

ITS Services in Support of Online Learning

Gloria Thornton, 5/10/11

Technology has become an essential aspect of instruction both for on-campus and online learners. Increasingly, technology services are remotely available and even “mobile.” This document summarizes key technology services offered by ITS and its partners in support of online learning. Service features and metrics are included to aid in identifying areas which have the greatest opportunities for service improvement.

Unless a Memorandum of Understanding (MOU) or Operating Level Agreement (OLA) specifies a different response level, ITS response to issues/problems with technology services adheres to the **ITS Incident Management Standards** described in **Appendix A**.

Information regarding uptime for ITS core services is available on the ITS Metrics site at <https://sites.google.com/a/uncg.edu/its-metrics/home>. The ITS metrics site provide an explanation for any service whose unplanned downtime is less than 99.8% for a given month (i.e., monthly unplanned downtime exceeds 86.23 minutes or ~1.5 hours).

UNCG Network

A robust campus network is essential to providing online learners with access to the campus-based technology resources they need. UNCG’s robust, high speed network provides online learners with access to campus-hosted technology resources such as Blackboard and UNCGenie (Banner), as well as integration/account services that provide access to remotely hosted services (e.g., Elluminate with Blackboard integration).

The ITS Service Operations Center (SOC) provides 24x7 monitoring of the UNCG network as well as systems and services to promote quick response to technology infrastructure issues and outages. This monitoring helps to reduce downtime that interferes with students’ ability to complete their work.

Metrics: UNCG maintains a highly available network that has performed at no less than 99.99% uptime for each month of FY 10-11, July through April, with 100% uptime for 6 of 10 months.

Service Desk

The UNCG Service Desk provides support to all University students, faculty and staff via telephone, email and a self-service portal at 6-tech.uncg.edu. In FY 10-11, Service Desk hours were expanded to include evening and weekend coverage to better accommodate student needs. Current operating hours for the Service Desk are Sunday 1 p.m. to 10 p.m., Monday - Friday 7 a.m. - 10 p.m., and closed on Saturday. The Service Desk is also open during the Winter Holiday break to provide services to Winter Term (online) students.

Metrics: On UNCG’s most recent (Spring 2009) Spartan Experience Questionnaire (SEQ) of undergraduate students, 75.1% of those responding (n= 297) reported they were satisfied or very satisfied with support received through 6-TECH. [SEQ Q110: *On the average, how satisfied are you with the technical support you have received from 6-TECH since UNCG classes started last fall?*]

Blackboard

The UTLC and ITS partner to provision and support UNCG's Blackboard Learning Management system. UNCG's implementation of Blackboard includes extensive add-on components and "building blocks" which make it the most fully featured Blackboard implementation within the UNC system. Examples of extra features available in UNCG's Blackboard implementation include Elluminate (for synchronous web conferencing), the Blackboard Content System, Respondus (for online test administration), Starfish (for advising and early alerts), Turning Technologies (for clicker/response systems), and Class Climate (for teaching evaluations/surveys). In response to student interest, ITS has entered a 3-year contract for Blackboard Mobile Learn, and will implement Blackboard Mobile Learn as part of the Blackboard 9.1 upgrade in summer 2011. Mobile Learn makes Blackboard easily accessible from mobile devices such as iOS (iPhone, iPad) and Android devices. Additionally, the Blackboard Transaction (SpartanCard) system is integrated within the Blackboard portal, providing students with easy access to their SpartanCard balance and transaction information.

The ITS Service Desk (6-TECH) serves as the first point of contact for all student, faculty and staff Blackboard issues. Requests that cannot be resolved at the Services Desk are typically those from faculty and staff, and these are referred to the UTLC. ITS provides Blackboard training for students, and the UTLC provides training for faculty and instructional support staff.

ITS and the UTLC first established in 2004, and revised in 2007, an Operating Level Agreement (OLA) to govern management of the Blackboard System. That agreement was revised in spring 2011 to include DCL as an additional party to the agreement.

Metrics:

For FY 10-11, the minimum monthly Blackboard uptime was 99.189% (~7 hours unplanned downtime) in December 2010 caused by an outage of one of four Blackboard servers. In all other months from July, 2010, through April, 2011, uptime exceeded 99.9%, with 100% uptime in four out of ten months.

