



Grandstream Networks, Inc.

How-to Guide:

Update Grandstream Device Certificate



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SUPPORTED DEVICES

Model	Supported
GRP2612/2613/2614/2615/2616 GRP2624/2634/2636/2650/2670	Yes
GRP2601/2602/2603/2604	Yes
GXP2130/2135/2140/2160/2170	Yes
WP810/822/825	Yes
HT801/802/812/814/818	Yes
GXW4216V2/4224V2/4232V2/4248V2	Yes
GXV3450/3470/3480	Yes
WP820	Yes



INTRODUCTION

Grandstream devices support two generations of individual certificate. Many devices deployed in the field support the built-in individual certificate using RSA+SHA256 encryption. For security purpose, the new certificate using ECDSA+SHA384 encryption has implemented on recent firmware for supported models to upgrade to the new certificate.

To assist customers to upgrade devices to the new certificate, Grandstream provide the following website for customers to check certificate status and update certificate for the devices:

<https://upgradecert.grandstream.com:9443/>

This document describes how to check and update device certificate from certificate type RSA+SHA256 to ECDSA+SHA384.

Note:

When deploying devices with new certificate, if the server side requires loading the new root CA from Grandstream for HTTPS or SIP over TLS, please contact [Grandstream Helpdesk](#) for assistance.



CHECK DEVICE CERTIFICATE STATUS

Method 1: Check device packaging and label

To make it easy for end users to check whether the device is already on new certificate with certificate type ECDSA+SHA384, a new certificate icon is added on the device packaging as well as the label on the device itself.



: This is the new certificate icon printed on device packaging and label on the device.

If this icon is presented on the device packaging and label, the device is pre-loaded with ECDSA+SHA384 certificate out of the box already.

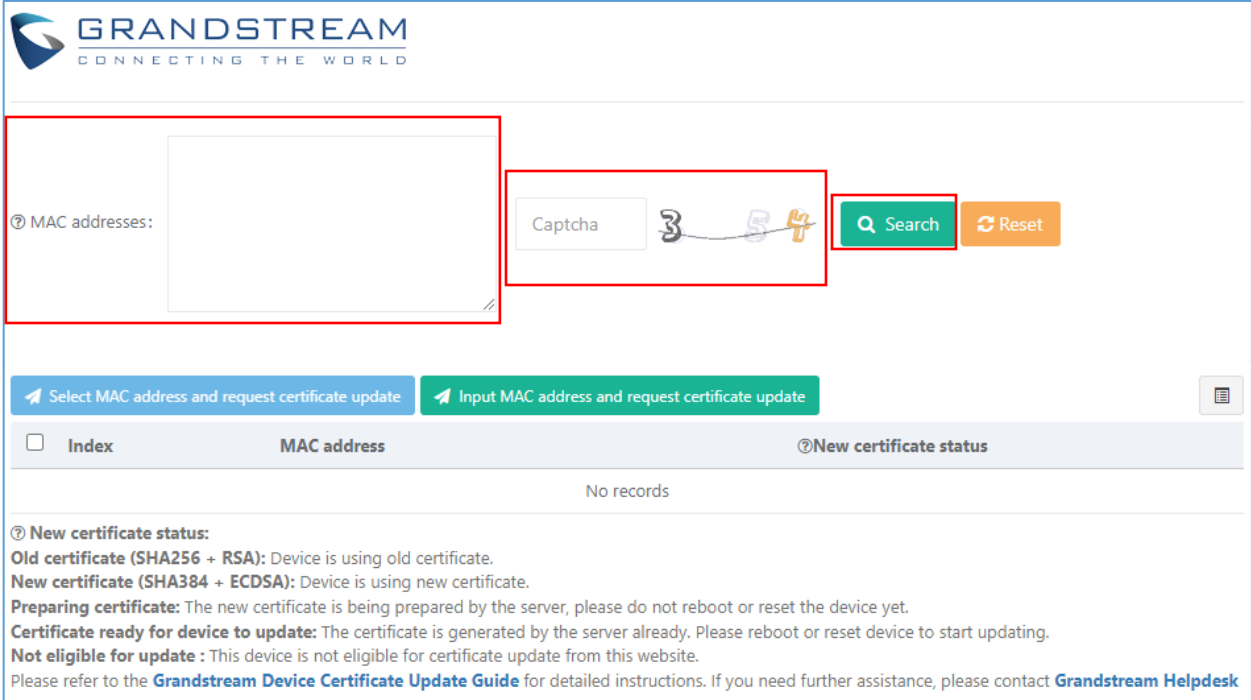
Please note that certain batch of the devices are also pre-loaded with ECDSA+SHA384 certificate but the packaging and label are not updated with the new icon yet. Please refer to method 2 and method 3 below to confirm whether the device has ECDSA+SHA384 certificate or not.

