

Procedures: Helpdesk and Technology Support Procedures

Procedure Date: 10/27/2009

1.0 Purpose

The Information Technology Services (ITS) Helpdesk is the single point of contact for technology support for all CCBC students, faculty, and staff. The Helpdesk provides technology assistance through a telephone Support Center, responds to emails and web based queries, and provides service points on all campuses for walk-in requests for technology support. The Helpdesk uses a trouble ticket system to record and track all technology requests and to triage service. This document provides procedures for operation of the CCBC Helpdesk and technology support model. The document defines the processes necessary to insure technology problems and requests for service are resolved in an efficient and timely manner. This document is intended for all CCBC students, faculty, and staff.

2.0 Definition and use of the CCBC Technology Support Model

The Technology Support Center's Helpdesk is committed to providing hardware, software, network, telephone, media, event, and online learning support for CCBC students, staff and faculty 24 hours a day, 7 days a week. A standard process and single point of contact for all technology problems is necessary to eliminate confusion over whom to call for each type of issue. The Support Center is comprised of a team of ITS analysts available to provide students, staff, and faculty support for technology problems or questions submitted via telephone, email, or the online self-service process. The telephone number for the Support Center is 443-840-4357(HELP). The email address is helpdesk@ccbcmd.edu, and the on-line 24 x 7 self service link is accessible from the MyCCBC page on the website or at <http://ccbchelpdesksupport.ccbcmd.edu>.

Elements of the Technology Support Model

Walk-in Helpdesk assistance is also available at the Catonsville, Dundalk, and Essex campuses.

Presidium Helpdesk

The Helpdesk is supported by Presidium Learning 24 x 7 customer service representatives. The Presidium service is hosted external to the College. Presidium's 24 x 7 scope of service includes functional WebCT support, login support for email, WebCT, and SIMON, and Microsoft application support. Calls outside of Presidium's scope of service, calls not solvable by Presidium's agents, and non-emergency calls to CCBC's internal Helpdesk that are forwarded after hours to Presidium are forwarded to CCBC for next business day action. For critical problems requiring immediate escalation and response, Presidium will directly contact designated CCBC on-call personnel. These designated responders are on call evenings and weekends, including spring and winter break. CCBC normal on-site support hours are:

- Monday through Thursday 7:30 a.m. until 9:30 p.m.
- Friday 7:30 a.m until 5:00 p.m.
- Saturday 9:00 a.m. until 5:00 p.m.

Classroom PIXIE Switches

In addition to standard contact methods previously described, all classrooms are equipped with alert buttons on the Pixie switches. There are two alert buttons, one for emergency response requests to Public Safety and the other for technical support. When activated, the technical support buttons send automated messages to the Helpdesk email account. This account is monitored by the CCBC on-site technicians during the hours previously described.

Smartview

Smartview software is used to remotely monitor the status of the smart classroom equipment. Smartview enables Helpdesk staff to view the status of equipment, to turn projectors on or off, and to monitor projector lamp life in a proactive manner.

Parature Trouble Ticket System

The CCBC technology support model is based on use of the Parature trouble ticket reporting and management system. Parature enables efficient and comprehensive capture of trouble reports, provides efficient routing of trouble tickets to the queue of support staff appropriate to the type of problem reported, and provides effective management reporting of trouble tickets and Helpdesk agents.

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Helpdesk callers should include sufficient information in their requests and be as clear as possible in describing support needs. Callers should provide their name, location, problem details, time of day, error messages, call-back number, availability, and impact on classroom teaching (Is class in session? Are all machines in a lab out of service or just one machine?) Accurately completing ticket requests insures trouble tickets are routed to the appropriate team and prioritized correctly.

