



GENERAL PURPOSE CLASSROOM TECHNOLOGY SUPPORT

— JUNE-DECEMBER 2021 REPORT —





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| | |
|---|------|
| Introduction | 2 |
| Retreat | 3 |
| Classroom Technology Hardware Upgrades | 4 |
| Classroom Technology Programming Upgrades | 5 |
| Collaborations | 6 |
| Help Desk | 7 |
| Ticketing | 8 |
| Looking Ahead | 9-10 |

— CLASSROOM SUPPORT TEAM —

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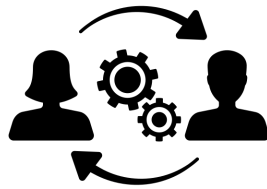
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Report Submitted on Tuesday, December 14, 2021



CLASSROOM SUPPORT TEAM

Overview of the Classroom Support Team and the General Purpose Classroom Technology Support Report

The Classroom Technology Support Team provides superior technology support and consultation to the campus and the community. We leverage our individual and shared areas of expertise to create teaching and learning environments that support all users.

Recognizing the need to provide reliable technology to Faculty, the Team is charged to develop a three-to-five year plan to improve and fully refresh all AV systems in the general purpose classrooms and lectures halls through simplified designs and standardization. This work will be done while maintaining excellence in classroom support with respect to response times and resolution accuracy.

The Team is committed to providing transparent communication with our campus partners, especially the Faculty, as we continue to shift to a proactive design and support model. We will continue to increase and strengthen our professional relationships with our internal and external network to ensure we have an understanding of our scope of work and the resources available to achieve success in our work.

With the support of C&IT Administration, the Team will move forward with confidence in preparing strategic plans for improved AV system designs and the process and procedures needed to support these systems. Through better relationships with our vendors, designs will be developed with function, support, and sustainability in mind.

As the Team's work changes, opportunities will be explored to expand and enhance knowledge in higher education industry standards and professional growth opportunities within C&IT. Being involved in the design and support of these AV systems will increase the need to broaden our understanding of teaching and learning trends, systems and processes, which will result in our ability to make forward-thinking decisions.

This report summarizes this Team's efforts, successes, and experiences over the past six months. We hope this narrative provides insight into where we've been and, more importantly, where we plan to go and how we're going to get there.

Matthew Wisotsky, *Associate Director*
Classroom Technology Support

December 2021



TEAM RETREAT

Friday, November 17, 2021 | 9 a.m. - 3 p.m.
Undergraduate Library Community Room

The Classroom Technology Support Team and C&IT leadership participated in a Team building retreat to:

- Develop a shared understanding of the vision of the Classroom Technology Support Team as it relates to providing on-site and remote technology support, standardizing AV infrastructures provided in classrooms, and develop a sustainable refresh plan for classroom technology
- Define success, what the Team must do to accomplish this success, and acknowledge that some areas of work might need to *start, stop, continue* to achieve this defined success
- Determine a plan to communicate effectively both internally and externally and establish trust within the Team, Administration, and campus partners
- Establish understanding of ongoing personal and professional development opportunities that can be created because of our work

In order to achieve the desired outcomes of the retreat, presentations were designed to encourage Team members to engage in open dialogue, which was driven by individual and group activities.

The following outcomes were determined by the Team:

- Better clarity of the current work and future direction that the Classroom Technology Support Team is responsible to participate in
- Established short and long term action items that the Team can participate in to set standards of support and design for general purpose classrooms and, when appropriate, schools and colleges
- Shared understanding of personal and professional pathways forward through Administrative support and programming offered by C&IT [e.g. job shadowing]

The Team will continue to meet to discuss these outcomes to ensure momentum from the retreat translates to consistent progress in our day-to-day work.



CLASSROOM TECHNOLOGY HARDWARE UPGRADES

Highlighting the hardware upgrades made to support the charge of creating intuitive, functional, standardized, and sustainable classroom infrastructures

The Classroom Technology Support Team provides direct technology support to over 200 classrooms between main campus and several satellite campuses. Most of the technology has been in place for 5 years [minimum] to 15+ years [maximum]. The equipment, at times, is not intuitive to the end user and impacts ease of support for the Team.