Method 2: Check device certificate status by MAC address

Users can check whether the device is manufactured with ECDSA+SHA384 certificate by using the Grandstream certificate upgrade website.

1. Enter the URL of Grandstream device certificate upgrade website on your web browser:
<https://upgradecert.grandstream.com:9443/>
2. Enter the MAC address of the device. For Multiple MAC addresses, please separate them in different lines. Up to 1000 MAC addresses can be supported.
3. Enter captcha.
4. Click on “Search” button.





<input type="checkbox"/>	Index	MAC address	<input type="text"/>
No records			

Ⓞ New certificate status:
Old certificate (SHA256 + RSA): Device is using old certificate.
New certificate (SHA384 + ECDSA): Device is using new certificate.
Preparing certificate: The new certificate is being prepared by the server, please do not reboot or reset the device yet.
Certificate ready for device to update: The certificate is generated by the server already. Please reboot or reset device to start updating.
Not eligible for update : This device is not eligible for certificate update from this website.
 Please refer to the [Grandstream Device Certificate Update Guide](#) for detailed instructions. If you need further assistance, please contact [Grandstream Helpdesk](#)

Figure 1: Search by Device MAC Addresses

5. The search result is displayed on the web page. “New certificate status” indicates the status of the certificate:
 - (1) New certificate (SHA384 + ECDSA). Device is using new certificate. No update is needed.
 - (2) Old certificate (SHA256 + RSA). Device is using old certificate. Please follow instructions to update to new certificate.
 - (3) Not eligible for update. This device is not eligible for certificate update from this website. Please contact [Grandstream Helpdesk](#) if further assistance is needed.
 - (4) Preparing certificate. The new certificate is being prepared by the server, please do not reboot or reset the device.
 - (5) Certificate ready for device to update. The certificate has been generated by the server already. Please reboot or reset device to start updating the certificate on the device.



Select MAC address and request certificate update		Input MAC address and request certificate update	
<input type="checkbox"/>	Index	MAC address	②New certificate status
<input type="checkbox"/>	1	C074AD2776C6	Old certificate (SHA256 + RSA)
<input type="checkbox"/>	2	C074AD277688	Certificate ready for device to update
<input type="checkbox"/>	3	000B82B7384B	Not eligible for update
<input type="checkbox"/>	4	C074AD5D8DDC	Preparing certificate
<input type="checkbox"/>	5	C074AD327C1E	

② **New certificate status:**
Old certificate (SHA256 + RSA): Device is using old certificate.
New certificate (SHA384 + ECDSA): Device is using new certificate.
Preparing certificate: The new certificate is being prepared by the server, please do not reboot or reset the device yet.
Certificate ready for device to update: The certificate is generated by the server already. Please reboot or reset device to start updating.
Not eligible for update : This device is not eligible for certificate update from this website.
 Please refer to the [Grandstream Device Certificate Update Guide](#) for detailed instructions. If you need further assistance, please contact [Grandstream Helpdesk](#) .

Figure 2: New Certificate Status in Search Result

Method 3: Check certificate status on device LCD or web UI.

1. For GRP/GXP/WP devices with LCD, users can check certificate status on the LCD display. Users can also check the certificate status for these models through web UI if they have web UI access to the device. Below screenshots show LCD menu where the certificate status is displayed.

(1) For GRP261X/262X/263X/26X0/GXP21XX, certificate status is displayed under device LCD menu->Status->System Info. See “Certificate Type” field.

