

SMS PRO Gateway with up to 12 SMS-GSM Ports



Enables Sending and Receiving of Single and Bulk SMS Messages

Product Description
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Abstract

The Hypermedia **HG-7000/3U** SMS-GSM Gateway is part of the HyperGateway family of flexible, scalable platforms which empower cost-effective corporate telephony over fixed, cellular and IP networks. Hypermedia Gateways provide integrated voice communications for both on-site and remote users of small-to-large enterprises.

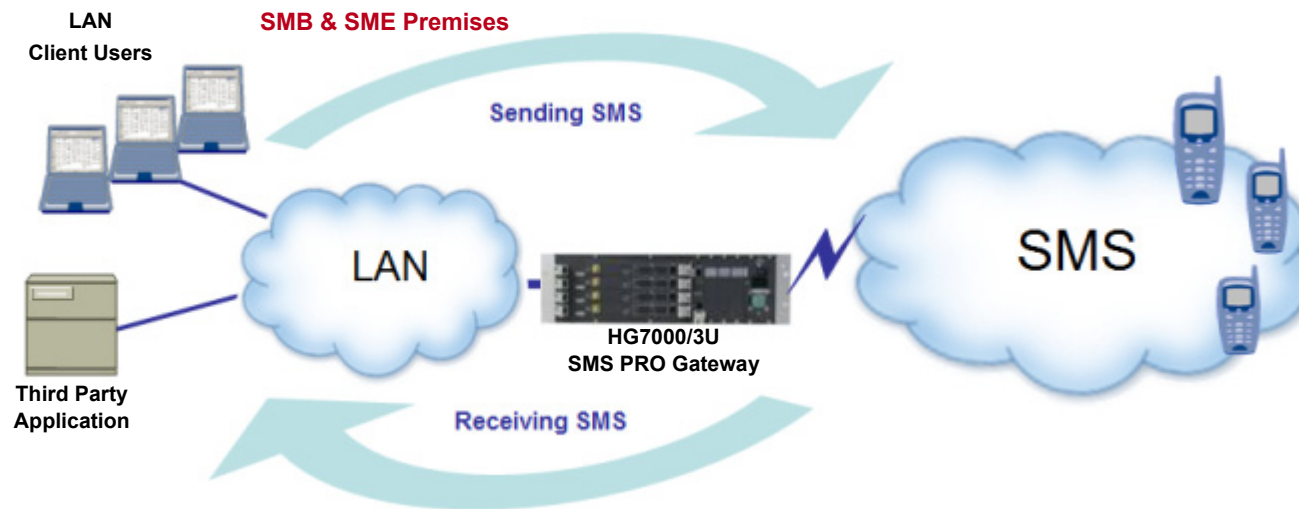
The **HG-7000/3U** is designed specifically as a solution for SMS functionality. As well, Hypermedia Gateway's flexible systems are easily expanded to meet evolving corporate telephony needs.

This paper illustrates how **HG-7000/3U** can be integrated into an existing telephony environment. It describes the features and benefits of deployment of an HG-7000/3U.

Overview

The **HG-7000/3U SMS-GSM** gateway enables sending text-messages via SMS, two-way SMS texting, SMS to email, PC to SMS, and reception of text messages via SMS. It is supplied with an SMS server and easy-to-use client API tools which enable third-party applications to send and receive SMS messages. Additional applications are also available.

The **HG-7000/3U** is a single unit with browser-based management. The HG-7000/3U connects seamlessly to an existing LAN and supports up to 12 SMS-GSM ports.



The HG-7000 connects the LAN and the GSM network and enables you to send and receive SMS messages.

Benefits

By using the HG-7000/3U, companies can send text messages to multiple users directly via the mobile/cellular networks.

Accurate, Timely Delivery of Information

Using the HG-7000/3U, management can communicate effectively with clients, crew/team members, and mobile employees. The company can send text messages to multiple users directly via the mobile/cellular networks. This ensures that information is delivered accurately and in a timely manner. This, in turn, increases productivity and efficiency while reducing operating costs.

