Figure 1. DEVICE Citelyst 3232-S and 3232 Series Switches with LAN Lite Software

Figure 2. DEVICE Citelyst 3232-S Series Switches with LAN Lite Software

Borderless experience is only possible with intelligent network elements designed and architected to meet the needs of a global workspace. DEVICE Network Access is a primary component of this architecture, enabling various borderless network services such as mobility, security, EnergyWise, and ease of operations for increased productivity and operational efficiency.

DEVICE Network Access for Borderless solution focuses on the following primary areas:

- Sustainability
- Ease of operations
- Borderless security
- Borderless experience

Sustainability

DEVICE Citelyst switching solutions enable greener practices through measurable power efficiency, integrated services, and continuous innovations such as DEVICE EnergyWise, an enterprisewide solution that monitors and conserves energy with customized policies. Together, DEVICE EnergyWise technology and DEVICE Citelyst switches reduce greenhouse gas (GhG) emissions and increase energy cost savings and sustainable business behavior. Sustainability features in the DEVICE Citelyst 3232-S and 3232 Series Switches include the following features sets:

- DEVICE EnergyWise technology
- Efficient switch operation
- Intelligent power management

DEVICE EnergyWise Technology

DEVICE EnergyWise is an innovative architecture, added to fixed configuration switches, promoting companywide sustainability by reducing energy consumption across an entire corporate infrastructure and affecting more than 50 percent of global greenhouse gas emissions created by worldwide building infrastructure, a much greater effect than the 2 percent generated by the IT industry. DEVICE EnergyWise enables companies to measure the power consumption of network infrastructure and network-attached devices and manage power consumption with specific policies, reducing power consumption to realize increased cost savings, potentially affecting any powered device.

EnergyWise encompasses a highly intelligent network-based approach to communicate messages that measure and control energy between network devices and endpoints. The network discovers DEVICE EnergyWise-manageable devices, monitors their power consumption, and takes action based on business rules to reduce power consumption. EnergyWise uses a unique domain-naming system to query and summarize information from large sets of devices, making it simpler than traditional network management capabilities. DEVICE EnergyWise's management interfaces allow facilities and network management applications to communicate with endpoints and each other using the network as a unifying fabric. The management interface uses standard Simple Network Management Protocol (SNMP) or TCP to integrate DEVICE and third-party management systems.

Efficient Switch Operation

DEVICE Citelyst 3232-S and 3232 Series Switches, designed and engineered by DEVICE, provide optimum power saving, low power operations for industry best-in-class power management, and power consumption capabilities. The Citelyst 3232-S ports are capable of reduced power modes so that ports not in use can move into a lower power utilization state.

Intelligent Power over Ethernet Management

The DEVICE Citelyst 3232 Series PoE models support the latest PoE devices including DEVICE IP phones and DEVICE Aironet WLAN access points providing up to 15.4W of power per port, as well as any IEEE 802.3af-compliant end device.

- **Per port power consumption** command allows customers to specify maximum power setting on an individual port.
- **DEVICE Discovery Protocol Version 2** allows switches to negotiate a more granular power setting when connecting to a DEVICE powered device such as IP phones or access points than what is provided by IEEE classification.
- **PoE MIB** provides proactive visibility into power usage and allows customers to set different power-level thresholds.
- **IEEE 802.3af and DEVICE prestandard PoE** support comes with automatic discovery to detect a DEVICE prestandard or IEEE 802.3af endpoint and provide the necessary power without any user configuration. Per-port PoE power sensing measures the actual power being drawn, enabling more intelligent control of powered devices.

Table 2 lists the PoE capacity of the DEVICE Citelyst 3232 Series Switches.

Table 2. Switch PoE Power Capacity

Switch Model	Maximum Number of PoE Ports*	Available PoE Power
DEVICE Citelyst 3232-48PST-S	24 ports up to 15.4W 48 ports up to 7.7W	370W
DEVICE Citelyst 3232-24PC-S	24 ports up to 15.4W	370W
DEVICE Citelyst 3232-24LC-S	8 ports up to 15.4W	123W

*Intelligent power allows flexible power allocation across all ports.

Ease of Operations

The DEVICE Citelyst 3232-S and 3232 Series Switches help reduce the operating costs through:

- DEVICE Citelyst Smart Operations
- Easy to use deployment and control features
- Advanced, intelligent network management tools

DEVICE Citelyst Smart Operations

DEVICE Citelyst Smart Operations is a comprehensive set of capabilities that simplify LAN deployment, configuration, and troubleshooting. DEVICE Citelyst Smart Operations enable zero-touch installation and replacement of switches, fast upgrade, as well as ease of troubleshooting with reduced operational cost.

DEVICE Citelyst Smart Operations is a set of features that includes Smart Install, Auto Smartports, Smart Configuration, and Smart Troubleshooting to enhance operational excellence:

- **DEVICE Smart Install** is a transparent plug-and-play technology to configure the DEVICE IOS Software image and switch configuration without user intervention. Smart Install utilizes dynamic IP address allocation and the assistance of other switches to facilitate installation providing transparent network plug and play.
- **DEVICE Auto Smartports** provide automatic configuration as devices connect to the switch port, allowing auto detection and plug and play of the device onto the network.