System Information	
Hardware	
HW	V1.1A
P/N	9620009711A
S/N	20EZ3EXK51021F75
Certificate Type	ECDSA+SHA384
Software Version	

Figure 3: Certificate Type Display on GRP261X/262X/263X/26X0 LCD

(2) For GRP260X, when device is on idle screen, press UP arrow button to bring up device status prompt. Then press DOWN arrow button to scroll down to Cert Type field.





Figure 4: Certificate Type Display on GRP260X LCD

- (3) For WP810/822/825, please check LCD menu->Status->System Status, scroll down to “Certificate Type” field.

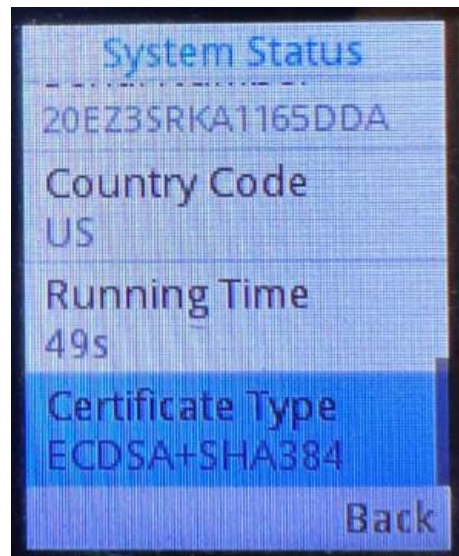


Figure 5: Certificate Type Display on WP810/822/825 LCD

2. For HT8XX models without LCD, please log into device web UI->navigate to status page->check the “Certificate Type” field.

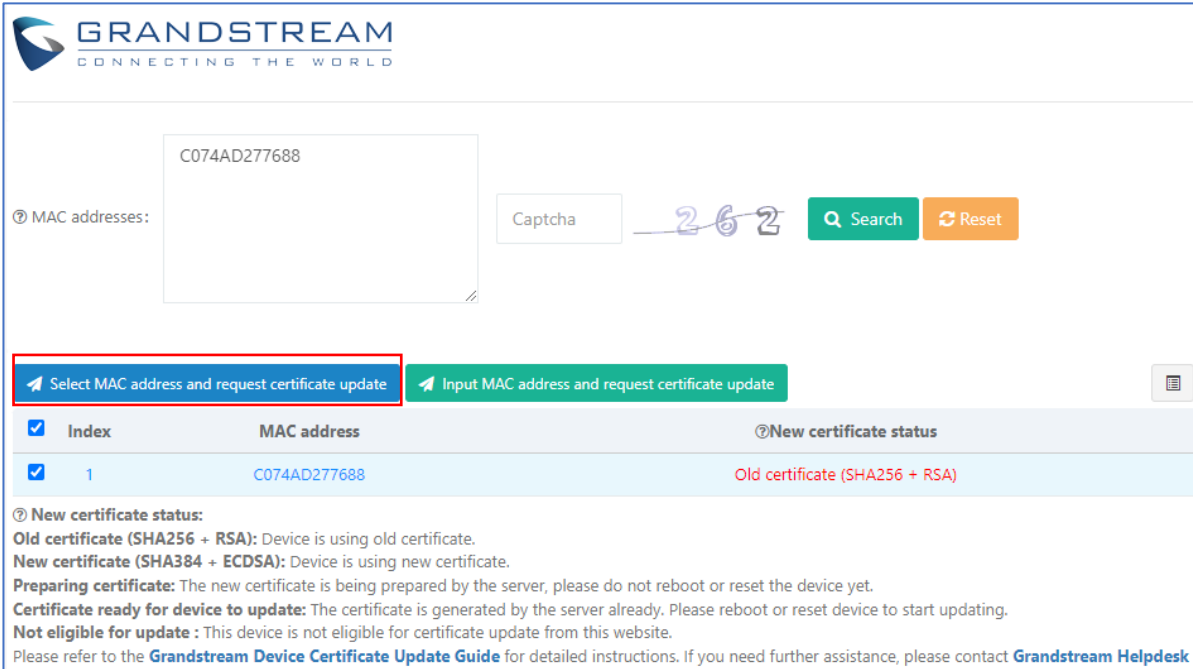


Product Model:	HT802
Serial Number:	207GHR7N208B12E3
Hardware Version:	V2.5A Part Number -- 9610003725A
Software Version:	Boot 1.0.45.1 Core 1.0.45.1 Base 1.0.45.2 Prog 1.0.45.2 CPE 1.0.4.54
Software Status:	Running Mem: 22864
System Up Time:	04:08:48 up 2 min
CPU Load:	28%
Network Cable Status:	Up 100Mbps Full
PPPoE Link Up:	Disabled
NAT:	Unknown NAT
Certification Type:	ECDSA+SHA384

