

Intel Solution Helps Minnesota Pollution Control Agency Better Serve its Customers

American Management Systems (AMS): Customer Application Story



As public awareness of environmental hazards continues to grow, and the scope of regulatory programs continues to expand, state environmental agencies face an increasingly difficult challenge.

They must find new ways of accomplishing more, without commensurate increases in staff or other resources.

Intel Products At Work

In Minnesota, an \$8 million governor's initiative is helping the Minnesota Pollution Control Agency (MPCA) improve the ways in which it protects the environment and the health of citizens in an area of roughly 94,000 square miles. By overhauling its information management capabilities, the agency stands to boost staff productivity, increase public satisfaction and improve environmental results.

"Our first challenge has been to put the necessary hardware, software, and communications equipment in place to support this large multi-faceted project," says Joe Loehle, director of environmental systems for American Management Systems (AMS), the business and information technology consulting firm responsible for managing the design and implementation of MPCA's technology initiative. "An important element of our design strategy was to provide MPCA with advanced network management tools that enable a relatively small technical staff to operate a large and complex network. This allows MPCA staff to do what they do best—serve their customers."

Solving Business Problems with Technical Solutions

AMS, with 1994 revenues exceeding \$440 million, is headquartered in Fairfax, VA, and has offices in 37 cities throughout the United

States, Canada and Europe. The company helps organizations worldwide achieve and sustain breakthrough performance through the intelligent use of information technology (IT). Through a powerful combination of business information and IT analysis, AMS provides creative technical solutions to complex business problems for telecommunications, finance, insurance, education, health care, and government clients.

AMS is in its third year of intensive work with MPCA to provide a comprehensive technical solution to the agency's business problems. The four-year modernization program includes a migration from a VAX terminal/host model to a client/server architecture. The switch will affect all of the agency's more than 800 employees, including 700 in its St. Paul headquarters and about 25 people in each of five regional offices.

The scope of this project includes six program areas (Air, Water, Hazardous Waste, Tanks & Spills, Site Response and Solid Waste). In addition to developing new databases and applications for these programs, the project will produce a shared centralized database. While the centralized database will contain the agency's



core descriptive data on regulated entities, the program databases will focus on program-specific functions such as electronic generation of permits.

The MPCA is structured into five divisions, each located on a separate floor of headquarters. AMS created five local networks for the divisions, each with about 150 nodes and its own file server running Novell NetWare* 4.02. Later, each division will also have its own database server, to automate permitting, compliance and enforcement activities throughout Minnesota.

The five LANs at headquarters plus LANs in the regional offices are connected via a collapsed 10Base-T Ethernet backbone centered by a Cisco router. Users run general MPCA-wide applications, such as Microsoft Office* and Microsoft Mail*, plus custom applications developed by AMS for the individual divisions.