3.0 Roles and Responsibilities in the CCBC Technology Support Model

3.1 Helpdesk Support Center Tier I Analysts

The Support Center is staffed from 7:30 a.m. until 9:30 p.m. Monday through Thursday, from 7:30 a.m. until 5:00 p.m. Friday, and on Saturday from 9:00 a.m. until 5:00 p.m. While an on-site responder is on call until 10:00 p.m. Monday through Thursday, the phone calls to CCBC staff will be transferred to Presidium at 9:30 p.m. This half hour differential allows time for technicians to update and close out open tickets, respond to email, retrieve media from classrooms, and return equipment to secure areas before leaving for the night.

An appropriate number of Support Center analysts will be logged in and available to answer calls to the Helpdesk, as well as to monitor Helpdesk email, and classroom monitoring software. These analysts may be located at any campus. The number of analysts on call will depend upon call volume. Team leads and the Helpdesk manager will monitor call management software and make appropriate determinations as to resources required.

Tier I analysts are responsible to maintain a courteous and professional manner at all times when interacting with CCBC faculty, staff and students. Tier I analysts will use all available technology to attempt first call resolution. House calls will be coordinated as needed, and Tier I analysts are responsible for keeping the end user informed of status of his or her ticket and to set realistic expectations. Analysts are responsible to confer with their team lead and escalate to the Tier II and Tier III groups problems they cannot fix within a reasonable timeframe.

3.2 Presidium, 24 x 7 Service Provider

Presidium customer service representatives are responsible for responding to CCBC faculty, staff, and students in accordance with the guidelines set forth in the contract and documented in the knowledge base. Calls that are beyond their scope of service are to be entered by

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Presidium CSRs as tickets and escalated to the appropriate CCBC ticket queue for handling by CCBC staff.

When a Presidium representative is alerted to a CCBC production system failure or network outage, they are responsible to send out a Parature event notification that notifies all of their agents as well as CCBC analysts. Some outages will require that they also directly contact either the CCBC Network and Infrastructure team or the CCBC WebCT Administrators on their emergency blackberry telephones. See Technology Event Notification and Escalation Procedure.

When a Presidium representative is alerted to an in-session classroom support need, they are to escalate the ticket to the smart classroom queue. This queue elicits priority response by CCBC staff on all campuses.

3.3 Tier II

Tier II technicians provide second level hardware, software, and network support for problems escalated by Tier I technicians and issue escalation to Tier III when dictated by service level agreements. Tier II Analysts work closely with the network and infrastructure group to administer network software applications, create desktop images, deploy desktop solutions, and provide patch management. Tier II is also responsible for assisting with phone support of the Support Center when called upon to do so.

3.4 Tier III

ITS staff assigned to Tier III support are subject area specialists reporting to the Director of Networks and Infrastructure, the Director of Applications, or the Director of Instructional Technology. Tier III technicians possess specialized skill sets with a more narrow focus. Hardware and software vendors are also be considered Tier III support. Helpdesk tickets escalated to Tier III groups are delivered to Parature ticket queues for retrieval. Email alerts are generated to indicate tickets are in the Tier III queues. It is the responsibility of the Tier III groups to act on these requests and to update the tickets in a timely manner. They must also communicate the status to the end user so that he or she knows what actions have been taken and can verify problem resolution.

In the case of a system wide service outage, the CCBC Tier III technicians are responsible for posting Event Notifications. Examples of system wide service outages include a power failure, partial or widespread network failure, and failure of the Banner or WebCT systems. An Event

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Notification at the beginning of a service outage describes the nature of the outage and impacted services. When the problem is resolved, the Tier III technician is responsible for posting a Service Restored Event Notification so that all components of the CCBC support model are aware that service has been restored to normal operations. During normal Helpdesk support hours, Tier III may request that the Helpdesk post the Parature Event Notifications. After hours, Tier III is responsible to post the Event Notification. Updates at two hour intervals should be sent to SupportCenter@ccbcmd.edu to keep members of the Support Center staff informed of the status of the outage.