Figure 6: Certificate Type Display on HT8XX Web UI

UPDATE CERTIFICATE

1. After search result is listed from previous step, check the boxes for the MAC addresses to select the devices you wish to update from the list.
2. Click on button “Select MAC address and request certificate update”.



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CONNECTING THE WORLD

MAC addresses: C074AD277688

Captcha: 262

Search Reset

Select MAC address and request certificate update Input MAC address and request certificate update

<input checked="" type="checkbox"/>	Index	MAC address	New certificate status
<input checked="" type="checkbox"/>	1	C074AD277688	Old certificate (SHA256 + RSA)

New certificate status:
 Old certificate (SHA256 + RSA): Device is using old certificate.
 New certificate (SHA384 + ECDSA): Device is using new certificate.
 Preparing certificate: The new certificate is being prepared by the server, please do not reboot or reset the device yet.
 Certificate ready for device to update: The certificate is generated by the server already. Please reboot or reset device to start updating.
 Not eligible for update: This device is not eligible for certificate update from this website.
 Please refer to the [Grandstream Device Certificate Update Guide](#) for detailed instructions. If you need further assistance, please contact [Grandstream Helpdesk](#)

Figure 7: Select MAC Address and Request Certificate Update

3. A new dialog is prompted for the user to enter email address and captcha.
4. Fill in your email address and captcha and click on “Obtain email verification code”.

