

Program Review: IT Services – Technology Services

Program Description and Scope:

- *Program Review Title:* IT Services - Technology Services
- *Academic year:* 2016/2017
- *Review Type:* President's Office
- *Program/Departments:* Information Technology (67800)
- *Authority Code:* 24-Associate Vice President, Information Technology
- *External Regulations:* No
- *Provide a brief narrative that describes the services provided.*
Technology Services is the department under the IT Services division responsible for providing technology support and services, manage and maintain the technology infrastructure of the district, and ensures classroom technology support to faculty and students.

College Mission

- *Mission Statement*
Ohlone College responds to the educational needs of our diverse community and economy by offering high quality instruction supporting basic skills, career development, university transfer, and personal enrichment and by awarding associate degrees and certificates to eligible students in an innovative, multicultural environment where successful learning and achievement are highly valued, supported, and continually assessed.
 - *Program Relation to College Mission.*
 - Support Services
 - *State your program Mission/Purpose.*
Technology at Ohlone College will be state-of-the art, innovative, available, and continually assessed in advancing the mission, vision, goals, and objectives of the District.
 - *Briefly describe program accomplishments.*
IT Services - Technology Services department has responded to all requests that affect faculty, staff, and students including services requested that are related to the Measure G Bond. The technology infrastructure of the district underwent a significant change over the last two years with the move of computer labs, the Data Center, and the construction of new structures. Over the last year, the Technology Services department under IT Services embarked on a comprehensive inventory of all technology assets to serve as a benchmark for renewal and replacement of equipment and in addressing future needs.
- **Student Impact Assessment**
Student Learning Assessment - Not applicable.

- *Enter assessment results for "Student Learning Impacts" and analyze student success:*
Not applicable.
 - *Future Improvements:*
- **Program Achievement**
 - *List area-specific outcomes.*
IT Services - Technology Services ensures support to faculty, staff, and students.
 1. Developed a computer equipment replacement plan following a comprehensive computer hardware inventory process.
 2. Migrated the district's internet services to CENIC with a 1 Gbps bandwidth each for Fremont and Newark campuses.
 3. Completed the migration of the planned physical servers to a virtual environment.
 4. Physically moved the Data Center at the Fremont campus from Bldg. 4 to the Hyman Hall.
 5. Moved the CNET lab from Hyman Hall to the Newark campus.
 6. Implemented a tool for synchronizing passwords between WebAdvisor and the network account (email) for faculty and staff.
 7. From July 1, 2014 to June 30, 2015, Technology Services addressed 2,297 service requests (tickets) or an average of 255.22 service requests per technician per year. This number does not include called-in requests, impromptu requests, and major projects requiring support (Data Center move, computer lab move, South Parking Structure unstage, Blue Phones installation).
 - 1. *Identify internal and/or external benchmarks and regulations.*
 1. Staffing Benchmark. The California Community Colleges' Chancellor's Office sanctioned Gartner Research to develop a benchmark for determining the ideal staffing requirements using the number of computers deployed across the campus(es). Attached is an email summarizing the recommendations (since the original document is currently unavailable from the archives). Based on our inventory of computers across the district, we have 1,994 working computers (as of November 30, 2015).
 2. IT Project Management. EDUCAUSE is the leading national organization for education information technology. They promote standards and benchmarks in improving and enhancing the alignment and strategic partnership role of IT on campuses. Educause has developed an index to determine the level of maturity of organizations with respect to IT project management following the Project Management Body of Knowledge (PMBOK) recommendations.
 3. IT Service Management (ITSM). EDUCAUSE and Gartner Research adopted a benchmark for continuous quality improvement for service delivery in IT. Under the internationally accepted standard of ITSM, the index determines the level of maturity of organizations with respect to service delivery.
 4. Hardware and Software Inventory. Part of the district's internal control for

monitoring assets and depreciation, a complete inventory of all hardware and software is needed. This along with the goal of using this data for renewal and replacement planning.

5. Technology Infrastructure Analysis. The goal of technology infrastructure is to be flexible for new and emerging technologies, available whenever needed, secured, and scalable for expansion. These goals are benchmarks in measuring performance of the technology infrastructure.

