**COC / TSO STAFF:** The College of Computing (CoC) Technology Services Organization (TSO) provides computing, networking and physical infrastructure, as well as technical support for all of the College’s programs: Research, Instruction and Administration. Here are the primary points of contact along with respective areas of responsibility.

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Room</th>
<th>Phone</th>
<th>Position</th>
<th>Area of Responsibility</th>
</tr>
</thead>
</table>
| Uwanna Smith     | uwanna@cc.gatech.edu   | CCB 243 | 404-894-9678     | Director                                      | • Research computing: research lab technology, high performance computing, grad student desktops  
                                                                              • Instructional computing  
                                                                              • Critical servers & network |
| Dan Forsyth      | dan.forsyth@cc.gatech.edu | CCB 242 | 404-385-6696     | Assoc. Director, Research & Instruction        | • CoC, KACB & TSRB Help Desk  
                                                                              • Faculty & Staff desktops  
                                                                              • Web applications  
                                                                              • Windows Server Infrastructure |
| Kim MacLeod      | kmacleod@cc.gatech.edu | CCB 240 | 404-385-2680     | Assoc. Director, Enterprise                    | • CoC, KACB & TSRB Help Desk  
                                                                              • Faculty & Staff desktops  
                                                                              • Web applications  
                                                                              • Windows Server Infrastructure |

**USEFUL INFO ON THE TSO WEBSITE:** [https://support.cc.gatech.edu/](https://support.cc.gatech.edu/)

- Download the document you are now reading
- Frequently asked questions (FAQs)
- See a complete listing of TSO staff
- How to do things (Howtos)
- Request resources using online forms

**COMPUTING SERVICE PROVIDERS @ GT:** There are 2 computing service providers available to you at GT: 1) Office of Information Technology (OIT) and 2) Technology Services Organization (TSO).

<table>
<thead>
<tr>
<th>Service Provider</th>
<th>Locations</th>
<th>Type of Service</th>
<th>Help References</th>
</tr>
</thead>
</table>
| OIT              | Enterprise Service Desk (Central Campus) located in Clough Building Room 215 | Centralized GT computing & networking support       | Web: [https://techsupport.gatech.edu/](https://techsupport.gatech.edu/)  
                                                                              FAQ: [https://faq.oit.gatech.edu/](https://faq.oit.gatech.edu/)  
                                                                              Submit Request: https://techsupport.gatech.edu/help-request  
                                                                              Phone: 404-385-5555  
                                                                              Hours: 7AM-6PM, M-F |
| TSO              | Help Desk located in:  
                    • CCB 148 (primary)  
                    • KACB 3123  
                    • TSRB 347 | CoC specific computing & networking support         | Web: [https://support.cc.gatech.edu/](https://support.cc.gatech.edu/)  
                                                                              FAQ: [https://support.cc.gatech.edu/support-tools](https://support.cc.gatech.edu/support-tools)  
                                                                              E-mail: helpdesk@cc.gatech.edu  
                                                                              Phone: 404-894-7065  
                                                                              Hours: 8AM-4PM, M-F |

**IMPORTANT IT POLICIES:** Please read the following IT Policies that WILL affect your computing life at GT. The use of GT computers and networks constitutes agreement to these policies. Additional policies can be found at [https://www.policylibrary.gatech.edu](https://www.policylibrary.gatech.edu).

