenshot of the **/appliance > Status > Basics** page.
2. Install the new software license package sent by BeyondTrust Technical Support.
  - You will be notified by email when you can install the package. Ensure you have completed all of the previous steps.
  - The software license package can be installed using the **Check for Updates** utility.

## Finalize Setup

1. Once your license package is installed, navigate to the /login administrative interface (e.g., <https://appliance.example.com/login>).
2. Use the default admin credentials **admin** and **password** to log in for the first time.

# BeyondTrust Appliance B Series Installation Prerequisites

This guide walks through the initial setup and configuration of your BeyondTrust Appliance B Series. Should you need any assistance, please log into the [Customer Portal](https://beyondtrustcorp.service-now.com/csm) at <https://beyondtrustcorp.service-now.com/csm> to chat with Support.

## Requirements



**Note:** Until the B Series Appliance's prerequisites are met, you will not be able to reach your B Series Appliance directly by its IP address or hostname, nor will you be able to check for updates or use it to provide privileged access.

To complete setup, the B Series Appliance requires the following at minimum:

- Two available power outlets
- A high-speed network connection
- A network router or switch
- A unique, static IP address for the B Series Appliance
- A private DNS A-record resolving to the static IP of your B Series Appliance
  - A public A-record and public IP are also required if external clients will need access to the B Series Appliance.
- An SSL web server certificate, intermediate SSL certificate, and SSL root certificate, or 1 Self-Signed certificate. Additional information can be found in the [SSL Certificate Requirements](#) section.
- The BeyondTrust software licensing package

More advanced configurations may require additional items, such as:

- An SSL root and intermediate SSL certificate(s) for BeyondTrust mobile clients
- A public DNS A-record to allow public network access
- Multiple web server certificates and/or SAN or wildcard certificate(s) to allow access from multiple DNS A-records
- Multiple static IP addresses to isolate client traffic from multiple networks requires
- Outbound access to the public internet over TCP port 443 to configure automatic updating and advanced BeyondTrust technical support



### IMPORTANT!

No client software (e.g., consoles, Jump Clients, Jumpoints, etc.) can be downloaded, installed, or used until BeyondTrust Technical Support builds a software licensing package for your B Series Appliance and you install it per the instructions provided by Support. Because this license package is encoded with the DNS A-record of the B Series Appliance as well as its SSL certificate, these must be in place before the license package can be completed.

## Initial Setup

Ensure the following steps are completed before the BeyondTrust hardware is delivered and installed:

1. Allocate the necessary rack space for the B Series Appliance. Ensure the space has the necessary power and network access.
2. Reserve a static IP address for the B Series Appliance on the network, described in [The BeyondTrust Appliance B Series in the Network](#) at [www.beyondtrust.com/docs/remote-support/getting-started/deployment/dmz](http://www.beyondtrust.com/docs/remote-support/getting-started/deployment/dmz).
3. Configure a DNS A-record for the fully qualified domain name (FQDN) of your new site (e.g., `appliance.example.com`).



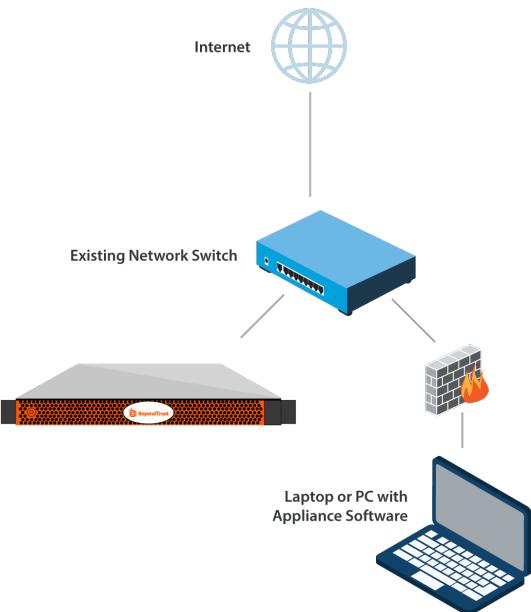
**Note:** A private DNS A-record resolving to the static IP address of the B Series Appliance is always necessary. A public A-record and public IP is also required if clients on public, external networks need access to the B Series Appliance.

