iCER SERVICE REPORT

660
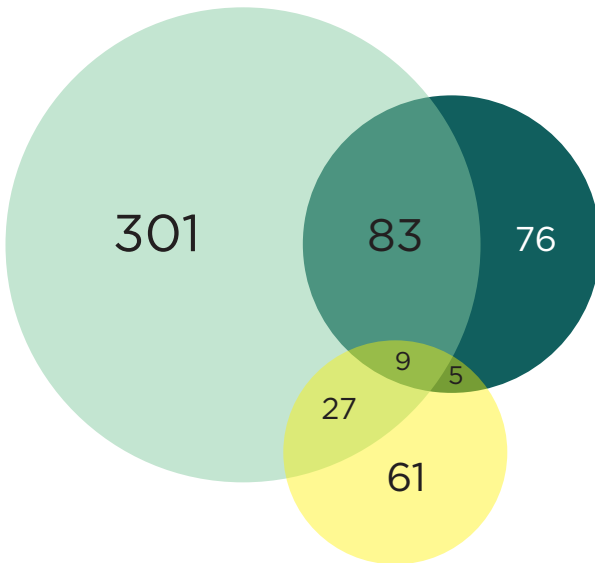
Compute 85%

Support 36%

RESEARCHERS USED ICER SERVICES

71%
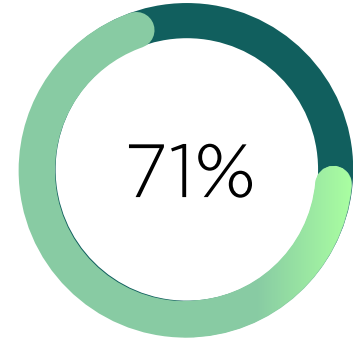
PERCENTAGE OF BUY-IN ON LACONIA

Developer/Login Nodes   Batch Queue   Mapped Home Drive/Samba

NUMBER OF USERS USING iCER COMPUTE SERVICES IN JULY

301   83   76   9   5   27   61

This figure shows a breakdown of users that use iCER compute services:

92 users (83+9) use the developer nodes to submit jobs to the queue.

81 interactive users (76+5) 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.

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

142 researchers (76+5+61) used iCER hardware outside of the batch queue.

*Due to the outage last week, there is an issue getting data from filer ufs-11-a/b*

NUMBER OF USERS USING iCER SUPPORT SERVICES IN JULY

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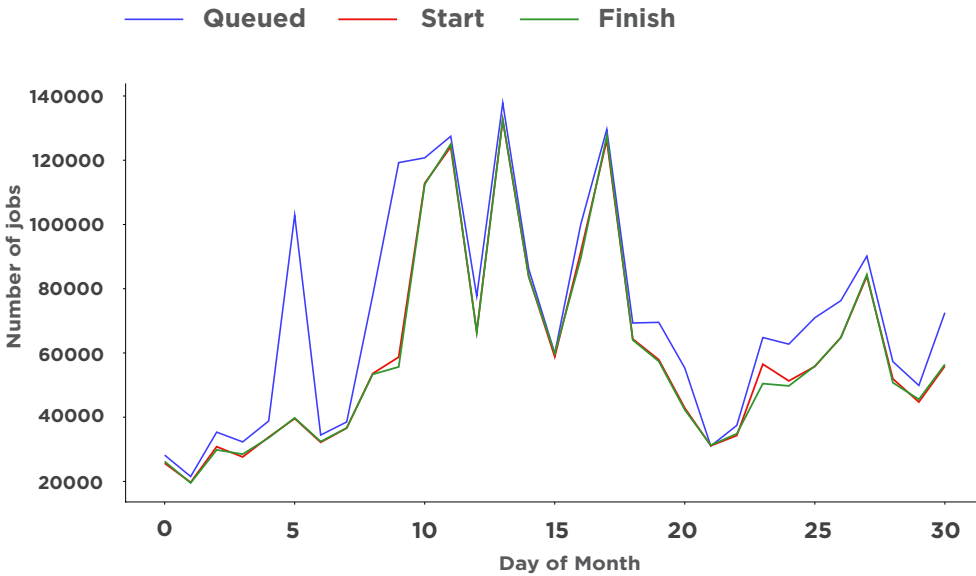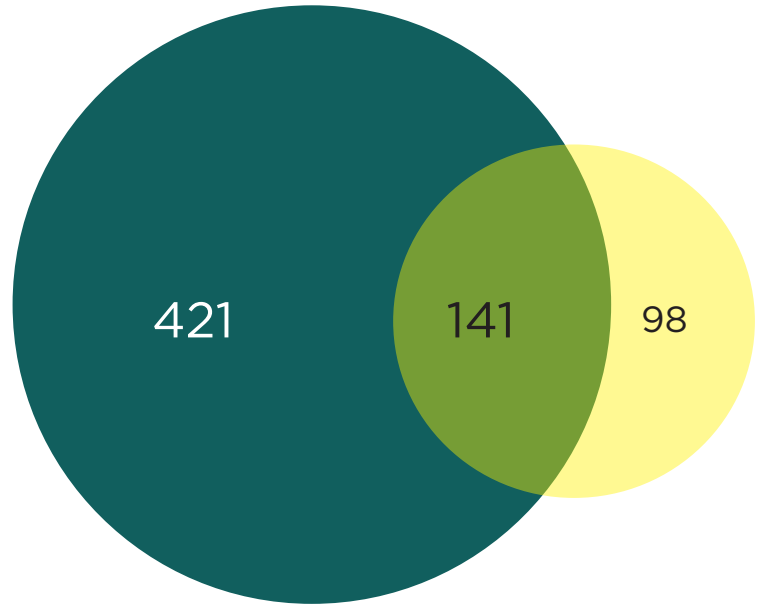
List of iCER workshops in July:

