Korenix JetNet Industrial Managed Switch JetNet 5008G-P
SOFTWARE RELEASE Notes

Before Upgrade

Before you use the Switch firmware, please ensure that you know the product number and use the correct firmware version. By reading the file, you can know the new feature and changes, the fixed bugs and the restrictions. You can find the latest firmware in the Korenix web site, http://www.korenix.com or get the help from Korenix Customer Support, Korecare@korenix.com .

About This Software Version

The version number and the release date.

Firmware Version	Boot Loader Version	Release Date	Model
V1.0	V1.6.2.3	July. 12, 2007	Official release
V2.0	V1.6.2.9	Nov. 9, 2007	Official release
V2.1	V1.6.2.10	Apr. 14, 2008	Official release
V2.2	V1.6.2.11	June 24, 2008	Official release
V2.3	V1.6.2.12	30-Nov,2009	Official release

CAUTION: *You can only update the correct firmware to the JetNet switches. Ensure the product model number before you start updating. If the version of Boot Loader is not match with JetNet 5008G-P then upgrade firmware first then Boot Loader, ensure the power state is stable during the upgrade. You can upgrade firmware and boot loader through JetView commander.*

Important!

Upgrade firmware shall follow the following sequence:

- First, upgrade latest version firmware by JetView utility.
- Second, upgrade Boot loader by JetView utility.
- After Boot loader upgrade finished, it will auto restart system to enable the new functions.

New Changes and Improvement:

The following changes apply to the version v 2.3:

- Clone of JetNet5008G-P-v2.2.10
- Add Unknown Multicast send to query ports feature
- Add DHCP Option 82 function
- Add IEEE 802.1AB LLDP function
- Fix the firmware upgrade bug on some EN29LV649H flash (Commercial Grade)
- Add new feature of SFP
  - Support DDM SFP
  - Wed UI and Warning event of SFP DDM
  - Three SFP check
    - Duplicated serial number check

      Check duplicated serial number and only one duplicated SFP can work
    - Checksum check

      SFP can't work if checksum is not correct
    - Certification check

      Non-certified SFP/ DDM SFP only can Transmission.
- Add DI warning event
- Armboot v 1.6.2.12 provides Menu UI and improve i2c access capability for DDM SFP
- Limits 2Mbps all frames to CPU, except PDU
- Change administrator password length from 8 to 32 characters. (Username length is the same. (20 characters))
- add relay function that the failure of Power 1 or 2 cause alarm in CLI mode
- Change $PROMPT to 'switch#'

The Following changes apply to the version v 2.2 and Armboot loader v1.6.2.11:

- Supports Alarm Relay function on Hardware version 2.0.
- Add Alarm Relay hardware components and change switch MAC controller to support -25℃ operating temperature.
- Supports EON EN29LV640T flash for -25℃ operating temperature.
- Change ArmBoot version from V1.6.2.10 to V1.6.2.11 for commercial or industrial grade Flash ROM.
- Supports new Private MIB for Event Alarm Relay control.

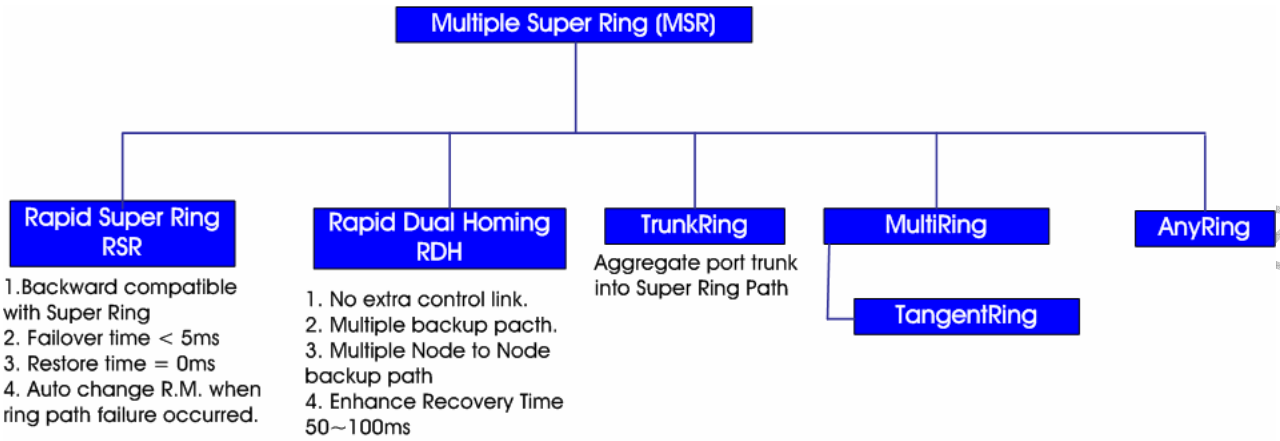
The following changes apply to the version v 2.1 and ArmBoot loader V1.6.2.10:

- Support more type of SFP fiber transceiver in JetView utility and Command Line Interface

(CLI), the SFP fiber transceiver indicated as following table:

Korenix P/N	Description
SFP100MM	Multi-mode 100Mbps 2KM Fiber Transceiver
SFP100MM-w	Multi-mode 100Mbps 2KM Fiber Transceiver, Wide Opr. Temp.
SFP100SM30	Single mode 100Mbps 30KM Fiber Transceiver
SFP100SM30-w	Single mode 100Mbps 30Km Fiber Transceiver, Wide Opr. Temp.
SFP100SM60	Single mode 100Mbps 60Km Fiber Transceiver
SFP100SM60-w	Single mode 100Mbps 60Km Fiber Transceiver, Wide Opr. Temp.
SFP100SM80	Single mode 100Mbps 80Km Fiber Transceiver
SFP100SM80-w	Single mode 100Mbps 80Km Fiber Transceiver, Wide Opr. Temp.
SFP100SM100	Single mode 100Mbps 100KM Fiber Transceiver
SFP100SM100-w	Single mode 100Mbps 100KM Fiber Transceiver, Wide Opr. Temp.
SFP100SM120	Single mode 100Mbps 120KM Fiber Transceiver
SFP100SM120-w	Single mode 100Mbps 120KM Fiber Transceiver, Wide Opr. Temp.
SFPGSX	1000Base-SX multi-mode transceiver
SFPGSX-w	1000Base-SX multi-mode transceiver, Wide Opr. Temp.
SFPGSX2	1000Base-SX plus multi-mode transceiver
SFPGSX2-w	1000Base-SX plus multi-mode transceiver, Wide Opr. Temp.
SFPGLX10	1000Base-LX single-mode transceiver 10KM
SFPGLX10-w	1000Base-LX single-mode transceiver, 10KM, Wide Opr. Temp.
SFPGLHX30	1000Base-LHX single-mode transceiver, 30KM
SFPGLHX30-w	1000Base-LHX single-mode transceiver, 30KM, Wide Opr. Temp.
SFPGXD50	1000Base-XD single-mode transceiver, 50KM
SFPGXD50-w	1000Base-XD single-mode transceiver, 50KM, Wide Opr. Temp.
SFPGZX70	1000Base-ZX single-mode transceiver, 70KM
SFPGZX70-w	1000Base-ZX single-mode transceiver, 70KM, Wide Opr. Temp.
SFPGLX40B13	1000Base-LX single-mode Bi-directional transceiver, 40KM. Tx 1310nm, Rx 1550nm
SFPGLX40B13-w	1000Base-LX single-mode Bi-directional transceiver, 40KM,Tx 1310nm, Rx 1550nm, Wide Temp.
SFPGLX40B15	1000Base-LX single-mode Bi-directional transceiver, 40KM, Tx 1550nm, Rx 1310nm
SFPGLX40B15-w	1000Base-LX single-mode Bi-directional transceiver, 40KM, Tx 1550nm, Rx 1310nm, Wide Temp.

- Rename Super Ring plus (Rapid Super Ring) to Multiple Super Ring with various features as following diagram.



- Implement new ring algorithm, the restore time of Rapid Super Ring (R.S.R.) and Rapid Dual Homing (R.D.H.) reduced to zero second.
- Change SNMP Obejct ID (O.I.D) from 1.3.6.1.4.1.24062.2.1.3 to 1.3.6.1.4.1.24062.2.2.2
- Support system configuration file (JFFS2) recovery function in JetView utility (supported in JetView version 1.3 or above).

