



## Technology Refresh and Infrastructure Consolidation Customer Solution Case Study



[www.afcea.org](http://www.afcea.org)

AFCEA International

## Microsoft Enables Major Infrastructure Upgrade at Key Government Technology Association

### Overview

#### Country or Region

North America and Europe

#### Industry

Defense, Aerospace, Communications, Electronics

#### Customer Profile

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#### Business Situation

Organization needed to perform an enterprise technology refresh operation to support mission-critical operations.

#### Solution

Microsoft provided a comprehensive enterprise-wide solution that enabled comprehensive upgrade to Microsoft Office 2003, Windows XP operating system, XP Service Pack 2 and Windows Server 2003.

#### Benefits

- Consolidated server infrastructure, simplifying management of major IT assets.
- Improved the information security posture of the organization.
- Enhanced the effectiveness and productivity of IT staff with new automation and management tools.

*"There is a strong need to provide transparency, while at the same time provide extremely solid protection of the information that is shared among the members of our community."*

*— Herbert A. Browne, Vice Admiral, USN (Ret.), AFCEA's President and CEO.*

The Armed Forces Communications and Electronics Association (AFCEA) is one of the early pioneers in the technology non-profit arena. Since the end of World War II, this association has played a major role in helping industry understand the critical requirements of uniformed services and intelligence organizations, while simultaneously providing government with a window into the dynamic world of technology development in the private sector.

The Fairfax, Va.-based association has done this by providing a legal and ethical platform on which ideas could be exchanged and developed. Over the years, AFCEA International has had to retool its infrastructure to meet the demands of its public and private sector members.

Last winter the association embarked on its most recent technology-refresh initiative when Microsoft Corp., came through with infrastructure software applications that quite literally brought this critical organization into the 21st century.



## Situation

One of the major paradigm shifts in government operations over the past few years has revolved around the nature of relationships between government agencies and industry. While there has always been close collaboration among private sector contractors and government entities, the traditional relationship during the cold war era was fairly transactional. Agencies created specifications. Contractors met those specifications. And the cycle repeated itself.

But that has changed. Today, broad demographic and economic imperatives -- along with a slew of new mandates that call for government to be more effective with fewer resources -- have enabled a much stronger and more intimate partnership to emerge. The new relationship has evolved to the point where agencies now often look to the private sector to identify best practices that can be brought to bear to iron out inefficient processes from government operations. And from a national security standpoint, the proverbial point of the spear is forged increasingly in the heat of high-technology created by innovative entrepreneurs.

That is where organizations like AFCEA International play an increasingly important role in advancing the interests of tax payers. AFCEA is a non-profit international association that is dedicated to supporting global security by providing an ethical environment that encourages a close cooperative relationship among civil government agencies, the military and industry.


"We organize a lot of symposia, lunches and other events to bring people together in order to show government the latest technology trends. At the same time, we provide the private sector with meaningful insight into the emerging requirements faced by their government clients in an ethical and honest way," says Herbert A. Browne, Vice Admiral, USN (Ret.), AFCEA's President and CEO.

"To that end there is a strong need to provide transparency, while at the same time provide extremely solid protection of the information that is shared among the members of our community," he adds.

That is why the executive leadership has always made it a priority to ensure that the technology that underpins AFCEA's operations is up to the challenge of supporting the highest standards in security, integrity and availability.

## Enter a New CIO

So when James Griggs was brought in two years ago to take over as Chief Information Officer for AFCEA, his first priority was to take a careful inventory of key technology assets, and provide a plan that would ensure that the right technology was in place to support the AFCEA mission as they progressed deep into the first decade of the new millennium. The situation he found was not an unusual one. Several different generations of technology were being concurrently supported, as past technology enhancements in the organization had been phased-in on a department by department basis.



"I found that while most of our desktops were running on Windows 2000, in more than a few cases we still had Windows 98 systems operating," he recalls.

Managing a mix of old and new technologies is never easy. Moreover, it is difficult to upgrade management practices to keep up with the capabilities that new technologies introduce.

"More users than necessary, for instance, had administrative privileges to their machines resulting in malicious software being installed silently without user intervention. Once one machine was compromised there was really no firewall between users to prevent propagation," says Griggs.

Beyond the internal evolution of the AFCEA infrastructure, new security issues were rapidly proliferating outside the firewall. New threats, in the form of viruses, phishing scams, blended cyber attacks and even denial of service activities were putting at risk all organizations that depend on information technology to maintain their operations.

"In my first two months here we had two virus outbreaks caused by users downloading attachments or visiting malicious websites. More often than not, such actions are unintentional. People would be doing a search on a legitimate topic and click on a link that led to an avalanche of pop-ups on the screen. Some of those pop-ups contained trojans that threatened to infect the network," he explains.

In order to address the incidents, AFCEA's CIO would have to take precious human resources off of regular operational activities to personally visit each affected machine in the wake of every event. It was a manual, labor-intensive process.


The time had clearly come for a new technology refresh initiative, and AFCEA's management concurred. There was, however, a fairly significant hurdle to overcome.