> Introduction to HPCC

Tickets   Workshops   Office Hour

4   1   218   7   9
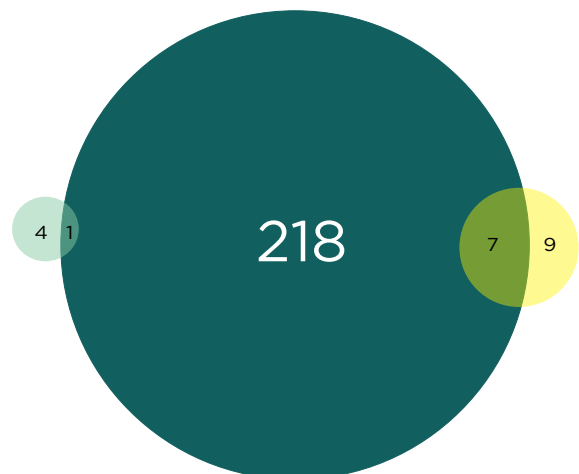
COMPARISON BETWEEN NUMBER OF USERS USING ICER SUPPORT AND COMPUTE SERVICE IN JULY

Compute

Support

421   141   98

DAILY SCHEDULER ACTIVITY IN JULY

Queued — Start — Finish

Number of Jobs

Day of Month

This figure shows the activity of the batch scheduling system by day. On a typical day, the scheduler processes approximately 171883 jobs. This includes jobs that are queued, jobs that start and jobs that end. Put in another way, the scheduler manages approximately 119 jobs per minute.

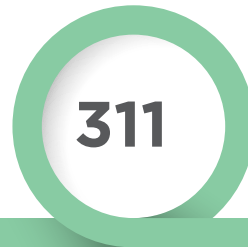## NUMBER OF MAPPED HOME DIRECTORIES PER SERVER IN JULY

ufs-13-b   ufs-13-a   ufs-12-a   ufs-12-b
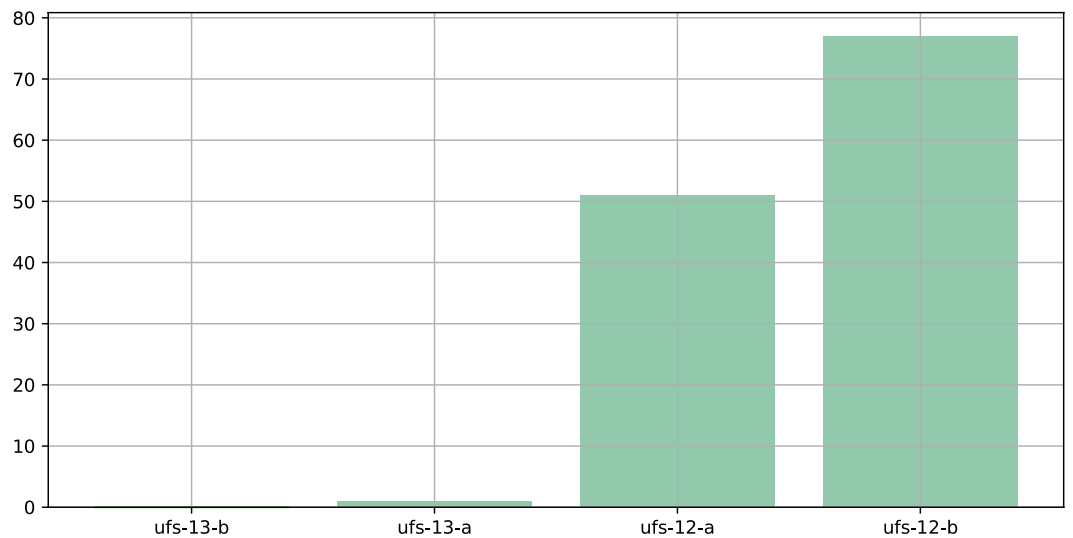
TICKET ACTIVITY SUMMARY IN JULY