## Network Location Considerations

Although your B Series Appliance can function anywhere in your network with internet access, you must decide where in your network you plan to install the B Series Appliance prior to this step. If you are going to access systems outside of your network, BeyondTrust recommends placing your B Series Appliance in a DMZ or outside of your internal firewall. See the location considerations table below for more details. For assistance with your firewall configuration, please contact the manufacturer of your firewall software.



**Note:** The B Series Appliance must be powered down before it is unplugged it from its power source (for example, to move the appliance to connect it to the internet). If you can log into the /appliance administrative interface, go to the **Status > Basics** page and click **Shut Down This Appliance**. Manual shut down is possible if you press and release the power button one time. Wait 60 seconds for the B Series Appliance to power down before unplugging the B Series Appliance from the power source. When you reconnect the B Series Appliance at the new location, you will need to power up again.



*Network Location Considerations for B Series Appliances*

Network Location	Advantages/Disadvantages
Outside your firewall	Does not require that ports 80 and 443 be open inbound for TCP traffic on your firewall. Simplifies the setup process significantly because both the representative and customer clients are built to resolve to a specific DNS; if your registered DNS resolves to a public IP address directly assigned to your B Series Appliance, no additional setup is required by you to initiate a session.
DMZ	May require additional setup depending on your router or routers.
Inside your firewall	Requires port forwarding on your firewall and possibly additional setup of your NAT routing and internal DNS.

# BeyondTrust Appliance B Series Hardware Setup

For installation instructions, please refer to the flyout instructions included with your BeyondTrust Appliance B Series.

## Power On the BeyondTrust Appliance B Series

1. Plug the power cables for the B Series Appliance into a safe power source. Depending on the type of B Series Appliance, you may have two power cables. The B Series Appliance's power supplies will automatically switch between 120v and 240v, as needed.
2. Using one of the patch cables provided, connect your computer to NIC1 or NIC2 on the rear of the B Series Appliance. If using DHCP, plug the provided straight-through cable into the network directly, and the B Series Appliance will automatically receive a new IP address.



**Note:** BeyondTrust supports placing both NICs on the same network for the purpose of NIC Teaming. Likewise, NICs can be placed on separate network subnets for segmented traffic routing. However, if placing NICs on the same network for the purpose of NIC Teaming, configure only one of the NICs. If both NICs have IP addresses from the same subnet, unexpected behavior will result. When multiple IP addresses are required for a single subnet, the proper solution is to assign all the IP address to one NIC.

3. Press and release the power button on the front of the B Series Appliance. The power LED immediately to the right of the reset button will illuminate, and the HDD activity LED (immediately to the right of the power LED) will begin to flash. Initialization of the B Series Appliance will complete in about 60 seconds.



**Note:** The NIC1 and NIC2 LEDs may illuminate and show activity even when the B Series Appliance is not powered on; therefore, it is important to check the power and HDD LEDs to confirm that the B Series Appliance is on.

# Initial BeyondTrust Appliance B Series Network Configuration

The BeyondTrust Appliance B Series must be configured before being deployed on your network. The network configuration settings are available in the B Series Appliance administrative interface, accessible from a web browser on your computer.

The steps below walk you through network configuration. The process may vary depending upon your operating system.

## DHCP-Enabled Network Locations

If the network location you have selected for your B Series Appliance has DHCP enabled, the B Series Appliance receives an IP address from the network and is immediately available.

The IP appliance can be accessed at <https://<ipaddress>/appliance>. You can find this IP address via the console on the video port.

Use the default username and password to log in:

- Default Username: **admin**
- Default Password: **password**

Upon initial login, you are prompted to change your B Series Appliance administration password.