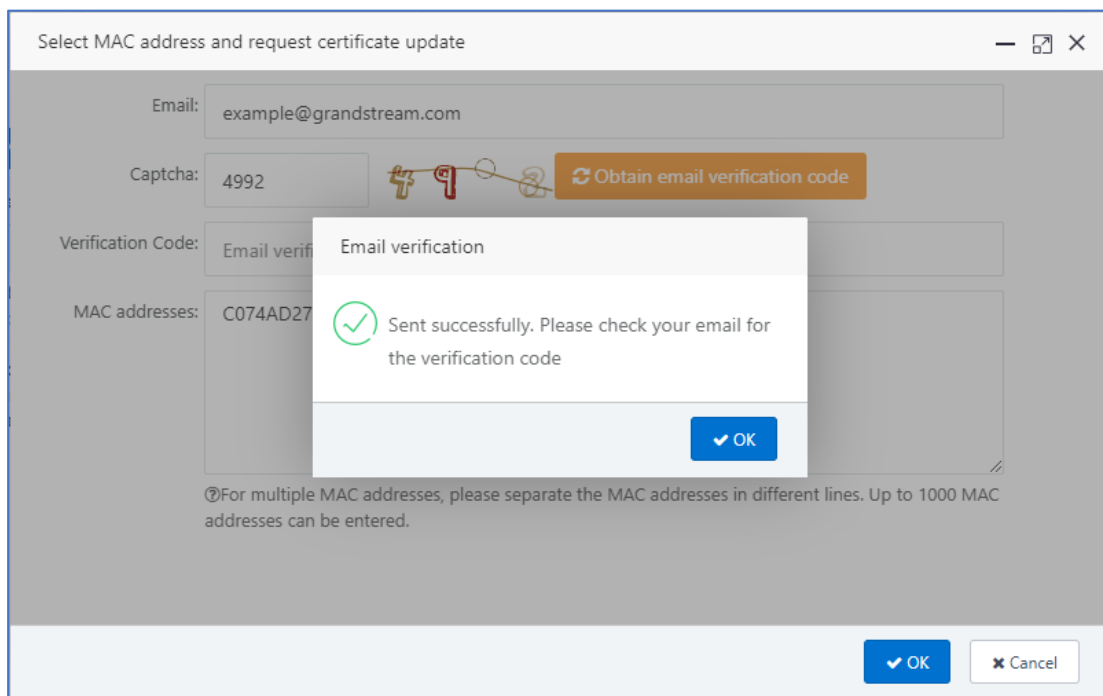
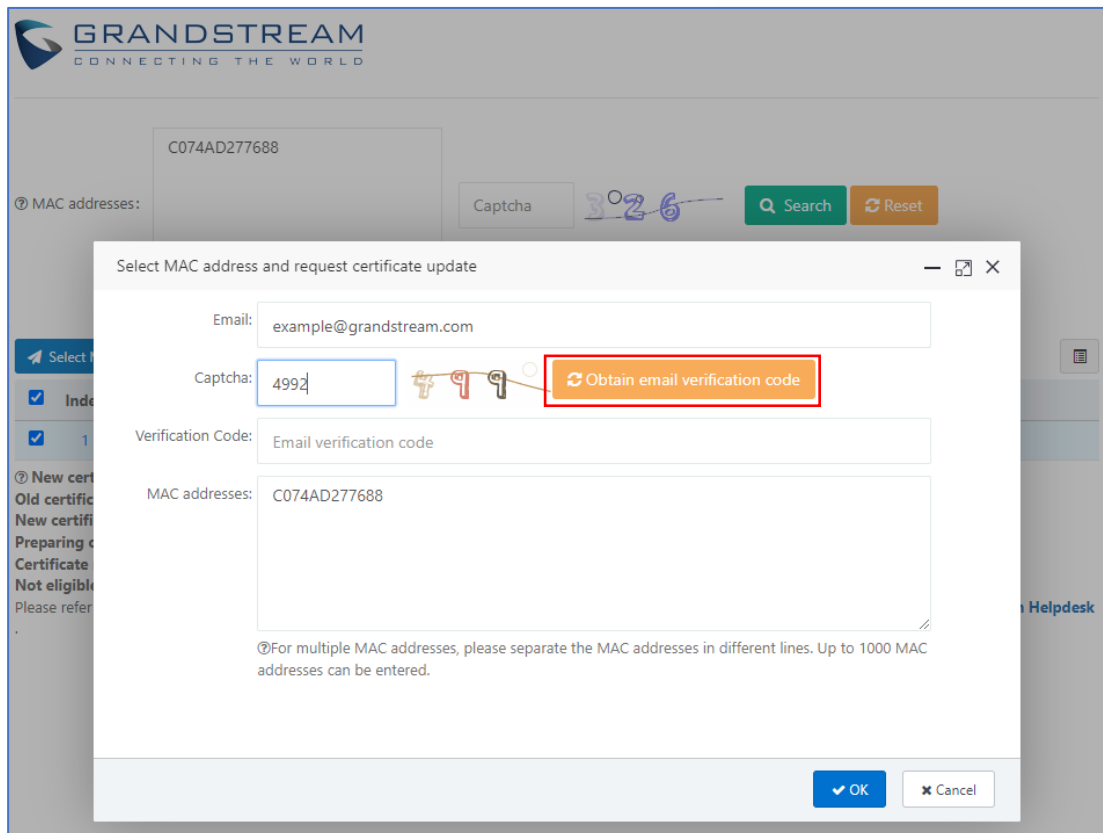


Figure 8: Request Certificate Update Dialog

5. Check the email inbox to obtain the verification code and enter the code in the “Verification Code” field. Then click on “OK” to submit the certificate update request.