Charged with developing AV systems that are able to reliably function, provide a standardized teaching experience, and can be maintained and upgraded, the Team is assessing the following frontend and backend infrastructure details:

- Technology that supports in-person and remote teaching and learning
- Equipment that can be repaired/replaced [short-term] and upgraded [long-term]
- Simplicity to designs that provide adequate and flexible technology for Faculty while remaining easy to support
- Improved vendor relationships that help to implement AV designs while maintaining a standard of accountability to complete work

Manoogian Hall Basement - June 2021 - August 2021

- 20 classrooms upgraded with re-purposed technology from State Hall
- Echo360 lecture capture service offered for first time in these classrooms

Some carts were transferred back to State Hall based on Fall 2021 class schedule.

State Hall Lecture Halls - August 2021

- 6 lecture halls completely upgraded with new technology [in-stock, purchased]
- Touch panel redesigned with easier controls and navigation
- Supports remote teaching and learning with Echo360, Teams, and Zoom

Some equipment was ordered with Crestron Points, which helped to reduce costs.

State Hall 201, Old Main 1305 - November 2021

- 2 classrooms upgraded with new technology [in-stock]
- Echo360 lecture capture service offered for first time in these classrooms



CLASSROOM TECHNOLOGY PROGRAMMING UPGRADES

Highlighting the improvements made to AV controllers to make systems more intuitive while restoring room functionality and advancing standardization

Most AV systems in the classrooms and lectures halls are controlled by a touch panel and processor. Over the years, Crestron products have been the preferred hardware to control these systems. While these products allow for user friendly interfaces, there are limitations to the support that the Team can provide in instances of programming modifications and hardware replacements. Maintenance to these critical components of the AV systems often require a certified programmer to intervene, potentially leading to significant disruptions to the teaching and learning environment.

Through the recommendation of one of our preferred vendors, **Abel Electronics** [abelelectronics.com], an ongoing partnership is being established with a dedicated programming company, **IntelligentAV** [intellav.com]. This partnership is designed to:

- Complete outstanding programming in all identified classrooms and meeting spaces
- Establish a standardized code set for various learning system designs that can be applied to current and future AV systems that provides an intuitive interface and consistent functionality for the end user
- Create an interface that allows the Classroom Support Team to make simple modifications to the touch panel
- Restore remote tools to communicate with the technology [Fusion]
- Maintain a repository of all implemented code

Over the past six months, programming upgrades are in progress or have been completed in the following locations by IntelligentAV or our internal support Staff:

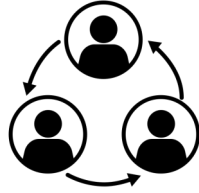
General Purpose Classrooms

- DeRoy Auditorium
- General Lectures
- Manoogian Hall
- State Hall

Schools and Colleges

- College of Education
- College of Engineering
- College of Nursing
- College of Pharmacy
- Law School
- School of Business
- School of Medicine
- School of Social Work

Monthly meetings are held between Associate Directors and support Staff to discuss outstanding programming issues, strategize about prioritization, and determine what work can be done in-house and what work requires an external programmer.



COLLABORATIONS

Highlighting the networks that the Classroom Support Team is a part of, which results in a better understanding of our work and how we can succeed

The Classroom Support Team is fortunate to have the opportunity to leverage individual and team expertise in creating and supporting teaching and learning environments that meet the needs of Faculty and Students. To enhance our understanding of the scope and magnitude of our work, Team members participate in, and benefit from, our internal and external campus relationships.

