SafeConnect™

Network Access Management

Visibility, Security and Control for BYOD

The explosion of mobile devices, coupled with advances in wireless technologies and readily available cloud-based applications, has driven the adoption of Bring Your Own Device (BYOD). Today, nearly everyone owns a smart-phone, laptop, or tablet—which has created the need for security policies to support the escalating volume and diversity of personally-owned computing devices accessing business-critical network resources.

An everyday challenge for IT managers is enforcing security compliance policies while maintaining a positive user experience and reducing help desk calls in support of BYOD and guest users. Organizations are also faced with the daunting task of correlating mobile device information and user identity (over time and across network segments) for regulatory compliance; security forensics; and enabling identity-based firewall, web content, SIEM, and bandwidth management policies.

SafeConnect automates device security compliance and network access assignment policies (based on identity/role, device type, location, and ownership); and gathers a wealth of real-time and historical context-aware device information that allows for more timely and informed security decisions.

Dell Networking & SafeConnect

In combination with Dell Networking, SafeConnect offers a highly-simplified and scalable approach to providing a secure networking environment while delivering a superior user experience for managed, BYOD, and guest devices.

The certified integration of SafeConnect's Network Access Management offering with Dell Networking wired switches and wireless access points represents a unique industry value proposition that addresses the cost, resource burden, and business risk associated with deploying and supporting a secure enterprise network.

Leveraging Dell Networking Technology

SafeConnect integrates with Dell Networking technology to deliver the industry's most scalable and easiest-to-deploy network access management offering. Dell Networking N-Series, S-Series, W-Series, C-Series, and wireless networking partner, Aerohive, are supported.

Key Features

Identity Access Control

- Integrated RADIUS Server
- User Authentication Portal
- Agentless Device Profiling
- Guest User Self-Enrollment
- IoT Device Self-Registration
- Role-Based Access Control
- IDS, ADT, MDM Network Enforcement
- Contextual Intelligence Publishing
- Real-Time and Historical Reporting

Secure BYOD On-Boarding

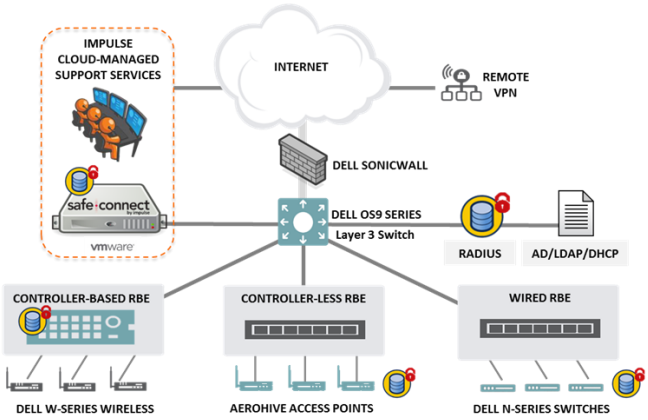
- Automated 802.1X-WPA2 Enterprise and Certificate Self-Provisioning

Device Security

- Acceptable Use Policy Enforcement for Windows and OS X Devices
- Real-Time Device Security Assessment and Remediation Orchestration

Cloud-Managed Support Services

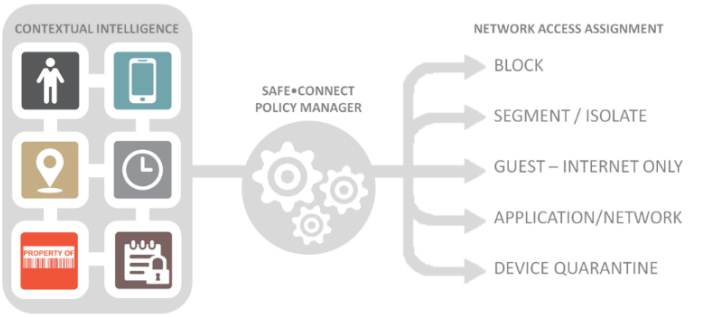
- Remote Installation, Training, and Deployment Assistance
- 24x7 Proactive System Monitoring
- Problem Determination and Resolution Ownership
- Daily System Updates and Backup
- Overnight Hardware Replacement
- Installation of All Software Maintenance and Version Upgrades
- Free Hardware Upgrades/No EOL



Wired and Wireless Support. SafeConnect's Network Access Control (NAC) architecture utilizes Layer 3 Policy Based Routing (PBR) or Layer 2 RADIUS-Based Enforcement (RBE) technology to offer the industry's broadest range of device enforcement alternatives.

SafeConnect's Layer 3 (PBR) access control approach offers the simplest device enforcement alternative based on its Layer 2 independent design and can be rapidly deployed.