The following change apply to the firmware version V2.0 and Boot Loader V1.6.2.9

- Provides Enhance Ring Technology – Super Ring plus with following features:

  a. V1 backward compatibility with JetNet 4000 Series (JetNet 4008, JetNet 4008f, JetNet 4005, JetNet 4005f, JetNet 4508 series).

  b. Single Ring

  c. Ring Coupling

  d. Dual Homing
- Supports JetView v1.1
- New RSR Web UI and new RSR SNMP MIB
- Support IEEE802.1x port based user authentification.
- Support GVRP features
- Support IGMPv3 Snooping
- Support daylight saving function and getting time from PC
- Support force multicast filtering feature
- Display bootloader version in CLI

The following changes apply to the version v 1.0:

- Supports full functions of IGMPv1 & IGMPv2 (ex. Query Interval、Query Maximum Response Time).
- Support JetView v.0.10

The following changes apply to the version v 0.0.7:

- Support new time sync failure warning event.
- Use one MAC address per device
- Support "clock set" and "no clock set" in CONFIG_NODE.
- Support management utility - JetView version 0.6 with following features:
  a. Auto discovery
  b. Group IP Configuration
  c. Group Firmware upgrade
  d. Group Configuration file restore/backup
  e. Group load default configuration file
  f. Device Discovery can bind specific network interface or flood to all interfaces.

Fixes for Known Faults

The following fixes apply to version v 2.3

- Fix mac table of dot1xPortStatus wrong display issue.(# 1017).
- Fix b RSTP status always shows "Shared" in Web interface if connect to shared hub(# 1021).
- Fix EEPROM wrong code for SFP Transceiver (#1022).
- Fix 2 DUT connect together with RSTP & Ping testing issue.(# 1024)
- Fix static trunk with RSTP issue.(# 1025).
- Fix mac address of static aggregation will not be updated issue.(#1026)
- Fix Web login will request install CHT front issue in pure English O.S. (#1027)
- Fix IGMP Snooping enable in globally but disable in vlan, after save config and reboot, vlan IGMP Snooping would enable. (# 1065)
- Fix Gigabit ports can't be shutdown issue. (# 1062)
- Fix VLAN Port issue of frame type configuration.(#1066).
- Fix RSTP interoperability testing issue with Cisco switch.(# 1013).
- Fix VLAN entry display issue. (# 13).
- Fix display issue when executes “show running-config “will lost entry.(# 64)
- Fix display issue when executes "switch# sh mac-address-table dy vlan 1" will lost entry. (# 67).
- Fix display issue when executes "Switch#show ip igmp snooping multicast all" will lost entry.(# 118)
- Fix display issue that list all commands will not auto feed and return.(#205).
- Fix DDM SFP transceiver ejects issue. (# 1084).
- Fix DDM SFP wrong RX power value issue.(# 1085).
- Fix MSR loop issue when connects with JetNet 5628G, JetNet 5010G.(# 1082).
- Fix SFP DDM function. (# 1087)
- Fix SFP DDM warning-event configuration issue. (# 1088).

- Fix Web UI Backup issue.(# 1094)
- Fix RSTP path cost configuration issue.(# 933).
- Letting Cisco switch become root and then non-root by changing its priority when connecting it more than three link to JN5628G(B) would cause loop continually. (During the time, every ports of Cisco with different path cost and port priority.) (# 1095).
- Fix IGMP member join issue under fully traffic.(# 1097)
- Fix daylight saving issue. (# 1099)
- Fix MSR control packets will not be received if ring port is assigned in VLAN1. (# 1080)
- Fix multicast stream filter cannot work properly issue. (# 1104)
- Fix multicast filtering in querier, the query would be filtered when it turned out a port. (# 1106)
- Fix add VLAN and dumping mac-address-table will cause system hang issue.(# 1108)
- Fix IGMP query with wrong CFI value issue.(# 1111).
- Fix As DUT is a querier with manage vlan not one, a query with tag turned out to a vlan trunk port would be tag off.(pic A) Also it happened in IGMP report sending out to a router port when the DUT only IGMP Snooping enabled, and the join can't be successfully in that vlan.(pic B) (bug# 1109).
- A DUT only igmp snooping enabled, then a query with tag turned out ports would be tag off even it's a trunk member of the vlan. (bug#1112).
- Fix wrong description of SNMP OID (1.3.6.1.4.1.24062.2.2.1.2.5.7). (#1115)
- Fix IGMP packet can't forward issue when multicast filtering is enabled. (#1124)
- Fix MAC address table will be cleared issue when shut-down the port 1~7. (#1123)
- Fix system hanged issue when MSR enable with multiple VLAN and executed "show mac-address-table dynamic" function.(#1128)
- Fix flash programming will take long time issue. (#1138).
- Fix IGMP leave issue. (#1139).
- Fix last-member-query-intervel in vlan 1 always shows 1000 centiseconds issue. (#1140).
- Fix snooping table does not clear issue if enabled immediate-leave in vlan 1000. (#1141).
- Fix MSR issue with JN5628G that can't show blocking port properly issue.(#1081).
- Fix RDH issue that connects two unmanaged switches individually and does not change forwarding if disconnect the link between two unmanaged switches.(#1129).
- Fix DHCP IP / Static IP configuration change issue.(#1145, #1157).
- Fix Gigabit port speed change and link issue.(#1147).
- Fix login display issue.(#1148).
- Fix the configurations lost will lost when enable DHCP server function. (#1162).
- Fix multicast traffic will cause system crash issue.(#179)

