


Technology That Allowed UMD to Go Virtual In A Fortnight

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The Need

Move to Online or Remote Work:

- All UMD's instructional Activity

- All administrative functions of the campus

- As much of the research function as possible

The Challenges:

- Needed to get it done in about 2 weeks (Spring break and pause week)

- Week before spring break:

 - On Wed, an employee of a tenant in DIT's building under test for COVID-19

 - On Fri, campus is closed (much earlier than expected)

The Plan

Leverage Existing Tools

Canvas, WebEx, Cisco Phone Systems (and softphones), VPN

Accelerate Procurement and Deployment of New Tools

Zoom, Honorlock, Adobe Sign, Azure-based Windows Virtual Desktop

Survey Campus about Needs

Survey sent week before spring break to faculty, staff, and students
7,563 responses (6,557 students and 1,006 faculty/staff)

Learned:

78% of instructors had never taught an online class

56% of student had taken one or more online/blended classes

Need for laptops and hot spots was real, but somewhat limited

Extensive outreach and training program

seminars (mostly online) for faculty to get ready

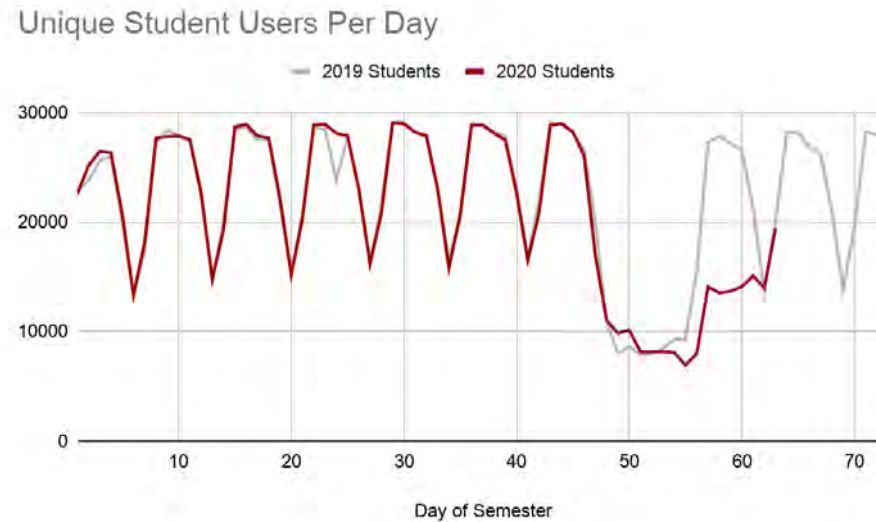
keep-teaching, keep-learning, ... sites created to provide resources

Getting Ready for Online Instruction

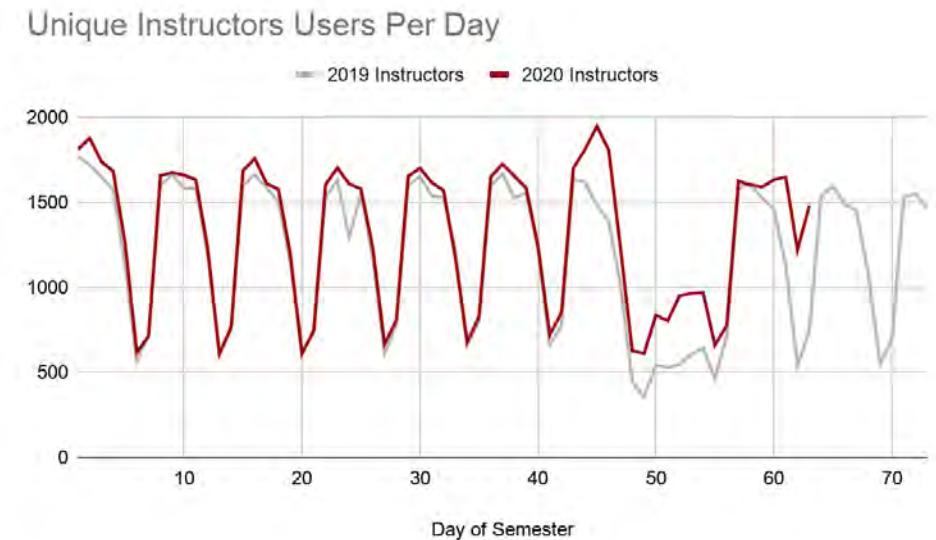
March 23 to April 17

An average of 12 webinars per week offered by TLTC and DIT-ATI

Over 600 total faculty attended seminars



During Pause, Student ELMS use declined compared to 2019.