- *Enter assessment results for area-specific outcomes and analyze trends.*
 - 1.a. Staffing - Network and Systems Administration. After the re-organization in Technology Services, the district dedicated four (4) FTE staff positions for network and systems administration - Systems Administrator, Network Administrator, Network & Systems Technician, and Systems Support Technician. The CCCC standards define the acceptable ratio of 300 PCs per 1 FTE technician. The recommended ratio per technician is 6.65 with the district's 1,994 computers.
 - 1.b. Staffing - IT Support Technicians. After the re-organization in Technology Services, the district dedicated eight (8) FTE staff positions for IT Support Technician I (3), IT Support Technician II (3), IT Support Lead Technician (1), and AV Support Technician (1). The CCCC standards define the acceptable ratio of 1 FTE to 150 PCs. The district's ratio is 13.29 (1,994 computers).
 2. IT Project Management. The district's maturity index is at Level 1 - AD Hoc (Every time an activity is performed, the team creates a new process for it). The processes in place are reactionary depending on the type of project and task at hand.
 3. IT Services does not have an adopted framework for the three main service delivery models - break/fix issues, service request, and projects. Following the maturity index, the district is at the "Beginning" level, which means the process is at its infancy stage and the processes are more ad hoc in nature. There is an existing ticketing system in place that documents and logs services rendered by IT Services (Information Systems and Technology Services departments). The way it is set up right now, the categories are not aligned with industry standards of IT Service Management, which makes analytics difficult to achieve. The raw data does not reflect categories and manual intervention is required to analyze the data.
 4. Hardware and Software Inventory. The Technology Services staff completed a comprehensive inventory of all technology-related assets of the district resulting to an accurate count of computers in use. The next area of concern is to sustain the accuracy of the inventory database. There is no accurate way to determine the software licenses maintained by the district in view of a decentralized purchasing of software.
 5. Technology Infrastructure Analysis. Analysis of the current technology infrastructure of the district is too complex to be done on a piecemeal basis. The result of a limited analysis of the infrastructure may result to an inconclusive

action plan/road map to maintain a flexible, scalable, available, and secured infrastructure.

- *Analyze program budget trends and expenditures. Comment on how the program can best use budget resources.*

The current budget allotment for IT Services is in the bare minimum with no flexibility for the adoption of new tools. To adopt standards and develop an accurate measurement of performance, there has to be flexibility to address process improvement and/or the adoption of new tools - this will require additional one time and recurring budget resources.

- *Analyze the program's current use of staff, equipment, technology, facilities, and/or other resources. Comment on how the program can best use these resources.*

Once the processes are defined, the Technology Services staff will undergo training in developing, adopting, implementing, maintaining, and improving processes following the continuous quality improvement cycle.

- *Additional Program Table Data*

- *Future Action*

Strategies to improve achievement indicators. Specify.

1. Staffing Benchmarks. Recommend a review of staffing levels that will factor in service tickets, break/fix issues, and projects.

2. IT Project Management. Achieve Level 2 - Repeatable processes.

3. IT Service Management. Achieve Level 3 - Defining processes.

4. Hardware and Software Inventory. Develop comprehensive procedure for Technology Asset tracking (from purchasing to disposal). Develop a procedure for consolidated/centralized software licensing.

5. Technology Infrastructure Analysis. Engage an external company to conduct a technology infrastructure analysis that will serve as the foundation for a technology infrastructure roadmap.

- **Program Improvement Objectives**

1. *Based on the program data analysis and PSLO analysis, identify your Program Improvement Objective(s): What are you going to do? Why are you going to do it?*

IT Project Management. Develop processes to increase the district's maturity level to Level 2 - Repeatable. The benefit of the consistent application of the process at the repeatable level will deliver consistent results.

Notes (optional): Please include any notes related to your PIO. (2500 Character limit)

Program PIO will address the following:

- Service Impacts
- Use human, fiscal, technological, and physical resources responsibly,
- Institutional Effectiveness

How will you assess the effectiveness of your PIO:

Effectiveness can be measured through: Framework - After the project management process has been developed, evaluate the implementation of the framework to determine success based on the metrics of projects completed on time and projects completed on budget. Process - evaluate the effectiveness of the process and determine areas of improvement to make the process repeatable.

PIO Action Plan:

How will you accomplish this?

1. Analyze existing process and environmental scanning. 2. Develop a framework/model. 3. Develop processes, procedures, forms. 4. Train IT Services staff. 5. Implement the framework. 6. Assess the effectiveness of the framework and assess compliance to the new process.

What is your timeline?

To fully mature in implementing project management framework, it will take years to accomplish. However, for this PIO, our objective is by June 30, 2017, we would mature by a step from level 1 to level 2 (following the maturity index).

Who is going to do this?

1. Associate Vice President for IT Services 2. Director, Technology Services 3. Director, Information Systems 4. IT Support Lead Technician 5. Systems Support Technician 6. Administrative Systems Lead Analyst

PIO Status:

- New 01/01/2016
- Completed 10/31/2016

Closing the loop - Describe the results of your PIO implementation or completion:
Developed the IT PM process framework, annual review to refine the process shall be done.

Conclusion: Complete if PIO has been completed
PIO achieved - worked

Fiscal Resources Status:

PIO Resources:

- Resource: Information Systems / Applications
Description: Software for IT Project Management
Est. Cost: \$9,000.00
- Resource: Other Budget Related Resources Needed
Description: Consultant to assist developing the framework.
Est. Cost: \$5,000.00

- Resource: Professional Development
Description: Training the IT Services staff
Est. Cost: \$2,000.00

2. *Based on the program data analysis and PSLO analysis, identify your Program Improvement Objective(s): What are you going to do? Why are you going to do it?*

IT Service Management (IT SM). Develop the framework for processes to reach level 3 as defined by the maturity index.

