

# GIGAswitch System AGL-2

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## Release Notes (Version 1.0)

Part Number: AA-Q8ZVA-TE

**Revision/Update Information:** This is a new document

**Software Version:** GIGAswitch Configuration:

GIGAswitch Firmware Baselevels:

- Switch Control Processor (SCP) OP 2.10, SCP BB 2.00, SCP DL 1.00
- Two-port FDDI GIGAswitch Line Card (FGL-2) 2.00
- Four-port FDDI GIGAswitch Line Card (FGL-4) 1.00
- Two-port ATM GIGAswitch Line Card (AGL-2) 1.00
- Clock card (CLK) 2.10
- Power System Controller (PSC) 2.00
- Management Information Base (MIB) 1.2

**Digital Equipment Corporation**  
**Maynard, Massachusetts**

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## Two-Port ATM GIGAswitch Line Card (AGL-2)

### 1.1 Max number of Bridged Virtual Channel Connections (VCC) per Port

Each AGL-2 port supports one bridged VCC. Support for additional traffic types on virtual connections in parallel with the bridged virtual connection is planned in a future release.

### 1.2 Default Bridged VCC

Upon power up, the default bridged VCC is automatically created by the SCP. The VPI/VCI value for this VCC is 0/63 as documented in the Manager's Reference Guide.

### 1.3 VCC Creation, Deletion, and Modification

#### 1.3.1 Supported Connection Table Object "Sets"

The *agIVCCConnectionTableEntry* MIB objects which can be **set** are as follows. Following each MIB object name are the currently supported values.

- *agIVCCConnectionTableEntryStatus*
  - create(1)
  - delete(2)
- *agIVCCConnectionPortA*
  - bridgePortNumber (1-10, 13-14, 17-18, 21-22, 25-26, 29-30, 33-36, i.e., the same as FGL-2)
- *agIVCCConnectionPortAVpi*
  - 0
  - Note: Only VPI=0 is supported in this release.
- *agIVCCConnectionPortAVci*
  - 32 - 1022
  - Note: VCI=1023 is not supported.
- *agIVCCConnectionPortB*
  - 0
- *agIVCCConnectionPortBVpi*
  - 0

## Two-Port ATM GIGAswitch Line Card (AGL-2)

### 1.3 VCC Creation, Deletion, and Modification

- *aglVCCConnectionPortBVci*  
0
- *aglVCCConnectionTrafficType*  
FDDI-bridged(1)
- *aglVCCConnectionAALType*  
aal5(2)  
Note: Only AAL5 is supported in this release.
- *aglVCCConnectionAdminStatus*  
enable(1)  
Note: Disabling a circuit is not supported in this release. Tear down the circuit instead.

#### 1.3.2 Connection Table Object "Sets" currently NOT Supported

- *aglVCCConnectionTrafficShaperPeakRate*  
960 - 353,208
- *aglVCCConnectionAALType*  
aal3/4(1)

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#### Note

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It is possible to set the AAL type to AAL3/4. However, in the current release an AAL3/4 circuit will **not** function for FDDI traffic. Most users will prefer to use AAL5 instead (which is the default) since AAL5 offers higher bandwidth and better error checking.

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- *aglVCCConnectionTrafficShaperAvgRate*  
960 - 353,208  
Note: The average rate is always set by default to the same as the peak rate.
- *aglVCCConnectionTrafficMinGuaranteedRate*  
0 - 353,208  
Note: The min guaranteed rate is always zero. It is not used in the single circuit case.
- *aglVCCConnectionTrafficShaperPriority*  
1  
Note: The priority is always one. It is not used in the single circuit case.

### 1.3.3 Known Virtual Channel Connection (VCC) Creation Problem

Occasionally an SNMP set for VCC setup may fail in the current release. The user should rerun the commands/scripts for the VCC setup operation until the setup is successful. It may be necessary to power cycle the AGL Line Card to make the circuit operational. If necessary, check that the AGL card is configured as desired the first time the card is power cycled after a VCC set.

