RELEASE NOTES:
Web OS Switch Software

Release 7.2

Alteon *Web* **Systems**
Web Speed for e-Business

AlteonWebSystems

Release Notes

These release notes provide the latest information regarding your Alteon Web switch with Web OS 7.2 software. This supplement modifies information in the following documentation:

- *Web OS 7.2 Command Reference* (part number 050155, Revision A)

- *Web OS 7.2 Application Guide* (part number 050156, Revision A)

Please keep this information with your Alteon WebSystems product manuals.

New in This Release

Following are the new features of Web OS 7.2.

Routing

- Border Gateway Protocol

  Border Gateway Protocol (BGP) allows you to determine the *best* route for a packet from your network to a destination on another network instead of using a default route from your border router(s) to your upstream provider(s). Alteon Web switches can advertise their IP interfaces (IFs) and virtual server IP addresses using BGP and take BGP feeds from as many as 16 BGP peer routers.

- Redistribution of Routes into OSPF

  This feature allows your switch to emulate an Autonomous System Boundary Router (ASBR) by redistributing information from other routing protocols (static, RIP, iBGP, eBGP, and fixed routes) into Open Shortest Path First (OSPF).

Secure Switch Management

- User Access Control

  Seven levels of access are available: User, SLB Operator, Layer 4 Operator, Operator, SLB Administrator, Layer 4 Administrator, and Administrator.

- RADIUS Authentication

  Remote Authentication Dial-In User Interface (RADIUS) is an access server authentication, authorization, and accounting protocol that can be configured to secure remote access to networks and network services against unauthorized access. RADIUS authentications is based on the protocol definition in RFC 2138.

- Secure Shell and Secure Copy

  Secure Shell (SSH) and Secure Copy (SCP) allow remote configuration of an Alteon Web switch with a secure connection. SSH is a protocol that enables a remote administrator to securely log into another computer over a network to execute management commands. SCP is typically used to securely copy files from one machine to another. SCP uses SSH for encryption of data on the network.

Health Check Enhancements

- RADIUS Server Health Checks

  To verify user access, RADIUS health checks determine if the content of the message matches the contents of the user database. The content can include the user name, password, clients, and ports.

- Script-Based Health Checks

  The switch sends a series of health check requests to real servers or real server groups and monitor the responses. ASCII-based scripts can be used to verify application and content availability as part of the health checking process.

Global Server Load Balancing

- Client Site Preference

  Using static *client-to-site* mapping in Web OS software, client proximity tables can be configured to select Global Server Load Balancing (GSLB) sites based on client location. Using a static client/site database allows customizing the client environment. The proximity database is limited to 128 entries. The GSLB client proximity table is supported for HTTP protocol only.

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Layer 4 Enhancements

■ VRRP Hot-Standby Redundancy

With the Virtual Router Redundancy Protocol (VRRP) hot-standby configuration, the Spanning Tree Protocol (STP) is not needed to eliminate bridge loops—this speeds up failover when a switch fails. There are three components to the VRRP-based hot-standby model: the virtual router group, additional Layer 4 port states, and configuration synchronization options.

■ Direct Server Return

The Direct Server Return (DSR) feature enables the server to respond directly to the client. This capability is useful for sites where large amounts of data flow from servers to clients, such as with content providers or portal sites that typically have asymmetric traffic patterns.

■ Backup Server Group

A backup/overflow server can be assigned to a real server group. If all real servers in a real server group fail or overflow, the backup comes online. Real server groups can also use another real server group for backup/overflow.

■ Network Time Protocol

The Network Time Protocol (NTP) synchronizes the switch's internal clock to an atomic time calibrated NTP server. When NTP is enabled, the switch can accurately update its internal clock to synchronize with other devices on the network.

Administration Enhancements

■ DHCP Relay

Based on the client/server model, Dynamic Host Configuratin Protocol (DHCP) allows hosts or clients on an IP network to obtain their configurations from a DHCP server which reduces network administration.The client receives from the server its required IP address. Other optional parameters include the *generic* file name to be booted, the address of the default gateway, and so forth.

■ CPU Utilization Statistics

CPU utilization displays the CPU usage of the selected port. This supports proactive capacity planning by displaying how much CPU is available.

■ Revert Command

A global Command Line Interface (CLI) command, `revert`, deletes all pending changes.

■ View Syslog Messages from Console

The 10 most recent syslog messages are displayed on the console.

Installing Web OS 7.2

Upgrade Procedure

The following commands are based on the CLI. Details of the commands are available in the *Web OS Command Reference*.

