

Hitachi Compute Blade 8Gbps Fibre Channel Switch Accessory DVD (English)

Developed on: October, 2013 (Rev.04-01)

Readme.pdf

Supported hardware

- 8Gbps FCSW module for Compute Blade 2000:
 - GVX-BE2FSW1X1**, GVX-BE2FSW2X1**
 - GV-BE2FSW1X1-*
- 8Gbps FCSW module for Compute Blade 500:
 - GGX-BE3FSW1X1**, GGX-BE3FSW2X1**
 - GG-BE2FSW1X1-*

Supported Fabric OS(FOS)

v7.0.2c

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Please make sure to refer a proper manual in the DVD for any installation work with you.

Revision History

Revision	Date	Description
00-00	November 2009	Initial Public release. (FOSv6.2.0_ht1)
00-01	January 2011	Updated Readme*.pdf Added model names for HDS to Supported hardware
00-02	April 2011	Updated Readme*.pdf The new Compute Blade branding. (old name:BladeSymphony) See Note.
01-00	September 2011	Updated Readme*.pdf Changed from FOSv6.2.0_ht1 to FOSv6.3.2d. Supported for AccessGateway. Added the following commands to "Supported FCSW commands" - ag - portcfgpersistentdisbale - portcfgpersistentenable
02-00	March 2012	Updated Readme*.pdf Added Compute Blade 500 to Supported hardware
03-00	September 2012	Updated Readme*.pdf Changed from FOSv6.3.2d to FOSv6.3.2d1.
04-00	April 2013	<ul style="list-style-type: none">• Updated Readme*.pdf• Changed from FOSv6.3.2d1 to FOSv7.0.2c• Removed the following commands from "Supported FCSW commands"<ul style="list-style-type: none">- fwconfigure- interopmode• Added the following commands to "Supported FCSW commands"<ul style="list-style-type: none">- portThConfig- thConfig- sysMonitor• Added "Hitachi 8Gbps Fibre Channel Mezzanine" to Supported mezzanine card for AccessGateway• Changed the content in the DVD
04-01	October 2013	Updated Readme*.pdf <ul style="list-style-type: none">• Removed "SNMPv3" from list of "Unsupported functions"• Added the proviso that Inform function of SNMPv3 is not supported.

Note:

The BladeSymphony server name has been changed to Hitachi Compute Blade. If you are using BladeSymphony based server products, substitute references to Hitachi Compute Blade with BladeSymphony.

About Compute Blade

This Embedded Fibre Channel Switch can be installed and used in the Compute Blade server.

Please refer to "Compute Blade user's guide" when you use the Compute Blade server.

Contact Information

Please contact your product's seller.

About the security of PC used for setting

Please observe the following note about PC connected with this fibre channel switch.

- Update Windows to the latest.
- Install the vaccine software, and update it to the latest virus definition file.
- Scan the virus in the entire PC with the latest virus definition file.

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For Handling the Equipment Safely

- Do not remove the device
Do not remove this device from the Compute Blade server. The maintenance personnel detaches, installs and changes this device.
Please call the maintenance personnel when these works are necessary.
- Abnormal heat, smoke, abnormal noise, or abnormal smell
Should you find anything abnormal occurring, turn off the power and pull out the power plug from the outlet. Continuing to operate the equipment under that condition may lead to electric shock or fire. Also, keep the area around the outlet cleared of any objects in order to allow pulling out the plug readily

