

Yealink

Updating Phone Firmware from Skype for Business[®] Server



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Updating Phone Firmware from Microsoft Skype for Business Server

This guide provides system administrator with instructions on how to update phone firmware from Skype for Business Server. Microsoft Skype for Business Server includes the DEVICE UPDATE Web service, which is automatically installed with Web Services. You can use this service to import update packages to Skype for Business Server, test them, and then deploy updates to all the Skype for Business phones in your organization. You can also use DEVICE UPDATE Web service to roll back devices to previous firmware versions.

To update phone firmware from Skype for Business Server, the update package imported to Skype for Business Server must be in CAB format. Ask the Yealink FAE for the update package or download it online:

<http://support.yealink.com/documentFront/forwardToDocumentFrontDisplayPage>.

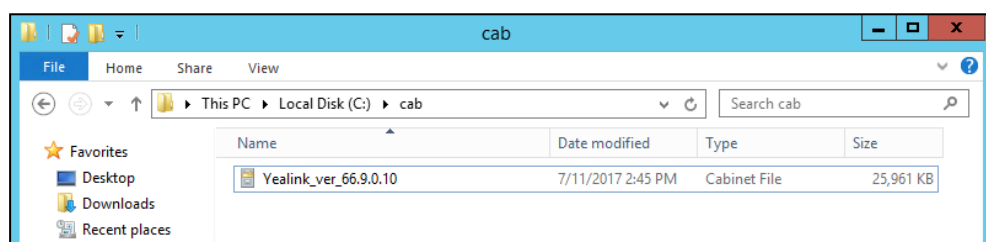
The following content takes T46S phones as an example to introduce how to update firmware from Microsoft Skype for Business Server.

Uploading the Update Package

Before updating the phone firmware from Skype for Business Server, obtain the update package and upload it to the Skype for Business Front End Server that hosts DEVICE UPDATE Web service. Follow the following steps to upload the update package using Windows PowerShell.

To upload the .cab update package to the Skype for Business Front End Server:

1. Download the update package (e.g., Yealink_ver_66.9.0.10.cab).
2. Go to Skype for Business Server and copy the update package to the desired directory (e.g., C:\cab).

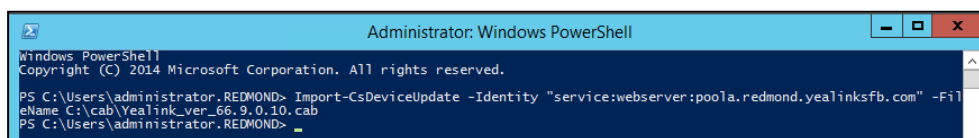


3. Open the Windows PowerShell.
4. From the Windows PowerShell, execute the following cmdlet to upload the update package to the Skype for Business Front End Server:

Import-CsDeviceUpdate -Identity

```
"service:webserver:fpool.cohovineyard.com" -FileName  
c:\cab\Yealink_ver_66.9.0.10.cab
```

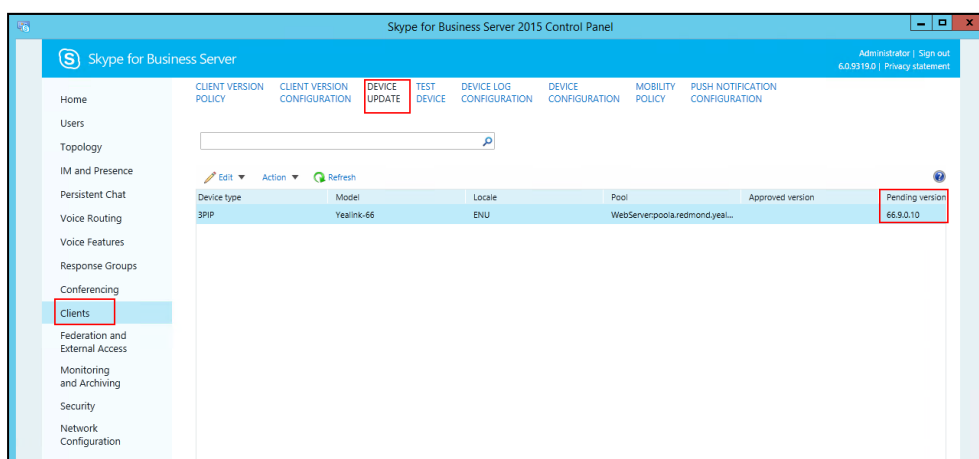
The -Identity value format is important and must be exactly service:webServer:< Skype for Business FQDN>, while the -FileName value is simply an absolute path of the CAB file.



```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) 2014 Microsoft Corporation. All rights reserved.

PS C:\Users\administrator.REDMOND> Import-CsDeviceUpdate -Identity "service:webserver:poola.redmond.yealinkfb.com" -FileName C:\cab\Yealink_ver_66.9.0.10.cab
PS C:\Users\administrator.REDMOND>
```

It may take a few seconds to complete the cmdlet. After completing the cmdlet, open the Skype for Business Server Control Panel and go to **Clients->DEVICE UPDATE**. The uploaded firmware version will be displayed as Pending Version on the appropriate devices.