<table>
<thead>
<tr>
<th>Document</th>
<th>What Is This All About?</th>
<th>Online Reference</th>
</tr>
</thead>
</table>
| GT Computer Acceptable Use Policy, Cyber Security Policy, and Data Privacy Policy | Outlines employee and student ethical and professional behavior requirements for the protection of the GT information technology resources. | [https://policylibrary.gatech.edu/information-technology/acceptable-use-policy](https://policylibrary.gatech.edu/information-technology/acceptable-use-policy)  
                                                                              [https://policylibrary.gatech.edu/information-technology/cyber-security-policy](https://policylibrary.gatech.edu/information-technology/cyber-security-policy)  
                                                                              [https://policylibrary.gatech.edu/information-technology/data-access-policy](https://policylibrary.gatech.edu/information-technology/data-access-policy) |
| GT Data Access Policy                  | Provides guiding principles governing access to Institute data as well as defines data classification and related safeguards. | [https://policylibrary.gatech.edu/information-technology/data-access](https://policylibrary.gatech.edu/information-technology/data-access) |
| CoC User Account and Access Policy     | Rules for CoC user account eligibility, expiration, behavior.                           | [https://support.cc.gatech.edu/support-tools/pnp/coc-user-account-policy](https://support.cc.gatech.edu/support-tools/pnp/coc-user-account-policy) |
USER ACCOUNTS: You have a GT user account and may request a CoC user account, if eligible (see below).

<table>
<thead>
<tr>
<th>Account Type</th>
<th>Account Format</th>
<th>Apply</th>
<th>Activate</th>
<th>Passwords, Remote Access, Disk Quota, Web Pages</th>
</tr>
</thead>
</table>
| GT           | flastXXX (f = first initial, last = last name, XXX = 2 or 3 digit #) | No need to apply. Your account is automatically created. | Go in person to the TSC, Clough Building Room 215. Bring a picture ID. | • Password expires every 120 days (single factor) and 365 days (multi-factor)  
• Reset password at https://passport.gatech.edu/  
• Remote access only w/ SSH, SSL, IMAPS  
• 1Personal web page via CampusPress in https://sites.gatech.edu  
• Most campus services require your GT account  
• CoC Instructional resources require your GT account  
• Two Factor Authentication now required, see: http://twofactor.oit.gatech.edu/students  

| CoC          | Will be the same as your GT account. | You must apply online (see the link to the right). | No activation necessary. You will receive email when the account is ready to use. | • CoC accounts are granted upon request for CoC graduate students involved in Institute-related research. You should only request one if you need access to resources that require it.  
• Apply for account online at https://support.cc.gatech.edu/resources/forms/coc-account-request  
• Reset password at https://support.cc.gatech.edu/resources/forms/coc-account-password-reset/coc-account-password-reset  
• Ask your lab manager to request access for research lab systems  
• 4GB home directory quota, 200MB web page quota  
• 2Personal web page in your home directory ~/.www-home https://www.cc.gatech.edu/~accountname  
• Always store data in your home directory (typically the H: drive on Windows).  
• Don’t store files on local desktop disks (C: on Windows). Desktop systems are not backed up! |

1For information about setting up your CampusPress site, please visit https://sites.gatech.edu/faq/.  
2For information about setting up your CoC web page, please visit https://support.cc.gatech.edu/faq/how-do-i-edit-my-webpage.

E-MAIL: Your GT email is delivered either to your opt-in MS Office 365 mailbox or the external email address of your choice.

<table>
<thead>
<tr>
<th>Type</th>
<th>Email Address</th>
<th>Access</th>
</tr>
</thead>
</table>
| GT   | accountname@gatech.edu alias@gatech.edu | • Setup your alias@gatech.edu and primary email address at http://passport.gatech.edu/  
• Opt-in to o365 or set your external email address for forwarding at http://passport.gatech.edu/  
• Webmail: https://mail.gatech.edu/  
• For additional info, refer to the OIT FAQ website http://faq.oit.gatech.edu/ |
| CoC  | accountname@cc.gatech.edu first.lastname@cc.gatech.edu | • Only graduate students with a CoC account get @cc.gatech.edu email addresses.  
• These email addresses are automatically forwarded to your GT email address. |

• Do not open email attachments or run software from unknown or untrusted individuals or sources.  
• Do not respond to phishing emails that ask you for your GT passwords or personal information.  
• Please report spam and phishing emails: https://support.cc.gatech.edu/support-tools/faq/what-should-i-do-when-i-receive-spam-or-phishing-email
IMPORTANT SYSTEM NOTICE E-MAIL LISTS: Please subscribe to these e-mail lists for important notices regarding GT and CoC system outages and maintenance:

