Computer Science Department
Computer Facilities
(CSD-CF)

Your local IT support staff

John Gerth
Andrej Krevl

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CSD-CF: Who

- Team of 5
- Local @ Gates Computer Science
- Independent of University IT and School of Engineering IT
- Basic CS Services
- Gates Building Network
- High Performance Computing (HPC) for Research and Teaching
- Infosec
- Full life-cycle support
CSD-CF: What

- **Network:**
  - 85M - 100M network flows / day
  - 600k - 1M SSH trolls / day
  - 40 TB / day (2/3 off campus)
  - 4000 unique active devices / day
  - 86 network switches
  - 2x 40 Gbit/s to campus core

- **Data Centers @ SLAC, Forsythe, Gates:**
  - 46 racks; 778 servers; 1301 GPUs
  - Max RAM per node: 12TB
  - Total Storage: >5PB

- **Desktop farm**
CSD-CF: Where

- Under the sky(light)
- Gates Basement (B), Wing A
- Offices B28 - B36
- Weekdays 9am - 5pm PST/PDT
- https://support.cs.stanford.edu
- action@cs.stanford.edu
https://support.cs.stanford.edu

THE THING TO REMEMBER FROM THIS PRESENTATION

Or email:

action@cs.stanford.edu
Support: Opening a request/ticket

- Who
- Where
- What
- Unique
Support: Bad request

From: xz4242@example.net
Subject: URGENT REQUEST

I cant connect to server. It is urgent for my project.
Support: A better request

From: Johnny Bravo <xz4242@example.net>

Subject: SSH connection error to xanon.stanford.edu

Hi!

My name is Johnny Bravo, CSID jbro. I work with professor Knuth.

I am working from my campus residence, my current IP is 1.2.3.4.

I am trying to ssh to xanon.stanford.edu, but I get a connection error (please see below). My computer is registered as jbro-PC, my wireless MAC is aa:bb:cc:dd:ee:ff.

Johnny

----

$ ssh xanon.stanford.edu

ssh: Could not resolve hostname xanon.stanford.edu: nodename nor servname provided, or not known
Services: Network access

“Network is the purest form of a shared resource”
-- Gerth 2018

- Devices @ Stanford need to be registered for network access
  - Self registration upon connecting
  - https://cs.stanford.edu/ip for CS networks

- Connecting to Stanford networks requires MinSec compliance
  - https://minsec.stanford.edu
Services: Wired networks @ Gates

- Converged and **research**
- 802.1x MAC Auth
- Registration required: [https://cs.stanford.edu/ip](https://cs.stanford.edu/ip)
- **Never** grab an IP address
- TSO: Top left port active on the research network
- If trouble: support request
  - Office number, Port number
  - Group affiliation, MAC address
- **Do not** run your own router / DHCP server
  - If you think you need to: support request
Services: Wireless networks @ Gates

- **Legacy:**
  - SSID **Stanford Visitor**: no registration, digitally off campus
  - SSID **Stanford**: registration required
  - SSID **CS.Stanford.EDU**: no comment ;-
  - Please do **not** run your own wireless network

- **New:**
  - SSID **Stanford Visitor.CS**: no registration, terms & conditions portal, limited
  - SSID **Stanford.CS**: captive portal, SUNetID login required (SSO)
  - Available today in Gates basement, coming soon elsewhere
  - SSID eduroam: in progress, please wait
Services: CSID, PEDIT

- **CSID** = Your CS username & password
- Apply for a CSID at [https://cs.stanford.edu/csdi](https://cs.stanford.edu/csdi)
- Authentication for most resources here in CS
- Manage it at [https://cs.stanford.edu/pedit](https://cs.stanford.edu/pedit)
- Mail forwarding, Web page redirection, Contact information
- Keep it up to date!
- Basic shell access:
  
  ```
  ssh <csid>@xenon.stanford.edu
  ```
Services: mailing lists

- **Uneditable:**
  - Based on your *relationship* to the department
    - phdcs@cs, mscs@cs, students@cs
  - Based on **PEDIT** contact info:
    - If your office is Gates 403
    - gates@cs, gates4@cs, gates4a@cs

