Missouri Valley College
Service Program
Assessment and Planning Report

Year: 2012-2013
Service Program: Information Technology
Supervisor: Jason Rinne

I. Mission

Through the use of current and evolving technologies, Information Technology supports
the college's programs for instruction, research, student services, and administration in an
environment of superior customer service.

II. Goals

Enables students, faculty, and staff to use technology in an efficient, secure, and responsible
manner

Provides timely professional customer service and ensure satisfaction

Strives to meet the reasonable expectations of the college community through effective
communication

Maintains an informed staff dedicated to continuing education for the purpose of staying
current with technological changes

Builds and maintains a professional network infrastructure using modern technology

III. Service outcomes

Faculty and staff work with IT for necessary support for all aspects of Valley Technology.
Users appreciate superior customer service.
Users are confident and educated about their Valley Technology.
Users are able to access Network and Internet resources most of the time.
Users issues are solved as fast as possible.
A professional network infrastructure using modern technology is built and maintained.
**IV Service delivery map**

<table>
<thead>
<tr>
<th>Faculty and staff work with IT for necessary support for all aspects of Valley Technology</th>
<th>Users appreciate superior customer service</th>
<th>Users are confident and educated about their Valley Technology</th>
<th>Users are able to access Network and Internet resources most of the time</th>
<th>Users issues are solved as fast as possible</th>
<th>A professional network infrastructure using modern technology is built and maintained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conferences</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Information Emails</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>User Training Sessions</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Web Site Accuracy</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Assist Depts. in utilizing technology</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Automate IT solutions</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Maintain Network Hardware, i.e. switches</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Maintain Network Software, i.e. Active Directory</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Ongoing Maintenance of Hardware/Software</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Manage Computer Labs</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Assist with Student Computer Needs</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Virus Prevention</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Solve Faculty/Staff Computer Issues</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Review hardware and software logs on all servers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Review Exchange server logs</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Review firewall logs</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Task</td>
<td>Monitor bandwidth</td>
<td>Monitor network traffic</td>
<td>Monitor switches on admin and student side</td>
<td>Check spam filter</td>
<td>Keep College Faculty and College Register up-to-date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------</td>
<td>------------------------</td>
<td>-------------------------------------------</td>
<td>-------------------</td>
<td>------------------------------------------------------</td>
</tr>
</tbody>
</table>
| V. Assessment tools                                                   |                   |                        |                                            |                   |                                                      |                                     |                                                                                  |                                                   | Google Analytics for Web page hits. – Direct Measure  
Service Outcome: *Users are able to access Network and Internet resources most of the time.*                                                                                  | MoreNet usage reports for Valley Network. – Direct Measure |


Service Outcome: *Users are able to access Network and Internet resources most of the time.*

The number of Virus alerts on Valley Network. – Direct Measure  
Service Outcome: *A professional network infrastructure using modern technology is built and maintained.*

MVCScan IT – Measures student concerns and helps to communicate within our office existing problems and solutions to those problems.  
Service Outcome: *Users issues are solved as fast as possible.*

Training Sessions – Faculty & Staff  
Service Outcome: *Users are confident and educated about their Valley Technology.*

Help Desk Online Form  
Service Outcome: *Faculty and staff work with IT for necessary support for all aspects of Valley Technology.*

MVCTask – Measures issues for Students/ Faculty / Staff and helps to communicate who is assigned to different tasks  
Service Outcome: *Users issues are solved as fast as possible*

VI. Summary of findings

Function

<table>
<thead>
<tr>
<th>Google Analytics</th>
<th>Unique Visitors</th>
<th>Time on Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-2013 May 1st – Aug 1st</td>
<td>236,316</td>
<td>00:03:32</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MoreNet Data</th>
<th>Virus infected/Spam blocked</th>
<th>Bandwidth Usage</th>
<th>Uptime</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-2013</td>
<td>934,8345</td>
<td>Avg 80% of 100MB *Rules in place to limit speed on every subnet</td>
<td>1/15/13 – 7 Hour Outage 3/4/13 – 1 Hour Outage Outage was related to issue in KC</td>
</tr>
</tbody>
</table>
Training Sessions 2012 | Attendance
---|---
9/10 – Security | 2
9/13 Security | 5
9/14 Security | 13
9/28 - Security | 15
9/7 – MVC Tools | 10
9/11 – MVC Tools | 7
9/12 – MVC Tools | 6
9/21 MVC Tools | 10
9/4 – Intro Moodle | 8
9/5 – Intro Moodle | 4
9/7 – Advanced Moodle | 14
9/7 – Advanced Moodle | 4

*Average attendance to training sessions was 9 people

MVC Scan | Total Students
---|---
2012-2013 | 1942

*August 1st – Oct 1st

MVC Task | Total Issues
---|---
2012-2013 | 1017

* May 1st-Oct 1st

VII. Level of achievement of service outcomes

Service Outcome 1: Faculty and staff work with IT for necessary support for all aspects of Valley Technology.
Level of achieving outcome: IT has met this outcome. IT staff completed 1017 tasks primarily related to faculty and staff needs.

Service Outcome 2: Users appreciate superior customer service.
Level of achieving outcome: Our goal was to look into survey options. We were not able to develop a survey at this point.

Service Outcome 3: Users are confident and educated about their Valley Technology.
Level of achieving outcome: Moodle training attendance was low and could be related to Moodle related questions.
Offered additional training sessions on programs offered by IT and general security.
Service Outcome 4: Users are able to access Network and Internet resources most of the time.
Level of achieving outcome: Increase in personal wireless routers on student network have increased downtime and outages on network.
High usage of bandwidth in 2011-12 (+80% of 60Mb) prompted an upgrade to 100Mb connection.