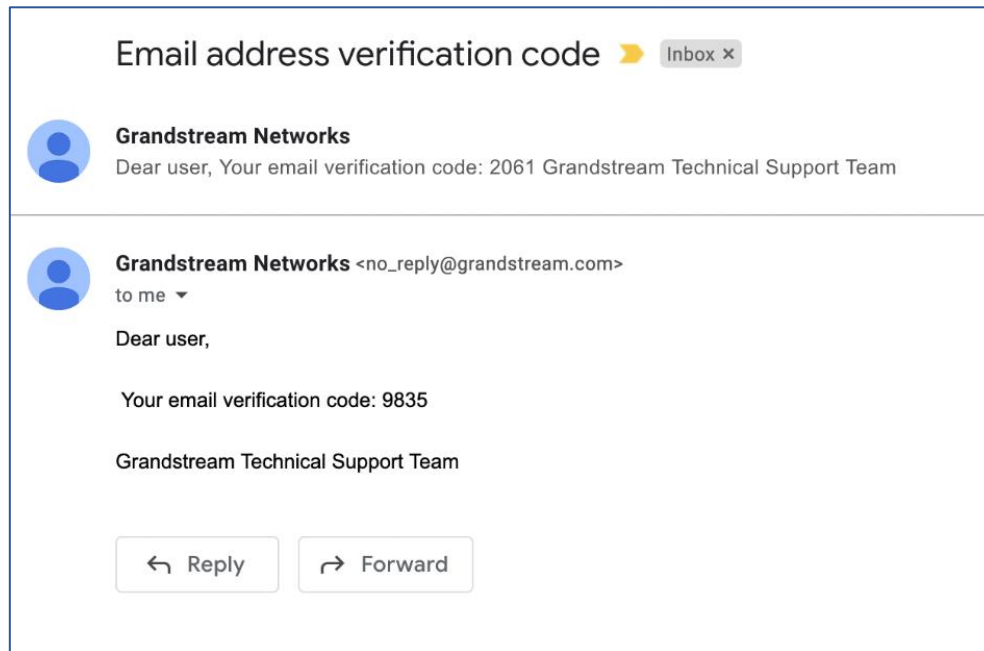
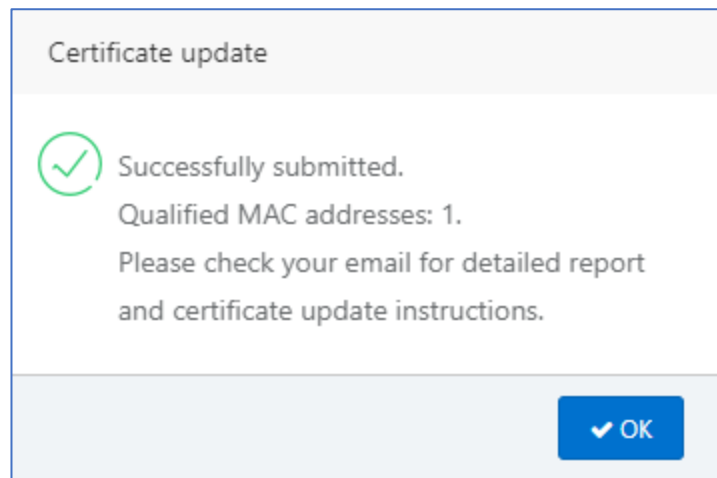


