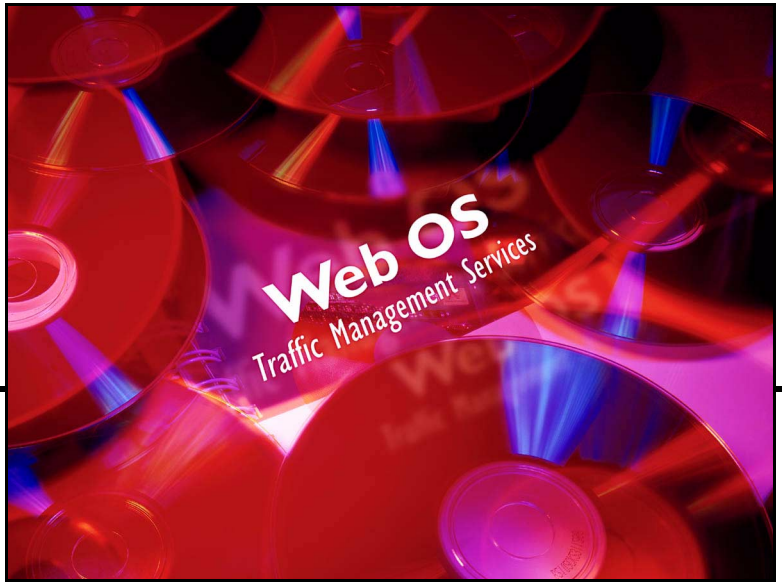
RELEASE NOTES:

Web OS Switch Software



Release 8.1

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Part Number: 050128, Revision A, September 2000

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Release Notes

These release notes provide the latest information regarding your Alteon WebSystems switch with Web OS 8.1 software. This supplement modifies information found in the complete documentation:

- *Web OS 8.0 Command Reference* (part number 050081, Revision A)
- *Web OS 8.0 Application Guide* (part number 050087, Revision B)
- *iSD100-SSL Release Notes* (part number 050133, Revision A)
- *iSD100-SSL Installation and User's Guide* (part number 050125, Revision A)

Please keep this information with your Alteon WebSystems product manuals.

iSD100-SSL Support

Web OS 8.1 switch software includes support for the Alteon WebSystems iSD100-SSL device. When used with an Alteon WebSystems switch, the ISD100-SSL offloads processor-intensive Secure Socket Layer (SSL) encryption/decryption functions from the servers.

The following items have been added to the Web switch Command Line Interface (CLI):

Menu Command	Description
`/cfg/isd`	Display the iSD Menu. This menu includes options for general iSD100-SSL configuration, and submenus for setting specific SSL offload behavior.
`/info/isd`	Show information regarding the iSD100-SSL configuration options.

For details regarding the installation, configuration, and operation of the iSD100-SSL, see the *iSD100-SSL Installation and User's Guide.*

Installing Web OS 8.1

Upgrade Procedure

Use the following procedure when upgrading your Web switch to Web OS 8.1:

1. **Make sure your Web switch is running Web OS 6.0 or higher.**

   The Web OS 8.1 upgrade can be installed only on switches running Web OS 6.0 or higher. Use the `/info/sys` command to check the release level of your switch software. If the switch is running Web OS or ACElerate software prior to version 6.0, you must first upgrade to version 6.0. Instructions can be found in the *Web OS 6.0 Release Supplement* (part 050056B).

2. **Backup the Web switch configuration to a file (optional, but recommended).**

   You can use the `/cfg/ptcfg` command to make a configuration backup using TFTP, or by copying the output of `/cfg/dump` command to a file.

3. **Perform a TFTP download of the Web OS 8.1 software code onto the switch.**

   Install the software using the `/boot/tftp` command.

4. **Select the new Web OS 8.1 image for use upon reboot, and reset the switch.**

   Issue the `/boot/image` command to select the image holding the Web OS 8.1 software. Issue the `/boot/reset` command to reset the switch.

5. **Virtual Matrix Architecture (VMA) option.**

   If upgrading directly from Web OS 6.0 to 8.1, VMA will be initially disabled if any port is configured with a proxy IP address. To enable VMA, see "Virtual Matrix Architecture (VMA)" on page 8.

   If upgrading from Web OS 8.0 or higher, VMA configuration is not altered.

Retrograde Notes

Once Web OS 8.1 is running on your Web switch, if you choose to go back to Web OS 6.0, it is recommended that you create a backup of the Web OS 8.1 switch configuration.