1. **Back up the current Web OS 7.1 or 7.0 configuration to a file.**

   A simple configuration can be stored as an ASCII text file by copying the output through the command `/cfg/dump` to a file. Larger, more complex configuration files should be copied to a TFTP server by using the command `/cfg/putcfg`.

2. **Perform a TFTP download of the Web OS 7.2 software code onto the switch. The CLI command is `/boot/tftp`.**

3. **Reboot the switch. The CLI command is `/boot/reset`.**

Retrograde Procedure

NOTE – Retrograding from Web OS 7.2 to earlier versions without following this procedure may result in configuration loss.

The following commands are based on the CLI. Details are available in the *Web OS Command Reference*.

1. **Back up the current Web OS 7.2 configuration to a file.**

   A simple configuration can be stored as an ASCII text file by copying the output through the command `/cfg/dump` to a file. Larger, more complex configuration files should be copied to a TFTP server by using the `/cfg/putcfg` command.

2. **Perform a TFTP download of the Web OS 7.1 or 7.0 software code onto the switch.**

3. **Select the Web OS 7.1 or 7.0 image for use upon reboot. To do so, enter `/boot/image`.**

4. **Configure the switch to its factory defaults with the command `/boot/config/factory`.**

5. **Reset the switch with the command `/boot/reset`.**

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6. **Get the desired switch configuration.**

NOTE – If you saved the Web OS 7.1 or 7.0 switch configuration to a TFTP server, temporarily add one IP interface to reach the TFTP server. If the TFTP server is on the same subnet, use the `ping` command to test the connection. If the TFTP server is on another subnet, add a default gateway to the other network. These settings will be overwritten once you have loaded the configuration file and rebooted.

■ To restore the Web OS 7.1 or 7.0 configuration to the pre-7.2 settings, use the backup created during the upgrade procedure. If you saved the information in an ASCII file, copy the file to the screen. If you used the command `/cfg/putcfg`, restore the information with the command `/cfg/getcfg`.

■ To use the configuration used for Web OS 7.2, get the configuration file created in Step 1. Any Web OS 7.2-specific configurations will be lost when you retrograde the software. An error message may appear on your display.

Additional Installation Instructions

During the installation of modules, use care to prevent contact between the top of the module being inserted and the handles of the module immediately above. Under some conditions, the handles can become caught on the module being inserted. Careful insertion prevents this problem.

Activating Optional Software Keys

Before using the `/oper/swkey` command to activate optional Web OS software features, you must first purge any demonstration keys by rebooting the switch.

Known Issues

■ Do not place a 1000 Base-SX Gigabit Ethernet line card module in slot A if the switch is configured for Server Load Balancing (SLB) and Direct Access Mode (DAM).

■ EtherChannel connection is not supported with Cisco 5000 series switches.

■ Under certain conditions, the Virtual Interface Router (VIR) cannot be pinged while enabling a group under hot-standby after the switch has been rebooted. When there are multiple VIRs, if one VIR goes down and the switch is rebooted, one the of VIRs may not respond to pings.

- The Web Os Browser-Based Interface (BBI) menu does not support OSPF route redistribution configuration. Use the switch CLI to configure the OSPF route redistribution.

- Do not configure an IP Interface (IF) with IP address/network 224 or above.

- RIPv2 with Layer 4 SLB allows pinging real server IP addresses. This overrides the DAM setting—DAM is disabled.

- With BGP enabled, incorrect messages may appear when the TCP connection is terminated between peers. This occurrence does not affect the operation of the switch.

- Irregular switch behavior may occur if a switch is connected to 16 peers and is redistributing thousands of routes to those peers. This issue is specific to BGP.

Limitations

The following functions are not supported in this release:

- GSLB is not supported when VRRP is enabled.

- BGP extensions are not supported.

- OSPF enabled with ASBR supports RFC 1583. RFC 2328 is not supported.

- When VRRP hot-standby is enabled, disable the Spanning Tree on the switch port and the ports of other switches that are connected to the VRRP ports of the switch.

- If a VIR is assigned to a VLAN that has only one port that is linked and the link goes down, the VIR will enter the `init` state. The VIR will not respond until the switch is rebooted.

- If a VIR stops responding, and rebooting the switch does not correct the problem then do the following: disable the hot-standby group, disable the group, apply, enable, and apply.

Late-Breaking News and Support

Web access: http://www.alteonwebsystems.com

Questions? Check the URL for Alteon WebSystems Online Information. This Web site includes product information, software updates, release notes, and white papers. The Web site also includes access to Alteon WebSystems Customer Support for accounts under warranty or that are covered by a maintenance contract.

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