On UNCG's most recent (Spring 2009) Spartan Experience Questionnaire (SEQ) of undergraduate students, 87.5% of those responding (n= 922) rated their level of satisfaction with Blackboard as satisfied or very satisfied. *[SEQ Q112: On the average, how satisfied are you with the performance of Blackboard since UNCG classes started last fall?]*

Elluminate (now "Blackboard Collaborate")

The Elluminate web-based conferencing software provides functionality required for online synchronous learning, including screen sharing, collaborative whiteboards, text chat, audio and videoconferencing, and powerful administrative features such as the ability to record Elluminate sessions for those unable to participate in real time. Elluminate may be used either within Blackboard, which provides automatic rostering/access control, or via a direct link into an Elluminate room independent of Blackboard.

In spring 2011, ITS entered a 3-year enterprise Elluminate license that covers all campus usage, including student organizations and non-classroom training activities. This contract supersedes a previous DCL contract for distance learners, and provides an opportunity for expanded use of Elluminate that can facilitate online learner participation in campus organizations and training opportunities that may have previously required travel to campus.

ITS now employs an Elluminate support specialist and will be working over the summer/fall of 2011 to move UNCG clients to the upcoming new release of Elluminate and to promote use of Elluminate across campus.

Metrics: Not yet developed.

iSpartan – iSpartan.uncg.edu

iSpartan is UNCG's implementation of Google Apps for Education and includes access to Google collaboration tools including collaborative online documents ("Docs"), and websites ("Sites"), and text/video chat, in addition to email, calendaring and contacts management. Many faculty have begun to integrate Google Apps into their courses, and additional tools of interest for instructional use will be added (e.g., the Google blogging tool "blogger" is under review for a proposed summer 2011 addition to iSpartan).

Metrics:

For FY 10-11, the minimum monthly iSpartan uptime was 99.773% (less than 3 hours unplanned downtime) in November 2010. In all other months from July, 2010, through April, 2011, uptime exceeded 99.8%, with 100% uptime in six out of ten months.

On UNCG's most recent (Spring 2009) Spartan Experience Questionnaire (SEQ) of undergraduate students, 90.3% of those responding (n= 917) rated their level of satisfaction with iSpartan email as satisfied or very satisfied. [Q106: *How satisfied are you with Google iSpartan email?*]

Virtual Computing Lab (VCL) – vcl.uncg.edu

VCL provides remote (off campus, residence hall, wireless) access to specialized academic software that has traditionally been available to students in wired campus computing labs and classrooms. It is available for all students to use. Unfortunately, because of vendor licensing restrictions, some popular software (e.g., Adobe products) are not currently available through VCL. ITS is continuing to negotiate better terms, where feasible, to expand VCL software offerings, or to identify alternative software products where needed. ITS is also investigating other changes to make VCL more user-friendly and to promote its use by both on-campus and online learners. To view software currently available in VCL, login to vcl.uncg.edu and select "make a reservation." To request that additional, appropriately licensed, software be reviewed for potential VCL inclusion, complete the form at http://its.uncg.edu/Software/Forms/Campus_Access/.

Metrics:

Because VCL is an evolving service that ITS continues to refine, our metrics focus on utilization. For FY 10-11 July 1 through April 30, utilization is as follows:

Total Reservations: 3508

Total Hours Used: 8599

Total Unique Users: 450

These numbers are lower than a comparable time period for FY 09-10, primarily because vendor licensing terms required removal of some of the most frequently used software on VCL.

Telelearning Center - <http://its.uncg.edu/TeleLearning/>

The Telelearning Center in the Stone building is ITS's central facility for two-way interactive videoconferencing. The Center consists of a 41-seat Telelearning Classroom with an instructor's workstation, a 5-seat teleconference room, an office and a control center, and includes high definition (HD) video capabilities. For more information on services available, see http://its.uncg.edu/TeleLearning/TeleLearning_Center_Promo.pdf.

Metrics:

The Telelearning Center administers a satisfaction survey at the end of each semester to faculty who have reserved the facility for semester-long instruction. The Center consistently receives excellent marks for all aspects of the Center's operations, and scores below 5 on a 5-point Likert scale are rarely seen.

