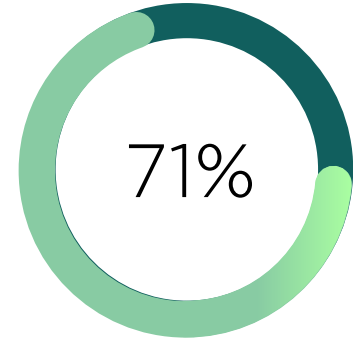


iCER SERVICE REPORT

SEP 2017



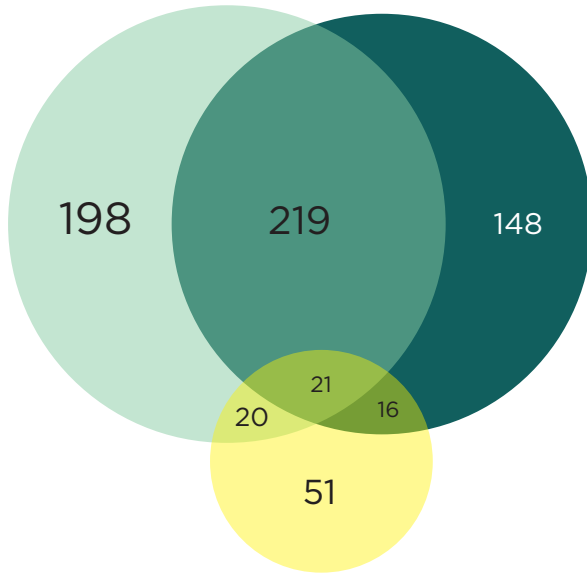
RESEARCHERS USED ICER SERVICES



PERCENTAGE OF BUY-IN ON LACONIA

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

NUMBER OF USERS USING ICER COMPUTE SERVICES IN SEPTEMBER



This figure shows a breakdown of users that use iCER compute services:
240 users (219+21) use the developer nodes to submit jobs to the queue.

164 interactive users (148+16) 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.

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

215 researchers (148+16+51) used iCER hardware outside of the batch queue.

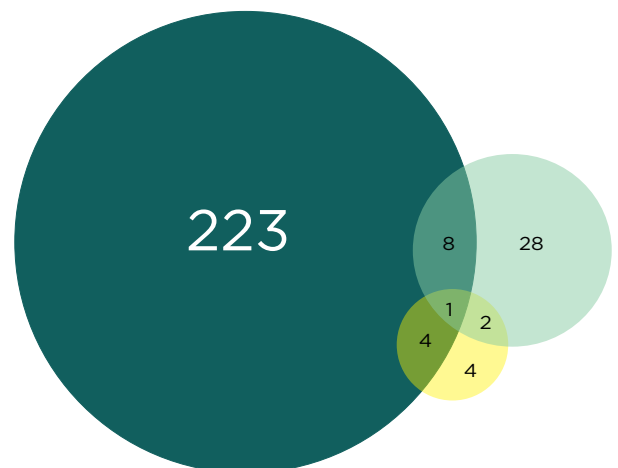
NUMBER OF USERS USING ICER SUPPORT SERVICES IN SEPTEMBER

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 September:

