Korenix JetNet Industrial Managed Switch JetNet 4510
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
V2.0	V1.6.2.10	Jan. 9, 2008	Official release for JetNet 4510
V2.1	V1.6.2.10	21,Apr,2008	Official release for JetNet 4510
V2.3	V1.6.2.12	24-Nov,2009	Official release for JetNet 4510
V2.4	V1.6.2.12	2-Mar,2011	Official release for JetNet 4510 series
V2.4b	V1.6.2.12	Jun,2011	Official release for JetNet 4510 series
V2.5	V1.6.2.12	OCT,2011	Official release for JetNet 4510 series
V2.5a	V1.6.2.12	Jan,16,2012	Official release for JetNet 4510 series

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 JetNet4510 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 new firmware by JetView utility
- Second, upgrade new 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 change applies to firmware V2.5a

■   Increase VLAN groups from 64 to 256.

The following change applies to firmware V2.5:

■   Add ModBus TCP/IP protocol

■   Add Simplified Chinese Web user interface

■   Add new SFP transceiver features:

■   SFP transceiver Scan

■   Eject SFP transceiver

■   Add new Warning event function

The following change applies to firmware version V2.4b:

■   Replace SFP fiber transceiver link first function, and change to fiber mode once SFP Fiber transceiver plugged in.

The following change applies to firmware version V2.4:

■   Clone of JetNet4510-v2.3.38

■   Fix bug# 1306, 1311, 1329, 1332, 1334, 1335, 1336, 1338, 1340

■   Add MSTP function

■   Add Private VLAN and QinQ function

■   Add DNS setting in IP configuration

■   Add SFP DDM function to WEB and SNMP

The following change applies to the version V2.3:

■   Clone of JetNet4510-v2.2.10

■   Add Unknown Multicast send to query ports feature

■   Add DHCP Option 82 function

■   Add 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

           None-certified SFP/ DDM SFP only can tx and rx

           Certified Rule:

None-DDM SFP

Only check OUI (0x001277)

DDM SFP

Check

1. OUI (0x001277)

2. 16 bytes Code

Formula :

Basic field: Base address 1 = 3, Base address 2 = 20,

Base address 3 = 40

User Writeable EEPROM : Base address 4 = 128

For(Offset = 0 to 15)

{

byte [Base address 1 + offset] +

byte [Base address 2 + offset] +

byte [Base address 3+ offset] == byte [Base address 4+ offset]

}

- 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
- 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 2.1:

- 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.

■ Rename Rapid Super Ring to Multiple Super Ring with various features as following diagram.
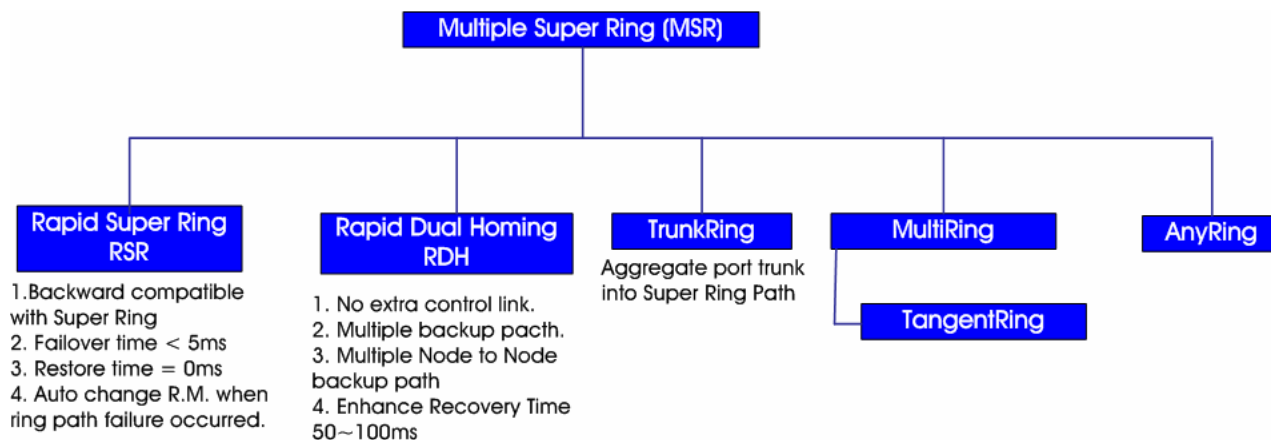
■ Implement new ring algorithm, the restore time of Rapid Super Ring (R.S.R.) and Rapid Dual Homing (R.D.H.) reduced to zero second.