Because the Web OS 8.1 configuration format is different from Web OS 6.0, retrograding will cause the switch configuration to revert to the Web OS 6.0 factory default settings.

To restore the Web OS 6.0 configuration to pre-8.x settings, use the backup created during the upgrade procedure. Otherwise, if substantial configuration changes make this inappropriate, an 8.x to 6.0 configuration conversion utility is available. Contact Alteon WebSystems Customer Support for assistance.

Feature Configuration Notes

URL Parsing with Content Intelligent Persistence

Tips and Limitations

The following tips and restrictions apply when using URL-based Server Load Balancing (SLB) or Web Cache Redirection (WCR) with cookie-based or SSL session ID persistence:

- VMA is recommended when using any content intelligent switching feature.
- You must use either Direct Access Mode (DAM) or a proxy IP address.
- Precedence for load balancing/persistence algorithms are as follows:
  - Persistence-based load balancing using cookie, SSL session ID, or client IP address
  - HTTP Header or URL-based load balancing (cookie-based preferential service or host header-based load balancing for virtual hosting or load balancing based on the URLs)

Capacity Summary

- Supports up to 4,500 bytes in a single request
- Cookie information

  Cookie name = up to 20 bytes with support of wildcard “*”
  Maximum length of cookie value for hashing = 64 bytes
- URL-based and HTTP header-based SLB

  Number of substrings = 128
  Maximum length of each substring = 40 bytes
- URL-based WCR

  Number of filters = 32
  Maximum length of filter = 8 bytes
- Hashing based on URL

  Maximum bytes to hash = 255

URL Parsing and VRRP Active/Active Setup

When URL-based SLB is used in an active/active redundant setup, do not use DAM. Instead, use a proxy IP address.

Script-Based Health Check

Health check scripts can be configured only through the CLI. However, once entered, scripts can be assigned as the health check method using SNMP or the BBI.

Advanced Packet Filtering

The following tips and restrictions apply for advanced packet filtering for IP Options, TCP Flags, ICMP Message Type and IP TOS:

- These features work only with cache disabled filtering.
- Care must be taken when applying cache enabled and cache disabled filters to the same switch port. This is because cache enabled filter creates a session entry in the switch so that the switch can bypass checking for subsequent frames that matches the same criteria. This can potentially cause cache disable filters applying to the same switch port to be bypassed too.

Load Balancing Enhancements for Passive FTP servers

The following tips and restrictions apply when using the enhancements for passive FTP:

- You must use either DAM or a proxy IP address.
- This feature does not support different FTP modes within a single session; that is, the user cannot switch from active to passive or vise versa in the same FTP session.

Global Server Load Balancing (GSLB) Static Client Proximity

The following tips and restrictions apply for the GSLB static client proximity feature:

- The switch supports only a single domain.
- No health checks or pings for virtual servers in the network table.
- The switch replies with only one virtual server IP address, based on response time and `mincon` value.

Virtual Router Redundancy Protocol (VRRP) with GSLB

When using both VRRP and GSLB, you must change the `/cfg/sys/wport` (BBI port) value of the target switch (the switch that is being synchronized to) to a port other than port 80 before VRRP synchronization begins.

Bandwidth Management

The following tips and restrictions apply for the bandwidth management feature:

- VMA is recommended when bandwidth Management is enabled.
- When both Filter TOS and Bandwidth Management TOS are applied, the Bandwidth Management TOS has precedence.
- Bandwidth Management configurations will not be synchronized during VRRP synchronization.
- The maximum hard limit for a bandwidth policy is 1 Gbps, even when multiple Gigabit ports are trunked.

TOS Rewrite

TOS rewrite is only applicable when defining a filter with the `allow` action.

SSH and SCP

NOTE – SSH and SCP are now supported on all Alteon WebSystems switches running Web OS 8.1.

The following tips and restrictions apply for the SSH and SCP features:

- These features have been tested with the following SSH clients:
  - SSH client version SSH 1.2.27 and 1.2.23 for Linux (freeware)
  - SecureCRT 3.0.2 and 3.0.3 for Win NT
  - F-Secure SSH 1.1 for Windows from Data Fellow. (It will accept all clients which has version identification “SSH-1.5-1.X”.)
- The Web switch SSH daemon uses TCP port 22 only and is not configurable.
- The configuration of SSH/SCP parameters can only be performed using the console port.
- The maximum number of simultaneous Telnet/SSH/SCP connections is four.
- The Web switch will perform only one session of key/cipher generation at a time. Thus, an SSH/SCP client will not be able to log in while the switch is performing key generation or when another client has logged in immediately before them. Also, key generation will fail if an SSH/SCP client is logging in at that time.

