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V. **General Introduction and Background**

West Valley-Mission Community College District (WVMCCD) consists of two higher education institutions in California's Silicon Valley, West Valley College in Saratoga and Mission College in Santa Clara, along with a District Central Office located on the West Valley campus. The District competes with many other Community Colleges in the South San Francisco Bay area stating, “West Valley College in Saratoga and Mission College in Santa Clara are on the cutting edge among higher education institutions in the Silicon Valley.”

Every semester over 20,000 students enroll in courses at the colleges. Thousands of others take online, off-campus, or non-credit courses offered through a variety of programs. These programs are aimed at meeting Silicon Valley training and retraining needs.

Technology in the West Valley-Mission Community College District is an integral component of multiple aspects of learning, teaching, and student support as well as the foundation and infrastructure for administrative and business processing. Students utilize technology to apply to the college, register for classes, and complete coursework. Faculty use technology to develop curriculum, obtain class rosters, input course grades, and provide a distance-learning environment. Staff employs technology for accounting, scheduling classes, managing student data, communicating, and managing their daily work. Lastly, managers rely on technology for data and statistical analysis to support planning and decision-making.

VI. **Overview of the District Technology Strategic Plan**

The District Technology Strategic Plan (DTSP) represents a macro view of the District’s technology needs. It provides a long range view that anticipates the emerging technological needs of the Colleges and District entities that requires an understanding and accommodation for Federal, State, and Local requirements. The DTSP anticipates and provides for the technological needs necessary to enable other planning documents at the District and College level to succeed and ensures a continuous two-way alliance with the college technology requirements to support Instruction and Student-focused services. The Technology Strategic Plan also addresses the budget necessary to accomplish the goals and objectives of the plan.

VII. **District Mission Statement**

The mission of the West Valley-Mission Community College District is committed to achieving student success through innovative and effective lifelong education and career opportunities, which include associate degrees, certificates, transfer, occupational programs, workforce development, pre-collegiate, global, and community education programs. The District strives to maintain and support institutional integrity, mutual respect, diversity, tolerance, rigorous evaluation, an exceptional workforce of faculty and staff, and partnerships between students, faculty, staff, administrators, the Board of Trustees, and the community. The District promotes an environment conducive to open dialogue and the free exchange of ideas leading to the achievement of successful student learning outcomes.

This mission is achieved through the District’s two Colleges and Administrative departments all of which provide high quality, effective and accountable instructional programs and services.
VIII. **Technology Planning Characteristics**

A. **Elements of Success in Technology Planning**

WVMCCD believes that there are key features and characteristics of planning documents that increase their likelihood for success and make them more meaningful to stakeholders. These include:

- The DTSP should represent all areas of the District, Colleges, and the communities we serve;
- The DTSP should be placed where stakeholders can readily have access to it;
- The DTSP should accommodate the changes in the needs of the District, Colleges, and the communities we serve as reflected by changes in other District and College goals, Board goals, Accreditation standards, and Federal, State, and Local requirements, and technology overall;
- The DTSP should have a 3-5 year focus and should include a collectively defined vision, mission, purpose, goals, objectives, and guiding principles;
- The DTSP's objectives should be quantifiable and realistic;
- The DTSP should identify our Strengths, Weaknesses, Opportunities, and Challenges;
- Progress towards meeting planned goals should be examined annually as part of a cyclical review process;
- The entire DTSP process should be evaluated with each three year cycle.

B. **Strengths**

WVMCCD strengths in the area of technology include:

- A 40 gigabyte network backbone; 10 gigabyte to buildings, and 1 gigabyte to desktops;
- Refreshed nearly 70% of its desktop computers;
- Fork-lifted to a robust wireless network in 2012;
- Replacing all of the obsolete Cisco network switches with new HP network switches;
- Successful in securing two Bond Measures during the past eight years to support technology upgrades;
- A robust Microsoft Exchange email system;
- A new I.S. governance model that help ensures responsiveness to stakeholder needs by actively soliciting and incorporating input from all stakeholders and enabling the colleges to have a greater role in establishing the technology priorities of the District;
- State-of-the-art District Technology Building at each of the colleges;
- A “MyWVM” portal to improve communication and services (see Appendix 27);
- A district Cabling Infrastructure Standards document;
- An Acceptable Use Policy. (see Appendix 31).
C. Weaknesses

WVMCCD weaknesses in the area of technology include:

- Inadequate, sustainable funding sources to keep up with the needs of the District and Colleges;
- Staffing levels that have not kept pace with the tremendous growth in the number and variety of applications and services employed by the District and Colleges;
- Training programs and services not well-suited for many of the technology services and applications of the District;
- Inadequate staffing level with high-level functional expertise to conduct training;
- A backlog of projects which need to be prioritized and addressed;
- A storage technology infrastructure that has become dated and requires modernization;
- Minimum Point of Entry (MPOE) at both colleges needs to be relocated to a more environmental secure location.

D. Challenges / Opportunities

WVMCCD foresees many challenging years ahead. We believe that anticipating these challenges will better prepare us to more effectively maintain and prioritize projects and services to our faculty, students, and service areas. The challenges we anticipate include:

- Significant fiscal challenges over the next 2-3 years due to state budget deficits;
- Serving more demands with fewer staff, and the need for staff development to bring employees with new responsibilities and new hires up to necessary competence levels;
- Increasing demands on core systems as we add additional enhancements;
- Remaining technologically current, despite budget cuts, and finding innovative ways to serve more with less;
- Finding effective ways of collaborating with, serving, and meeting the expectations of end-users and other stakeholders;
- Ensuring the security and integrity of all information systems while improving access;
- Continued modernization of our infrastructure, and accommodation for emerging technologies that will enable us to streamline applications and business processes;
- Reduce the flow of paper and manual processes;
- Anticipating and implementing systems that will enable us to address Federal, State, Local requirements, and Accreditation standards;
- Respond to changing State and Federal regulations mandated by Dream Act and Student Success Initiatives.
IX. The WVMCCD District Technology Strategic Plan

A. Purpose

The purpose of WVMCCD’s District Technology Strategic Plan (DTSP) is to encourage and enable all District constituencies to participate in the assessment of technology needs and the development of the vision, direction, and prioritization of solutions to address those needs. It ensures on-going focus and two-way alignment with College Goals, District Services Goals and Objectives (including the Board Goals), and other plans and processes, and provides a guiding framework for site-level planning and expenditures.

The plan enables all District entities to utilize data in decision making processes through the meaningful integration of disparate information systems and training; provide the technology necessary to enable College and District entities to respond to Federal, State, and Local requirements, Accreditation standards, and reporting requirements; as well as maintain technological currency through the on-going review of effective practices, emerging technologies, and the provision of training to technical staff and end-users.

The District Technology Strategic Plan encourages regular review of business practices, technologies, and strategies to find new and innovative ways to enhance operational efficiencies and maximize the value of the dollar in procuring new technologies and ensuring that a Total Cost of Ownership (TCO) model is followed.

B. Process

The Technology Planning Process examines plans and priorities for the use and support of technologies in support of the mission of the West Valley-Mission Community College District (see Appendix 1). Like its predecessor, the District’s 2002 I.S. Technology Plan combines high level strategic planning with some degree of tactical planning. Information Systems has undertaken this technology planning process for several reasons:

- to establish plans and priorities for the use of technology district-wide;
- to create greater cross-college understanding of and involvement in I.S. issues;
- to fulfill requirements established by the district-wide participatory governance constituencies.

Since 2001, the District’s I.S. planning has matured greatly, and the District’s needs have also changed, which has led to several achievements.

**Table 1: District I.S. Major Achievements**

<table>
<thead>
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<th>Year</th>
<th>Achievement</th>
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<tr>
<td>2006</td>
<td>The planning for the I.S. building at West Valley College</td>
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<tr>
<td>2007</td>
<td>Established on-going funding for Desktop computers</td>
</tr>
<tr>
<td>2008</td>
<td>Complete upgrade of the server infrastructure</td>
</tr>
<tr>
<td>2009</td>
<td>Complete upgrade of the network infrastructure</td>
</tr>
<tr>
<td>2010</td>
<td>The implementation of the new Microsoft Exchange mail system</td>
</tr>
<tr>
<td>2010</td>
<td>The implementation of Project Tracking list</td>
</tr>
<tr>
<td>2011</td>
<td>Complete upgrade of both PBX phone systems</td>
</tr>
<tr>
<td>2011</td>
<td>The implementation of the SharePoint Portal system</td>
</tr>
<tr>
<td>2012</td>
<td>Implemented Ad Astra Room Scheduling Software</td>
</tr>
<tr>
<td>2013</td>
<td>Upgraded the Blade Server and Storage equipment to newer technology</td>
</tr>
<tr>
<td>2013</td>
<td>Upgraded the Checkpoint Firewalls at both colleges.</td>
</tr>
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</table>
C. I.S. Technology Mission
The mission of the District Information Systems Department is to build a solid comprehensive technology infrastructure; maintain an efficient, effective operations environment; deliver high quality, timely District services which support the colleges' programs for instruction, research, student services, and administration.

D. Technology Vision
Our Technology Vision:
- Support the use of information technology to enable academic innovation in teaching and learning;
- Promote and develop partnerships to empower district-wide use of technology;
- Develop a culture of transparency and service;
- Be proactive in leading the District towards new technological solutions;
- Assist staff in effectively using the technology available to them;
- Provide a robust, reliable, and secure information technology infrastructure to the District community;
- Be responsive to the on-going and changing needs of the District community;
- Promote a high level of employee dedication to provide professional customer service.
E. Technology Goals

The technology goals presented below represent the long term goals for technology at West Valley-Mission Community College District and provide a common basis for yearly technology planning.

Table 2: District I.S. Technology Goals

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<th>Technology Area</th>
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<td>1. Provide support to changing State and Federal regulations mandated by Dream Act and Student Success Initiatives.</td>
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<td></td>
<td>2. Provide student-centered services and support for the matriculation processes.</td>
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<td></td>
<td>3. Provide a self-service reporting environment that allows users to dynamically gather and present information.</td>
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<tr>
<td></td>
<td>4. Provide appropriate technology and workflow to support department and division processes and functions.</td>
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<tr>
<td>II. Educational Technology</td>
<td>5. Support integration of technology in classrooms, teaching labs, and online instructional environments based on curricular and instructional needs.</td>
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<tr>
<td>III. Networks and Telecommunications Infrastructures</td>
<td>6. Provide reliable and secure technology services for voice, data and video services.</td>
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<tr>
<td>IV. Servers and Storage Infrastructures</td>
<td>7. Provide reliable and secure technology services for servers and storage.</td>
</tr>
<tr>
<td>V. Operations and Support Service</td>
<td>8. Provide a service-oriented organization to meet the growing demand for technology support.</td>
</tr>
<tr>
<td>VI. Internet and Intranet Web Environments</td>
<td>9. Provide training for users to manage the content of their portal and web pages.</td>
</tr>
<tr>
<td></td>
<td>10. Provide an Intranet environment that encourages communication and information sharing.</td>
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<tr>
<td></td>
<td>11. Provide an Internet environment that provides the district with a current, accurate and relevant web presence.</td>
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X. **Alignment of District Technology Goals with District Strategic Directions**

This table demonstrates the alignment of the eleven District Technology Strategic Goals with the West Valley-Mission Community College District's Strategic Goals.

**Table 3: District Strategic Goals Alignment**

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<th>District Strategic Goals</th>
<th>Focus district services efforts on improving district/college infrastructure to support student learning programs and services</th>
<th>Continue efforts to improve communications between district services and the colleges</th>
<th>Continue efforts to increase energy efficiency and sustainability.</th>
<th>Maintain fiscal stability by leading the district in planning for possible mid-year cuts in 2010/11, developing a balanced budget for 2011/12, and managing cash flow to meet anticipated needs.</th>
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<td>1. Provide support to changing State and Federal regulations mandated by Dream Act and Student Success Initiatives.</td>
<td>1a, 1b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Provide student-centered services and support for the matriculation processes.</td>
<td>1a, 1b</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. Provide a self-service reporting environment that allows users to dynamically gather and present information.</td>
<td>1a, 1i, 1i</td>
<td>1a, 1i</td>
<td>1a</td>
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<td>4. Provide appropriate technology and workflow to support department and division processes and functions.</td>
<td>1a, 1b, 1f</td>
<td></td>
<td>1a, 1b</td>
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<td>5. Support integration of technology in classrooms, teaching labs, and online instructional environments based on curricular and instructional needs.</td>
<td>1a, 1b</td>
<td></td>
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<td></td>
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<tr>
<td>6. Provide reliable and secure technology services for voice, data and video services.</td>
<td>1a, 1b</td>
<td></td>
<td>1a, 1b</td>
<td></td>
</tr>
<tr>
<td>7. Provide reliable and secure technology services for servers and storage.</td>
<td>1b</td>
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<tr>
<td>8. Provide a service oriented organization to meet the growing demand for technology support.</td>
<td>2c</td>
<td></td>
<td>2c</td>
<td></td>
</tr>
<tr>
<td>9. Provide training for users to manage the content of their portal and web pages.</td>
<td>1a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Provide an Intranet environment that encourages communication and information sharing.</td>
<td>1a, 1b</td>
<td>1a, 1b</td>
<td>1a, 1b</td>
<td></td>
</tr>
<tr>
<td>11. Provide an Internet environment that provides the district with a current, accurate and relevant web presence.</td>
<td>1a, 1b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
XI. **Alignment of District Technology Goals with Mission College Strategic Goals**

This table demonstrates the alignment of the eleven District Technology Strategic Goals with Mission College's Strategic Goals.

**Table 4: Mission College Strategic Goals Alignment**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-2015 District I.S. Technology Strategic Goals</td>
<td>1.1, 1.2, 1.3, 1.4, 3.2</td>
<td>1.4, 2.1, 2.3</td>
<td>1.2, 1.3, 1.4, 1.5, 1.7, 1.8, 2.1-2.4</td>
<td>1.1</td>
<td>1.1, 1.3, 1.4, 1.6</td>
<td>1.3, 1.4, 1.6</td>
<td></td>
</tr>
<tr>
<td>1. Provide support to changing State and Federal regulations mandated by Dream Act and Student Success Initiatives.</td>
<td>1.1, 1.2, 1.3, 1.4, 3.2</td>
<td>1.4, 2.1, 2.3</td>
<td>1.2, 1.3, 1.4, 1.5, 1.7, 1.8, 2.1-2.4</td>
<td>1.1</td>
<td>1.1, 1.3, 1.4, 1.6</td>
<td>1.3, 1.4, 1.6</td>
<td></td>
</tr>
<tr>
<td>2. Provide student-centered services and support for the matriculation processes.</td>
<td>1.2, 1.4</td>
<td>2.3, 4.1, 4.2, 4.3</td>
<td>2.1</td>
<td>1.7</td>
<td>1.1, 1.3, 1.4, 1.6</td>
<td>1.3, 1.4, 1.6</td>
<td></td>
</tr>
<tr>
<td>3. Provide a self-service reporting environment that allows users to dynamically gather and present information.</td>
<td>1.2</td>
<td>2.3, 4.1, 4.2, 4.3</td>
<td>2.1</td>
<td>1.7</td>
<td>1.1, 1.3, 1.4, 1.5, 1.6</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>4. Provide appropriate technology and workflow to support department and division processes and functions.</td>
<td>1.2</td>
<td>2.3, 4.1</td>
<td>2.1</td>
<td>1.7</td>
<td>1.1, 1.3, 1.4, 1.6</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>5. Support integration of technology in classrooms, teaching labs, and online instructional environments based on curricular and instructional needs.</td>
<td>1.2</td>
<td>2.3, 4.1</td>
<td>2.1</td>
<td>1.7</td>
<td>1.1, 1.3, 1.4, 1.5, 1.6</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>6. Provide reliable and secure technology services for voice, data and video services.</td>
<td>1.2</td>
<td>2.3, 4.1</td>
<td>2.1</td>
<td>1.7</td>
<td>1.1, 1.3, 1.4, 1.5, 1.6</td>
<td>1.1, 1.6</td>
<td></td>
</tr>
<tr>
<td>7. Provide reliable and secure technology services for servers and storage.</td>
<td>1.2</td>
<td>2.3, 4.1</td>
<td>2.1</td>
<td>1.7</td>
<td>1.1, 1.3, 1.4, 1.5, 1.6</td>
<td>1.1, 1.6</td>
<td></td>
</tr>
<tr>
<td>8. Provide a service oriented organization to meet the growing demand for technology support.</td>
<td>1.2</td>
<td>2.3, 4.1</td>
<td>2.1</td>
<td>1.7</td>
<td>1.1, 1.3, 1.4, 1.5, 1.6</td>
<td>1.1, 1.6</td>
<td></td>
</tr>
<tr>
<td>9. Provide training for users to manage the content of their portal and web pages.</td>
<td>1.2</td>
<td>2.3, 4.1</td>
<td>2.1</td>
<td>1.7</td>
<td>1.1, 1.3, 1.4, 1.5, 1.6</td>
<td>1.1, 1.6</td>
<td></td>
</tr>
<tr>
<td>10. Provide an Intranet environment that encourages communication and information sharing.</td>
<td>1.2</td>
<td>2.3, 4.1</td>
<td>2.1</td>
<td>1.7</td>
<td>1.1, 1.3, 1.4, 1.5, 1.6</td>
<td>1.1, 1.6</td>
<td></td>
</tr>
<tr>
<td>11. Provide an Internet environment that provides the district with a current, accurate and relevant web presence.</td>
<td>1.2</td>
<td>2.3, 4.1</td>
<td>2.1</td>
<td>1.7</td>
<td>1.1, 1.3, 1.4, 1.5, 1.6</td>
<td>1.1, 1.6</td>
<td></td>
</tr>
</tbody>
</table>
XII. **Alignment of District Technology Goals with Mission College Technology Goals**

This table demonstrates the alignment of the eleven District Technology Strategic Goals with Mission College's Technology Goals.

