

What Linux systems are available?

Scope

This document describes the School of Informatics, Computing, and Engineering Linux systems that are available for use via [console/gui logins](#) and [remote ssh logins](#). This includes only the [Unified Linux Systems](#) owned and managed by the school for general use by all SICE faculty, staff, and students. There are many other standalone and grant-purchased systems that are not part of the common pool of available Linux systems and, therefore, are not included here. If you have any questions about the availability and use of any of these systems, please [contact us](#).

IU/IUTS Research Systems

Please keep in mind that there are many non-SICE research systems available to all IU researchers. This includes various large computing and storage systems, including Big Red II, Karst, Mason, and the Scholarly Data Archive (SDA) that we encourage you to take advantage of. See the [Research System Knowledge Base Page](#) and the [UIITS Research Technologies Homepage](#) for further information about these systems.

Linux Account Information

There is good general information about getting started in the SICE unified linux environment in this KB page:

[Getting Started In the Unified Linux Environment](#)

You can find out if you have an account on the unified Linux systems and get detailed information about your account here:

[How do I get detailed information about my Linux accounts?](#)

Linux System Information

You can also get detailed information about any linux system by running the `config` command from any shell prompt.

Account Domains

Accounts on these Linux systems are organized by the following password domains:

- **Burrow** - The Burrow systems are available to all SICE faculty, staff, and students (both graduate and undergraduate students in CS or Informatics) as well as non-SICE students who are taking CS or Informatics classes requiring use of these systems. Accounts are created automatically for all SICE graduate students and for undergraduate students taking certain SICE classes. If you are a faculty, staff, or undergraduate student in the CS or Informatics program and do not already have a Burrow account, you can request an account using the [Help Desk](#). Note that account requests for non-SICE students should come from the instructor of the class using these systems.
- **Sharks** - The Sharks systems are available to all SICE faculty, staff, and graduate students (CS and Informatics). Access can also be granted to undergraduate and non-SICE students and guests with sponsorship by a member of the SICE faculty. Accounts are created automatically for all SICE graduate students (CS and Informatics). Accounts for other users can be created by having the faculty sponsor make the account request using the [Help Desk](#).
- **iris/cat** - ILS maintains login servers iris and cat. Iris is available to those currently taking SICE graduate level courses. Cat is reserved for faculty /staff. These hosts provide command line access and mount ILS Linux home directories.
- **Ella/Info** - ILS maintained web servers. Include support for perl,php, etc. (running as user). Ella is for use by those currently enrolled in SICE graduate level courses. Info is for faculty, staff and professional associations.
 - Accounts for the above listed ILS servers are generated based on enrollment data provided by the registrar near the start of each semester.
 - Web based tools to kill one's own runaway scripts and to view one's own error logs are pre-loaded into users' web accounts – password protected behind a secure login.

Caveats and Tips

These systems are shared resources that are used by many people. While there are few limitations on their use, please use them in a way that minimizes your overall impact on other users. For example, limit the number of simultaneous CPU or memory intensive process, kill runaway processes, and use `nice` for long-running processes that consume a lot of CPU cycles. For more information about viewing and killing processes as well as using `nice` to adjust a processes priority, please see the following KB page:

[How do I view, kill, or nice processes I have running on a Linux system?](#)

When using Linux systems remotely, you may find that the *screen* utility is a very convenient way to start a process, detach from it (leaving it running), and then reattach later on. Basic information about using *screen* is available in the following KB page:

[How do I use screen on the Linux systems?](#)

Also note that there is a wide array of software available on the unified Linux systems. Please see the following KB page for information about the installed software and how to request the installation of new software:

[How do I get new or updated software installed on the unified Linux systems?](#)

Various storage space is accessible from these unified Linux systems. Please see the following KB page for information about the available storage space:

[What data storage space is available on the unified Linux systems?](#)

Available Systems - Remote Use

There are a number of central servers available for remote use. Login access to these systems is via ssh. See the KB page [SSH Remote Logins and File Transfer to Linux Servers](#) for more information about the available SSH client tools.

