Hyperion INTELLIGENT GIGABIT SWITCH



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Package Contents

- Hyperion (71025, 71026, 71027, 71028 or 71029)
- 2m cat5 cable (79102)

Safety Information

- This unit is intended for indoor use only
- Do not expose this device to rain or moisture, doing this will void the warranty
- Make all the connections before you plug in the mains power
- Do not remove the cover, there are no user serviceable components inside
- Never plug this unit into a dimmer pack
- Ensure proper earth connections
- Always be sure to mount this unit in an area that will allow proper ventilation. Allow about 6" (20 cm) between this device and a wall
- Power-supply cords should be routed so that they are not likely to be walked on or pinched

Initial Setup Out of Box (Factory Settings)

All Hyperion devices come with the following default settings:

- IP: 192.168.0.10
- Subnet Mask: 255.255.255.0
- Gateway: 0.0.0.0

If multiple Hyperion units are connected to the same network, manually change the IP address to January 19 ID: 38

avoid any conflicts.

Finding IP Address Using NMU v1.9

• Connect Hyperion directly to a computer using a cat5 cable

Νοτε

The computer should have the following network adapter settings:

- o Static IP: 192.168.0.1
- o Subnet Mask: 255.0.0.0
- Gateway: 0.0.0.0
- Open ENTTEC NMU. If prompted with multiple networks, select the correct one (identified by the IP address of your computer)
- Press Discovery button and wait until NMU finds all supported ENTTEC devices
- Once found, select Hyperion and use the IP address listed to access the web-interface via your web browser

🥬 ENTTEC Node Mana	gement Utility [1.90]		
File Artnet Help			
Device Type	IP Address	Device Name	Mac Address
Hyperion	10.10.0.200	Hyperion	00234B754001
Hyperion	10.10.0.201	Hyperion	00234BA4A201
			*
Discovery	Configure .		Clear List
		NMU Client IP: 10.168	.0.1

- Type in the default IP shown on NMU into any browser
- Log into the device as shown in window below:

Authe http:/// Your co	entication required 192.168.0.10 onnection to this site is not private	
Username	admin	
Password		
	Log in Cancel	

Default Login Details

The log in details for the device are as follows:

- Username: admin
- No password (leave empty)

Once logged in, set the device with the appropriate network configurations

Physical Dimensions





Specifications

Itom	Model SKU					
	71025 71026 71027 71028 71029					
Input Voltage	90-264 V AC					
Input Frequency	47-63 Hz					
Temn	Storage -20°C to 70 °C					
remp.	Working	Working 0°C to 40 °C				
Humidity	Storage 5% to 90% non-condensing					
numarty	Working 10% to 90% non-condensing					
			1X powerCO	N IN		
		6X Fi	ont etherCON	connectors		
		2X R	ear etherCON	connectors		
Connectors			1X 1000M SFF	P port		
	1X		1X	1X LC Duplex	1X LC Duplex	
	OpticalCON	N/A	OpticalCON	connector	connector	
	Duo (Front)	t) Duo (Rear) (Front) (Rear)				
IP Rating	IP20					
Cooling Method	Fan (always c	on)				
Maximum Power	60 W			1		
	Over-current Auto reco			Auto recovery	overy	
Power Supply Protection	Over-temperature			Latch		
	Short			Auto recovery		
	Over-voltage			Auto recovery		
MAC Address table limit	8192					
Maximum frame length	9216 B					
Cache	32 Mb					
Switching Capacity	52 Gbps					
IGMP support	Yes (V1/V2)					
IGMP snooping (multicast)	Yes, enabled	by default				
Net Weight	2.5 kg / 5.52 l	b				
Gross Weight	2.8 kg / 6.18 l	.b				
Dimensions (without ears)	445.82 mm x ²	180.29 mm	x 43.20 mm			
LxWxH	17.55 in x 7.10	in x 1.70 in				
Dimensions (with ears)	483 mm x 180	.29 mm x 4	3.20 mm			
LxWxH	19.02 in x 7.10	in x 1.70 in				
Packaging Dimensions	533 mm x 247	' mm x 111 r	nm			
	21.78 in x 9.72	2 in x 4.37 ir)	• · · · · · · · · · · · · · · · · · · ·		
Ethernet Compliance	IEEE 802.3, IE	EE 802.3u,	IEEE 802.3x Flo	w Control, IEEE	802.3ab	
Ethernet Computance	Gigabit Ether	net				

Due to continuous improvements and innovations of all ENTTEC products, specifications and features are subject to change without notice.