- OIT: https://status.gatech.edu/
- TSO: https://lists.gatech.edu/sympa/info/cc-tso-availability

You can also browse other mailing lists at the following:
- GT: https://lists.gatech.edu/
- CoC: https://mailman.cc.gatech.edu/

WIRELESS & WIRED MOBILE NETWORKING: Using your laptop (or other mobile device) you can access the GT network using wireless technology or using wired “walk-up” ports with an Ethernet cable.

<table>
<thead>
<tr>
<th>Type</th>
<th>Network Name</th>
<th>Access</th>
</tr>
</thead>
</table>
| OIT  | LAWN (Local Area Walkup/Wireless Network). Also known as eduroam. | - LAWN is available in many GT buildings including all CoC-occupied buildings (CCB, KACB, and TSRB)  
- 802.11n available in all CoC buildings (CCB, KACB, TSRB)  
- “Wired” wall-ports support LAWN, too (faster uploads and downloads)  
- Configure your device using instructions at http://lawn.gatech.edu/eduroam  
- Report connectivity issues at http://lawn.gatech.edu/debug |

The GT Cyber Security Policy prohibits the use of wireless access points without prior written approval. If you need to run a wireless access point, you MUST register it. For instructions, please review the FAQ at https://support.cc.gatech.edu/support-tools/faq/can-i-operate-my-own-wifi-access-point.

SOFTWARE DOWNLOADS: You have access to the following software available for download.

<table>
<thead>
<tr>
<th>Type</th>
<th>Available Software</th>
<th>Online Reference</th>
</tr>
</thead>
</table>
| CoC  | MS Windows and other MS software (excluding Office) through Imagine program. | https://support.cc.gatech.edu/resources/downloads  
Must be enrolled in a CoC course for credit. See FAQ: https://support.cc.gatech.edu/resources/downloads/msdnaa-frequently-asked-questions |
| CoA  | Autodesk (AutoCAD, 3ds Max, AliasStudio, Maya, Sketchbook Pro, and more) | https://central.design.gatech.edu/it/free-cheap-software |

DISCOUNTED SOFTWARE FOR PURCHASE: You may purchase discounted software from the following:

<table>
<thead>
<tr>
<th>Type</th>
<th>Available Software</th>
<th>Online Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>OnTheHub eStore</td>
<td>MS Office and more…</td>
<td><a href="https://estore.onthehub.com">https://estore.onthehub.com</a></td>
</tr>
<tr>
<td>USG Technology Store</td>
<td>MS Office, Adobe, Autodesk, and more…</td>
<td><a href="http://personal.techstore.usg.edu">http://personal.techstore.usg.edu</a></td>
</tr>
</tbody>
</table>
**PRINTERS & MOPIERS:** TSO provides access to mopier printing in CCB, KACB, TSRB and Coda. Each building has at least one mopier per floor for easy access - for complete printing instructions and a full list of available mopiers please refer to [http://support.cc.gatech.edu/services/printer](http://support.cc.gatech.edu/services/printer).

The Schools and departments provide paper for the mopiers in their areas. For more information, please see the FAQ at [https://support.cc.gatech.edu/faq/mopier-faq](https://support.cc.gatech.edu/faq/mopier-faq).

**BUZZCARD ACCESS TO BUILDINGS:** Your BuzzCard provides physical access to CoC Buildings (CCB, KACB and TSRB). All CoC grad students have access to CCB and KACB exterior doors. For TSRB exterior doors, requests must be approved by a faculty member located in TSRB. **Access to any other doors is specific to a class or role or is granted on an individual basis when faculty or staff request access for the student.**

**DATA CENTERS:** There are several data centers operated by TSO and OIT that house instructional and research servers that you may have access to, such as file servers, database servers, web servers, project servers, high performance computing servers and more.

