

Windows Enterprise Status Current Enterprise Domain Status

February 2, 2012

Current State of the Enterprise Forest and Domain

- All domain controllers are running Windows Server 2008 Service Pack 2. All current critical hotfixes issued by Microsoft are generally applied as soon as available.
- The forest and domain are at “Windows Server 2008 Functional Mode”
- Schema extensions for the following Microsoft products have been applied:
 - Exchange 2000 (Aug 11, 2002)
 - Windows Server 2003 Domain Controllers (Mar 6, 2004)
 - Exchange 2003 (Mar 6, 2004)
 - SMS 2003 (Aug 11, 2005)
 - Windows Server 2008 Domain Controllers (May 14, 2009)
 - Exchange 2007 (Jul 14, 2009)
 - Exchange 2007 SP3 (Aug 10, 2010)
 - SCCM 2007 (Mar 15, 2011)
 - Exchange 2010 (Apr 19, 2011)
 - Lync (Jan 31, 2012)
 - Exchange 2010 SP2 (Feb 2, 2012)

Implementation Features Completed

- Active Directory is being populated with ISU NetIDs automatically whenever a user creates a new NetID or changes their password on an existing NetID. Users can login to Windows systems with the same username/password combination as they use for other Acropolis services.
- ISU NetID “account status” actions that take place at the Acropolis level automatically happen at the Windows level. Currently these actions are “create”, “update”, “suspend”, “unsuspend”, “delete”, and “rename”.
- The ISU NetIDs of all those people who have NOT changed their password since April of 2000 have been populated into Active Directory with a “long random character” password. These people must change their Acropolis password (to bring them “in synch”) to be able to login to Windows 2000. The “random passwords” had to be used since the original Kerberos passwords cannot be

- recovered after they are encrypted. Users with passwords currently “out of synch” can be recognized in Active Directory Users and Computers. Their “Description” will say “Change password to use”. Once they change their password (in Acropolis) the Description will revert to their “Proper name”.
- Windows password changes made on Windows systems that are members of the domain are reflected back into the ISU NetID (bi-directional password synchronization).
 - The “official university department information” for each user has been placed in Active Directory for all faculty/staff. This means the OU into which the faculty/staff user object should be located can be automatically determined.
 - A “mass batch move” process has been done for OUs with active participation in the domain. This process moves existing Windows 2000 “ISU NetID” user objects into the correct departmental OUs (based on the “official department abbreviation” for each user). Most major college/departmental OUs have had their user objects loaded.
 - A “PswdUtil” program has been written to allow OU administrators to enforce individual password age policies on users, lists of users, groups, or OUs that they administer. This program is designed to run nightly as a “scheduled task” by an OU administrator so that different groups of users can have different effective password age policies. The program and documentation are available at: <http://tech.its.iastate.edu/windows/admin/PswdUtil.v1.0.zip>
 - The Active Directory account-creation process has been modified to use the “official university department abbreviation” to deposit new faculty and staff users into their departmental OUs (if the OUs exist). The logic for this process is documented at <http://tech.its.iastate.edu/windows/admin/OUUserLogic.pdf>
 - Exchange 2000 implementation/conversion is complete. Schema updates to support Exchange 2003 Servers are complete. Exchange 2003 servers are active in the domain.
 - Software processes have been installed on the Windows 2000 root domain to implement the “enforced conventions” for departmental OU management. See <http://tech.its.iastate.edu/windows/admin/UserMgmtInOUs.pdf>
 - Installation of Enterprise SUS (Software Update Services) server. Instructions at http://tech.its.iastate.edu/windows/admin/SUS_User_Kit.zip
 - Conversion of all Windows Enterprise Domain controllers to Windows Server 2003. Required schema extensions and hardware/OS upgrades. Project completed by end of summer 2004.

- Forest and domain “functional mode” switched to “Windows Server 2003 Functional Mode” on July 5, 2005.
- Synchronization of official university departmental, college, major, and class lists as Windows Global Security Groups has been implemented (entered production status July 18, 2005). See <http://tech.its.iastate.edu/windows/admin/ListSync.pdf>
- Movement of student user objects into a “Students” OU structure (broken down by college) completed February 2006.
- Campus address postal information has been mastered from official university data into all user objects. Information includes the street, city, state, and zip for each user. For faculty and staff the university address will be used (not the home address). For students, the current “on campus” address will be used (not the permanent home address). In all cases, if the address information is suppressed by the user it will not appear in Active Directory.
- Student User Object “service oriented fields” has been delegated to college IT admins. This provides the ability for college IT admin staff to provide “logon script”, “home directory”, and “roaming profile” support for students with majors in their college.
- Conversion of all Windows Enterprise Domain controllers to Windows Server 2008. Required schema extensions and hardware/OS upgrades. Project completed by end of summer 2009.
- Forest and domain “functional mode” switched to “Windows Server 2008 Functional Mode” on August 11, 2009.
- Support for “non-official” (user requested) ASW lists as Windows Global Security groups (with one-way synchronization ASW->Windows). Project completed November 2009.
- Synchronization of “FAX” phone numbers from official university data sources into Active Directory. Project completed January 2011.
- Support for ASW mailing lists to be displayed in the Global Address List (Exchange “contact” objects created for an ASW mailing list). Project completed in March 2011.
- Support for home-directory and roaming-profile storage for all users on enterprise file servers. In early August 2011 all users objects without any existing home-directory and roaming-profile storage attributes were set up to use enterprise file

servers managed by ITS (a few departmental OUs were granted exemptions). The new service was branded “CyFiles”.

Current Work in Progress

- Official university database flow analysis (to ensure timely status change of people).

Future Work (waiting for other processes to complete)

- Automated creation of exception accounts via a secure web page (asw.iastate.edu). This will be used to create “Acropolis-wide” usernames for “non-ISU” staff that can be used on multiple operating systems (not just Windows).