**Table 5: Mission College Technology Goals Alignment**

<table>
<thead>
<tr>
<th>Mission College Technology Goals <em>(See Appendix 4)</em></th>
<th>District I.S. Technology Strategic Goals</th>
<th>2012-2015</th>
<th>1. Provide support to changing State and Federal regulations mandated by Dream Act and Student Success Initiatives.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Provide student-centered services and support for the matriculation processes.</td>
<td></td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>3. Provide a self-service reporting environment that allows users to dynamically gather and present information.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Provide appropriate technology and workflow to support department and division processes and functions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Support integration of technology in classrooms, teaching labs, and online instructional environments based on curricular and instructional needs.</td>
<td>1.1, 1.2, 1.3, 1.6, 1.7, 1.8</td>
<td>3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8</td>
<td>4.1</td>
</tr>
<tr>
<td>6. Provide reliable and secure technology services for voice, data and video services.</td>
<td></td>
<td>3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8</td>
<td></td>
</tr>
<tr>
<td>7. Provide reliable and secure technology services for servers and storage.</td>
<td>1.4, 1.5, 1.6</td>
<td>3.3, 3.6, 3.7, 3.8</td>
<td></td>
</tr>
<tr>
<td>8. Provide a service oriented organization to meet the growing demand for technology support.</td>
<td>1.1, 1.3, 1.6, 1.8, 1.9, 1.10</td>
<td>2.1, 2.5, 2.6</td>
<td>4.5</td>
</tr>
<tr>
<td>9. Provide training for users to manage the content of their portal and web pages.</td>
<td></td>
<td></td>
<td>5.1, 5.2</td>
</tr>
<tr>
<td>10. Provide an Intranet environment that encourages communication and information sharing.</td>
<td>1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.10</td>
<td>2.1, 2.6</td>
<td></td>
</tr>
<tr>
<td>11. Provide an Internet environment that provides the district with a current, accurate and relevant web presence.</td>
<td>1.1, 1.3, 1.6, 1.7, 1.10</td>
<td>2.1, 2.2, 2.3, 2.4, 2.5, 2.6</td>
<td></td>
</tr>
</tbody>
</table>

Ensure efficient and effective use of technology through planning.
XIII. **Alignment of District Technology Goals with West Valley College Strategic Goals**

This table demonstrates the alignment of the eleven District Technology Strategic Goals with West Valley College’s Strategic Goals.

**Table 6: West Valley College Strategic Goals Alignment**

<table>
<thead>
<tr>
<th>West Valley College Strategic Goals (See Appendix 5)</th>
<th>Focus institutional efforts on improving pathways of support to aid in students’ identification and realization of their educational goals.</th>
<th>Reduce disparity in student success across ethnic groups.</th>
<th>Organize and align resources to support and sustain an environment of academic excellence.</th>
<th>Complete accreditation self-study preparation by December 2013.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2012-2015 District I.S. Technology Strategic Goals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Provide support to changing State and Federal regulations mandated by Dream Act and Student Success Initiatives.</td>
<td>1a, 1b, 1c</td>
<td></td>
<td>3a</td>
<td>4c</td>
</tr>
<tr>
<td>2. Provide student-centered services and support for the matriculation processes.</td>
<td>1a, 1c</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Provide a self-service reporting environment that allows users to dynamically gather and present information.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Provide appropriate technology and workflow to support department and division processes and functions.</td>
<td>1c</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Support integration of technology in classrooms, teaching labs, and online instructional environments based on curricular and instructional needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Provide reliable and secure technology services for voice, data and video services.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Provide reliable and secure technology services for servers and storage.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Provide a service oriented organization to meet the growing demand for technology support.</td>
<td></td>
<td>1a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Provide training for users to manage the content of their portal and web pages.</td>
<td></td>
<td></td>
<td>1d</td>
<td></td>
</tr>
<tr>
<td>10. Provide an Intranet environment that encourages communication and information sharing.</td>
<td>1c</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Provide an Internet environment that provides the district with a current, accurate and relevant web presence.</td>
<td></td>
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</tr>
</tbody>
</table>
XIV. **Alignment of District Technology Goals with West Valley College Technology Goals**

This table demonstrates the alignment of the eleven District Technology Strategic Goals with Mission College's Technology Goals.

**Table 7: West Valley College Technology Goals Alignment**

<table>
<thead>
<tr>
<th>West Valley College Technology Goals (See Appendix 6)</th>
<th>2012-2015 District I.S. Technology Strategic Goals</th>
<th>Migration from Angel LMS to alternative LMS.</th>
<th>Investigate Virtual Desktop Infrastructure (VDI) for classroom and offices.</th>
<th>Improve Wi-Fi penetration and coverage, multiple SIDs and café services in “public” vs “non-public” (e.g. Classrooms).</th>
<th>Develop Computer Hardware replacement parameters.</th>
<th>Develop Document Management Strategies.</th>
<th>Support ERP Replacement Strategies.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Provide support to changing State and Federal regulations mandated by Dream Act and Student Success Initiatives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Provide student-centered services and support for the matriculation processes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.1 6.3</td>
</tr>
<tr>
<td>3. Provide a self-service reporting environment that allows users to dynamically gather and present information.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.3</td>
</tr>
<tr>
<td>4. Provide appropriate technology and workflow to support department and division processes and functions.</td>
<td>1.4</td>
<td>2.1</td>
<td>3.1, 3.2</td>
<td>4.2</td>
<td>5.1</td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>5. Support integration of technology in classrooms, teaching labs, and online instructional environments based on curricular and instructional needs.</td>
<td>1.4</td>
<td>2.1, 2.2, 2.3, 2.4</td>
<td>3.1, 3.2</td>
<td>4.2</td>
<td>5.1</td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>6. Provide reliable and secure technology services for voice, data and video services.</td>
<td>2.1, 2.2, 2.3, 2.4</td>
<td>3.1, 3.2</td>
<td>4.2</td>
<td>5.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Provide reliable and secure technology services for servers and storage.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Provide a service oriented organization to meet the growing demand for technology support.</td>
<td>1.4</td>
<td>2.1, 2.2, 2.3, 2.4</td>
<td>3.1, 3.2</td>
<td>4.2</td>
<td>5.1</td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>9. Provide training for users to manage the content of their portal and web pages.</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>10. Provide an Intranet environment that encourages communication and information sharing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.3</td>
</tr>
<tr>
<td>11. Provide an Internet environment that provides the district with a current, accurate and relevant web presence.</td>
<td></td>
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<td></td>
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</table>
XV. **Alignment of District Technology Goals with Services & Facilities Master Plan**

This table demonstrates the alignment of the eleven District Technology Strategic Goals with Services & Facilities Master Plan Goals.

**Table 8: Services & Facilities Master Plan Goals Alignment**

<table>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>2012-2015 District I.S. Technology Strategic Goals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Provide support to changing State and Federal regulations mandated by Dream Act and Student Success Initiatives.</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Provide student-centered services and support for the matriculation processes.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Provide a self-service reporting environment that allows users to dynamically gather and present information.</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Provide appropriate technology and workflow to support department and division processes and functions.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Support integration of technology in classrooms, teaching labs, and online instructional environments based on curricular and instructional needs.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Provide reliable and secure technology services for voice, data and video services.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>7. Provide reliable and secure technology services for servers and storage.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>8. Provide a service oriented organization to meet the growing demand for technology support.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>9. Provide training for users to manage the content of their portal and web pages.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Provide an Intranet environment that encourages communication and information sharing.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Provide an Internet environment that provides the district with a current, accurate and relevant web presence.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
XVI. **District Technology Goals**

Table 9: Goal 1 Supporting Strategies

<table>
<thead>
<tr>
<th>SUPPORTING STRATEGIES</th>
<th>DEPENDENCIES</th>
<th>RESPONSIBLE PARTY (Owner)</th>
<th>FY 12 - 13</th>
<th>FY 13 - 14</th>
<th>FY 14 - 15</th>
<th>PROGRESS/ACCOMPLISHMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Convert Ellucian’s Enterprise Resource Planning (ERP) System Colleague from a Unidata platform to a SQL platform that will provide new processing options and an upgraded database.</td>
<td>The purchase of new servers and storage area network (SAN).</td>
<td>Application Manager</td>
<td>X</td>
<td></td>
<td></td>
<td>● Project was approved to move forward.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1.2 Fully implement the Ad Astra Room Scheduling system.</td>
<td>Completion of room inventory and additional training.</td>
<td>College Sponsor and Application Manager</td>
<td>X</td>
<td></td>
<td></td>
<td>● Implemented at MC in 2012.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1.3 Convert the standalone Informed Filler application over to the Ellucian ERP system.</td>
<td>Process mapping of the two systems. Dedicated resources assigned to the project.</td>
<td>Application Manager and College Sponsors</td>
<td>X</td>
<td></td>
<td></td>
<td>● Project was approved to explore converting from Inform Filler to the Colleague system.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1.4 Implement Ellucian’s Student Planning module.</td>
<td>1) Completion of data cleanup in the Degree Audit area.</td>
<td>Application Manager and VPSS</td>
<td>X</td>
<td></td>
<td></td>
<td>● Colleges elected to implement K-16 Bridge Ed Plan system. Colleges are finalizing the customizations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>2) A Ellucian consultant for training and implementation services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1.5 Implement Ellucian’s Early Alert module.</td>
<td>An Ellucian consultant for training and implementation services.</td>
<td>Application Manager and VPSS</td>
<td>X</td>
<td>• Need to schedule time with end-users to review implementation schedule.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
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<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 10: Goal 2 Supporting Strategies

<table>
<thead>
<tr>
<th>SUPPORTING STRATEGIES</th>
<th>DEPENDENCIES</th>
<th>RESPONSIBLE PARTY (Owner)</th>
<th>FY 12</th>
<th>FY 13</th>
<th>FY 14</th>
<th>FY 15</th>
<th>PROGRESS/ACCOMPLISHMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Work with college stakeholders to continue the build out and enhancements of the Ellucian Portal.</td>
<td>A dedicated I.S. resource to work with the colleges and district.</td>
<td>Director of I.S.</td>
<td>X</td>
<td>• I.S. hired a person in October 2014 to support the Ellucian Portal.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2 Dedicated I.S. staffing for major college programs.</td>
<td>Funding source</td>
<td>Director of I.S.</td>
<td>X</td>
<td>• On hold until a funding source is identified.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3 Define and fully implement current systems to help users monitor the reliability of crucial data.</td>
<td>Need to define requirements.</td>
<td>VPs – I.S. committee.</td>
<td>X</td>
<td>• I.S. is working with the VPs in defining the requirements on an on-going basis. • I.S. need to identify more resource to handle to workload.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 11: Goal 3 Supporting Strategies

<table>
<thead>
<tr>
<th>SUPPORTING STRATEGIES</th>
<th>DEPENDENCIES</th>
<th>RESPONSIBLE PARTY (Owner)</th>
<th>FY 12</th>
<th>FY 13</th>
<th>FY 14</th>
<th>FY 15</th>
<th>PROGRESS/ACCOMPLISHMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Add additional staff to support the Data Warehouse system.</td>
<td>Funding source</td>
<td>Director of I.S.</td>
<td>X</td>
<td>• Funding source has been identified. Additional staff will start in FY 15-16.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2 Purchase and implement Ellucian’s ODS and Business Object product.</td>
<td>Director of I.S.</td>
<td>X</td>
<td>This project was removed.</td>
<td>Refer to 3.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.3 Expand the Data Warehouse reporting environment so that offices and departments can generate reports as needed.

Table 12: Goal 4 Supporting Strategies

<table>
<thead>
<tr>
<th>SUPPORTING STRATEGIES</th>
<th>DEPENDENCIES</th>
<th>RESPONSIBLE PARTY (Owner)</th>
<th>FY 12</th>
<th>FY 13</th>
<th>FY 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Fully implement the Ad Astra Room Scheduling system.</td>
<td>Completion of room inventory and additional training.</td>
<td>College Sponsor and Application Manager</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Implemented at MC in 2012.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Partially implemented at WVC starting in 2013.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.2 Implement Ellucian’s Online Requisition module.</td>
<td>Completion of pilot phase. Development of rollout schedule.</td>
<td>Application Manager and Director of Purchasing</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Pilot phase was completed successfully.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Pilot phase completed. Moved into production.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3 Implement Ellucian’s Online Requisition module.</td>
<td>An Ellucian’s consultant for training and implementation.</td>
<td>Application Manager and Director of Purchasing</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Has been implemented for Central Services. The signature process does not work for the colleges. Project is completed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 13: Goal 5 Supporting Strategies

<table>
<thead>
<tr>
<th>SUPPORTING STRATEGIES</th>
<th>DEPENDENCIES</th>
<th>RESPONSIBLE PARTY (Owner)</th>
<th>FY 12</th>
<th>FY 13</th>
<th>FY 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Provide infrastructure for instructional and administrative videoconferencing.</td>
<td>Define requirement to support infrastructure.</td>
<td>I.S. Network Group</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The requirements for videoconferencing has been completed. The district is conducting videoconferencing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>5.2</td>
<td>Provide infrastructure to record and stream live presentation over the web.</td>
<td>Define requirement to support infrastructure</td>
<td>I.S. Network Group</td>
<td>X</td>
<td>- I.S. will be working with the colleges to define the requirements.</td>
</tr>
</tbody>
</table>
| 5.3 | Provide the ability for faculty to use their personal computers in the classroom in a safe and secure manner. | Implement Network Access Control system. | I.S. Network Group | X | - More discussions are needed to define the requirements.  
|   |   |   |   |   |   | X | - Requirement still needs to be defined. |
## Table 14: Goal 6 Supporting Strategies

<table>
<thead>
<tr>
<th>SUPPORTING STRATEGIES</th>
<th>DEPENDENCIES</th>
<th>RESPONSIBLE PARTY (Owner)</th>
<th>FY 12</th>
<th>FY 13</th>
<th>FY 14</th>
<th>FY 15</th>
<th>PROGRESS/ACCOMPLISHMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Relocate the Minimum Point of Entry (MPOE) at both colleges to an environmentally secure location.</td>
<td>Detail project management planning.</td>
<td>Network Manager</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>• Reviewing electrical requirements.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Submitted to DSA.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Waiting for this to come out of DSA.</td>
</tr>
<tr>
<td>6.2 Implement a Voice-over-IP system to enhance data, voice, and video services.</td>
<td>Detail project management planning.</td>
<td>Network Manager</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>• Implementation started in January 2014. The project is approximately 45% completed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• The project is approximately 45% completed.</td>
</tr>
<tr>
<td>6.3 Implement a Network Access Control System.</td>
<td></td>
<td>Network Manager</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>• Researched and evaluated products.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• This was implemented in Spring 2013.</td>
</tr>
<tr>
<td>6.4 Implement a network infrastructure to support video conferencing.</td>
<td></td>
<td>Network Manager</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>• The requirements for video-conferencing has been completed. The district is conducting video-conferencing.</td>
</tr>
</tbody>
</table>

## Table 15: Goal 7 Supporting Strategies

<table>
<thead>
<tr>
<th>SUPPORTING STRATEGIES</th>
<th>DEPENDENCIES</th>
<th>RESPONSIBLE PARTY (Owner)</th>
<th>FY 12</th>
<th>FY 13</th>
<th>FY 14</th>
<th>FY 15</th>
<th>PROGRESS/ACCOMPLISHMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1 Upgrade existing aging servers with newer technology advanced server equipment.</td>
<td></td>
<td>Network Manager</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>• Researched and evaluated products.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• New HP Blades servers were installed in the Summer 2013.</td>
</tr>
</tbody>
</table>
7.2 Upgrade existing aging Storage Area Network (SAN) with newer technology advanced storage equipment.

