



## Air National Guard

### EMC Global Services helps migrate legacy Windows network environments into a Windows Server 2003 enterprise

#### Industry

Government

#### Services

- Infrastructure Upgrade/Migration
- Consolidation and Management
- Managed Services

#### Benefits

- Standardization on the Windows Server 2003 Active Directory networking infrastructure
- Legacy Windows networking environments migrated to one enterprise-wide environment
- U. S. Air Force mandate to migrate to Windows Server 2003 platform compliance
- DoD integration
- The ability to integrate with other Microsoft technologies such as Exchange Server 2003 and Systems Management Server

#### Key Microsoft technologies

Windows Server 2003

To comply with Office of the Secretary of the Air Force (SECAF) directives, the Air National Guard (ANG) needed to migrate its multiple Windows NT and Windows 2000 network environments into a single Windows Server 2003-based Active Directory infrastructure. The migration's scope included approximately 100,000 users located at over 100 national locations.

Selected for its expertise in Active Directory migrations, EMC® Global Services, Microsoft Practice was called upon to create a centralized administrative foundation for the ANG where none existed before.

“Done on time and \$1.1 million under budget, EMC has enabled us to collapse more than 100 widely dispersed Windows NT domains into a single, centrally managed domain that has enabled us to reduce operational costs and personnel requirements,” says Lt. Col. Glenn Zimmerman.

#### A comprehensive approach

The ANG solution provided by the EMC Microsoft Practice consists of a single Active Directory forest that contains an empty root domain and a production domain. The forest functional level is Windows Server 2003. A minimum of two domain controllers and one infrastructure server are deployed at over 100 physical sites throughout the United States.

Active Directory-integrated domain name servers (DNS) and Windows Internet Naming Service (WINS) are implemented to provide host name registration and resolution service. DNS and the global catalog service are configured on each domain controller. WINS is configured on a few Windows Server 2003 infrastructure servers. Other network services such as DHCP and third-party management tools also are configured on the infrastructure servers.

The Organizational Unit (OU) structure is designed based on ANG's support and organization model. The OU structure has top-level OUs that contain enterprise systems and an OU hierarchy that contains the user accounts and systems for the ANG bases and units.

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Key third-party tools include: NetIQ's Directory and Resource Administrator (DRA) and Directory Security Administrator (DSA) along with Quest's Domain Migration Wizard (DMW). DSA enhances Active Directory security functionality while DRA enhances Active Directory administration. DMW, which provides automated resource migration capabilities, was used to move the existing user accounts, computer systems, and associated access permissions from the various legacy environments to the Windows Server 2003 environment. To accomplish the migration, a two-way trust between the legacy environments and the Windows Server 2003 environment was established.

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Fully addressing ANG's requirements, the EMC Microsoft Practice solution has enabled ANG to standardize on the Windows Server 2003 Active Directory networking infrastructure which supports compliance with the U. S. Air Force's mandate to migrate to the Windows Server 2003 platform. It also facilitated the migration of the ANG's legacy Windows networking environments to a single enterprise-wide environment. Meeting a Department of Defense (DoD) mandate, the solution ensures the ANG can interoperate with other DoD components using a standard directory infrastructure. The solution also has positioned ANG's environment to integrate with other Microsoft technologies such as Exchange Server 2003 and Systems Management Server.



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