The following fixes apply to version v 2.1

- Fix identification number issue of SFP Gigabit SX transceiver and correct system parameters for SFP transceiver. As this correction, JetNet 5008G-P can support SFP check function and deliver exactly result to JetView utility.
- Fix IEEE 802.1x port status table update issue.
- Fix RSTP port status change issue when it link to a share hub.
- Fix dynamic VLAN table display issue in command line interface (CLI).
- Fix SFP transceiver update behavior. The correction is for SFP transceiver plug-in and link up/down state change.
- Fix power-on ring recovery time over 500 ms issue (version V1.3e). The ring recovery time of system power-on is zero ms in firmware V2.1 by M.S.R. function.
- Fix TrunkRing function with zero recovery time.
- Fix Dual Homing issue when device power-up will cause Cisco switch port disable. The dual homing issue is fixed by 2.1 Rapid Dual Homing function.
- Fix RSTP inter-operability testing issue with Cisco 2950 switch, when JetNet 5010G multi-link with Cisco switch and change Root switch from JetNet 5010G to Cisco switch will cause uplink port change port stat from blocking to forwarding mode and start looping.
- Correct GVRP and RSTP can't co-work issue when port link up and down event occurred will cause GVRP does not work exactly.
- Correct Fiber port flow control issue.
- Fix ring port can't forward and receive data issue in version 2.1.
- Fix DHCP client issue when one of Ring entity enabled DHCP server, all of DHCP client will get same IP address.
- Update Web help information for misspelling issue.

The following fixes apply to firmware V2.0 and boot loader V1.6.2.9

- Fix SNMP MIB issue for static MAC table.
- Fix IGMP snooping table is not clear issue when disable IGMP query and snooping functions.
- Fix authentication issue for SMTP E-mail server.
- Fix SNMP management issue for NTP server configuration.
- Fix SNMP PortTrunkAggregatorSettingTable. (OID：1.3.6.1.4.1.24062.2.1.3.3.4.1.1) issue which can aggregate port #10 into Trunk group.
- Fix port mirror issue when plugged out and insert it late will cause destination port receive double packet.
- Fix RSTP inter-operability testing with Cisco Switch 2950, when change root switch from JetNet 5008G to Cisco switch will cause wrong root port information with wrong RSTP port state.
- Fix Dual Homing II limitations.