Hyperion Hardware Interface (Front)



LED Status

Power LED	Status LED	Operation
Green (static)	Amber	Device loading firmware
Green (Static)	Green (Blinking)	Normal operation
Green (Static)	No lit	Rebooting

Hyperion Hardware Interface (Rear)





Redundancy Link



Redundancy link is the ability of two ports of Hyperion to be connected to the same networking device. Redundancy link will automatically take over the signal within milliseconds, once link failure is detected.

Notes:

- Redundancy link must be enabled (check from Home page for Ports 7 and 8)
- If Hyperion is restored to factory defaults, redundancy link will be disabled for all ports
- To enable redundancy link for Ports 7 and 8, simply load the Home page once
- To enable redundancy link for other Ports, use Ports page
- Can only be enabled/disabled when Port is not in use (not connected)
- Link Aggregation takes priority over Redundancy (Ports 1 to 6 only)

Cancel

Your connection to this site is not private

Username

Password

How to Access Web Interface?

- 1. Open any modern web browser, such as Chrome, Firefox, Safari or Edge
- 2. To access the web interface type in the assigned IP address of Hyperion e.g: 10.10.0.201

10.10.0.201	×	The photographic and the set	
\leftrightarrow \Rightarrow C ()	10.10.0.201		
		Authentication required	
		http://10.10.0.201	

- 3. You will be prompted to login using the following details:
 - User name: admin
 - Password:

Please use the password, if any set by you.

By default, password is not required, so should be empty.

Hyperion Web Interface

The Hyperion web interface has the following sections:

- 1. Home
- 2. Settings

- 3. Ports
- 4. Administration

Home Page

	ACTIVITY CALL AC	HYPERION - Home
	System Information	
Home	Name:	test
	System Uptime:	3h 14m 21s
Settings	Number of Ports:	10
Ports	Network Information	
	IP Address:	10.7.2.2
Link Aggregation	NetMask:	255.0.0
	Gateway IP:	10.7.2.2
Administration	Mac Address:	00-23-48-75-40-01
	Functional Information	
	Redundant Backbone Link:	Enabled
	IGMP Snooping:	Enabled
	IGMP Query status:	Enabled
	Firmware Information	
	Software Version:	WebUI v1.04
	Firmware Version:	1.3.6.2.4.573.17389.101
	Boot Version:	CFE_V1.0_20100901
	Hardware Version:	2017

Home page shows the followings information:

- Device Name Identify this Hyperion in the network
- System uptime The time since Hyperion was switched on
- Number of ports
- IP address
- Sub netmask

- Gateway IP
- Mac address (unique)
- Redundancy Backbone link Ports 7 and 8 only
- Multicast IGMP Snooping and Query Status
 should always be enabled
- Software/Hardware/Firmware versions

Settings Page

	3		REDUNDANT BACKBONE LINE
TTEC			
System	1 Settings		
Home System	Name:	Hyperion Sample	
System	Location:	Melbourne R&D	
ettings System	Contact:	Support 001	
Save:		Update System Information	
Networ	k Settings		
IP Addre	955:		Required: Must be unique on this network
inistration	<u>c</u>		Required: Default is 255.255.255.0
Default	Gateway:		Default: same as IP address
DNS 1:		10 . 10 . 10 . 66	Optional: leave empty if not needed
DNS 2:			Optional: leave empty if not needed
Save:		Update Network Settings	
Securi	y Settings		
Provide State	06		
Usernar	ne:	admin	

The setting pages permits the setting of:

- System name Assign a device name
- System location Location of switch
- System contact Note network contact
- IP address IP of this Hyperion
- NetMask Sub-net mask
- Default Gateway
- DNS 1/ DNS 2 Configure IP of DNS server to be used
- Security settings change user/password

Change Password

The change password feature is under the Settings page as shown in screen below:

Security Settings	
Username:	admin
Password:	
Confirm Password:	
Update:	Update Security Settings