Figure 9: Obtain Email Verification Code

6. The request has been submitted, please check email for certificate update instructions.



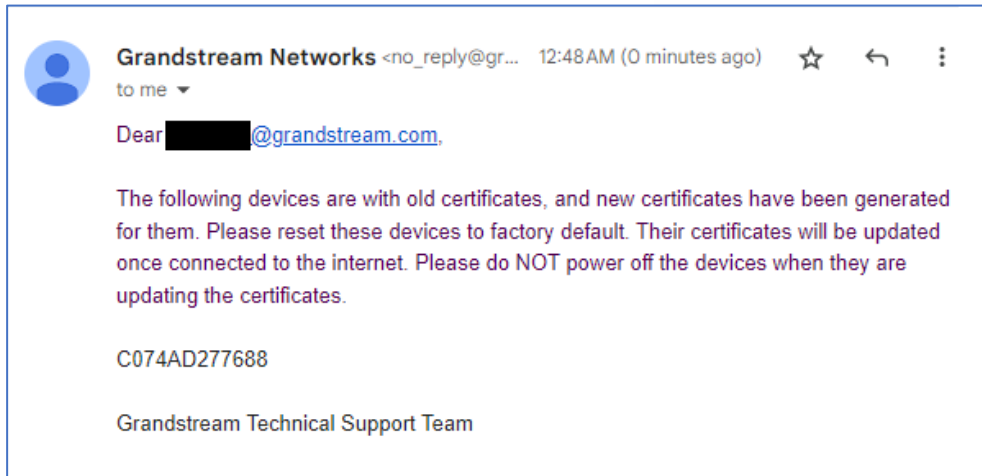


Figure 10: Certificate Update Request Submitted

7. Follow the instructions in the email. Please ensure the device is connected to Internet, then reset your device to factory default settings and wait for the device to reboot.
8. If the device is on an old firmware that does not support certificate update, the device is automatically upgraded to an eligible firmware first. For devices with LCD, the LCD displays upgrading progress. Please do not power cycle or disconnect from Internet during firmware upgrading.
9. The device reboots automatically after firmware upgrading is completed. Then it starts the certificate update process. For devices with LCD, the LCD will display the upgrading progress. Please do not power cycle or disconnect from Internet during certificate upgrading progress.
10. Once the device boots up again, please check certificate type on the device. It should show certificate type as ECDSA+SHA384. Please refer to “**Method 3: Check certificate status on device LCD or web UI**” in section **CHECK DEVICE CERTIFICATE STATUS** for certificate display on different models.

System Information	
Hardware	
HW	V1.1A
P/N	9620009711A
S/N	20EZ3EXK51021F75
Certificate Type	ECDSA+SHA384
Software Version	

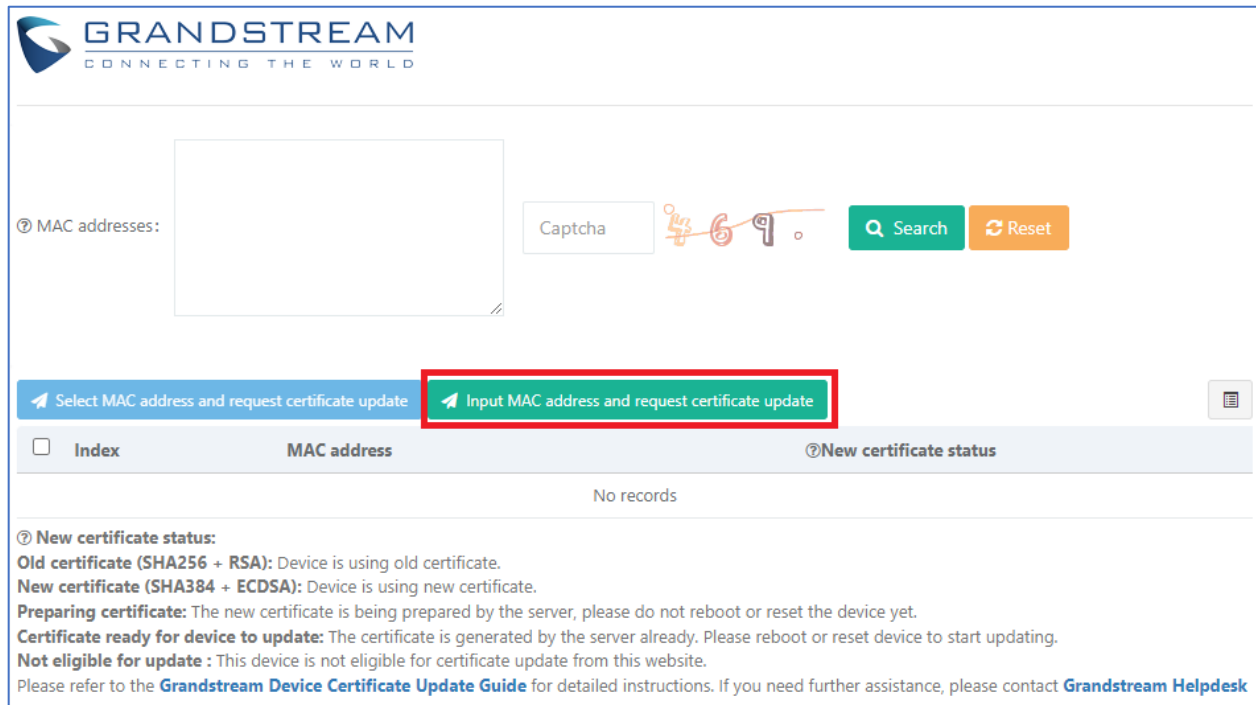
Figure 11: Certificate Type Display on GRP261X LCD



INPUT MAC ADDRESS AND REQUEST CERTIFICATE UPDATE


If users do not need to check certificate status for the device before updating certificate update, please click on “Input MAC Address and Request Certificate Update” to enter MAC address to update their certificate directly.