### Limited Resources

As a non-profit organization that is dedicated to serving the needs of its members in as lean and efficient a manner possible, AFCEA's goal is to not retain surplus revenue at the end of any given fiscal year. Resources that are accumulated from fees or dues paid by members are channeled back in the form of new member-oriented services. As a result, AFCEA was in an ironic situation. While it was an extremely successful, mission-oriented organization that receives high marks in member satisfaction, it did not have ready resources in place to undertake a massive, organization-wide, technology upgrade initiative.

"It is a typical situation, even in the private sector. Most organizations tend to cycle in their technology upgrades on a department by department basis to optimize the use of available financial resources," says Griggs.

In a perfect world, however, an enterprise-wide upgrade would introduce new efficiencies and lower long-term total cost of ownership. After conferring with



AFCEA's executive leadership it was decided that Griggs should share his plans for a new association IT infrastructure with the membership. Since AFCEA's membership includes the top echelon of players in the technology industry, the consultation would not only serve as a good way to check his thinking, but also as an opportunity to get expert advice on the plan.

### **Solution**

Among those who reviewed his plans, were executives at Microsoft, who are extremely active participants in a number of AFCEA's committees. An executive decision was made by Microsoft to donate key cutting edge technology to the association.

Among the assets that were presented to AFCEA were an enterprise-wide license to deploy Office 2003, the Windows XP operating system (along with XP Service Pack 2) and a full upgrade of the enterprise infrastructure to Windows Server 2003.

### **Benefits**


"The biggest benefit has come from the Windows XP firewall capacity and built-in protections in the Internet Explorer browser. These features keep users from unknowingly installing software without consent and help to prevent the spread of any malicious software that does manage to get into the network," says Griggs. If a machine detects an attempt to download a program or application, the user simply gets a message and will get in touch with a member of the AFCEA IT team to proceed.

Moreover, Office 2003 has improved the security and integrity of operations that involve macros, databases and spreadsheets. Users are now prompted to choose whether or not they really want to accept macros that they may or may not trust. "We encourage our staff to be very suspicious of all executable files that come in from outside the organization," he cautions.

### **More Secure Operations**

In the course of AFCEA's daily operations, the enterprise system must process and communicate a tremendous amount of sensitive information. For instance, the association manages a large volume of credit card transactions for both its public and private sector members as people sign up for shows buy tickets to events or even sign up for membership. "Almost all of this information is processed internally on the AFCEA network -- we host the membership site, the main web site and event sites. It is critical to be able to segment data and implement audit trails so that we can carefully track logins and activities. It is also important to be able to track and manage who can see what and when, based on who they are and what they are authorized to do in the AFCEA environment," points out Griggs.

For instance, AFCEA International has implemented an after-hours lock down of data for some portions of the infrastructure. The internal firewall will actually challenge people who try to access certain areas during times when most people are expected to be out of the building.



The content of seminars and courses must also be protected. AFCEA hosts events that discuss issues that are critical to homeland security and support mission critical agency activities. "We focus on a lot of communications, intelligence and signals issues that really are designed for the eyes and ears of our members only. In addition we provide a lot of training for audiences that require clearances. So protecting and securing that information is vitally important," he says.

The new environment makes it easier to prevent those information resources from being compromised in the first place because of the access management and real-time audit capabilities of Windows XP and Windows Server 2003.

### Smooth Migration

The migration process, according to Griggs, has been pretty straight forward. For most Windows 2000 machines the IT staff developed a schedule that was designed to have a minimal impact on users. Upgrades took place during lunch hours, staff days off, or after work. Typically, the migration team would perform a clean sweep of each workstation to make sure there were no latent Trojans, viruses or dangerous misconfigurations.

"If everything checked out and the machine was in good working order, we upgraded the machine to Windows XP. The whole process took approximately 30 minutes on each user's machine," says Griggs.

If a machine had a compromise reported -- or if the machine was running on Windows

98 -- the IT staffers would take a ghost image of the machine to capture the data and email PST files as they existed today, perform a clean installation of Windows XP, and move the working files back onto the machine running on the new operating system. "In most cases we were able to transfer profile settings as well, so that the users would not have to take time to reset preferences for how documents and folders are organized on the machine," he says.

### Better Management

From a management standpoint, one of the major benefits of the migration stem from the ability to establish remote desktop connectivity with every workstation on the network. Before the migration, IT staffers would either have to walk up to each machine to evaluate a problem, or they would have to use a third party product to remotely access a workstation.

"With Windows XP, my IT staff can use the Remote Desktop Manager feature, and we can pull up any workstation on the network and make necessary changes on the fly. This means we spend less time running around the office (away from e-mail and the telephone) so we are in a position now to be much more productive and proactive," says Griggs.

Another management benefit was realized by enabling the enhanced automatic update capabilities within XP to download and install patches and updates after hours. This minimized the impact on the users and reduced the need for IT involvement to deploy critical updates.

## Software and Services

- Microsoft Office 2003
- Windows XP
- XP Service Pack 2
- Windows Server 2003

## About AFCEA International

Founded in 1946, AFCEA's roots trace back to the American Civil War. Today, AFCEA International serves as a bridge between government requirements and industry capabilities, representing the top government, industry, and military professionals in the fields of information technology, communications, and intelligence.

AFCEA, a non-profit international association, is dedicated to supporting global security by providing an ethical environment that encourages a close cooperative relationship among civil government agencies, the military and industry. For more information visit: [www.afcea.org](http://www.afcea.org).

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Document published <Insert: Month and Year>