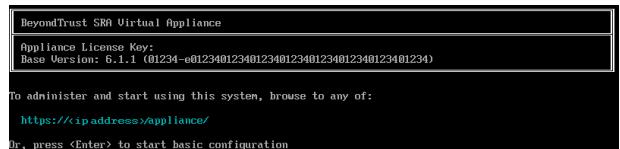
## Static IP Configuration



*Note: If using DHCP, skip this **Static IP Configuration** section and go to the **/appliance Configuration** section.*

If the network location selected for your appliance does not have DHCP enabled, the appliance must be configured with a static IP via the console port. A display and keyboard (using a USB port on front or back) must be connected to the appliance.

1. Press **Enter** to log in to the console.



2. Type **1** to select **Login**, and then press **Enter**.

- Default username: **admin**
- Default password: **password**

```
Main Menu
Model: br.v.2
Appliance License Key:
Hostname: localhost

1 - Login
2 - Advanced Support Tunnel
3 - Exit
Selection:
```

3. Type **1** to select the **Networking** menu, and then press **Enter**.

```
Main Menu
Model:
Hostname: localhost

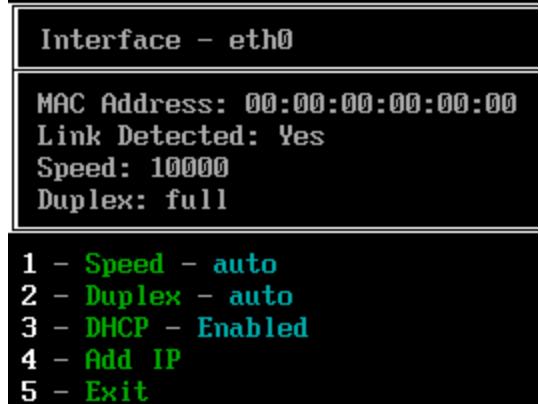
1 - Networking
2 - Advanced Support Tunnel
3 - Shutdown this device
4 - Reboot this device
5 - Reset device admin password
6 - Reset Site Admin
7 - Exit
```

4. Type **3** to select the **Interface - eth0** menu, and then press **Enter**.

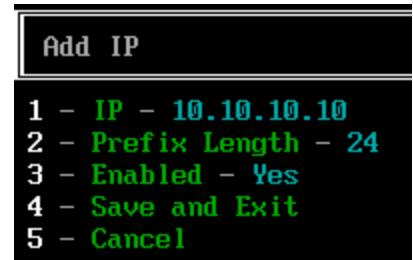
```
Networking

1 - Hostname - localhost
2 - NIC Teaming - independent
3 - Interface - eth0
4 - Interface - eth1
5 - Default Gateway (IPv4) - None
6 - Default Gateway (IPv6) - None
7 - DNS Servers - None
8 - Reset network configuration
9 - Exit
```

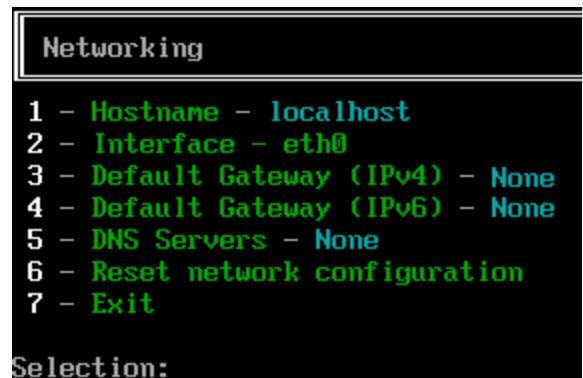
5. Type **4** to select **Add IP**, and then press **Enter**.



6. Type **1** to select **IP** and enter the desired IP address. Press **Enter**.



7. (Optional): Type **2** to select **Prefix Length** if a change is required, and then type **4** to select **Save and Exit**.
8. (Optional): Type **3** to disable **DHCP** on this interface.
9. Type **3** to select **Default Gateway (IPv4)**, and then press **Enter**.