Academic & Classroom Tech Support

- **Charge:** Associate Directors of Academic and Classroom IT/AV Support meet to discuss Human Resource updates, projects across divisions, and what resource sharing can be provided to advance and complete work
- **Led By:** Curtis Kratt, Director for Academic Technology Support
- **Relevant Outcomes:** Improved teaching and learning environments across campus, group consultation for designing standardized AV systems, and ongoing discussions to achieve better end user support

Integrated Learning Environment Advisory Council

- **Charge:** Faculty and Staff from across campus meet to discuss updates to physical spaces and backend systems that support teaching and learning environments
- **Led By:** Nathan Chavez, Associate Director for Enterprise Applications, Melissa Crabtree, Senior Director for Campus and Classroom IT, Tonya Whitehead, Associate Director for Office for Teaching and Learning
- **Relevant Outcomes:** Shared, transparent dialogue between Faculty and Staff is helping to create a stronger sense of trust within the campus community that work is being advanced with a collective voice of all invested parties

Large Lecture Teaching Circle

- **Charge:** Faculty teaching in large lecture halls and support Staff meet to discuss updates, problems/solutions, and timelines for process improvements
- **Led By:** Tonya Whitehead, Associate Director for Office for Teaching and Learning
- **Relevant Outcomes:** Better understanding of AV problems and desired hardware/software improvements to consider for future upgrades to large lecture halls



HELP DESK

Highlighting the evolving relationship between the C&IT Help Desk and the Classroom Support Teams and how it translates to better service

Over the two years that the classroom support operation has reported to C&IT, the working relationship between the Help Desk and the Classroom Support Team has been recognized as an important component to providing support to Faculty.

Both Teams have contributed to creating internal documentation, participating in trainings, and improving communication to deliver an efficient, thorough, and consistent support experience for the end user.

Communication through a dedicated MS Teams channel has ensured quicker response times to support inquiries and serves as an accountability check of active and completed work as requests are documented in real time.

Three support tiers have been established:

Tier 1 Support

- Help Desk Team member provides remote support on first contact
- Generally supported through phone and Email communication
- Help Desk Team member submits and closes support ticket

Tier 2 Support

- Help Desk and Classroom Support Team members provide remote support on first contact
- Generally supported through phone, Email and MS Teams communication
- Help Desk Team member submits and closes support ticket

Tier 3 Support

- Classroom Support Team member is dispatched to provide in-person support
- Generally supported through phone, MS Teams, and in-person communication
- Help Desk Team member submits and Classroom Support Team member closes support ticket after the issue has been resolved

The collaboration has expanded the number of support Staff covering the vastness of classroom support and will continue to evolve with the changing needs of Faculty.



TICKETING

Highlighting how the Classrooms Support Team incorporates ticketing into day-to-day operations and the management of larger scale projects

The Classroom Support Team utilizes Cherwell to track service requests, equipment rentals, and projects related to hardware and programming. Over the past six months, the Team has resolved a backlog of nearly 200 tickets that were generated over the past two years. In doing so, outstanding issues were addressed, which created a more stable classroom, improved communication with the end user, and helped the Team to develop policies and procedures within the ticketing system that addresses the Team's specific needs.

Tickets are generated through various means, including:

- Direct request through Cherwell portal/forms
- Tier-2 escalation from the C&IT Help Desk
- Nagios generated from failed technology checks [Network based]
- Self-created by the support Staff

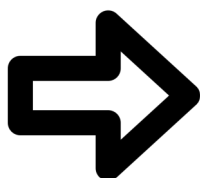
The following ticket types are used to:

- **Service Request:** Report and track requests for technology support
- **Work Order:** Report and track projects that require escalated time and resources
- **Change Request:** Report and track programming changes to controls and systems

Service Level Agreements (SLAs) are response times the team strives to meet when providing support. SLAs are based on priority level determined by the impact of the problem and defined based on the criteria below as it relates to the Team's specific work:

- Issues classified as **URGENT** are supported **immediately** upon receipt [e.g., class is in-session and impacted by failing technology]
- Issues classified as **MEDIUM** priority are supported by **end of same business day when an appropriate service window is available** as determined by the support technician [e.g., projector/ bulb replacement, computer replacement, etc...]
- Issues classified as **LOW** priority are supported within **1-2 business days of receipt when an appropriate service window is available** as determined by the support technician

The Team recognizes that acknowledging requests in a timely manner and consistently communicating with the end user is a critical piece to delivering on our SLAs.



