Why am I not able to log into the Luddy Linux systems?

Scope

This document provides information about problems logging into the Unified Linux Systems managed by the Luddy School of Informatics, Computing, and Engineering. There are many other Linux systems on the IU campus that are not managed by the Luddy School IT group (e.g., the systems managed by IU Research Technologies like big red, karst, and carbonate) and are not part of the unified configuration and, therefore, this document does not apply to accounts on those systems. If you have any questions about Linux systems within the school, please contact us or see the KB page Getting Started In the Unified Linux Environment.

Here are some guided questions to help you determine the cause if you are not able to log into one of our Linux systems:

1: Are you sure you have an account on the system you are using?

If you have never logged into the system before, it is possible you don't have an account. We generally create accounts automatically for all faculty and graduate students plus students taking classes that use particular systems. However, you should verify that you actually have an account which you can do by using the account information page as described at How do I get detailed information about my Linux accounts? If you are not able to log into the account information link on that page, then you do not have an account. Please contact us. In your problem report, please let us know what systems you need to access and the reason (e.g., you need a Burrow account for the CS A123 class).

2: Are you sure your IU account isn't locked?

The Linux systems your normal IU authentication. So if your IU account gets locked you will not be able to log in. This can happen if there are too many failed logins to your account. So try and log into some other IU system (like canvas.iu.edu or one.iu.edu) and if that fails also your account may be blocked. See the UITS KB page If your ADS domain account is locked for further information on how to correct this problem.

3: Are you able to log in remotely via SSH but not on the console of a workstation?

When you log into the console of a Linux system, it needs to write a couple very small files. However, if you are over your allotted disk quota this write will fail and you will be kicked right back to the login screen after you enter your username and password. The remedy is to clear up some space in your home directory so there is some free space. Here are some tips to get you going if this happens:

- You can use the account information page as noted in the KB page How do I get detailed information about my Linux accounts? to check your disk quota.
- There is a wealth of information about cleaning up your space plus other disk space you have available in the KB page I'm over my disk quota on the unified linux systems. How do I get more space?
- In order to clean up space without being able to log in on the console of a workstation, you can log in remotely via ssh per SSH Remote Logins and File Transfer to Linux Servers.
- Another way to log in on the console of a workstation to do some cleanup is to log in without using the GUI. To do that, hit Ctrl-Alt-F2 (i.e., hold all three keys -- Ctrl, Alt, and F2 -- at the same time) on any of the Linux workstations. This will give you an alternative console with a Login prompt where you can log in and remove files to free up space. Once you are done, hit Ctrl-Alt-F1 to return to the GUI login screen to see if you can log in now. If so, hit Ctrl-Alt-F2 again to go back to the alternative console and then run "exit" to log out from there. Then hit Ctrl-Alt-F1 to return to the GUI screen. Note that on some systems it may be Ctrl-Alt-F7 to get back to the GUI login.
- At any shell prompt, you can run "quota -v" to see your current disk usage.

Once you have freed up some space, you should be able to log in again.

4: Are you unable to log in remotely via SSH?

If your remote SSH logins are being rejected, there are a few common causes:

1. Are you POSITIVE you have an account on the system you are using? If you are not sure, see #1 above.
2. It is possible that the system you are connecting from has gotten blocked as the result of too many failed logins. Many of the Luddy Linux systems allow SSH connections from anywhere but they block IP addresses that have had too many failed login attempts. This is necessary to prevent ssh login bots from causing problems like getting ADS accounts locked out. You can use the SSH Block Checker to see if your IP addresses is blocked. If you do go blocked, you can always circumvent the block by making a connection to the IU VPN (no IU VPN addresses are ever blocked) and you can contact us to remove a block.
3. If you are trying to connect from outside the IU network, it is possible the system you are trying to connect to only allows connections from within the IU network. If that is the case, then you will need to make a connection to the IU VPN first before you will be able to connect. Note that this is not going to be an issue with the burrow server (aka silo) since it does accept logins from outside of IU.
4. Occasionally, users will make changes to key startup files (e.g., the .bashrc or bash_profile) that prevents them from logging in. Things that can be dangerous from within these files are changes to the PATH environment variable, adding a hard-coded DISPLAY environment variable, or any invocation or exec of any shell. If you have made recent changes to your startup files that you think may be causing problems, it is possible you won't be able to fix this yourselves. Please contact us and be sure to let us know what changes you have recently made so we can more easily find the cause.

5: If all else fails...

If you don't have any luck fixing the problem yourself, please feel free to contact us and we will be happy to help.