- **Mailing list editor:**
  - [https://cs.stanford.edu/medit](https://cs.stanford.edu/medit)

- **Other Stanford lists available at:** [https://lists.stanford.edu](https://lists.stanford.edu)
  - cs-seminars@lists.stanford.edu
Services: Email

- **Forwarding only** for @cs.stanford.edu
  - Set destination via [https://cs.stanford.edu/pedit](https://cs.stanford.edu/pedit)
  - Forward to your Stanford account, GMail ...
  - Blank forwarding = **No** email
  - Note: can’t test forwarding from GMail to GMail

- **Spam filtering**
  - Mail through cs.stanford.edu is tagged if it looks like SPAM
  - Subject prefix *****SPAM*****

- **Phishing**
  - Happens regularly, becoming more sophisticated
  - Stanford/CSD-CF will **never** ask for your password via email
  - Don’t click on web links in email
  - Ask / open a ticket if you are not sure ([spam@cs.stanford.edu](mailto:spam@cs.stanford.edu))
Security: Phishing: suspicious link - hover

Security: Phishing: destination

[Image of a login page for Stanford Computer Science]
228 emails received

9 ACCOUNTS SUCCESSFULLY ABUSED
3750 emails received

137 LIKELY COMPROMISED

Phishing is still the #1 threat to our security.
-- Michael Tran Duff, Stanford CISO & CPO, Sep 2021
Security

- Open research network (if we can keep it)
  - Your computer will be under attack as soon as it appears on the network
  - Default & easy to guess accounts compromised in 2 min - 2 hrs
  - Keep your software up-to-date

- Use strong passwords, and do not share them
  - Containing upper and lowercase letters, digits, punctuation
  - Password length is your friend
  - Password managers are ok (dashlane!), so are little notebooks
  - NEVER set easy “temporary” passwords

- MinSec (Minimum Security requirements)
  - https://minsec.stanford.edu
  - Compliance for all devices connected to Stanford
  - Every time you work with a new dataset, check MinSec
HPC access

- Clusters available only to students working with research groups
- **NO** general compute resources
- HPC Cluster information:
  - [https://cs.stanford.edu/sc/](https://cs.stanford.edu/sc/)
- Cluster access **request form**:
  - [https://cs.stanford.edu/sc/access](https://cs.stanford.edu/sc/access)
- Most clusters on SLURM
Frequently Asked Questions

- Can I use public keys with SSH?
  - No, but you can set up Kerberos*

- How to set up printing?
  - It depends. Ask your research group.
  - Big xerox printers have instructions on them (with a QR code!!)
  - Don’t print to xerox0!!

- Do you have the USB-C adapter I could use with my MacBook?
  - No, talk to your administrative associate.

- I’m having WiFi issues in Gates
  - Legacy: https://support.cs.stanford.edu
  - New: http://my.nilesecure.com

- Do I have to install Bigfix / SWDE?
  - No, you can install VLRE instead
Frequently Asked Questions

- I brought in the workstation I built, help me put it on AFS
  - Not so fast, we’ll want to take a look

- VPN is bad, mmkay? Give me a public IP!
  - Sure, are you MinSec or ResSec compliant?
    - ResSec: logging to remote server, firewall, emergency access

- Can you install software X for me?
  - Maybe. What’s the X’s URL?

- What information do I need to provide when I have a problem?
  - Who, What, Where, Unique

- Can you subscribe me to all the mailing lists I need to be on?
  - No. We do not know which mailing lists you should be on.
https://support.cs.stanford.edu

The thing to remember from this presentation

Or email:
action@cs.stanford.edu
Summary / useful links

- Support requests:
  - https://support.cs.stanford.edu
  - action@cs.stanford.edu

- Slides: https://cs.stanford.edu/csdcf/about-us

- CSID, contact info, email forwarding: https://cs.stanford.edu/pedit

- Network registration: http://cs.stanford.edu/ip

- Minimum Security Requirements: https://minsec.stanford.edu

- Cluster intro and access:
  - https://cs.stanford.edu/sc/
  - https://cs.stanford.edu/sc/access