RBE delivers dramatic scalability and granular network access control for 802.1X-WPA2 Enterprise/Open wireless networks, and Layer 2 wired network switches based on contextual intelligence-driven policies.



A key benefit of SafeConnect is its non-reliance on VLAN Steering. RBE assigns network access privileges to a specific device versus moving a device to a shared VLAN.

SafeConnect's RBE offers the following benefits:

- Easier to design, deploy, and support; fewer technical resources required.
- Real-time post-admission security enforcement; no need to re-authenticate a user's device to conduct a security posture check.
- Better user experience; no IP address/VLAN changes.
- Higher level of device quarantine/segmentation; devices are restricted/isolated individually, not placed into a shared/common/dirty VLAN.

VPN Support. SafeConnect also delivers consistent identity and device type recognition, security assessment, enforcement, and remediation for remote VPN devices. Due to SafeConnect's Layer 2 independent architecture, VPN networks are viewed as another VLAN or IP address range segment. Therefore, SafeConnect supports any VPN gateway technology provider.

Multi-Vendor Networking Support. A key benefit of SafeConnect is its network vendor independence. SafeConnect can be integrated with any combination of Layer 3 and/or Layer 2 wired vendor network switch technology in addition to Controller-based and Controller-less wireless network devices.

SafeConnect Product Overview

SafeConnect delivers a range of capabilities that provides a comprehensive enterprise-wide network access management solution to address the flexibility and security needed to support today's wired, wireless, and VPN network environments.

Identity Access Control. SafeConnect recognizes when devices attempt access to wired, wireless, or VPN networks and provides agentless device type profiling, user authentication, guest access self-enrollment, Internet of Things (IoT) "non-browser" device registration, and real-time and historical contextual intelligence-based reporting. This is an ideal solution for customers that desire network access assignment and device visibility based on identity/role, device type, location, IP-MAC Address, and ownership (managed or BYOD).

RADIUS Server. SafeConnect includes a RADIUS Server that integrates with an organization's AD-LDAP directory services infrastructure to deliver 802.1X authentication services that enable secure WPA2 Enterprise and Certificate based wired and wireless networks. SafeConnect can also leverage and support an organization's existing standards-based RADIUS server platform as required.

Network Security Orchestration. SafeConnect also integrates with Mobile Device Management (MDM), Intrusion Detection System (IDS), and Advanced Threat Detection (ATD) offerings to provide automated agentless-based assessment, enforcement and self-remediation management of network security policies.

- Apply network-level quarantine to all devices that are non-compliant with MDM, IDS, ATD policies and provide Web-based guidance for self-remediation.
- Assign application and network access privileges based on identity/role (i.e., employee, faculty,

student, guest, vendor), device type, location, ownership and network security policy status.

Secure BYOD On-Boarding. SafeConnect solves a complicated problem for end users by automating the process required to provision devices onto secure 802.1X-WPA2 Enterprise or Certificate based wired and wireless networks. By eliminating end user manual configuration, the solution delivers dramatic reductions in help desk support calls and accelerates user adoption of secure wireless. When combined with Identity Access Control, this feature enables an organization to welcome every new user with a captive Web portal that authenticates the user, configures the device's embedded 802.1X supplicant, ensures that RADIUS server certificate validation has been configured properly, and automatically associates the device to its designated secure network and assigns access control privileges. Users are automatically associated with their secure network on subsequent network connections without repetitive logins.

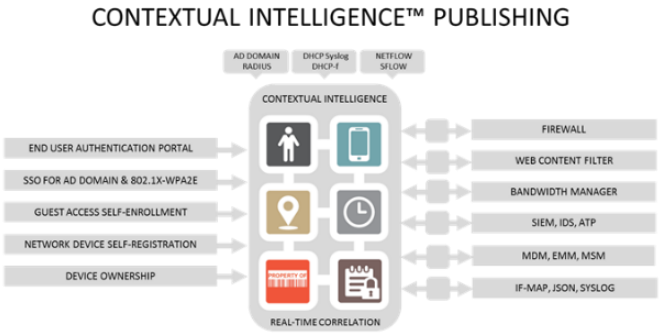
Device Security. SafeConnect enhances the security posture of your network by providing real-time policy assessment, enforcement, and self-remediation for Windows and MAC OS X devices. SafeConnect's Policy Key (agent) provides in-depth compliance assessment prior to granting network access to ensure that the device adheres to the organization's acceptable use policies (anti-virus, operating patches, personal firewalls, P2P, etc.) as well as on a continuous basis after access is granted. Web-based self-remediation orchestration enables users to conform to security policies without end user help desk involvement. The SafeConnect Policy Key can be pre-deployed to managed devices using standard AD Domain Group Policies or via the organization's chosen software distribution product. BYOD users will be prompted to install the SafeConnect Policy Key (if required) prior to accessing the network.

