Introduction to HPCC

List of iCER workshops in January:

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

**NUMBER OF USERS USING iCER COMPUTE SERVICES IN JULY**

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

DAILY SCHEDULER ACTIVITY IN JULY

This figure shows the activity of the batch scheduling system by day. On a typical day, the scheduler processes approximately 171,883 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
TICKET ACTIVITY SUMMARY IN JULY

Tickets Created: 259
Tickets Updated: 453
Tickets Resolved: 311
Open Tickets: 13

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 AFFILIATED WITH MSU??

486 Messages answered in July
47%
11%
12%
8%

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.

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.

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).

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