# **LGS CODEGUARDIAN TECHNOLOGY IN ALCATEL-LUCENT OMNISWITCH PRODUCTS** SWITCH-LEVEL SOFTWARE INTEGRITY ENHANCES NETWORK SECURITY

We have partnered with LGS Innovations to bring their CodeGuardian<sup>™</sup> technology to the Alcatel-Lucent OmniSwitch<sup>®</sup> family of products. CodeGuardian<sup>™</sup> is a solution that hardens network devices at the binary software level to enhance overall network security.

The increasing number of malicious network attacks worldwide are causing administrators to reformulate security strategies to protect the integrity of their networks and the data that traverses them.

Together with our partner LGS Innovations, we recognize the importance of switch-level software integrity as a component of the larger network security ecosystem. CodeGuardian is a security evolution for mission critical network enterprise devices. The LGS CodeGuardian<sup>™</sup> technology hardens the OmniSwitch software on three levels:

- Independent verification and validation (IV&V) and vulnerability analysis of switch source code
- Software diversification to prevent exploitation
- Secure delivery of software to our customers

Markets trusting AOS with CodeGuardian: • Healthcare institutions

- Government agencies
- Information technology organizations
- Military operations
- Academic institutions

Available AOS releases:

- AOS 6.7.1R01 (OmniSwitch 6450)
- AOS 6.6.4R01 (OmniSwitch 6855, OmniSwitch 6850E, OmniSwitch 9000E)
- AOS 8.3.1R01 (OmniSwitch 6860, OmniSwitch 6900, OmniSwitch 9900, OmniSwitch 10K)\*

# **FEATURES**

- Offered as a simple 1-year subscription software service with access to any AOS with CodeGuardian<sup>™</sup> updates
- Software diversification to prevent software exploitation while maintaining the same software functionality and performance as the standard AOS software
- Five different CodeGuardian<sup>™</sup> diversified images available per release to prevent memory map address vulnerabilities
- CodeGuardian<sup>™</sup> IV&V and vulnerability analysis addresses external device interfaces
- Secure download server with file integrity checksum to ensure your software images are original and not compromised
- Available on AOS 6.4.6, 6.7.1 and soon  $8.3.1^{\star}$

# **BENEFITS**

- Proactive security approach through operational vulnerability scanning and analysis of switch software reduces the threat potential of back doors, embedded malware and other exploitable vulnerabilities.
- CodeGuardian<sup>™</sup> protects networks from intrinsic vulnerabilities, code exploits, embedded malware, and potential back doors that could compromise missioncritical operations.
- CodeGuardian<sup>™</sup> promotes a defense-indepth approach toward network security that continuously defines and implements value-add capabilities to address both current and future threats.

- The solution hardens network devices at both the software source code and binary executable level to identify and remove hidden vulnerabilities, so that it can enhance overall network security.
- This three-layer approach not only ensures security, but chain of software custody control as well.

# **TECHNICAL SPECIFICATIONS**

- Addresses potential software threats:
  - Back door threats
  - Embedded malware
  - Exploitable vulnerabilities
  - Exposure of proprietary or classified information
- CodeGuardian<sup>™</sup> IV&V and vulnerability analysis addresses external interfaces such as:
  - ¬ HTTPS interface
  - Login interface
  - ¬ NTP interface
  - Command line interface
  - IP port usage
  - SNMP interface
  - Data packet interface



### **CODEGUARDIAN SUPPORTED OMNISWITCH RELEASES**

CHASSIS	STANDARD AOS RELEASE	AOS CODEGUARDIAN <sup>™</sup> RELEASE	LGS AOS CODEGUARDIAN <sup>™</sup> RELEASE
OmniSwitch 6450	AOS 6.7.1R01	AOS 6.7.1RX1	AOS 6.7.1.LX1
OmniSwitch 6850E OmniSwitch 6855 OmniSwitch 9000E	AOS 6.4.6R01	AOS 6.4.6RX1	AOS 6.4.6.LX1
OmniSwitch 6860 OmniSwitch 6900 OmniSwitch 9900E OmniSwitch 10K	AOS 8.3.1R01*	AOS 8.3.1RX1*	AOS 8.3.1LX1*

X=Diversified image 1-5

We will have 5 different diversified images per AOS release (R11 through R51)

Our partner LGS will have 5 different diversified images per AOS release (L11 through L51)

\*Future Release

## **ORDERING INFORMATION**

MODEL NUMBER	DESCRIPTION
SD1N-OS6450	1YR AOS With CodeGuardian software subscription for all OS6450 models. Includes access to AOS with CodeGuardian software and updates during the subscription period. One subscription per switch and must be accompanied by a valid maintenance agreement.
SD1N-OS6850E	1YR AOS With CodeGuardian software subscription for all OS6850E models. Includes access to AOS With CodeGuardian software and updates during the subscription period. One subscription per switch and must be accompanied by a valid maintenance agreement.
SD1N-OS6855	1YR AOS With CodeGuardian software subscription for all OS6855 models. Includes access to AOS With CodeGuardian software and updates during the subscription period. One subscription per switch and must be accompanied by a valid maintenance agreement.
SD1N-0S9000E	1YR AOS With CodeGuardian software subscription for all OS9000E models. Includes access to AOS With CodeGuardian software and updates during the subscription period. One subscription per switch and must be accompanied by a valid maintenance agreement.

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