1. Support Services Report Template

Report Info
Name of the person completing this report: Thomas Dixon
Title of the person completing this report: Network Infrastructure & Operations
Supervisor/dean reviewing report: Borre Ulrichsen
Service: Design and manage the Information Technology Infrastructure
Division/College: AF ITS

3. Mandated Service

Link to Scoring Rubric

1.1 Please indicate below if any aspect of the service is legally mandated by any of the following and provide the relevant reference.

Campus Policy: Information Security Policy
Any other: All CSU campuses operate under the ICSUAM Series 8000 Information Security policies. Also, campus surveys.

Provide a brief explanation, if necessary, in < 60 words.
8045.S100 Network Controls Management
8045.200 Remote Access to CSU Resources
8045.400 Boundary Protection and Isolation
8045.600 Logging Elements

Campus Information Security Policy
5.4 Network Access Control
5.5 Wireless Access Control
7.2.2 Network Monitoring Requirements

Campus PFD reports on surveys of Students, Faculty and Staff where Campus WiFi access was found to be the most Important and most Used service.

4. Importance of Service

Briefly describe the service in terms of its primary function(s) and purpose(s) using <120 words

The campus information technology infrastructure supports all electronic communications used throughout the teaching, learning and administrative systems and services of the University. Without this infrastructure, the University would not be able to carry on the daily communication and computing processes it relies on. This infrastructure also allows the University to be in a position to quickly adapt and migrate to newer communication and computing services.

Campus PFD reports on surveys of Students, Faculty and Staff where Campus WiFi access was found to be the most Important and most Used service.

Link to Scoring Rubric

2.1 Who are the primary receivers of this service? (Please enter the percentage of each user group that is relevant)

Students: 40%
2.2 Please indicate the direct or indirect impact of the service on students for each of the three University Action/Student Impact Areas listed below (for example processing financial aid applications would be direct impact on students while managing utility services would be indirect).

<table>
<thead>
<tr>
<th>Direct Impact on Students</th>
<th>Indirect Impact on Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-college (helping students to enter the system)</td>
<td>✓</td>
</tr>
<tr>
<td>During college (helping students succeed while they are at Cal State East Bay)</td>
<td>✓</td>
</tr>
<tr>
<td>After college (helping students establish meaningful lifework and be socially responsible contributors to society)</td>
<td>✓</td>
</tr>
</tbody>
</table>

Provide a brief narrative (<60 words each) explaining your selection for each area.

<table>
<thead>
<tr>
<th>Evidence submitted to support the chosen selection (&lt;60 words for each)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-college (helping students to enter the system)</td>
</tr>
<tr>
<td>Pre-admission, potential students utilize the campus information technology infrastructure, such as the data networks and telephone systems, to access campus information as well as communicate with campus faculty and staff.</td>
</tr>
<tr>
<td>During college (helping students succeed while they are at Cal State East Bay)</td>
</tr>
<tr>
<td>During college, student use the campus information technology infrastructure not only for communication with campus faculty and staff, but for access to online courses, resources and Internet access. With the advent of personal mobile computing devices and an “always on and connected” culture, this infrastructure allows students to utilize the most current teaching and learning methodologies and technologies as well as stay connected in the manner in which they are accustomed.</td>
</tr>
<tr>
<td>After college (helping students establish meaningful lifework and be socially responsible contributors to society)</td>
</tr>
<tr>
<td>Similar to the benefits for individuals in a pre-college standing, they can utilize the campus information technology infrastructure, such as the data networks and telephone systems, to access campus information as well as communicate with campus faculty and staff.</td>
</tr>
</tbody>
</table>

2.3 Applying the four choices presented below, please indicate the consequence of NOT having this service on each of the actions in the left hand column.

<table>
<thead>
<tr>
<th>4 - Service provides evidence of direct impact in more than one area</th>
<th>3 - Service provides evidence of direct impact in one area</th>
<th>2 - Service provides evidence of indirect impact in more than one area</th>
<th>1 - Service provides evidence of indirect impact in one area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-college (helping students to enter the system)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>During college (helping students succeed while they are at Cal State East Bay)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Provide a brief narrative (<60 words each) explaining your choice.

