

IT at UWM

Report to Faculty Senate Robert J. Beck, CIO April 21, 2022



Overview

• Strategic Efforts

Services



Key Strategic Efforts

- Deploy a Best Practice Information Security Program
- Renew Networking Infrastructure at Main and Branch Campuses
- Prioritize Support of 2030 Student Success Technology Projects
- Support and Enhance Research Computing
- Enhance Data Management Solutions



Information Security

- Multi-factor Authentication (MFA) standardization
 - Allowed implementation of new "Identity and Access Management" (IAM) infrastructure
 - 4,017 faculty and staff accounts were migrated from Duo Security to Microsoft MFA
 - 2,465 accounts received MFA protection for the first time (including retirees and sponsored accounts)



Information Security

- Enhanced Email Protection:
 - Each month, UWM's Microsoft 365 email users are sent roughly <u>24 million</u> email messages, of which <u>most</u> -- roughly 15 million -- are now blocked by layers of sophisticated filtering
 - A requirement of "Modern authentication" began on March 30, 2021



Information Security

- Advanced Firewall Technology
- VPN (Virtual Private Network)
 - In 2021, 2,669 users accessed the VPN for secure remote work
 - Now, MFA-protected
- Remote Access Project 1,104 on-campus devices were made secure/non-public



Networking Infrastructure

- All network equipment and WiFi replaced in SARUP
- WiFi hardware replaced in Bolton, Cunningham
- WiFi hardware and network switches replaced and new VoIP deployed on the Washington County and Waukesha campuses
- UWM's backup internet connection upgraded to 40Gbps
- During the fall final exam period, over 78,000
 connections were made to the new UWM WiFi equipment!

POWERFUL IDEAS | PROVEN RESULTS |



2030 Student Success

 For monitoring student enrollments, applications, and performance: delivered 34 feature improvements or updates to the 17 shared campus-wide dashboards

- For student academic planning: implemented EAB "Navigate"
- For Student Financial Services: "Call Center"



Research Computing

- Just passed 3 million "jobs" on UWM's "Mortimer" HPC infrastructure since January 23, 2019
 - In the second half of 2021, 97 users ran 844 coreyears worth of calculation
- Through NSF CC* Award (\$400K), new HPC hardware ("New Mortimer") will allow expanded UWM participation in the Open Science Grid



Research Computing

 Panthers traveling this year securely connected to "eduroam" Wi-Fi across the country





Data Management

- The Student Data Warehouse process was reengineered after 4,000+ UITS staff-hours
- Data Cookbook –53 data warehouse field definitions were updated by the Data Integrity and Definitions group as part of an OBIEE dashboard literacy project
- 202,977 ad-hoc or dashboard-driven queries were processed by the 508 UWM users in the UW Systemwide Oracle Business Intelligence (OBIEE) tool



Data Management

- Integration of the Office of Undergraduate
 Admission's Slate CRM and PAWS (UWM's Student Information System)
- Data Governance Custodial Committee (DGCC)



Prominent Client-facing Services



Microsoft Teams

- Use at UWM
 - From November 2021-January 2022 over 55,000
 Teams meetings organized
 - Currently over 10,000 Teams
 - Over 42 million files are stored in OneDrive which equals 147TB of data
- **Teams Telephony:** nearly 3,000 traditional lines now "ported," and a further 500+ lines disconnected
 - in 2021, 990 numbers were removed from Centrex



Support of Instruction

"Lecture capture" was implemented in all UWM
 "General Access" classrooms

 Rapid pivot to **Zoom** standard for instruction-related video conferencing was implemented, on relatively short notice

CTS Classroom Services now supports 722
 multimedia instructional classrooms across campus



Support of Instruction

- CTS supports online learning labs that provide remote access to specialty software needed for coursework
 - For example: the **RemoteLabs** environment connects students with on-campus instructional labs in any school or college
 - Over 350 computers across 24 departmental labs have been used through RemoteLabs by more than 1,400 students



Managed Computers

- Currently over 12,000 IT-managed computers are used by faculty, staff and students across UWM!
- Over 1,000 were purchased in 2021
- 469 new instructional computers were deployed in 2021



Help Desk

- In 2021, the UWM Help Desk handled over 32,000 requests for technical assistance
- The UWM Help Desk also offers a searchable
 KnowledgeBase with over 1,600 articles

In 2021, over 2 million views of KnowledgeBase articles



Help Desk

- Over 450,000 views of the "UWM Technology" website:
 - https://uwm.edu/technology/
- The most-frequently visited page on the Technology website was the UWM Help Desk, with over 77,000 views:
 - https://uwm.edu/technology/help/



IT Purchasing

- In 2021, the campus made over 1,300 IT purchases costing over 3 million dollars
- These items were submitted through the IT
 Procurement process and reviewed by a team of purchasing, information security and IT specialists



Tech Training and Outreach

- 18 online TechTraining courses were offered in 2021
 - 100% of those who submitted feedback rated the course they took as "Useful"
- Over 2,300 users logged into LinkedIn Learning and watched over 6,000 hours of training videos! The most popular topics include: Excel, Teams, User Experience Design (UX) and Python
- 328 attendees for 7 virtual "new student" events