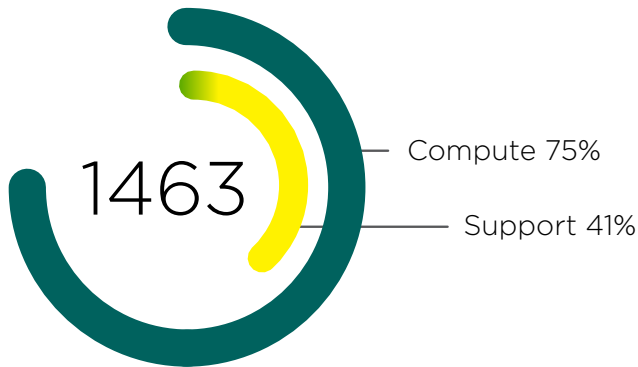
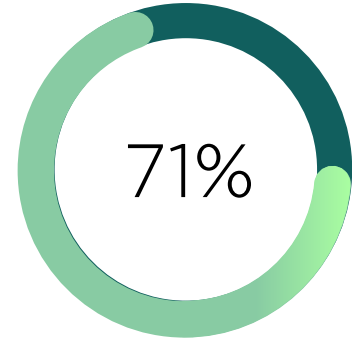


# iCER SERVICE REPORT

AUG 2017



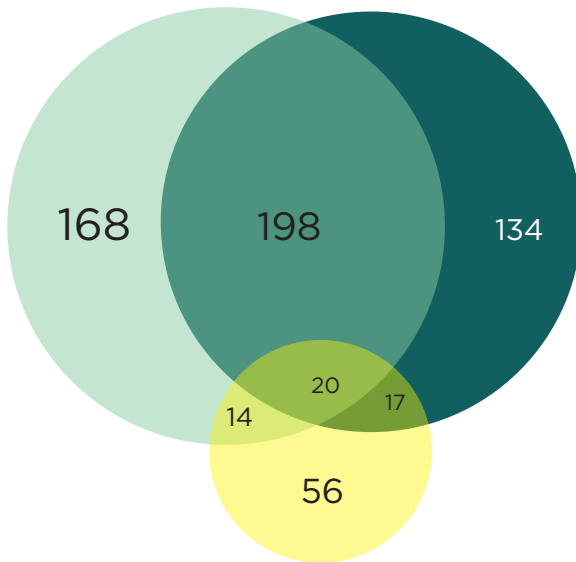
RESEARCHERS USED ICER SERVICES



PERCENTAGE OF BUY-IN ON LACONIA

■ Developer/Login Nodes
 ■ Batch Queue
 ■ Mapped Home Drive/Samba

## NUMBER OF USERS USING ICER COMPUTE SERVICES IN AUGUST



This figure shows a breakdown of users that use iCER compute services:  
**218 users (198+20) use the developer nodes to submit jobs to the queue.**

**151 interactive users (134+17) only use iCER developer nodes to do their work.** This includes users:  
 > Only need access to software (ex. Matlab, mathematica)  
 > Still in software development process and have not submitted a job  
 > Find development nodes are sufficient for their research.

**56 users only used the iCER file systems to store their files.**

**207 researchers (134+17+56) used iCER hardware outside of the batch queue.**

*\*Due to catastrophic error on server ufs-11-a, there is an issue getting data from filer ufs-11-a/b*

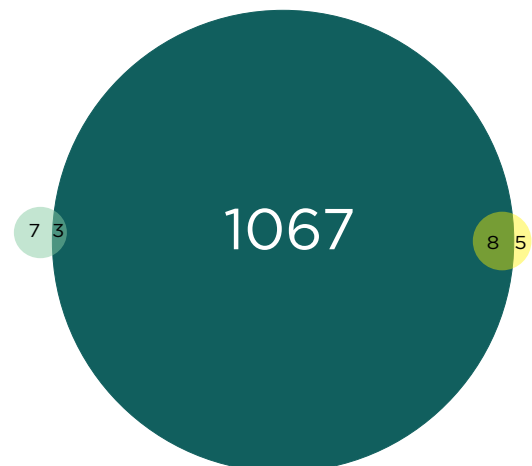
## NUMBER OF USERS USING ICER SUPPORT SERVICES IN AUGUST

■ Tickets
 ■ Workshops
 ■ Office Hour

This figure shows a breakdown of users that use iCER support services. These support services include support tickets, iCER workshops and office hours.

