

Purpose

The purpose of this policy is to ensure that systems, data, and personally identifiable information (PII) are adequately protected by maintaining appropriate and timely updates/patches/maintenance consistent with the compatibility requirements of application software and the availability of system outage windows.

Policy

1. Windows Server

- a. Installation: The newest generally available release compatible with the application workload is installed when a new server (virtual or physical) is built.
- b. Upgrade: Major release upgrades depend upon the ability of the application to function with the upgraded Windows Server release and on the availability of patch fixes for an existing release. Upgrades are not done in place, but via migration to a new server
- c. Patching: Each server automatically checks for and retrieves all available patch updates from Microsoft for all installed Microsoft software (i.e. – Windows Server, Exchange, SQL Server, Sharepoint, SCCM), applies the patches and reboots. This process is set to run on most servers at 3:00 am nightly.

2. Linux Server

- a. Installation: The newest generally available release compatible with the application is installed when a new server (virtual or physical) is built.
- b. Upgrade: Major release upgrades depend upon the ability of the application to function with the upgraded Linux Server release and on the availability of patch fixes for an existing release. Upgrades are not done in place, but via migration to a new server.
- c. Patching: Linux vendors (i.e. – Red Hat) send email notifications to the system administrator to announce the availability of package updates (Linux updates consist of replacements for entire functional packages). The system administrator retrieves and applies package updates during scheduled outages monthly. Critical security patches released to address specific issues are installed as needed by arranging outage time with the consent of the user community.

3. KACE Servers

- a. Installation: KACE is a turnkey system provided and supported by Dell. NSCC does not choose the operating system, which is a form of Linux.
- b. Upgrade: See item a. above.
- c. Patching: KACE Servers automatically check for and retrieve patch updates. The availability of updates is reported on the system console, and they are applied on command by a TSD technician as they become available.

4. Oracle Database and Middleware

- a. Installation: Database and Middleware versions are installed for compatibility with Banner application software as communicated by Ellucian via the TBR Information Technology Office.
- b. Upgrade: Software versions and upgrade timing is determined and communicated by Ellucian via the TBR Information Technology Office. TSD implements version upgrades in production during the outage windows available in January, April and October.
- c. Patching: Oracle issues Security Patch Updates quarterly: January, April, July and October. SPU packages are cumulative, and therefore include all updates issued in prior packages. TSD applies the quarterly patches according to the following schedule: January SPU to Banner test systems in January and Banner production systems in February; April SPU to Banner test systems in April and Banner production in May; July SPU to Banner test systems in July and the Banner Production in August; and the October SPU to Banner test systems in October and the Banner Production systems in November.

5. Banner Module Updates and Patches

- a. TBR distributes Banner version updates for all Banner modules except Financial Aid in quarterly releases: January, April, July, and October. Upon Data Owner approval, TSD applies the quarterly releases according to the following schedule:
 - The January release is applied to Test system the 3rd Monday in April and applied to the Production system the first Sunday in May.
 - The April release is applied to Test system the 3rd Monday in July and applied to the Production system the first Sunday in August.
 - The July release is applied to Test system the 3rd Monday in October and applied to the Production system the first Sunday in November.
 - The October release is applied to Test system the 3rd Monday in January and applied to the Production system the first Sunday in February.
- b. TBR issues Financial Aid version updates as needed based on regulatory requirements. TSD installs FA updates for testing in coordination with the NSCC Financial Aid office. Updates are installed in production on a weekday evening upon approval of the Financial Aid office and in coordination with the Banner user community, as a Banner outage is required.
- c. TBR issues patch updates for Banner modules as needed to address security issues, bug fixes, and new or updated functionality. TSD installs these

patches in Banner test in coordination with the affected user department, and in Banner production upon their approval.

- d. Automic Application Manager is a third-party batch job scheduling system licensed and supported by Ellucian. TSD initially installed the product as AppWorx, which became UC4 after a corporate acquisition, and is now Automic. TSD receives notice from the TBR Information Technology Office regarding the availability of updates and applies them during the normal Banner maintenance windows.
- e. BDMS (Banner Document Management System) is the Banner database support for the external Xtender Document Imaging system, used by various administrative departments to scan and index paper documents for electronic retrieval. TSD installs updated versions of BDMS as needed during normal Banner maintenance windows to maintain compatibility with other Banner modules in accordance with the Ellucian Compatibility Matrix.
- f. ePrint is a report archival server for Banner reports. Unless a critical security patch is necessary, all updates are scheduled to coincide with the normal Banner maintenance windows.
- g. MAPS is a third-party (eVisions) server that supports the Argos report builder, Intellicheck check processing application for Banner, and FormFusion report formatter for Banner. The MAPS server displays a message when an administrator logs in when updates are available. The administrator applies the updates during the normal Banner maintenance window.
- h. Xtender is a third party document imaging application licensed and supported by Ellucian. Xtender component versions are updated to maintain compatibility with BDMS (described above). This is sometimes done off-cycle from the BDMS update if the BDMS version supports both the existing and target versions of Xtender. The update is then scheduled in coordination with the users.

6. **Windows Desktop**

- a. Installation: The Windows Desktop Operating System version is selected for classroom and lab computers to meet the instructional needs of the faculty. Faculty and staff office PCs are installed with the then current stable version of Windows.
- b. Upgrade: PCs are generally not upgraded in place, and are instead replaced as they age out of service. PCs are purchased with a 3-year warranty and are replaced on a 4 to 5 year cycle.
- c. Patching:
 - i. Most staff and classroom PCs are updated via the Microsoft Systems Center Configuration Manager server in the main campus data center. SCCM downloads and stores updates, which Microsoft provides monthly. The updates are distributed to PCs each month.
 - ii. PCs in certain classrooms on each campus are on a network isolated from the main college network by Network Address Translation. These PCs are configured to automatically download and install patch updates directly from Microsoft.

- iii. TouchNet Cashier Stations on each campus are configured to automatically download updates from Microsoft. The updates are applied monthly by a technician.

7. Apple Desktop

- a. Installation: TSD installs the version of Apple OSX that meets the instructional needs of the faculty. Installation images are distributed to client machines by KACE.
- b. Upgrade: Apple releases a new OSX version (i.e. 10.9 to 10.10) each October. KACE provides support for the new version within the first quarter of the following year. TSD distributes the new version to client machines during the summer semester. Apple desktops are purchased with a 3-year warranty, and are replaced on a 4 to 5 year cycle.
- c. Patching: Apple issues 4 to 5 patch packages each year, emailing notification of the releases to registered developers. TSD distributes the patches via KACE upon availability. Apple will also release security patch updates as needed. TSD distributes and applies these patches upon receipt.

8. Apple iPad

- a. Installation: iPads are purchased with the current release of IOS pre-installed.
- b. Upgrade: TSD configures each iPad to automatically download and install IOS updates as they become available. A life cycle for NSCC iPads has not been determined.
- c. Patching: See Upgrade item above.

Change Log

Date	Change	By
3/16/2021	Formatted for new policy format	PAK
3/16/2021	CSD = TSD	PAK
3/16/2021	Removed software version information	PAK

Approved by President's Cabinet 6/14/21