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Location</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSO</td>
<td>KACB Data Center</td>
<td>KACB 2219</td>
<td>Critical &quot;core&quot; servers</td>
</tr>
<tr>
<td>TSO</td>
<td>CCB Data Center</td>
<td>CCB 247</td>
<td>Instructional &amp; Research servers</td>
</tr>
<tr>
<td>TSO</td>
<td>TSRB &quot;MDF&quot; Data Center</td>
<td>TSRB Basement</td>
<td>Research servers</td>
</tr>
<tr>
<td>OIT</td>
<td>Rich Data Center</td>
<td>Rich Building</td>
<td>Administrative, Instruction, Research servers</td>
</tr>
<tr>
<td>OIT</td>
<td>Business Continuity Data Center</td>
<td>845 Marietta St.</td>
<td>Business continuity servers</td>
</tr>
</tbody>
</table>

**REMOTE LOGIN SERVERS:** There are several remote login servers that you can access using secure protocols like SSH (e.g. via SecureCRT on Windows, a terminal on Linux, Terminal.app on Mac OS X). There are also specific Research Area server and disk resources that you can obtain access to by being involved in those groups. Requires faculty permission from the area. Ask your Research Lab Manager.

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Type</th>
<th>OS</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoC</td>
<td>killerbee1</td>
<td>IBM System x3550 M4 Server (2 x 2.3GHz Intel Xeon, E5-2630 6-core, 64 GB memory, 120 GB SSD disk)</td>
<td>Red Hat Enterprise Linux</td>
<td>Research use ONLY&lt;br&gt;Available to students with a CoC account&lt;br&gt;Login using CoC account&lt;br&gt;General purpose interactive computing&lt;br&gt;No <strong>heavyweight</strong> computing please&lt;br&gt;Use the &quot;nice&quot; command</td>
</tr>
<tr>
<td>CoC</td>
<td>shuttle1</td>
<td>Virtual Machines on CoC virtualization cluster</td>
<td>Red Hat Enterprise Linux</td>
<td>Instructional / Class use <strong>ONLY</strong>&lt;br&gt;Available to all CoC students&lt;br&gt;Available to students enrolled in a CS course&lt;br&gt;Login using GT account</td>
</tr>
</tbody>
</table>
**RESEARCH AND INSTRUCTIONAL HIGH PERFORMANCE COMPUTING (HPC):** CoC has a number of remotely accessible research-related High Performance Computing (HPC) resources located in CoC Data Centers for the purpose of performing computational work.

- Research HPC resources have been purchased by faculty for specific research area needs.
- Access to research HPC resources requires **faculty or lab manager approval**.
- Request access through the TSO Helpdesk ([helpdesk@cc.gatech.edu](mailto:helpdesk@cc.gatech.edu))