<table>
<thead>
<tr>
<th>Network Manager</th>
<th>X</th>
<th>• Researched and evaluated products.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>• New Hitachi SANs were installed in the Fall of 2013.</td>
</tr>
</tbody>
</table>

7.3 Upgrade existing servers using blade and virtual technology.

| Network Manager | X | • New HP Blades servers were installed in the Summer 2013. 80% of the servers are virtualized. |

Table 16: Goal 8 Supporting Strategies

**Goal 8: Provide a service-oriented organization to meet the growing demand for technology support.**

<table>
<thead>
<tr>
<th>SUPPORTING STRATEGIES</th>
<th>DEPENDENCIES</th>
<th>RESPONSIBLE PARTY (Owner)</th>
<th>FY 12</th>
<th>FY 13</th>
<th>FY 14</th>
<th>FY 15</th>
<th>PROGRESS/ACCOMPLISHMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1 Add additional staffing to the Helpdesk.</td>
<td>Funding source</td>
<td>Director of I.S.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>• Work is in progress to add additional staffing to the Help Desk.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Working with the Classification Study Consultants on job descriptions.</td>
</tr>
<tr>
<td>8.4 Investigate training needs and explore options to effectively meet those needs.</td>
<td></td>
<td>Director of I.S.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>• Lynda.com was implemented in Spring 2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Additional investigations is needed to address targeted training.</td>
</tr>
<tr>
<td>8.2 Develop training materials, training videos, and FAQs.</td>
<td>Refer to 8.1 and 8.4.</td>
<td>Director of I.S.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>• Refer to 8.1 and 8.4.</td>
</tr>
<tr>
<td>8.3 Partner with the colleges and district to develop “power users”.</td>
<td></td>
<td>Director of I.S.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>• This is an on-going process. There is more needed to address this issue.</td>
</tr>
</tbody>
</table>
### Table 17: Goal 9 Supporting Strategies

**Goal 9: Provide training for users to manage the content of their portal and web pages.**

<table>
<thead>
<tr>
<th>SUPPORTING STRATEGIES</th>
<th>DEPENDENCIES</th>
<th>RESPONSIBLE PARTY</th>
<th>FY 12</th>
<th>FY 13</th>
<th>FY 14</th>
<th>PROGRESS/ACCOMPLISHMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1 Provide a dedicated staff to support the Ellucian Portal.</td>
<td>Approval to fill vacant position</td>
<td>Director of I.S.</td>
<td></td>
<td></td>
<td></td>
<td>• Failed recruitment search for a SharePoint Administrator. X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• I.S. hired a person in October 2014 to support the Ellucian Portal. X</td>
</tr>
<tr>
<td>9.2 Develop training materials, training videos, and FAQs.</td>
<td>Refer to 8.1 and 9.1.</td>
<td>Director of I.S.</td>
<td></td>
<td></td>
<td></td>
<td>• Refer to 8.1 and 9.1. X</td>
</tr>
<tr>
<td>9.3 Train users on portal platform to enable them to appropriately choose and effectively present information.</td>
<td>Applications Manager</td>
<td>Applications Manager</td>
<td></td>
<td></td>
<td></td>
<td>• Failed recruitment search for a SharePoint Administrator. X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• I.S. hired a person in October 2014 to support the Ellucian Portal. Once this person is up to speed, training will commence. X</td>
</tr>
</tbody>
</table>

### Table 18: Goal 10 Supporting Strategies

**Goal 10: Provide an Intranet environment that encourages communication and information sharing.**

<table>
<thead>
<tr>
<th>SUPPORTING STRATEGIES</th>
<th>DEPENDENCIES</th>
<th>RESPONSIBLE PARTY</th>
<th>FY 12</th>
<th>FY 13</th>
<th>FY 14</th>
<th>PROGRESS/ACCOMPLISHMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1 Provide a dedicated staff to support and build out the Ellucian Portal.</td>
<td>Approval to fill vacant position</td>
<td>Director of I.S.</td>
<td></td>
<td></td>
<td></td>
<td>• Failed recruitment search for a SharePoint Administrator. X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• I.S. hired a person in October 2014 to support the Ellucian Portal. Once this person is up to speed, build out will commence. X</td>
</tr>
<tr>
<td>SUPPORTING STRATEGIES</td>
<td>DEPENDENCIES</td>
<td>RESPONSIBLE PARTY (Owner)</td>
<td>FY 12</td>
<td>FY 13</td>
<td>FY 14</td>
<td>FY 15</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------</td>
<td>---------------------------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>10.2 Work with college stakeholders to continue the build out and enhancements of the Ellucian Portal.</td>
<td>Application Manager</td>
<td></td>
<td>X</td>
<td>Failed recruitment search for a SharePoint Administrator.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.3 Train end-users on new tools provided with the SharePoint environment.</td>
<td>Application Manager</td>
<td></td>
<td>X</td>
<td>I.S. hired a person in October 2014 to support the Ellucian Portal. Once this person is up to speed, build out will commence.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Table 19: Goal 11 Supporting Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Goal 11: Provide an Internet environment that provides the district with a current, accurate and relevant web presence.**

<table>
<thead>
<tr>
<th>SUPPORTING STRATEGIES</th>
<th>DEPENDENCIES</th>
<th>RESPONSIBLE PARTY (Owner)</th>
<th>FY 12</th>
<th>FY 13</th>
<th>FY 14</th>
<th>FY 15</th>
<th>PROGRESS/ACCOMPLISHMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.1 Redesign the district web site to allow more information to be presented in a dynamic manner while still maintaining a simplistic design.</td>
<td>Director of I.S. and Vice Chancellor of HR</td>
<td></td>
<td>X</td>
<td>Failed recruitment search for a SharePoint Administrator.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.2 Update the district website to the new SharePoint environment to provide enhanced communication and document sharing.</td>
<td>Application Manager</td>
<td></td>
<td>X</td>
<td>I.S. hired a person in October 2014 to support the District website. Once this person is up to speed, the redesign will commence.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.3 Update the district website to new SharePoint environment that will integrate with the Ellucian SharePoint portal.</td>
<td>Application Manager</td>
<td></td>
<td>X</td>
<td>I.S. hired a person in October 2014 to support the District website. Once this person is up to speed, these features will be implemented.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>11.4</strong> Train end-users on new tools provided with the SharePoint environment.</td>
<td></td>
<td>Application Manager</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I.S. hired a person in October 2014 to support the District website. Training has begun to look at the conversion over to SharePoint.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>11.5</strong> Train users on the SharePoint platform to enable them to appropriately choose and effectively present information.</td>
<td></td>
<td>Application Manager</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I.S. hired a person in October 2014 to support the Ellucian Portal. Once this person is up to speed, training will commence.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Failed recruitment search for a SharePoint Administrator.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I.S. hired a person in October 2014 to support the Ellucian Portal. Once this person is up to speed, training will commence.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
XVII. **Funding Resources**

**A. Technology Funding**

In the last 10 years, a basic level of technology infrastructure and services has become essential to the operations of all California community colleges. With the current state of the economy, and yearly budget uncertainties in State funding, it is imperative that all IT funds be used wisely and judiciously. The challenge will be to maintain and expand services with our current funding level and staff resources.

A major lesson of the last 10 years has been that IT infrastructures are not a one-time expense but rather an on-going funding need similar to maintenance of the physical plant. This means it is critical to have regular replacement cycles for infrastructure components. If this is not done, a significant deferred maintenance problem for technology arises. Unlike physical buildings, where the underlying foundation can remain constant while cosmetic changes are made, the underlying foundation of technology must change regularly in order to provide services that keep pace with basic computer, server/storage, network, and Internet infrastructures. The main components of an IT infrastructure are:

- a data network infrastructure connected to the Internet;
- a server/storage infrastructure connected to the network;
- a capable desktop/laptop computing environments.

Determining a cost-effective strategy for creating and maintaining this IT infrastructure is an important decision that a district must make. If done well, many options for providing services become available; if done poorly, the district will be forever stuck in a catch-up mode. Without a supportable IT infrastructure, the district cannot realistically hope to provide effective or efficient IT services.

The I.S. Department dedicates a portion of its budget to maintenance contracts and to keeping peripheral equipment up-to-date. Desktop computers, servers/storage, and network equipment are not currently on a replacement cycle due to funding constraints. The District has allocated $50,000 in the General Fund Fixed Costs budget to address computer replacements district-wide but this amount is severely inadequate to fully address the refresh of desktop computers, let alone the back-end infrastructure.

The District will seek additional technology funding and identify on-going funds to address the increasing demand for technology, training, and support. One of the sources for additional technology funding is the Mission-West Valley Land Corporation.

The primary purpose of the Mission-West Valley Land Corporation is to promote the success of West Valley-Mission Community College District through the utilization of proper facilities and creation of programs that enhance community life, including programs that enrich educational, cultural, and community services opportunities. This also includes the technology that is needed to support the facilities and educational programs.

Currently the Mission West Valley Land Corporation pays rent to the West Valley-Mission Community College District in an amount equal to 25% of the gross annual (fiscal year) ground lease revenues received by the Land Corporation, and 10% of its gross annual ground lease revenue to the Land Corporation Endowment Fund. The district will seek a percentage of the Land Corporation gross annual ground lease revenue for technology funding.
As of fiscal year 2012/13, the budget for technology represents 4.07% of the total district budget. This includes expenditures for staffing, equipment and supplies, and maintenance and service contracts (see Appendix 7). In addition, the district passed a Bond Measure in June 2012, which included technology funding for 1) Underground MPOE Replacement; and 2) Ellucian Infrastructure Project.

Table 20: Budget Category

<table>
<thead>
<tr>
<th>Budget Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>$2,007,132.00</td>
</tr>
<tr>
<td>Annual Software Licenses</td>
<td>$219,443</td>
</tr>
<tr>
<td>Computer &amp; Network Repair</td>
<td>$48,817</td>
</tr>
<tr>
<td>Equipment Maintenance - Hardware</td>
<td>$855,979</td>
</tr>
<tr>
<td>Telephone Services (Local/Long Distance)</td>
<td>$157,118</td>
</tr>
<tr>
<td>PC Replacement</td>
<td>$50,000</td>
</tr>
<tr>
<td>Nextel Radio/Cell Phone Service</td>
<td>$52,000</td>
</tr>
<tr>
<td>Overtime</td>
<td>$22,000</td>
</tr>
<tr>
<td>Contracted Services</td>
<td>$54,000</td>
</tr>
<tr>
<td>Training</td>
<td>$12,500</td>
</tr>
<tr>
<td>Equipment Repair</td>
<td>$2,500</td>
</tr>
<tr>
<td>Emergency Equipment</td>
<td>$49,500</td>
</tr>
<tr>
<td>Copier Maintenance</td>
<td>$2,500</td>
</tr>
<tr>
<td>Copier Lease</td>
<td>$3,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,536,489</strong></td>
</tr>
</tbody>
</table>

Figure 1: Budget Chart
B. Total Cost of Ownership (TCO) Funding

The California Community College Chancellor’s Office (CCCCO) developed a statewide 5-year Technology Plan commonly referred to as “Technology Plan II” in March 2000. A key section of the CCCCCO Technology Plan II addressed the fact that “The growing demands of students and faculty will require a more substantial investment in telecommunications and technology. The system requires an infusion of funds that is based on a sustainable and renewing TCO model in order to meet the growing technological needs of faculty, students, and staff.”

The Total Cost of Ownership (TCO) was originally developed in the late 1980s by the research firm Gartner to determine the cost of owning and deploying personal computers. Their methodology was carefully examined and, over the ensuing years, has been accepted as a standard way to evaluate total costs.

The concept of determining the full cost of ownership (one-time and on-going costs, support, training, and replacement) is called Total Cost of Ownership (TCO). Gartner and CCCCCO Telecommunications and Technology Advisory Committee (TTAC) worked together to determine the appropriate TCO model for the community college environment. The purpose of that model was to serve as a guide for developing a baseline minimum requirement for Information Technology department’s TCO. Since the development of that model 12 years ago, Gartner has developed a more comprehensive TCO model that is currently used in WVMCCD’s TCO development. This newer model includes electricity costs for PCs, data center expenses, revised IT labor costs, and end-users costs. In addition, Gartner have created the following four scenarios, which assume different levels of manageability for PC support:

- **Unmanaged** - Users can install applications and change settings, but little to no management tools are being used.
- **Somewhat managed** - Some management tools are implemented, but processes and policies are not fully developed.
- **Moderately managed** - There are tools and good processes and policies in place; users can install software and change at least some settings.
- **Locked and well managed** - There are tools, processes and policies, but users cannot install software or change critical settings.

This TCO model will become part of a continuous process of measurement, simulation, and improvement for WVMCCD. Because budget decisions are ultimately based on a set of strategic IT goals, we need to have the ability to determine various levels of TCO based on the decision being made. By using this TCO model, we should be able to accomplish this goal.

As an example to demonstrate WVMCCD’s TCO, the cost estimate for a Desktop Computer is $3,145 per PC based on a “Locked and Well-Managed” PC. This cost is comprised of the following model on the next page:

---

1 CCCCCO Tech. II Plan; Cost to Implement the Technology II Strategic Plan, pp. 9.
Therefore, as the district purchases a computer (i.e., $1,038), we need to also budget for and allocate an additional $2,107 to support that computer over its expected useful life of 4 years. For more information on the TCO model, please refer to Gartner – “Desktop Total Cost of Ownership: 2011 Update” document.

Our goal is to maintain a desktop computer environment by using the industry standards of a four (4) year replacement cycle, and an ongoing fixed budget to support this standard.

<table>
<thead>
<tr>
<th><strong>Table 21: Desktop TCO Model</strong></th>
<th><strong>Desktop TCO 2011 Model</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unmanaged</td>
</tr>
<tr>
<td>Hardware</td>
<td>$243</td>
</tr>
<tr>
<td>Hardware Maintenance</td>
<td>35</td>
</tr>
<tr>
<td>Software and Software Maintenance</td>
<td>750</td>
</tr>
<tr>
<td>IT Software</td>
<td>70</td>
</tr>
<tr>
<td>Data Center Allocation</td>
<td>-</td>
</tr>
<tr>
<td>Electricity/Heating/Cooling</td>
<td>67</td>
</tr>
<tr>
<td><strong>Hardware, Software, and Facilities</strong></td>
<td>$1,165</td>
</tr>
<tr>
<td>Desktop IT Personnel</td>
<td>$219</td>
</tr>
<tr>
<td>Security</td>
<td>93</td>
</tr>
<tr>
<td>Desktop Management</td>
<td>145</td>
</tr>
<tr>
<td><strong>IT Operations</strong></td>
<td>$457</td>
</tr>
<tr>
<td>Administration</td>
<td>$71</td>
</tr>
<tr>
<td>Management</td>
<td>65</td>
</tr>
<tr>
<td>User Training</td>
<td>28</td>
</tr>
<tr>
<td>IT Training</td>
<td>14</td>
</tr>
<tr>
<td>Disposal</td>
<td>30</td>
</tr>
<tr>
<td><strong>Administration</strong></td>
<td>$208</td>
</tr>
<tr>
<td>Training</td>
<td>$460</td>
</tr>
<tr>
<td>Fixing</td>
<td>3,101</td>
</tr>
<tr>
<td>Downtime</td>
<td>197</td>
</tr>
<tr>
<td><strong>End-User Costs</strong></td>
<td>$3,758</td>
</tr>
<tr>
<td>Hardware and Software</td>
<td>$1,165</td>
</tr>
<tr>
<td>IT Operations Labor</td>
<td>457</td>
</tr>
<tr>
<td>Administration Labor</td>
<td>208</td>
</tr>
<tr>
<td><strong>Direct Costs</strong></td>
<td>$1,830</td>
</tr>
<tr>
<td><strong>End-User Costs</strong></td>
<td>$3,758</td>
</tr>
<tr>
<td><strong>TCO</strong></td>
<td>$5,588</td>
</tr>
</tbody>
</table>
C. **TCO Minimum Technical Staffing Support Funding**

The TCO Minimum Technical Staff Support model is categorized into three “Computing” areas: Faculty, Administrative and Classified Staff, and Support Baselines (staffing). These areas identify the recommended minimum computing hardware, software, and support levels that Community Colleges should be providing.

Because technical support is such a critical area to this district, this TCO section of the Technology Strategic Plan will focus on the number of technical staff required to provide adequate support to the WVMCCD’s community. In order for WVMCCD’s Mission Statements, as well as its Educational Goals to be successful, technical support issues must be addressed.

The following chart summarized Gartner recommended minimum baseline staffing requirements under which a Community College District should be operating. The intent of this chart is to show the comparison of the minimum recommended levels of support staffing with current levels of WVMCCD. The chart can be summarized to reflect WVMCCD comparison to the Gartner minimum operating baseline recommendations, which shows WVMCCD having a technical support staffing shortfall of approximately 6.2 technical support positions.

**Table 22: TCO Support Staffing Model**

<table>
<thead>
<tr>
<th>TCO Support Staff</th>
<th>Gartner Guidelines</th>
<th>Gartner Baseline</th>
<th>WVMCCD Actual</th>
<th>WVMCCD Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Support</td>
<td>0.3 Staff/per System</td>
<td>5.7</td>
<td>5</td>
<td>-0.7</td>
</tr>
<tr>
<td>Data Warehouse Support</td>
<td>0.3 Staff/per Data Owner</td>
<td>2.7</td>
<td>0.75</td>
<td>-2.0</td>
</tr>
<tr>
<td>Database ERP Support</td>
<td>1.0 Staff/per ERP</td>
<td>1.0</td>
<td>0.5</td>
<td>-0.5</td>
</tr>
<tr>
<td>Desktop Support</td>
<td>1.0 Staff/per 150 Computer</td>
<td>5.5</td>
<td>5</td>
<td>-0.5</td>
</tr>
<tr>
<td>Helpdesk Support</td>
<td>1.0 Staff/per 100 Calls</td>
<td>1.4</td>
<td>1</td>
<td>-0.4</td>
</tr>
<tr>
<td>Management Support</td>
<td>1.0 Staff/per Group</td>
<td>3.0</td>
<td>2</td>
<td>-1.0</td>
</tr>
<tr>
<td>Network Support</td>
<td>1.5 Staff/per Site</td>
<td>2.0</td>
<td>2</td>
<td>0.0</td>
</tr>
<tr>
<td>PBX Support</td>
<td>0.5 Staff/per Site</td>
<td>1.0</td>
<td>1</td>
<td>0.0</td>
</tr>
<tr>
<td>Server Support</td>
<td>1.5 Staff/per 50 Server</td>
<td>2.8</td>
<td>2</td>
<td>-0.8</td>
</tr>
<tr>
<td>Training Support</td>
<td>1.0 Staff/per 550 Employee</td>
<td>1.5</td>
<td>0</td>
<td>-1.5</td>
</tr>
<tr>
<td>Web/Portal Support</td>
<td>0.75 Staff/per Site</td>
<td>1.5</td>
<td>1.5</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total w/Approved Hires</strong></td>
<td></td>
<td><strong>26.5</strong></td>
<td><strong>20.8</strong></td>
<td><strong>-6.2</strong></td>
</tr>
</tbody>
</table>

D. **TCO Staff Baseline**

**TCO Application Staff Baseline**

<table>
<thead>
<tr>
<th>TCO Application Staff:</th>
<th>0.3</th>
<th>System</th>
<th>1</th>
<th># of Systems</th>
<th>Staff #</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>0.3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>5.7</strong></td>
</tr>
</tbody>
</table>

**TCO Data Warehouse Staff Baseline**

<table>
<thead>
<tr>
<th>TCO Data Warehouse Staff:</th>
<th>0.3</th>
<th>Owner</th>
<th>1</th>
<th># of Owners</th>
<th>Staff #</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>0.3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>2.7</strong></td>
</tr>
</tbody>
</table>

**TCO Database ERP Staff Baseline**
<table>
<thead>
<tr>
<th>Staff Category</th>
<th>Per Unit</th>
<th>Unit</th>
<th># of Units</th>
<th>Staff Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCO Database ERP Staff</td>
<td>1.0</td>
<td>ERP</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>TCO Desktop Staff Baseline</td>
<td>1.0</td>
<td>PC</td>
<td>150</td>
<td>830</td>
</tr>
<tr>
<td>TCO Helpdesk Staff Baseline</td>
<td>1.0</td>
<td>Call</td>
<td>100</td>
<td>105.6</td>
</tr>
<tr>
<td>TCO Management Staff Baseline</td>
<td>1.0</td>
<td>Group</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>TCO Network Staff Baseline</td>
<td>1.0</td>
<td>Site</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>TCO PBX Staff Baseline</td>
<td>0.5</td>
<td>Site</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>TCO Server Staff Baseline</td>
<td>1.5</td>
<td>Server</td>
<td>50</td>
<td>93</td>
</tr>
<tr>
<td>TCO Trainer Staff Baseline</td>
<td>1.0</td>
<td>Staff</td>
<td>550</td>
<td>800</td>
</tr>
<tr>
<td>TCO Web/Portal Staff Baseline</td>
<td>0.75</td>
<td>Site</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
XVIII. **Technology Refresh Program**

**A. Background**

Over the past 10 years, the District has made significant gains in upgrading its technology infrastructure. Furthermore, the District has grown more purposeful in its planning and utilization of technology, sustaining newer infrastructure while replacing or adding significant enhancements to its established infrastructure.