10. Type **1** to select **Gateway** and enter the desired default gateway address. Press **Enter**.



11. Select **Save and Exit**, and then press **Enter**.

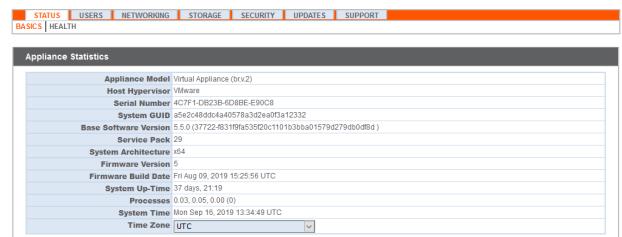
- Access your appliance at <https://<ipaddress>/appliance>.

## /appliance Configuration

### The Status > Basics Page

Once you are logged into the /appliance interface, you the **Status > Basics** page is displayed. This page includes information such as the serial number which BeyondTrust Technical Support requires to register the B Series Appliance with the BeyondTrust licensing servers.

- Take a screenshot of this page** and send it to BeyondTrust Technical Support. The Support team uses this information to register your B Series Appliance.

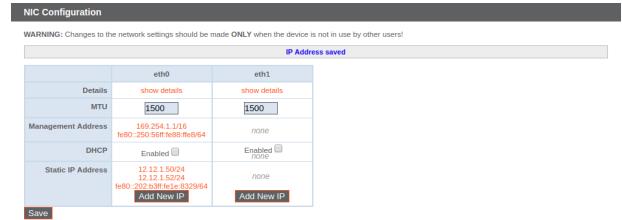


The screenshot shows the 'Appliance Statistics' section of the Basics page. It displays various system details:

- Appliance Model: Virtual Appliance (brv2)
- Host Hypervisor: VMware
- Serial Number: 4C7F110E20B-6D0BE-E90C8
- System GUID: a5a22485c544a0578a3d2ea0f3a12332
- Service Pack: 29
- System Architecture: x64
- Firmware Version: 5
- Firmware Build Date: Aug 09, 2019 15:25:56 UTC
- System Timezone: 37 opa, 21:19
- Processors: 0.03, 0.05, 0.09 (0)
- System Time: Mon Sep 16, 2019 13:34:49 UTC
- Time Zone: UTC

### IP Configuration

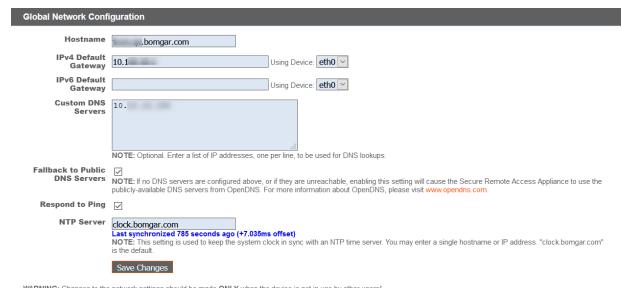
- Navigate to **Networking > IP Configuration**. Under the **NIC Configuration** section, click **Add New IP**.
- Enter the static IP address and subnet mask for your B Series Appliance. Typically you should leave the default values for both fields. You can decide if this IP address will support session traffic, web traffic, or both.
  - Click **Save Changes**.
- Under the **Global Network Configuration** section, set your default gateway. Enter your default gateway and DNS server addresses.
  - Click **Save Changes**.



The screenshot shows the 'NIC Configuration' section. It lists two network interfaces: eth0 and eth1. For each, there are fields for MTU, Management Address, DHCP, and Static IP Address. The static IP address for eth0 is set to 12.12.1.50/24.



The screenshot shows the 'IP :: Add' dialog box. It contains fields for Enabled, Network Port (eth0), IP Version (IPv4), IP Address, Subnet Mask, Access Type (Allow Both), and Required (Save Changes). The IP address is set to 12.12.1.50/24.



The screenshot shows the 'Global Network Configuration' section. It includes fields for Hostname (clock.bomgar.com), IPv4 Default Gateway (10.1), IPv6 Default Gateway, Custom DNS Servers (10.1), and Fallback to Public DNS Servers. The NTP Server is set to clock.bomgar.com.