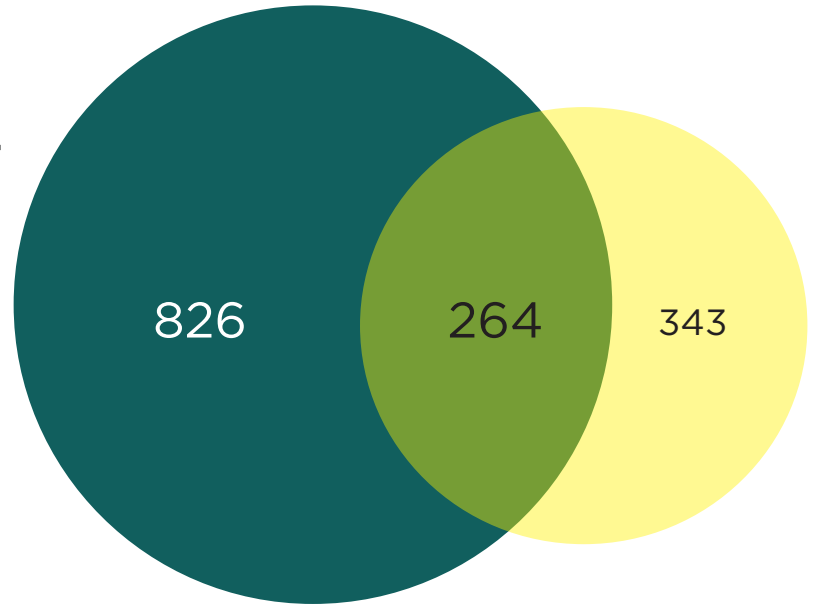
### List of iCER workshops in August:

- > Introduction to Linux/Unix



### COMPARISON BETWEEN NUMBER OF USERS USING ICER SUPPORT AND COMPUTE SERVICE IN AUGUST

■ Compute  
■ Support

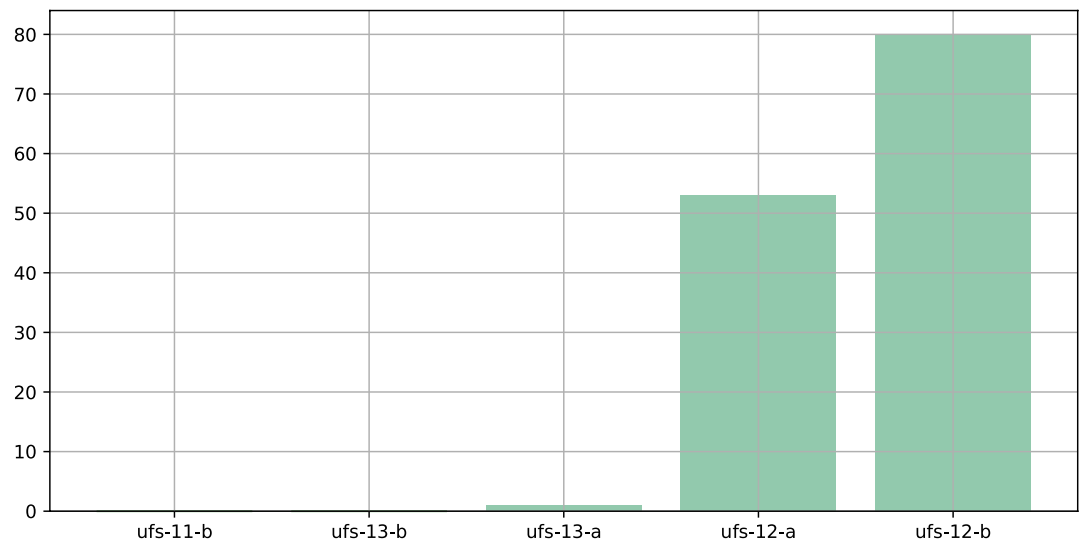


### DAILY SCHEDULER ACTIVITY IN AUGUST

This figure shows the activity of the batch scheduling system by day. There was a scheduled maintenance outage on August 8th but usage quickly scaled up. The low point on 28th was caused by the unscheduled outage to fix the catastrophic error appeared after the 8th outage.

On a typical day, the scheduler processes approximately 4327959 jobs. This includes jobs that are queued, jobs that start and jobs that end. Put in another way, the scheduler manages approximately 97 jobs per minute.

