MAKING THE CASE

INTEL IT USES TEST RESULTS, ROI TO GAIN BUSINESS SUPPORT FOR WLAN DEPLOYMENT

Wireless LANs without an ROI Wouldn't Fly

That was the stark reality for global chipmaker Intel Corporation's IT unit, which had helped the firm realize huge savings by driving from 20 percent to 65 percent the number of its 80,000-person workforce using notebook PCs.

Intel IT wanted to move closer to its goal of enabling anytime, anywhere computing by rolling out WLANs, which it was convinced would unlock their investment in high-performance notebooks by enabling workers to be significantly more productive. But putting a price tag on anticipated employee productivity gains—a soft benefit—was difficult.

Working together, Intel IT and Intel Finance tackled the challenge of measuring time savings and quantifying (in dollars) the productivity gains realized by early WLAN users and pilot test participants. Buoyed by those results, the two groups built a solid business case that demonstrates a healthy ROI for WLANs.

Subsequently, Intel IT used this ROI model to justify expanded WLAN deployment to over 80 wireless networks worldwide. CIOs and IT managers can use the same model to overcome a top barrier to widespread WLAN adoption—the difficulty of measuring time savings and linking productivity gains to a quantifiable ROI.

"Intel IT, with the help of Intel Finance, found that wireless LANs deliver positive ROI in a wide range of usage scenarios and user segments," says Intel Vice President and CIO Doug Busch. "A well-designed program of wireless deployment should produce this kind of ROI in most companies."

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—Doug Busch, Vice President and CIO, Intel

Making the Case

Intel IT's plan was straightforward: assign dollar amounts to each component of the business case equation: Productivity benefits – Startup costs – Sustaining costs (support, etc) = ROI, and then do the math. The technology unit drew from surveys, interviews and monitoring of early WLAN users to help measure their reported time savings in hours per day.

The cross-functional team took the numbers from WLAN users in five segments: engineering/product management, manufacturing, sales, marketing and support, and then halved the figures to adjust for human judgement, and then took the results and halved them again to reflect actual productivity gains.

The team then calculated the value of each user's productivity gains by multiplying the average hourly "burden rate" (salary and benefits) by the number of workdays per year, 235. These conservative figures enabled the group to attach a dollar figure to the annual productivity gains from WLAN usage. To ensure that the business case was all-inclusive and thorough, Intel Finance took the productivity gains per user, per year, and factored in such costs as the time value of money, tax consequences and depreciation. The per-user, per-year productivity numbers ranged from $2,165 to $5,816.

Also included in the business case were estimated infrastructure startup costs for small, medium and large buildings, as well as sustaining costs, which typically consist of the burden rates associated with support personnel. Quantifying these costs requires that IT groups estimate what percent of their time will be devoted to the WLAN. The Intel team estimated the

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Tips for Making the Business Case for WLAN

Quantifying the benefits of wireless networking is a challenge. Here are the proof points that scored high and ultimately helped influence the senior business executives at Intel:

- Wireless workers maintain more frequent contact with customers and coworkers;
- Increased wireless connectivity enables faster decision-making;
- Employees with WLAN enjoy greater flexibility to work almost anywhere, anytime;
- Widening deployment of public WLANs provides employees with opportunities for additional flexibility and productivity;
- WLAN leverages the value you are already receiving from your investment in high-performance mobile PCs;
- New wireless standards incorporate security measures that are stronger than initial out-of-the-box solutions.

Source: Intel Corporation

time required per installation and multiplied it by the burden rate of the support personnel, then again factored in the time value of money, tax consequences and depreciation. One key piece of advice from Intel IT: It's far more productive to team with your finance unit from the start, and tap into its knowledge base when making a business case for a technology based on soft benefits, than to go it alone and meet only when presenting the case to cost-conscious senior managers.

"Working with your finance group on a wireless LAN pilot program is a great first step for IT managers who are either on the fence or are having trouble getting buy-in," explains the Intel Finance manager who assisted Intel IT. "We helped them get an understanding of what the gains are, and provided momentum."

ROI in Action

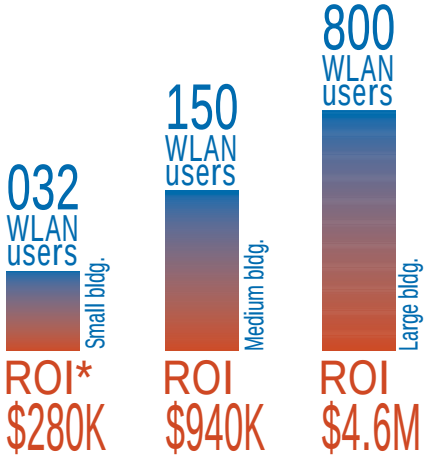
Based on Intel's calculations and experience over a three-year period, companies can see a healthy ROI on WLANs. Intel estimated a net present value ROI of $4.6 million for the large building scenario, $940,000 for a medium building deployment, and $280,000 for the small building installation. See chart at right.

This means that start-up and sustaining costs combined over three years still equal just one-tenth to one-twentieth of a conservative productivity benefit realized over the same period.

And the more WLAN users, the better. Intel IT points out that as a company adds more users to a WLAN, the cost per user plummets, while the ROI climbs. As a result, it doesn't take many users to pay for the infrastructure.

By the Numbers

Based on Intel's experience, ROI goes up as WLAN users increase.



Source: Intel IT, *Wireless LANs: Linking Productivity Gains to ROI.*
*ROI is net present value over three years

Not If But When

While the Intel team made the business case by quantifying user productivity increases from the use of WLANs, there are many other ancillary benefits that users can reap. After the pilots, roughly 160 Intel WLAN users were surveyed with results asserting that:

- 68% of respondents indicate they use the WLAN continuously or most of the time during work hours;
- 62%, if given a choice between a wireless and a wired connection, choose wireless wherever possible;
- The average WLAN user saves a significant amount of time previously spent in meetings.

Asked to reflect on Intel IT's business case for WLANs and the early results from the company's ambitious ongoing global deployment program, CIO Busch is direct. "IT groups have what they need to change the way businesses consider wireless LAN deployments. The ROI is clearly there for WLAN. It's no longer a decision of whether to deploy, but rather how, when, and where." •

Want to Know More?

Get the complete white paper this article is based on along with other in-depth wireless networking guides and white papers at:

www.intel.com/go/wireless

These guides include:

- Wireless LANs: Linking Productivity Gains to ROI
- Five Steps to Deploying a Wireless LAN
- Wireless 802.11 Security in a Corporate Environment