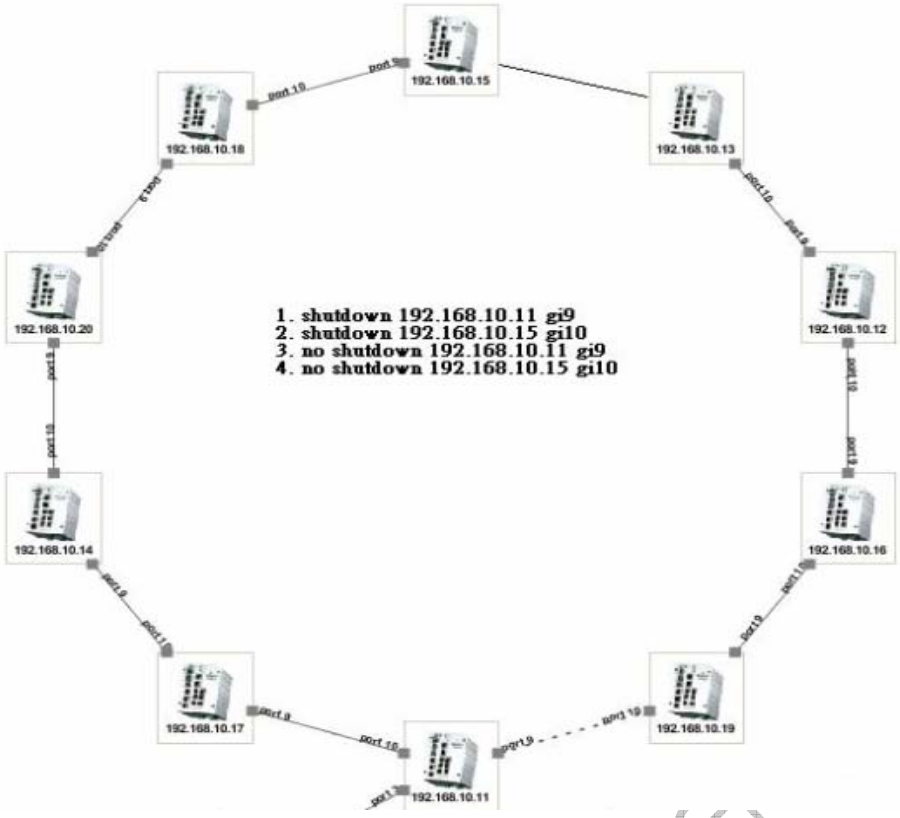
- Fix R.S.R. restore time is not equal to zero issue when device executes device power-on.
- Enhance the precision of system time.
- Fix SFP100MM fiber transceiver recognized issue.
- Fix SNMP trap issue of link-down/up interface information that could not be recognized by SNMPc.
- Fix non-Ring Master node power-on will take 9 seconds to stable state.
- Fix RSR restore time too long problem.
- Fix Ring Master auto-election fail and looping issue when Ring Master power-on.
- Fix JetView can't work issue when enable DHCP server function.
- Fix IGMP issue that can't receive IGMP report message unless IGMP Query enabled first.
- Fix log function issue for link down, ring topology change.

The following fixes apply to version v 1.0.

- Fix 10/100Mbps interface link fail issue.
- Fix Gigabit port #9 can not show transceiver information issue.
- Fix SFP transceiver's EEPROM will be overwrite problems.
- Fix SFP compatible issues with JetNet 3010G.
- Fix SFP single-mode 155M link problems, when rebooting device will cause SFP transceiver link fail.
- Fix Web interface display issue for IGMP query function that show wrong state when enable IGMP Query.
- Fix JetView firmware upgrades issue.

