Oracle Switch ES2-72 and Oracle Switch ES2-64 Security Guide

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Oracle Switch Security

This guide provides security guidelines for Oracle Switch ES2-72 and Oracle Switch ES2-64.

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- "Secure Installation and Configuration" on page 8
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Security Principles

- "Keep Software Up To Date" on page 7
- "Monitor System Activity" on page 7
- "Keep Up To Date on Latest Security Information" on page 8
- "Hard Drives" on page 8

Keep Software Up To Date

One principle of good security practice is to keep all software and firmware versions and patches up to date.

Oracle switches have embedded firmware that needs to be kept up to date. Firmware is accessible only to system administrators who have access to Oracle ILOM running on switch service processors.

Monitor System Activity

Oracle ILOM logs system activity in a message log. Oracle switch firmware upgrade activity is included in the log.

After three consecutive crashes of the configuration, the system will save the failing configuration file and revert to the factory-default configuration to ensure availability. An Oracle ILOM alert is logged when this happens.

Keep Up To Date on Latest Security Information

Oracle continually improves its software and documentation. Check product release notes often for updates.

Hard Drives

Hard drives are often used to store sensitive information. To protect this information from unauthorized disclosure, sanitize hard drives prior to reusing, decommissioning, or disposing of them.

- Use disk-wiping tools such as the Oracle Solaris `format (1M)` command to completely erase all data from the disk drive.
- Organizations should refer to their data protection policies to determine the most appropriate method to sanitize hard drives.
- If required, take advantage of Oracle's Customer Data and Device Retention Service

  `http://www.oracle.com/us/support/library/data-retention-ds-405152.pdf`

Secure Installation and Configuration

The Oracle switches are shipped with all firmware installed. Customers are not required to do any firmware installation. All software update components such as patches and new firmware releases must be downloaded from Oracle web download site after logging in using service contract information and credentials.

Note - Oracle switch firmware images are upgradeable only through Oracle ILOM.

To install new firmware, refer to the product notes at `http://www.oracle.com/goto/es2-72_es2-64/docs`.

Security Features

Users cannot access Oracle switch firmware directly. All requests are handled by proxy through Oracle ILOM.

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- “Logging Information” on page 9
- “Firmware Upgrades” on page 9

AAA

The critical security features provided by Oracle ILOM are as follows:

- **Authentication:** Ensures that only authorized individuals get access to the system and data.
- **Authorization:** Controls access to system privileges and data. This builds on authentication to ensure that individuals get appropriate access only.
- **Audit:** Allows administrators to detect attempted breaches of the authentication mechanisms and attempted or successful breaches of access control.

Oracle ILOM information is located in the Oracle Integrated Lights Out Manager documentation collection at: http://www.oracle.com/goto/ilom/docs.

Oracle switch security features are accessible only through Oracle ILOM.

Logging Information

All logging information is available only through Oracle ILOM.

Firmware Upgrades

Upgrades are allowed only through Oracle ILOM.

Security Considerations for Developers

All software and firmware running on Oracle switches are provided by Oracle. Customers cannot develop their own software to run on the switches.