ConSentry® LANShield™ CS4024 Switch

INTEGRATED INTELLIGENT SWITCHING

ConSentry Networks delivers intelligent switching, making it easy for IT to control users and applications on the LAN. The ConSentry LANShield platforms — the LANShield Switch and LANShield Controller — tie together user, device, role, application, and destination to provide a level of business context not possible with legacy switch architectures. With this context, IT can more easily align the LAN to the business and deliver the services needed to make enterprises more efficient, accountable, and agile.

LANShield CS4024 Switch

The ConSentry LANShield CS4024 Switch is a enterprise-class 24-port intelligent switch that makes it easy for IT to embed user and application control directly into the edge of the LAN infrastructure. Intelligent switching provides the user and application control needed to easily segment users on the LAN and protect critical assets and applications, dramatically lowering the cost of operations compared to deploying and maintaining VLANs or ACLs.

The LANShield Switch combines ConSentry's custom LANShield silicon and intelligent switching software with standard switching silicon to provide total user and application control without sacrificing performance. The ConSentry custom hardware includes a multi-core processor and programmable ASICs that perform packet processing for monitoring, control, and switching at 10 Gbps. The programmability of the hardware enables ConSentry to keep pace with changes in applications and security requirements.

The LANShield intelligent switching architecture enables enterprises to monitor and control all user traffic with minimal impact on the existing infrastructure. ConSentry leverages existing OS authentica-

tion mechanisms, such as the Windows login. The LANShield Switches enforce policy directly, without the need for new VLANs or ACLs in the network or new supplicants or agents on the clients.

AN INTEGRATED APPROACH

The LANShield Switch sits in the wiring closet, connecting user machines into the core or distribution layer of the LAN. Because the switch hosts users directly, it sits in the optimal location for controlling user activities on the LAN.

The LANShield Switch provides integrated intelligence without compromising on switch functionality. The CS4024 supports 24 copper-based gigabit ports and two combo SFP gigabit ports. Network resiliency features such as link aggregation and rapid span-

The LANShield Switch is a 24-port gigabit Ethernet wiring closet switch offering user and application control.
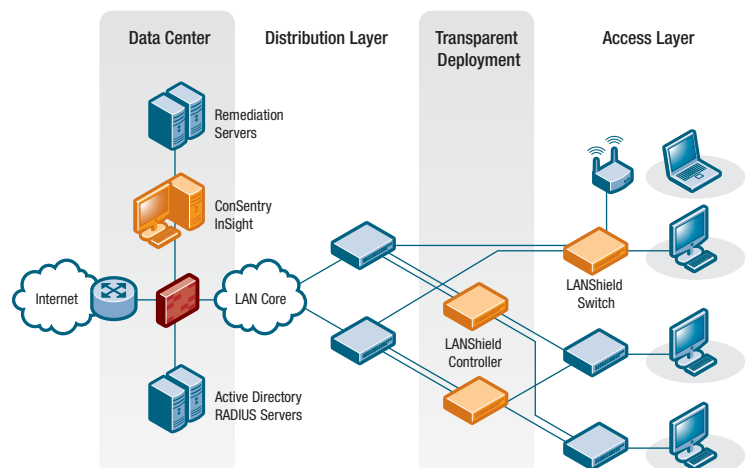
ning tree ensure high availability at the edge. Optional 802.1af Power over Ethernet is available to support IP phone, IP video, and wireless access point deployments.

DEPLOYMENT OPTIONS AND IT INITIATIVES

The LANShield Controller and LANShield Switch provide enterprises with options for deploying intelligent switching. The Controller sits behind existing switches, while the LANShield Switch provides integrated intelligent switching. IT can leverage the LANShield Switch to:

- troubleshoot user and application issues more quickly
- support non-user devices such as robotics and IP phones
- limit access to resources
- track all user activity for auditing
- support a more dynamic and diverse workforce
- more easily roll out new applications, systems, and business locations

ConSentry LANShield Switch Product Specifications

Security Features — Leveraging LANShield OS

User / Machine Authentication
Transparent Authentication Methods
- passive Kerberos snooping to authenticate Windows Active Directory users, and Linux, Macintosh, and Novell via PAM modules
- passive 802.1X authentication snooping (RADIUS snooping)

Active Authentication
- 802.1X authentication
- MAC address – RADIUS authentication
- web authentication via captive portal

Rich Device Authentication
- whitelisting of MAC/IP addresses and wildcards

User De-Authentication Methods
- passive Windows log-off detection
- configurable idle timeout
- captive-portal logout button or count-down timer
- de-authentication through link-down detection

Role Derivation
Place Users into Roles Based on:
- RADIUS attributes
- LDAP attributes
- Active Directory attributes
- physical location
- DHCP attributes
- system attributes
- time
- combination of above