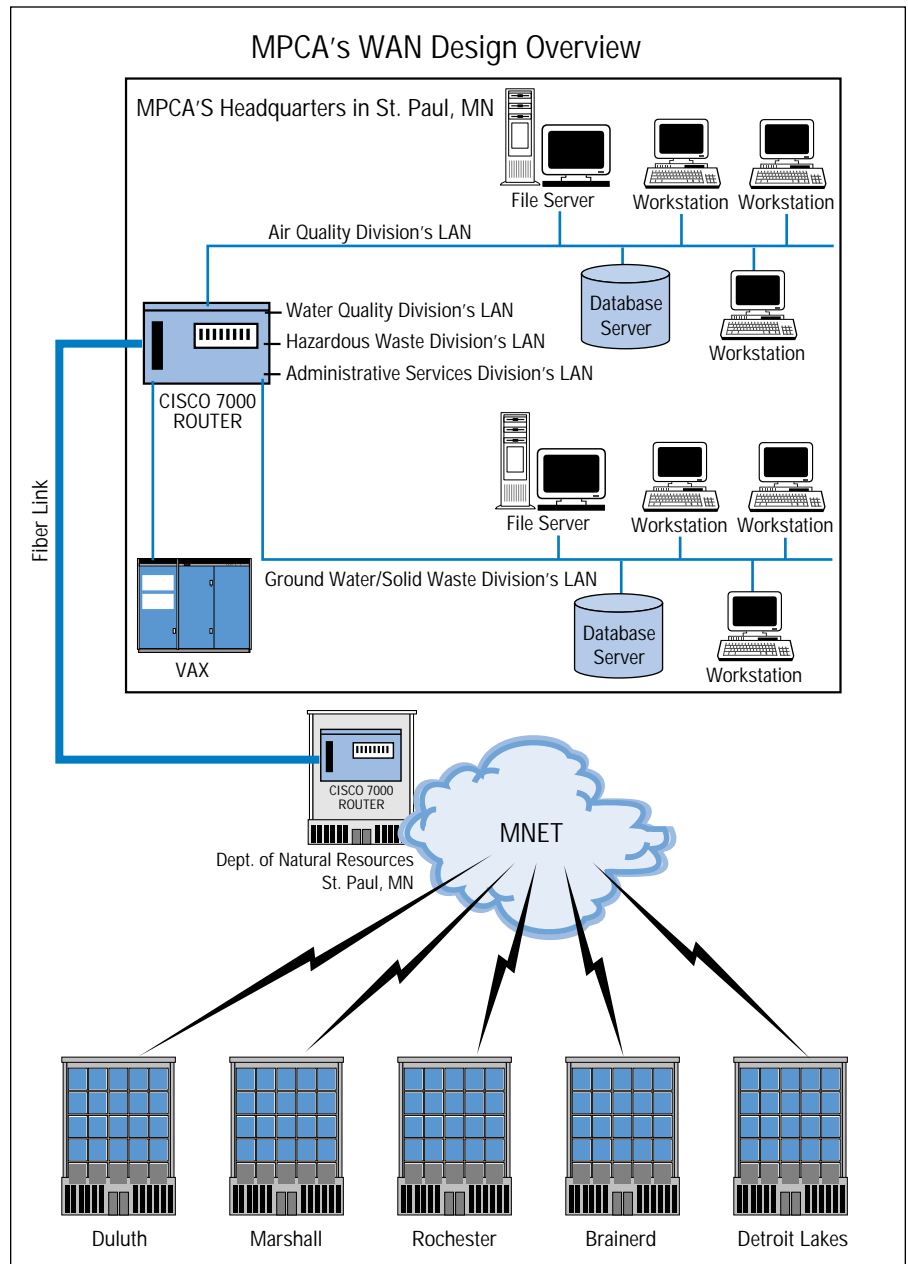
Ensuring Effective Control Over a State-of-the-Art Environment

AMS designed the new environment to work as a true enterprise, rather than discrete LANs, as users need to share documents, equipment, applications and e-mail. However, explains Duby Hodd, senior data communications consultant for AMS, the updated environment—with its multiple PC networks, more sophisticated applications and new equipment—was by its nature more complex to control, administer and troubleshoot.

In addition, while much of the agency’s processing power was being distributed to regional offices, limited resources precluded technical personnel at each site. That raised the specter of a three-hour drive from headquarters to a regional office whenever there was a

software glitch or a need to take stock of information systems.

To resolve those network management problems and give MPCA effective control over its new computing environment, AMS installed Intel’s LANDesk® Manager Software v1.51 on MPCA’s regional file servers as regions came on-



Source: American Management Systems

line beginning in July 1994. In fall of the same year, AMS began evaluating the beta version of Intel's new integrated desktop management solution—the LANDesk Management Suite 2.0—at headquarters in St. Paul.

“Adding LANDesk Management Suite to MPCA was a part of our commitment to deliver solutions for the entire range of needs,” Hodd says. “Since we designed the network and applications, we needed to design a network management strategy as part of delivering a full-scale, comprehensive solution.”

Integrated Desktop Management Solution Meets Needs

Prior to recommending a network management solution, AMS identified MPCA's business requirements, taking into account staffing, procedures, agency functions and other factors. Based on the analysis, MPCA required application metering, software distribution, an entry-level network analyzer, desktop access and inventory capabilities on a daily basis. AMS evaluated three separate tools for application metering, software distribution and software management, then determined that the MPCA would be best served by a solution that combined all of those functions, plus extra management features.

“The more I worked with LANDesk Management Suite 2.0, the more I was convinced it was the best answer to MPCA's specific needs,” Hodd says.