**Note:** Valid DNS settings are required for failover and automatic updates to function properly.



For more about network configuration, see [The BeyondTrust Appliance B Series in the Network](https://www.beyondtrust.com/docs/remote-support/getting-started/deployment/dmz/index.htm) at <https://www.beyondtrust.com/docs/remote-support/getting-started/deployment/dmz/index.htm>.

## Secure Remote Access Console Administration

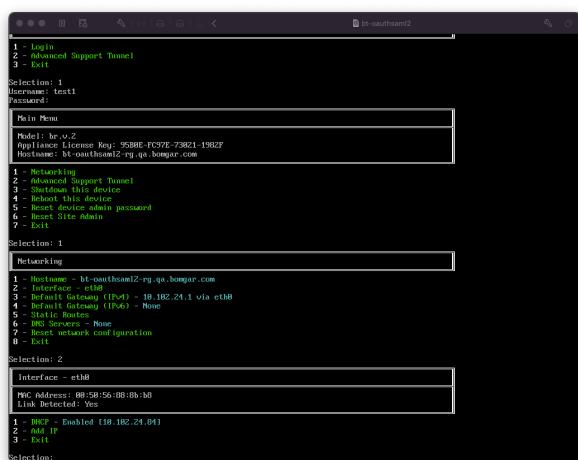
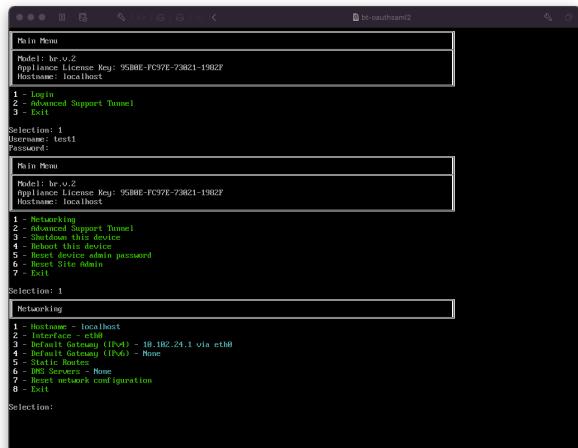
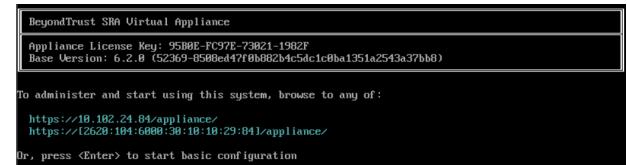
Once the B Series Appliance is configured and deployed, you can connect a monitor and keyboard and use the machine console to access some administrative functions.

The first screen of the machine console lists the hostnames and IP addresses for this B Series Appliance.

Press **Enter** to view the configuration menu. From here, you can log in to make configuration changes, or use the support tunnel to enable the BeyondTrust Technical Support to resolve complex issues with your B Series Appliance.

## Configuration Options

Logging in provides additional configuration options. You can update your network settings, allow an advanced support tunnel, shut down or reboot the B Series Appliance, or reset the B Series Appliance password or a site's administrative password.



The **Networking** option allows you to manage the hostname, IP addresses, the default gateway, static routes, and DNS servers.

Select a network interface to manage its speed or duplex communication. From here, you also can add or edit IP addresses.

**Note:** Administrative functions can also be performed by accessing the B Series Appliance administrative interface from a web browser on your computer. To access that interface, and for more information on network configuration settings, see ["Initial BeyondTrust Appliance B Series Network Configuration" on page 8.](#)

# SSL Certificate Requirements for the BeyondTrust Appliance B Series

All BeyondTrust software communication occurs via secure, encrypted connections. These rely on the industry standard Secure Sockets Layer (SSL) technology and DNS address of the B Series Appliance.

While the default B Series Appliance certificate secures all connections on all IP addresses, the BeyondTrust client software requires more rigorous validation checks than standard web browsers. Before BeyondTrust can provide you with the complete software licensing package, your B Series Appliance must have a valid SSL certificate installed that matches the DNS A-record you have registered for your B Series Appliance.