Instructor ELMS use increased before, during, and after Spring Break

The Lessons Learned (so far)

Successes:

Device Loaner Program – all students who filled out the survey and listed a need were loaned equipment

Zoom – probably fastest purchase to wide campus use ever in DIT

Azure Windows Service – likely to permanently replace many on-campus computers

Virtual Call Centers – help desk, information, financial aid are all are routed to people's computers while working at home

DIT Tele-working – all this done with only 0.8% of normal hours on campus

Collaborations - with colleges and administrative units

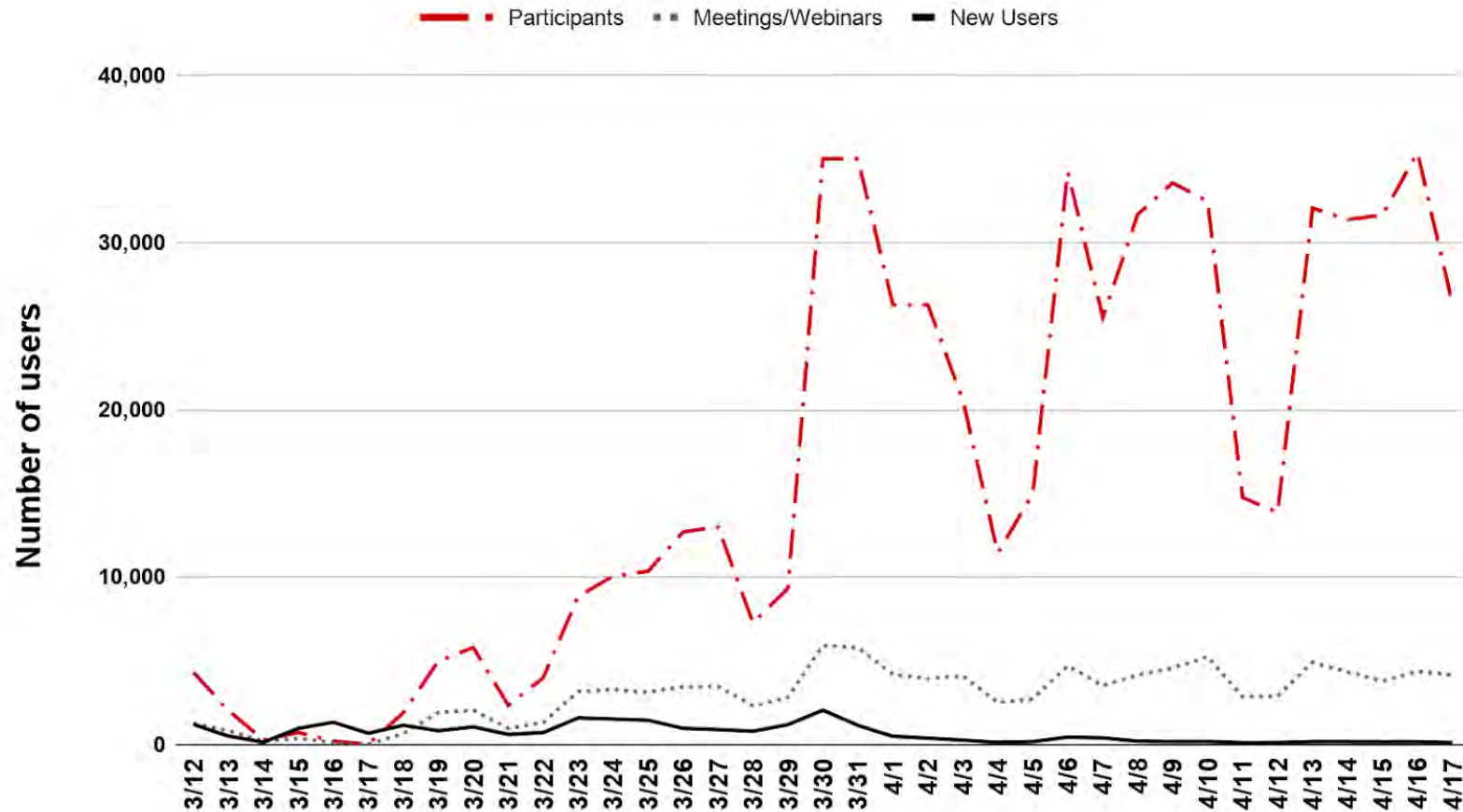
Challenges:

Zoom bombing

Demand for wifi hotspots

Zoom Is a Hit!

At peak, over **35,000** UMD community members participate in a Zoom meeting in a single day.



