



APPLICATION BRIEF Interactive Learning

Aruba Interactive Learning Solution

The global education system is now quickly moving towards a learning environment that is infused with technology. As pedagogical-related issues subside, and learning applications make their way into the curriculum of schools and universities, it is important to consider the implications to existing infrastructure. Connectivity is critical and wireless is the only reasonable technology to support every user. But there are critical challenges to consider that have traditionally hindered wireless networks.

1. **Dense Deployment of Devices.** Wireless LANs have traditionally been challenged in supporting locations like clusters of classroom or lecture halls where many devices attempt to access the network simultaneously. Wireless is a shared resource with a limited amount of available spectrum, and thus network capacity.
2. **Mix of Clients.** There are significant challenges that arise when a mix of laptops and other wifi clients all contend for the available wireless resource. Clients tend to act very unpredictably, in fact they often act completely counter-intuitive to what one would expect
3. **Troubleshooting and Maintenance.** Wireless presents challenges that IT has never encountered before. When forty students attempt to associate with a wireless Access Point and two are denied service, how does an IT administrator, located in another building across town, troubleshoot the issue?

Aruba offers management and control of this network through the AirWave Wireless Management Suite, offering specialized tools to centrally manage large, distributed multi-vendor wireless networks. AirWave is the only network management software to deliver a single, easy-to-use console that gives the entire IT staff full visibility and control over their wireless network and its users.

Aruba has developed patent-pending technology, Adaptive Radio Management (ARM) 2.0, for solving these issues in education to allow learning applications to be deployed reliably from small classrooms to the largest auditoriums. ARM 2.0 uses infrastructure-based controls to optimize client behavior and improve overall bandwidth capacity, ensuring that every client maintains a reliable connection.

Why Aruba:

- Works with all Wi-Fi clients, compatible with 802.11 standards
- No special client software required
- Automatically sets configuration parameters to optimize coverage and performance
- Adjusts to behavior of Wi-Fi clients to improve per-client reliability

Interactive Learning**Solution Partners****DyKnow**

DyKnow Vision software is an interactive teaching tool used to maximize class time, foster collaborative learning and promote effective studying. Using DyKnow Vision, educators can instantly transmit prepared or extemporaneous content to student computers for annotation, poll students and receive immediate feedback, as well as empower students to lead class or work in groups from their seats. Students and educators can access their notes and class audio recordings anytime, anywhere. The product utilizes a client-server design to transmit information, enabling two-way interaction between hundreds of students and educators without decreasing performance.

**Video Furnace**

Video Furnace is a leading provider of enterprise-class IP video solutions. Video Furnace System 4 is a fully integrated video distribution solution that uses a wireless or wired

IP network to securely deliver very high quality, optionally-encrypted video to laptops without installed players, plugins or downloads. Video Furnace is operating system independent, and the patent pending InStream(TM) Viewer enables all Windows, Mac OS X, Linux and Solaris 10 users to watch video with the simple click of a mouse.

**Examsoft**

ExamSoft Worldwide's SofTest exam administration software manages the secure distribution, completion, and auto-return of electronic exams. The software secures the student-owned or computer lab testing computer by preventing access to all other locally stored or Internet accessible programs and files. SofTest will download exam files, auto-save and back up exam taker responses while blocking unauthorized use of other software on the student's computer or the Internet, and auto-upload finished exams. SofTest does not require Internet connectivity during exams.

**Related Products:****Adaptive Radio Management (ARM) 2.0**

ARM 2.0 software uses patent-pending infrastructure-based controls to deliver more reliable, higher performance wireless networking.

Acting on their own, Wi-Fi clients do not always work together cooperatively, or select the optimal band, channel, and access point. ARM 2.0 solves these problems by using infrastructure-based controls that leverage information from Aruba's centrally-managed WLAN infrastructure to optimize client behavior: By automatically adjusting how Wi-Fi clients interact, ARM 2.0 ensures that data, voice, and video applications have sufficient network resources, including airtime, to operate properly. By closing the gap between the theoretical performance of Wi-Fi clients and what is achieved in real-world deployments, ARM 2.0 delivers a better wireless experience for end users.



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