LOOKING AHEAD

Highlighting the focus and action items of the Classrooms Support Team for the next six months as the campus prepares for a “full” return in Fall 2022

The Classroom Support Team has spent the better half of the past six months ensuring that all general purpose classrooms requested by the Registrar had functional technology for the start, and duration, of the Fall 2021 semester . The Team ensured Faculty accommodations were met to support in-person and remote teaching and learning.

In addition to advancing work highlighted in this report, the following areas of focus will be addressed over the next six months [in no particular order except alphabetical]:

Classroom Designs and Refresh

Building off of the momentum of the upgrades that took place in Fall 2021 , the Team plans to advance design concepts and refresh strategies for general purpose classrooms based on the “age” of current technology, number of Faculty/Students impacted, and the cost of initial implementation and future maintenance/replacement.

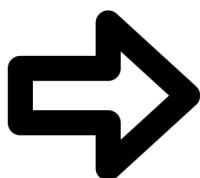
Major design improvements include contributing to the State Hall redesign project [May 2021-May 2022] and upgrading six rooms in Prentis Hall as a live testing environment to explore the use of Extron equipment to determine if these products can replicate the existing teaching and learning environments, while being more intuitive to use and support.

Enhanced Remote Tools and Website

In order to continue to improve the teaching and learning experience for Faculty and Students, additional improvements and implementation of remote tools to monitor and communicate with technology for both proactive and reactive support will be explored:

- **Fusion:** Interface that allows the monitoring and management of compatible Crestron-based AV systems
- **GlobalViewer:** Interface that allows the monitoring and management of compatible Extron-based AV systems
- **Nagios:** Interface that allows the monitoring, messaging, and ticketing of IP-based hardware [e.g. computers, touch panels, projectors, etc...]

In addition to these remote tools, an updated and more informative front-facing website is being developed to provide a “one stop shop” for classroom technology and support.



LOOKING AHEAD [continued]

Highlighting the focus and action items of the Classrooms Support Team for the next six months as the campus prepares for a “full” return in Fall 2022

Inventory Management

Recognizing the importance of asset management, the Classroom Support Team will commit time during the Winter 2022 semester to ensure all hardware in general purpose classrooms, lecture halls, and storerooms are properly recorded in the Cherwell Configuration Management Database [CMDB].

In order to ensure this work is done accurately and consistently, templates and workflows will be developed as to what hardware should be recorded in the CMDB, the standard for how it should be categorized, and how to best incorporate this process into future designs of AV systems.

This work has already been advanced through ongoing dialogue with Cherwell/C&IT support Staff to create appropriate dashboards, fields, and forms that accommodate the needs of the Team.

In addition to work in Cherwell, the Team has assessed its footprint and continues to reduce the amount of physical spaces that the Team and hardware occupy across campus.

Team Development

Ensuring that the results of the Team Retreat continue to advance, ongoing personal and professional development opportunities will be provided to individuals and the Team.

These opportunities include supporting the attendance of trainings and conferences related to the work of the Team and supporting the participation in the C&IT Job Shadowing program, which allows individuals to explore other areas of the division.

Ongoing individual and Team meetings will be conducted to ensure personal and professional areas of work and interest are understood and advanced.

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The work of the Classroom Support Team can be tracked in real-time through service tickets, work orders and change requests. Formal reports will be submitted every six-months, with the next report slated for release in June 2022.



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Illustrations for this report were provided by the Noun Project.

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|---|-------------|
| <i>Business Specialist</i> by Visual World | 2 |
| <i>Team Retreat</i> by Tomas Knopp | 3 |
| <i>Blended Learning</i> by Duke Innovation Co-Lab | 4 |
| <i>Programming</i> by Adrien Coquet | 5 |
| <i>Collaboration</i> by Laymik | 6 |
| <i>Help Desk</i> by Jai | 7 |
| <i>Service Request</i> by Sophia Bai | 8 |
| <i>Forward</i> by Garrett Knoll | 9-10 |

More information about the Noun Project at <https://thenounproject.com/>