259 — Tickets **Created**

453 — Tickets **Updated**

311 — Tickets **Resolved**

13 — **Open** Tickets

TICKET MESSAGE SUMMARY IN JULY

581 — Total Users' Messages

837 — Total iCER's Messages

Among 581 users' messages, 486 messages need answers.

JULY TICKET HIGHLIGHTS

CHUN-MIN CHANG
Research Consultant
WHAT WILL HAPPEN TO YOUR HPCC ACCOUNT IF YOU ARE NOT AFFLIATED WITH MSU??

TICKET RESOLUTION STATISTIC IN JULY

486 Messages answered in July

- 47%
- 8%
- 22%
- 12%
- 11%
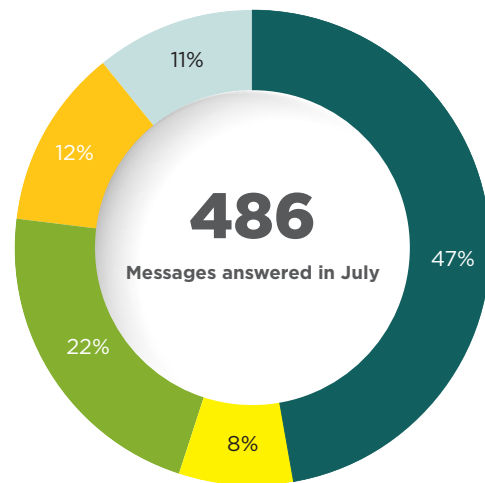
- Messages answered within 5 hours
- Messages answered within 5-12 hours
- Messages answered within 12 hours - 24 hours
- Messages answered within 24 hours - 2 day
- Messages answered in more than 2 days

42

New User Accounts are created

in JULY

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.
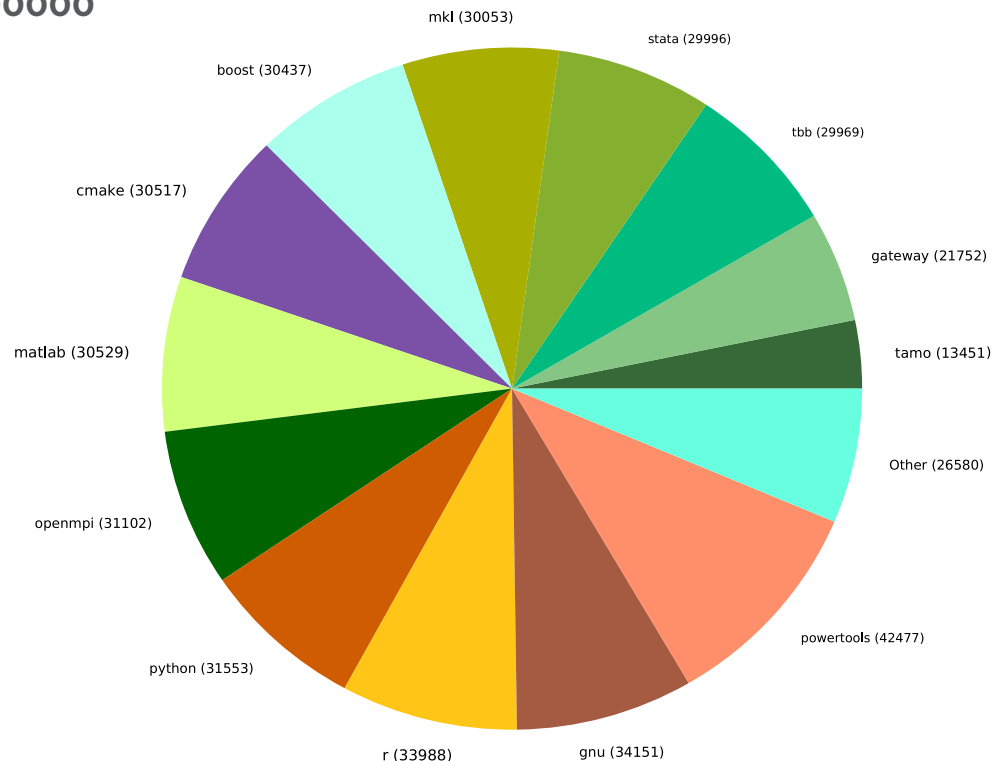
ALL MODULE LOAD COUNTS <10000000