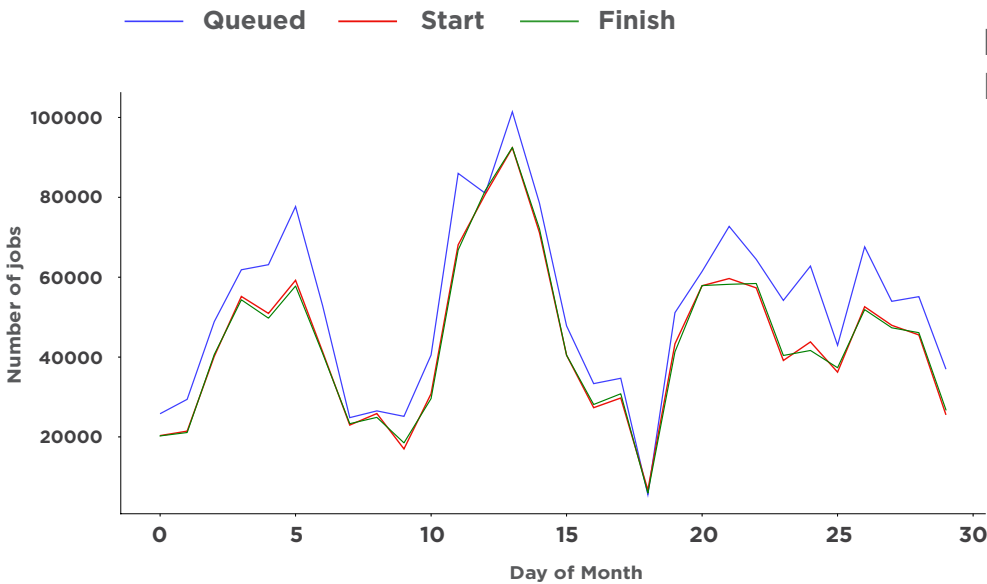
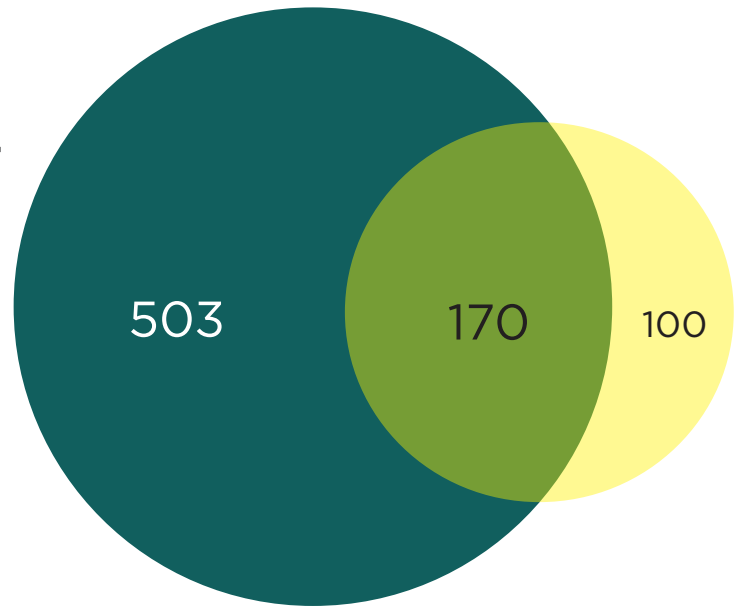
- > Introduction to Linux/Unix
- > Introduction to HPCC
- > Matplotlib for Data Visualization