Identity-based Policy and Control
Policy Rule Elements:
- user group
- Layer 2-4 Source or Destination (MAC, IP, Port)
- Layer 7 application detection and attribute decode
- resource network zone (e.g., servers)
- destination ACL through DNS name
- Bi-directional rules (Flow-In, Flow-Out, Bi-Directional)
- Up to 8192 L2-L7 rules per device

Policy Rule Enforcement Actions:
- permit/deny
- policy-based traffic mirroring
- logging to InSight
- logging to syslog

Deployment Mode Settings
- pass through mode – useful in hardware installation phase
- monitor mode – useful in policy development/testing phase
- protect mode – production phase

Host Posture Check (optional)
Dissolvable agent (optional)
- Windows 98-Vista, Linux, Macintosh
- compliance checks against 26 major firewall and AV vendors
- malware scanner with downloadable updates
- custom rules for file, registry, and process checking

Microsoft NAP

Threat Detection / Mitigation
- zero-hour threat detection
- Denial of Service (DoS) attack detection
- no signature updates necessary
- drops malformed packets
- block by: physical port, SRC IP, offending application

Applications Monitoring for Compliance and Auditing
- ties usernames to applications and security violations
- identifies applications and application content
- 300+ at Layer 4
- 30+ at Layer 7

Centralized Visualization and Management through ConSentry InSight
- centralized policy and role-derivation configuration GUI
- user and application usage repository on an embedded SQL DB
- real-time alert dashboard
- fully drillable forensics capability
- reporting with scheduler

Logging and Reporting
- direct syslog reporting
- detailed security log messages
- formatted for SIEM integration

Switching Features — Powered by LANShield Silicon and OS Architecture

Performance
- switch fabric bandwidth: 64 Gbps
- forwarding rate: 35 Mbps
- secure switching rate: up to 10 Gbps
- authenticated users: 100
- L3 routes: 8,000

Layer 2/3 Features
- 4,096 VLANs and 16,000 MAC addresses
- port security (MAC address locking)
- mirror/monitor ports
- IGMP v1/v2/v3 snooping

Management and Control
- inline and out-of-band Ethernet management
- industry-standard Command Line Interface (CLI)
- centrally managed by ConSentry InSight
- SNMP v1/v2c
- formatted syslog to multiple destinations
- Telnet / SSH / TFTP
- administrator login through RADIUS or local DB

Standards and Protocols
- 802.1D Bridging and Spanning Tree
- 802.1Q/p VLAN Tagging and Priority
- 802.1w Rapid Spanning Tree
- 802.1v VLAN protocol
- 802.1X Port-based authentication
- 802.3 10Base-T
- 802.3u 100Base-TX
- 802.3x Flow Control
- 802.3z 1000Base-SX/T
- 802.3ad Link Aggregation
- 802.3af Power over Ethernet

Physical Features — Optimized for High-Density Resilient Installation

Secured Interfaces
- 24 10/100/1000 fixed copper ports
- two 1 Gbps SFP combo ports
- auto-media sense, auto-negotiate, auto-MDI/MDI-X

Power and Management Interfaces
- USB port
- RS-232 DB9 connector management port
- RJ-45 10/100 Ethernet management port

Dimensions
- 17.323 x 12 x 1.73 in. (44 x 30.48 x 4.4 cm)
- rack mounting for 19-inch racks

Weight
- CS4024: 8.5 lbs (3.87 kg)
- CS4024 PoE: 10.2 Lbs (4.63 kg)

Operating Requirements
- temperature: 32° to 104°F (0° to 40°C)
- humidity: 5% to 90%, non-condensing
- right to left airflow

Power System — Standard
- single AC power supply
- 100W MAX, 90-264VAC, 50-60Hz, auto-sensing

Power System — PoE
- single AC supplies both chassis and PoE power
- 350W, 90-240VAC, 50-60Hz, auto-sensing (230W available for PoE)

Safety Certifications
US: UL 60950-1; Canada: CSA C22.2 No. 60950-1, Mexico: NOM; Europe: EN 60950-1(2001); International: CB Scheme, IEC 60950-1

Electromagnetic Emission Certifications (EMC)
US: FCC Part 15 sub part B Class A; Europe: EN 55022 (1998) with Amendments A1 & A2(Class A), EN 55024 (1998) with Amendments A1 & A2,EN 61000-3-2, EN 61000-3-3; Japan: VCCI Class A; Australia: C-Tick; Korea MIC (EMC)

Ordering Information

Part No.	Description
CS4024	24-port secure Ethernet switch with single AC PSU
CS4024-POE	24-port secure Ethernet switch with PoE and single AC PSU

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