### 1.3.4 Virtual Channel Connection (VCC) Teardown/Creation

It is recommended that the user avoid modifying an existing VCC. Attempting to modify an existing VCC can result in unexpected behavior leading to VCC breakdowns or VCC loss.

The effect of circuit modification can be accomplished by tearing down the existing VCC and then setting up a new VCC with the desired values with one SNMP command.

## 1.4 Automatic OAM Transmission Disabled

The MIB object *aglInterfaceATMOAMStatus* is permanently 'disabled' in this release and cannot be set to 'enable'. Most applications do not require this function.

## 1.5 Heavy Traffic may be Delayed During a Firmware Upgrade

Upgrading the firmware on an AGL card requires resources that may conflict with carrying full-performance traffic at the same time on either port of the card. In most cases, this will not be a problem. However, unusually heavy traffic can be delayed as much as 10 seconds on either port during the process of firmware upgrade. If this delay is expected to cause a problem, then stop such traffic or divert it to another link before initiating the firmware upgrade.

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**Note**

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Firmware can be upgraded using the link that is being upgraded. After the upgrade is complete, the card will automatically be power cycled and the link reestablished. However, the user should first make provisions for an alternate way to do the upgrade in case the process needs to be re-attempted.

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## Two-Port ATM GIGAswitch Line Card (AGL-2)

### 1.6 STS3-c versus STM1 Mode

#### 1.6 STS3-c versus STM1 Mode

If the two ends of a SONET link are set to different mode values, the PHY LED on the STM1 side will blink green indicating that the PHY is down and the link is not functional. In addition, some or all of the following counters will increment on the STM1 side:

- *aglsonetSectionCurrentESs*
- *aglsonetSectionCurrentSESs*
- *aglsonetSectionCurrentSEFSs*
  
- *aglsonetLineCurrentESs*
- *aglsonetLineCurrentSESs*
- *aglsonetLineCurrentUASs*
  
- *aglsonetPathCurrentESs*
- *aglsonetPathCurrentSESs*
- *aglsonetPathCurrentUASs*

The STS3-c side of the link may appear to be normal except that the following counters may increment:

- *aglsonetLineCurrentUASs*
  
- *aglsonetPathCurrentUASs*

#### 1.7 DS3 and SONET "Interval" and "Total" Tables not supported

The DS3 and SONET "Interval" and "Total" Tables are not supported in this release. This support is planned in a future release.

#### 1.8 No Access to AAL-5 and ATM Error Counters

The counters for AAL-5 CRC errors and ATM Header Error Check (HEC) errors are not accessible in this release.

#### 1.9 No Access to VCC Cell Transmit Counters

The counters for per VCC cell transmitted are not accessible in this release.

#### 1.10 Backup Code Block and Boot Block Version Number

Version number display for the Backup Code Block and the Boot Block will be provided in a future release.

## 1.11 New Firmware Required

Firmware required to support this release may be obtained via the Internet or a kit suitable for use with DECndu+.

## 1.12 Network Management Station

The examples in the GIGAswitch Manager's Reference Guide were derived using Digital's Polycenter for Netview as a Network Management tool. The command style and syntax may be different if DEC MCC or third party network management tools are used.

### 1.12.1 Internet Firmware Repository

Firmware and Mibs are found on node GATEKEEPER (16.1.0.2) in /pub/Digital/Gigaswitch.

The readme.txt file describes the other files in the directory. These files are available on the Internet using the following procedure.

Use ftp to gatekeeper.dec.com using "anonymous" as the login and your email address as the password. The internet address for the gatekeeper is:

```
ftp gatekeeper.dec.com
anonymous
'your email address here'
ftp>cd /pub/Digital/Gigaswitch
ftp>get readme.txt      ; get readme.txt file to see files available
ftp>get filename       ; get each postscript or text file
ftp>bin                 ; change mode to binary for image file transfer
ftp>get                 ; get firmware image files
ftp>bye
```

### 1.12.2 DECndu+

There is a QB kit (QB-0JGAA-SA.2.1), that contains DECndu+ for DOS, firmware, and documentation.

