Provost's Committee on Technology

**Final Report**

July 2, 2007

Committee Members:


Steven Chin (Chair)
College of Engineering

Steven Farney
College of Education

Vasil Hnatyshin
Computer Science Department

Anthony Mordosky
Information Resources

Richard Scott
Department of Geography

Mark Sedlock
Network & System Services (I.R.)

**Executive Summary**

The Committee on Technology, comprised of Rowan faculty and staff, investigated the information technology infrastructure on campus with the goal of providing recommendations that will increase the reliability and availability of our campus IT systems and services. Staff members from key areas of Information Resources and the College of Professional and Continuing Education (CPCE) provided valuable consultation to the Committee.

After careful considerati

**Overview**

The Committee on Technology was charged by the Provost to review existing infrastructure, compare it with the best in class, and make recommendations that will increase the reliability and availability of our campus IT systems and services. The committee was asked to make recommendations with three options: Ideal, Realistic, and Minimal[1].

The committee met 7 times during the semester: March 22, March 30, April 5, April 13, April 20, April 26, and May 7. Key personnel from various units within the University were invited to speak

**Information Technology Infrastructure**

Primary goal:

To improve the

- CPCE requirements are embedded within these scenarios. CPCE will rely on the campus-wide network infrastructure for online course delivery (CMS & WebCT). As customer satisfaction is paramount to successful CPCE operations, future upgrades mu

**Facilities Infrastructure**

Primary goal:

To document the physical infrastructure, with the recognition that it has an effect on information technology planning and the cost of deployment

Reference material:

Excel Spreadsheet:
Facilities Infrastructure - Status Report Ta

**Support and Staffing**

Primary goal:

To investigate the organizational structure within I.R., and if the current number of employees meets current and future needs

Reference material:

Appendix V – Saxena Report (Peter Saxena – September, 2005)

Appendix VI - Educause Core Data

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for most critical applications. The Realistic scenario would include enough storage for all critical applications. The Ideal Scenario would be a complete replication of all data in the primary SAN.

Core Network Equipment:

This represents the equipment necessary to connect the North Data Center. The Realistic Scenario would also include equipment that would be part of an overall upgrade to the Library (if the North Data Center were housed there).

UPS:

This UPS will be installed in the North Data Center [illegible] provide power [illegible] m (pow) j 50 0 0 5

CallXpress

CallXpress provides all of the m

Appendix III
Status Report on Campus Information Technology Infrastructure
(Source: Tony Mordosky)

# Status Report on Campus Information Technology Infrastructure

## Purpose of Document

The purpose of this document is to provide an overview of the technology infrastructure at Rowan University, including the principles followed in designing and implementing the infrastructure, the current status of each of the infrastructure components and plans for future enhancements and growth.

## Review of G

i. Make sure that all wiring / equipment locations are physically secure
    1. Build enclosures around equipment in office or open spaces
    2. Eliminate shared spaces (no mop sinks in wiring closets)
ii. Make sure we have access to all wiring / equipment locations
    1. Get all keys necessary to get from exterior of bui

xiii. Cassaday
xiv. Tea

1. Does it need replacement?

viii. Purchase Novell Premium Support

d. Voice Servers

i. New phone

h. Tools
i. Books
j. Certifications / Continuing Ed.
k. Coverage for early mornings / nights /weekends

Since those planning sessions, all changes and upgrades to the network, servers and the services we run have been made with addressing this list in mind. In certain cases, the needs of the campus or the specific technologies mentioned in the list have changed over time. These changes are included in the on-going planning process.

Based on this list and the needs of the campus, the principles used for designing and managing the campus technology infrastructure are as follows:

1) The Rowan network infrastructure must be designed to maximize the availability and accessibility of the services it provides.
2) All servers that provide production services must be implemented with redundancy at both the hardware and software levels to whatever degree possible.
3) All equipment and services must be remotely manageable
4) All staff must be given the proper training and resources to effectively implement the technology for which they are responsible.

