This report summarizes the findings of the Fall 2012 TechQual+ survey about IT at the College. It interprets the findings and describes action plans for IT to address many of the needs expressed by the population who responded to the survey. IT understands the issues raised by our user community and is working to correspondingly improve our services and support for you.

Respondents

1,660 respondents (students, faculty and staff) clicked-on the link to the survey. 1,239 answered one or more of the survey questions with 1,207 completing the entire survey.

Important Themes from User Suggestions

Key findings based on suggestions from the user community are as follows:

- Improved and more reliable network performance is wanted. The campus wireless network (Wi-Fi) was singled-out as not meeting performance expectations.
- There is a need or desire to be provided with basic technology training.
- IT’s ability to provide reliable, comprehensive search capabilities within our main website (http://www.cofc.edu) is insufficient.
- Technology support staff were found to be polite and courteous.
- The core MyCharleston portal and OAKS content should be made available via a mobile app.
- Additional technology that is reliable and user-friendly is needed in classrooms.
- Some HelpDesk (HD) support personnel lack depth of technical knowledge. Most of these responses also recognized that it is probably unreasonable to expect that HD support personnel would have the deep skill sets that many faculty and staff might require given the variety and volume of systems supported.
- There is a deficiency in the responsiveness to submitted HD tickets and to the timely communications back to the user about the updated status of their HD service tickets.
Analysis of the effectiveness of technology service by distinct groups (students, faculty or staff), yielded the following conclusions:

- Students responded that the delivered IT services are above their minimum expectations in 8 of the 13 core survey questions or areas that they rated.
- Faculty responded that the delivered IT services are above their minimum expectations in 2 of the 13 core survey questions or areas that they rated.
- Staff responded that the delivered IT services are above their minimum expectations in 1 of the 13 core survey questions or areas that they rated.

**Wordle**

Wordle is a tool for generating “word clouds” from provided text. The clouds give greater prominence to words that appear more frequently in the source text. The wordle below is generated from the TechQual+ survey suggestions of the faculty, staff, and students.

**Sample Suggestions Received**

- We do not have consistent wireless in our office building and as I work with students on a constant basis, it makes it difficult if students are trying to access the internet on their laptop or iPad and are unable to do so. I also hear complaints about wireless in the Residence Halls quite often, although I know it is slowly being remedied.
• We must be mobile. We're consistently upstaged by other universities and their mobile capabilities.

• Students searching for us are turned off by the lack of ease within our websites. The click downs have got to be shortened.

• Many of the "smart classrooms" are outdated with incredibly slow computers and insufficient WiFi access.

• Increase helpdesk hours...Faculty work 24/7.

• While the site index is fairly easy to use, links to departmental websites and online resources are sometimes outdated and searches are mis-directed.

• I find that since I use a MAC the Helpdesk isn't always able to help that quickly- They should be better trained on Macs.

Comments and IT Action Plan

The following comments and IT action plans are organized per the three TechQual+ categories comprising of the 13 survey questions. For each category, you will find a list of the questions, a summary of the user feedback, and IT action plans to address these concerns. The three categories are:

**Connectivity & Access** - Measures service quality of network access and the ability to access online services

**Technology & Collaboration Services** - Measures service quality of Web sites, online services, and technologies for collaboration.

**Support and Training** - Measures service quality of your experiences when obtaining assistance with technology on campus.

**CONNECTIVITY & ACCESS**

**Survey Questions**

- Having a campus Internet service that is reliable and that operates consistently across campus.
- Having a campus Internet service that is fast and that provides speedy access to Web sites and rapid downloads.
- Having wireless Internet coverage in all the places that are important to me on campus
- Support for accessing the campus Internet service using my tablet or other mobile device.
Feedback Summary
Most comments and responses to these questions dealt with the speed and performance of the campus network, both wired and wireless, rather than the off-campus Internet service. Some responses expressed concerns regarding access to the ERP systems (Banner), primarily during times of heavy usage. For many users, the response speed of the Banner system and other related core ERP applications also translated into a slow network performance experience.