Qualtrics

Qualtrics is a robust web-based survey system that ITS manages with costs shared between ITS and the Office of Research. Qualtrics was selected as the University's campus-wide survey tool as a result of a selection project that included Research Advisory Council (RAC) members, ATCC, UTLC and Institutional Research representatives, and ITS staff. All UNCG faculty, staff and students may access their Qualtrics account online at <https://uncg.qualtrics.com>. Surveys that can be created with student accounts are, however, restricted in terms of the number of surveys and questions, until the student obtains endorsement from a faculty or staff sponsor. Because the survey system is web based, it is as easy for an online class to use as for an on-campus class. ITS provides authentication services, support, and training for Qualtrics, and the Office of Research assists in publicizing and promoting use of the product.

Metrics

Qualtrics is a relatively new service implemented in summer 2010. ITS has not yet developed satisfaction metrics for this service, but utilization since summer 2010 is as follows:

- nearly 400 students, faculty, and staff have enabled their accounts
- over 1,000 surveys have been created
- over 30,000 responses to those surveys have been recorded

Streaming Media Services - http://its.uncg.edu/Streaming_Media/

ITS runs a Flash streaming media server (real.uncg.edu) and provides support services including assistance with file compression, file publishing and access, and direct assistance to faculty members seeking to incorporate streaming media into their classes. In addition to the streaming media server, other options for video-sharing at UNCG include the iTunesU@UNCG site (<http://its.uncg.edu/iTunesU/>) and UNCG's YouTube channel, as well as directly posting video files onto class websites or other locations accessible by students. Faculty may consult with ITS regarding the best method(s) for sharing their material with students. While UNCG currently has only a public iTunes U site, an authenticated (password protected) offering is expected to be developed in FY 11-12.

Metrics:

The streaming media server has had two unplanned emergency reboots in FY 10-11, one resulting from the spring 2011 data center fire. These reboots resulted in ~10 minutes of downtime, so the total uptime rate for the server exceeds 99.99%. (Note: The Flash software service is not currently monitored for uptime, only the server itself. ITS is now implementing monitoring of the service, but is unaware of any incidents in FY 10-11 where the server was up, but the service unavailable.)

Discounted Hardware and Software Sales

ITS provides discounted hardware purchasing opportunities to all UNCG students through the Student Laptop Program (SLP). Because computers are purchased online and shipped directly to the student's residence (no campus pickup), this service is equally accessible to remote online learners as to resident students.

ITS also offers significantly discounted purchase opportunities for select software packages. A shipping option is available for students unable to visit campus, and ITS is moving to online purchasing and software downloads where cost effective and permitted by vendor licensing terms. ITS provides support for installation and use of the software. For a list of software available for purchase, see <http://its.uncg.edu/Software/Purchase/>.

Metrics:

Laptop discounts are approximately 40% off list (retail) for Lenovo PC's, and Macintosh SLP purchasers receive the standard 10% Apple Education Discount. In addition, an SLP laptop purchase entitles the student to a greatly discounted software bundle consisting of the Windows OS, Microsoft Office and Symantec Endpoint Protection.

Software discount levels vary by title. Purchases of discounted software through ITS continue to grow, as of March 23, 2011, FY 10-11 year-to-date units sold had already exceed total FY 09-10 units sold. Units sold through the Client Services office in FY 10-11 through May 9th, 2011, totaled 1,769, as compared to 1,628 in FY 09-10. These figures exclude online software sales such as the Microsoft Student Select program for non-SLP student Microsoft purchases.

Instructional Linux Environment (ILE)

ITS provides an Instructional Linux Environment (linux.uncg.edu) for faculty and students who need to run specialized software on a Linux platform (e.g., for programming classes). This service is as accessible to remote/online learners as to those on campus. A list of currently available software is available at <http://its.uncg.edu/Software/Available/ILE>. ITS will install additional, appropriately licensed, packages upon request via http://its.uncg.edu/Software/Campus_Access/Form/.

Metrics:

Not yet developed.

UNCGenie – <https://banweb.uncg.edu>

While UNCG's Banner Self-Service interface, UNCGenie, is not a tool for actual online learning, it is a key tool for enabling all students, including online learners, to manage their relationship with UNCG. Through UNCGenie, student may register for and drop classes, check their account and financial aid status, make payments, update their contact information, check their grades, and perform other important tasks.

Metrics:

Overall Banner uptime (not UNCGenie specific) has been 100% for each month from July, 2010, to April, 2011, with the exception of July, 2010, when the uptime was 99.978%.