- **Intrusion of foreign matters into the equipment**
Do not allow clips, pins or any other metal items or inflammable items to enter the unit through a vent, etc. Continuing to operate the equipment with intruding objects may lead to electric shock or fire
- **Do not repair, remodel or disassemble.**
Do not attempt to repair, remodel or disassemble on your own. It may lead to electric shock, fire or burn.
- **Impact from falling, etc.**
Do not allow impact imposed on the plug by letting it fall or hitting it against another object. Using the plug after receiving such impact may lead to electric shock or fire
- **Do not place objects on the equipment**
Do not place a vase, potted plant or any other container with water in it or tiny metal items like pins and clips on the equipment. Operating the equipment with intruding objects of such mentioned above may lead to electric shock or fire.
- **Be alert to laser beam.**
Do not look laser beam straight. Do not look laser beam using an optical device.
Under the laser module cover, laser beam is being emitted. Do not remove the cover of an unused port.
- **Vent**
A vent aims to prevent internal temperature from rising. Do not cover up vents by placing any objects in front of or against them. Otherwise internal temperature may rise, causing fire or failure to occur. Additionally, keep vents clear of dust by periodically checking and cleaning them up.
- **Not designed to operate in humid or dusty environment**
Avoid storing or using the equipment in a moist, humid or dusty environment. It may lead to electric shock or fire.

- Avoid storing or using the equipment in the corroded gas and in the place with the vibrations.

If the device is put on the place where lamp soot and corroded gas are generated, and the vibration continues, it causes the failure.

- Avoid storing or using the equipment in the high temperature.
Avoid direct sunshine and near the heat apparatus as stoves. It causes the failure.

- Radio interference

When installed next to other electronic equipment, adverse effect may occur because of interfering with each other. In particular, with a television set or a radio in the vicinity, some noise may occur on the equipment. In this case, perform the following steps:

- Place the equipment as far way as possible from the TV or radio.
- Change the orientation of the antenna of the TV or a radio.
- Assign different outlets to different media.

- Do not cut the power supply while operating.
- Avoid a rapid temperature change. It causes the failure.

1 . Introduction

Thank you for purchasing the Embedded Fibre Channel Switch module of Hitachi.

Please refer to each manual of this DVD when you use Embedded Fibre Channel Switch module. Moreover, please refer to the user's manuals for Compute Blade 500 or Compute Blade 2000.

2 . Content of file in this DVD

This DVD consists of the following files.

Classification	Directory	File name	Content of file
FCSW outline/note	-	Readme.pdf	This file
MIB file	MIB	BRCD_REG.mib BRCD_TC.mib	Object file that specifies the vendor characteristic MIB object and the SYNTAX format of the MIB value.
		FA.mib	Object file that specifies the vendor characteristic MIB object and the SYNTAX format of the MIB value.
		SW_v*_*_HITE.mib	Object file that specifies the various switch MIB and the trap information.
Manual (*1)	Manual	FOS_AdminGd_v700.pdf	Fabric OS Administrator's Guide
		FOS_CmdRef_v700.pdf	Fabric OS Command Reference Manual
		FOS_MRM_v700.pdf	Fabric OS Message Reference
		FOS_MIB_v700.pdf	Fabric OS MIB Reference
		FabricWatch_AdminGd_v700.pdf	Fabric Watch Administrator's Guide
		WebTools_AdminGd_v700.pdf	Web Tools Administrator's Guide
		AccessGateway_AdminGd_v700.pdf	AccessGateway Administrator's Guide
For maintenance	firmware	v7.*.**(Zip file)	Fabric OS
For maintenance	CFG¥Native	fcsw_config_default_HIT_r*_Native.txt	Configuration backup file for Native mode
	CFG¥AG	fcsw_config_default_HIT_r*_AG.txt	Configuration backup file for Access Gateway mode

Fabric Watch file	FW¥CB500	FWconfig_sw5460_r*_500_Base.txt FWconfig_sw5460_r*_High.txt FWconfig_sw5460_r*_Low.txt	Hitachi-recommended Fabric Watch configuration file for CB500 Embedded FCSW module
	FW¥CB2000	FWconfig_sw5460_r*_2000_Base.txt FWconfig_sw5460_r*_High.txt FWconfig_sw5460_r*_Low.txt	Hitachi-recommended Fabric Watch configuration file for CB2000 Embedded FCSW module

(*1) Embedded Fibre Channel Switch is equivalent to Brocade 5460 switch that has been described to the manual.

3 . Limitations / note

Embedded Fibre Channel Switch module has some notes and limitations as follows:

(1) Unsupported functions

The Embedded Fibre Channel Switch does not support the following functions.