### NUMBER OF MAPPED HOME DIRECTORIES PER SERVER IN AUGUST



TICKET ACTIVITY SUMMARY IN AUGUST



Tickets Created



Tickets Updated



Tickets Resolved



Open Tickets

\*The large number of rt tickets this month was because of the catastrophic error on server ufs-11-a during a maintenance outage. Tickets were created for people with subject lines "Problem with your HPCC home directory" or "Problem with your HPCC research space" these tickets counted for around 1,000 extra rt tickets this month.

NUMBER OF TICKET MESSAGES IN AUGUST



651

Total Users' Messages

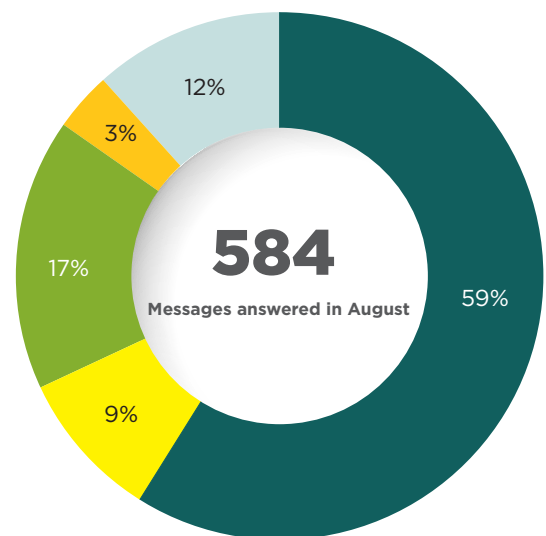


3497

Total iCER's Messages

\*Among 651 users' messages, 584 messages need answers.

STATISTICS OF ANSWERED MESSAGES IN AUGUST



- Messages answered within 5 hours
- Messages answered within 5-12 hours
- Messages answered within 12 hours - 24 hours
- Messages answered within 24 hours - 2 day
- Messages answered in more than 2 days