Notes (optional): Please include any notes related to your PIO. (2500 Character limit)

Program PIO will address the following:

- Service Impacts
- Use human, fiscal, technological, and physical resources responsibly,

How will you assess the effectiveness of your PIO:

The effectiveness is measured in terms of the number of service requests completed on time, use analytics to determine areas of improvement in the service catalog, and satisfaction feedback from faculty and staff.

PIO Action Plan:

How will you accomplish this?

1. Environmental scanning and determine established processes/procedures. 2. Develop the framework/model. 3. Address the gaps by developing the processes following the model. 4. Training the staff. 5. Implement the processes. 6. Review the processes and effectiveness.

What is your timeline?

Reaching a well matured service management level will take years to accomplish. However, for this PIO, our objective is to reach level 3 by the end of June 30, 2017.

Who is going to do this?

1. Associate Vice President for IT Services 2. Director of Technology Services 3. Director of Information Systems 4. IT Support Lead Technician 5. Systems Administrator 6. Network Administrator 7. Data Base Administrator 8. Administrative Systems Lead Analyst 9. Administrative Systems Analysts 10. IT Support Technicians 11. Systems Support Technician 12. AV Support Technician 13. Network and Systems Technician 14. Applications Administrator 15. Programmer/Junior Programmer 16. Executive Assistant to the AVP ITS

PIO Status:

- New 01/01/2017
- In-Progress 12/12/2016

Closing the loop - Describe the results of your PIO implementation or completion:
Resources were not allocated. However we have started the process internally to develop our service catalog. Which is the start of developing a framework for IT service management.

Conclusion: Complete if PIO has been completed

Fiscal Resources Status:

PIO Resources:

- Resource: Other Budget Related Resources Needed
Description: Consultant to assist developing the framework.
Est. Cost: \$5,000.00
- Resource: Professional Development
Description: Training the IT Services staff
Est. Cost: \$2,000.00

3. *Based on the program data analysis and PSLO analysis, identify your Program Improvement Objective(s): What are you going to do? Why are you going to do it?*

Following the staffing benchmarks for effective service delivery to faculty, staff, and students, the ideal metric is 1 FTEE to 150 computers (CCCCO metrics). Last FY15-16 our ratio was 249.25 computers per technician (1,994 computers : 8 technicians). This FY16-17, our ratio is 271.62 computers per technician (2,173 computers : 8 technicians). The ideal ratio is 150 computers/technician.

Notes (optional): Please include any notes related to your PIO. (2500 Character limit)

Program PIO will address the following:

- Institutional Effectiveness
- Service Impacts
- Use human, fiscal, technological, and physical resources responsibly,

How will you assess the effectiveness of your PIO:

Timeliness of service requests, troubleshooting of issues, and delivery of technology solutions.

PIO Action Plan:

How will you accomplish this?

Hire 1 FTEE IT support technician I.

What is your timeline?

FY 17-18

Who is going to do this?
Director of Technology Services

PIO Status:

- New 01/01/2017

Closing the loop - Describe the results of your PIO implementation or completion:
Conclusion: Complete if PIO has been completed

Fiscal Resources Status:

PIO Resources:

- Resource: Staff/Administrative Position
Position Title: IT Support Technician I
FTE: 1
Est. Cost: \$93,500.00

4. *Based on the program data analysis and PSLO analysis, identify your Program Improvement Objective(s): What are you going to do? Why are you going to do it?*

Hardware and Software Inventory. 1. Hardware. Establish a well defined process/procedure for technology asset tracking from requisition to disposal of equipment. 2. Software. Establish a well defined process/procedure for software tracking from requisition to renewal of licenses.

Notes (optional): Please include any notes related to your PIO. (2500 Character limit)

Program PIO will address the following:

- Institutional Effectiveness
- Service Impacts
- Use human, fiscal, technological, and physical resources responsibly,

How will you assess the effectiveness of your PIO:

1. The inventory database matches the bi-annual physical inventory of all technology assets. 2. The software inventory database is well maintained and pro-active renewal of licenses.

PIO Action Plan:

How will you accomplish this?

Add hardware inventory to asset tracking component within the Technology Service Desk application when deployed or maintained. Software inventory will be compiled by use of a computer management application, assessed and tracked as an ongoing process.

What is your timeline?

By December 2016, implement a comprehensive process/procedure for sustaining the accuracy of the inventory database.

Who is going to do this?

1. Director of Technology Services 2. IT Support Lead Technician 3. Executive Assistant, IT Services

PIO Status:

- New 01/01/2016
- In-Progress 12/12/2016

Closing the loop - Describe the results of your PIO implementation or completion:

A well defined procedure for hardware asset tracking has been established. However, the software tracking procedure requires a change in the way the College purchases software.

Conclusion: Complete if PIO has been completed

Fiscal Resources Status:

PIO Resources:

- Resource: Other Budget Related Resources Needed
Description: Consultant to configure existing system.
Est. Cost: \$4,000.00