



Overview



Country or Region: United States

Industry: Military

Customer Profile: The Army, working in conjunction with the U.S. Department of Defense, is a key component of the U.S. Armed Forces, training and equipping Soldiers to rapidly respond when they are called upon to serve.

Business Situation: OSIsoft has been awarded contracts to provide end-to-end monitoring of the communication networks of 100 Army sites, with more than 40 installations accomplished to date. IT Monitor was selected as a response to the evolving needs of military communications. Colorado's Fort Carson, home to the Training Support Division West, First U.S. Army, is one such installation and an important part of the military's home base capability within the United States. Charged with training, mobilizing, deploying and sustaining combat-ready forces, Fort Carson must be on the front lines of communication innovation in order to successfully accomplish its mission.

Solution: OSIsoft's IT Monitor offered unparalleled insights into the Army's IT networked infrastructure that improved performance, reliability and security.

Benefits

- Improved availability through trend detection and analysis
- Reduced down-time through rapid troubleshooting and diagnosis
- Optimized network performance
- Cost savings

Background

A reliable communications infrastructure remains critically important to the military, both in time of peace and in time of war. The data center at Fort Carson serves not only the needs of those on the base, but also those of the base's external customers. In recent years email has supplanted voice and fax as the preferred method of communication, both at home and in the field. With forces relying on communications for the battlefield, it is critically important that emails arrive within seconds – taking longer is unacceptable. Like any large organization, the DoD's ability to accomplish its mission depends to a large extent on a business continuity infrastructure that reduces operational risk.

Initial Situation and Issues

Like many DoD facilities, the Fort Carson IT Group was understaffed. Most of the resources were becoming increasingly dedicated to putting out fires in order to keeping things running. Despite working longer hours and some weekends, the staff just could not keep up with everything. They did not have time to manually monitor network equipment reliability, nor the resources to spend searching through data in different systems looking for problems. As a result, the IT staff found itself increasingly trapped in the run-to-failure mode.

"In the past we'd learn of a breakdown in the system when the help desk was flooded with calls," notes Rex Peralta, IT System Manager. It was only after 10 or 20 calls that we'd figure out what IT asset had the issue." Many problems took longer to resolve, and in many cases a root cause analysis was not performed because resources had to be moved on to the next emergency. "We knew we needed a trending capability that would anticipate problems before they brought the system down," adds Network Operations Team Leader Ronnie Gill. "As an additional benefit, we knew that a trending capability would help us with resource allocation, system planning and budgets."

In addition, with resources consumed just maintaining operational services, there was little time to accumulate the data required to accurately predict and plan for expansion. When users were added and response times of critical services were slowed, the site did not have sufficient data to pinpoint the problem.

They found themselves making some key upgrade decisions based on subjective guesswork without the supporting forensics. Point solutions in use were very good at identifying problems after they've occurred, but they did not have the capability to perform predictive analysis and identify anomalies before they became serious problems.

"The longest any of our point solutions could store data was thirty days," notes Gill. "That's just not long enough to capture typical degradation in end-user experience. We knew that an effective trending capability would also help us with configuration issues and more intelligent capacity planning," he adds. "And it would definitely make justifying budgets for hardware and upgrade purchases an objective process, rather than a subjective one. No more 'Trust me, I promise we need this.'"

The Solution: IT Monitor

IT Monitor was installed and collecting data in less than a week. Dashboard customization and implementation were completed within 3 weeks, including integration with Microsoft Sharepoint Portal. Users were trained and given access to specific dashboards based on their roles in the organization.

The IT Monitor solution incorporates real-time events to drive intelligent actions at all levels throughout an extended organization, providing true enterprise performance management that enables users to continuously improve network performance, as well as anticipate problems before they occur. IT Monitor's unique time-series database gathers data from all protocols and stores them in their original resolution, providing a "single version of the truth" for the users.

Powerful analysis tools allow advanced calculations, event framing, and correlation to synthesize all that data into useful information. The role-based dashboard views use trends, graphs, and animation, to provide the "right data, right now," allowing users to make better and faster decisions about the network.

"We had a great time working with the OSIssoft executive team," says Peralta. "It's really refreshing to have an install team come out who knows what we're talking about and is able to talk to us on both the executive and the technical level."

Benefits

Fort Carson began realizing a number of benefits quickly after installation.

Improved availability through trend detection and analysis:

Once the users understood the baseline operation of the network, they could quickly identify potential problems as they emerged – before a critical service was lost and often before user experience was affected. They found they could also positively identify intermittent problems, improving their decision-making and confidence.

"It was easy to see right away that IT Monitor is easy to use, and we began to get value in a really short amount of time," notes Gill. "Our email system is measurably more dependable."

Reduced down-time through rapid trouble-shooting and diagnosis:

With all the data in one place, users could solve problems more quickly and identify the root cause – then correct it. It also allowed the IT staff to understand events that happened during unattended periods, such as over a weekend.

Optimized network performance:

The long-term trending capability has provided an understanding of the "normal" operation of the network. This provided for true pro-active planning for expansion, and facilitated the measurement of realtime KPIs for monitoring and improving end-user experience.

Cost Savings:

With a much more efficient use of troubleshooting resources, the IT staff was able to achieve better asset optimization and avoid unnecessary hardware expenditures. It has turned justifying budgets for hardware and upgrade purchases into an objective process, rather than a subjective one. As a result, IT purchases only what's needed, and has it installed when it's needed. In addition, the IT staff was able to improve the quality of their lives because IT Monitor allows them to accomplish their tasks in less time, which has drastically reduced evening hours and kept weekend work to a minimum.

Looking to the Future

Since IT Monitor has proved its value in troubleshooting, resource allocations and budgeting justifications, the Fort Carson IT team is now expanding its use to the next step: capacity planning. IT Monitor will enable the team to achieve better testing proof, view the effect of introducing new capacity more clearly, and to measure more exactly the results of various improvements. More intelligent planning will give more confidence to future assessment, and acquisition procedures will be based on realistic assessments of future needs, eliminating the need (and additional expense) of guesswork.

All in all, the IT team at Fort Carson demonstrates that fully utilizing the capabilities of OSIssoft's IT Monitor ensures multiple benefits. Perhaps most important, however, is the fact that the Army's communications infrastructure has been made more robust in order to meet the challenges of the 21st Century.