However, there have been a lack of long-term or on-going funding sources for District technology infrastructures. Outside of the normal discretionary budgets held by the District, there is no other funding sources. Industry best practices suggest that districts should establish a Technology Refresh Plan (TRP).

**B. Refresh Goal**

The goal of a TRP is to keep technology reliable and functional, ensuring that critical components of the District infrastructure are maintained in a proactive fashion. This requires a recurring technology refresh budget and an effective asset management system. In addition, a technology refresh plan helps control the overall cost of technology by planning for upgrades, replacements, support, and training in a holistic manner.

**C. Anticipated Benefits**

- Established predictable lifecycle cost of ownership for technology.
- Result in fewer of these inherently difficult to remediate support requests. Many technical issues are caused by using equipment that have exceeded their expected life.
- Technology that works well with other technology (i.e., current applications, hardware, software, other components).
- Increased system uptime.
- Established process to monitor the age of technology assets to ensure that all assets are within the acceptable range.

**D. Measurements of Success**

- A Technology Refresh Budget that is sustainable and equitable.
- District constituents voice support for refresh plan.
- Technology investments that is tied to specific student outcomes.
- Technology Asset Management that is utilized to improve equipment tracking.
E. **Guidelines**

An established TRP will need the support of District leaders and should operate within the guidelines established by the District Technology Committee. The following parameters should be used to guide the refresh process:

1. Is the equipment at end-of-life?
2. Is the device being used for the intent for which it was originally purchased or deployed?
3. Has the device been previously designated as not eligible for replacement through the TRP funding?

If a device does not pass all of these basic questions, it will require an approval from the Vice Chancellor of Administrative Services to be replaced or upgraded as part of the refresh program. Furthermore, the TRP should inform but not dictate funding decisions.

F. **Action Items used to Implement Program**

1. Worked with the established District Technology Committee, College VP of Administrative Services, and Vice Chancellor of Administrative Services to set priorities.
2. Established a Technology Refresh Program budget.
   a. Determined a sustainable funding mechanism for the refresh budget.
   b. Considered how refresh budgeting will be enforced for departmentally controlled budget (e.g. grants, self-funded).
   c. Worked with vendors to evaluate how different models may produce favorable economies of scale.
3. Established an acceptable refresh rate for each technology asset category, based on established budget.
4. Determined whether to use existing technology to monitor technology assets.

G. **Funding Description**

The District-wide technology will be divided into two funding categories, 1.) Proactive Funding, which will have dedicated funding to replace equipment that are at the end of their planned life cycle, and 2.) Reactive Funding, which will have dedicated funding to replace equipment or parts that becomes problematic or requiring repairs.

TRP funding calculations will be based on the costs to replace the equipment with the current configuration at the end-of-life. Each year the District’s technology inventory will be tallied, reviewed, categorized, and processed through the funding formula. A request for funding will be processed during the Spring budget cycle process and before the beginning of the next fiscal year. Funding for the TRP is used only to replace existing technology.

H. **Budget Description**

The *Proactive Funding* will have a dedicated budget with continual funding from the Land Corp Foundation. The *Reactive Funding* will have a dedicated budget with continual funding from the General Fund 100.

I. **Program Owner**

- Vice Chancellor of Administrative Services
- Director of Information Systems
J. **General Computer Refresh Program**

General Computer Refresh (GCR) is an annual program in March to ensure a proactive approach to replacing aging desktop and laptop computers used by West Valley-Mission CCD faculty and staff. The primary goal of this program is to ensure faculty and staff have the appropriate computer hardware to support academic programs and services, as well as increase productivity and efficiency while supporting the WVM community. GCR aims for a regular refresh cycle of 25 percent of the computers annually to ensure that all GCR eligible computers are on a four-five year refresh cycle.

K. **Process for Computer Refresh**

(Computer Refresh Flowchart – [Appendix 14](#))

1. A report will be generated from the KBOX Asset Inventory module for all of the desktop and laptop computers.
2. The report will be reviewed by the MCS Desktop Technicians for corrections and updates.
3. The I.S. Director will consult with the MCS Desktop Technicians on their recommendations for computers that should be replaced.
4. The I.S. Director, in consultation with the College VP of Administration, will make any necessary adjustments and approve the report.
5. The report will be reviewed by District Technology Committee for feedback.
6. The computers will be ordered, received, and configured.
7. Faculty and staff will be contacted to schedule an appointment to refresh their current primary computer with the newly-configured replacement computer.
8. The replaced computer will be collected and placed in tech storage until its future viability is determined.

L. **All other Technology Equipment Refresh Programs**

All other technology equipment supported by the District I.S. department will be reviewed on an annual basis in March to ensure a proactive approach to replacing aging technology equipment that is used to support the mission of the district and colleges.

M. **Process for All Other Technology Refresh**

1. Reports will be generated for all of the technology equipment.
2. The reports will be reviewed by the Technicians for corrections and updates.
3. The I.S. Management team will consult with the Technicians on their recommendations for equipment that should be replaced.
4. The report will be reviewed by District Technology Committee for feedback.
5. The equipment will be ordered, received, and configured.
6. The replaced equipment will be collected and placed in tech storage until its future viability is determined.

N. **Technology Refresh Standards**

The following table ([Appendix 13](#)) was developed based on industry standards and research from recognized Higher Education resources such as Educause.
XIX. **Staff Resources**

### A. Current Organizational Structure

WVMMCDD maintains a centralized and collaborative Information Systems department. One of the primary missions of I.S. is to provide its students, faculty, and staff with quality technology services and systems that foster learning, productivity, and collaboration.

I.S. is responsible for operating and maintaining the physical infrastructures required to service the district’s desktop computers, servers/storage, and networks. The I.S. department also oversees the core business and communication systems that include email, phone services, ERP systems (student information, financial, and human resources).

The I.S. Department is divided into three areas, which include Application Support & Development, Micro-Computer Support, and Systems & Network and Operations. The majority of I.S. systems and services are centrally run from the I.S. Data Center located at West Valley College, with some services running at Mission College; but the colleges provide technical services and staffing to all computer labs and video services. For a more detailed description of the services provided by each area, go to Appendix 9 for the Application Group, Appendix 10 for the Micro-Computer Group, and Appendix 11 & Appendix 12 for the Systems & Network and Operations Group.

The Director of Information Systems is the Chief Information Systems Officer (CISO) for WVMMCDD and reports to the Vice Chancellor of Administrative Services. The I.S. Department has 21 full-time employees with professional degrees, certifications, and training. This includes a Director, 2 Managers, and 18 classified staff. One classified position, the Sr. Apps DB Admin became vacant in the Fall of 2012 and will be recruited in 2013. One manager position, the Manager of Micro-Computer Support, remains vacant in 2013 as shown on the organizational chart in Appendix 8; there is no current plan to recruit.

The staffing level in I.S. is lean in certain areas and is well below standards recommended by Gartner recommended minimum baseline staffing requirements. Because of the large and complex IT infrastructure and limited staff, most I.S. staff members are dedicated to operational support (end-user support, on-going maintenance support, tracking down system error, etc.), and upgrading the IT infrastructure which leaves little available time to roll out new applications and services.

A top priority, when funding is available is to increase the staffing level of I.S. staff in supporting the adoption of new applications and services. This plan recommends an augmentation of an additional 6 positions. Refer to Table 22: on page 28.

### B. Assignments and Responsibilities

Below are the essential duties for the current and new positions in the I.S. organization.

**Application Staff**

**Essential Duties:**

- Assist users with day-to-day functionality issues;
- Develop and coordinate integration with other 3rd-party applications;
- Develop strategies for future improvements, upgrades, and expansions;
- Install software updates and patches;
- Manage security and access control;
• Work with vendor to resolve problems;
• Configure environment for reliability and performance;
• Troubleshoots and resolves application problems;
• Plan, develop, and implement security measures to safeguard infrastructure.

**Data Warehouse Staff**

**Essential Duties:**
- Design, implement, and maintain Datamarts;
- Upgrading, monitor, and troubleshoot the Data Warehouse System;
- Upgrade, test, and troubleshooting system integration tools;
- Determine data elements needed for extraction, validation, and cleaning;
- Resolve data integration and reporting problems;
- Provide information, technical direction and training to end-users;
- Evaluate and measure system performance and effectiveness;
- Analyze data and develop reports related to District-wide outcomes;
- Develop useful and more timely data and information;
- Plan, develop, and implement security measures to safeguard infrastructure.

**Database ERP Staff**

**Essential Duties:**
- Upgrade and maintain hardware equipment, software, and security protocols;
- Perform administrative duties for databases and applications;
- Plan, develop, and implement security measures to safeguard infrastructure interfaces;
- Perform technical programming to enhance existing applications and databases;
- Designs systems for database creation and integration;
- Assist other developers and analysts in developing and programming databases;
- Work with other members to solve enterprise interoperability and integration issues;
- Troubleshoots and resolves database problems;
- Analyze system and provide reports on average and peak performance usage.

**Desktop Staff**

**Essential Duties:**
- Install, configure, troubleshoot, and update supported hardware and software;
- Image, configure, and deploy new or redistributed computers and peripherals;
- Train and assist users on computer hardware and software;
- Conduct ongoing evaluations of computer use and needs;
- Establish standards for new acquisitions of computer hardware and software;
- Install, monitor, upgrade, and troubleshoot MCS servers;
- Assist with Helpdesk call activities;
- Troubleshoots and resolves database problems;
- Plan, develop, and implement security measures to safeguard infrastructure.
Helpdesk Staff

Essential Duties:
- Provide initial point of contact for user requests for support of desktop support;
- Provide troubleshooting services for end-users;
- Distribute calls based on request content to the appropriate IS group;
- Develop, design, post, and regularly update portal-based support documents;
- Assist users on using computer hardware and software equipment;
- Update knowledge-based information resources.

Management Staff

Essential Duties:
- Establish and maintain liaison and cooperative working relationships with end-users;
- Identify and initiate resolutions to user problems/concerns with I.S. technology;
- Coordinate with Vendors to maintain hardware and software infrastructures;
- Ensure I.S. security by following reasonable security practices;
- Respond to emergency calls as necessary regarding system failures;
- Assess the impact of new technologies on staffing and workload;
- Assess the impact of new technologies on end-users and workload;
- Lead project teams to install, maintain, and upgrade systems, hardware and software;
- Plan, schedule, monitor and coordinate project activities;
- Coordinate the design, operation, and testing of new systems, hardware and software;
- Work with other I.T. groups to ensure interoperability with current and new applications.

Network Staff

Essential Duties:
- Design network architectures and implementation strategies;
- Evaluate customer needs for existing and new systems/technologies;
- Evaluate data networking software and hardware offerings;
- Evaluate network performance capacity and compatibility with existing systems;
- Develop network standards and protocols including hardware and software;
- Monitor network traffic, usage, bandwidth, and performance;
- Perform analysis of network efficiency and routing of traffic;
- Plan, develop, and implement security measures to safeguard infrastructure;
- Install, configure, maintain, and support network equipment/operating systems;
- Troubleshoots and resolves data network problems.

PBX Staff

Essential Duties:
- Design telecommunication architectures and implementation strategies;
- Evaluate customer needs for existing and new systems/technologies;
- Evaluate telecommunication software and hardware offerings;
• Develop telecommunication standards including hardware and software;
• Plan, develop, and implement security measures to safeguard infrastructure;
• Install, maintain, and support telecommunication equipment/operating systems;
• Troubleshoots and resolves data telecommunication problems;
• Monitor telecommunication traffic, usage, bandwidth, and performance.

Server Staff

Essential Duties:
• Perform system administration tasks to ensure reliability and stability;
• Install upgrades to operating systems and applications;
• Develop plans and schedule routine server maintenance;
• Install, configure, upgrade, and patch operating systems;
• Create and maintain file shares and users accounts;
• Troubleshoot hardware and software operating environment failures and problems;
• Install, configure, monitor, and maintain backups for all administrative servers;
• Plan, develop, and implement security measures to safeguard infrastructure interfaces;
• Prepare and maintain records for all server resources;
• Make recommendations to selections of new hardware and software.

Trainer Staff (new)

Essential Duties:
• Develop and conduct formal training programs, videos, and self-guided tutorials;
• Provide training curriculum to support ongoing needs for the district community;
• Conduct business processes and workflow maps;
• Monitor and coordinate all district training efforts;
• Develop train-the-trainer programs;
• Evaluate and support the development of e-learning solutions.

Web / Portal Staff

Essential Duties:
• Assist users with day-to-day functionality issues;
• Maintain and develop the District web presence and SharePoint portal environment;
• Plan, develop, and implement security measures to safeguard infrastructure;
• Confer with end-users regarding desired enhancements and modifications;
• Perform technical programming to enhance existing applications and databases;
• Conduct research on emerging and converging development tools and strategies;
• Troubleshoot hardware and software operating environment failures and problems;
• Upgrade and maintain hardware equipment, software, and security protocols;
• Analyze system and provide reports on average and peak performance usage.
XX. **Responsibilities and Service Outcome**

The District’s role is to support the mission and functions of the colleges, ensuring a high standard of performance at all sites. However, as a multi-college District, there is always the need to define organizational roles within the system. The colleges have a long history of autonomy, supported in the Rules and Regulations of the Governing Board. As roles and responsibilities change, this document will be revisited and revised accordingly.

For each functional area, the document first shows those roles, responsibilities and service outcomes that are aligned for the colleges and the District Office. Those roles, responsibilities and service outcomes that are not aligned between the colleges and the District Office are shown below in red.

A. **District I.T. versus Mission College I.T.**
   
   *(Appendix 12)*

B. **District I.T. versus West Valley College I.T.**
   
   *(Appendix 13)*
XXI. Governance Structure

Why Governance?

Information Systems management has undergone evolutionary phases over the last ten years. In the days of mainframe computing, most of the decisions regarding information technology were made centrally, often through a data processing center. During this period, the selection of a specific hardware vendor dictated, in many ways, the software, processes, standards, and procedures that would be used within the district.

As technology changed, and as computing power moved out of a central administrative center to the desktops of end-users, decision-making regarding I.S. resource allocations and prioritization of IT initiatives became more complex and challenging. Consequently, concern grew on the part of institutional leadership about I.S. expenditures and initiatives. Of particular concern, was whether or not the I.S. administrative choices that were being made really represents decisions that are in the best interest of the institution rather than more localized interests.

What is Information Systems Governance?

Information Systems governance is the framework for defining how technology policies, resources, and priorities are established, deployed, managed, and enforced. Information Systems governance should be designed to achieve a partnership between the Colleges, Central Services, and the I.S. organization.

A. I.S. Governance Structure

There is no singularly “right” way to establish an IT governance. In order for a governance structure to be effective, it must reflect both the organizational culture and the technology needs of the Colleges and Central Services. Below are the I.S. Governance structures that have been established:

Executive Level Decision Making

At the primary decision-making level exists a VPs – I.S. Committee that includes the Vice Chancellor, Vice Presidents from the colleges, HR Manager, and I.S. Managers. This body is responsible for:

- Establishing and articulating district technology directions;
- Establishing technology priorities;
- Reviewing and approving proposed technology policies;
- Meeting accreditation standards.

Next, there exists the District Information Systems Advisory Committee (DISPAC), which is the district technology committee. This committee includes representative from both college technology committee, as well as faculty. This body is responsible for:

- Recommending district technology directions;
- Recommending technology priorities;
- Recommending proposed technology policies;
- Ensure alignment of the District Technology Plan with the College’s Technology Plan;
- Recommend equipment standards, policies, and procedures, including supported hardware and software;
- Ensure communication and coordination between District I.S. and College I.T.;
- Meeting accreditation standards.

**Advisory Committees and Working Groups**

Two functional standing committees, Data Warehouse Workgroup and Admission & Records Workgroup have been established to address specific items associated with operational and technology issues or needs.

**Task Forces**

Occasionally, it may be necessary for the district to establish an Ad-hoc Committee, Task Force, or Project Team to address specific issues or projects. Ad-hoc committees should be given specific, written charges, and should be convened for a specific period of time. It is important that the role, responsibilities, and time frames for these groups are clearly stated and that their work be carefully monitored to ensure that they work within the scope intended.

Also, I.S. management attends both colleges’ Technology Advisory Committee to stay abreast of current and future needs and any issues facing the colleges that needs to be resolved.
XXII. **Overview of Planning Process**

**A. Purpose of Planning**

In order to fulfill our mission of providing current and emerging technology, meeting accreditation standards, and compliance with regulatory standards in a timely manner, we must plan. In the Planning Cycle we can ask ourselves how well are we doing? What could we do better? How could we do better? The ACCJC indicates we plan and evaluate in order to improve institutional effectiveness. Standard III-C, Technology Resources states that we will use technology resources to improve institutional effectiveness and to support student learning and services; and that we will systematically plan.

**B. Steps in Planning, Sustaining, and Improving**

Evaluating or assessing is the first step in the cycle to establish how well we are doing with current technologies or to explore what new technologies could help us reach our goals. From that we create a plan or modify an existing plan to move us toward our goal or for improvement. Next is to train our staff and develop skills; create an environment where we can thoroughly test and develop the solution; implement the solution and finally we are ready to evaluate again and start our cycle over.

True sustainability means that we will be able to meet our current needs without jeopardizing our ability to meet future needs.