3.5 Team Leads

There are four team leads, three responsible for each of the main campuses, and one for support of the extension centers and off-site locations. Team leads insure that prompt and efficient hardware, media, software, telephone, and network support is provided to the College community in a professional and courteous manner. Team leads are responsible for daily operations and staffing of the Support Center, monitoring call volume to maintain a balance of phone and field service as well as coordination of support for scheduled events. The team leads also monitor the Helpdesk ticketing system to insure service level agreements are met, Support Center procedures are followed and requests are escalated as necessary. Team leads identify aging tickets and review to determine appropriate actions or escalations.

Daily at the start of shift, the team lead will

- Review all trouble ticket queues (including the 8:00 a.m morning report identifying all Helpdesk calls) and identify and investigate trouble tickets that may indicate a large scale service outage. In the event a team lead discovers a system wide service outage, he or she will be responsible for posting Event Notifications and notifying Tier III. Examples of system wide service outages include power failures that will result in loss of service, partial or wide spread failure of the CCBC network, and failure of the Banner or WebCT systems.
- Review the Event Notifications, identifying Events that are open. The team lead will seek an update from the appropriate Tier III resource assigned to the corresponding trouble ticket. If the service outage has been resolved, the team lead will post a service restoration event notification and close the corresponding trouble ticket.
- Service outages that are unresolved should be promptly reported to the Helpdesk manager.

3.6 Helpdesk Manager

The Helpdesk Manager is responsible for monitoring ongoing performance and productivity of the Helpdesk, striving for continual improvement. He or she monitors the call management and ticketing system to determine when resources need to be reallocated between campuses in order to provide essential IT and media support. The Helpdesk manager supervises and coordinates with team leads to appropriately balance the workload across the Support Center, technology deployments, special technical projects, and support for events across the College. The Helpdesk manager is responsible for implementing best practice standards and for a consistent high level of service delivery to CCBC staff, faculty and students. The Helpdesk manager will also review service call reports to identify aging or unusual trouble tickets and determine appropriate escalations.

The Helpdesk manager will be responsible for escalating service outages and unresolved Event Notifications to ITS senior management. The Helpdesk manager will supervise Helpdesk team leads to ensure that

- Trouble ticket queues are monitored to identify service outages
- Service Outage Event Notifications are posted promptly
- Service Restored Event Notifications are posted promptly

3.7 Director of Information Technology Support Center

The Director of the Support Center is responsible for ensuring the efficient and effective delivery of centralized support services. The Director provides leadership and management supervision and support for the Information Technology Services Support Center which includes the Helpdesk, outsourced 24 x 7 support services, Tier II projects, repair services, asset management, and central computer operations.

4.0 Support Center Priorities

The ITS mission is to provide reliable and trouble free services to the College community. The scope of technology available to the College is large and failures do occur. When faced with multiple demands on support staff, ITS may need to apply priorities to allocation of staff resources. The following sections are provided in order of priority. Within each section, the order of priority is provided.

4.1 Loss of service

- Production system or network outages impacting labs, classrooms, or online courses
- Classroom media troubleshooting, classes in session
- Student access to WebCT, login issues
- Production system, network, or telephone outages affecting multiple faculty/staff offices
- Troubleshooting individual faculty/staff, workstation or telephone loss of service
- Faculty/staff access to systems, login issues.

4.2 Scheduled, planned College events

- Scheduled College Events
- Troubleshooting lab/classroom performance issues (work around class schedules)
- Troubleshooting lab/classroom individual workstations (work around class schedules)
- Troubleshooting faculty/staff office workstations, printers, scanners, etc.
- Scheduled planned upgrades of hardware or software
- Moves, adds, changes of equipment or telephones
- Troubleshooting software application issues
- Equipment loans

4.3 Unscheduled, unplanned requests – dependent upon available resources

- Unscheduled College event requests
- Unscheduled hardware upgrade requests
- Unscheduled software installation requests
- Unscheduled requests for office moves or equipment relocations
- Unscheduled requests for preventative maintenance

5.0 Procedures

5.1 Employees or Students Requesting Helpdesk Support

Contact the Helpdesk in one of the following ways to report a problem. Provide your name, id number, email address, telephone number, problem type, problem location, and CCBC number, if applicable. This information serves to verify identity and contact information, and identifies equipment location if applicable. After entering a service request, you will be furnished a ticket number to be referenced when checking status of the ticket.