Contextual Intelligence

SafeConnect's Contextual Intelligence™ technology delivers real-time device information that correlates identity/role, device type, location, ownership, and security compliance status.

Better visibility of information gleaned "in context" regarding devices on the network allows IT managers to make better decisions on network capacity, risk mitigation, and forensic analysis required for addressing regulatory compliance.

Contextual Intelligence Publishing. SafeConnect provides real-time contextual intelligence to other network management and security systems (i.e., next-gen firewalls, web content filters, SIEMs, IDS/ATD, and bandwidth management providers) that enable granular identity-based policy assignment, single sign-on, one-time user authentication, and enhanced analytics to provide more informed and timely security decisions.



The ability to leverage real-time contextual data for authentication persistence also reduces the number and length of help desk calls by improving the end user experience (no multiple log-in prompts).

Cloud-Managed Support Services

All SafeConnect products come with a comprehensive industry-exclusive hardware and software maintenance program and includes the following:

- Remote installation, deployment, support, training
- 24x7 proactive system monitoring
- Problem determination and resolution support
- Daily device type profiling, operating systems, and remediation anti-virus security software updates
- Nightly policy configuration remote backups
- Overnight hardware replacement and restoration
- Installation of all application version upgrades and software maintenance updates

Remote Installation, Deployment, and Training Services

The SafeConnect solution includes comprehensive implementation services that are administered remotely. Based on our cloud-managed services and network integration approach, there is no need for costly on-site professional services.

Impulse's Service Delivery Team will provide end-to-end project management, skills-transfer, and technical consultative assistance in accordance with our proven SafeConnect installation and deployment methodology.

After the SafeConnect implementation engagement is successfully completed, Impulse's cloud-managed support service offering includes on-going "how-to" consultative support that will address any customer change management requirements and further maximize your investment in SafeConnect.

Learn more at Dell.com/Networking

SafeConnect Network Access Management	
Identity Access Control	
RADIUS Authentication Server	Provides RADIUS to AD/LDAP Authentication Services in support of Open and Secure 802.1X-WPA2 Enterprise and Certificate- based wireless, wired and VPN network environments.
User Identity Authentication	Prevents unauthorized users from accessing network resources and supports 802.1X-RADIUS and AD Domain Single Sign-On (SSO).
Agentless Device Profiling	Provides visibility into device types and ownership (whether a device is company-owned and liable or personally-owned - i.e. BYOD).
Guest User Self-Enrollment	Automates the process of provisioning Internet-only network access for guests without help desk involvement.
Internet of Things (IoT) Device Registration	Allows end users to self-enroll non-browser devices such as printers, e-readers, media, or gaming systems using their user credentials.
Real-Time & Historical Contextual Reporting	Provides real-time reporting views and historical policy event data that depict authentication, compliance, and remediation status.
Contextual Intelligence Publishing (CIP)	Delivers real-time correlated user identity/role, device type, ownership, and compliance information to third-party firewalls, web content filters, SIEMs, and bandwidth managers that allows for more granular identity-based policies for managed, BYOD, and guest devices and enhances the user experience via authentication persistence.
Network Security Orchestration	Ensures that end users install and retain the preferred MDM solution and automates IDS/ATD network enforcement and self-remediation.
Secure BYOD On-Boarding	
802.1X-WPA2 Enterprise & Certificate Auto-Provisioning	Automates user experience of "on-boarding" devices onto 802.1X-WPA2 Enterprise and Certificate-based secure wireless and wired networks. Reduces help desk calls and secure network acceptance.
Device Security	
Acceptable Use Policy Enforcement	Flexible real-time AUP enforcement for devices including audit-only, periodic grace-period, warnings and immediate network quarantine.
Real-Time Security Compliance	Manages compliance with Anti-Virus, Anti-Malware, OS Patch and Personal Firewall policies for Windows and MAC OS X devices.
Application Usage Policies	Prohibits the use of peer-to-peer (P2P) file sharing for DMCA compliance and other non-approved applications.
Custom Policy Builder	Enables customers to easily build policies based on the existence or non-existence of file types, services, processes, or registry settings.
Cloud-Managed Support Services	
24x7 Proactive Monitoring and Technical Support	Includes 24x7 system monitoring; problem determination/resolution technical support; daily remote backups, device type profiling, operating systems, and remediation anti-virus security software updates; overnight hardware replacement; installation of all software version and maintenance update; and no hardware upgrades.