<table>
<thead>
<tr>
<th>Pre-college (helping students to enter the system)</th>
<th>Evidence submitted to support the chosen selection (&lt;60 words for each selection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential students will not be able to effectively communicate with campus faculty and staff and learn about what our institution has to offer.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>During college (helping students succeed while they are at Cal State East Bay)</th>
<th>Evidence submitted to support the chosen selection (&lt;60 words for each selection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>During college, without this infrastructure, students will have a difficult time communicating with campus faculty and staff, accessing online courses, resources and the Internet. Additionally, with the advent and dependency on personal mobile computing devices in an “always on and connected” culture, removal of infrastructure would inhibit our students ability to utilize the most current teaching and learning methodologies and technologies as well as stay connected in the manner in which they are accustomed.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>After college (helping students establish meaningful lifework and be socially responsible contributors to society)</th>
<th>Evidence submitted to support the chosen selection (&lt;60 words for each selection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar to those with a pre-college standing post college individuals will not be able to effectively communicate with campus faculty and staff and learn about our institution news and events electronically.</td>
<td></td>
</tr>
</tbody>
</table>

Link to Scoring Rubric

2.4 Alignment with Shared Strategic Commitments

How does this service contribute to or align with any of the eight Shared Strategic Commitments (SSC) listed below?

<table>
<thead>
<tr>
<th>Reinforce academic quality through open-minded inquiry, innovative teaching, engaged learning, and distinguished scholarship</th>
<th>&quot;By providing high speed and reliable data connectivity to the campus and the outside world, we allow our students and faculty to participate and engage in innovative teaching and learning where ever they are and where ever those resources are. “</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance our inclusive campus, responding to the backgrounds and interests of our diverse community and promoting their academic, professional and personal development</td>
<td>Provision of a good communications infrastructure helps to connect students to the resources they need to be successful in learning and applying what they learn, be it to connect to a future employer or another institution for resources. Given additional resources, the IT infrastructure group could partner with respective technological disciplines in the colleges to provide an enhanced learning experience.</td>
</tr>
<tr>
<td>Serve students first, by expanding access and enhancing each student's educational experience and prospects for success as a graduate and life-long learner</td>
<td>Provision of a reliable communications infrastructure enriches the student experience by providing access to vast online resources. Additionally, we employ student assistants, which gives them real world experience in the competitive and challenging discipline of telecommunications before they graduate.</td>
</tr>
<tr>
<td>Foster a vibrant community through enriched student services and student life that support student engagement and learning</td>
<td>Provision of a reliable, always on and available data communications infrastructure lays the foundation for reducing or eliminating traditional paper based communication and distributions, contributing to a sustainable planet.</td>
</tr>
<tr>
<td>Contribute to a sustainable planet through our academic programs, university operations, and individual behavior</td>
<td>The IT Infrastructure group is always looking to increase energy efficiency, including replacing less efficient equipment to making sure that services are not overprovisioned. In a recent project, we implemented energy efficient networking equipment and replaced only equipment that was used in the last 18 months, resulting in a 33% reduction in</td>
</tr>
</tbody>
</table>
**responsiveness, and collaboration across the University**

Support the civic, cultural, and economic life of all communities in the regions we serve through partnerships that promote education and social responsibility

Provides reliable access to, and expertise on data communications to community organizations seeking such resources. Such community organizations can utilize these provisions when holding events on our campuses.

Demonstrate our continuing record of leadership and innovation in higher education, focused on 21st century skills, including science, technology, engineering, and mathematics (STEM)

The continued refinement and enhancement of our data communication infrastructure will allow our institution to remain and grow in its own innovations in STEM based education by providing high speed, reliable access to resources that our students and faculty need.

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**Link to Scoring Rubric**

2.5 How might the demand for this service change over the next five years? (Please choose one category below).

Likely to increase

Provide a rationale for your choice (assumptions, impact of new policy, etc.) in <120 words.

Based on actual growth within our institution and industry specific trending, it is expected that the growth in usage of the campus wireless capacity and high speed Internet connectivity will be exponential. Campus participants are bringing 2-4 devices with them to our campuses, versus the 1-2 that they were bringing a year ago. Further, the speed capabilities of each of these devices is also doubling and tripling, requiring an even faster campus infrastructure and Internet connection.

