

## ITWorx Makes Network Installation and Management Elementary for Educators



**Microsoft**

**Country:**  
Worldwide

**Industry:**  
Education

**Customer:**  
Microsoft

### Executive Summary

As a division of Microsoft, EMEA education department works to promote corporate responsibility and community participation in educational development. Microsoft EMEA was looking for an efficient and cost effective way to help educational institutions deploy computer labs to enhance the educational process. Microsoft chose ITWorx to custom-develop the Learning Network Manager (LNM); an extensive set of processes, tools, and software used to rapidly build educational networks without dedicated IT expertise.

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We realized the need for a tool that simplifies the management of computer networks in schools and reduces the requirement for sophisticated technical resources to run the network. We called on the talent at ITWorx and worked jointly to leverage Microsoft latest technologies and build a fantastic software solution that enables academic institutions to automatically set up networks, deploy applications, and manage the systems all while decreasing their cost and increasing their efficiency.

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**Naser Ziadeh,**  
Microsoft Industry Strategist in  
the UK and EMEA

### The Customer

Microsoft Corporation active and continuous development in the education field engages a wide variety of academic institutions, supporting numerous programs that emphasize corporate responsibility and community participation. Microsoft is constantly launching new updates for its e-learning software products; all of which contribute to an enhanced education experience.

### The Challenge

While deploying state-of-the-art computer labs and networks for their students and teachers is at the top of many educational institutions' lists, the time and cost required to do so can be prohibitive for many schools and universities. In most cases, these academic institutions also lack the dedicated IT professionals needed to oversee the installation and continuous maintenance of these school-wide networks; adding further complexity to the projects.

Microsoft EMEA recognized the need for a simple, cost-effective solution to eliminate the complexities of deploying and running a network for their educational customers. Microsoft EMEA turned to ITWorx to develop the answer.

## Technologies and Software

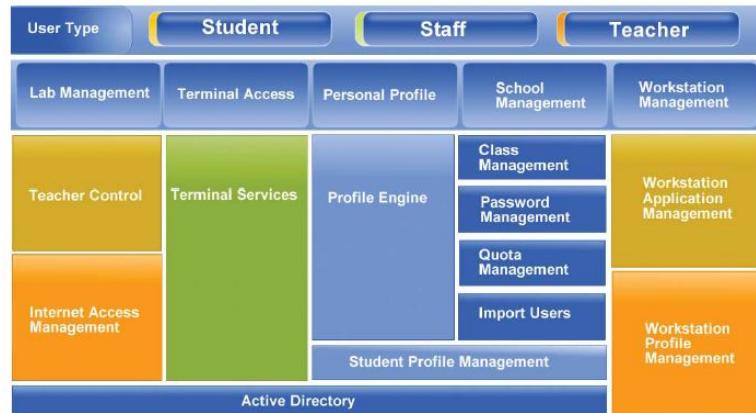
- Visual Studio.NET™ 2003
- .NET Framework 1.1
- Visual C#
- ASP.NET
- Web Services
- VB6
- VBS
- COM+
- XML
- Microsoft Windows Server 2003 SP1
- Microsoft XP Professional SP2
- Active Directory
- Group Policies
- Remote Installation Services
- Virtual PC
- Microsoft Enterprise Library

## The Solution

ITWorx and Microsoft have a proven track record of teaming to deliver successful customized software solutions. Microsoft EMEA analyzed the challenges that their educational customers faced. Based on the requirements uncovered by the analysis, ITWorx designed and developed the product ensuring it met the needs of today's schools.

ITWorx developed the Learning Network Manager (LNM) 2005, providing a simple plug-and-play solution that utilizes multiple tools and software to rapidly and automatically build educational networks. Based on Microsoft .NET Framework, ITWorx built the solution using Microsoft Visual Studio.NET 2003 and Microsoft Patterns & Practices Enterprise Library.

LNM automates the installation of servers and connected workstation machines using automated wizards to configure multiple workstations regardless of the number of operating systems and applications installed.



## The Benefits

### Learning to simplify complexity

Microsoft LNM solution provides customers with a system that reduces both the time and cost associated with creating and managing multiple educational networks. Since there is a lack of available "qualified" technical resources in academic institutions, LNM provides automation and simple functionality via an easy-to-use Web-based interface, enabling schools to quickly and efficiently build networks and create an online, connected learning environment. LNM also meets the complex requirements of geographically dispersed educational networks and enhances network reliability through a secured environment.

### Reducing the deployment time

LNM was designed to be installed with minimal administrative efforts, resulting in a network consisting of a single Windows 2003 Server machine capable of multiple services. Even with little or no dedicated IT personnel, schools can utilize the LNM to quickly deploy fully-operational networks, decreasing the amount of time spent on providing students and teachers access to the resources they need.

### Taking the lead out of operational costs

Microsoft LNM not only makes it faster to deploy networks, it also reduces the recurring costs associated with maintaining networks. The LNM solution provides users with ten different tools that facilitate the automation of school networks installation and management. ITWorx LNM Services Engine uses a simple Web-based management console that provides access and navigation of the different tools. Administrators can create different workstation profiles with different operating systems and applications then automatically install them through the Profile and Application Library Managers. They can create students, teachers, and staff accounts through the School Manager, control their quota using the Quota Manager, provide/prohibit Internet access through the Lab Manager, and many other useful management tools.

### Enabling the network to graduate in scale

When networks grow, they can often be more difficult to manage. The LNM Application Library Manager enables applications to be installed on any or all workstations throughout a school – or multiple schools – all from a central location. When there are multiple schools under the same LNM network, the School Enterprise Manager Tool enables users at the managing location to view all LNM servers that are related to the remote domains.

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