DELL

Accelerating Learning with End-to-End Wireless Mobility for K-12

Dell Networking and Aerohive Networks deliver a complete, secure and easy to manage wired and wireless network for the modern classroom.

- Dell Networking N-Series switches allow for high density deployments and cost-effective scalability

- Aerohive access points offer next-generation Wave 2 operation and a range of powerful built-in security features

- HiveManager NG simplifies network management via a user-focused cloud-based GUI and integrated BYOD applications

Overview

Modern technology is revolutionizing the classroom to create unique opportunities for educators willing to embrace it. With increasing reliance on mobile and personal computing devices, schools are looking to improve student engagement in the classroom by putting audio, video, interactive learning tools and lesson plans literally into their students' hands and onto their screens.

One of the greatest challenges schools face is how to provide a network with the performance and reliability needed to enable a connected classroom, and one that can easily provision, configure and monitor the students' devices.

Dell is uniquely positioned to address this evolving K-12 environment with an end-to-end mobile integrated solution, delivering a complete wired and wireless network along with comprehensive, easy to use BYOD capabilities.

Wired + Wireless Network Convergence

Dell's campus network solution is based on the wired + wireless convergence of our Dell Networking N-Series switches and Aerohive access point (APs). The N-Series offers feature-rich, enterprise grade switching options for a range of demanding, high density deployments. The N1500, N2000 and N3000 families are cost-effective, scale easily via built in stacking ports and offer high throughput capacity to handle unexpected traffic loads.

Aerohive 802.11ac APs include a unique distributed control wireless architecture for controller-less operation. Featuring advanced Wave 2 MU-MIMO operation for fast, reliable connectivity for every device, each Aerohive AP feature advanced functionality to ensure access for only those that should have it.

These wired and wireless devices integrate seamlessly via the HiveManager NG cloud-based management solution for a truly unified network. HiveManager NG gives an unprecedented level of insight and control over devices, applications, users, policy management and switch port status for all Dell Networking N-Series switches and Aerohive APs.

BYOD/Client Management

Integrated into HiveManager NG is the Client Management application, giving administrators the power to easily provision, configure, and monitor end user/student devices.

This functionality allows an administrator to clearly differentiate between students' own devices and those provided by the school, giving them the additional layer of context necessary to create granular policies controls over connected devices. The Client Management application includes:
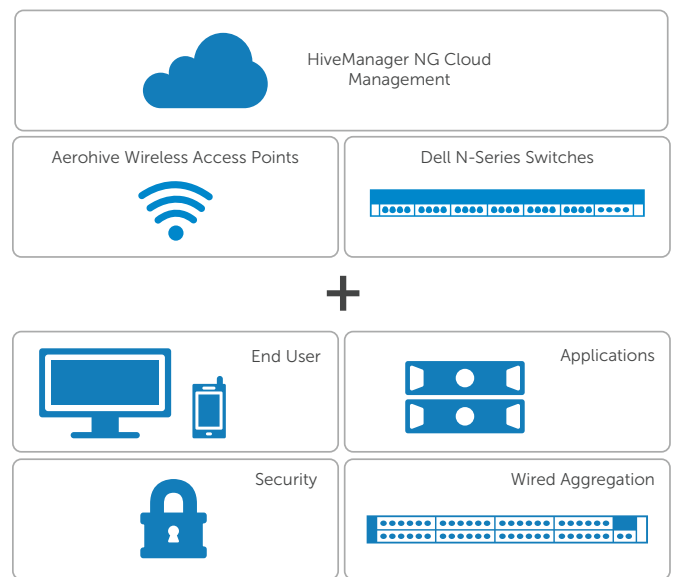
- **Client Auto-Provisioning:** Client Management simplifies device onboarding by supporting a single-SSID solution to automatically create and install a unique credential as well as install a secure profile on iOS, OS X, Android, and Chrome OS. When clients join the SSID, they are automatically redirected to the enrollment page and provisioned with wired and wireless connection info, device certificates and/ or Aerohive's unique Private Pre-Shared Key functionality, and even advanced settings like VPN and LDAP configurations.

- **Customizable Enrollment Portal:** Students will see a completely customized, self-service enrollment portal that can display a school logo and provide a simple step-by-step guide to enroll their devices. This reduces Helpdesk costs by communicating terms of use and policies directly and in a familiar way.

- **Integrated Certificate Authority:** The certificate management system automates the entire certificate generation, distribution, validation, and revocation process. Client Management leverages the certificate authority to publish unique credentials that include certificate information as well as user and device data. This means the IT administrator doesn't need to spend time implementing a certificate authority, and can instead focus on advancing their BYOD and client-issued devices (CID) initiatives.

Security

Aerohive APs feature a range of built-in protection services that allow for safe, secure mobility throughout your environment, including fully stateful layer 2-7 firewall policies personalized to user groups, operating systems or devices. And with a rich set of partner integrations and APIs, IT admins can enable secure enrollment profiles and restrict access for non-registered devices.

Conclusion

Network connectivity, reliability, access and security are the new constraints in today's connected classroom. Through high density enterprise grade switching options, easily scalable 802.11ac access points, and a unifying cloud management and BYOD solution, Dell provides an end-to-end network that keeps pace with a constantly evolving learning experience.

HiveManager NG Cloud Management

Aerohive Wireless Access Points

Dell N-Series Switches

End User

Applications

Security

Wired Aggregation

Learn more, visit Dell.com/Networking