The following change apply to the firmware version V2.0 and Boot Loader V1.6.2.10

■ All features are same as JetNet 5010G v2.0

■ Support Multiple Super Ring (M.S.R.) as following features:

   a. Backward compatibility with Super Ring Version 1 supported in JetNet 4008, JetNet 4508 series.

   b. Provides Rapid Super Ring (R.S.R.), Rapid Dual Homing (R.D.H.), TrunkRing and AnyRing.

■ Support CLI, Web, JetView, SNMP v1/v2c/v3, RMON, DHCP client/server, IEEE 802.1x, IGMP Snooping v1/v2/v3, IGMP Query, IEEE 802.1Q VLAN, GVRP, IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP), IEEE 802.1p class of service, IEEE802.3ad LACP, event warning, and IEEE 802.1p class of service.

Fixes for Known Faults
The following faults fixed and apply to firmware v2.5a.

■ Fix Web interface RSTP configure can't apply issue.

■ Fix (#420)   A latter login to vtysh, either by telnet or web, will get hostname from host. name, which may overwrite the "snmp server name" configuration by a former vtysh session.

■ Fix PVLAN issue. (#1365)

■ Fix - pkt len is wrong when the len of tx pkt with tag is under 60 (#1387)

■ Fix - the auto-nego status of combo port is wrong when 100M SFP is link up(#1388)

■ Fix VLAN issue with 256 VLAN groups and other VLAN configuration issue. (#1390,

#1391, #1392, #1396)

■   Fix- Web UI can't show current Q-in-Q uplink setting. (#1393)

■   Fix port states display with wrong information issue. (#1394)

■   Fix – SFP transceiver plug-in detection issue. (#1395)

The folloing faults were fixed and apply to firmware v2.4 and boot loader V1.6.2.12

■   SnmpV3UserTable, snmpTrapServerEnable, and snmpTrapServerTable can't be modified
    in SNMP when adding a new SNMP V3 user. Only can be read.(#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)

■   Fix management VLAN issue that connects 2 DUTs with management VLAN ID 2, remove
    PC from VLAN1, connects PC to 1st DUT with VLAN2 and ping 1st DUT then will find the
    destination port MAC table is wrong after stop ping. (#1251)

■   Fix Gigabit combo port (8,9,10) configure duplex mod issue that need also change speed
    mode. (bug#1305)

■   Fix DHCP option 82 packet issue that VLAN filed show wrong number. (#1307)

■   Fix JetView can't find device issue when modified IP by JetView. (#1310)

■   Fix local system event log can't record event issue. (Fault relay, DI state, ping failure, Link
    failure, super ring failure, dry relay output, SMTP, syslog local. (#1323)

■   Fix LACP issue when both of DUT's leading port number is not same will cause port
    became root port. (#1326)

■   Fix IGMP snooping issue when setting 2 IP address with different MAC address and
    forwarding data sftream, the second data stream will cover first and caused data stream
    stop sending. (#1328)

The following issues fixed and applies to version 2.4c

■   Fix IGMP report frame format issue; The CFI bit of vlan tag of IGMP report frame is 1 if
    forwarding IGMP report frame to vlan trunk port.(#1346)

The following faults were fixed and apply to firmware v2.4 and boot loader V1.6.2.12

■   Fix device can't be found issue after change device's IP address by JetView utility.

■   Fix CLI show interface with wrong duplex mode issue that configure port 1~7 from auto to
    other speed mode will cause CLI show wrong duplex mode information.(#1171)

■   Fix dumping EEPROM data issue when uses JetView SFP check function. (#1306)

■   Fix CLI display information issue when shutdown interface will display additional
    information.(#1338)

■   Fix port speed configuration issue when configure combo port at 10/100Mbps and then
    shut down port, if the link partner is 5010G, 4010 combo port then it will generate link
    down/up information. (#377)

- Fix VLAN & RSTP issue (#360)
- Fix VLAN configure issue.(#798)

The following faults were fixed and apply to firmware v2.4 and boot loader V1.6.2.12

- Fix JetView demand issue in special network topology. (# 1144)
- Fix IGMP join packet can't be learned by LACP aggregation ports and caused packet loss issue. (# 1159)
- Fix the IGMP querier election function can't work properly when connecting to Cisco switch. (# 1110).
- Fix DI web UI scroll bar display issue that DI number and state will display twice issue. (# 1068).
- Fix the default gateway information in the Web interface can't be modify issue. (#1074);.
- Fix port blocking issue that remove CISCO PVST packet's Tag will caused Cisco Switch block the port.(# 1083).
- Fix compatible issue with CISCO switch that one port PVID set to "2", management VLAN ID set to "2" and access VLAN set to "2" will caused Cisco Switch sent packet with same SRC and DST address; and then caused CISCO switch loop. (#1089)
- Fix port mirror issue that mirroring TX packet without tag. (# 1090)
- Fix MIB entry with wrong naming issue- OID1.3.6.1.4.1.24062.2.2.6.4.4.1 and OID1.3.6.1.4.1.24062.2.2.6.4.4.2. (#1091)
- Fix Trunk Ring issue that one node performs Node-Up will cause MAC table learning fail. (# 1096).
- Fix the re-authentication function does not properly issue. (# 1098)
- Fix Web interface VLAN table display issue while a lot of VLANs exist and edit. (# 1126)
- Fix ring recovery time issue when the ring node power up will take more than 1 second.(# 981)
- Fix IGMP querier IP address can't be changed issue. (# 1003).
- Fix issue that DUT does not restrict to aggregate trunking group by SNMP MIB if there is one port IEEE802.1x is enabled. (# 1008).
- Fix the Recovery time of node down in topology B and D will take over than 1 sec (# 1016)