Alternative, Low-Cost Communication System

Hypermedia's SMS Servers automate time-consuming actions and facilitate sending pre-defined and/or bulk text messages while taking advantage of cost-effective GSM mobile-to-mobile rates and special VPN SMS rates.

Easy-to-use API

Our SMS Server is supplied with an easy-to-use API which enables third-party applications to send and receive SMS messages.

Superior Privacy and Confidentiality

Using Customer Premises Equipment (CPE) eliminates the need for third-party ASP or SMSC aggregators and enables the sending of text messages directly via the cellular operators. This is ideal for companies such as Banks, Financial & Credit Card companies because it prevents exposure of details such as client base & customer phone numbers and assists in maintaining the utmost confidentiality and privacy.

SMS Campaigner

The Hypermedia SMS Campaigner is an add-on application that has been developed to run via the HG-7000/3U SMS Gateway's API interface and which utilizes the gateway's technology.

Hypermedia's SMS Campaigner application is designed for creating, running and managing advanced SMS campaigns. The application is appropriate for SMBs, enterprises, and service providers.

Marketing SMS communication is a key element in current media campaigns and is one of the fastest growing communication arenas. Hypermedia's SMS Campaigner's intuitive user interface simplifies the task of creating advanced marketing campaigns.

Contact your Hypermedia representative for information on purchasing the SMS Campaigner.

System Components

The **HG-7000/3U** unit consists of the components described in this section.

HG-7000/3U Unit

The HG-7000/3U unit is a 19" x 3U rack-mountable box that connects the PBX to the cellular network via up to 3 cellular boards (CG boards), each with 4 ports for up to a total of 12 SIM cards. The system enables any combination of connectivity between its various interfaces.

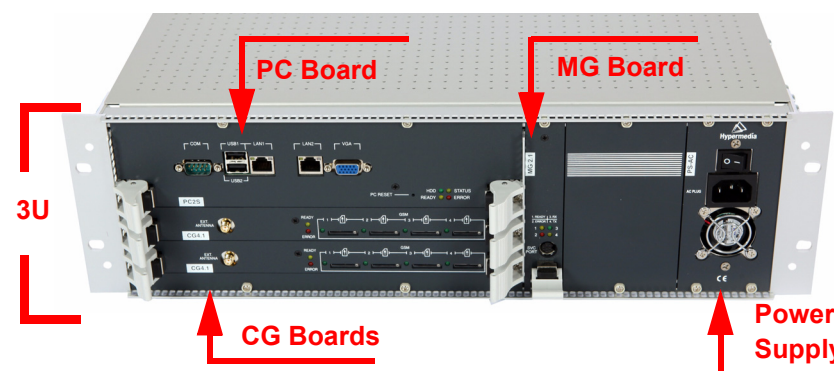


Figure 1: Board Location in the HG-7000/3U Unit

A 3U unit is also available with an HBN board in place of the PC and MG boards. A 6U unit is available with a PC and an MG board.

Boards

Following is a description of the boards included with the unit:

- **PC2 Control Board**

The PC2 is a double-slot computer designed for use by alternative carriers. It enables TCP/IP access and supports the VoIP Gateway.

The PC2 runs the HyperGateway Server for direct remote access, and provides a SIP/H323 interface when VoIP is implemented.

- **Cellular Gateway (CG) Boards**

CG for GSM, CC for CDMA RUIM, and CU for UMTS, are single-slot cards that enable inbound and outbound cellular voice calls for cellular networks.

- **MG Board**

The MG Media Matrix board is a single-slot board that enables flexible, pre-defined, and dynamic allocation of GSM channels, BRI B-channels, and, optionally, VoIP channels. It comes in two configurations:

- The basic Matrix slot board
- VoIP Gateway add-on supporting the VoIP interface and capable of carrying 32–72 concurrent VoIP calls.

HyperGateway Server

The HyperGateway Server is an application that is embedded in the PC Board. The HyperGateway Server is controlled and managed by the browser-based Hypermedia Management Console.

