

# Managing IT Through Extraordinary Times

University Technology Services  
Oakland University  
July 2021

# 2021 Vision

Last year, University Technology Services participated with our campus community to respond to the extraordinary events of 2020. This required us to shift the service delivery model to support 100% online services.

This year, we are tasked with reimagining the service delivery model to ensure that all services and solutions are available and accessible to support a hybrid, asynchronous model. There will be edge cases along the way that will require an innovative approach to find optimal solutions, but we continue to work with campus leadership, our vendor partners, as well as faculty, staff and students for their feedback in identifying needs and providing solutions along the way. Through this collaborative spirit and partnership, we will continue to offer quality enterprise technology solutions.

[Learn more about our Vision and Mission.](#)

# 2021 Values

We continue to evaluate and implement technology that supports and aligns to Oakland University goals and priorities as documented in the Oakland University 2025 strategic plan. We are excited to partner with Academic Affairs and Student Affairs to identify needs for hybrid and asynchronous solutions that are required for the campus service delivery model of the future!

- Student Success
- Research and Scholarly Activity
- Community Engagement
- Diversity in all endeavors
- Technology excellence

# The UTS Organization

Last year, University Technology Services staff made significant contributions to address many on demand requests necessary to support unplanned technology requests as a result of COVID-19. Most often this work is transparent to the campus allowing our community to focus on education goals. The contributions that were created last year will require continued discussion and support from Executive Leadership to create long term sustainability plans that meet expectations in a hybrid and asynchronous service delivery model.



- Managing updates to the health assessment forms for students and employees based on the most current CDC guidelines and campus declarations for health and safety procedures.
- Monitoring the expanded Virtual Private Network (VPN) environment for secure remote access while combating the extraordinary level of cyber security attacks on home and business class networks.
- Managing access to online student labs allowing students to have access to critical applications from anywhere they choose to learn.

# The UTS Organization (continued)

- Creating an innovative solution to allow student servicing staff to utilize their Oakland phones via softphones
- Evaluating the long term sustainability model for Remote Work for staff
- Continue to review and recommend industry best practices to secure home networks when accessing university systems and services remotely.
- UTS expanded the storage allocated to the Moodle LMS by 25% in order to accommodate:
  - the regular growth of the platform
  - the new online-only courses due to the COVID-19 pandemic
  - the videos of recorded lectures
- UTS moved the archive of Moodle from fast, expensive storage to slow, cheap storage as part of a comprehensive storage review.



# UTS Commitment to Support Diversity

UTS staff members are committed to all aspects of diversity. We know that our creativity and problem-solving abilities are improved by having an inclusive environment that welcomes diverse perspectives.



# Highlighted Project: Matilda High Performance Research Cluster

While in the midst of supporting the needs of the campus community during the pandemic, UTS was also working to install, configure, and develop business processes to enable the Matilda High Performance Compute Cluster (HPC).

- The initial investment of \$2.2M in the IT infrastructure allowed UTS to successfully negotiate the additional storage resources for the HPC installation and create double the amount of storage for research data than initially projected.
- We have approximately 83 accounts created and 50 users have logged into the cluster
- The total capacity of the installed units exceeds 1.5 PB (petabytes) or 1500 TB (terabytes): Currently, 31TB are being consumed for research projects and 5,191 CPU hours have been utilized.
- 236 software applications have been reviewed and installed for users on the cluster

# Highlighted Project: Matilda High Performance Research Cluster (continued)



- The engineering department lead the effort to campaign for funding to support the migration to a campus wide license for MatLab software.
- UTS supported additional purchases for offsite Disaster Recovery, SLURM workload management support, and the research data management GLOBUS Project.

UTS continues to meet the Research Office and Academic Affairs to review the business model they are creating to continue to build opportunities for expansions into the cluster for additional nodes, software, etc when soliciting grant proposals. This includes evaluating the edge cases for big data sets and large scale data mining compute needs.

For more information visit <https://ern.oakland.edu/uts/research-support/>



# Making an Impact All Year

Successful completion of campus community needs:

Between July 1, 2020 and June 30, 2021, 11,690 tickets were received and 11,752 were resolved. This does not include tickets that were carried over from Fiscal Year 20.

Standard Support Requests	9,643
Strategic Initiatives	82
Priority Outage	235
Priority Risk Mitigation	558
Priority Compliance	50
Priority Critical Technology	411
Priority Repair/Service	715

# 2021 Extraordinary Events Horizon View

Similar to last year, the immediate and long term effects of COVID-19 on all industries are still unknown. We are aware that some vendors and solutions may be permanently impacted by current events. We are committed to continue monitoring vendor mergers and acquisitions in the technology space so that we can react accordingly.

We are experiencing delays in delivery times for some technology supplies and components based on supply and demand, as well as the availability of these items. Sometimes vendor inventory is low, and sometimes the natural resources required to build the components, such as minerals, are inaccessible. We are also seeing increased timelines to onboard and hire consultants from technology partners, and acquisitions and mergers are resulting in significant price increases for implemented solutions.

# 2021 Change Drivers

We are working closely with Academic Affairs and Business Operations on campus to discover the new change drivers that are a direct result from unintended and unplanned needs to support remote work and synchronous and asynchronous learning.