*Figure 2: Planning Cycle Diagram*
C. **Technology Sustainability**

When evaluating the sustainability of technology, several issues should be considered:

- Technology changes rapidly, as often as every 12 to 18 months. Hardware, software, support, and service may not be available or may need costly and frequent updates to remain secure and operational;
- Current trends must be evaluated for long-term effectiveness, support, and affordability;
- Staffing Resources needed to maintain and support technology must be included in technology strategies;
- Technology is an element in institutional and educational strategies, but it is not the entire solution. Instructional styles, student/employee skills and needs, infrastructure impact, and cost should be analyzed as part of an overall technology plan.

D. **Resources**

A strong technology strategy requires both Colleges as well as Central Services to allocate resources to maintain and update current technology, including fundamental desktop hardware and software support. Resources should also be identified to investigate, pilot, and implement emerging technologies, particularly those that show long-term viability.

External funding, including Federal and State grants as well as private foundations are an excellent way to fund technology-enabled initiatives, particularly start-up costs. WVMCCD should include new technologies in all grant budget requests.

E. **Future Goals**

Below is a short list of emerging technologies that has been identified for further investigation and potential funding that will provide successful outcomes at the Colleges and Central Services:

- Virtual Desktop Infrastructure (VDI);
- Server Virtualization;
- Voice-over-IP (VoIP);
- Teleconference technology;
- Cloud Backups;
- Cloud Storage;
- Student Emails
- Smart Phone interface for student self-service.
XXIII. **Current Technology Infrastructure – as of 2014**

WVMCCD has made significant gains in upgrading its technology infrastructure since 2006. Furthermore, WVMCCD has grown more purposeful in its planning and utilization of technology, sustaining established infrastructure while adding significant enhancements and new facilities. The current technology environment includes buildings, systems, applications, hardware, and software. In addition, WVMCCD has started the planning process for major projects that will be implemented over the next couple of years. To see the list and timeline of the major projects, see Appendix 30.

Below is the current state of WVMCCD’s technology infrastructures.

**A. Physical Infrastructure**

WVMCCD’s I.S. buildings at each college are monitored 7x24 by Sonitrol, Inc. The buildings are monitored for intrusion, sounds, and rising temperature in the Data Centers.

All authorized employees have access to the building using Sonitrol electronic key fob, which is tracked by the system. Keys to exterior doors are restricted to employees, except for Campus Police and Facilities.

All hardware equipment located in the Data Centers are on a server room-based Uninterruptable Power Supplies (UPS) system. In addition, the I.S. buildings are tied into an emergency generator that is activated within 7 seconds after a power failure to the building.

The Data Centers are equipped with a Halon fire suppression system. The Halon system requires evacuation of the room once it is activated, and fire resistant walls are installed in the Data Centers to prevent the spread of fire or of hazardous materials to other areas of the building. Fire extinguishers are in visible locations throughout the buildings and are clearly identified.

**West Valley College I.S. Building Infrastructure**

- Ground breaking for the new building was October 2007;
- Two-story 14,000 square feet;
- New network switch equipment;
- Equipped with wireless technology;
- New and improved HVAC and Server Room-based UPS systems;
- 250 KVA Backup Generator;
- Fire suppression FM-200 systems;
- Fire-Guard Media Safe (UL Rating 125°-1 Hr., fire and impact resistant);
- Offices, conference rooms, and training room;
- Data Center for housing critical servers (see Appendix 19);
- Consolidation of the Desktop group into the new building;
- Completion Date: March 2009;
- Moved into the new I.S. building - April 2009;
- See Appendix 17 for picture and layout of building.

**Mission College I.S. Building Infrastructure**

- Ground breaking for the new building was February 2011;
- Two-story 4,527 square feet;
District I.S. Strategic Plan

- 500 KVA Backup Generator;
- New network switch equipment;
- Equipped with wireless technology;
- Improved HVAC and Server Room-based UPS systems;
- Offices and conference room;
- Data Center for housing critical servers (see Appendix 20);
- New MPOE room for the AT&T and CENIC Internet equipment;
- Completion Date October 2011;
- Moved into the new I.S. building - November 2011;
- See Appendix 18 for picture and layout of building.

B. Network Infrastructure

One of the biggest challenges an educational institution faces is managing and maintaining its IT network infrastructure. The challenge also holds true for WVMCCD, where demands, both internal and external, continue to increase as more administrative functions and business processes are automated or web-based. A secure, reliable, 24x7 connection to the district network and Internet is a necessity. It is also important for the network infrastructure to be designed in a way that allows for scalability and growth. The district is mindful of its resources and continues to look for ways to maintain its network resources in a responsible manner, and it adopts proven technology rather than base its infrastructure on the latest fad.

WVMCCD’s network infrastructure is based on Hewlett-Packard network switching equipment, which manages the network traffic between the district operations centers and college’s departments over a redundant 40GB fiber backbone and a 50MB Opt-E-Man connection between the two colleges. An industry-accepted network management tool monitors WVMCCD’s equipment health, including traffic collisions, hardware outages, and application failures.

WVMCCD’s connection to the World Wide Web (WWW) is provided by the Corporation for Educational Network Initiatives in California (CENIC), which provides a 1GB network connectivity for both colleges, as well as a secondary circuit that serves as a backup should the primary circuit fail.

WVMCCD’s wireless network is based on Aerohive’s technology. Providing wireless access to the district and college networks is increasingly important as more mobile devices and laptop computers are used as learning tools, by faculty, staff, and students. Accessibility to a secure wireless connection will continue to expand in public areas, WI-FI hot spots, academic classrooms and other venues, such as the library, athletic fields, and administrative buildings as budget allows.

Below is a summary of the network infrastructure:

- Redundant network for both colleges;
- Converged network - supports the transmission of data, voice and video;
- 802.11A, B, G, and N Wireless network connectivity at both colleges;
- Dual 1GB connection (upload/download) to the Internet from CENIC (ISP Provider);
- 40GB network backbone;
- 10GB between buildings;
• 1GB speed to desktop;
• Opt-E-Man (50mb) circuit between the two colleges;
• 45 megabit DS3 backup circuit;
• Power-over-Ethernet (POE);
• Quality of Service (QOS);
• 90+ HP Network Switching equipment;
• 400+ Aerohive access points;
• 2 redundant Checkpoint Firewalls appliances;
• 2 redundant Infoblox Address Management systems (DNS, DHCP and IP);
• 2 redundant Bluecoat PacketShaper systems (Network traffic optimization);
• See Appendix 21 for West Valley College network layouts;
• See Appendix 22 for Mission College network layout;
• See Appendix 23 for combined layout of networks.

C. Telecommunication Infrastructure

WVMCCD has a dedicated Nortel PBX systems located at each college. The current phone system use traditional legacy technology, including analog and digital phone sets, voice mail systems, and leased circuits for inter-campus communication. Nortel filed for bankruptcy in 2009, and subsequently was acquired by Avaya. The current systems are reliable but costly to maintain, and will be phased out by Avaya in favor of their newer voice platforms.

During the past five years, more robust communications technologies have emerged in recent years that provide Unified Communications (UC). The new system will be based on Voice over IP (VoIP), with support of selected analog/IP connectivity for extended uptime in case of a prolong power outage. The new system will be phased into the campus in a controlled and gradual fashion. Because the College community does not typically accommodate a “big-bang” approach to technology deployment, WVMCCD expects that it may take many months to complete the transition from the legacy Nortel system to the new system.

Below is a summary of the telecommunication infrastructure:

• 2 Dedicated Nortel PBX Systems version 7.5;
• 1 Call Center located at Mission College;
• 2776 Active phone ports;
• 2000 Voice Mailboxes;
• See Appendix 24 for telecommunication infrastructure layout.

D. Server Infrastructure

District I.S. manages and maintains many of its technology services through a physical and virtual server environment. During the past year, I.S. has consolidated its physical servers into fewer numbers of servers through VMware virtualization technology.

WVMCCD will continue to invest toward the expansion of VMware Enterprise Server Virtualization. We will leverage the new infrastructure to handle rapid technological change – such as system upgrades, test, and the ability to offer new services quickly. In addition, we will be able to integrate Disaster Recovery (DR) and High Availability (HA) features for our ERP systems.
WVMCCD’s centralized storage solution is comprised of both storage area network (SAN) technology from HP and Hitachi.

Below is a summary of the server infrastructure:

- 1 HP EVA 8100 SAN that is 80 TB of Storage. (scheduled for replacement);
- 1 HP EVA 4000 SAN that is 40 TB of Storage. (scheduled for replacement);
- 1 Hitachi AM2300 SAN that is 50 TB of Storage;
- 72 stand-alone server: HP Blades servers, HP DL380, HP DL360;
- 40 Virtual servers;
- 1 HP Rx7640 (Ellucian Production server);
- 1 HP Rx4620 (Ellucian Test server);
- 1 HP MSL 6060 Ultrium 960 Drive Tape library;
- 1 HP MSL 6030 2 Ultrium 460 Drive Tape Library;
- HP SAN Switches.

E. Desktop Infrastructure

District I.S. currently supports about 1,200 staff/faculty desktop computers and laptops. The desktops are fairly evenly distributed between each campus especially when you factor in the district offices being at West Valley College.

District I.S. acquires, configures, and installs desktop computers for newly and continued budgeted FTE positions, and maintain the technology upgrade program for aging desktop computers and printers. Each scheduled technology upgrade is based on the minimum campus/District IS technology standards. These upgrades include Desktop computer and monitor, Software loadset, and Appropriate printing capabilities.

Each employee’s computer run on the Windows or Mac operating system, and feature Microsoft Office Suite, which includes Excel, Word, PowerPoint, and Outlook for daily computing needs.

Below is a summary of the desktop infrastructure:

- Kbox Desktop Management System (software distribution, patch management, imaging, and remote administration),
- 771+ Dell computers for faculty and staff,
- 95+ Mac computers for faculty and staff,
- 54 Konica Copier Printers;
- Basic Software loadset:
  - Operating System,
  - Internet Explorer,
  - Microsoft Office,
  - Ellucian – Staff,
  - Adobe Reader,
  - Apple Quick Time Player,
  - Windows Real Player,
  - Flash;
- Microsoft Office Suite;
- See Appendix 25 for Desktop figures.
XXIV. **Current System Infrastructure**

According to the California Community Colleges “Technology III Plan”, “Enterprise Resource Planning (ERP) systems integrate, or attempt to integrate, all data and processes of an organization into a unified system. A typical ERP system will use multiple components of computer software and hardware to achieve the integration.”2 This has proven true at WVMCCD in that we have several software and hardware systems that comprise and integrates into our ERP infrastructure (see Appendix 26).

Below is a summary of the current system infrastructure:

A. **Faculty/Staff Email**

**Product:** Microsoft Exchange  
**Version:** 2010  
**Description:**  
WVMCCD uses Microsoft Exchange 2010 as its primary form of electronic communication. The Microsoft Exchange email system provides key features which enhance the user collaboration experience such as address book, attachments, calendar, folder and subfolder option, search, and deleted item retention.  
**Future Plans:** Stay current with the latest versions.

B. **Student Portal**

**Product:** Microsoft SharePoint  
**Version:** 2010  
**Description:**  
The student portal (see Appendix 28) is built on a SharePoint 2010 platform that provides access to class registration system, current class schedule, financial aid information, and unofficial transcript, grades, units and GPA.  
**Future Plans:** Build out additional features and collaboration tools.

C. **Faculty/Staff Portal**

**Product:** Microsoft SharePoint  
**Version:** 2010  
**Description:**  
The faculty/staff portal (see Appendix 29) is built on a SharePoint 2010 platform that provides access to class roster, current class schedule, budget and purchasing information.  
**Future Plans:** Build out additional features and collaboration tools.

D. **Self-serve System**

**Product:** SARS Trak  
**Version:** 4.9.0  
**Description:**  
SARS Trak allows students to check in and out of service sites (labs, library, etc.) and record reasons for their visits. In addition, the system will register arrival and departure times.  
**Future Plans:** Integrate SARS Trak with Ellucian.

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2 CCCCO Tech. III Plan; Administrative ERP Information Systems, pp. 58.
E. Appointment Scheduling System

**Product:** SARS Grid  
**Version:** 4.8  
**Description:**
SARS Grid assists counselors in scheduling counseling, and assessment appointments. In addition, it will allow students to manage their own appointments.  
**Future Plans:** Stay current with the latest versions.

F. ERP System

**Product:** Ellucian (Datatel) Colleague  
**Version:** Release 18  
**Description:**
Ellucian Release 18 is a fully integrated solution for Admissions and Records, Financial Aid, Finance, and Human Resources. These solutions leverage the same comprehensive data to maximize departmental efficiencies by improving departmental workflows, business processes, productivity, and efficiency across the entire district. Ellucian is comprised of several UNIX and Windows servers, providing “near” 24/7 access via the WebAdvisor product.  
**Future Plans:** Migrate Ellucian to their latest Windows SQL platform.

G. Course Management System

**Product:** Angel  
**Version:** 8.0  
**Description:**
The Angel course management system is an Internet-based software application that is used for online course delivery. The Angel system is used for online curriculum, hybrid sections, and as supplemental to the traditional “brick-and-mortar” classes to meet the needs of both students and faculty to work inside and outside the classroom in ways that make sense to learning.  
**Future Plans:** Stay current with the latest versions.

H. Curriculum Management System

**Product:** CurricuNET  
**Version:** Meta  
**Description:**
CurricuNET is state-recognized software program that provides robust curriculum management that automates the process of curriculum development and approval. Once Course descriptions are approved by the State, they are then imported into Ellucian. CurricuNet holds the history while Ellucian holds the current descriptions.  
**Future Plans:** Integrate and automate the submission of courses and program proposals to the State Chancellor’s Office.
I. Online Application System

**Product:** CCC Apply  
**Version:** n/a  
**Description:**
Our online application solution was developed by XAP Corporation with the support of the State Chancellor's Office and used by many of the California Community Colleges. Ellucian has an integration solution to import the data into Ellucian.  
**Future Plans:** Add additional functionality to the process.

J. Room Scheduling System

**Product:** Ad Astra  
**Version:** 7.4  
**Description:**
Ad Astra is an interactive scheduling system that assists coordination of academic, event, and resource scheduling functions. Ad Astra is integrated with the Ellucian system and assigns classrooms based on criteria established by the Office of Instructions. The main criteria for assigning classes are: size of class and technology needed.  
**Future Plans:** Stay current with the latest versions.

K. Document Management System

**Product:** Laserfiche  
**Version:** 8.3  
**Description:**
Laserfiche is a document management system that is used throughout the district. Laserfiche captures paper and electronic documents and provides document storage, retrieval, security and archiving.  
**Future Plans:** Expand the service district-wide.

L. Business Intelligence Application

**Product:** Cognos  
**Version:** 10.0  
**Description:**
Cognos is a Business Intelligence Tool that is designed to support reporting institutional data. It works together with Ellucian and allows for standardized and ad-hoc reports to be created.  
**Future Plans:** Stay current with the latest versions.
XXV. **Backup Infrastructure**

The reliability of server equipment and server-based systems has increased dramatically in the past few years. System failures that occur can normally be diagnosed automatically and repaired promptly using both local and remote diagnostic facilities. Many server equipment contain redundant parts, which improve their reliability and provide continual operation when some failures occur.

The purpose of a backup infrastructure is to minimize the operational and financial impact of a server or system failure upon an organization in terms of understanding the needs and anxieties of customers and having a backup strategy appropriately structured to return the customers to their expected level of acceptable output in a timely fashion.

District I.S. Ellucian enterprise system is secured by a full back-up each night using the HP Data Protector software. Other Windows systems and data are secured by incremental back-ups each night using the Commvault software.

Back-ups are written to disk as well as tape, depending on the application and frequencies needed to access the information. Archiving is performed, which is dependent on the type of application and data. These archived data will be accessible through standard restore procedures from the appropriate backup tapes.

In the near future, data will be replicated between the two colleges across the network for failover and disaster recovery purposes.

Below is a summary of the backup infrastructure:

**A. Ellucian Enterprise System Backup**
- **Product:** HP Data Protector
- **Version:** 6.11
- **Description:**
  HP Data Protector is used specifically to back up the Ellucian environment.
- **Future Plans:** Stay current with the latest versions.

**B. Window-based Systems and Data**
- **Product:** Hitachi Commvault
- **Version:** 9.0
- **Description:**
  Hitachi Commvault is used to back up the Windows environments.
- **Future Plans:** Stay current with the latest versions.
XXVI. **Security and Safety Infrastructure**

The WVMCCD Data Center is no different than other data processing centers in attempting to plan for and prevent disruption from emergencies and virus attacks. From virus protection systems to network traffic protection systems, WVMCCD have installed controls hoping to reduce threats and minimize vulnerabilities. WVMCCD recognize the importance of security as a component of planning and IT infrastructure.

District I.S. must also comply with new and changing Federal and State regulations and Industry/Legal Standards, and must comply within the proper timeframe. Regulations that apply to the District are:

- **FERPA – Family Educational Rights and Privacy Act**
  Focuses on protecting the privacy of a student’s education records.

- **HIPPA – Health Insurance Portability and Accountability Act**
  Focuses on protecting patient health records.

- **GLBA – Gramm-Leach-Bliley Act**
  Establishes rights to privacy of the nonpublic information of students, faculty, staff, and alumni (some overlap w/ FERPA).

- **SOX – Sarbanes-Oxley**
  Focuses on more stringent financial reporting of publicly held institutions and tighter accountable by officers.

- **PCI – Payment Card Industry**
  Ensure that all companies that process, store or transmit credit card information maintain a secure environment.

The keys to a secure environment include:

1. Planning  
2. Security Tools  
3. System Updates  
4. Management Support  
5. Awareness  
6. Staffing  
7. Policies and Procedures  
8. Standards  
9. Monitoring and Assessment.

**Figure 3: Keys to a Secure Environment**
The overall objectives are to protect district resources, to safeguard the district's vital records for which District I.S. has become the custodian, guarantee the continued availability of essential computing services, and to ensure compliance with Federal and State regulations.

Below is a summary of the security and safety infrastructure:

A. **Mass Notification System**

**Product:** Everbridge  
**Version:** n/a  
**Description:** Everbridge allows the District to send emergency notification messages to all registered faculty, staff, and students during a crisis or emergency.  
**Future Plans:** Evaluate other notification systems with better integration with Ellucian.