Survey responses to the wireless question identified locations where users want better wireless network coverage:
- Classrooms
- Addlestone Library
- Residence Halls
- Calhoun Annex
- TD Arena
- Silcox
- Outlying buildings
- Outdoor spaces on campus

Action Plan

Campus Network and Internet
During Summer and early Fall 2012, IT reviewed and upgraded the available bandwidth between CofC and the Internet increasing total bandwidth by 310% from 390 Mbps to 1.6Gbps (1683 Mbps) utilizing multiple ISP vendors for redundancy and reliability purposes.
- Network firewalls, load balancers, management tools, and other key network components were upgraded during the internet upgrade project.
- Configuration and performance analysis with the College’s network vendors is continuous and on-going.
- Funding has been received for replacement of slow, outdated network equipment

Campus Wireless Network
- Network Engineering has already begun designing and implementing a major wireless network upgrade and expansion to meet the wireless needs everywhere on campus, including outside gathering areas. This multi-year project is ongoing and scheduled to be completed in December 2014. This is a College Strategic Plan initiative supported by the Executive Leadership and the Board of Trustees.
- The wireless upgrade project includes main campus as well as the remote campus locations.
- The wireless upgrade will include connectivity for mobile and tablet devices.
- Additional details regarding this multi-year Wireless Upgrade Plan, including the progression and estimated completion timeline for specific campus locations can be found at http://it.cofc.edu/projects/wireless.php.
- Network infrastructure will be provided in support for ResNet which is outsourced by Residence Life.
- Engineers will continue to research and implement new wireless technologies.
• Newer wireless management and performance tools will be purchased and utilized to proactively identify and resolve wireless issues timely.

ERP Performance on Campus Network
• The Banner infrastructure is constantly being reviewed to improve performance.
• New monitoring tools are being added to detect problems earlier and faster.
• IT is working with ERP vendor, Ellucian, to improve the user experience.

TECHNOLOGY & COLLABORATION SERVICES

Survey Questions
- Having campus Websites and online services that are easy to use.
- Accessing important campus Web sites and online services from my tablet or other mobile device
- Having campus technology service available that improve and enhance my collaboration with others.
- Having technology with in classrooms or other meeting areas that enhances the presentation and sharing of information.

Feedback Summary
The ability to search items, navigate, and locate up-to-date information within our CofC website is a service issue. Mobile device access to MyCharleston and OAKS content is requested. Many users also commented on the usefulness of Google services (Google Docs) in this area and encouraged greater adoption and training. Most responses mentioned a lack of technology in classrooms, conference rooms, and offices. Where technology was present, its use was frustratingly complex.

Action Plan

Internal Web Searches
- College web content managers will be provided the Google Search Engine Optimization Starter Guide and reminded of the importance of using well formatted content to maximize content searchability.
- Information Technology Web Strategies has reviewed the top 100 search terms as well as incorrect search terms and adjusted the Google Search Appliance to better address these. We continue to add key matches for specific terms to prioritize popular search terms over others.
- We will add a search feature to MyCharleston in a future release. It is not supported by our current vendor product release.

Web Ease of Use
- Web Strategies is working with Marketing on a refreshed design that will be built using web standards for accessibility and responsiveness. This will make the site function well across multiple platforms.
Mobile Applications

- The College’s mobile app “CofC Mobile” is now available for iOS and Android via their respective stores. The app aims to provide mobile access to commonly used features within MyCharleston and online services across the campus. Download your app from the Google Play or Apple App store and try it today!

Collaboration

- Information Technology is working on an upgraded version of SharePoint that will provide better collaboration tools on and off campus.
- Google provides an abundance of resources for maximizing the use of their products. Information Technology will help better publicize these resources to the campus for Google Apps and its collaborative tools.

Classroom Technology

- Beginning November 2012, IT Support Services began installing new switchboxes in classrooms. The goal of this project is to provide faculty and staff technology that is more intuitive and consistent across classrooms. This new system will switch from PC to document camera with the push of one button. All switchbox controlled classrooms are scheduled to be improved by February 2013.
- For fiscal year 2013, IT has also committed to updating 20 classrooms identified by faculty to become “smart classrooms”. More information on this ongoing project and the selected classrooms can be found at http://it.cofc.edu/projects/classroom.php.
- Future plans entail increasing the number of technology training opportunities and providing better documentation.

