Installation

Before you can use your Cisco VG30D Voice Gateway, you will need to follow all the steps in this section. This will provide you with basic functionality. Initial Configuration and Management and Configuration describe configuration of the more advanced features of the Cisco VG30D Voice Gateway.

Note

Before unpacking the unit, check that you have received the product that you ordered. The package carton label will show the following:

- Stock Number
- Product Description
- Serial Number
- Software Version

Contact the supplier if any discrepancy exists.

Unpacking and Inspection

The Cisco VG30D Voice Gateway arrives supplied in a single package that contains the following items that are shown in Figure 1:

1. Cisco VG30D Voice Gateway Unit
2. Mains Power Cable
3. RJ45 iSDN Crossover Stub Cable for QSIG/Q.931 connection, Port 1
4. CD-ROM with PDF versions of user documentation
5. Quick start guide
6. Safety guide
Hardware Installation

The Cisco VG30D Voice Gateway may be either rack mounted (preferred) or used as a desktop unit. When you are rack mounting, pay attention to cooling. The Cisco VG30D Voice Gateway has side-to-side cooling. The design of the rack should allow for adequate airflow for either side of the unit. Refer to the rack manufacturer’s specification for suitable mounting methods.

Ensure the Cisco VG30D Voice Gateway is earthed at all times through the dedicated earth terminal on the rear of the unit as shown in Figure 2.

The earthing cable must conform to the following specification. It shall:
- Be PVC covered green with yellow longitudinal coloured stripes as defined in EN 60950 2nd Edition
- Be rated at 17 amps
- Have a cross sectional area of 1.5mm²
- Be of stranded wire 7/0.53, and
- Be terminated with an M3 ring terminal 1-2.6 mm² conductor
Connection Sequence

To identify the ports, refer to Figure 4.

Caution
Do not connect to the E1 telephony ports until first-time configuration is complete.

Step 1
Connect the earthing cable as described in the “Caution” in Hardware Installation.

Step 2
Connect the mains power cable.

Note
Install the Cisco VG30D Voice Gateway in a place that is near the mains power socket-outlet. Install the Cisco VG30D Voice Gateway in a place from which you can reach the mains outlet easily.

Step 3
Connect the 10/100 Ethernet cable.

Front Panel Indicators

The Cisco VG30D Voice Gateway unit has 10 LEDs on its front panel. They show unit status information. This section describes the front panel indicators that Figure 3 shows.

Figure 3 Front View

STATUS

The 4 red STATUS LEDs are labelled S3, S2, S1, and S0. They indicate unit status in conjunction with the two port LEDs, P1 and P2. During unit self-test, the status LEDs will come on and go off in sequence, and in the event of a self-test failure, stop with one LED remaining on.

LAN

Three LEDs indicate LAN activity. The TxD LED flashes amber on transmission of a packet. The Link/RxD LED flashes green on receipt of a packet. The green Speed LED is ON for 100 Mbit/s or OFF for 10Mbit/s. If Ethernet is not connected, these LEDs will remain off.
P1 and P2

The two amber Port LEDs are labelled P1 and P2. Together with the STATUS LEDs, they indicate unit status. When the unit is operating normally and all is well, these LEDs turn on and off every few seconds with all STATUS LEDs off.

When a problem exists, the Port LEDs will show the problem’s location (P1 or P2, or if both P1 and P2 are lit, a major alarm exists). The STATUS LEDs will then indicate the problem. If more than one port has a problem, they will be shown in a cycle of 5 seconds each.

Power

The Power LED has two functions. When power is applied, it comes on amber to indicate that the unit is in self-test mode. When the self-test satisfactorily completes, it changes to green to indicate that the unit is functioning correctly.

Back Panel Equipment

This section describes the Cisco VG30D Voice Gateway back panel ports and switches that are shown in Figure 4.