The following fixes apply to version v 2.3 and Boot Loader V1.6.2.12

- Fix dot1xPortStatusTable of mac address display issue. (# 1017).
- Fix RSTP Web display issue that always shows "Shared" if DUT link up to hub then link down. (# 1021).
- Fix SFP GSX EEPROM read issue. (# 1022).
- Fix Ping fail issue after enable RSTP function. (# 1024)
- Use two DUTs, set port2,3,4 to static aggregation group, save config. Reboot one of DUT,

those aggregation ports may disappear in spanning tree table, and those aggregation ports will not be in forwarding state. (bug# 1025).

■ Fix MAC address table won't be cleaned issue afterone of trunk group member link down. (#1026)

■ Fix Web login in issue that will request install CHT in pure English OS.(#1027)

■ Fix IGMP Snooping global configuration and VLAN IGMP Snooping configure issue.(# 1065).

■ Fix the VLAN frame type change issue the change will cause the VLAN member port removed.(#1066).

■ Fix the RSTP issue when link with Cisco switch more than 3 paths and change root priority will cause loop and all paths forwarding.(# 1013).

■ Fix VLAN entry lose issue.(# 13).

■ Fix "switch# sh running-config" will lose one entry data issue. (# 64).

■ Fix "switch# sh mac-address-table dy vlan 1" page down will lose one entry data issue. (# 67).

■ Fix "Switch#show ip igmp snooping multicast all" will ose entry. (# 118).

■ Fix display issue when executes "Switch(config)#? " the display information will not auto line feed and carry return. (#205)

■ Fix show running-config display issue.(# 235).

■ Fix "Swtich(config)#sfp ddm eject all this command doesn't work issue. (# 1084).

■ Fix DDM display issue about RX Power value. (# 1085).

■ Fix Ring will looping issue when link DUT with JetNet 5628G and link down /up active ring path, the looping will occurred.(# 1082).

■ Fix DDM SFP function doesn't work issue. (# 1087).

■ Fix SFP DDM warning-event enable, but show running-config doesn't display   sfp-ddm warning-event CLI. (# 1088).

■ Fix configuration backup issue that will erase exist file when click "no" in Web interface.(# 1094)

■ Fix RSTP path cost issue.(# 933).

■ Fix MSR protocol issue with JetNet 5628G. (# 1086).

■ Fix IGMP member cannot join group issue when the there is wire speed traffic is injected into Switch.(# 1097).

■ Fix Daylight saving issue. (# 1099)

■ Fix RSR and VLAN interoperability issue. (# 1080)

■ Fix Multicast stream forwarding issue.(# 1104)

■ Fix multicast filtering issue in querier. (# 1106)

■ Fix VLAN add   and display VLAN mac information will cause system hanged issue. (# 1108)

- Fix forwarding queue issue. (# 1111).
- Fix IGMP querier with managed VLAN issue.(# 1109).
- Fix IGMP snooping with VLAN trunk port issue.(#1112).
- Fix IGMP stream can't forwarding when multicast filtering is enabled issue. (#1124)
- Fix port shut down will not clear MAC table issue (port 1~7). (#1123).
- Fix "show mac-address-table dynamic" will causes system hold when switch is MSR enabled with multiple VLANs function. (#1128).
- Fix firmware upgrade will take long time issue.(#1138).
- Fix IGMP group leave can't at same time issue.(#1139).
- Fix last-member-query-intervel time always shows 1000 centiseconds in VLAN 1 issue. (#1140)
- Fix snooping table won't clean issue when DUT executes immediate-leave in vlan 1000. (#1141).
- Fix RSR blocking port issue with JetNet 5628G (#1081).
- Fix RDH link with unmanged Switch issue.(#1129).
- Fix DHCP client can't get IP issue. (#1145).
- Fix Login fail issue.(#1148).
- Fix IP address configuration change from static to DHCP client and won't change to static IP only disable DHCP client.(#1157).
- Restore config which sets dhcp server will cause some parts of configure lost. (It remains in startup-config but lost in running-config.) (#1162).
- Fix multicast traffic (20Mbps) testing will cause system crash issue. (#179)

The following fixes apply to version v 2.1 and Boot Loader V1.6.2.10
- 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 SFP checking function for JetView V1.3.
- Fix the DHCP server IP address can't poll by SNMP issue.
- Fix DHCP client issue when one of Ring entity enabled DHCP server, all of DHCP client will get same IP address.
- Correct help information misspellings issues in Web interface.