The uploading can also be verified by locating the installed files on Skype for Business Server which are stored in the Skype for Business file share path.

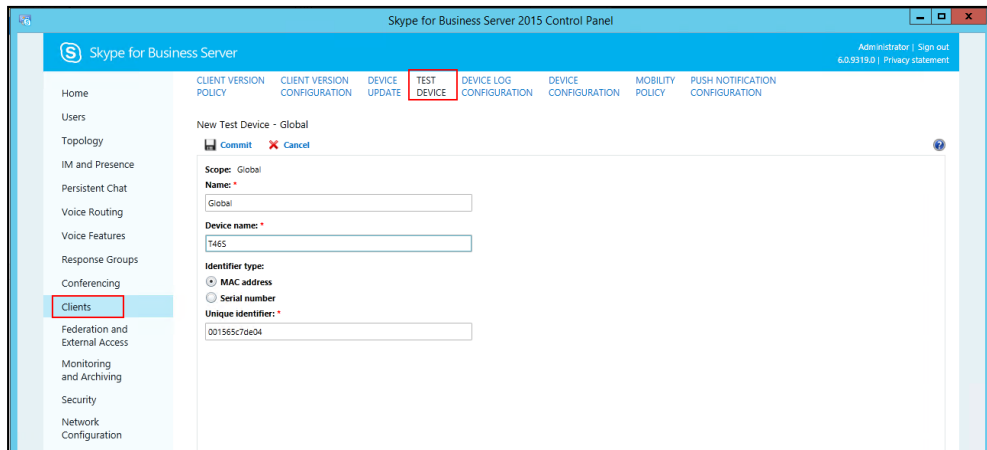
Creating Test Device

As with all firmware updates, it would be prudent to first test a single phone before blasting it out to all phones in the organization. The Test Device configuration in Skype for Business Server allows a single device to automatically download the latest version of firmware available, regardless of whether it has been approved yet or not. When you create a test device, actually you approve the pending updates to THIS device only.

To configure a test device from Skype for Business Server Control Panel:

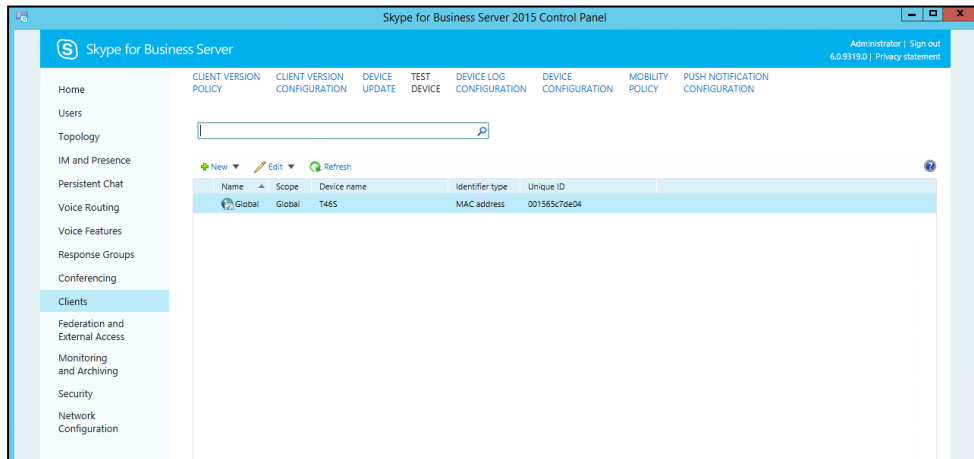
1. Open Skype for Business Server Control Panel.
2. Navigate to **Clients->TEST DEVICE**.
3. Select **New->Global test device**.
4. Enter the name in the **Device name** field.
5. In the **Identifier type** block, mark the radio box of **MAC address**.
6. Enter the MAC address of the phone with no separator characters in the **Unique identifier** field.

Enter the serial number of the phone if the radio box of **Serial number** is marked. Obtain the MAC address or the serial number on the back of the phone.



8. Click Commit.

The device information is displayed as below.



Triggering Update

After the test device is created, reboot the associated phone (the MAC address of this phone matches that of the Test Device created above). The reboot simply triggers the phone to check an update without waiting too long. The phone will send two HTTP GET requests for the NBT and CAT files of the latest firmware version allowed for its device type. The Skype for Business Server passes files (e.g., files of version 66.9.0.10) to the phone. Once the phone completes downloading and installing the new firmware, you can check the system status by pressing the OK key on the phone when it is idle.