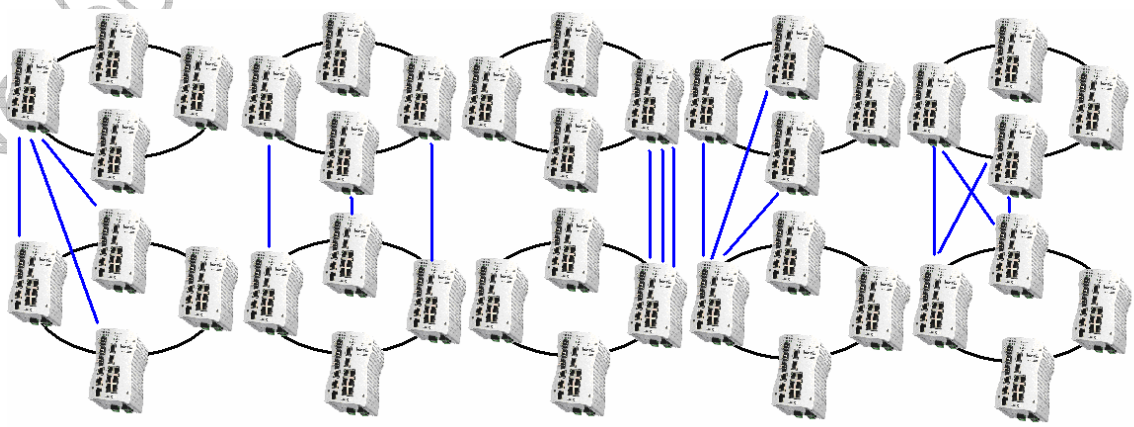
Known Restrictions or Limitation

- Important!! Upgrade firmware shall follow the below sequence.
  - First, upgrade firmware v2.3 by JetView v1.4 or above
  - Second, upgrade Bootloader v1.6.2.12 by JetView v1.4 or above
- Bootloader v1.6.2.12 should use firmware 2.3 or above.
- SuperRingv1 can't run properly with LLDP running.
- As the ring topology as below, link down /up active ring path will cause the ring status show "Abnormal" when this architecture working with JetView Pro for 2 days, also one of DUT will not be discovery by JetView Pro utility (bug# 1143,1144)



- Can’t add "port id" information into lldp packet (# 1158
- The IGMP join packet can’t be learned by aggregate port and will cause load balance fail or looping.(#1159)
- The querier can’t auto election when DUCT connect with Cisco Switch. (# 1110)
- Current Ring version does not support AnyRing function Ring version, but in the SNMP interface still can set and will show "notsupported". (# 1061).
- SnmpV3UserTable, snmpTrapServerEnable, and snmpTrapServerTable can't be modified in SNMP when adding a new SNMP V3 user, read only. (# 1063).
- When adding another set of SNMP community string (R & RW), it would cause to fail to write data by SNMP UI. As well, the SNMP Community String setting can't be modified normally even in Web. (# 1064).
- The Reset Time and Hold Time of Ping Failure of Relay can be set to 0 in SNMP. And it can be set to no number in Web too. (# 1067).
- The scroll bars of DI Number and DI state of fault relay show twice in Web interface. (# 1068).
- The Web interface always shows default gateway as 0.0.0.0 whether we set it by Web UI or not. Also, the second time setting wouldn't replace the first time setting. (# 1074).
- Remove Cisco PVST packet’s tag and forward to Cisco will cause port blocking. (# 1083).
- Set the port with PVID 2 and belongs Management VLAN ID 2 that connected with Cisco switch will cause loop event occurred between DUT and Cisco Switch.(# 1089).
- The TX mirror destination port will receive tagged packet from source ports which are untagged port and whatever it is belongs to a VLAN member or not.(# 1090).
- The MIB entries OID 1.3.6.1.4.1.24062.2.2.6.4.4.1 and OID 1.3.6.1.4.1.24062.2.2.6.4.4.2 should be rename to "Mutiple super ring" and "Mutiple super ring information". (# 1091).

- If link up 2 ring port with different Ring ID, the status of two rinig port still shows normal. It should be abnormal.(# 1093).
- NodeUp a static trunk ring will cause some device mac table learning failed and the transmission becomes abnormal. (# 1096).
- The re-authentication function is not working properly. (# 1098)
- If type "snmp-server user shaUser1 1 v3 auth sh(a) sha00000" without the '(a)', the entry won't be created. (# 1100)
- The snmp trap can't display detail information, ex: di,do. (# 1101)
- In RDH architecture, if the uplink ports are aggregated as trunk group and one of port with different RDH port priority, then the other ports of the group won't be counted in RDH ports. And it will cause abnormal data transmission. (# 1103)
- VLAN table did not display normally in WEB while lots of VLAN exist and edit the VLAN table. (# 1126)
- DUT can set gvrp enable before set trunk under WEB UI, but it can't be under CLI UI (# 942).
- If link up Dual Homing port more than 7 ports, it will lead to DUT work abnormal. (eg. Viedo) (# 949).
- It will lead to disconnect when PC2 ping PC1 if we node down any DUT in nondual-homing ring (# 961).
- It will take duplicates when we do node up and the recovery time is more than 1 sec (# 981).
- If we change querier's IP, DUT will not change querier (# 1003).
- In the SNMP management mode, the DUT does not restrict aggregate port as trunk group when one is 802.1x enabled.(# 1008).
- Recovery time of node down in topology B and D is over than 1 sec (# 1016), see attached diagram as following.



Topology A Topology B Topology C Topology D Topology E