- Sessions connected via the `/cfg/sys/radius/telnet` command count toward SSH/SCP connections.
- The `scpadmin` login is only useful when the `scp` command is used with RADIUS and SecurID authentication.
- The `scpadmin` login should be given a password unique. If any user, admin, or oper log-ins has the same password as the `scpadmin`, they will be logged in as `scpadmin`.

SecurID

There is no SNMP or BBI support for SecurID, since the SecurID server, ACE, is a one-time password authentication and requires an interactive session.

Virtual Matrix Architecture (VMA)

VMA is a hybrid architecture that takes full advantage of the distributed processing capability in the Alteon Web switches. It combines the strengths of central and distributed processing to deliver improvements in processing power and port capacity.

It is recommended that you enable the VMA feature to optimize performance and increase session capacities, especially when using bandwidth management and content intelligent switching for multiple frames processing (up to 4,500 bytes).

Proxy IP Addresses and VMA

By default, VMA is enabled on the Web switch. If upgrading to Web OS 8.1 from a Web OS 6.0, however, VMA will be initially disabled if there is a proxy IP address configured for any port on the switch. VMA requires that if any port is configured with a proxy IP address, then all ports (except port 9) must be configured with a proxy IP address *prior* to enabling VMA.

Firewall Load Balancing (FWLB) and VMA

VMA is required to be enabled in certain FWLB situations. When setting up FWLB with clean-side switches performing SLB or URL-based SLB, if DAM is enabled, then VMA must be also be enabled.

Configuration Dump

The output file from the `ptcfg` command is formatted with line-breaks without carriage returns and cannot be viewed with editors that require carriage returns (such as MS Notepad).

Broswer-Based Interface (BBI) Limitations

Alteon WebSystems switches provide a variety of methods to gather switch information and perform switch configuration. The two main interactive methods are the BBI, available through a standard Web browser, and the Command Line Interface (CLI).

Under Web OS 8.1, the BBI is not available on the Alteon AD3 or Alteon 180e Web switches. For the Alteon AD3 and Alteon 180e, the CLI must be used for all switch configuration operations.

Although the BBI and CLI are both meant to provide the same level of function, they are not identical. The following CLI menus and commands are not available in the BBI at this time:

`/info/slb/sess`	Session table information menu
`/info/isd`	Show iSD100-SSL information
`/stats/port/link`	Show link statistics
`/stats/port/rmon`	Show RMON statistics
`/stats/port/maint`	Show maintenance statistics
`/stats/slb/port/clear`	Clear port statistics
`/stats/slb/url/maint`	Show URL SLB/Redir Maintenance statistics
`/stats/slb/ssl`	Show SSL SLB statistics
`/stats/slb/ftp`	Show FTP SLB parsing and NAT statistics
`/stats/slb/clear`	Clear nonoperational server load balancing statistics
`/stats/mp`	MP-specific Stats Menu
`/stats/fdb`	Show FDB statistics
`/stats/route`	Show route statistics
`/stats/arp`	Show ARP statistics
`/cfg/sys/radius/telnet`	Enable/disable RADIUS backdoor for telnet
`/cfg/sys/ntp`	NTP Server Menu
`/cfg/sys/idle`	Set timeout for idle CLI sessions
`/cfg/sys/snmp`	Set SNMP access control
`/cfg/sys/wport`	Set Web server port number

`/cfg/sys/bannr`	Set login banner
`/cfg/sys/tnet`	Enable/disable Telnet access
`/cfg/sys/http`	Enable/disable BBI access via HTTP
`/cfg/sys/user`	User Access Control Menu (passwords)
`/cfg/ip/bgp`	Border Gateway Protocol Menu
`/cfg/slb/adv/script`	Scriptable Health Check Menu
`/cfg/isd`	iSD Menu
`/cfg/isd/ssl`	SSL Offload Application Menu
`/cfg/setup`	Step-by-step configuration set up
`/cfg/dump`	Dump current configuration to script file
`/oper/port/rmon`	Enable/disable RMON for port
`/oper/mirr`	Operational Mirroring Menu
`/oper/slb/synch`	Synchronize SLB, FILT, and VRRP configuration on peers
`/oper/slb/clear`	Clear session table
`/oper/vrrp`	Operational Virtual Router Redundancy Menu
`/oper/maint/sys`	System Maintenance Menu
`/oper/main/debug`	Debugging Menu