To change the password:

- 1. Enter the new password (cannot be blank)
- 2. Click Update Security Settings

Ports Page

		HY	PERION - PORTS			
Port No.	Current Status/Speed	Speed Settings	Legend	Redundancy	мти	Flow Control
1	O 1 Gbps	Auto		Enabled v	1518	Disabled v
2	0	Auto		Enabled •	1518	Disabled v
3	0	Auto		Enabled •	1518	Disabled v
4	0	Auto		Disabled v	1518	Disabled v
5	0	Auto		Enabled •	1518	Disabled v
6	O 1 Gbps	Auto		Enabled v	1518	Disabled v
7	0	Auto		Enabled •	1518	Disabled v
8	0	Auto		Enabled •	1518	Disabled T
9 (SFP)	0	Auto		Disabled v	1518	Disabled v
10 (OpticalCon)	0	Auto		Disabled T	1518	Disabled •

Save / Update	
Update:	Update Ports Settings
Please note:	Redundancy can only be enabled, if the Port is not linked to a Trunk

- Shows the status and speed of:
 - o etherCON ports
 - opticalCON Duo port (model dependent)
 - o SFP port
 - LC Duplex ports

- Flow control disabled by default. Supports flow control when enabled.
- MTU specify the largest network layer protocol data unit
- Redundancy disabled by default. Can only be set, when the port is not in use.
- Speed settings of ports can be specified

Port	Current Status/Speed	Speed Settings	Legend	Flow Control	мτυ
1	<u>100 Mbps</u>	Auto		Enabled T	1518
	Port 1 Statistics (Receive)		Port 1 Statistics (Transmit)		
	Total Data:	63.96 MB	TX Total Data:	13.11 MB	
	Errors:	0	Errors:	0	
	Unicast packets:	204159	Unicast packets:	27673	
	Discarded packets:	0	Discarded packets:	0	
	Multicast packets:	0	Multicast packets:	8644	
	Broadcast packets:	1831	Broadcast packets:	21710	
	Unknown packets:	0			

The network statistics for each port can be observed by clicking on the speed link indicated above

Link Aggregation

HYPERION - TRUNK				
Link Aggregation Help (hover mouse on topics to reveal)				
What is a Trunk ?	How to Link ?	How many in a Trunk ?	How to Un-Link ?	
Please note	Linking ports into Trunks, will disable the redundancy setting on these ports. To enable redundancy on these ports, please Unlink these ports first.			

Ports and Trunks					
Unlinked	Linked Trunk 1	Linked Trunk 2	Linked Trunk 3		
Port 1 Port 2 Port 3 Port 6	Port 4 Port 5				

Save / Update	
Update:	Update Trunk Settings

- Allows two ports to be linked into a Trunk. A total of 3 trunks are allowed
- Simply drag the ports from Unlinked column to a Trunk
- Devices connected to Trunked ports, **must support 802.3af** to work with Link aggregation

Notes:

- Each trunk can have a maximum port 2 ports
- First link the Ports in a Trunk, and, make the actual network connections afterwards.
- Link aggregation assumes, that the connections are made on the same network device (must support 802.3af)
- Redundancy link will get disabled as soon as two ports are link aggregated

Administration

ACTIVITY		ACTIVITY C
NTTEC		
Home	Firmware Update Select firmware file:	Choose file No file chosen Update Firmware
Settings	Backup	
Ports	Backup Settings:	Click to download Backup Config
	Restore	
Administration	Restore Settings:	Choose file No file chosen Restore System
	System Control	
	Restart:	Click to Reboot
	Factory Reset:	Reset to Factory defaults

The Administration page enables:

- Firmware update of the switch
- Backup of the switch configurations
- Restore the switch
- Reboot the device
- Reset to factory defaults

Restore to factory defaults (web interface)

- Resets password to default (blank)
- Resets username to **admin**
- Resets device IP to default of 192.168.0.10
- Resets netmask to **255.255.255.0**
- Resets gateway to **0.0.0.0**
- Redundancy link on port 7 and 8 remains enabled (after refresh of Home page)

Restore to factory defaults (reset button)

To restore using the reset button (front of the unit)