■ Tickets
 ■ Workshops
 ■ Office Hour



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

■ Compute
■ Support

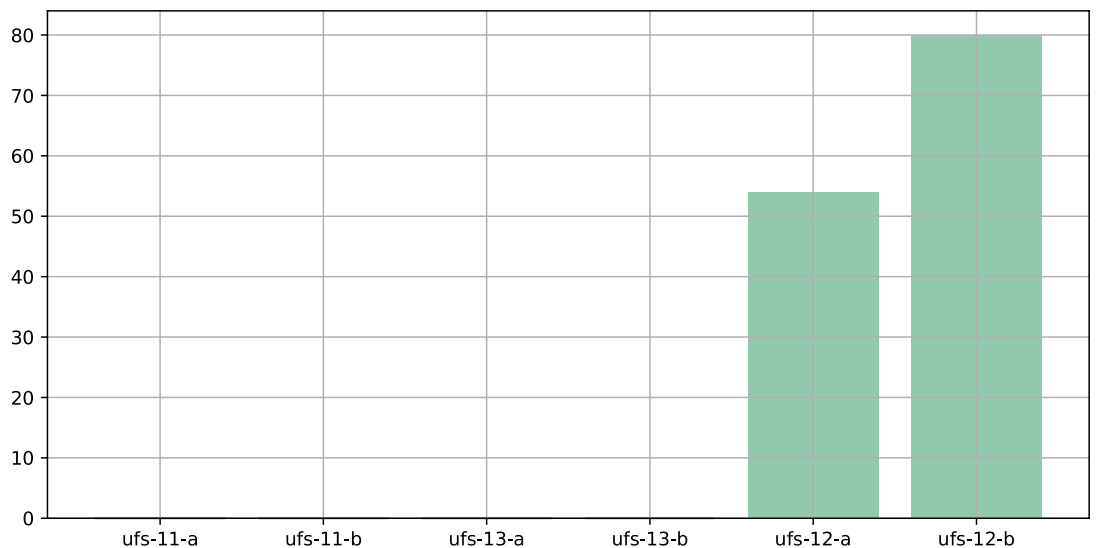


DAILY SCHEDULER ACTIVITY IN SEPTEMBER

This figure shows the activity of the batch scheduling system by day. There was a scheduled maintenance outage on September 19th but usage quickly scaled up.

On a typical day, the scheduler processes approximately 3729343 jobs. This includes jobs that are queued, jobs that start and jobs that end. Put in another way, the scheduler manages approximately 84 jobs per minute.

NUMBER OF MAPPED HOME DIRECTORIES PER SERVER IN SEPTEMBER



TICKET ACTIVITY SUMMARY IN SEPTEMBER



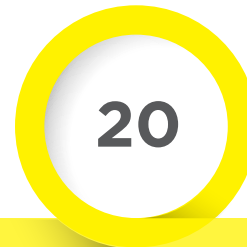
Tickets Created



Tickets Updated



Tickets Resolved



Open Tickets

TICKET MESSAGE SUMMARY IN SEPTEMBER



453

Total Users' Messages

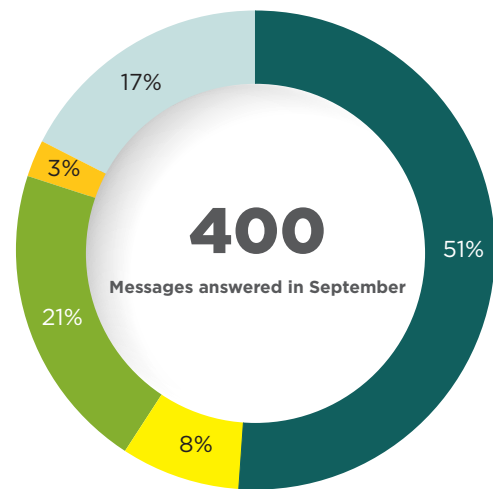


751

Total iCER's Messages

*Among 453 users' messages, 400 messages need answers.