SUPPORT AND TRAINING

Survey Questions

- Technology support staff who are consistently courteous and thoughtful.
- Technology support staff who are knowledgeable and can help me with resolve problems with campus technology services.
- Receiving timely resolution to problems that I am experiencing with campus technology services.
- Receiving timely communications regarding campus technology services, explained in a relevant and easy-to-understand form.
- Getting access to training or other self-help information that can enable me to become more effective in my use of campus technology services.

Feedback Summary

Overall, the suggestions were very positive for the friendliness of the support staff. However, many responses pointed out the varying levels of technical ability between HelpDesk technicians, specifically related to Apple products. With the Mac user population increasing, many stated concerns regarding the lack of Apple knowledge amongst the support technicians.
There were multiple comments regarding the lack of HelpDesk(HD) support in the evening and on weekends. Also noted was the need for timely communications back to the user community about the status of the HD service tickets. Many complained about IT’s frequent use of email to disseminate information about Internet outages. Though not defined by the survey as a service deficit, many users expressed the need or desire to have additional technology training to be made available to them.

**Action Plan**

**IT Support**

- IT will continue to encourage the use of active listening and professional communication skills when interacting with our customers and colleagues.
- TLT has established a customer service philosophy that is followed to ensure courteous, knowledgeable and friendly service with the faculty with which they interact.
- In 2013, HelpDesk technicians will substantially increase training on various systems including Apple.
- Beginning November 5, 2012, HelpDesk hours were extended until 10 p.m. Monday thru Friday.
- Weekend support is also now available from 2 p.m. to 10 p.m. on Saturday and Sunday.
- In March 2013, IT Support Services will be receiving Apple Support Essentials training to better support the Apple user community.
- IT will continue to minimize unplanned system outages.
- HelpDesk will commit itself to creating standard feedback intervals for all service tickets and will provide updates at these predefined intervals.
- HelpDesk will work with other IT groups to review broken or inefficient communication processes with regard to the handling of outstanding and non-responsive HD tickets.

**Communication**

- IT will continue to communicate via email while researching alternative methods for notification of outages.
- IT also distributes information using blogs such as the TLTblog (http://blogs.cofc.edu/tlt), HelpDesk blog (http://blogs.cofc.edu/helpdesk), Student Computer Support blog (http://blogs.cofc.edu/scs), and the IT System Status blog (http://blogs.cofc.edu/itstatus).
- Additional communication methods currently utilized include TLT’s monthly newsletter.

**User Training**

- IT will continue to provide online self-help materials while increasing hands-on training opportunities, such as TLT workshops, Faculty Technology Institute (FTI), and online TLT Tutorials (http://blogs.cofc.edu/tlttutorials), etc.
- IT will market the availability of TLT weekly training for faculty on various tools. Visit the TLT events calendar for upcoming events (http://tlt.eventbrite.com).
- TLT will remind the faculty about the availability of classroom training which can also be found on the TLT calendar (http://tlt.eventbrite.com).
Summary of TechQual+ Report

The full TechQual+ report can be found at http://it.cofc.edu/about/techqual/cofc-techqual-2012.pdf. Below is a terse summary of the full report delivered by TechQual+.

Population Analysis - The analysis below is based upon self-reported information from respondents obtained via the “direct link” method of data collection. Values for number of attempted surveys, number of completed surveys, and completion rate (# complete / #attempted) are available.