AUGUST TICKET HIGHLIGHTS



**CHUN-MIN CHANG**

Research Consultant

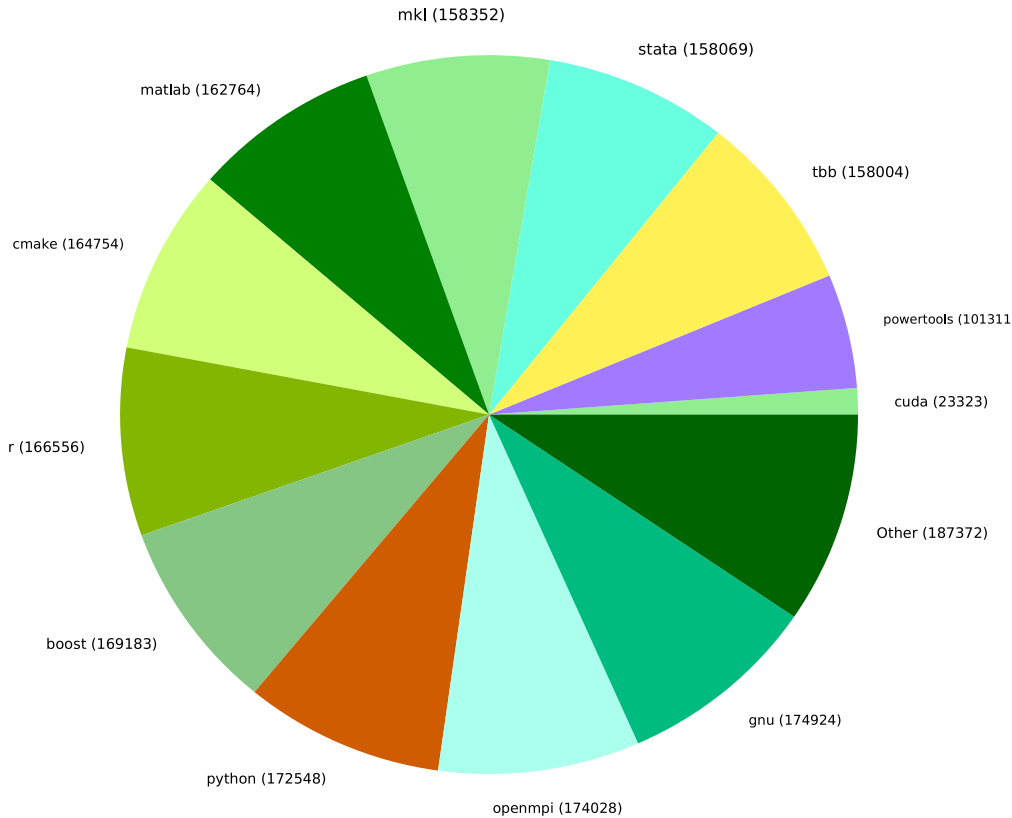
HOW TO CHECK HPCC NODE USAGE

84

New User Accounts are created in AUGUST

In an effort to better serve our users, we have been analyzing the software that is being used on the HPC by recording which software modules are being loaded using the “module load” command. Clearly this is not a complete view; many users install their own software in their home directories, some modules are automatically loaded as part of a user profile and there will be a bias toward pleasantly parallel codes which will load their required modules every time a job runs (as compared to bigger jobs which would only load the modules once). However, we find this data interesting and wanted to share it with you.

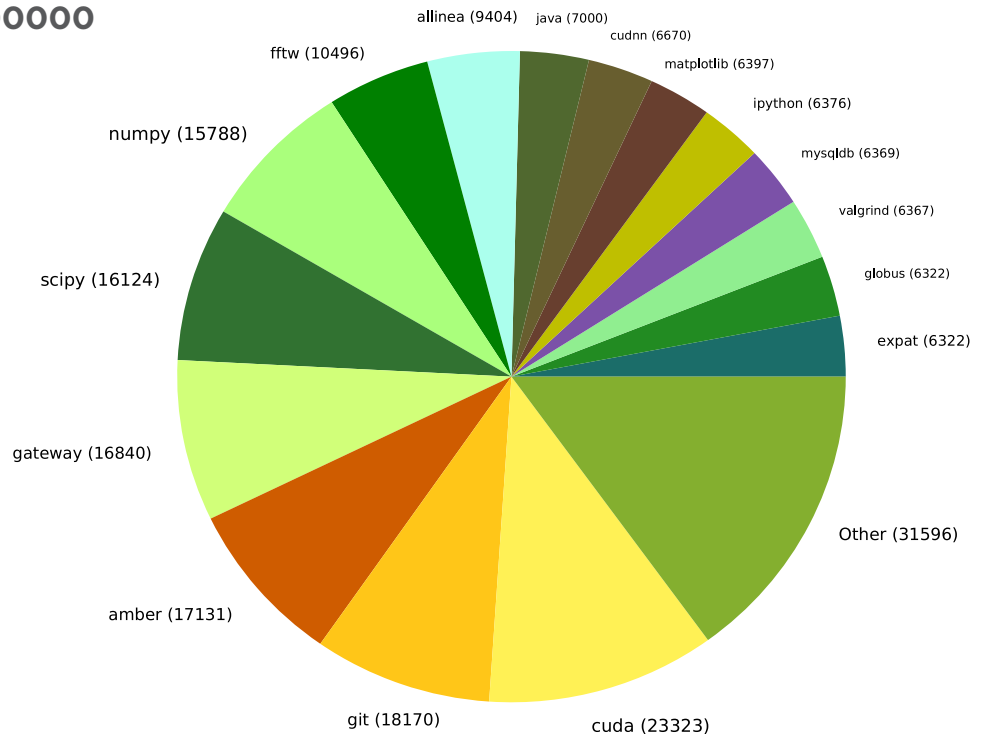
## ALL MODULE LOAD COUNTS <1000000



The pie chart shows the most commonly loaded modules. Note again that the biggest ones are the ones included in a user’s default profile such as MATLAB, Python, and R. These modules get loaded every time they log in or run a job. As can be seen clearly, the default modules get loaded in an order of magnitude more than many of the other modules.

## ALL MODULE LOAD COUNTS <100000

After taking out the default modules, the pie chart on the right shows more modules that users are choosing to include in their .bashrc files and being submitted on a lot of jobs. This group also includes the gateway module which gets loaded every time someone logs onto gateway. This by itself is interesting and shows that we had 16840 gateway connections in August. From our service report we know that 369 unique individuals used a developer node in August. This means that on average each person is logging into gateway approximately 46 times in the month or about 2 times a day (on average).



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