B. **Public Safety System**

**Product:** Arms  
**Version:** n/a  
**Description:** ARMS is a law enforcement system that allows the campus police to respond, capture, and report incidents quickly and accurately, whether in the office or on a mobile device.  
**Future Plans:** Stay current with the latest versions.

C. **Enterprise Anti-Virus System**

**Product:** Symantec Protection Suite  
**Version:** n/a  
**Description:** WVMCCD uses Symantec Protection Suite as its primary virus protection solution for all desktop and server systems district-wide.  
**Future Plans:** Stay current with the latest versions.

D. **Messaging Gateway System**

**Product:** Symantec Brightmail  
**Version:** n/a  
**Description:** WVMCCD uses Symantec Brightmail as its primary inbound and outbound messaging security system. It is featured with real-time anti-spam and anti-malware protection, advanced content filtering, data loss prevention, and optional email encryption method.  
**Future Plans:** Stay current with the latest versions.

E. **Firewall System**

**Product:** Checkpoint Firewall  
**Version:** 75.40  
**Description:** WVMCCD uses Checkpoint Firewall. Checkpoint primary objective is to control the incoming and outgoing network traffic by analyzing the data packets and determining whether it should be allowed through or not, based on a predetermined rule set.  
**Future Plans:** Stay current with the latest versions.
F. Network Traffic Prioritization System

**Product:** BlueCoat PacketShaper  
**Version:** 75.40  
**Description:**  
BlueCoat PacketShaper prevents the unauthorized distribution of copyrighted material, and illegal applications being executed on the network. In addition, Blue Coat's packet shaping software will help deter the usage of illegal Point-to-Point software by controlling the bandwidth of both incoming and outbound services such as BitTorrent, Limewire and Gnutella, and re-prioritize the network traffic, giving higher priority to important content and restricting recreational downloads.  
**Future Plans:** Stay current with the latest versions.

G. Network Access Control (NAC)

**Product:** Bradford Network Sentry  
**Version:** 6.0  
**Description:**  
Bradford Network Sentry provides complete visibility and control of all users and devices on WVMCCD’s network to prevent unauthorized access and keep the network secure. Network Sentry registers and authenticates all users and their associated devices, monitors their access and network usage, and dynamically provisions role-based policies to ensure that users access only the resources they need to access.  
**Future Plans:** Stay current with the latest versions.
XXVII. Partnership Development

Partnerships are critical to the success of the District. I.S. will continue to develop partnerships with other vendors and Value-added Resellers (VAR) that will keep us abreast of leading and emerging technologies while helping us to provide innovative, cost-effective solutions for our stakeholders at the district and colleges.

Below are some of the vendors and VARS we have partnered with in helping us with our technology solutions.

**Hewlett Packard (HP)**
- Meet with the I.S. team bi-annually to discuss roadmaps and emerging technologies;
- Continues to extend their discount for the HP network equipment purchases.

**Dasher Technologies**
- Meet with the I.S. team quarterly to discuss emerging technologies;
- Provides consulting services at no costs;
- Manages HP renewals at no costs;
- Assist with resolving vendor’s technical issues on our behalf at no costs.

**Arcscale**
- Meet with the I.S. team quarterly to discuss emerging technologies;
- Provides consulting services at no costs;
- Manages Hitachi renewals at no costs;
- Assist with resolving vendor's technical issues on our behalf at no costs.

**Kore Technology**
- Established a “Royalties Partner Agreement” whereas the District will receive a percentage for the selling of the ODS integration package that is designed to build a Microsoft SQL Server Operational Data Store for the Ellucian Colleague R18 Unidata files.

**ECS**
- Meet with the I.S. team quarterly to discuss emerging technologies;
- Provides consulting services at no costs.
XXVIII. **Capital Construction Projects Support**

On June 7, 2012, the West Valley-Mission Community College District's Board of Trustees approved a resolution for the placement of a bond initiative on the June 5, 2012 Santa Clara County election ballot as Measure C. At the June election, the citizens of Santa Clara County approved the issuance of bonds totaling $350 million for construction and rehabilitation of facilities and technology infrastructure on the two community college campuses.

The I.S. Department provides multiple services related to the construction of new facilities. Services are coordinated with the colleges under the direction of Gilbane Inc., the company overseeing the bond construction management for the District. These I.S. services include, but are not limited to:

- Time and effort spent with the Architects and their subcontractors on the building specifications for technology infrastructure;
- Interviews of stakeholders to determine long-term technology needs;
- Input on bid specifications;
- Review of bid submittals;
- Meetings with general contractors and subcontractors to review and discuss details of the infrastructure;
- Review of work completed in conjunction with contract administration;
- Work with Purchasing and the colleges on equipment budgets and procurement;
- Equipment installation in facility (network, computers, phones);
- Assist with moves into the new facilities.

Numerous capital construction projects are in-progress, and will come to completion through 2020. I.S. will continue to provide services for all projects through completion, and will maintain the infrastructure after occupancy.

**Benefits:**

- All work conforms to District I.S. infrastructure standards;
- Ensure sufficient infrastructure for initial needs, and provide for growth;
- All new technology equipment and software is deployed to College and District standards.

**Resources:** Significant I.S. effort over multiple years; Funding from Measure C project budgets

**Timeline:** Projects will continue through 2020
XXIX. **College’s Innovation and Partnership Support**

Innovation and partnerships are critical to the success of the Colleges. District I.S. will continue to support the colleges as they develop partnerships with other vendors and local organizations in their drive for innovative uses of emerging technologies in support of learning and teaching. Below are some of the examples on how we are supporting the colleges with their innovation and partnership pursuits.

**Mission College**
- **MC²IT** - Is a non-profit Research and Design incubator lab that allows students and high tech partners to work together on back burner projects from the industry.

  **I.S. Support:**
  1) Collaborated with the college on the networking equipment needed;
  2) Worked with Facilities on the cabling specifications for the lab;
  3) Maintains the network equipment and connections for the incubator lab.

**West Valley College**
- **Saratoga Rotary Art Show** – A community event and fundraiser.

  **I.S. Support:**
  1) Provides the phone connections for the credit card equipment

- **Campbell Center** - The Campbell Center provides educational programs and services that meet the needs of Campbell residents.

  **I.S. Support:**
  1) Maintains the desktop and printer equipment, and connections for the Center.
XXX. **Accreditation - I.S. Supporting Evidence**

In the most recent accreditation self-study of Standard III-C (Technology Resources), the District I.S. has identified the following evidences to ensure that the college meets the accreditation standards related to technology resources.

**A. Standard III C1:**
The District Information Systems department maintains enterprise administrative systems, wide area network, desktop computers, and software acquisition to meet the academic needs of the colleges.

**Evidence:** I.S. Strategic Plan. **See:**
- [Current Technology Infrastructure – as of 2014](#), page 42;
- [Current System Infrastructure](#), page 46;
- [Helpdesk Staff](#), page 35.

**B. Standard III C1.a:**
The District Information Systems department maintains IT staff, data centers, enterprise servers, desktop computers, software acquisition, and helpdesk services to enhance the operation and effectiveness of the colleges.

**Evidence:** I.S. Strategic Plan. **See:**
- [Assignments and Responsibilities](#), page 33;
- [Physical Infrastructure](#), page 42;
- [Current Technology Infrastructure – as of 2014](#), page 42;
- [Current System Infrastructure](#), page 46;
- [Helpdesk Staff](#), page 35.

**C. Standard III C1.b**
The District Information Systems department works with HR to provide system training to District employees.

**Evidence:** See:

**D. Standard III C1.c**
The District Information Systems department systematically plans, acquires, maintains, and upgrades or replaces technology infrastructure and equipment to meet district-wide needs. This includes network, server, and computer equipment.

**Evidence:** I.S. Strategic Plan. **See:**
- [Current Technology Infrastructure – as of 2014](#), page 42

**E. Standard III C1.d**
The District Information Systems department maintains IT staff to support the development, maintenance, and enhancement of its programs and services.

**Evidence:** I.S. Strategic Plan. **See:**
- [Assignments and Responsibilities](#), page 33.
F. Standard III C2

The Vice Presidents-Information Systems Committee (VPs-I.S.) is a participatory governance committee that includes district and college stakeholders that ensure planning goals and objectives of the colleges are being met.

Evidence: I.S. Strategic Plan. See:
- I.S. Governance Structure, page 38;
- VPs - I.S. Agendas and Minutes.
Appendix 1  **Technology Prioritization Process**

Figure 4: **Technology Prioritization Process**
Appendix 2  **District Services Goals**

District Services Goals and Objectives
2012/13

1. Focus district services efforts on improving district/college infrastructure to support student learning programs and services.

   a. Software implementation  *(Lead: Information Systems)*
   b. Technology infrastructure  *(Lead: Information Systems)*
   c. Allocation Model  *(Lead: Vice Chancellor)*
   d. Position control process  *(Lead: Fiscal Services/HR)*
   e. Maintenance work order system  *(Lead: Maintenance)*
   f. On-line requisition system and Fixed Asset Management Module  *(Lead: General Services)*
   g. Access Control Management Security system  *(Lead: Facility/Public Safety)*
   h. Emergency preparedness/critical incident response  *(Lead: Chief of Police)*
   i. District Website Redesign  *(Lead: Public Affairs)*
   j. On-line giving tool  *(Lead: Advancement)*
   k. Facilities Bond Planning and Coordination  *(Lead: Vice Chancellor)*

2. Continue efforts to improve communications between district services and the colleges.

   a. Facility task group  *(Lead: Director, Maintenance/Facility/Construction)*
   b. CBO group  *(Lead: Vice Chancellor)*
   c. Monthly IS meeting with college VPs  *(Lead: Director IS)*
   d. Monthly IS/Facility updates to college councils  *(Lead: Director IS)*
   e. Monthly police/safety meetings with college presidents  *(Lead: Chief of Police)*
   f. Informational forums on district budget  *(Lead: Vice Chancellor)*

3. Continue efforts to increase energy efficiency and sustainability.  *(Lead: Maintenance/Facility/Construction)*

   a. Classroom lighting retrofit
   b. Parking lighting retrofit
   c. HVAC replacement/improvement
   d. LEED buildings and interiors

4. Maintain fiscal stability by managing cash flow to meet anticipated needs. Lead the District in maintaining a balance budget in the current year. Finalize the development of the 2012/13 Adoption Budget and developing the 2013/14 Tentative Budget.  *(Lead:
Vice Chancellor)

a. Compliance with state and federal laws and regulations and internal controls of financial reporting and procedures—outcome zero audit findings (Lead: Director, Fiscal Services)

5. Facilitate and ensure proper District Services and Chancellor’s Office participation in the ACCJC accreditation self-study process. (Lead: Special Assistant to the Chancellor)

a. Actively support the work of the District Joint Accreditation Steering Committee (DISJOINT), ensuring coordination of efforts and timely contributions to the preparation of the College self-studies.
Appendix 3  **Mission College Goals**

**Strategic Focus: Community Life, Outreach, and Marketing**

**Goal #1:** Increase the community’s understanding of the college, its value to the community, and its ability to meet the educational goals of students.

- **Objective 1.1:** Develop and implement a two-year marketing plan with identified ongoing funding that effectively communicates the value of the college to the community and prospective students, identifies additional sources of revenue generation, and includes in-reach and outreach strategies tailored for different target audiences.
- **Objective 1.2:** Develop an annual summary of outreach and marketing events and activities to inform the college and develop awareness for future involvement.

**Goal #2:** Create a sense of community and collaboration at all levels across the college.

- **Objective 2.1:** Develop an annual process to program events and activities for staff and faculty to connect and share resources and knowledge, e.g., brown bags and colloquia.
- **Objective 2.2:** Develop and create opportunities to increase interdisciplinary communication and collaboration, e.g., learning communities.

**Goal #3:** Advance Mission College’s visibility and service to the community.

- **Objective 3.1:** Improve access and increase the use of the Mission College campus facilities by community groups, business, K-12, and higher education.
- **Objective 3.2:** Develop a database of alumni and implement outreach strategies identified in marketing plan to improve participation and generate revenue.
- **Objective 3.3:** Increase number of partnerships with outside agencies through grants.
- **Objective 3.4:** Implement a community life program that provides opportunities for community members to engage with the college through a diverse array of college and community activities.
Strategic Focus: Curriculum and Program Improvement

Goal #1: Ensure that the college’s curriculum responds to the 21st century needs of our students and the community.

- Objective 1.1: Reevaluate and implement clearly defined pathways to facilitate goal completion in transfer, career technology education, and basic skills.
- Objective 1.2: Implement process for routine evaluation of existing course offerings and methods of instruction to identify additional general education online course offerings.
- Objective 1.3: Create “stackable” certificates within the college’s career education and technology programs that lead to transfer.
- Objective 1.4: Implement improvements in the curriculum design and approval process for improved efficiency and flexibility in addressing student and community need.

Goal #2: Increase the number of opportunities for students to transfer to a four-year institution.

- Objective 2.1: Develop and increase the number of degree options offered by the college, including those which fulfill SB 1440 requirements.
- Objective 2.2: Employ effective strategies to market the college’s transfer program.
- Objective 2.3: Explore a dual enrollment articulation agreement with Santa Clara University and other four-year institutions.

Goal #3: Increase the number of students who earn awards and transfer within Science Technology Engineering and Mathematics (STEM) disciplines.

- Objective 3.1: Increase the number of Science Technology Engineering and Mathematics (STEM) course offerings to meet the needs of students and the surrounding community.
- Objective 3.2: Provide targeted curricula and services to help students obtain basic skills necessary to successfully complete STEM degree and transfer programs.
- Objective 3.3: Identify additional funding sources to support and enhance the college’s STEM programs.
Strategic Focus: Economic Development and Sustainability

Goal #1: Provide market-responsive education, training, and services that are developed in conjunction with business, industry and community partners to address local workforce, economic and community needs.

- Objective 1.1: Identify additional funding, resources, facilities, and equipment to strengthen the college’s workforce and career programs and increase its self-sustainability.
- Objective 1.2: Design an internship program that effectively and efficiently links students with positions that match their career and/or academic area of study.
- Objective 1.3: Design a contract education program in concert with Mission College Center for Innovation and Technology (MC2IT).
- Objective 1.4: Attract and coordinate community events on campus as they pertain to training, education, and possible showcasing of career technologies.
- Objective 1.5: Create collaborations with local community colleges on Economic Development opportunities.

Goal #2: Establish Mission College as a community leader and partner for workforce and economic development in the region.

- Objective 2.1: Develop collaborative strategies and solutions for workforce transition through partnerships that leverage the expertise and entrepreneurial spirit of businesses, industry partners and workforce agencies.
- Objective 2.2: Develop and deliver flexible, responsive, short-term training programs in emerging industry sectors.
- Objective 2.3: Adopt new and innovative methods, delivery modes and technologies to respond to current and future workforce readiness needs.

Goal #3: Develop and implement a systematic and coordinated process for soliciting, evaluating and responding to workforce and economic development opportunities.

- Objective 3.1: Compile database of current and potential industry partners.
- Objective 3.3: Create linkages and partnerships between employers, job seekers, and community partners to our campus programs and services to provide clear transitions from workforce to career training and vice versa.
- Objective 3.4: Clarify and refine staff roles and responsibilities to develop an institutional culture of support to quickly respond to identified opportunities across disciplines.

Strategic Focus: Economic Development and Sustainability, cont.

Goal #4: Create a scheduling model which includes criteria for resource allocation model implications to ensure that college fiscal solvency equals enrollment solvency.

- Objective 4.1: Develop a 2 Year Core Schedule across all disciplines.
- Objective 4.2: Revise scheduling grid to maximize FTES generation, improve efficiency of facilities utilization, and improve responsiveness to student needs.
- Objective 4.3: Evaluate and revise the implementation of technological resources as they relate to procedures and processes for registration and enrollment.
Strategic Focus: K-12 and Higher Education Articulation and Partnerships

Goal #1: Strengthen collaborative partnerships with the local K-12 institutions to align programs and facilitate student matriculation to Mission College.

- **Objective 1.1:** Create a high school ambassador program which actively promotes programs, student activities and clubs to prospective students in the high schools.
- **Objective 1.2:** Provide specialized orientations to K-12 stakeholders for specific programs and disciplines.
- **Objective 1.3:** Implement opportunities for high school, middle school, and elementary school students to engage in real world experiences on a college campus.
- **Objective 1.4:** Establish summer and/or mid-year bridge programs that help high school graduates successfully transition to Mission College.
- **Objective 1.5:** Pursue a K-16 scholarship program that helps local students achieve their educational goals.

Goal #2: Establish collaborative partnerships with local universities to align programs and provide students with a seamless transfer experience.

- **Objective 2.1:** Improve and centralize transfer information presented online.
- **Objective 2.2:** Implement a faculty/student ambassador program that promotes collaboration between college and four-year institution faculty as well as partnerships with business and community organizations, such as internship programs and workshop opportunities.
- **Objective 2.3:** Develop opportunities for alignment across the K-16 systems, bringing together K-12 institutions, Mission College, and four-year institutions to develop a comprehensive strategy for addressing basic skills education and college readiness.
- **Objective 2.4:** Enhance process for the routine update and expansion of existing articulation agreements.

Goal #3: Expand and enhance collaborative partnerships with international communities to increase the global diversity of the college.

- **Objective 3.1:** Finalize details of revenue sharing with the District for the International Studies Program to enable future planning.
- **Objective 3.2:** Expand and enhance the International Studies Program and articulation agreements with international communities.
Strategic Focus: Leadership and Professional Development

Goal #1: Provide opportunities for all employees to receive professional development and skill building.

- Objective 1.1: Create, publish, and market an online yearly professional development calendar of training opportunities to improve skills and better respond to evolving student needs.
- Objective 1.2: Work with Academic and Classified Senates to develop an orientation and mentorship program for new/promoted faculty and staff, integrating them into the college’s culture, planning, and operations.

Goal #2: Promote leadership growth and participation in community and college activities from all college constituencies.