Known Restrictions or Limitation
- The GVRP configuration only supports in Web interface. (# 942)
- If link up Dual Homing port more than 7 ports, it will lead to DUT work abnormal. (eg. Video)

(# 949).

- It will lead to disconnect when PC2 ping PC1 if we node down any DUT in nondual-homing ring (# 961).

- The SNMP MIB can't show exactly Ring information after destroy the architecture. (# 977)

- The querier can't change if change querier's IP address (# 1003).

- Current Ring version does not support AnyRing function Ring version, but in the SNMP interface still can set and will show "notsupported". (# 1061)

- 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).

- If link up 2 ring port with different Ring ID, the status of two rinig port still shows normal. It should be abnormal.(# 1093).

- 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)

- The querier can't auto election when DUT connect with Cisco Switch. (# 1110)

- Super Ring v2 can't run with LLDP function. (#1142)

- 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 (# 1143,1144)

- Can't add "port id" information into lldp packet (# 1158)

- Trunk port will send Query packet at same time. (bug#1166)

- The JetView can't upgrade DUT in Win7 platform. (bug#1203)

- When connect a low priority port into an exist LACP group1 with interface fa1 and fa2 will cause fa1 and fa2 MAC table un-update.

- The non-root switch without blocking port, the RSTP recovery time take 45 seconds, the same problem occurred at static trunk (#1231-1). (#1231)

- After aggregate port fa1 & fa2, then plug-in low priority cost forwarding port will cause MAC table does not update; besides the coverage time of blocking time become abnormal. (#1231-1)

- The SMTP and local system log can't sync with right time stamp when DUT enabled the NTP server function and performs system cold start and warm start. (bug#1249)

- IGMP Query V1 and V2 send multicast packet to fa1-3 have rate unstable issue and sometimes can't receive multicast packet when individual send multicast packet. (bug#1252)

- During the GVRP plus LACP integration testing when GVRP disable and enable will

caused system reboot. (bug#1289)

- The device's ring priority value can't be lock. (bug#1290)

- The super ring priority ID should be fixed. (#1290)

- The supre ring does not support RDH function, event the CLI and Web show RDH enable. (#1298)

- MSR V1, V2 testing with Jetview Pro device discovery function will make Super Ring abnormal and becomes Looping; besides, the switch will send "Rxed the packet I sent out" (#1320).

- The local syslog queue can't automatic upgrade, event there is event occurred. (#1363)

- The combination of MSTP, VLAN, Trunk configuration will cause data stream stop forwarding, unless perform system reboot. (#1366)
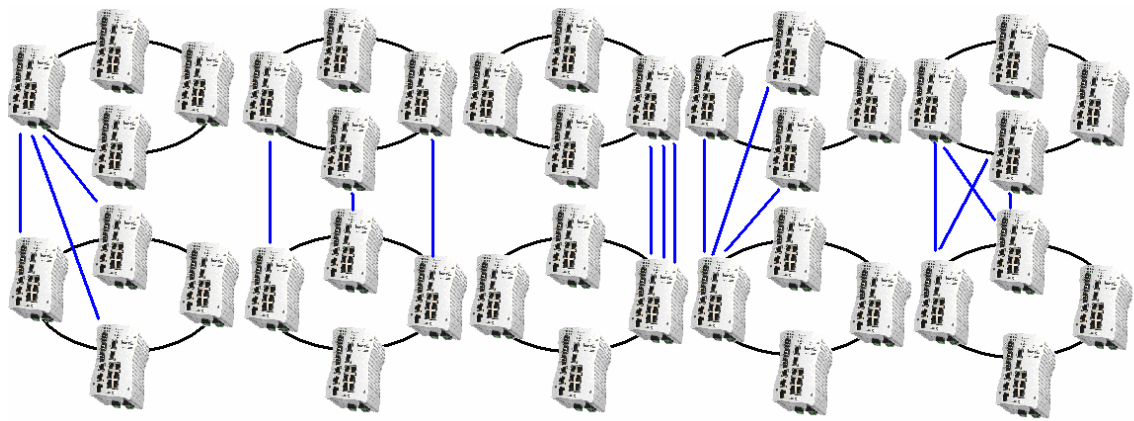
Topology A   Topology B   Topology C   Topology D   Topology E