<table>
<thead>
<tr>
<th>Cluster Name</th>
<th>Nodes</th>
<th>Cores</th>
<th>Description</th>
<th>Operating System</th>
<th>Research Group</th>
</tr>
</thead>
</table>
| Deepthought  | 20    | 640   | Ace Powerworks  
2xAMD Opteron Processor 6378  
256GB RAM | Red Hat Enterprise Linux 6  
Instructional HPC Resource | |
| Jedi         | 30 50 | 360 400 | Penguin Reilon 1752  
(2-socket, 6-core, 2.66GHz Intel X5650, 48GB RAM, cloud stack)  
Penguin Reilon 1702  
(2 x 2.4 GHz Intel E5530, 24GB RAM, cloud stack) | OpenStack  
CS/CERCS |
| KIDS         | 120   | 1440  | HP SL390s G7  
(2 x Intel Xeon X5660, 24GB RAM, 3xTesla M2090) | OpenStack, Red Hat Enterprise Linux  
CS/CERCS |
| Mimosa       | 80    | 640   | HP Proliant SE1102  
(2 x Intel Xeon L5420 (4-core), 24GB DDR2 RAM, Hadoop) | Red Hat Enterprise Linux 6  
CSE |
| Minsky       | 8     | 128   | HP Proliant, GPU Accelerated  
Tesla K40M GPU cards per node, 224GB RAM | Ubuntu 14.04 LTS  
IC |
| PACE-ICE     | 42    | 720   | Penguin Reilon  
Quad core Intel E5-2324v4 CPUs  
128GB RAM per Node  
Nvidia P100 GPUs | Red Hat Enterprise Linux 6  
PACE/CoC Instructional HPC Resource | |
| Pasta        | 2 25  | 16 200 | Dell PowerEdge R410  
(2 sockets x 2.6GHz Core2 Quad X5650 Xeon, 24GB RAM)  
Dell PowerEdge 1950 III  
(2 x 3GHz Core2 Quad) | Red Hat Enterprise Linux 5/6  
CS/Computer Architecture |
| Skynet       | 22    | 352   | Lenovo NextScale nx360 M5  
(2 x Intel Xeon E5-2683 v4, 16 core, 256 DDR4 RAM) | Ubuntu 16.04 LTS  
IC |
| Terra        | 5     | 160   | Lenovo NextScale nx360 M5  
(2 x Intel Xeon E5-2683 v4, 16 core, 256 DDR4 RAM) | Ubuntu 16.04 LTS  
CSE |
| Vogue        | 11    | 88    | 7 Penguin Computing Reilon 1700  
(2 x Intel E5506, 12GB RAM)  
4 Dell PowerEdge R610  
(2 x Intel E5550, 12GB RAM) | Red Hat Enterprise Linux 6  
CS/CERCS |
| Wingtip      | 4     | 96    | 2 Penguin Computing Reilon 2903GT GPU(2 x Intel Xeon E5-2650 v4 (12-core), 768GB DDR4 RAM, NVIDIA Tesla P100, Titan Xp, and Tesla K40c)  
2 Dell PowerEdge R930  
(4 x Intel E7-4850 v3, 14 core, 2TB DDR4 RAM) | Ubuntu 16.04 LTS  
CSE |
INSTRUCTIONAL COMPUTER LABS: As a graduate student, you have instructional computing lab resources available for your use, some operated by OIT and one operated by CoC.

Caveats for Campus Instructional Labs and Virtual Lab Environment:
- All GT/OIT and CoC lab machines use your GT account and password.
- Always store data in your home directory (which is mounted as P: drive on Windows).
- Don’t store files on local disks (C: on Windows). These systems are not backed up!

<table>
<thead>
<tr>
<th>Type</th>
<th>Lab Name</th>
<th>Seats</th>
<th>Equipment</th>
<th>Access</th>
</tr>
</thead>
</table>
| GT/OIT  | Library West    | 114   | • Dell PCs running Windows
• Apple Macintosh OS X
• Digital media software
• Color laser printers, scanners, DV cameras | • All GT students
• Open daily, closed nights                  |
| GT/OIT  | Student Center  | 39    | • Dell PCs running Windows
• B/W & color laser printers                   | • All GT students
• Open 24 hours                               |
| CoC     | VLAB            |       | • Virtual Machines (VMs) running Windows
• Digital media software including Adobe CC and AutoDesk Maya/3ds Max. | • GT students enrolled in CS4455
• Accessible 24/7 via mycloud.gatech.edu       |

COC RESEARCH LABS: Extensive computing resources are available to graduate students associated with CoC Research Centers, Labs, Groups and Projects. Research labs typically have UNIX groups, mailing lists, etc. Talk with your faculty advisor or Lab Manager to obtain access.

