



WORK FROM HOME VIA ICG

What is ICG?

The IGEL Cloud Gateway (ICG) is required if the UMS and the devices are not in the same network.

ICG isn't a VPN Solution but a secure way to set up a Teleworker Configuration

The following scenarios are typical use cases for the ICG:

- The endpoint devices (IGEL UD, UD Pocket or devices converted by UDC3/OSC) of all geographically dispersed branches of a company are to be managed by one central UMS.
- UD Pocket or devices converted by UDC3/OSC are to be managed by the UMS which is residing on premises.

Prerequisites

- For basic functionality, Universal Management Suite (UMS) 5.06.100 or higher is required. If Shadowing or Secure Shadowing is needed, version 6.02.110 or higher is required.
- For basic functionality, IGEL OS 10.02.100 or higher is required. If Shadowing or Secure Shadowing is needed, version 11.02.100 or higher is required.
- Linux Host

Hardware

- 2 GB RAM
- 2 CPUs
- 2 GB of free disk space (depends strongly on the number of devices to be managed)

Operating System

- Debian 9 (64 bit)
- Debian 8 (64 bit)
- Ubuntu 18.04 (64 bit)
- Ubuntu 16.04 (64 bit)
- Oracle Linux 7 (64 bit)
- Red Hat Enterprise Linux (RHEL) 7 (64 bit)
- Red Hat Enterprise Linux (RHEL) 6 (64 bit)
- Enterprise Server 12 (64 bit)

Certificate Requirements and Recommendations

Validity Period of the Root Certificate

The validity period of the root certificate should be as long as possible. When the root certificate expires, all certificates must be exchanged, and all devices must be registered again.

BasicConstraint for CA Certificates

The root CA certificate and every intermediate CA certificate must be marked as CA certificate as defined in X509v3 extensions: 2.5.29.19. This is the case if the BasicConstraint extension “is_ca” is set to “true”. If it is set to “false”, the certificate can not be used for signing other certificates.

CA Counter

Some CA certificates have a CA counter which is defined in X509v3 extensions: 2.5.29.19. The CA counter describes how many members can be added to the certificate chain. If, for instance, the CA counter of the current certificate is 1, it is possible to sign a certificates with which one further certificate can be signed. The CA counter of this certificate is 0, so that it can only sign end certificates.

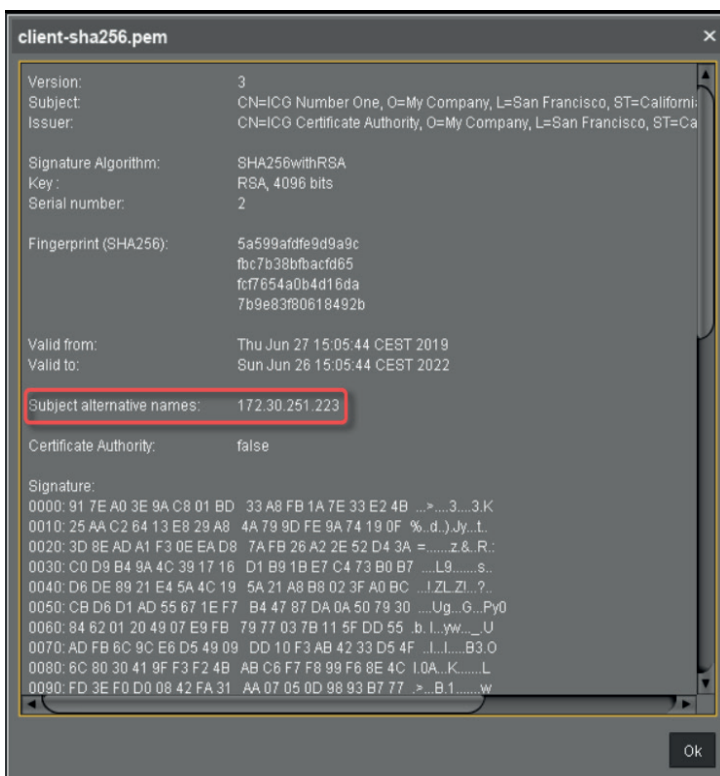
With UMS 6.02 or higher, you can review the CA counter of a certificate by selecting the context menu and then selecting Show certificate content.

End Certificate

The certificate which is to be installed on the IGEL Cloud Gateway must be marked as end certificate.

The end certificate must have a Subject Alternative Name (X509v3 extensions 2.5.29.17) that contains all host names or IP addresses via which the UMS and the devices will contact the IGEL Cloud Gateway.