1. Click on “Input MAC Address and Request Certificate Update”.



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MAC addresses:

Captcha 

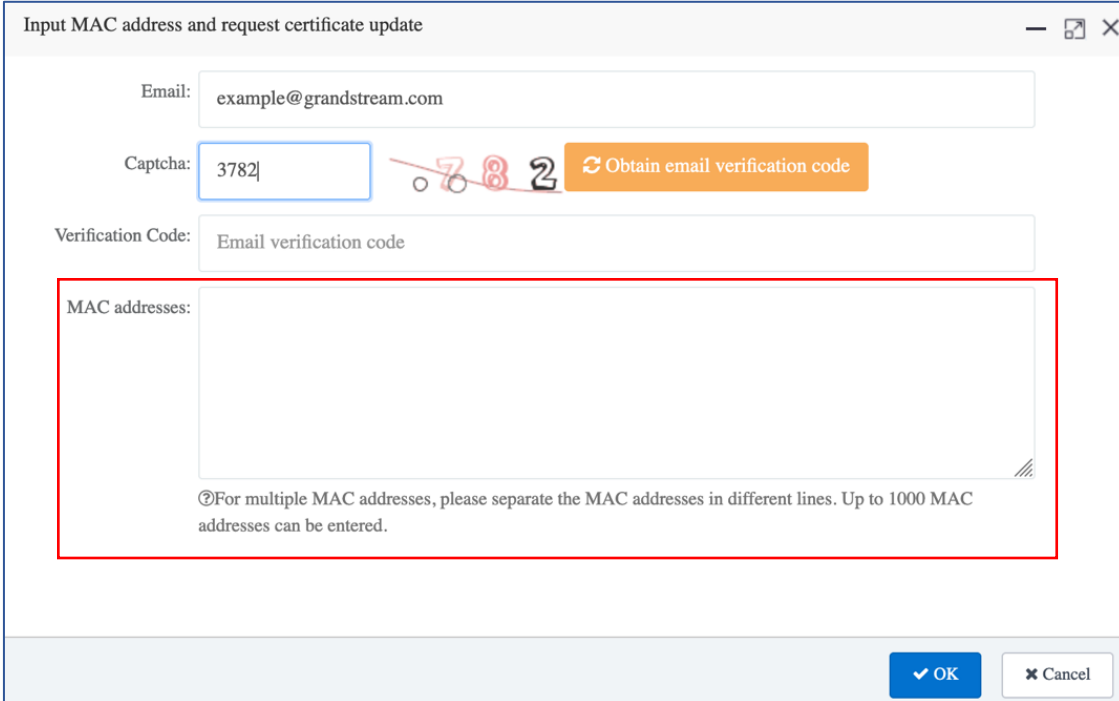
<input type="checkbox"/>	Index	MAC address	New certificate status
No records			

New certificate status:
Old certificate (SHA256 + RSA): Device is using old certificate.
New certificate (SHA384 + ECDSA): Device is using new certificate.
Preparing certificate: The new certificate is being prepared by the server, please do not reboot or reset the device yet.
Certificate ready for device to update: The certificate is generated by the server already. Please reboot or reset device to start updating.
Not eligible for update : This device is not eligible for certificate update from this website.
 Please refer to the [Grandstream Device Certificate Update Guide](#) for detailed instructions. If you need further assistance, please contact [Grandstream Helpdesk](#)

Figure 12: Input MAC Address and Request Certificate Update


2. Enter the email address, captcha and fill in MAC addresses in the MAC addresses field. Then follow the same steps starting from step 3 in the previous section **UPDATE CERTIFICATE**.





Input MAC address and request certificate update

Email:

Captcha:  Obtain email verification code

Verification Code:

MAC addresses:

For multiple MAC addresses, please separate the MAC addresses in different lines. Up to 1000 MAC addresses can be entered.

Figure 13: Dialog to Input MAC Address and Request Certificate Update

Note:

Please contact Grandstream Technical Support for assistance if needed for certificate update:
<https://helpdesk.grandstream.com/>

Your devices MAC addresses may be required during troubleshooting process with Grandstream Technical Support.