- Objective 2.1: Involve all constituencies to establish a collaborative leadership model that increases staff participation in college committees and governance.
- Objective 2.2: Develop a program that supports and recognizes community involvement for all faculty and staff.
- Objective 2.3: Increase college-wide participation in revenue generation through an orientation and training program for all faculty and staff to independently identify potential revenue sources and utilize the online donation site.
Strategic Focus: Student Learning, Completion, and Institutional Accountability

Goal #1: Facilitate student persistence, retention, and goal completion through effective student support and instructional strategies.

- **Objective 1.1:** Develop and implement student support and instruction programs which encourage innovation and flexibility, including models of accelerated learning, a First Year Experience program, an Honors Program, Supplemental Instruction, Project Based Learning, and integration of basic skills and ESL skills training in non-basic skills courses.
- **Objective 1.2:** Increase # of full-time students which to improve attainment of student goals.
- **Objective 1.3:** Implement a student tracking and follow up process that allows for the assessment of student progress toward transfer, degree, and basic skills goal completion.
- **Objective 1.4:** Increase percentage of Mission College students with 12 completed units who have an electronic Education Plan.
- **Objective 1.5:** Provide tailored intervention strategies to assist students who are struggling academically and prevent early dropout within the first two weeks of classes.
- **Objective 1.6:** Require students with deficiencies in college readiness and basic skills to participate in support resources in their first year.
- **Objective 1.7:** Assess and improve the college’s priority registration program to ensure that it is aligned with the college’s mission and promotes student academic progress in basic skills, ESL, CTE, degree and certificate attainment, and transfer.
- **Objective 1.8:** Ensure course offerings and scheduling support successful student degree completion in a timely manner (2-year schedule).

Goal #2: Implement ongoing institutional assessment and evaluation that supports student learning and completion.

- **Objective 2.1:** Fully implement Student Learning Outcomes Assessment cycles and Service Area Outcomes Assessment cycles at the course, program, and the institution to further improve institutional effectiveness at a minimum of a proficiency level.
- **Objective 2.2:** Establish a college-wide institutional effectiveness model and student success scorecard that is based on quantitative and qualitative data and linked to budget and planning.
- **Objective 2.3:** Develop and implement an integrated process of goal development, effectiveness evaluation, reporting, and planning as part of an annual training for all participatory governance committees.
- **Objective 2.4:** Identify a standardized process for department and service area discussion of student progress and achievement data and student learning or service area assessments.
- **Objective 2.5:** Meet accreditation standards to ensure that the college successfully completes the self-study process and is reaffirmed as a fully accredited institution.
Strategic Focus: Technology

Goal #1: Optimize technology to provide effective support for programs, services, and processes, with a focus on sustainability.

- **Objective 1.1:** Utilize technology to deliver student services to students primarily engaged in distance learning.
- **Objective 1.2:** Integrate a process to link Program Review and the Facilities Safety Committee to ensure priority consideration of technology within the facilities and infrastructure planning for classrooms and labs.
- **Objective 1.3:** Create and maintain, as appropriate, electronic storage and filing systems for the college.
- **Objective 1.4:** Transition and maintain, where appropriate, employee processes and documents to an online format.
- **Objective 1.5:** Leverage the use of technology in the college’s marketing and public relations activities and plans.
- **Objective 1.6:** Review and customize the look and format of the online Portal access points for student and for staff and faculty to ensure they meet the mission and needs of the college.

Goal #2: Identify and foster partnerships with technology organizations to keep the college at the forefront of technological advances.

- **Objective 2.1:** Develop partnerships to identify emerging technologies, implementation strategies, and opportunities to utilize technology to improve quality and efficiency in college operations.
- **Objective 2.2:** Develop partnerships to identify emerging trends and industry needs in technology for enhancement of programs, curriculum, and services.
Appendix 4 **Mission College Technology Goals**

**GOAL #1:** Optimize technology to deliver effective support for programs and services to students, faculty, and staff, with a focus on sustainability.

**Objective 1.1:** Utilize technology to deliver student services online.

**Objective 1.2:** Review and customize the look and format of the online Portal for students, staff, and faculty to ensure the Portal meets the mission and needs of the College.

**Objective 1.3:** Continue to utilize technology to deliver library and information resources to users on and off campus.

**Objective 1.4:** Transition and maintain, where appropriate, employee processes and documents to an online format.

**Objective 1.5:** Create and maintain, as appropriate, electronic storage and filing systems for the College. (faculty and staff)

**Objective 1.6:** Ensure that all faculty, staff and students have access to reliable and user-friendly enterprise technologies.

**Objective 1.7:** Maintain a high performance wireless service throughout the College.

**Objective 1.8:** Maintain an informative, accessible and compelling Mission College website.

**Objective 1.9:** Maintain accessibility, and whenever possible incorporate the principles of universal design, to instructional and administrative technology throughout the campus based on federal standards for accessibility, i.e., Section 508 of the Rehabilitation Act of 1973 and SB 105 Standards for Educational & Information Technology products and services.

**Objective 1.10:** Leverage the use of technology in the College’s marketing and public relations activities and plans.

**GOAL #2:** Empower faculty and staff to use technology.

**Objective 2.1:** Motivate faculty & Staff to use innovative technologies for collaboration and knowledge management.

**Objective 2.2:** Maintain a four-year Equipment Replacement Plan and Baseline Standards for faculty and staff computers and software.

**Objective 2.3:** Provide high quality and professional technical support services for computers on the administrative network.

**Objective 2.4:** Maintain high-performance administrative servers.

**Objective 2.5:** Provide faculty and staff the ability to maintain their department and individual pages on the College Website.

**Objective 2.6:** Maintain reliable email & calendar system for faculty and staff.
2.7: Provide training on office applications, and enterprise software.

GOAL #3: Provide and support comprehensive and emerging technologies for students and faculty in classrooms and laboratories.

Objective 3.1: Maintain a five-year equipment replacement plan for upgrading classrooms and labs (including a sustainability plan for surplus equipment).

Objective 3.2: Continue the development and expansion of smart classrooms throughout the College.

Objective 3.3: Maintain baseline standards for smart classroom and computer labs.

Objective 3.4: Maintain Mission College instructional labs and classrooms according to the five-year Equipment Replacement plan.

Objective 3.5: Provide high quality technical support for the instructional computers throughout the campus.

Objective 3.6: Maintain high-performance instructional servers.

Objective 3.7: Ensure priority consideration of technology within the facilities and infrastructure planning for all instructional areas, specifically classrooms and computer labs.

Objective 3.8: Provide emerging technologies for students and faculty in classrooms and laboratories.

GOAL #4: Maintain a significant technology-enhanced distance learning program.

Objective 4.1: Maintain a reliable up-to-date learning management system.

Objective 4.2: Promote the effective use of distance learning technology to enhance the learning and teaching experience for faculty and students.

Objective 4.3: Provide training for faculty on distance learning technologies including how to use the technology, how to design the instruction, and how to conduct mediated learning based on best practices.

Objective 4.4: Continue to research and acquire high-quality software and tools that enhance distance learning and teaching.

Objective 4.5: Provide high quality technical support for faculty and students that use the Learning Management System.

GOAL #5: Identify and foster partnerships with technology organizations to keep the College at the forefront of technological advances.

Objective 5.1: Develop partnerships to identify emerging technologies, implementation strategies, and opportunities to utilize technology to improve quality and efficiency in College operations.

Objective 5.2: Develop partnerships to identify emerging trends and industry needs in technology for enhancement of programs, curriculum, and services.
GOAL #6: Ensure efficient and effective use of technology through planning.

Objective 6.1: Prioritize and review the technology requests identified in Program Review.

Objective 6.2: Maintain an annual review process for the Technology Master Plan to continually address the current and future instructional needs of the College.

Objective 6.3: Develop a process to make sure grant related computer stations are institutionalized.
Appendix 5  West Valley College Goals

GOAL 1
Focus institutional efforts on improving pathways of support to aid in students’ identification and realization of their educational goals.

Objectives
a. Develop a comprehensive plan to reduce potential barriers to student success and goal attainment.
b. Develop and implement a plan to assess, promote, and strengthen student readiness for college-level coursework.
c. Create structured and intentional matriculation processes and systems extending from pre-application through goal attainment.

GOAL 2
Reduce disparity in student success across ethnic groups.

Objectives
a. Develop a campus action plan to address the achievement gap.
b. Write a Land Corp grant to form a relationship with USC’s Center for Urban Education.

GOAL 3
Organize and align resources to support and sustain an environment of academic excellence.

Objectives
a. Align technology and facility resources to support the college’s 2012 – 2013 goals, objectives, and implementation strategies.
b. Assess and create a staffing plan to address high need areas and support gaps.
c. Fund a broad professional development program through the collaborative leadership of the staff and faculty development coordinators/committees.

GOAL 4
Complete accreditation self study preparation by December 2013.

Objectives
a. Achieve ACCJC’s standard of sustainable continuous quality improvement for program review by Fall 2012.
b. Achieve ACCJC’s standard of sustainable continuous quality improvement for planning by Fall 2012.
c. Achieve ACCJC’s standard of proficiency for student learning outcomes by Fall 2012.
d. Engage in college-level dialog about and strengthen awareness of accreditation.
e. Complete draft accreditation self-study by June 2013.
f. Improve the curriculum review process to ensure currency, compliance with regulations, sound record keeping, and integration of standards of effective curricular practice.
Appendix 6 West Valley Technology Goals

Technology Plan
2014/15 – 2016/17

Strategic Goals

Near-Term Goals:
1. Migration from Angel LMS to alternative LMS
   1.1. Form Distance Education Task Force to identify LMS alternatives
   1.2. “Sandbox” test systems, Spring 2015
   1.3. Identify Evolving DE & Hybrid LMS standards
   1.4. Improve LMS responsiveness to student, faculty needs, especially mobile technology

2. Virtualization Technology
   2.1. Investigate Virtual Desktop Infrastructure (VDI) for classroom, offices
      2.1.1. Proof of Concept testing for VMWare, Citrix, Tegile, Nimble, “Zero system” thin client, and minimum OS clients
      2.1.2. Desktop “PC-over-Internet,” Application-only delivery, persistent vs non-persistent desktop integration
   2.2. Restructure Server “farm”
   2.3. Integrate overall virtual server system management
   2.4. Implement large-scale flash and hybrid disk storage management for virtual system support and VDI delivery
   2.5. Increase K-Box use
   2.6. Investigate solutions for student, faculty, and staff on- and off-campus computing resource access

3. Network Support Structure
   3.1. Improve WiFi penetration and coverage, multiple SIDs and café services in “public” vs “non-public” (e.g. Classrooms)
   3.2. Network support for VDI implementation
      3.2.1. Wired classroom implementation
      3.2.2. WiFi only, “flexible classroom” implementation

4. Technology refresh
   4.1. Computer Hardware replacement parameters
      4.1.1. Develop current system standards
      4.1.2. Viability of existing systems based upon ability to support current standards
      4.1.3. Compatibility of existing equipment vs new purchases to support VDI strategy
      4.1.4. Software library
         4.1.4.1. Consolidation of software library management
         4.1.4.2. “site” or “campus” licenses for widely implemented software
         4.1.4.3. Instructional and administrative software standards
   4.2. Multimedia standards
      4.2.1. Instructional multimedia support
      4.2.2. Instructor’s podium standard and enhanced configurations
      4.2.3. Streaming capacity planning and support

5. Document Management Strategies
   5.1. “Copiers as Document Acquisition Systems”
      5.1.1. Integrate copier strategy with document management strategy, including document acquisition, indexing, archiving, retrieval, and integration with ERP data recovery
5.1.2. Replace desktop inkjet/laserjet printers with multifunction copiers as printers via network interface
   5.1.2.1. Implement Equitrak system for print management from desktop systems, cost management
   5.1.2.2. “Follow me” printing capability
5.1.3. Remote job entry for Print Shop via PageDNA
5.1.4. Improve Print Shop job costing and print management

6. ERP Replacement
   6.1. Business Process Analysis for District recommendation
   6.2. Participate in ERP acquisition analysis
   6.3. Participate in ERP implementation
   6.4. Identify College-District Priorities
Appendix 7 **Hardware and Software Maintenance Budget**

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<td>Agenda Manager</td>
<td>Board Document System</td>
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<td>$11,940</td>
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<td>$14,997</td>
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<td>32</td>
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<td>Gig-A-Man Connection</td>
<td>$8,696</td>
<td>$7,084</td>
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<tr>
<td></td>
<td>Description</td>
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<tr>
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<tr>
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<td>ScanBook</td>
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<td>Data Protector</td>
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<td>InfoBlox Grid</td>
<td>IP &amp; DNS Auto Mgmt.</td>
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<td>Enterprise Backup</td>
<td>Library Backup API</td>
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<td>$4,097</td>
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<td>Kourier Integrator</td>
<td>ETL Tool (DW, Angel, etc.)</td>
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<td>$3,448</td>
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<td>Pay Phones</td>
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<td>$12,000</td>
<td>$12,000</td>
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<td>EasySpooler</td>
<td>Print Spooler Software</td>
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<td>$3,445</td>
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<td>SARS GRID</td>
<td>Appointment Scheduling</td>
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<td>$12,409</td>
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<td>Nextel Cell Phones</td>
<td>District Cell Phones</td>
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<td>$18,694</td>
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<td>Kbox</td>
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<td>$9,066</td>
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<td>Avaya PASS MC/WVC</td>
<td>Nortel HW/SW Licenses</td>
<td>$33,950</td>
<td>$56,684</td>
<td>$56,684</td>
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<tr>
<td></td>
<td>Nortel Service</td>
<td>PBX Maint. Support</td>
<td>$27,711</td>
<td>$23,571</td>
<td>$23,571</td>
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<tr>
<td></td>
<td>CCC Apply</td>
<td>Online Application Syst.</td>
<td>$22,518</td>
<td>$22,968</td>
<td>$23,418</td>
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<tr>
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<td></td>
<td>$1,126,716</td>
<td>$1,477,463</td>
<td>$1,613,928</td>
</tr>
</tbody>
</table>
Appendix 8  I.S. Organizational Chart

Figure 5: Staff Position Chart
# Application Group Supported Services

## Application Development

### Datatel Support

1. Assist users with day-to-day functionality issues
2. Configure environment for reliability and performance
3. Develop and coordinate integration with other 3rd-party applications
4. Develop strategies for future improvements, upgrades, and expansions
5. Install software updates and patches
6. Maintain and support the Datatel Finance module
7. Maintain and support the Datatel HR module
8. Maintain and support the Datatel Student module
9. Maintain and support the Datatel WebAdvisor (Student-Faculty-HR-Finance)
10. Maintain and support Datatel web-based User Interface (UI 4.x)
11. Maintain Unidata database integrity
12. Manage security and access control
13. Work with vendor to resolve problems

### Data Warehouse Support

14. Create complex reports for users
15. Create meta data for ease of use in reporting
16. Create/Publish data integrity edit reports
17. Insure integrity of data
18. Populate Data Warehouse data from Datatel

### Web Services Support

19. Install and configure Datatel portal
20. Maintain District website
21. Support infrastructure for District Website

### Reports Support

22. Coordinate with college departments on timing and data accuracy
23. Insure updates for district reporting are installed as necessary
24. Submit electronic files of District Reporting to State for MIS, 320, etc.

### General Support

25. Assist all IS groups in maintaining technology infrastructure
26. Assist colleges and district staff in technical evaluations of third party software
27. Manage application project priorities
28. Respond to work orders from users
## Appendix 10  **Desktop Group Supported Services**

### Micro-Computer Support

#### A) Asset Support
1. Analyze client’s topology using the Kbox appliance
2. Buy, build, and deploy cost effective N-computer hosts and clients
3. Coordinate equipment troubleshooting and repairs as necessary
4. Deploy imaging using Ghost server for standard desktops
5. Develop Citrix infrastructure for both hosts and clients
6. Maintain and support computers equipment
7. Maintain and support offsite location computer equipment
8. Maintain and support offsite location printer equipment
9. Maintain and support printer equipment
10. Perform Adds, Moves, & Changes for department & building moves
11. Perform equipment asset tracking
12. Promote Thin client & VMware Virtualization deployment
13. Provide minimum level of Security using End Point management by Symantec
14. Provide Printer Spooling Services - Printer Output Management Services
15. Provide vendor quotes for cost effective purchase of electronic equipment
16. Refresh client equipments with upgrades based on Performance indicators
17. Utilize Power management (WOL) for desktop service

#### B) Software Maintenance and Management Support
18. Perform Application distribution, installation, deployment, and problem resolution
19. Ensure License compliance & metering
20. Analyze minimum workstation Patch levels
21. Setup and support desktop applications

#### C) User Data Support
22. Establish, promote, and monitor Security strategies
23. Connect file shares, folders, home drives, investigating user rights and privileges
24. Conduct local document transfers & data recovery

#### D) User Management Support
25. Create, support, and defend guidelines relating to proper computing practices
26. Design and establish support standards and Service Level Agreements
27. Develop documentation and update web based content
28. Communicate user notifications for system changes and updates
29. Provide user Documentation & Training

#### E) HelpDesk / General Support
30. Assist with Administrative network connections
31. Provide document for services
32. Support print services, both for client and server
33. Respond to work orders from users
34. Support Active Directory accounts
35. Support email user accounts & support email client management
36. Surplus old computer and printer equipment
## Appendix 11  **Network & Communication Supported Services**

### Network Operations & Communication Services

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A)</strong></td>
<td><strong>Network Services Support</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Coordinate network cable installations with vendors</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Create and maintain Internet Protocol (IP) addresses</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Design and maintain network architecture</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Design and maintain the wireless network architecture</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Design and maintain virtual local area network (Vlan) architecture</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Maintain and support Citrix service for Datatel desktop clients</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Maintain and support Citrix service for SARS desktop clients</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Maintain and support network switch equipment</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Maintain and support offsite locations</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Maintain and support the core network routers</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Maintain and support the video over IP CODECs</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Maintain and support the video over IP gatekeepers</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Maintain and support the wired network</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Maintain and support the wireless network</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Maintain and support the access points</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Maintain the Intermediate Distribution Frame (IDF) closets</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Perform Adds, Moves, &amp; Changes for department &amp; building moves</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Provide and maintain network firewall support</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Provide network cable quotes</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Review designs of new and renovated building construction projects</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B)</strong></td>
<td><strong>Communication Services Support</strong></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Maintain and support telephone connections (moves, adds, and changes)</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Maintain and support the equipment for the Call Center server</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Maintain and support the telephone closets</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Maintain and support the telephone directory</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Maintain and support two PBX phone systems</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Maintain and support voicemail boxes</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Perform billing administration on AT&amp;T phone statements</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Review designs of new and renovated building construction projects</td>
<td></td>
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</table>
Appendix 12  **Server Operation Supported Services**