Do not use the unsupported functions, to prevent trouble or malfunctions.

- Quick Loop (The function is not implemented.)
- Extended Fabric function (The function is not implemented.)
- Alias server
- Management service
- Modem interface
- Set function of switch from Web Tools
- Advanced Performance Monitor function
- Adaptive Networking function
- Default Zoning
- Audit logging
- DHCP
- Administrative Domains
- Role-Based Access Control (RBAC) (Role-name supports only admin and user.)
- Security Policy
- IPv6
- Broadcast zoning
- Multiple NTP servers
- SCP protocol file transfer

(2) Notes of configuration download

Do not change the content of Config file up-loaded by the configupload command. If you download the changed Config file by the configdownload command, we will not assume the responsibility for the accident and the trouble occurred on the switch.

Make sure to use the same switch's Config file when you download the Config file by configdownload command, because the licenses installed in your switch may disappear by downloading with other switch's Config files.

(3) Key input limitation on page display mode

When you execute help command or the command's results can not be displayed on one screen, the telnet screen shows the following message and it may become page display mode.

Type <CR> or <SPACE BAR> to continue, <q> to stop

In this case, do not input any keys except "CR", "SPACE BAR" or "q" as follows, otherwise such inappropriate key inputs may cause troubles or malfunctions.

CR : One line scroll

SPACE BAR : Page scroll

q: Quit

(4) Notes of MIB file

When loading the MIBs in this DVD to SNMP Manager, ensure in the following order.

BRCD_REG.mib --> BRCD_TC.mib --> FA.mib --> SW_v7_0_HIT.mib

(5)Notes of Hitachi-recommended Fabric Watch configuration file

This DVD contains the following three Hitachi-recommended Fabric Watch configuration files.

File name	description
FWconfig_sw5460_r*_*_Base.txt	Hitachi-recommended Fabric Watch configuration file
FWconfig_sw5460_r*_High.txt	Hitachi-recommended Fabric Watch configuration file for "LinkLoss (Link Fail)" and "SyncLoss" and "State Changes" area. Threshold values of these areas are the same as "FWconfig_sw5460_r*_*_Base.txt". This file is used to undo threshold value which was changed by FWconfig_sw5460_r*_Low.txt.
FWconfig_sw5460_r*_Low.txt	Hitachi-recommended Fabric Watch configuration file for preventing alert of "LinkLoss" and "SyncLoss" and "State Changes" area at Blade Power-on or Reboot

On FOS v7.0.x, many LinkFail and LossSync may be counted at all internal ports of 8Gbps FCSW module at Blade Server Power-on or Reboot.

The Blade Servers are properly booted even if those are counted, but if you monitor events of FCSW by Fabric Watch, Fabric watch may notify you of alerts regarding LinkLoss (LinkFail) and LossSync and StateChanges areas at Blade Server Power-on or Reboot.

You can safely ignore these alerts at Blade Server Power-on or Reboot.

Or if you would like to prevent these alert, downloading Hitachi-recommended Fabric Watch configuration file "FWconfig_sw5460_r*_Low.txt" is recommended.

(4) Supported FCSW commands

Only the following command is supported. When the unsupported command is used, results are not guaranteed. Please do not use the unsupported command.