As shown in the steep declines in the lines above, Zoom usage decreases significantly on weekends

DIT Service Desk

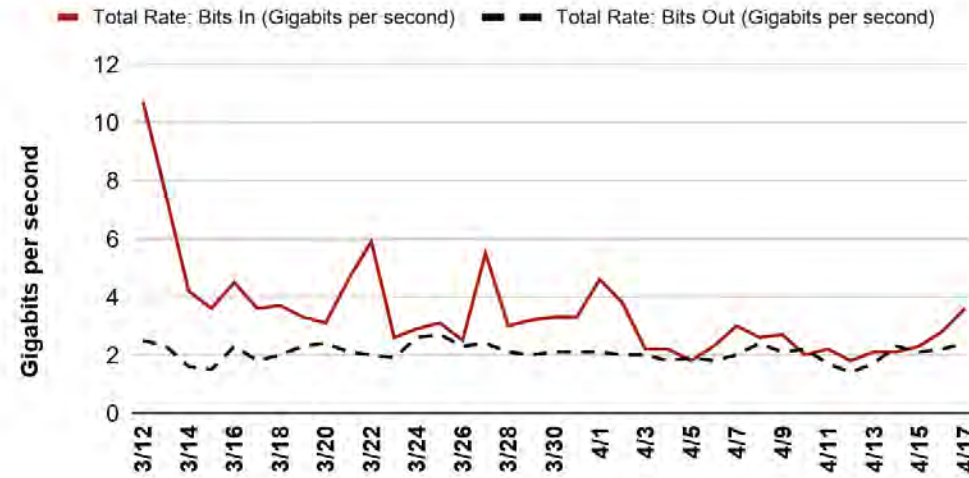
The average wait time to receive assistance with a Service Desk inquiry is **29 seconds**.

Most common types of request for assistance				
	Service	Previous Week	This Week	CHANGE RATE
1	Manage Password	289	191	↓34%
2	Server/Application Monitoring	122	123	↑1%
3	Zoom Web Conferencing	114	73	↓36%
4	Multi-factor Authentication	72	51	↓29%
5	Directory ID	47	50	↑6%
6	ELMS-Canvas	77	44	↓43%
7	Email for Faculty/Staff	51	39	↓24%
8	Website Hosting and Management	19	36	↑89%
9	Email for Students	41	34	↓17%
10	Database Consulting	35	33	↓6%

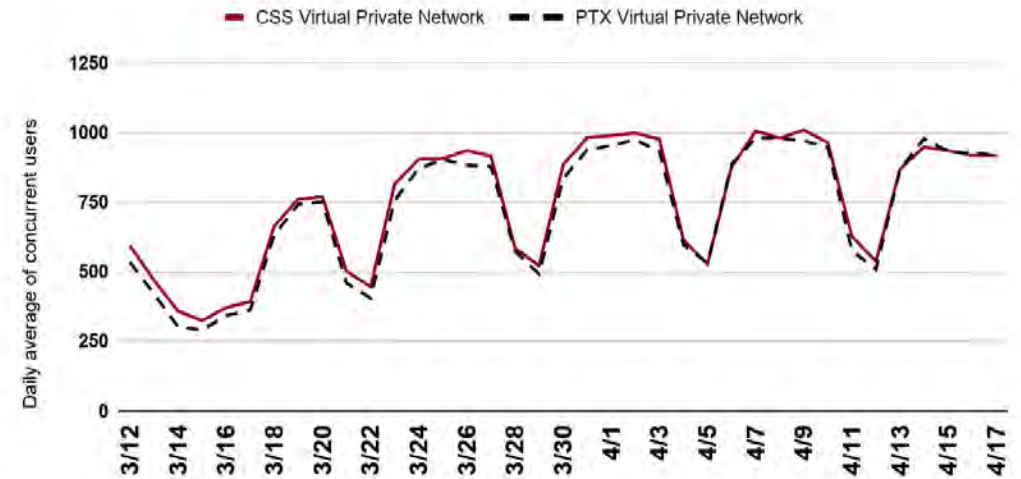
Type of call to DIT Service Desk (week of April 20)

Network Utilization

Overall network activity has declined since UMD's transition to remote teaching, learning, and working.



VPN trend analysis shows that usage peaks at about 2,000 concurrent users and has remained steady since the transition.



As shown in the steep declines in the lines above, VPN usage decreases significantly on weekends

The Heroes

Marcio A. Oliveira (and the DIT instructional tech team)

The survey, training, laptop loaner program, and much more

Scott Gibson (and DIT Software Engineering)

Pass/Fail Grading, Refunding Student Fees

Axel Persaud (and DIT Engineering and Operations)

Azure cluster, Drive in Wifi Hot Spots

The Instructors and Faculty @Maryland

Commitment to keep instruction going for our students through all this