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**5. Quality of Service**

Link to Scoring Rubric

3.1 Do you assess the quality of the service you provide?

Yes

If “Yes”, what benchmarks, best practices or measures of success, either internal or external, do you use to measure service quality (e.g., timeliness, accuracy, adequacy, meeting deadlines, satisfactory completion of assignment, etc.)? Please describe in <120 words. If no, please explain.

For the campus communications infrastructure, service up-time is crucial for all other areas of IT as well as our students and faculty. We maintain detailed records of the up-time and performance of the campus infrastructure. With those records, we are able to make adjustments to correct the current infrastructure and plan for the enhancement or expansion of the infrastructure. Also, as with other areas campus IT, internal change management procedures are followed to ensure timely and unobtrusive maintenance and troubleshooting methods are employed where possible.

Link to Scoring Rubric

3.2 During the last three years, have you adopted any measures to improve the quality of this service? Please describe in <120 words.

In the last 10 months we have completely replaced all of the campus networking equipment. Aside from increasing the speed of the campus network 10 times, we redesigned the network to build in multiple layers of redundancy where none previously existed. This redundancy will dramatically increase the uptime and reliability experience for campus users..

Link to Scoring Rubric

3.3 What idea(s) do you have for improving the quality of this service within existing resources (e.g. development of
Implementation of the new Service Ticketing system in ITS will allow us to better measure our Service Level Agreement performance and provide a tool to survey our clients. Additionally, continually looking at the data and reports we collect from our systems to see if there is a need to improve or revise a service.

3.4 What ideas do you have for improving the quality of the service if additional resources were provided. Please describe your idea(s) in <120 words.

Given additional resources, the IT infrastructure group could partner with respective technological disciplines in the colleges to provide an enhanced learning experience. This, combined with possible internships within the IT infrastructure group, would help to strengthen the position of the University as a STEM institution and raise its standing in the fields of information technology.

Additional resources could also provide a much denser wireless network, both in indoor spaces and outdoor spaces would allow our campus population to connect and stay connected anywhere on campus. If such provisions were made, advanced and cost saving technologies could be adopted. This includes wireless printers, cameras, etc. Basically, instead of running new wired infrastructure (which is costly), more devices could be connected wirelessly.

3.5 Do you use any formal or informal process to assess the level of satisfaction of the service users?

Yes

If yes, describe the process and most recent results in <120 words. If no, please explain.

We informally utilize the responses from our client base within the campus Service Desk application.

3.6 The university recently conducted a customer satisfaction survey for some services (results for this service are attached, if applicable). Do you have any comment or response to the results? Please describe in <120 words.

Campus wireless network access is deemed as extremely important to students as well as faculty and staff. However, it is more often used by students than faculty and staff. Students rate the quality of the service higher than faculty and staff, however, the surveys show that there is a strong need to improve the service by both groups.

3.7 Do you have any formal or informal guidelines for personnel in your department regarding how to treat/interact with receivers of this service?

Yes

If yes, please describe in <120 words. If no, please explain

Informally, our department uses interactions observed in both the resolution of service desk tickets and other informal communications to measure to quality of the interactions of our employees with the receivers of our service. Formally, we set and review goals with each employee during the annual performance review process. In general, we expect our employees to treat each and every person they interact with with the highest level of respect and patience.

3.8 Does your service have annual goals (targets) of achievement regarding the quality of the service provided?
Yes

If yes, describe the annual quality goals (targets) and indicate if the service achieved those goals (targets). Please provide evidence, if possible, in <120 words. If no, please explain.

The persistence or availability of our services would best represent the measure of quality. To that end, we strive to achieve as close to 100% availability as possible during the business cycle of our institution. This is achieved through careful planning and design of our services including adequate redundancies, and by keeping the cycle of our institution in mind when planning maintenance and other down times. In general, our department has met that goal, although if measured, it would be in 98-99th percentile.

Link to Scoring Rubric

3.9 Does your service have annual goals (targets) of achievement regarding the quantity of service provided?

Yes

If yes, describe the annual quantity goals (targets) and indicate if the service achieved those goals (targets). Please provide evidence, if possible, in < 120 words. If no, please explain.

We maintain a certain level of overhead or reserve capacity in the services we provide through analysis of usage and performance reports, adding capacity on at least an annual basis so that we are prepared to meet the constantly changing needs of the University. Overall, the department has met those goals, although there is currently a deficit in the wireless network service, however, we have a plan and a budget to resolve that deficit this year.