Hodd already was familiar with LANDesk Manager Software as a stable

solution that provided a breadth of features at a very low cost. With the LANDesk Management Suite 2.0 becoming available, he had even more reasons to recommend it to MPCA. Further, Hodd says, LANDesk Management Suite offered AMS much more flexibility in the design of MPCA's network.

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Hodd says the single most unique feature of LANDesk Management Suite 2.0 is its openness. He notes that many desktop management tools on the market can provide a suite of tools—although not as comprehensive as LANDesk Management Suite—but points out that none provided the ability to snap into multiple leading enterprise LAN management consoles, such as Novell's NMS*, HP OpenView* for Windows, and other SNMP consoles.

“An organization that has already invested money in one of these consoles can leverage its investment and integrate its existing environment with the LANDesk Management Suite to achieve a single, comprehensive enterprise network/desktop management console,” Hodd says. “LANDesk Management Suite is not competing with these SNMP consoles. On the contrary, it's extending

their capabilities from the infrastructure layer to the desktop level.”

A Range of Benefits

The Minnesota Pollution Control Agency will be able to take advantage of the LANDesk Management Suite's other features as well, according to Hodd. For example, if the agency wants to upgrade Microsoft Office, it will have to make sure that all users have the same version of files, so documents can be shared throughout the organization. To accomplish this, software distribution will be centralized for all divisions from the Information Services Office (ISO), using tools in the LANDesk Management Suite. On the other hand, if the Air Quality Division needs a specific, customized application, a local site administrator can use LANDesk Management Suite's software distribution tool to install it throughout the division, without affecting the rest of the agency's network.

The same benefits are available with software metering, providing additional flexibility of control. Further, a new task-oriented interface should make it easier for MPCA to address everyday management tasks.

“The user interface is a whole new paradigm,” Hodd says. “It lets you tailor LANDesk Management Suite to the way you do business, the way you are organized.”

Desktop access is one management feature that MPCA finds particularly useful, according to Hodd. Before, if a user

from one of the regions called headquarters with a problem on his or her PC, the Information Services Office would try to talk the problem to resolution over the phone. Typically, that turned into a trial-and-error series, based on “Press this keystroke. Now what do you see?” The ISO had no control and was dependent on whatever information the user provided, which was not always accurate. Today, troubleshooting is much easier.

“With LANDesk, ISO can take control over the workstation, fix the problem and that’s it,” Hodd explains. “They actually take a proactive control over the network, instead of relying on users’ input.”

The flexibility of control that LANDesk Management Suite offers ties in well with the divisional structure of MPCA and the rest of the technical architecture that AMS designed. The agency is set up so that each division has its own LAN administrator, but overall administration of the network happens from the ISO. By defining MPCA’s network as one big domain, and each division as a group inside the domain, MPCA ensures that its divisional LAN administrators maintain total network management control of their Divisional LANs, and that the ISO has entire control of the enterprise.

Overall, Hodd concludes, LANDesk Management Suite should provide a range of benefits to ISO.

“It’s a very powerful tool, already configured and thought through, so we can take advantage of it,” says Janet Cain, manager of MPCA’s Information Services Office. “The primary benefits for MPCA are its comprehensiveness, the fact that it’s an all-inclusive package running native on NDS (NetWare Directory Service), its openness to other leading consoles and the user interface.”

Expanding Clients’ Management Capabilities

In addition to deploying LANDesk Management Suite 2.0 at MPCA, AMS is evaluating the new software at its research and development lab in Fairfax. At the AMS Center for Advanced Technologies, AMS tests emerging information technologies to speed their adoption and increase benefits to clients.

Hodd points out that AMS has introduced LANDesk Manager Software 1.51 as a network management solution to several of its other clients worldwide, such as Kraft General Foods International.

“We are looking forward to the release of Intel’s LANDesk Management Suite 2.0 to be able to expand our clients management capabilities even further,” says Hodd. “As a package, LANDesk Management Suite is a very robust, comprehensive solution that we think many of our customers could use and will benefit from, depending on their specific business and technical needs.”

For More Information

Call FaxBack*, Intel’s 24-hour response service at 800-525-3019 and request documents 5544 and 5557 for more information on the LANDesk Management Suite.