Hypermedia Management Console

The Hypermedia Management Console (HMC) is used by the system administrator for remote configuration and monitoring of the Hypermedia Gateway system. It is installed on the customer's PC, connects to the Gateway system over TCP/IP, and is based on a standard WEB browser.

RO Board (Optional)

The RO board is an Ethernet Broadband Router equipped with NAT (Network Address Translation) technology. It enables the Hypermedia Gateway to connect to a public IP and to operate behind firewalls equipped with Network Address Translation; this provides maximum network security.

Hypermedia Management Console (HMC)

The Hypermedia Management Console, pictured to the right, opens in a browser. The interface is divided into a Navigation Pane and a Configuration and Monitor Pane.

In addition, the interface includes identifying information.

Popup and dropdown menus are available from the Configuration and Monitor pane. Color is used to indicate editing mode and changes of status.

Server IP Address

Navigation Pane

Configuration and Monitor Pane

SMS Server Configuration

SMS Server Configuration

Server status
Sets the status of the SMS Gateway. The actual state of the SMS gateway is displayed below the selection box, and can have one of three values:

Mode: ☐ scheduled
Status: **Running**

ACR
Determines whether the ACR is active or not:

Log Level
Set the detail level of the log file. This should always be on 'error' unless technical support requires logs with a higher resolution.

Confirmation
Determines whether the confirmation of receipt is on by default:

GSM 03.38 Encoding
Determines whether the GSM 03.38 Encoding is Latin or Greek:

PDU
Determines whether the PDU is active or not:

Queue type

- cyclic: a new SMS will be sent from the next available SIM card.
- serial: a new SMS will be sent from the first available SIM card.

SMS Sender

Outgoing Message

Phone Number:

SIM:

Message:

[Send SMS](#)

Incoming Text Messages Log

From Phone Number: ☐ Destination only ☐ All

To SIM: ☐ Selected ☐ All

Messages:

SMS Server Channel Selection

SMS Server Channel Selection

Select cellular card

Slot: ☐ 3 ☐ 4

Selected card at slot 3 (GSM)

☒ Module Settings ☐ Entire Card ☐ Entire System

Module	Enable / Disable	Route to Group
Module 1	<input checked="" type="checkbox"/> SMS Enabled	New
Module 2	<input checked="" type="checkbox"/> SMS Enabled	New
Module 3	<input checked="" type="checkbox"/> SMS Enabled	New
Module 4	<input checked="" type="checkbox"/> SMS Enabled	New

SMS Pro Server License

SMS Pro Server License

License Info ☒ License is active

Type	license
HGID	00:05:8a:03:1e:0d
Days Left	unlimited
API	yes
SMPP	yes
Email to SMS	yes
USSD	yes

Chapter 2

GSM Features and Functionality

The HG-7000/3U supports a full suite of GSM features and functionality. Each of the HG-7000/3U's highly flexible GSM cards can hold from 4 to 16 SIM cards enabling easy growth and adaptation to changing corporate needs.

Note: *This document uses the term GSM to describe the cellular telephony network and service. GSM network is also known as: mobile network, cellular network, or wireless network.*

GSM Overview

Communicate effectively with clients, crew/team members, and mobile employees. Deliver accurate information in a timely manner by sending text messages to multiple users directly via the GSM networks. This, in turn, increases productivity and efficiency and reduces operating costs.

Automate time-consuming actions and facilitate sending pre-defined and/or bulk text messages while taking advantage of cost-effective GSM mobile-to-mobile rates and special VPN SMS rates.