TICKET RESOLUTION STATISTIC IN SEPTEMBER



SEPTEMBER TICKET HIGHLIGHTS



NANYE LONG

Research Consultant

USING HTOP TO MONITOR JOBS

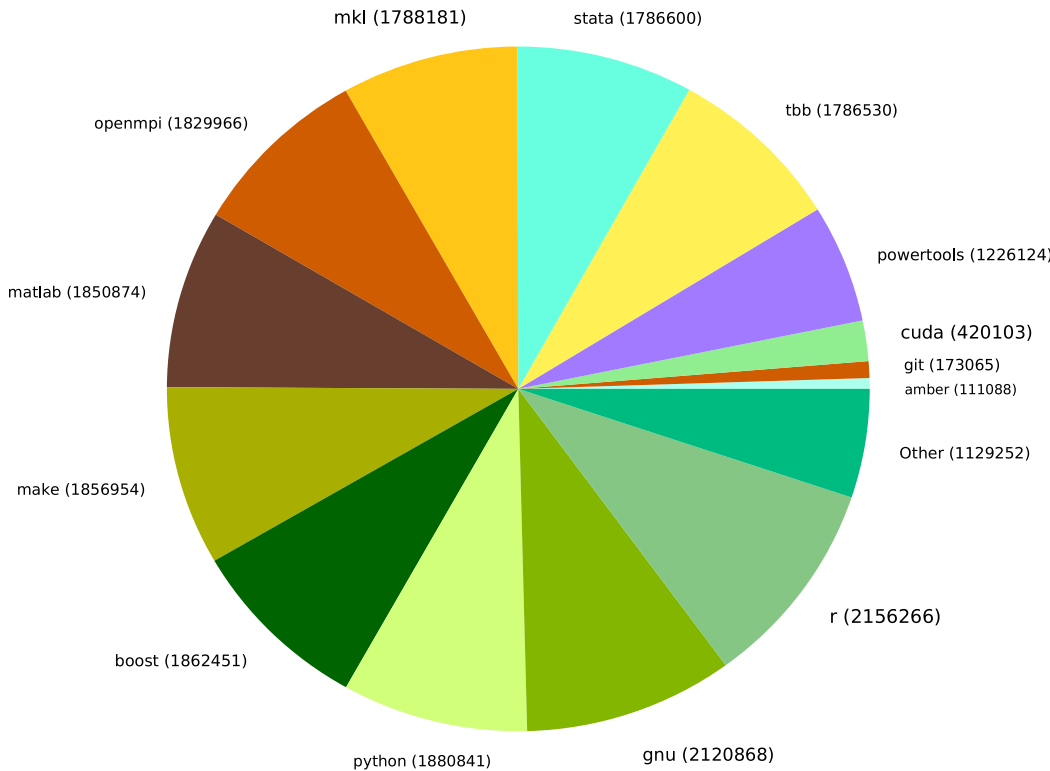
- Messages answered within 5 hours
- Messages answered within 5-12 hours
- Messages answered within 12 hours - 24 hours
- Messages answered within 24 hours - 2 day
- Messages answered in more than 2 days

109

New User Accounts are created in SEPTEMBER

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.

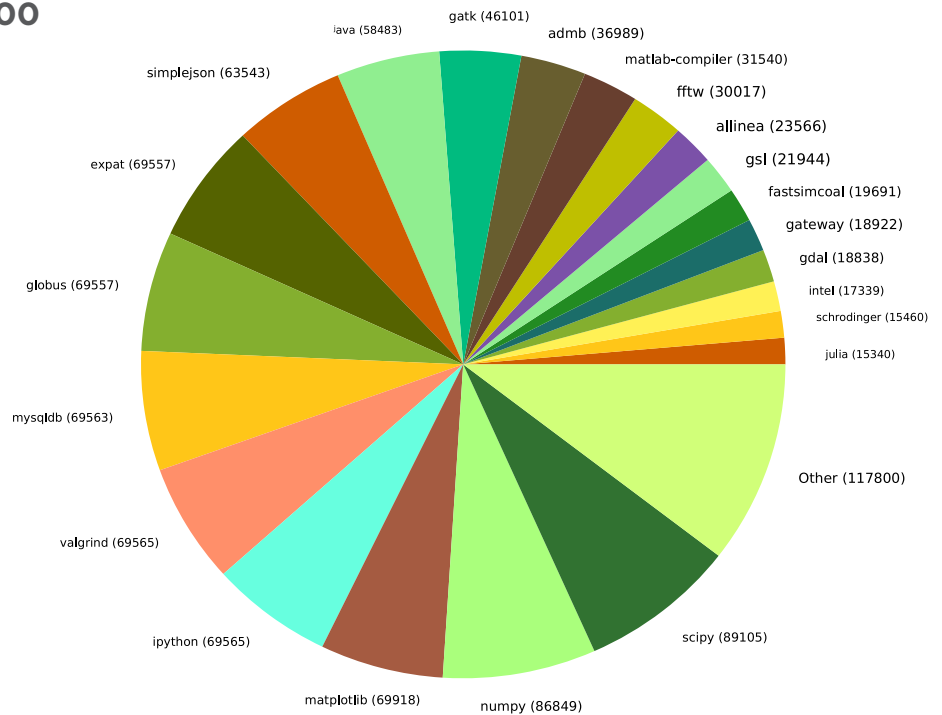
ALL MODULE LOAD COUNTS <1000000



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 18922 gateway connections in September. From our service report we know that 404 unique individuals used a developer node in September. This means that on average each person is logging into gateway approximately 47 times in the month or about 2 times a day (on average).



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