The phone status is displayed as below:

General	
1. IPv4:	10.2.20.1
2. MAC:	00-15-65-C7-DE-04
3. Firmware:	66.9.0.10

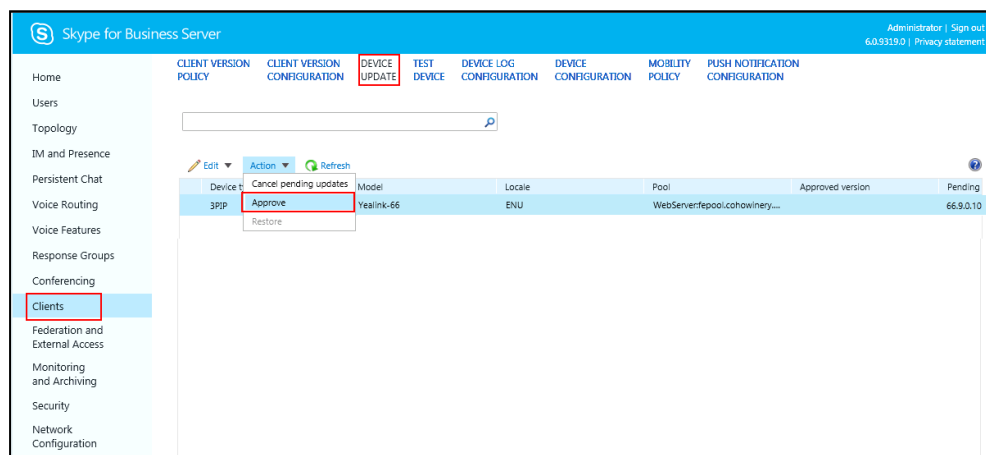
Back

Approving Updates

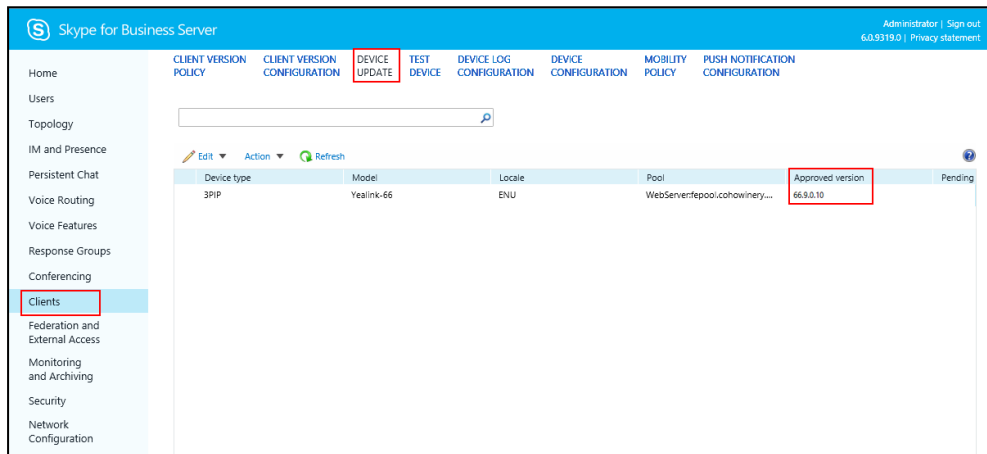
After a sufficient test has been completed, the supported device update should be approved. So other devices of the same model can be updated automatically. The created test device can be retained for later use or deleted if no longer testing with that specific device.

To approve the update:

1. Open Skype for Business Server Control Panel.
2. Navigate to **Clients**-> **DEVICE UPDATE**.
3. Highlight the desired update you want to approve.
4. Select **Approve** from the pull-down list of **Action**.



The firmware version will be displayed as Approved Version:



Allowing Update from the Skype for Business Server

The system administrator should allow the phone to download firmware from the Skype for Business server first.

When no User Signs in

If you use central provisioning method to deploy your phones, updating firmware from Skype for Business Server can be configured using the configuration file. For more information, refer to [Yealink Skype for Business HD IP Phones Auto Provisioning Guide](#).

Central Provisioning (Configuration File)	<y0000000000xx>.cfg	Configure the phone to download firmware from the Skype for Business server. Parameters: static.features.device_update_auto.enable
--	---------------------	---

Details of Configuration Parameters:

Parameters	Permitted Values	Default
static.features.device_update_auto.enable	0 or 1	0
<p>Description: Enables or disables the phone to download firmware from the Skype for Business server. 0-Disabled, the phone will not download firmware from the Skype for Business server. The phone will choose to download firmware via central provisioning. 1-Enabled, the phone can download firmware from the Skype for Business server only.</p> <p>Web User Interface: None</p>		

Parameters	Permitted Values	Default
Phone User Interface:		
None		

When a User Signs in

When a user signs into the phone, the phone will receive in-band provisioning parameters sent from the Skype for Business server.