Supported commands

Command name	Classification	Command name	Classification
ag	AccessGateway command	fwconfigreload	Fabric Watch command
aliadd	Zoning command	fwhelp	Fabric Watch command
alcreate	Zoning command	fwportdetailshow	Fabric Watch command
aldelete	Zoning command	fwsettocustom	Fabric Watch command
alremove	Zoning command	fwsettodefault	Fabric Watch command
alishow	Zoning command	help	General-purpose command
aptpolicy	Routing command	ifmodeset	Ethernet command
cfgadd	Zoning command	ifmodeshow	Ethernet command
cfgclear	Zoning command	iodreset	Routing command
cfgcreate	Zoning command	iodset	Routing command
cfgdelete	Zoning command	iodshow	Routing command
cfgdisable	Zoning command	ipaddrset	Ethernet command
cfgenable	Zoning command	ipaddrshow	Ethernet command
cfgremove	Zoning command	ipfilter	Ethernet command
cfgsave	Zoning command	islshow	Display command
cfgshow	Zoning command	killtelnet	Ethernet command
cfgsize	Zoning command	licenseadd	License command
configdownload	Maintenance command	licenseidshow	License command
configshow	Maintenance command	licenseremove	License command
configupload	Maintenance command	licenseshow	License command
configure	Maintenance command	login	General-purpose command
date	General-purpose command	nsshow	Display command
diagclearerror	Diagnosis command	passwd	Password command
diagshow	Diagnosis command	passwdcfg	Password command
dlsreset	Routing command	portcfggport	Port command
dlssset	Routing command	portcfgislmode	Port command
dlssshow	Routing command	portcfglport	Port command
errclear	Maintenance command	portcfgnpivport	Port command
errdump	Maintenance command	portcfgpersistentdisable	Port command
errshow	Maintenance command	portcfgpersistentenable	Port command
exit	General-purpose command	portcfgshow	Port command
fabricshow	Display command	portcfgspeed	Port command
firmwaredownload	Firmware command	portcfgtrunkport	Trunk command
firmwarecommit	Firmware command	portdisable	Port command
firmwaredownloadstatus	Firmware command	portenable	Port command
firmwareshow	Firmware command	porterrshow	Port command
fwalarmsfilterset	Fabric Watch command	portlogclear	Port command
fwalarmsfiltershow	Fabric Watch command	portloginshow	Port command
fwclassinit	Fabric Watch command	portname	Port command

Command name	Classification	Command name	Classification
portperfshow	Port command	tempshow	Display command
portstatsclear	Maintenance command	thconfig	FabricWatch command
portthconfig	Fabric Watch command	timeout	Maintenance command
reboot	Maintenance command	trackchangeset	SNMP command
seccertutil	Maintenance command	trackchangesshow	SNMP command
sensorshow	Display command	trunkdebug	Trunk command
sfpsshow	Display command	trunkshow	Trunk command
snmpconifg	SNMP command	tsclockserver	NTP command
supportftp	Maintenance command	tstimezone	NTP command
supportsave	Maintenance command	uptime	Maintenance command
supportshow	Maintenance command	urouteshow	Routing command
switchbeacon	General-purpose command	usbstorage	Maintenance command
switchdisable	Maintenance command	userconfig	Account command
switchenable	Maintenance command	version	Maintenance command
switchname	General-purpose command	zoneadd	Zoning command
switchshow	Display command	zonecreate	Zoning command
switchstatuspolicysset	Maintenance command	zonedelele	Zoning command
switchstatuspolicysshow	Maintenance command	zoneobjectcopy	Zoning command
switchstatusshow	Maintenance command	zoneobjectexpunge	Zoning command
syslogdfacility	Syslog command	zoneobjectrename	Zoning command
syslogdipadd	Syslog command	zoneremove	Zoning command
syslogdipremove	Syslog command	zonestow	Zoning command
syslogdipshow	Syslog command		
sysmonitor	Fabric Watch commnad		

(5) Attentions for using FCSW commands

The switch command can be executed only through Ethernet connector.

The following commands can be executed only through serial port connection.

- IP address confirmation (ipaddrshow command)
- IP address setting (ipaddrset command)
- Confirmation of link setting of Ethernet port (ifmodeshow command)
- Setting of link of Ethernet ports (ifmodeset command)

Other commands executions may cause unexpected reboot or serious problems like the freeze of switches.

(6) Notes of SNMP function

Only the trap function is supported on the SNMP functions.

Note that Informs which is the extended function of SNMPv3 is not supported.

We will assume no responsibilities for the following troubles.