<table>
<thead>
<tr>
<th>Population Size (N)</th>
<th>Respondents (n)</th>
<th>Respondents (n) %</th>
<th># Attempted</th>
<th># Complete</th>
<th>Completion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Declared</td>
<td>191</td>
<td>0%</td>
<td>8</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>178</td>
<td>0%</td>
<td>162</td>
<td>91%</td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>265</td>
<td>0%</td>
<td>219</td>
<td>82%</td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>1025</td>
<td>0%</td>
<td>818</td>
<td>79%</td>
<td></td>
</tr>
<tr>
<td>Totals:</td>
<td>1000</td>
<td>0%</td>
<td>1207</td>
<td>72%</td>
<td></td>
</tr>
</tbody>
</table>

Legend: Pop (N) = Total Population; Resp (n) = Sample Size; Resp (n) % = n/N x 100; # Attempted = # Attempted Surveys; # Complete = # Complete Surveys; Comp. Rate = # Complete / # Attempted

Attribute: University Role (self-reported)

Legend: Pop (N) = Total Population; Resp (n) = Sample Size; Resp (n) % = n/N x 100; # Attempted = # Attempted Surveys; # Complete = # Complete Surveys; Comp. Rate = # Complete / # Attempted

Attribute: Gender (self-reported)

Legend: Pop (N) = Total Population; Resp (n) = Sample Size; Resp (n) % = n/N x 100; # Attempted = # Attempted Surveys; # Complete = # Complete Surveys; Comp. Rate = # Complete / # Attempted

Attribute: Age Group (self-reported)

Legend: Pop (N) = Total Population; Resp (n) = Sample Size; Resp (n) % = n/N x 100; # Attempted = # Attempted Surveys; # Complete = # Complete Surveys; Comp. Rate = # Complete / # Attempted
Radar Graph – The radar graph shows the perceived to desired and the perceived to minimum ratios:
## Connectivity and Access
*Tell us about the quality of the Internet service on campus.*

<table>
<thead>
<tr>
<th>#</th>
<th>When it comes to...</th>
<th>Min</th>
<th>Des</th>
<th>Per</th>
<th>Adeq</th>
<th>Supr</th>
<th>n*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Having a campus Internet service that is reliable and that operates consistently across campus.</td>
<td>Mean</td>
<td>6.56</td>
<td>8.67</td>
<td>6.84</td>
<td>-0.71</td>
<td>-2.84</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.72</td>
<td>0.70</td>
<td>1.83</td>
<td>2.16</td>
<td>1.97</td>
</tr>
<tr>
<td>2</td>
<td>Having a campus Internet service that is fast and that provides speedy access to Web sites and rapid downloads</td>
<td>Mean</td>
<td>6.53</td>
<td>8.59</td>
<td>6.03</td>
<td>-0.50</td>
<td>-2.57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.68</td>
<td>0.82</td>
<td>1.89</td>
<td>2.06</td>
<td>1.92</td>
</tr>
<tr>
<td>3</td>
<td>Having wireless Internet coverage in all of the places that are important to me on campus.</td>
<td>Mean</td>
<td>8.71</td>
<td>8.57</td>
<td>8.82</td>
<td>0.80</td>
<td>-2.75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.83</td>
<td>0.91</td>
<td>1.98</td>
<td>2.36</td>
<td>2.13</td>
</tr>
<tr>
<td>4</td>
<td>Support for accessing the campus Internet service using my tablet or other mobile device.</td>
<td>Mean</td>
<td>6.20</td>
<td>8.10</td>
<td>6.03</td>
<td>-0.17</td>
<td>-2.07</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.90</td>
<td>1.29</td>
<td>1.64</td>
<td>2.09</td>
<td>2.04</td>
</tr>
</tbody>
</table>

Legend: Min = Minimum Level of Service; Des = Desired Level of Service; Per = Perceived Service Quality; Adeq = Adequacy Gap Score (perceived - minimum); Supr = Superiority Gap Score (perceived - desired); n* = Total Respondents Who Completed Item; Mean = Statistical Mean; Dev = Standard Deviation; Red Color = Perceived < Minimum; Green Color = Perceived > Desired; Yellow Color = Potential Problem Areas

## Technology and Collaboration Services
*Tell us about the quality of Web sites, online services, and technologies for collaboration.*