Service Outcome 5: Users issues are solved as fast as possible.
Level of achieving outcome: We have administered a User-Creation Program which has significantly cut down on student-related issues.
Before Fall 2013 IT changed Bradford Campus Manager to only register devices not scan. Average time in office was reduced and total number of students in office was down during first month.

Service Outcome 6: A professional network infrastructure using modern technology is built and maintained.
Level of achieving outcome: Implementation of Spiceworks better monitors the network and organizes the network equipment. PDQ Deploy allows IT staff to keep software updated across the network.

VIII. Staff/Clinetale/Program information

Table 1. Staff Profile

<table>
<thead>
<tr>
<th></th>
<th>Full time</th>
<th>Part time*</th>
<th>GA Full time</th>
<th>GA Part time*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of program staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of program staff by gender</td>
<td>female</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>male</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest degree for program staff</td>
<td>High school</td>
<td>2 (1 with certifications)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Associate's</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bachelor's</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master's</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doctorate</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of professional experience in area</td>
<td>0-5</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6-10</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11-15</td>
<td>1</td>
<td></td>
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<td></td>
<td>16-20</td>
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<tr>
<td></td>
<td>21+</td>
<td>1</td>
<td></td>
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</tr>
</tbody>
</table>
*Part time is defined as 20 work hours a week or less.
Change in staff during May 2013.

IX. Analysis/Interpretation

Valley Network was productive and consistent throughout the school term.

Growing technology needs require a long term plan to address and prioritize needs.

Website has continually been updated and organized.

X. Action plan/Closing the loop

- Provide and educate users about importance of upgrading software programs and purchasing hardware. We utilize the MVCScan program to watch hardware/software trend issues regarding student machines.

- Continue to strive towards keeping the network accessible and reliable for faculty, staff and students. Research into log files of the network equipment keeps the IT staff up-to-date on traffic fluctuation and problematic issues.

- We currently send two staff members to the HELIX conference in March. It would be beneficial to all IT staff but we need to have the office partially staffed. We also attend as many free training sessions offered by MOREnet during the year. Our Webmaster attended the regional conference in Arkansas in 2012 and won a free membership to the national HighEdWeb conference in Minnesota.

**ROTATION PLAN**

- Currently we have 95 machines that are 5 years or older. In order to get to a 5 year rotation plan for desktops this is what would need to be purchased in each of the 5 years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>95</td>
</tr>
<tr>
<td>2</td>
<td>75</td>
</tr>
<tr>
<td>3</td>
<td>135</td>
</tr>
<tr>
<td>4</td>
<td>95</td>
</tr>
<tr>
<td>5</td>
<td>80</td>
</tr>
</tbody>
</table>
These numbers are based on current numbers of the models of our desktops. Every year we would be replacing the oldest model in production.

Every year we have approximately 5-10 new positions/classrooms/or workstations. These would need to be figured in when purchasing computers as to not offset the plan.

In April 2014 Microsoft will officially stop supporting Windows XP. All computers must be upgraded to Windows 7.

Approximate prices of new desktop computers are around $600.00.

VIRTUAL SERVERS
IT currently has 11 servers. The servers should be replaced every 4 years. The average cost of a new server is approximately $5,000. If a virtual environment was created 9 of these servers could be consolidated into one host machine. A backup server would still be necessary, and one server connects directly to the phone system and could not be virtualized. In order to move to a virtual environment two host machines would be needed plus a SAN (Storage Area Network). The host machines would still need to be replaced every 4 years. A Xiotech (high end example) SAN could run for 10+ years.

INFRASHESTRUCTURE / WIRELESS
The switch infrastructure in the majority of our buildings is aging and in some buildings the switches are over 10 years old. These old switches are not PoE (Power over Ethernet) ready and cannot support wireless APs (Access Points). In order to expand our wireless coverage the switch infrastructure must first be upgraded. This would not only extend wireless capabilities but allow for possible VOIP (Voice over IP) technology and improved management as well as speeds across the network. The first step towards wireless would be a wireless assessment performed by a professional company. Our students are arriving expecting wireless and are doing everything they can to get it. As a result they are unintentionally causing issues for all others on campus.

ETHERNET DROPS – STUDENT RESIDENT HALLS
In several of our resident halls adequate cabling was not put in when the building was built or when the network was put in. The most noticeable example of this is the apartments at 300 & 600 Label and 1455 & 1459 Redman. The rooms currently have two Ethernet drops and three beds. The current IT staff inherited “Band-Aid” fixes from prior the prior staff that temporarily gave each room three Ethernet drops. These fixes have reached the extent of their usefulness and will no longer keep up with the needs of the students and could potentially cause issues on the network.
-Option 1: Keep the existing drops and expand our wireless coverage to these buildings.
-Option 2: As the current staff does not possess the tools or manpower to pull additional cabling in the resident halls we request that a third party company be brought in to add additional drops to accommodate for the number of students housed in the needed rooms.

**BANDWIDTH**
The needs of not only the students but also the applications used by our faculty, staff and coaches have grown beyond our current bandwidth limitations. IT is currently looking into options for providing a different ISP for our student traffic while keeping faculty, staff and coaches on existing MOREnet connection.

**XI. Acknowledgments**

- Jason Rinne – Systems Administrator
- Martin Vanderboon – Assistant Systems Administrator
- Keith Wheeler – Network Technician
- Marilyn Belwood – Director of Institutional Research