- **burrow.sice.indiana.edu [Burrow Domain]** - If you are looking for a system to use in the Burrow domain, you can use the alias *burrow.sice.indiana.edu*. This alias will take you to an appropriate Burrow system so you don't have to worry about what specific system to use. Currently, this will take you to the system named silo so see the listing below for silo to get further information and usage limitations.
- **sharks.sice.indiana.edu [Sharks Domain]** - If you are looking for a system to use in the Sharks domain, you can use the alias *sharks.sice.indiana.edu*. This alias will take you to an appropriate Sharks system so you don't have to worry about what specific system to use. Currently, this will take you to the system named tank so see the listing below for tank to get further information and usage limitations.
- **silo.sice.indiana.edu (aka. burrow.sice.indiana.edu) [Burrow Domain]** - Silo is a dual-socket, 12-core (24 total cores) Intel Xeon system with 512GB of memory running 64-bit Red Hat Enterprise Linux. In order to limit runaway processes and misuse, the system limits users to 30 simultaneous logins, 500 total processes, and 32GB of total virtual memory. Please keep in mind that this system is used by **many** people so running large, CPU intensive processes here is discouraged.
- **tank.sice.indiana.edu (aka. sharks.sice.indiana.edu) [Sharks Domain]** - Tank is a dual-socket, 8-core (16 total cores) Intel Xeon system with 256GB of memory running 64-bit Red Hat Enterprise Linux. In order to limit runaway processes and misuse, the system limits users to 30 simultaneous logins, 500 total processes, and 64GB of total virtual memory. Please keep in mind that this system is used by **many** people so running large, CPU intensive processes here is discouraged.
- **hulk.sice.indiana.edu [Sharks Domain]** - Hulk is a quad-socket, 8-core (32 total cores) AMD Opteron system with 512GB of memory running 64-bit Red Hat Enterprise Linux. In order to limit runaway processes and misuse, the system limits users to 30 simultaneous logins, 1000 total processes, and 256GB of total virtual memory.
- **Linux Labs [Burrow Domain]** - If you are doing experimentation that requires the use of more machines than are available using the above systems then you can use the machines in the Luddy Hall Room 3111 Linux lab or the Luddy Hall Room 0006 teaching lab. Just keep in mind that there may be people using these machines at the console so try to use those machines in a way that won't interfere with interactive use. In other words, limit use to jobs that are not memory intensive and [nice your processes](#). Keep in mind that if your process uses a large percentage of available RAM (say, greater than 4GB on a system with 16GB or memory) then you will likely have a significant impact on interactive users no matter that you have your process niced. If you are using a lot of memory then please do not use these systems but, rather, look into the other available servers, including the [UITS Research Systems](#). In order to get a list of the computers in this lab, just go to the hardware database listings of systems in [Luddy Hall 3111](#) or [Luddy Hall 0006](#).
- **Research Lab Systems** - Individual faculty members, research labs, and centers often purchase dedicated systems to support their research. Access is limited so check with any faculty members you are working with to see if dedicated lab resources are available.
- **IU/ITS Systems** - Please note that there are other quite significant Linux computing resources available through UITS and you are strongly encouraged to use them. See the [Research System Knowledge Base Page](#) and the [UITS Research Technologies Homepage](#) for further information.

Available Systems - Local Console/GUI Use

In addition to the Linux systems in the various individual and shared offices, there are systems available for console use

- **Linux Lab [Burrow Domain]** - There are Linux systems available to undergraduate and graduate students in Luddy Hall room 3111. In order to get a list of the computers in this lab, please see the hardware database listings of systems in [Luddy Hall 3111](#).
- **Security Lab [Burrow Domain]** - There are Linux systems available to undergraduate and graduate students in Luddy Hall room 3115. These system have priority use for security classes but can be used when not scheduled for security classes and labs. In order to get a list of the computers in this lab, please see the hardware database listings of systems in [Luddy Hall 3115](#).