<table>
<thead>
<tr>
<th>#</th>
<th>When it comes to...</th>
<th>Min</th>
<th>Des</th>
<th>Per</th>
<th>Adeq</th>
<th>Supr</th>
<th>n*</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Having campus Web sites and online services that are easy to use.</td>
<td>Mean</td>
<td>6.59</td>
<td>8.38</td>
<td>6.65</td>
<td>0.07</td>
<td>-1.73</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.62</td>
<td>0.97</td>
<td>1.57</td>
<td>1.78</td>
<td>1.83</td>
</tr>
<tr>
<td>6</td>
<td>Accessing important campus Web sites and online services from my tablet or other mobile device.</td>
<td>Mean</td>
<td>8.00</td>
<td>8.08</td>
<td>6.23</td>
<td>0.14</td>
<td>-1.84</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.80</td>
<td>1.24</td>
<td>1.71</td>
<td>1.83</td>
<td>1.82</td>
</tr>
<tr>
<td>7</td>
<td>Having campus technology services available that improve and enhance my collaboration with others.</td>
<td>Mean</td>
<td>6.05</td>
<td>7.94</td>
<td>6.32</td>
<td>0.26</td>
<td>-1.62</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.94</td>
<td>1.32</td>
<td>1.67</td>
<td>1.75</td>
<td>1.74</td>
</tr>
<tr>
<td>8</td>
<td>Having technology within classrooms or other meeting areas that enhances the presentation and sharing of information.</td>
<td>Mean</td>
<td>6.48</td>
<td>8.25</td>
<td>6.31</td>
<td>0.18</td>
<td>-1.94</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.92</td>
<td>1.15</td>
<td>1.73</td>
<td>2.02</td>
<td>1.86</td>
</tr>
</tbody>
</table>

Legend: Min = Minimum Level of Service; Des = Desired Level of Service; Per = Perceived Service Quality; Adeq = Adequacy Gap Score (perceived - minimum); Supr = Superiority Gap Score (perceived - desired); n* = Total Respondents Who Completed Item; Mean = Statistical Mean; Dev = Standard Deviation; Red Color = Perceived < Minimum; Green Color = Perceived > Desired; Yellow Color = Potential Problem Areas

## Support and Training
*Tell us about your experiences when obtaining assistance with technology on campus.*

<table>
<thead>
<tr>
<th>#</th>
<th>When it comes to...</th>
<th>Min</th>
<th>Des</th>
<th>Per</th>
<th>Adeq</th>
<th>Supr</th>
<th>n*</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Technology support staff who are consistently courteous and thoughtful.</td>
<td>Mean</td>
<td>6.89</td>
<td>8.45</td>
<td>7.36</td>
<td>0.48</td>
<td>-1.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.67</td>
<td>0.91</td>
<td>1.54</td>
<td>1.51</td>
<td>1.45</td>
</tr>
<tr>
<td>10</td>
<td>Technology support staff who are knowledgeable and can help me resolve problems with campus technology services.</td>
<td>Mean</td>
<td>7.14</td>
<td>8.55</td>
<td>7.20</td>
<td>0.05</td>
<td>-1.35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.59</td>
<td>0.87</td>
<td>1.67</td>
<td>1.71</td>
<td>1.67</td>
</tr>
<tr>
<td>11</td>
<td>Getting timely resolution to problems that I am experiencing with campus technology services.</td>
<td>Mean</td>
<td>7.07</td>
<td>8.57</td>
<td>6.78</td>
<td>0.30</td>
<td>-1.79</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.60</td>
<td>0.93</td>
<td>1.76</td>
<td>1.92</td>
<td>1.86</td>
</tr>
<tr>
<td>12</td>
<td>Receiving timely communications regarding campus technology services, explained in a relevant and easy-to-understand form.</td>
<td>Mean</td>
<td>6.75</td>
<td>8.31</td>
<td>6.99</td>
<td>0.24</td>
<td>-1.32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.69</td>
<td>1.05</td>
<td>1.64</td>
<td>1.72</td>
<td>1.58</td>
</tr>
<tr>
<td>13</td>
<td>Getting access to training or other self-help information that can enable me to become more effective in my use of campus technology services.</td>
<td>Mean</td>
<td>6.08</td>
<td>7.60</td>
<td>6.48</td>
<td>0.40</td>
<td>-1.32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dev</td>
<td>1.93</td>
<td>1.44</td>
<td>1.77</td>
<td>1.73</td>
<td>1.68</td>
</tr>
</tbody>
</table>

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