Ports

Ethernet

Use the 10/100 Base-T Port to connect to the IP Network to allow voice packets to be transmitted and received and for a computer using a Web browser to communicate with the Cisco VG30D Voice Gateway configuration and management interface.
Port 1 & Port 2

Each port has three connectors. The two BNC connectors, which are 75-ohm unbalanced, are marked \texttt{Rx} and \texttt{Tx}. The RJ45 connector is 120-ohm balanced. Ensure the Impedance Switch is set to the correct impedance. You can configure parameters for each port using the Gateway Management Interface on a Web browser.

Craft Port

The Craft Port exists primarily to enable a serial connection to a dumb terminal or a terminal emulation application on a computer that is running RS-232 at 9600 baud, 8 bit, 1 stop bit, and no parity.

Alarm Port

If required, you can connect the Cisco VG30D Voice Gateway \texttt{Alarm} Port to an alarm signal detector before powering on the unit.

Switches

Power On/Off

The power On/Off switch (I / O) is adjacent to the mains connector.

\begin{itemize}
  \item \textbf{Caution} Before connecting any cables or changing any switches, power off the Cisco VG30D Voice Gateway.
\end{itemize}

POST

You must set the Power On Self Test (\texttt{POST}) switch in the \texttt{POST} position before powering on the Cisco VG30D Voice Gateway unit. Only Cisco Systems, Inc., engineers use the \texttt{Factory} position.

Impedance Switches

This allows the selection of either 75-ohm or 120-ohm impedance for the SCN ports. Use 75 ohms for coaxial BNC connection (\texttt{BNC} position), and 120 ohms for UTP RJ45 connectivity (\texttt{RJ45} position).

\begin{itemize}
  \item \textbf{Caution} Make this selection before power is applied to the unit.
\end{itemize}

Craft Switch

Use the Craft switch to switch between serial connection for initialising the Cisco VG30D Voice Gateway and Factory Engineering management. By default, the switch should stay set to \texttt{Craft}. 
Power On Self Test and IP Address Setup

On power ON of the Cisco VG30D Voice Gateway, the unit will perform a self-test. The Power LED on the front panel shows amber, and the four Status LEDs come on and go off (in sequence from left to right) to indicate that the unit is performing the self-test. These tests check the correct operation of the hardware and start the operational software. This process should complete in less than 1 minute.

Successful Self-Test

When all the tests complete successfully and the software is operational, the Power LED changes colour from amber to green. Approximately 30 seconds later, you can log in to the web-based Gateway Management Interface.

The Cisco VG30D Voice Gateway has been configured with the default IP address of 192.168.1.1 and sub-net mask 255.255.255.0.

Proceed as follows:

1. Connect the ethernet port of the Cisco VG30D Voice Gateway directly to the ethernet port of a computer.
2. Open a web browser and enter 192.168.1.1 directly into the IP address bar.

   **Note**  You may need to change the IP address and sub-net mask of your computer to be on the same sub-net.

3. Log in to the Cisco VG30D Voice Gateway by using Advanced (case sensitive) for both Username and Password.
5. Set Gateway Management IP Address, Set Gateway Management Subnet Mask and, if required, Set Management Default Gateway Address and click the Submit button.

   **Note**  The set parameters will get used next time that the Cisco VG30D Voice Gateway gets re-booted, but the Cisco VG30D Voice Gateway will remain accessible through the active connection until then.

The Cisco VG30D Voice Gateway may now be powered OFF, installed and connected to the IP network (accessible through the new IP address). As an alternative, you may continue with further configuration using the Gateway Management Interface as described in Sections 3 and 4 of the Cisco VG30D Voice Gateway User Guide.

Self-Test Failure

If any test in the sequence fails, the cycle of the Status LEDs will stop (with one LED remaining on) and the Power LED will remain AMBER.
You can obtain details of any failures if the unit undergoes the self-test when it is connected through the Craft Port to a dumb terminal or a terminal emulation application on a computer that is running RS-232 at 9600 baud, 8 bit, 1 stop bit, and no parity or flow control.

If an error is reported, consult Fault Determination for the appropriate corrective action or call your support contact. After errors have been corrected, make sure that the self-test runs satisfactorily to completion and proceed as described in Successful Self-Test.