

FAQ - Client certificates

Valid for:	N610	N670	N870	N870E	Embedded Integrator	Virtual Integrator
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Valid for N610 / N670 / N870 / N870E.

Default, Client certificates are pre-installed on the device.

The Factory installed Client certificates can be found here:

```
/config/ssl/gigaset_factory_cert.pem  
/config/ssl/gigaset_factory_key.pem
```

How to check the CN:

There are 2 types of client certificates possible:

- CN = Einstein2
- CN = <MAC address> of the device example: CN = 7C2F80C6E5C2

The correct client certificate will have CN = <MAC address>

You can check the CN using the following openssl command. You can execute this on the Nx70 (CLI access) or on external Linux PC, replace IP address with the IP address of your DECT device)

```
openssl s_client -showcerts -connect 192.168.178.192:5061 2>/dev/null | grep -A3 "Server certificate"  
  
Server certificate  
subject=C = DE, ST = DE, L = Bocholt, O = Gigaset Communications GmbH, OU = PRO, CN = Einstein2  
  
issuer=C = DE, ST = Germany, L = Bocholt, O = Gigaset Communications GmbH, OU = Certificate Authority, CN = Gigaset.net  
  
Other example:  
  
openssl s_client -showcerts -connect 192.168.178.190:5061 2>/dev/null | grep -A3 "Server certificate"  
  
Server certificate  
subject=C = DE, ST = Germany, L = Bocholt, O = Gigaset Communications GmbH, CN = 7C2F80C6E5C2  
  
issuer=C = DE, ST = Germany, L = Bocholt, O = Gigaset Communications GmbH, OU = Certificate Authority, CN = Gigaset.net
```



If you have a certificate with CN=Einstein2 and would need a new certificate, you can request this from Gigaset support.

Web-interface

The Client certificates can be uploaded from the web-interface, go to: **SETTINGS - Telephony - VoIP**.

The screenshot shows the Gigaset N870 IP PRO web interface. The top bar includes the Gigaset logo, a 'SETTINGS' tab, a 'STATUS' tab, and links for 'Help' and 'Logout'. The left sidebar lists various settings categories: Network, DECT Manager, Base stations, Provider or PBX profiles, Mobile devices, Telephony (selected), Audio, Call settings, VoIP, XSI Services, Online directories, Online services, and System. The main content area is titled 'SIP' and contains several configuration fields: SIP port (5060), Secure SIP port (5061), SIP timer T1 (500 ms), SIP session timer (1800 s), Failed registration retry timer (300 s), and Subscription timer (1800 s). There is a checkbox for 'PRACK' which is currently unchecked. Below these fields, there is a section for 'SIP security certificate' showing 'File not uploaded' with a 'Delete' button. At the bottom, there are two sections: 'Certificate' with a 'Browse...' button, and 'Private key' with a 'Browse...' button.

Auto-provisioning

```
<?xml version="1.0" encoding="UTF-8"?>
<provisioning version="1.1" productID="e2">

  <firmware>

  </firmware>

  <nvm>

  </nvm>

  <custom>

    <step type="certificate" url="<URL to certificate>" key="<URL to Private key>" flags="CLIENT_CERT" />

  </custom>

</provisioning>
```

How to generate Client certificates

You can generate your own Client certificates using the DECT device CLI if you have no access to a Linux machine.

To create self-signed client certificate you have to follow the instructions below. If you have own CA you can skip the first step.

1. Generate CA certificate and key:

```
openssl genrsa -des3 -out ca.key 4096
openssl req -new -x509 -days 365 -key ca.key -out ca.crt
```

and follow the on-screen instructions.

2. Generate Client Key, Certificate Signing Request, and Signed Client Certificate:

```
openssl genrsa -des3 -out N870.key 4096
openssl req -new -key N870.key -out N870.csr
openssl x509 -req -days 365 -in N870.csr -CA ca.crt -CAkey ca.key -set_serial 01 -out N870.crt
openssl rsa -in N870.key -out N870_key.pem
```

As Common Name you can put the MAC address of the device (with capital letters).

You can download the **N870.crt** and **N870.pem** file using WinSCP.

In the WebUI you have to upload **N870.crt** and **N870.pem** files.