## Certificate Requirements

Valid SSL certificates can be either certificate authority-signed (CA-signed) or self-signed. A CA-signed certificate is required to access all of BeyondTrust's functionality (e.g., click-to-chat and mobile clients).

- To receive a CA-signed certificate, a certificate signing request (CSR) must be submitted to a certificate authority.
- The CA-signed certificate must be downloaded from the certificate authority's web site (or certificate purchase email) and imported to the B Series Appliance from the /appliance interface.

In addition to the CA certificate request feature, BeyondTrust includes functionality for obtaining and automatically renewing its own TLS certificates from the open Certificate Authority Let's Encrypt. Detailed instructions can be found in [Certificates: Create and Manage SSL Certificates](#) at <https://www.beyondtrust.com/docs/remote-support/getting-started/deployment/web/security-certificates.htm>.

**i** For more information on creating and managing SSL certificates in BeyondTrust PRA, please see the following articles:

- [Create a SSL Certificate Signed by a Certificate Authority for Your BeyondTrust Appliance B Series](https://www.beyondtrust.com/docs/remote-support/how-to/sslcertificates/create-ca-signed.htm) at <https://www.beyondtrust.com/docs/remote-support/how-to/sslcertificates/create-ca-signed.htm>
- [Create a Self-Signed Certificate for Your BeyondTrust Appliance B Series](https://www.beyondtrust.com/docs/remote-support/how-to/sslcertificates/create-self-signed.htm) at [www.beyondtrust.com/docs/remote-support/how-to/sslcertificates/create-self-signed.htm](https://www.beyondtrust.com/docs/remote-support/how-to/sslcertificates/create-self-signed.htm)
- [Certificates: Create and Manage SSL Certificates](https://www.beyondtrust.com/docs/remote-support/getting-started/deployment/web/security-certificates.htm) at [www.beyondtrust.com/docs/remote-support/getting-started/deployment/web/security-certificates.htm](https://www.beyondtrust.com/docs/remote-support/getting-started/deployment/web/security-certificates.htm)

**i** For more information on how BeyondTrust uses SSL certificates, as well as detailed configuration steps to request and install certificates in BeyondTrust, please see the [SSL Certificates Guide](#) at [www.beyondtrust.com/docs/remote-support/how-to/sslcertificates](https://www.beyondtrust.com/docs/remote-support/how-to/sslcertificates).

## Create a New Certificate

The [Create an SSL Certificate](#) guide describes the steps for initial configuration in detail. An overview of the process is given below.

1. Log into the BeyondTrust /appliance interface, and create a certificate signing request (CSR) or self-signed certificate.



**Note:** If the B Series Appliance will be using a copy of the certificate from another B Series Appliance or server, no CSR or self-signed certificate is necessary. Instead, export the certificate with its private key from the system on which it currently resides and import it to the B Series Appliance. For detailed steps, see the section [Replicate the SSL Certificate on Failover and Atlas B Series Appliances](#) in the [SSL Certificates Guide](#).

2. Assign the new certificate to the IP address(es) of the B Series Appliance.
3. Send BeyondTrust Technical Support a copy of the SSL root certificate and/or B Series Appliance DNS address.



**Note:** If a self-signed certificate is used, the certificate serves as its own root certificate, and therefore, the self-signed certificate should be sent to BeyondTrust Technical Support. If a CA-signed certificate is used, contact the CA for a copy of their root certificate. If you have trouble contacting the CA, articles to assist with obtaining your root certificate can be found at [beyondtrustcorp.service-now.com/csm](http://beyondtrustcorp.service-now.com/csm). In either case, BeyondTrust Technical Support will need to know the DNS address of the B Series Appliance. If your DNS address is public and the SSL certificate is already installed, Support can retrieve a copy of the root from the public DNS address; in this case, it is not necessary to manually send the root certificate.

Once the above steps are complete, BeyondTrust Technical Support encodes the DNS hostname and SSL root certificate into a new software licensing package, sends it to the BeyondTrust licensing servers for building, and then sends you instructions to install the newly-built package once it is complete.

