



February 2004

## Technical Bulletin

# Provisioning the Gigabit Ethernet Port on the Gigabit QAM Modulator

## Overview

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### Introduction

Cisco Digital Broadband Delivery System (DBDS) modulators normally use the bootstrap (bootp) protocol to obtain their Internet Protocol (IP) addresses from the Digital Network Control System (DNCS). In the case of the Gigabit QAM modulator (GQAM), two IP addresses are required: one for the 10/100BaseT Ethernet control interface and a second for the Gigabit Ethernet (GbE) interface.

The GbE interface is used for connection to video-on-demand (VOD) servers through an Ethernet network. Such networks today are used exclusively for the transport of video content. Neither the DNCS nor any other IP address server is connected to this "content" network. Thus, it is not possible for the GQAM to obtain its GbE IP address by using the bootp protocol through that interface.

**Important:** In future releases of the GQAM, the IP address for the GQAM GbE interface will be provisioned (configured) over the control interface. In the meantime, it is necessary to manually provision (configure) the Gigabit Ethernet IP address using the craft port on the rear panel of the GQAM.

### When to Implement

Implement this procedure after the GQAM is fully booted the first time.

### Purpose

This technical bulletin provides a procedure for manually provisioning the IP address for the GQAM GbE port.

### Scope

After reading this technical bulletin, you will be able to manually provision and verify the IP address for the GQAM GbE port.

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## Overview, Continued

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### Audience

This technical bulletin is written for Cisco DBDS system operators and engineers, DNCS operators and engineers, Cisco field service and system installation engineers, and Cisco Services personnel.

### Document Version

This is the second release of this technical bulletin.

### In This Technical Bulletin

This technical bulletin contains the following topics.

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# Provision the GbE IP Address

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## Introduction

In the process of installing the GQAM, you must enter a number of parameters into DNCS screens. These parameters include various settings and network parameters. Included in these parameters are the IP addresses for the two Ethernet ports: 10/100BaseT and GbE. The DNCS automatically provisions the 10/100BaseT Ethernet port, but does not automatically provision the GbE port. Therefore, in addition to entering the GbE IP address on the DNCS, you must also manually provision the GbE IP address through the craft port interface on the back panel of the GQAM.

This section provides the procedure for manually provisioning the GbE IP address.

**Important:** Implement this procedure after the GQAM is fully booted the first time.

## Provisioning the GbE IP Address

Complete these steps to manually provision the GbE IP address.

1. Connect a diagnostic PC to the **CRAFT PORT** on the back panel of the GQAM using a straight cable with a male DB-9 connector.

**Note:** A diagnostic PC is a laptop or desktop PC that contains Procomm or any other compatible terminal program and a DB-9 port.

2. Power on the diagnostic PC and activate a Procomm or Hyperterminal window using the following modem connection settings:
  - 9600 baud
  - 1 stop bit
  - No parity
  - 8 data bits
  - No flow control

3. At the > prompt, type **gigaipaddr w <ip addr>** and press **Enter**.

**Note:** In this command, <ip addr> represents the IP address for the GbE port that you entered onto the DNCS.

**Important:** You must enter *all twelve* digits.

**Example:** IP address 172.22.1.100 must be entered as: **172.022.001.100**.

4. Reset the GQAM by using either the ON/OFF rocker switch on the back panel or by using the DNCS GUI.
5. Go to **Verify the GbE IP Address**, next in this technical bulletin.

# Verify the GbE IP Address

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## Introduction

After you provision the GbE IP address and reset the GQAM, you must verify that you correctly provisioned the GbE IP address. This section provides a procedure for verifying the GbE IP address.

## Verifying the GbE IP Address

Complete these steps to verify the GbE IP address.

**Important:** If you came here directly from the previous procedure, **Provisioning the GbE IP Address**, skip steps 1 and 2, and go directly to step 3 of this procedure. Otherwise, begin with step 1.

1. Connect a diagnostic PC to the **CRAFT PORT** on the back panel of the GQAM using a straight cable with a male DB-9 connector.

**Note:** A diagnostic PC is a laptop or desktop PC that contains Procomm or any other compatible terminal program and a DB-9 port.

2. Power on the diagnostic PC and activate a Procomm or Hyperterminal window using the following modem connection settings:

- 9600 baud
- 1 stop bit
- No parity
- 8 data bits
- No flow control

3. At the > prompt, type **gigaipaddr** and press **Enter**.

**Result:** The GbE IP address displays on the screen.

4. Is the GbE IP address correct?
    - If **yes**, go to step 5.
    - If **no**, repeat steps 3 and 4 of **Provisioning the GbE IP Address**, earlier in this technical bulletin, and then repeat step 3 of this procedure. If the GbE IP address is still incorrect, contact Cisco Services for further assistance.
  5. Power off and then disconnect the diagnostic PC from the **CRAFT PORT**.
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## For Information

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### If You Have Questions

If you have technical questions, call Cisco Services for assistance. Follow the menu options to speak with a service engineer.

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