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- Call 443-840-4357 and select one of the following options on the telephone keypad
 - Option 1 for functional WebCT issues
 - Option 2 for login issues to WebCT, SIMON, or email
 - Option 3 for Microsoft Office application issues
 - Option 4 for all other issues or to reach our internal Helpdesk technicians
- Email helpdesk@ccbcmd.edu. Include name, contact information, timeline, and all necessary detail.
- Enter a self-service web ticket, chat online, or search the FAQs or knowledge base by going to the MyCCBC tab on the CCBC website and clicking on the link for 24 x 7 Helpdesk support. Or, enter the following URL
- <http://ccbchelpdesksupport.ccbcmd.edu>.
- Walk-in assistance is available at the Catonsville, Dundalk and Essex libraries during normal library hours.
- For immediate classroom response, faculty are advised to press the technical support alert button on the teacher's station or on the pixie switch located on the wall. Should they choose to call the Helpdesk, they should convey the urgency to the agent; or, if submitting a ticket, designate that in the ticket template by choosing the classroom request area and answering the question, "Is class currently in session?" Include the campus and room location.
- To schedule support for a campus event, email helpdesk@ccbcmd.edu. For more information, refer to the College event and media support request procedure. Support for campus events are coordinated through the Helpdesk manager and Helpdesk team leads. Contact information for the Helpdesk manager and team leads is provided below.
- Following is contact information for the Helpdesk manager and the team leads responsible for campus Helpdesk support. Team leads may be reached via email or by calling the Helpdesk at extension 4357(HELP) and requesting transfer to their extension.
 - Catonsville Campus, Team Lead Elliott Raczkowski
 - Dundalk Campus, Team Lead Russ Rekowski

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- Essex Campus, Team Lead Carol Sherry
- Extension Centers, Team Lead Cindy Ruth
- Chuck Miller, interim Helpdesk manager, may be reached at extension 4859.

5.2 CCBC Helpdesk Support Center

5.2.1 Staffing of Analysts

The minimum number of Support Center analysts required to be logged in and available to answer calls to the Helpdesk during non-peak timeframes is three. These analysts may be located at any campus. Evening and Saturdays require 1 tier one analyst available for calls, with additional first responders available to respond to classroom problems. During peak hours or periods of heavy call volume, such as the start of a semester, this minimum number will be increased to 6 or more during the day and two or more at night to insure acceptable response. Team leads will dictate when call volume requires more agents.

5.2.2 Roles and Responsibilities for Support Center Staff

Support Center staff are to regularly check the Support Center management console to verify the minimum required number of agents are logged in to answer Helpdesk calls. If not, the Support Center representative is to immediately log in as a Helpdesk agent and make the phone ready to receive calls. If the minimum number of agents is still not met, the Support Center staff member is to contact the team lead and/or Helpdesk manager.

Helpdesk agents are to

- Regularly check the display console to see if any telephone calls are waiting in queues, and retrieve them.
- Regularly log into the Parature ticketing system at <http://d2.parature.com> and check for priority escalations in the smart classroom, media support, and Helpdesk queues.
- Check the Parature desktop tab as well as email for any Event Notifications issued for outages or system failures.
- Utilize time between calls to monitor job queues and resolve any tickets able to be handled remotely.
- Confirm radio communications are working between campuses.
- Regularly check the Smartview classroom monitoring software and the Helpdesk email account for classroom alerts or other high priority issues.