When the parameter **EnableDeviceUpdate** is set to **true** on the Skype for Business server, the value of "static.features.device_update_auto.enable" will change to 1, so that the phone can download firmware from the Skype for Business server only.

When the parameter **EnableDeviceUpdate** is set to **false** on the Skype for Business server, the value of "static.features.device_update_auto.enable" will change to 0, so that phone cannot download firmware from the Skype for Business server. The phone will choose to download firmware via central provisioning.

Obtaining Update from DEVICE UPDATE Web Service

There are two ways to update firmware from Skype for Business Server:

- Automatic Update
- Manual Update

Automatic Update

Reboot

When the phone connects to the network and is powered on, it automatically checks if an update is available on Skype for Business Server, regardless of whether a Skype for Business user signs on the phone. If there is an update available on Skype for Business Server, the phone will automatically update firmware.

Regular Update When a User Signs in

If the phone is powered on, and a user signs in, the phone can obtain the server address via In-band provisioning. The phone automatically checks if an update is available on Skype for Business Server when the auto update timer (24 hours by default) expires. If there is an update available on Skype for Business Server, the phone will automatically update firmware. If the phone is in a call, the phone will automatically update firmware after the call.

Regular Update When no User Signs in

If the phone is powered on, and no user signs in, the phone can obtain the server address by querying DNS A record. The phone automatically checks if an update is available on Skype for

Business Server when the auto update timer (24 hours by default) expires. If there is an update available on Skype for Business Server, the phone will automatically update firmware.

Note The phone will not perform an update check when a user signs in/out. It only performs an update check when the auto update timer expires. The timer will be cleared when the phone reboots or a user signs in/out.

If there is no update available on Skype for Business server, the phone does not prompt any message when the timer expires.

Update Checking Time

Update checking time defines a period of time for Skype for Business phone to automatically check a firmware update on Skype for Business Server (auto update timer).

To configure update checking time via web user interface:

1. Click on **Features->General Information**.
2. Enter the desired value in the **Update Checking Time** field.

The screenshot shows the Yealink T46S web user interface. The 'Features' tab is selected, and the 'General Information' sub-tab is active. The 'Update Checking Time' field is highlighted with a red box and contains the value '24'. Other settings include Call Waiting (Enabled), Key As Send (#), Hotline Number, Hotline Delay (4), Busy Tone Delay (0), Return code when refuse (603), Feature Key Synchronization (Disabled), Time-Out for Dial-Now Rule (1), Dial Search Delay (1), Call Number Filter, Search Number Filter, Voice Mail Tone (Enabled), Voice Mail without PIN (Enabled), DHCP Hostname (SIP-T46S), E911 Location Tip (Enabled), Use DHCP Option 120 (Disabled), SFB Cert Service URL, Enable SFB Automation (Disabled), SFB Inactive Time (5), SFB Away Time (5), Web Sign in (Enabled), Set as CAP (Enabled), Remember Password (Disabled), History Record Contacts Avatar (Enabled), Auto Discover (Enabled), Exchange Server Url, and Hot Desking Enable (Enabled). A 'NOTE' section on the right explains the 'Call Waiting' and 'Key As Send' features.

Setting	Value
Call Waiting	Enabled
Key As Send	#
Hotline Number	
Hotline Delay(0~10s)	4
Busy Tone Delay (Seconds)	0
Return code when refuse	603 (Decline)
Feature Key Synchronization	Disabled
Time-Out for Dial-Now Rule	1
Dial Search Delay	1
Call Number Filter	-
Search Number Filter	-
Voice Mail Tone	Enabled
Voice Mail without PIN	Enabled
DHCP Hostname	SIP-T46S
E911 Location Tip	Enabled
Update Checking Time	24
Use DHCP Option 120	Disabled
SFB Cert Service URL	
Enable SFB Automation	Disabled
SFB Inactive Time	5
SFB Away Time	5
Web Sign in	Enabled
Set as CAP	Enabled
Remember Password	Disabled
History Record Contacts Avatar	Enabled
Auto Discover	Enabled
Exchange Server Url	
Hot Desking Enable	Enabled

A dialog box pops up to prompt that settings will take effect after a reboot.

3. Click **Confirm** to accept the change.

Manual Update

You can initiate an update immediately, just power off the phone and power on it again. The phone will boot up, check for updates and apply the updates. You can also trigger an update manually via phone user interface.

To trigger an update manually via phone user interface:

1. Press **Menu**->**Advanced** (default password: admin)->**Firmware Update**.
2. Press the **Update** soft key.

The LCD screen prompts "New firmware, update now?".



3. Press the **OK** soft key to confirm the update.

If there is no update available on Skype for Business Server, the LCD screen prompts "The firmware is the latest".