Appendix IV
Mission Critical Network Systems for CPCE Online Program
(Source: Michael Ciocco – March 30, 2007)

## *Mission Critical Network Systems for CPCE Online Program*

Prepared by Michael D. Ciocco
Revision 1.2 3/30/2007

**Introduction**

The College of Professional and Continuing Education (CPCE) considers the following network related systems and services as *Mission Critical* to its Online Education Program. That is, if CPCE Online Education students and faculty were to experience an outage of any of the following services beyond the specified tolerances, it could negatively and permanently impact the future success of the CPCE endeavor.

For the purpose of this document, only the major critical services requi0 s

- **System/**

Appendix V
Rowan University Technology Resources Assessment
(Source: Peter Saxena – September 2005)

## Rowan University Technology Resources Assessm 6chnolog

## The scope of this report:

This report attempts to help Rowan University address the following issues surrounding their IT resources.

1. Does Rowan University have the right number of IT resources supporting the different IT needs across its campuses? If not, what should the support resource levels look like?

2. Are the resources being paid adequately within the geographical marketplace around Rowan University in order for the University to have a competitive advantage to retain its IT resources?

## Rowan University:

- Rowan University has nearly 9,800 students, 8350 (FTE: 7230) in undergraduate studies and approximately 1450 (FTE:590) in graduate programs.
- The University has two campuses. The main campus is in Glassboro NJ and a much smaller shared campus is at Ca

## Current IT Organization Structure:

I took the current org chart and categorized it into major service areas with resource allocations as shown below. My goal is to classify the resources within this format and then start looking for areas where resources are adequate or below adequate.