- Trouble of abnormal operation when you change the setting of the switch by the SNMP-Set command

- Trouble of reliability of the message and data on SNMP manager when you manage the condition of the switch by the SNMP-Get command

The switch MIB file (SW_v*_*_HITE.mib) in this DVD is changed the non-supported trap event message format in this switch from the original MIB file provided by the switch vendor. If you already use the switch of the same vendor and the vendor original MIB file (SW_v*_*.mib) is loaded to the SNMP manager, the 'Invalid event parameter' error occurs when SNMP manager receives the trap from this switch. You can avoid this error by loading the MIB file (SW_v*_*_HITE.mib) in this DVD.

(7) AccessGateway limitations

AccessGateway(AG) is supported on the following conditions.

- Supported hardware : Compute Blade 500
 Compute Blade 2000
- Supported FOS : v6.3.2d or later
- Supported mezzanine card :

FOS Version	v6.3.2d and v6.3.2d1	v7.0.2c or later
Supported mezzanine card	Emulex products	- Emulex products - Hitachi 8Gbps Fibre Channel Mezzanine

- Interoperability: Brocade FCSW products

The following AG functions are supported.

- Enable or disable AccessGateway mode.
- Display current configuration and state of AG.
- Configure and display F_Port to N_Port mapping.
- Configure and display Port Group policy.
- Create or remove a Port group.
- Display Port Groups and Member N_Ports.
- Add or delete N_Ports in Port group.

Failover/Failback function of AG are NOT supported.

By default, this function is enabled.

Please set to disable when you use the AG.

The following operands of ag command are supported:

- 1 ag --help
- 2 ag --show
- 3 ag --modeshow | --modeenable | --modedisable
- 4 ag --mapshow
- 5 ag --mapset | --mapadd | --mapdel
- 6 ag --pgshow
- 7 ag --pgcreate
- 8 ag --pgadd | --pgdel
- 9 ag --pgrename
- 10 ag --pgremove
- 11 ag --failoverdisable
- 12 ag --failovershow
- 13 ag --failbackdisable
- 14 ag --failovershow

4 . Default settings

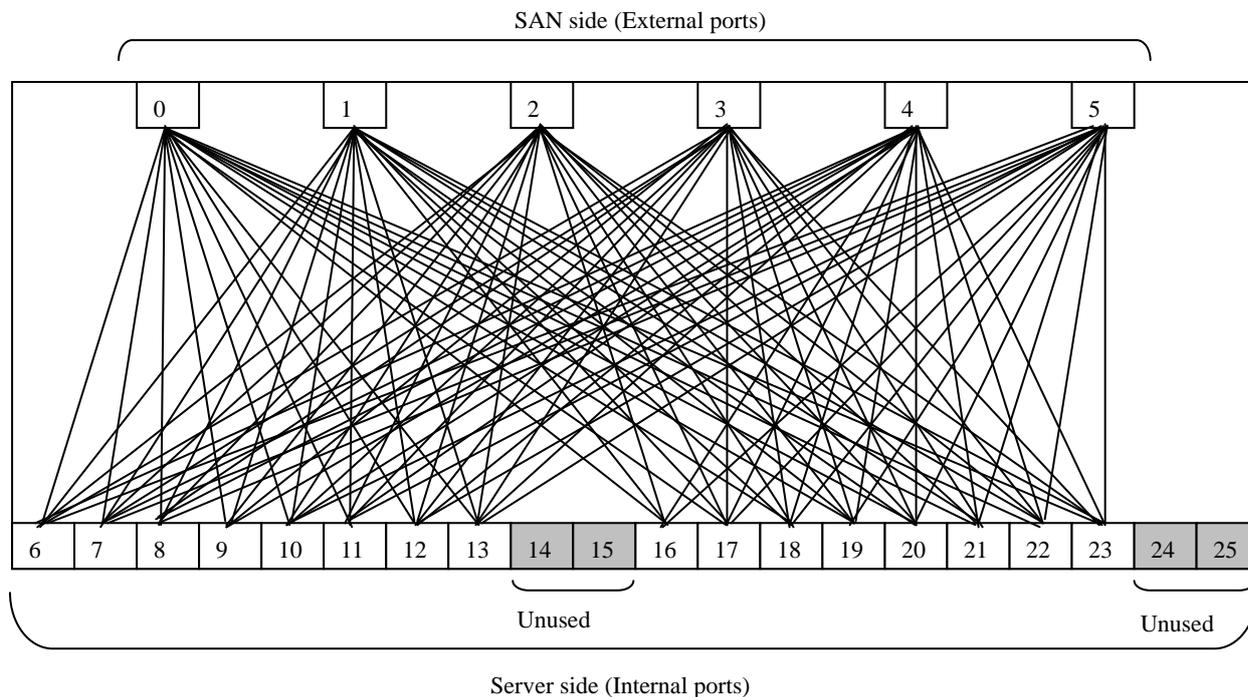
Factory settings are as follows:

(1) Zoning

When the switch is shipped, zones are defined as follows.

Zone configuration	Zone name	Zone members (Port No.)	Zone configuration	Zone name	Zone members (Port No.)	Zone configuration	Zone name	Zone members (Port No.)
FCSW1	zone0006	0, 6	FCSW1	zone0206	2, 6	FCSW1	zone0406	4, 6
	zone0007	0, 7		zone0207	2, 7		zone0407	4, 7
	zone0008	0, 8		zone0208	2, 8		zone0408	4, 8
	zone0009	0, 9		zone0209	2, 9		zone0409	4, 9
	zone0010	0, 10		zone0210	2, 10		zone0410	4, 10
	zone0011	0, 11		zone0211	2, 11		zone0411	4, 11
	zone0012	0, 12		zone0212	2, 12		zone0412	4, 12
	zone0013	0, 13		zone0213	2, 13		zone0413	4, 13
	zone0016	0, 16		zone0216	2, 16		zone0416	4, 16
	zone0017	0, 17		zone0217	2, 17		zone0417	4, 17
	zone0018	0, 18		zone0218	2, 18		zone0418	4, 18
	zone0019	0, 19		zone0219	2, 19		zone0419	4, 19
	zone0020	0, 20		zone0220	2, 20		zone0420	4, 20
	zone0021	0, 21		zone0221	2, 21		zone0421	4, 21
	zone0022	0, 22		zone0222	2, 22		zone0422	4, 22
	zone0023	0, 23		zone0223	2, 23		zone0423	4, 23
	zone0106	1, 6		zone0306	3, 6		zone0506	5, 6
	zone0107	1, 7		zone0307	3, 7		zone0507	5, 7
	zone0108	1, 8		zone0308	3, 8		zone0508	5, 8
	zone0109	1, 9		zone0309	3, 9		zone0509	5, 9
	zone0110	1, 10		zone0310	3, 10		zone0510	5, 10
	zone0111	1, 11		zone0311	3, 11		zone0511	5, 11
	zone0112	1, 12		zone0312	3, 12		zone0512	5, 12
zone0113	1, 13	zone0313	3, 13	zone0513	5, 13			
zone0116	1, 16	zone0316	3, 16	zone0516	5, 16			
zone0117	1, 17	zone0317	3, 17	zone0517	5, 17			
zone0118	1, 18	zone0318	3, 18	zone0518	5, 18			
zone0119	1, 19	zone0319	3, 19	zone0519	5, 19			
zone0120	1, 20	zone0320	3, 20	zone0520	5, 20			
zone0121	1, 21	zone0321	3, 21	zone0521	5, 21			
zone0122	1, 22	zone0322	3, 22	zone0522	5, 22			
zone0123	1, 23	zone0323	3, 23	zone0523	5, 23			

Embedded Fibre Channel Switch Switch Domain : 1



(2) Active port settings

Factory settings are shown as the table below.

Model name	Total number of active ports	Number of active port (Port No.)
GVX-BE2FSW1X1 **	12	0-3, 6-13
GGX-BE3FSW1X1 **		
GVX-BE2FSW2X1 **	22	0-5, 6-13, 16-23
GGX-BE3FSW2X1 **		

(3) Other settings

About default settings of the others, please refer following file.

FOS_CmdRef_v700.pdf