# Send B Series Appliance Information to BeyondTrust Technical Support

The BeyondTrust Technical Support encodes your B Series Appliance's DNS hostname and SSL root certificate into the software.

Once you have configured your hostname, created a signed SSL Certificate, and accessed the /appliance interface during network configuration, send BeyondTrust Technical Support the items listed below.

1. DNS hostname (fully qualified domain name) of the B Series Appliance (e.g., appliance.example.com).
2. SSL root certificate or self-signed SSL certificate. This is obtained from the **/appliance > Security > Certificates** page. Export the certificate portion with matching **Issued To** and **Issued By** fields.
3. Screenshot of the **/appliance > Status > Basics** page.

BeyondTrust Technical Support can now build your complete software package, and register your appliance for future updates.

## Check for Updates to Install BeyondTrust SRA Software

BeyondTrust Appliance B Series updates are installed from the /appliance web interface on the **Updates** page. Each update must be built by BeyondTrust and is keyed to the serial number of the B Series Appliance for which it was built. For this reason, the B Series Appliance must be registered in order to check for updates.



### IMPORTANT!

Ensure you have sent BeyondTrust Technical Support the following items to receive your Base Software and/or software licensing updates:

1. DNS hostname (fully qualified domain name) of the B Series Appliance
2. SSL root certificate or self-signed SSL certificate
3. Screenshot of the /appliance > Status > Basics page

Once BeyondTrust has built an update for your B Series Appliance, you will receive a notification email. Follow the steps below to install and update your appliance.

1. Go to /appliance > **Updates**. Retrieve the update using either **Updates :: Check > Check for Updates** or **Updates :: Manual Installation > Appliance Download Key**.



**Note:** The **Check for Updates** option can be used only if the B Series Appliance has outbound access over TCP port 443 to [btupdate.com](http://btupdate.com). Manual installation does not require this connection.

2. Once the check is complete, all available updates matching the serial number of your B Series Appliance will be listed in the /appliance web interface. There are two types of updates:
  - Updates for /login licensing (always shown in the format of **BeyondTrust-x.x.x**)
  - Updates for /appliance Base Software (always shown in the format of **Base Software x.x.x**)

If no update packages or patches are available for your B Series Appliance, a message stating *No updates available* is displayed. If an update is available but an error occurred when distributing the update to your B Series Appliance, an additional message is displayed, such as, *An error occurred building your update. Please visit [www.beyondtrust.com/support](http://www.beyondtrust.com/support) for more information.*



The B Series Appliance Base Software includes features and patches for the /appliance interface, and in some cases includes the required code for new licensing updates. In cases where a Base Software update is required prior to a licensing update, the BeyondTrust update interface will list the correct order in which to install each update. If you are still unsure, take a screenshot of your available updates and send the screenshot to BeyondTrust Technical Support for assistance.

3. Once installation is complete, the B Series Appliance is ready to be used. Access the /login interface at your B Series Appliance's URL followed by /login (e.g., `appliance.example.com/login`).
4. If this is your first time logging in, use the following credentials:
  - Default Username: **admin**
  - Default Password: **password**

You are then prompted to change your password.

5. After logging in, you can validate your software licensing configuration on the **Status > Information** page, add user accounts on **Users & Security > Users**, and download client software from **My Account**. Because BeyondTrust Secure Remote Access is licensed by number of endpoints allowed, you can set up as many accounts as you need, each with unique usernames and passwords.

For security purposes, the administrative username and password used for the /appliance interface are distinct from those used for the /login interface and must be managed separately. Usernames and passwords for /login are valid for both the /login interface (where users and configuration are managed) and for consoles (where sessions are run). The options available in both of these locations are dependent upon the permissions assigned by the /login administrator to each user's account.

For help getting started with the BeyondTrust client software, see the documentation located at [www.beyondtrust.com/docs](http://www.beyondtrust.com/docs). B Series Appliance Guides and Secure Remote Access Administrator Guides explain the various administrative options of your /appliance and /login web interfaces, and Access User Guides show you how to use the BeyondTrust client software.