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- Provide immediate support for classroom problems. A trouble is to be entered and a response to the users with the ticket number is to be sent. .
- Check the events calendar to verify coverage for scheduled event requests. Interactive video rooms are to be opened and systems brought up one half hour prior to the scheduled conference. The Interactive Video Room Scheduling and Support Procedure provide additional information. .
- Respond to a production system failure by entering a trouble ticket, placing a radio or telephone call to the appropriate Tier II or Tier III team, and following the procedures for emergency escalation which includes sending a Parature event notification. See the Emergency Escalation Procedure.
- Respond to an email notification indicating a classroom technical support alert button was pressed by immediately radioing the appropriate campus technicians and enter a trouble ticket. In the event that a technician cannot be reached via radio, the Helpdesk agent is to make every effort to contact a technician or team lead via telephone, blackberry or email.
- Use Mail Admin, if assigned, to monitor that account and process account update requests. A confirmation is to be sent to the requester.

5.3 CCBC Support Center Professionals

Helpdesk agents are to maintain a courteous and professional manner at all times when interacting with CCBC faculty, staff and students. Calls are to be answered within two rings with a consistent standard greeting, and the technician will identify him or herself to the caller:

“Hello. Thank you for calling the CCBC Helpdesk. This is (name). May I have your name please?” If caller prefers to be called by his or her title rather than first name, record the title in the ticket and do not use the first name to verify user contact information. If the email address is not correct, automated emails regarding ticket status will not reach the caller.

Helpdesk agents are to inform the caller what he or she is doing if the caller is waiting. Helpdesk agents are to request permission before placing a caller on hold. Helpdesk agents are to thank the caller for waiting when the call is resumed. Helpdesk agents are to apologize for keeping a caller on hold for a long period of time.

Helpdesk agents are to strive for first call resolution. Helpdesk agents are to use remote control when possible, always requesting permission prior to taking control of a user’s machine. If a house call is required to resolve a problem, Helpdesk agents are to first verify the minimum required number of agents are logged in to take calls. Helpdesk agents are to

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mark him or herself as not ready or to log out. Support Center staff are to inform the team lead when a house call is made. The Support Center staff member is to carry a radio at all times when in the field.

Helpdesk agents are to transfer calls to another skillset (campus group) only when necessary. Before transferring the call, Helpdesk agents are to verify that there is an agent logged on with the appropriate skill to address the call. .

Support Center staff who receive calls directly, rather than through the Helpdesk should advise the caller to call the Helpdesk. The caller should be informed that calls made directly to Support Center staff are subject to delays, missed calls, and delayed resolution of problems.

5.4 CCBC Support Center Ticket Handling

Helpdesk agents are to enter a ticket for each caller, even in the event of a major outage. Helpdesk agents are not to just tell the caller we are aware of the problem without recording the call. If a trouble ticket requires escalation, the Helpdesk agent is to maintain ownership of the problem and escalation process. Helpdesk agents are to advise the caller that the problem is being escalated to a specialist. Callers are to be advised that they will be contacted by Support Center staff member. Helpdesk agents should contact callers using the Helpdesk extension, not personal lines. Helpdesk agents are to follow up with Tier II or III to insure resolution is achieved and the ticket is updated.

When entering or updating tickets, the Helpdesk agent is to describe the problem accurately and include detail. Generalizations such as “Broken” or “Fixed” are not sufficient to communicate worthwhile information. Helpdesk agents are to remember to update tickets so that when users call the Helpdesk for status updates, anyone taking his or her call can provide meaningful information.

Helpdesk agents are to furnish the caller with his or her ticket number before terminating the call. If the caller does not want to wait for the Helpdesk agent to complete entering the information, the caller is to be informed them that they will receive an automated notification via email referencing the ticket number. The Helpdesk agent is to keep the user informed and updated on the progress of his or her ticket. The Helpdesk agent is to verify with the user that his or her problem is resolved before closing the problem.

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Prior to a planned absence, the Support Center staff member is to update his or her team lead with open ticket status so that the team lead can reassign those tickets to available technicians.

6.0 Related Policies, Procedures, and Forms

- Technology Event Notification and Escalation Procedure
- College Event and Media Support Request Form
- Interactive Video Room Scheduling and Support Procedure
- Software Installation Request Procedure
- Outlook Account Request Form
- Adobe Breeze Conferencing Procedure
- Macintosh Support Procedures
- Inventory Control Procedure
- Change Management Procedure