Technology Progress & Plans

PCC Board Work Session, June 2013

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Executive Summary

Technology Solution Services has overcome significant hurdles to upgrading our network and providing services to ensure continuity of operations regardless of circumstances. We are in the process of building on those successes in order to complete with the next 18 months modernization of all technology services available at PCC.

We have implemented most of the recommendations made in the HP Audit Report, and are on a path to implement the remaining recommendations as financially feasible.

What have we done?

Connected to HP Audit Recommendations:
1. Hired a network management consultant to manage Network Infrastructure Services (NIS) operations and projects while we seek a permanent manager.
   a. NIS staff now has:
      i. Defined roles and responsibilities
      ii. Training to utilize network monitoring tools
      iii. Clearly defined processes for change management
      iv. Documentation standards for functional specifications, technical specifications, testing plans, and implementation plans
   b. TSS now has:
      i. Coordination with NIS on project prioritization and PCC support tasks

2. Posted job openings for two permanent and two bond-related network technicians.

3. Hired a vendor to supplement network staff work.

4. Hired a vendor to supplement project management.

5. Replaced the majority of legacy network equipment with minimal interruption of services.

6. Eliminated several single points of failure. These include restoring failover capability to our firewalls and increasing staff capability to serve as back ups for each other beyond their subject expertise.

7. Added additional automation and monitoring tools to our network monitoring software that provide better alerting and logging of problems,

which reduces time spent troubleshooting and increases our ability to do preventive maintenance.

8. Upgraded power, backup power and cooling in our primary data center, an important step to keep the system stable throughout the year as technology systems are much more sensitive to power and heat issues. This was also critical because we literally couldn't add any more servers until we increased power capacity.

Additional Progress:
9. We are on target for having external authentication (login capability) working by the end of June and will integrate Desire2Learn by then or shortly thereafter.

10. Also by the end of June, we will fully launch our emergency website -- alerts.pcc.edu. This site will be a hub of information on both localized and district-wide emergency outages or service disruptions. It will allow us to easily disseminate messaging to multiple channels (FlashAlert, www.pcc.edu, MyPCC, and others) from a single console managed by Public Relations.

11. We have externally hosted Domain Name Services (DNS) in production. This allows us to route traffic to our services to outside hosts should our on-site service not be available. This capability allows us to set up fail-over for www.pcc.edu so users can be directed to the alerts site if our main website not available.

What will we do?

1. We will launch our network redesign project (18-month timeline) by hiring the following consultants:
   a. Project Manager/Associate Network Architect
   b. Network Architect
   c. Security Policy Architect
   d. Security Implementation Engineer

2. Our Network Redesign Project includes a review, re-design, testing, and implementation of network level devices and protocols throughout all PCC campus locations. The primary project goals and key objectives are:
   a. Simplicity
   b. Stability
   c. Security
   d. Manageability
   e. Scalability

Completion of this project will address remaining issues raised by the HP audit.

3. We will hire consultants this summer to complete an assessment of TSS. We are seeking assessment of:
   a. IT Governance
   b. IT Strategy, Goals & Institutional Alignment
   c. IT Plans and Priorities
   d. IT Organizational Structure and Capabilities to achieve the strategy and goals:
      i. IT Budget and Financial Management
      ii. IT Applications
      iii. IT Performance and Operational Metrics
      iv. IT Planning and Project Management
      v. IT Technology Infrastructure and Security
      vi. IT policies, procedures and practices
      vii. Change management
      viii. IT Customer Services
   e. Other existing and future technology challenges
      i. Mobile Computing
      ii. Classroom Technology & Labs

4. In the very short term, we will integrate PCC Google Apps, providing redundant access to both these systems by this fall. After that, we will extend this capability to other systems, such as the library systems, where appropriate.

5. We will build our external DNS capability to create more seamless failover for other services where it makes sense.

6. We will complete bringing the alternate data center online.

7. We will complete modernization of classroom presentation systems.