We have responded quickly to provide solutions that have been successful to maintain quality services to campus. We currently have 186 projects we are focused on for 2021-2022. Some larger scale projects that require cross collaboration from all UTS teams include:

- Ellucian Banner databases' virtualization with Oracle Database Site License Upgrade
- New Network Access Control Solution
- Datacenter Network Hardware refresh including Datacenter Firewall
- Virtual Desktop Infrastructure

# 2021 Change Drivers (Continued)

- Google Storage changes and encouraging behavior changes when considering long term storage requirements
- Google URL Security Updates impact to redirect information on websites
- Complete maintenance and upgrade paths for currently implemented solutions
- Support campus construction and renovation project including:
  - Fitzgerald/Anibal
  - Hamlin Hall
  - Mocerri House
  - Research Building
  - Vandenburg
  - South Foundation Hall
  - Wilson Hall
  - Varner Hall

# Banner Reporting Clone

Traditionally there has been a lot of need for reporting from Evisions Argos and Microsoft Access at Oakland University. Until recently, everyone reported off the main Oracle database that is also used by Banner applications.

UTS delivered the new Oracle Banner Reporting Clone that will allow end users to use this clone database for their reporting needs. Enterprise Applications created this new database using Oracle DataGuard and it replicates data to the clone database from the main Banner database in real time.

Also due to improvements in the virtual infrastructure provided by TSS we have measured gains in overall performance and a significant reduction in reporting latencies. Additionally, this improved congestion in the Oracle transactional database that improves the quality of service for all Banner applications.

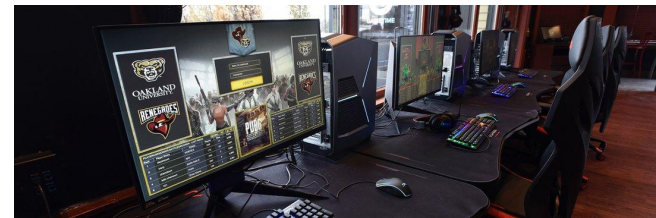


# Varsity Esports

Oakland University Esports Team launched their inaugural season in fall 2020, and are already off to a great start with the Rocket League, Super Smash Bros. and League of Legends teams making their debut at the annual HUE Invitational. Earlier this year, Super Smash Bros. ranked in the Top 10 of Power Rankings nationwide. Oakland boasted an overall win rate of 63.9% in its first year, competing in League of Legends, Rocket League, and Super Smash Bros .

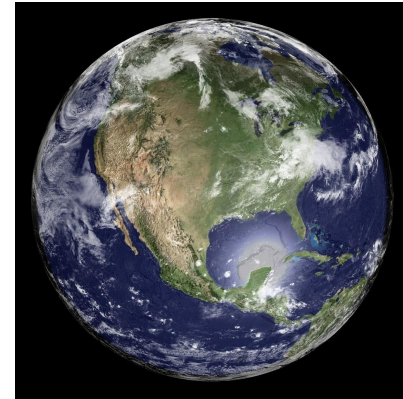
2021 adds Overwatch to the Esports program. UTS has been involved with setting up and monitoring network needed to run Esports games. We also set up the network for the new Esports arena in the Oakland Center Bear Cave opening Fall 2021. We are continuing to review solutions with the team to procure a management device to manage the game licenses for the consoles.

CIO continues to chair the Esports Committee monthly meetings.



# Change Drivers – Virtual and Remote Access

The ability to support online learning models has a dependency on the ability to securely access academic labs and computing resources from any location at any time. The Office of the Provost along with the Associate Deans are identifying the courses and curriculum that depend on this method of delivery. Apporto, the campus solution for virtual lab access, was expanded to support a variety of software applications with different hardware requirements. Moving software to be deployed through Apporto requires a re-review of the current licenses and their compliance with remote access. This will impact international access based on the Export Controls compliance language in the contracts for future instruction delivery models for international students from their home countries..



# Managing Security, Risk, and Compliance

Cybersecurity is composed of both strategic aspects Architecture, Risk Identification & Mitigation, Policy, Procedure, and Guidance all of which are required to satisfy a variety of compliance requirements. There is also a corresponding operation aspect such as incident monitoring, threat hunting, triage, and response. All aspects of Cybersecurity are managed by the UTS Security Team.

- Offered Security Awareness Training to 328 staff (38% completion rate)
- Conducted dozens Phishing Awareness campaigns targeting 521 staff
- Completed scoped audits against compliance standards including HIPAA, NIST 800-171, NIST 800-66, and PCI
- Proactively blocked thousands of malicious events





# Everyone is Responsible for Cybersecurity

Cybersecurity is a campus-wide initiative and everyone, whether working remote or on campus, has an obligation to work in a secure manner. This requires a commitment to adhere to OU policy and UTS guidance for implementing appropriate security controls and reviewing incident response processes to ensure UTS is notified if it is suspected confidential data has been exposed or compromised.



# Thank you for Our IT Partnership

We share our news, as we are proud of our commitment, contribution, and success. Please tell us how we can help you. What experience are you trying to create, and how can information technology help?



[www.oakland.edu/uts](http://www.oakland.edu/uts)

[uts@oakland.edu](mailto:uts@oakland.edu)

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