With UMS 6.02 or higher, you can check this by selecting the context menu and then selecting **Show certificate content.**



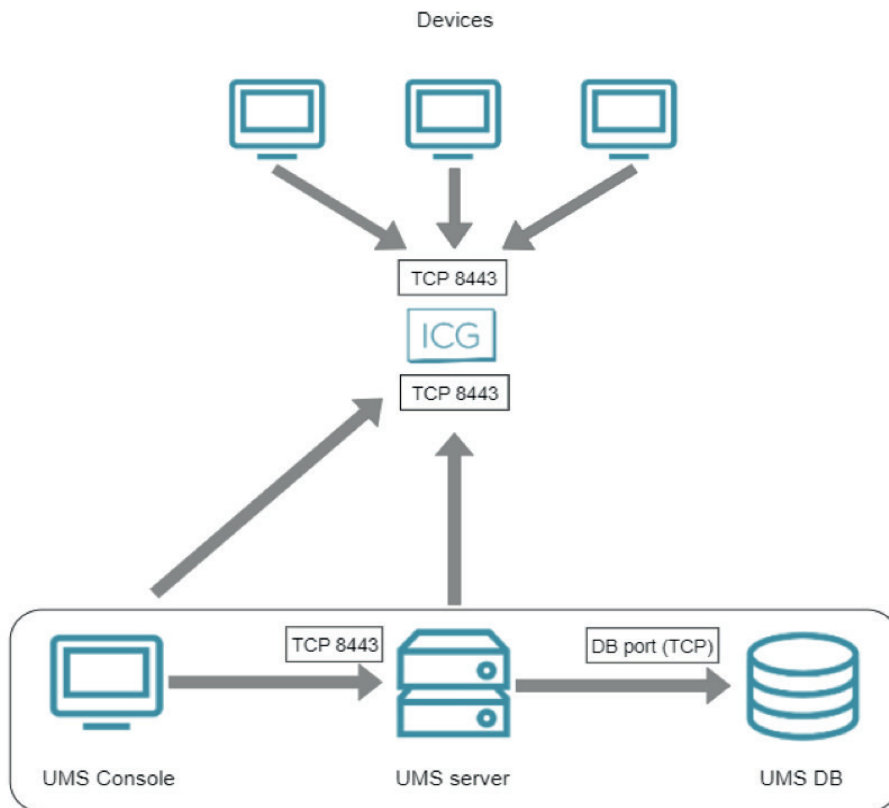
Devices and UMS Server Contacting Each Other via ICG

To communicate with the UMS, the devices initiate a TCP connection to the ICG. The default port on which the ICG is listening is port 8443.

To communicate with the devices, the UMS initiates a TCP connection to the ICG. The default port on which the ICG is listening is port 8443. It can be changed during the installation of the ICG. When the installation is completed, the port is fixed.

Direct Connection

The following figure illustrates the communication between the devices (thin clients) and the UMS via ICG:



Getting a License from the IGEL License Portal for IGEL OS 10

1. Log in to the IGEL License Portal (ILP) at <https://activation.igel.com>
2. Select **Register Delivery Token**, and the Delivery Token you have received, and click **Send**. The page **Order Details** is shown, which contains the details about your maintenance renewal.
3. Click to open the management dialog.
4. In the management dialog, click **Add hardware**.
5. Click and enter the cluster ID of your UMS installation.
6. Click **Save** and then **OK**.
7. Click **Download** and save the license file (*.lic) to a suitable location

Installing the ICG License

Register the license file that you received or activated in the administration area of UMS Console:

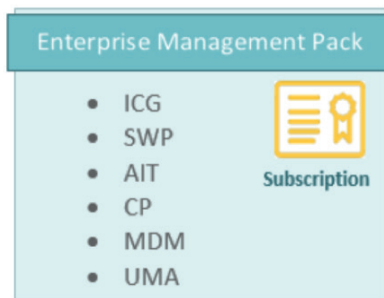
8. Go to **UMS Administration > Global Configuration > UMS Licenses**
A license summary and a detailed list of registered licenses is displayed.
9. Click **Add (+)** to upload the license file, which has a *.lic filename extension. It contains all the license details

✓ All licenses are valid.

License Summary			
License Type	Available Licenses	Used Licenses	License status
IGEL Cloud Gateway	200	3	license validated

Installing the ICG License for IGEL OS 11

To get the ICG License for IGEL OS 11 you need an Enterprise Management Pack, which includes the ICG License. Download here: <https://www.igel.com/igel-solution-family/enterprise-management-pack/>



ICG Binary: <https://www.igel.com/software-downloads/enterprise-management-pack/#lightbox-form>

UMS Installer: <https://www.igel.com/software-downloads/workspace-edition/#collapse2>