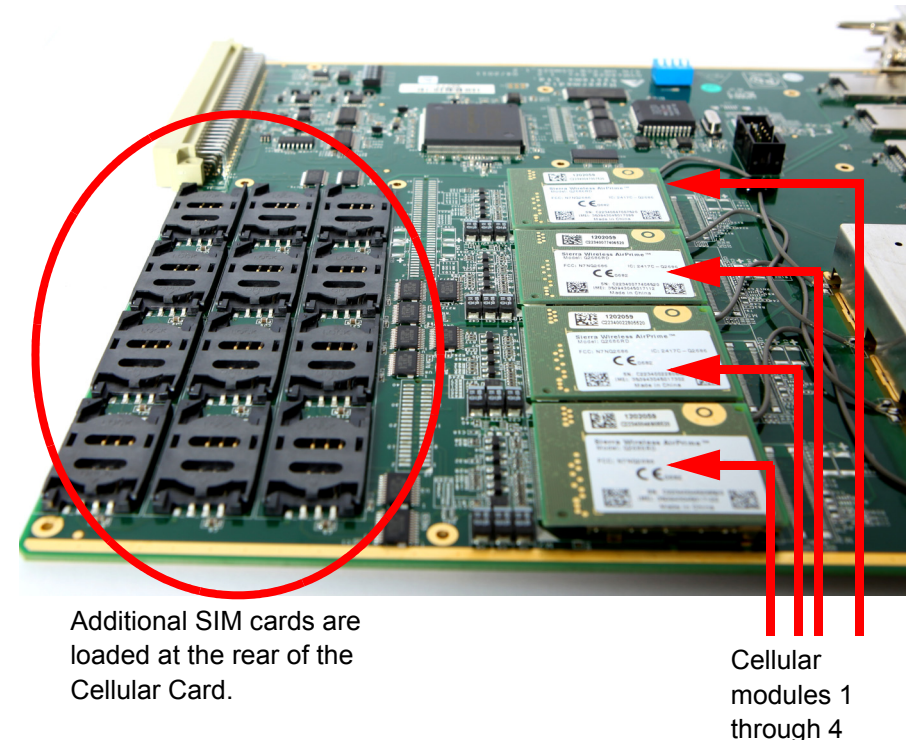
Eliminate the need for third-party ASP or SMSC aggregators and enable the sending of text messages directly via the cellular operators. This is ideal for banks, financial institutions, credit card companies and similar companies because it prevents exposure of details such as the client base and customer phone numbers and assists in maintaining the utmost confidentiality and privacy.

The HG-7000/3U resolves all the above and, thereby, delivers significant savings.

A Hypermedia GSM board has 4 modules, each of which can have 1 to 4 SIM holders. Therefore, each board can hold up to 16 SIM cards. In addition, a Hypermedia Gateway can include several GSM boards.



The first SIM cards of each module are loaded from the front of the Cellular Card.



Additional SIM cards are loaded at the rear of the Cellular Card.

Cellular modules 1 through 4

Figure 2: SIM Cards on a GSM Board

Some parameters can be applied either to specific SIM cards, or to specific modules, or to the entire GSM card, or to all the cards in the system.

Connections and Settings

Specific user requirements demand a flexible but powerful gateway. Variations between service providers, locations and other variables necessitate a rich suite of advanced GSM settings. The HG-7000/3U can be configured to match almost any routing design in almost any setting.

GSM Settings

Use the Settings screen to enable and disable advanced parameters. For assistance with these, contact [Technical Support](#).

Functionality Highlights

The HG-7000/3U gateway supports the vast majority of functions required by today's demanding users. Following are several highlights.

PIN Codes

Use the PIN Codes screen to configure the PIN code that the gateway uses when a SIM card with an active PIN is inserted. Consult your GSM provider for more information regarding the PIN code.

Locks

Use Locks to restrict access to specific GSM operators and/or a specific SIM card. When a lock is defined, the Gateway will only accept SMS's from an operator or a SIM card that matches the Lock number.

In addition, use Locks to prevent roaming hand-over in cases where the Gateway is located close to county or country borders.

SIM Select

Use the SIM Select screen to manually select and activate a SIM card for current use. SIM Select should not be used when SIM Auto-Manage is active. The definition can be applied just to the module, to all 4 modules on the card, or to all the GSM cards in the system.

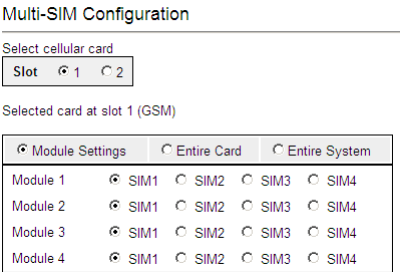


Figure 3: SIM Select Screen