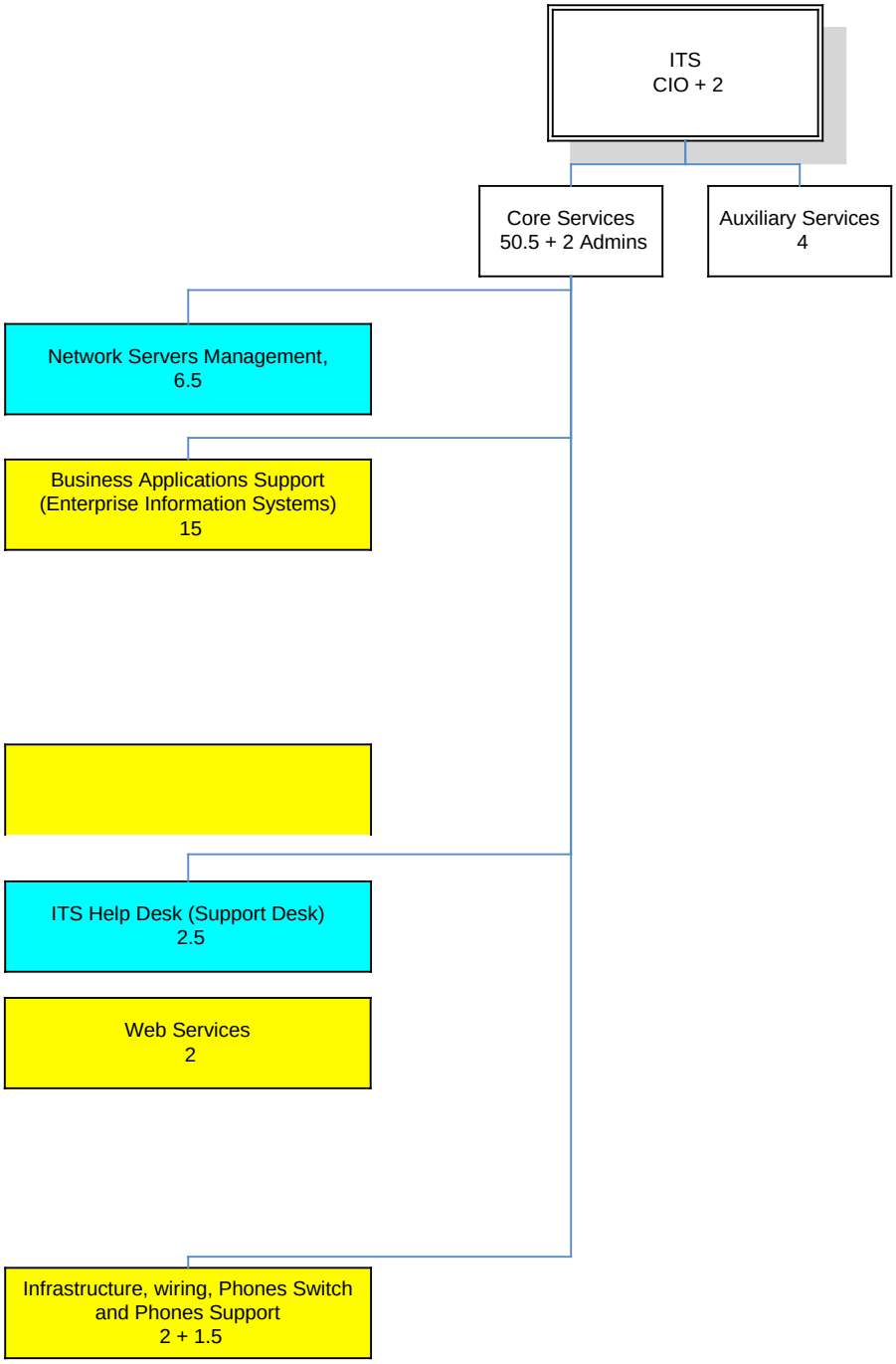


**Figure 1 Current Resource Structure**

different cycle. The project activity rates are very high in the summer, moderately high during break weeks throughout the school year and relatively low at other times.

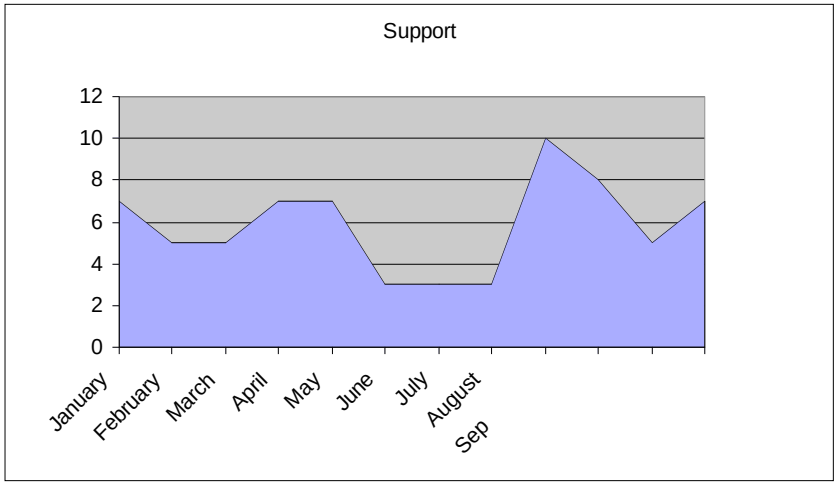


**Figure 2: Support Variations in HE**

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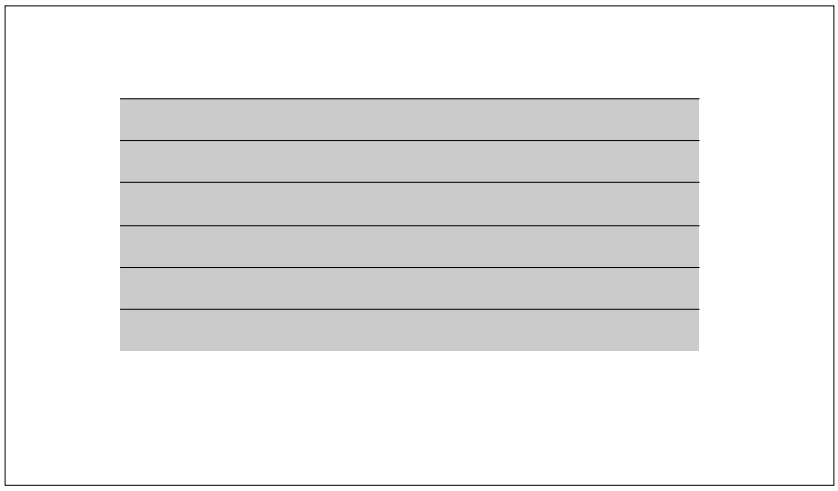


