

## Wireless Choices for Higher Education

Ron Yanosky, Michael Zastrocky, Marti Harris

Despite some rough technological edges, wireless networking is set to enter the higher-ed IT mainstream. The payoff lies in its potential to transform the way members of the academic community work, learn and socialize.

## ANALYSIS

---

Just as higher-education institutions were getting used to the competition to be the "most wired," they have found themselves plunging into a new race to be the "most unwired." While fewer than one percent of higher-ed institutions worldwide will have deployed campuswide wireless coverage by YE01, interest is skyrocketing because a set of technology triggers has made it possible to operationalize wireless on a large scale.

These include:

- Success of the 802.11b specification released in 1999
- Wireless hardware prices declining to commodity levels
- Intensified demand for always-available network access, fed by Web enablement of major campus systems
- Emergence of new, handheld mobile devices such as personal digital assistants (PDAs) and data-ready cellular phones

Does it make sense to participate in this race? And if it does, should institutions plan for a sprint or a marathon? In this issue of Higher Education, we examine the technology and strategic dimensions of the enterprise wireless decision.

Campuswide wireless capability is an extremely attractive way to fully leverage network resources and deliver the ultimate in user service. However, it is not yet a "no-brainer." Worrisome shortcomings in 802.11b performance and security, complicated by the impending availability of more-robust but still-unproved 802.11a devices, make enterprise wireless local-area networks (WLANs) a high-profile but risky endeavor.

In "Wireless Higher Education: A Strategic Choice" (DF-14-5859), we argue that these risks are best managed by understanding what wireless can and can't do, and by creating a solid foundation for the long-term cultural changes that make wireless truly transformative rather than a technology gimmick. In the aftermath of the 11 September 2001 attacks, security concerns are an especially important component of the wireless decision. We examine security options in "Safe Wireless LANs for Higher Education" (DF-14-5899). New mobile devices such as PDAs and data-ready cell phones are pushing beyond the limits of the PC-based WLAN. In "PDAs, Smart Phones and Mobile Computing in Higher Ed" (T-14-7680), we evaluate the capabilities, support costs and security considerations of this unfamiliar but potentially huge computing domain.

Recognizing the value of practical experience, we have assembled three case studies of pioneering wireless campuses. California State University at Monterey Bay created an innovative laptop acquisition program in conjunction with its wireless initiative to make network access a practical reality for disadvantaged students ("CSU Monterey Bay Builds the Wireless Campus," CS-14-0593). Western Michigan University used extensive user communication, a pilot project and a strong vendor relationship to achieve a rapid 12-month rollout for campus wireless ("Western Michigan University: Wireless Where They Want It," CS-14-6378). Finally, we look at Drexel University, one of the earliest and most aggressive adopters of wireless computing, where a leading-edge wireless project was built around the goal of moving the university from a "curriculum-centered" to a "student-centered" focus ("Drexel University Goes Wireless," CS-14-4041).

### Features

"Wireless Higher Education: A Strategic Choice" (DF-14-5859). Long-term returns from wireless are cultural, not technological. **By Michael Zastrocky, Marti Harris, Ron Yanosky and Steve Bittinger**

"Safe Wireless LANs for Higher Education" (DF-14-5899). A review of 802.11b network security concerns and options. **By Ron Yanosky, Michael Zastrocky, Marti Harris, and John Pescatore**

"PDAs, Smart Phones and Mobile Computing in Higher Ed" (T-14-7680). Uses, support costs and security considerations of PDAs in a higher-education setting. **By Ron Yanosky, Marti Harris, Michael Zastrocky and Ken Dulaney**

"CSU Monterey Bay Builds the Wireless Campus" (CS-14-0593). Campuswide wireless supported by an innovative student laptop acquisition program. **By Ron Yanosky**

"Western Michigan University: Wireless Where They Want It" (CS-14-6378). A rapid-deployment campus wireless implementation. **By Marti Harris, Ron Yanosky and Michael Zastrocky**

"Drexel University Goes Wireless" (CS-14-4041). A leading-edge wireless initiative by an aggressive early adopter. **By Michael Zastrocky, Marti Harris and Ron Yanosky**

## REGIONAL HEADQUARTERS

---

### **Corporate Headquarters**

56 Top Gallant Road  
Stamford, CT 06902-7700  
U.S.A.  
+1 203 964 0096

### **European Headquarters**

Tamesis  
The Glanty  
Egham  
Surrey, TW20 9AW  
UNITED KINGDOM  
+44 1784 431611

### **Asia/Pacific Headquarters**

Gartner Australasia Pty. Ltd.  
Level 9, 141 Walker Street  
North Sydney  
New South Wales 2060  
AUSTRALIA  
+61 2 9459 4600

### **Japan Headquarters**

Gartner Japan Ltd.  
Aobadai Hills, 6F  
7-7, Aobadai, 4-chome  
Meguro-ku, Tokyo 153-0042  
JAPAN  
+81 3 3481 3670

### **Latin America Headquarters**

Gartner do Brazil  
Av. das Nações Unidas, 12551  
9º andar—World Trade Center  
04578-903—São Paulo SP  
BRAZIL  
+55 11 3443 1509