- Press and hold the reset button, till the status led turns off
- Release the rest button, and wait for Hyperion to restore (takes 60 seconds)
- After successful restore, the following factory default configuration is loaded:
 - ✓ Resets password to default (blank)
 - ✓ Resets username to admin
 - ✓ Resets device IP to default of **192.168.0.10**
 - ✓ Resets netmask to **255.255.255.0**
 - ✓ Resets gateway to 0.0.0.0
 - ✓ Redundancy link on port 7 and 8 are disabled (Refresh web Home page once to enable)

Reboot

Rebooting the device will restart your unit. No settings will be affected

Backup

All user defined settings will be downloaded to a file (config)

Note:

Renaming or changing the backup file will result in failure of system restore

Restore

This can be used to restore a switch with set user defined settings except for (password and username). Select the config file with the settings as shown below:

Restore		
Restore Settings:	Choose file config.txt	Restore System

Once the Restore System button is clicked, a progress window will appear as shown below:



If an incorrect file is used for system restore, an error message will be displayed

Firmware Update

It is recommended to always update your Hyperion units to the latest firmware. Firmware files are released and available on <u>www.enttec.com/hyperion</u>.

Firmware update option is under the Administration Menu. The steps for updating firmware are listed below:

- 1. Select the firmware to be loaded to the device (must be the correct firmware file for Hyperion only)
- 2. Click on Update Firmware button

WARNING: Please do not interrupt or power off your Hyperion unit, during a firmware update, as this can crash your Hyperion unit. Please be careful during firmware update.

The web interface will go through three screens during a successful firmware update as shown below:

FIRMWARE UPDATE	
86%)
Current action: Sending firmware file	
Please do not interrupt while firmware update is in progress Hyperion will restart itself to complete the update, please wait	

13%
Current action: Verifying firmware
Please do not interrupt while firmware update is in progress
Hyperion will restart itself to complete the update, please wait
Result. IL Click (D. Rebolt)
HVRERION _ A DURING TO ATION
FIRMWARE UPDATE
FIRMWARE UPDATE
FIRMWARE UPDATE Restarting to complete update
FIRMWARE UPDATE Restarting to complete update
FIRMWARE UPDATE Restarting to complete update
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FIRMWARE UPDATE Restarting to complete update
FIRMWARE UPDATE Restarting to complete update
FIRMWARE UPDATE Restarting to complete update

During step one and two: status LED will continue to blink. At step three, status LED will switch off for 30 seconds, then turn amber for roughly 10 seconds.

It could take between 30-60 seconds for firmware update to complete. It is important, that you do not interrupt the firmware update procedure at any time.

Once restart is complete, status LED should start blinking - this shows it's ready.

In case a bad firmware update was attempted, the following error screen will be shown:

HYPERION - Administration
ERROR
Corrupt Firmware file
Click here to go Home

If the page does not refresh, please click the link at the bottom of the message, to load the Home page.

Tips and Tricks

Hyperion not found by NMU

- If you just reset Hyperion (factory restore), it might not be discovered by NMU.
- However, after a reset, it will always be set to IP: **192.168.0.10**
- Simply follow the <u>settings for your PC</u> guide, to ensure your computer is on the correct network settings, so it can talk to Hyperion.
- Once you change IP address of Hyperion, it will be visible in NMU.

Unsuccessful Firmware update, causes white page

• If you tried a bad or corrupt firmware file, and then followed it with a good firmware, it's possible that Hyperion will simply show a white page as shown in the image below

WARN!!! Write Flash....3%

Firmware is upgrading. Don't power down. Pls. retry when complete this upgrade!

- Please wait for 60 seconds, and refresh the page
- If it says Firmware update in progress, please wait another 60 seconds, and refresh
- If the page shows that Firmware update is complete as shown in the image below, then please repower Hyperion. Note: Ensure Status indicator blinks green

WARN!!!

Firmware upgrade completed. Please do not change any configuration settings or reconfigure the system via main page while the settings are being saved.!!

• After re-powering the unit, web page should load normally

Settings do not Save

- Please make sure your unit is updated to the latest firmware available on www.enttec.com/hyperion
- If you still face the same problem, please restore using the reset button.