- List of Labs and Lab Managers: https://support.cc.gatech.edu/facilities/research-labs
- Lab Managers are typically fellow graduate students who work to coordinate technical aspects of the lab and:
  o Answer simple questions about the research lab and resources
  o Approve login access to related lab desktops, servers, storage
  o Coordinate equipment issues in the lab (allocation, movement, repairs)
- **1ST YEAR GRAD STUDENTS MAKE GREAT LAB MANAGERS...VOLUNTEER, IF INTERESTED!**
  o Talk with your faculty advisor to see if there is a need.
  o Some labs already have Lab Managers, so check the web site above.
  o Volunteers ONLY...this is NOT a funded position.
  o Being a Lab Manager is a great way to learn about research projects and the resources they need.

GRADUATE STUDENT DESKTOPS: Many research labs have desktop PCs running MS Windows and/or Linux as well as Macs running OS X. Talk with your Lab Manager to obtain access to those resources. TSO maintains managed OS loads that adhere to Institute best practices:

- TSO Managed OS Loads:
  o Windows 10
  o Red Hat Enterprise Linux
  o Ubuntu LTS
  o Mac OS X
- Authentication will be via GT user account/password
- Security patches are automatically installed.
- Host-based Anti-Virus, Anti-Spyware and Firewall are active.
- If you need local administrator/root on any of these systems, get authorization through your Lab Manager.

INLAND/OUTLAND NETWORKING: Desktops, servers, and printers in CoC are typically connected to one of two networks: 1) InLANd or 2) OutLANd.

<table>
<thead>
<tr>
<th>Type</th>
<th>Network Name</th>
<th>Access</th>
</tr>
</thead>
</table>
| CoC     | InLANd       | • TSO managed and trusted network
• All baseline equipment use this network |
| CoC     | OutLANd      | • A non-TSO managed and untrusted network
• Appropriate for specialized research needs that stretch beyond TSO baseline
• Static IPs
• Requires faculty sponsorship |
WEB RESOURCES:

<table>
<thead>
<tr>
<th>Type</th>
<th>Resource</th>
<th>Online Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIT</td>
<td>Personal home page</td>
<td><a href="http://sites.gatech.edu">http://sites.gatech.edu</a></td>
</tr>
<tr>
<td>OIT</td>
<td>ISP-like web hosting service</td>
<td><a href="https://hosting.gatech.edu/">https://hosting.gatech.edu/</a></td>
</tr>
<tr>
<td>OIT</td>
<td>Hosted Code Version Control</td>
<td><a href="https://github.gatech.edu">https://github.gatech.edu</a></td>
</tr>
<tr>
<td>CoC</td>
<td>Personal home page</td>
<td><a href="https://www.cc.gatech.edu/~accountname">https://www.cc.gatech.edu/~accountname</a></td>
</tr>
<tr>
<td>CoC</td>
<td>General web hosting</td>
<td><a href="http://support.cc.gatech.edu/services/web-hosting">http://support.cc.gatech.edu/services/web-hosting</a></td>
</tr>
</tbody>
</table>

BEST PRACTICES: Please review these points of reference for IT best practices.

- Endpoint Computing Best Practices: https://security.gatech.edu/endpoints
- Top Cyber Security Tips: https://security.gatech.edu/habits
- Securing Your Password: https://security.gatech.edu/securing-your-password
- Two-Factor Authentication: http://www.twofactor.oit.gatech.edu/
- How do I obtain the CoC VPN client?: https://support.cc.gatech.edu/faq/how-do-i-obtain-coc-vpn-client
- Tips for Safe Desktops & Laptops: https://security.gatech.edu/desktop-laptop-security
- Sensitive Data Security Primer: https://support.cc.gatech.edu/sites/default/files/CoC-Sensitive-Data-Security-Primer.pdf
- Top 5 Things to Know About FERPA: http://www.news.gatech.edu/2013/09/03/top-5-things-know-about-ferpa-0
- Know the Facts about FERPA: http://www.news.gatech.edu/2015/03/23/know-facts-about-ferpa
- Data Protection Overview: https://security.gatech.edu/DataCategorization
- Files on local workstations are NOT backed up, but campus provides Enterprise Dropbox to all Graduate Students: https://dropbox.gatech.edu/