Appendix A - ITS Incident Management Standards

SOS = Service Operations and Support Group

Note: Client contact standards do not apply when a case is set to “pending” (e.g., when awaiting arrival of a part for repairs, or a scheduled appointment). In these cases, a “next action date” is established for follow-up with the client.

Remedy Priority Code	Examples
1 - Urgent	<ul style="list-style-type: none"> • Critical service interruption impacting multiple buildings • A mission critical application is not available
2 - High	<ul style="list-style-type: none"> • Two or more users are unable to perform critical business functions (e.g. network problems isolated to a particular room or building, primary group-specific application not available) • Instructor station in lab not functioning
3 - Medium	<ul style="list-style-type: none"> • One user is unable to perform critical business functions (e.g. workstation hardware or operating system problem). *Lab workstations are an exception to this rule. Instructor station problems fall under Priority 2 and individual lab workstations fall under Priority 4 • Two or more users are experiencing a problem that does not impact critical business functions (e.g. printer problems when another printer is available, problems with non-critical desktop applications)
4 - Low	<ul style="list-style-type: none"> • One user is experiencing a problem that does not impact critical business functions (e.g. printer problems when another printer is available, problems with non-critical desktop applications) • Client inquiries such as “how-to” or application-specific support questions • One lab workstation • Routine requests that have an associated pre-determined workflow (e.g. Lab scheduling, project requests, documentation) is not functioning

Client Contact Standards	
Priority	Schedule

1 – Urgent	SOS updates impacted clients or client point-of-contact every 2 hours until problem is resolved.
2 – High	SOS updates impacted clients or client point-of-contact every 4 hours until the problem is resolved.
3 – Medium	Assigned owner/Group updates client with status every 2 days until resolution
4 – Low	Assigned owner/Group updates client with status every 3 days until resolution
<p>On all Priority Cases, when standard not met, <u>notifications are sent every 30 minutes pending Client Contact work log entry by Assignee or member of Assignee's Group.</u></p> <p>1st round of notifications to: Assignee and Group Manager Assignee and Group Manager</p> <p>2nd (and continuing) round of notifications to: Assignee, Group Mgr, QA group (email list)</p>	

Case Acceptance Standards	
Priority	Schedule
1 - Urgent	<p>Case is accepted (set to “Work in Progress”) by Assigned to Staff (or Group member) within 15 minutes of assignment.</p> <p>If Case is not accepted within that timeframe, notifications are sent to Group Manager every 15 minutes until it is accepted.</p>
2 - High	<p>Case is accepted (set to “Work in Progress”) by Assigned to Staff (or Group member) within 30 minutes of assignment.</p> <p>If Case is not accepted within that timeframe, notifications are sent to Group Manager every 30 minutes until it is accepted.</p>

3 - Medium	<p>Case is accepted (set to “Work in Progress”) by Assigned to Staff (or Group member) within 4 hours of assignment.</p> <p>If Case is not accepted within that timeframe, notifications are sent to Group Manager every 60 minutes until it is accepted.</p>
4 - Low	<p>Case is accepted (set to “Work in Progress”) by Assigned to Staff (or Group member) within 8 hours of assignment.</p> <p>If Case is not accepted within that timeframe, notifications are sent to Group Manager every 60 minutes until it is accepted.</p>

Case Update Frequency Standards	
Priority	Schedule
1 - Urgent	<p>Work log is updated within 60 minutes of Case creation and every 60 minutes thereafter until resolution.</p> <p>If standard not met, notifications are sent every 60 minutes.</p>
2 - High	<p>Work log is updated within 4 hrs of Case creation and every 4 hours thereafter until resolution .</p> <p>If standard not met, notifications are sent every 4 hours.</p>
3 - Medium	<p>Work log is updated within 2 days of Case creation and every 2 days thereafter until resolution.</p> <p>If standard not met, notifications are sent once every business day.</p>
4 - Low	<p>Work log is updated within 3 days of Case creation and every 3 days thereafter until resolution.</p> <p>If standard not met, notifications are sent once every business day.</p>
On all Priority Cases, when standard not met,	

notifications are sent on the schedule specified above, in 2 rounds of notifications:

1st round of notifications to: Assignee and Group Manager

2nd (and continuing) round of notifications to: Assignee, Group Mgr, QA group (email list)