boost (30437)
mkl (30053)
cmake (30517)
stata (29996)
matlab (30529)
tbb (29969)
openmpi (31102)
gateway (21752)
python (31553)
Other (40031)
r (33988)
powertools (42477)
gnu (34151)
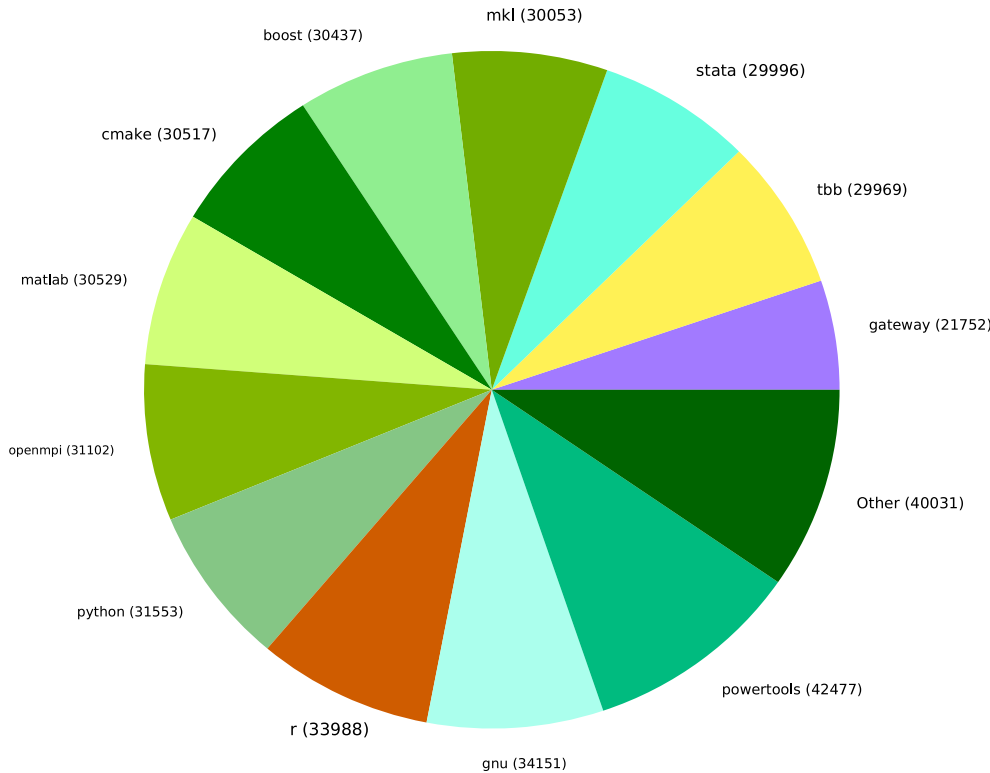
The pie chart shows the most commonly loaded modules. Note again that the biggest ones are the ones included in a user's default profile such as MATLAB, Python, and R. These modules get loaded every time they log in or run a job. As can be seen clearly, the default modules get loaded in an order of magnitude 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 21752 gateway connections in July. From our service report we know that 562 unique individuals used a developer node in July. This means that on average each person is logging into gateway approximately 39 times in the month or about 1 times a day (on average).

mkl (30053)
boost (30437)
stata (29996)
cmake (30517)
tbb (29969)
matlab (30529)
gateway (21752)
openmpi (31102)
tamo (13451)
python (31553)
Other (26580)
r (33988)
powertools (42477)
gnu (34151)

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