Redundancy Link Doesn't work

- Make sure redundancy link is enabled in the ports used
- Make sure the same network device is connected to both ports
- If both links are on and active, and redundancy link still doesn't work re-power Hyperion
- For Ports 7 and 8: ensure Redundancy link is active (as shown on the home page)

January 19

ID: 3809208

Connection Lost

- Is Hyperion still powered on and connected to the network?
- Make sure the connections are good, and re-power Hyperion if you can't talk to it

Device connected to Hyperion, not found

To troubleshoot do the following:

- Disconnect all other network connections
- Connect your computer directly to the switch
- Set the networking settings of your computer as specified in <u>settings for your computer</u>
- Enter default IP of device (192.168.0.10) into an address bar of a browser of your choice
- If device web page is inaccessible, reset device to factory settings by holding down reset button for ten seconds
- Wait one minute until status light of device is blinking green
- Re-enter default IP of device (192.168.0.10) into an address bar of a browser of your choice

Device not discovered on reconnection

- Please wait 60 seconds and rediscover device using your software.
- If not discovered after 60 seconds, power cycle the device connected to Hyperion and rediscover



Settings for your Computer

Steps for Windows 7

- 1. Click Start>Control Panel>Network and Internet>Network and Sharing Center>Change adapter settings
- 2. Select Internet Protocol Version 4 (TCP/IPv4), then click Properties



Draznize 💌 Dicable this network device 🛛 Dizanose t	his conne
Local Area Connection Properties	23
Networking	
Connect using:	
Intel(R) 82578DM Gigabit Network Connection	
Configure.	
This connection uses the following items:	
🗹 🖳 Client for Microsoft Networks	
🗹 📇 QoS Packet Scheduler	
🗹 📇 File and Printer Sharing for Microsoft Networks	
Internet Protocol Version 6 (TCP/IPv6)	
🗹 📥 Internet Protocol Version 4 (TCP/IPv4)	
Link-Layer Topology Discovery Mapper I/O Driver	
🗹 📥 Link-Layer Topology Discovery Responder	
	=
Install Uninstall Properties	
Description	
Allows your computer to access resources on a Microsoft	
network.	
	ncei

iternet Pr	otocol version 4 (TCP/I	PV4) Propertie	s		0 00
General					
You car this cap for the	n get IP settings assigned ability. Otherwise, you ne appropriate IP settings.	automatically if ed to ask your	your n netwo	network su rk adminis	ipports trator
() ()	otain an IP address autom	atically			
-@ Us	e the following IP address	:			
IP ac	ldress:	192.1	68.	0.160]
Subr	et mask:	255 .	ο.	0.0]
Defa	ult gateway:]
o ol	otain DNS server address	automatically			
-@ Us	e the following DNS serve	r addresses:			
Prefe	erred DNS server:]
Alter	nate DNS server:		•	•]
V	alidate settings upon exit			Advar	nced
			ОК		Cancel

Select Internet Protocol Version 4 (TCP/IPv4)

Internet Protocol Version 4 Setting to be used



Steps for MacOS

- 1. Click System Preferences -> Network -> Ethernet
- 2. Select Configure IPv4: Manually, and enter values as shown below

Status:	Connected Ethernet is currently active and has the IP
Configure IPv4:	Manually 🗘
IP Address:	192.168.0.1
Subnet Mask:	255.0.0.0
Router:	
DNS Server:	
Search Domains:	

Available Models



Ordering Information

SKU	Model Handle	Description
71025	HP1-82F	Hyperion Gigabit Switch with OpticalCON Duo (Front)
71026	HP1-81	Hyperion Gigabit Switch NO OpticalCON
71027	HP1-82R	Hyperion Gigabit Switch with OpticalCON Duo (Rear)
71028	HP1-83F	Hyperion Gigabit Switch with LC Duplex (Front)
71029	HP1-83R	Hyperion Gigabit Switch with LC Duplex (Rear)

Accessories and Recommended Products

SKU	Description
51155	Gigabit LC Fibre Optic Hyperion SFP Module (SFP-1GE-LX-1310nm)
73910	US Mains plug powerCON cable
73911	UK Mains plug powerCON cable
73912	EU Mains plug powerCON cable
73913	AU Mains plug powerCON cable



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