**Figure**

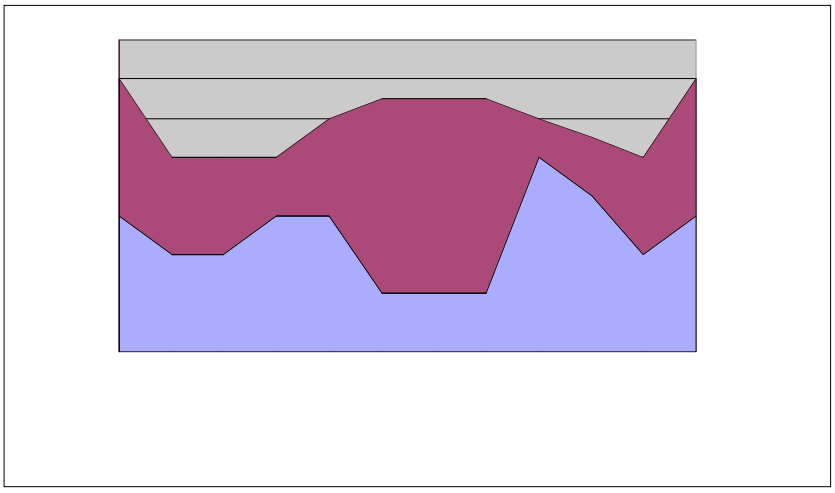
- 

**Figure 4: Total resource Variations in HE**

- The last chart represents the total utilization of IT

involved. I have several suggestions below that are designed to help

8000 students make me believe that the university could use specialized services in protecting their users and their data from viruses and unauthorized intrusions or hacking.

It is difficult to put a number on these resources. MIT e.g. had 15 resources dedicated to network security management in 2003 to protect themselves from 25,000 highly active students. For your size of the institution, I would certainly recommend dedicated security management resources versus a network admin who also managed other services. My suggestion would be to start with 1 dedicated resource and add more resources as the workload becomes evident.

3. Voice Over IP Implementation.
   For your sized institution, I would recommend 0.5 FTE dedicated resource for VOIP server and Voice Mail server management and another 0.5 FTE resource to manage the phones deployment and training for Faculty and Staff.

   Unfortunately it may be difficult for one resource to serve these two functions. The skill set required for the first part of the job are similar to those of a networ

communit

- I am assuming that all faculty and staff have an adequate computer. Your website puts the number of labs at 33. I am assuming that each has on average between 15 to 20 computers. I am also assuming that between 50% to 75% of your classrooms are “smart classrooms”.

- Current Allocations: 14.5 including AV. This area is heavily impacted by cyclical nature of support in higher education. At the start of school year, there are never enough technicians to support the needs and as

becomes a “reliability” issue and they stop using it.

- 

constituency.

**It is extremely important for faculty to feel comfortable that they have an inside voice within the ITS support infrastructure.**

nearly 3000 to 4000 student phones appears to be low. Appropriate resources could possibly be nearly 4.

determine the validity of these suggestions and normalize the suggested needs based on their experience and judgment. There are also many indicators that would suggest that the above staffing levels are needed and many of these could be used as justification elements for additional resources.

Some Indicators that would suggest that the areas identified above do need additional resources:

- These areas consistently score lower in customer satisfaction surveys.
- These areas consistently have a high number of issues, many of which remain un-resolved

by.

- **A similar due diligence would provide you with the approximate ranges of the salaries for different positions within IT.**

- The CIO

campuses within the Educause Core Data Survey) function as Cabinet members. The main impetus for this has been the transition of technology from a role of primarily supporting administrative applications 10 years ago to now where it enables the deployment of a major portion of education and education related services to faculty, staff and students. Many decisions within a President's cabinet today impact technology or are dependant on technology procesde

2) Use the

Appendix VI

Educause Core Data
Comparison with Comparable Institutions – Number of Support Staff

| Institution | FTE Students | Weight | Total Staff | Total Staff Weighted | Comments |
|---|---|---|---|---|---|
| | | | | | |

Bridgewater State College