6. Efficiency of Service (cost effectiveness)

Link to Scoring Rubric

4.1 Using the spreadsheet provided for all employees in your department, please distribute salaries of individuals across all services provided to reach an educated or reasonable estimate of the cost of providing the service.

761856

Attach your allocated spreadsheet here.

Link to Scoring Rubric

4.2 Using the spreadsheet provided, please distribute your department's annual operating expenses across all services provided to reach an educated or reasonable estimate of the cost of providing the service.

326013

Link to Scoring Rubric

4.3 Using the spreadsheet provided, please distribute the square footage of work space across all services provided to reach an educated or reasonable estimate of the use of this resource.

1666

Attach your allocated spreadsheet here.

Link to Scoring Rubric

4.4 During the last three years, have you adopted any measures to improve the efficiency (cost effectiveness) of providing this service (e.g. reducing salary costs, operating expenses or use of space, or increased output without increasing cost. Etc.)?
Yes

If yes, please describe the measures in <120 words. If this is a new service introduced over the past three years, please indicate. If no, please explain.

Increased use of centralized monitoring and automation tools for maintaining this infrastructure. Reduction in overall head count through attrition and metered use of external contractors to assist with unexpected increases in workload.

4.5 What idea(s) do you have for improving the **efficiency** (cost effectiveness) of this service within existing resources (e.g. restructuring, merging, outsourcing, ways to cut costs, technology, etc.)? Please describe those ideas in <120 words.

Cross training of existing personnel to help increase our capacity to manage current and future capacities of all components of our infrastructure. Cross training should also reduce dependencies and risks associated with singular subject matter experts.

4.6 What idea(s) do you have for improving the **efficiency** (cost effectiveness) of the service if additional resources were provided. Please describe your idea(s) in <120 words.

Continue to develop and invest in wireless network infrastructure over wired network infrastructure. Wireless networks are easier to deploy, maintain and recover costs. Wired networks are difficult to deploy, expensive to maintain and the cost of the permanent cable plant cannot be recovered. Also, moving our telephone infrastructure from a fixed size and cost asset model to a model that can grow and contract with the size and needs of the institution. This means moving from a PBX to a hosted VOIP phone system.

4.7 Do you have any plan(s) to improve the **efficiency** (cost effectiveness) of this service in the next 1-2 years (e.g. reducing costs, increasing productivity, etc.)?

Yes

If yes, please specify whether these plan(s) involve reducing salary costs, operating expenses and/or use of space. Please describe your plan(s) in <120 words. If no, please explain.

We will continue to develop and expand the wireless network infrastructure versus expanding our wired network infrastructure. There are inherent advantages in a stronger wireless network infrastructure that will produce increased production and reduce costs. Simply, we will not have to make ongoing investments in cabling and will be able to deploy devices faster on a wireless network infrastructure as new devices will not have to wait for cabling to be installed.

4.8 Please describe the estimated output for this service for fiscal year 2011-12, quantify if possible (e.g. volume, service tickets resolved, people serviced, appointments, etc.) in <120 words.

This service maintains 10,000 unique wired data ports, a daily average of 4,500 wireless network clients, 4,000 phone lines and as many voice mail boxes.

5.1 Are you aware of services similar to this one that are being provided by another department at CSU East Bay?
If yes, please provide a list of those departments. How are the services described here similar or different? Please describe in < 60 words.

All campus data and voice communication systems and services are provided by this department.

5.2 Is there anything unique or distinctive about your service? Please describe what is unique or distinctive in <120 words.

Yes, the IT infrastructure service(s) provide connectivity to many of the other systems that the University relies on. This is not limited to IT specific services; facilities management systems, emergency notification and communication systems, vending, classroom delivery and maintenance, point of sale and many others rely on the infrastructure maintained by this department.

5.3 Are there any additional things about this service that you would like the task group to know? Please describe/explain in <250 words.

The IT Infrastructure group manages equipment provided by a collaborative project sponsored by the Chancellor’s Office known as the Common Network Initiative (CNI). This equipment is currently valued at $4-5 million dollars. The infrastructure group participates in this collaborative effort by providing mind share and time by participating in peer groups with other campuses to review and select solutions from technology providers. These efforts go beyond regular campus duties and the results for the campus are the ability to employ and utilize state of the art communications infrastructure at very little cost.