<table>
<thead>
<tr>
<th></th>
<th>Server Administration Support</th>
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</thead>
<tbody>
<tr>
<td>29</td>
<td>Provide and manage Domain Name System (DNS)</td>
</tr>
<tr>
<td>30</td>
<td>Provide and manage Dynamic Host Configuration Protocol (DHCP)</td>
</tr>
<tr>
<td>31</td>
<td>Perform server backups</td>
</tr>
<tr>
<td>32</td>
<td>Maintain and support server equipment</td>
</tr>
<tr>
<td>33</td>
<td>Maintain and support operating systems patches</td>
</tr>
<tr>
<td>34</td>
<td>Maintain and support application software patches</td>
</tr>
<tr>
<td>35</td>
<td>Provide data storage services</td>
</tr>
<tr>
<td>36</td>
<td>Provide Lightweight Directory Access Protocol (LDAP) support</td>
</tr>
<tr>
<td>37</td>
<td>Maintain and support the Datatel servers</td>
</tr>
<tr>
<td>38</td>
<td>Maintain and support the Exchange email servers</td>
</tr>
<tr>
<td>39</td>
<td>Maintain and support server account maintenance</td>
</tr>
<tr>
<td>40</td>
<td>Maintain and support the anti-virus gateway servers</td>
</tr>
<tr>
<td>41</td>
<td>Maintain and support the anti-virus gateway application</td>
</tr>
<tr>
<td>42</td>
<td>Perform password reset</td>
</tr>
<tr>
<td>43</td>
<td>Perform new account creations</td>
</tr>
<tr>
<td>44</td>
<td>Provide and manage Active Directory</td>
</tr>
<tr>
<td>45</td>
<td>Provide and manage MS SQL services</td>
</tr>
<tr>
<td>46</td>
<td>Provide and manage VMWare servers</td>
</tr>
<tr>
<td>47</td>
<td>Provide data backups for the Library systems</td>
</tr>
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</table>
Appendix 13 **District I.T. Roles versus Mission College I.T. Roles**

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>MISSION COLLEGE</th>
<th>DISTRICT INFORMATION SYSTEMS</th>
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</thead>
<tbody>
<tr>
<td>Administrative Systems</td>
<td>1. Administrative Systems, including faculty and staff office systems, are the responsibility of District IS.</td>
<td>1. Maintain/Support the Ellucian Colleague ERP System.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Maintain/support the Exchange Email System.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Ellucian SharePoint Portal System.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Maintain/Support Active Directory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Maintain/Support Ad Astra Scheduling Systems.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. Maintain/Support for SARS Grid system.</td>
</tr>
<tr>
<td></td>
<td>1. Stay current and provide support for the HR, Finance, &amp; Student modules.</td>
<td>2. Provide document storage to depts. as needed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Provide Email and calendaring services for all employees.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Provide document mgmt., collaboration &amp; communication options to users.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Validate &amp; assign users permission to district services.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Provide a secure connection to sensitive police data.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Support the connectivity between Colleague &amp; Ad Astra for the scheduling of classes &amp; events.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. Support the connectivity between Colleague &amp; SARS for the student’s ability to check in and out of college’s services.</td>
</tr>
<tr>
<td>Applications / Programming Support</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Distance Learning

| 7. | Maintain/Support the GoPrint system. Support for limited number of Department lab computers (such as GRDES). | classrooms & labs computers remotely. | 7. | Maintain the network infrastructure in support of the GoPrint system. | 7. | Network is available and reliable, providing 99.99% uptime. |

### Help Desk Services

| 1. | Support production of instructional materials for web distribution. | 1. | Students/Faculty needs are serviced. | 1. | Provide connectivity for the web distribution. | 1. | Network is available and reliable, providing 99.99% uptime. |
| 2. | Provide ANGEL media content storage. | 2. | Service is provided as needed. | 2. | Provide data extract for the ANGEL system. | 2. | Provide timely data feeds from Colleague. |

**Footprint Tech Helpline** –
- Provide trouble call services to instructors, staff for instructional lab, classroom, tutorial and student service access computers and A/V devices.
- Use as a service/support log for Instructional computer operations.

| 1. | Service is provided, available and expanded as needed. | 1. | Provide Help Desk services to college and district employees. | 1. | Service is provided during regular business hours. |

### Instructional Systems

| 1. | Maintain/Support Flash Media Content Servers. | 1. | Servers are available and reliable, providing 99.99% uptime. | 1. | Maintain the network infrastructure in support of the Flash Media Content Servers. | 1. | Network is available and reliable, providing 99.99% uptime. |
| 3. | Maintain/Support Echo Lecture Capture Processing and content storage server. | 3. | Servers are available and reliable, providing 99.99% uptime. | 3. | Maintain the network infrastructure in support of the Echo Lecture Capture Processing and content storage server. | 3. | Network is available and reliable, providing 99.99% uptime. |
| 4. | Maintain/Support NCAST Lecture Capture processing and content storage server. | 4. | Servers are available and reliable, providing 99.99% uptime. | 4. | Maintain the network infrastructure in support of the NCAST Lecture Capture processing and content storage server. | 4. | Network is available and reliable, providing 99.99% uptime. |
| 5. | Maintain/Support Instructional software lab servers. | 5. | Servers are available and reliable, providing 99.99% uptime. | 5. | Maintain the network infrastructure in support of the Instructional software lab servers. | 5. | Network is available and reliable, providing 99.99% uptime. |

### Instructional Technology

<table>
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<tr>
<th>Media Services</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3. Install/Maintain Classroom A/V technology.</td>
<td>3. Provide quality service.</td>
<td>3. Provide connectivity for the A/V system.</td>
<td>3. Network is available and reliable, providing 99.99% uptime.</td>
</tr>
<tr>
<td>4. Refresh Classroom A/V technology.</td>
<td>4. Refresh technology as needed.</td>
<td>4. Refresh A/V technology in the I.S. Building meeting rooms.</td>
<td>4. Replace A/V equipment as needed.</td>
</tr>
<tr>
<td>5. Conducts A/V technology training.</td>
<td>5. Provide quality training in a timely manner.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Network Services (wired/wireless)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Support department supplied tablets and other like devices used in an instructional role on the wired and wireless network.</td>
<td>1. Service is provided as needed.</td>
<td>1. Maintain the network infrastructure to support College I.T. services to departments and faculty.</td>
<td>1. Network is available and reliable, providing 99.99% uptime.</td>
</tr>
<tr>
<td>2. Maintain/Support the network backbone infrastructure (e.g. Firewall, Routing, Switching, ...</td>
<td>2. Maintain/Support the network backbone infrastructure (e.g. Firewall, Routing, Switching, ...)</td>
<td>2. Provide a reliable backbone network</td>
<td>2. Provide a reliable backbone network</td>
</tr>
<tr>
<td><strong>Server Operations</strong></td>
<td><strong>District I.S. Strategic Plan</strong></td>
<td><strong>Bandwidth shaping, and WAN Optimization.</strong></td>
<td><strong>that has a 99.99% uptime.</strong></td>
</tr>
<tr>
<td>-----------------------</td>
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<td>---------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>1. Maintain/Support DNS (Mission College servers Only)</strong></td>
<td><strong>3. Maintain/support the wireless network.</strong></td>
<td><strong>3. Provide a reliable wireless network for the district community.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>2. Maintain/Support WWW servers</strong></td>
<td><strong>4. Maintain network services (e.g. DHCP, DNS, etc.) internally and externally.</strong></td>
<td><strong>4. Allow computers to access the network in a fast &amp; efficient manner.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>3. Maintain/Support VDI Servers</strong></td>
<td><strong>5. Provide consultation for network installation projects including existing, new and remodeled buildings.</strong></td>
<td><strong>5. Provide quality service in a timely manner.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>4. Maintain/Support the HP Blades server environment.</strong></td>
<td><strong>6. Maintain/Support the Checkpoint firewall software.</strong></td>
<td><strong>6. Provide a reliable network by controlling the incoming and outgoing network traffic.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>8. Provide visibility of users accessing the wireless network.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Telephone Systems

1. **Provide/Maintain/Support Moves, Adds, and Changes for all telephone system users.**
   - Meets security standards.

2. **Provide/Maintain/Support voicemail accounts for all part time faculty.**
   - Meets security standards.

3. **Maintain/Support Automated Call Distribution Groups.**
   - Meets security standards.

4. **Maintain/Support Call Center Menus and functions.**
   - Meets security standards.

5. **Maintain/Support fax machine connectivity (legacy).**
   - Phone line is available and reliable, providing 99.99% uptime.

6. **Maintain/Support telephone directory for both campuses in an online form.**
   - Updated directory.

7. **Maintain/Support Classroom Phones.**
   - Support the EOC Coordinator with managing and testing the phones.

### Training

1. **Facilitate meetings, seminars, interviews, training content production.**
   - Service is provided as needed.

2. **Support Skype and CCC-confer services.**
   - Provide quality service in a timely manner.

3. **Maintain/Support videoconference hardware/facility.**
   - Provide quality service in use of the videoconference equipment.

4. **Maintain/Support Media Production support/Lecture Capture hardware.**
   - Provide quality service in use of the media production equipment.

5. **Provide training for ShoreTel VoIP telephone system.**
   - Technology training and support for employees is provided.

6. **Provide IS Support “Frequently Asked Questions,”**
   - FAQs are provided as needed.
<table>
<thead>
<tr>
<th>Questions</th>
<th>Web Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questions needed.</td>
<td>1. The content management system OU Campus is SaaS (software as a service) and all OU Campus software and hardware is handled by OmniUpdate, the vendor for OU Campus.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>2. Assign, create, and maintain OU Campus users, usergroups, and permissions.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>3. Maintain/Support the College Web and blogs Servers.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>4. Maintain and support the public facing website, missioncollege.edu including unassigned OU Campus pages, information architecture, supporting documents and graphics.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>5. Maintain/Support the Ellucian SharePoint Portal System.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>1. OU servers are available and reliable, providing 99.99% uptime.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>2. Efficient User maintenance of College website department/service-area pages</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>3. Provide college staff and faculty an environment to create their web &amp; blog pages</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>4. Provide marketing and external communication options to users</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>5. Provide document mgmt., collaboration &amp; communication options to users.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>1. Maintain the network infrastructure to support the OmniUpdate's OU Campus server software and hardware system.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>2. Maintain/support authentication to OU Campus.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>3. Maintain the network infrastructure to support the College Web and blogs Servers.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>4. Maintain/Support the District external web site</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>5. Provide document mgmt., collaboration &amp; communication options to users.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>1. Network is available and reliable, providing 99.99% uptime.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>2. Network is available and reliable, providing 99.99% uptime.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>3. Network is available and reliable, providing 99.99% uptime.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>4. Provide marketing and external communication options to users.</td>
</tr>
<tr>
<td>Questions needed.</td>
<td>5. Provide document mgmt., collaboration &amp; communication options to users.</td>
</tr>
</tbody>
</table>
### Appendix 14 District I.T. Roles versus West Valley College I.T. Roles

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Responsibilities</th>
<th>Service Outcome</th>
<th>Responsibilities</th>
<th>Service Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>1. Administrative Systems, including faculty and staff office systems, are the responsibility of District IS.</td>
<td>1. Maintain/Support the Ellucian Colleague ERP System.</td>
<td>1. Stay current and provide support for the HR, Finance, &amp; Student modules.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Maintain/support the Exchange Email System.</td>
<td>3. Provide Email and calendaring services for all employees.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Maintain/Support Active Directory</td>
<td>5. Validate &amp; assign users permission to district services.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Maintain/Support Ad Astra Scheduling Systems.</td>
<td>7. Support the connectivity between Colleague &amp; Ad Astra for the scheduling of classes &amp; events.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. Maintain/Support for SARS Grid system.</td>
<td>8. Support the connectivity between Colleague &amp; SARS for the student’s ability to check in and out of college’s services.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. Maintain/Support the Netscaler Remote Access system.</td>
<td>9. Provide a secure connection to access</td>
<td></td>
</tr>
<tr>
<td>Applications / Programming Support</td>
<td></td>
<td></td>
<td>restricted services remotely.</td>
<td></td>
</tr>
<tr>
<td>------------------------------------</td>
<td>----------------</td>
<td>---------------------------------------------------</td>
<td>---------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>1. Maintain/support Instructional Applications for: for all computer classrooms and labs; Library; Welcome Center; classroom instructional podiums and audio-visual system.</td>
<td>1. Students/Faculty instructional needs are serviced.</td>
<td>10. Maintain/Support the Symantec Brightmail System.</td>
<td>10. Provide a filter to block unwanted email spams.</td>
<td></td>
</tr>
<tr>
<td>2. Institutional Research collaborates with District I.S. on data fields for the Data Warehouse.</td>
<td>3. A collaborative process.</td>
<td>11. Maintain/Support IS Work Order System.</td>
<td>11. Provide an easy &amp; intuitive system to place a service ticket.</td>
<td></td>
</tr>
<tr>
<td>3. Institutional Research does the report writing against the Data Warehouse, using COGNOS and other ERP-based data systems.</td>
<td>5. Develop and provide requested reports as needed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. College-level customization for SARS provided by counseling and student support staff.</td>
<td>6. Students/Counseling needs are serviced.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Provide data extract for SARS, WVM-Alert, Angel LMS.</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Computer / Printer Services</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Maintain/Support Instructional classroom teaching console PC’s and Mac computers on the academic network.</td>
<td>1. Students/Faculty needs are serviced.</td>
<td>1a. Maintain the network infrastructure in support of the Instructional Applications.</td>
<td>1. Network is available and reliable, providing 99.99% uptime.</td>
</tr>
<tr>
<td>2. Maintain/Support Instructional computer classrooms and labs: Graphics; Library; Tutorial Center; DESP testing lab; Middle College on the academic network.</td>
<td>2. Students/Faculty needs are serviced.</td>
<td>1b. House the servers in the I.S. Data Center.</td>
<td></td>
</tr>
<tr>
<td>3. Provide classroom computer &amp; A/V support for college faculty and student-oriented systems within classrooms/labs.</td>
<td>3. Students/Faculty needs are serviced.</td>
<td>2. Maintain/Support the Data Warehouse system.</td>
<td>2. Ensure the timely data feeds from Colleague.</td>
</tr>
<tr>
<td>4. Manage Tech Refresh cycles of Classroom &amp; lab hardware and software update/replacement.</td>
<td>4. Replace computers every 4-5 years.</td>
<td>3. Maintain/Support the Cognos Business Intelligence Tools.</td>
<td>3. Maintain/Support current version of software.</td>
</tr>
<tr>
<td>5. Maintain/Support Digital signage computers.</td>
<td>5. To stay current.</td>
<td>4. Provide computer replacements for college and district employees.</td>
<td>4. Provide timely data feeds from Colleague.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6. Provide service and support for faculty and staff computers.</td>
</tr>
<tr>
<td>Distance Learning</td>
<td></td>
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</tr>
<tr>
<td>7. Maintain/Support the Pinnacle pay-to-print system.</td>
<td>7. Student access to document printing in library and other public access areas.</td>
<td>7. Maintain the network infrastructure in support of the GoPrint system.</td>
<td>7. Network is available and reliable, providing 99.99% uptime.</td>
</tr>
<tr>
<td>Help Desk Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Provide ANGEL media content support; Angel storage is provided as part of Angel hosting. Additional storage on local college servers.</td>
<td>2. Service is provided as needed.</td>
<td>2. Provide data extract for the ANGEL system.</td>
<td>2. Provide timely data feeds from colleague.</td>
</tr>
<tr>
<td>Instructional Systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Maintain/Support Lecture Capture Processing and content storage server: Accordant and Camtasia.</td>
<td>3. Servers are available and reliable, providing 99.99% uptime.</td>
<td>3. Maintain the network infrastructure in support of the Lecture Capture Processing and content storage server.</td>
<td>3. Network is available and reliable, providing 99.99% uptime.</td>
</tr>
<tr>
<td>Instructional Technology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Provide A/V design for new construction.</td>
<td>1. Guide development; manage design, installation, and service of classroom technology.</td>
<td>1. Maintain the network infrastructure in support of the new A/V design.</td>
<td>1. Network is available and reliable, providing 99.99% uptime.</td>
</tr>
<tr>
<td>3. Install/Maintain Classroom A/V technology.</td>
<td>3. Provide quality service.</td>
<td>3. Provide connectivity for the A/V system.</td>
<td>3. Network is available and reliable, providing 99.99% uptime.</td>
</tr>
<tr>
<td>4. Refresh Classroom A/V technology.</td>
<td>4. Refresh technology as needed.</td>
<td>4. Refresh A/V technology in the I.S. Building meeting rooms.</td>
<td>4. Replace A/V equipment as needed.</td>
</tr>
<tr>
<td>5. Conducts A/V technology training.</td>
<td>5. Provide quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media Services</td>
<td>Network Services (wired/wireless)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Maintain/Support Flash Media Content Servers.</td>
<td>1. Support department supplied tablets and other like devices used in an instructional role on the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Maintain/Support Echo Lecture Capture Processing and content storage server.</td>
<td>wired and wireless network.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Maintain/Support NCAST Lecture Capture processing and content storage server.</td>
<td>1. Service is provided as needed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Maintain/Support Studio &amp; field media production services.</td>
<td>1. Maintain the network infrastructure to support College I.T. services to departments and faculty.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Maintain/Support Cable Broadcast head end - cable media distribution.</td>
<td>2. Maintain/Support the network backbone infrastructure (e.g. Firewall, Routing, Switching, Bandwidth shaping, and WAN Optimization.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Provide Event Streaming.</td>
<td>3. Maintain/support the wireless network.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Provide ANGEL media content storage.</td>
<td>4. Maintain network services (e.g. DHCP, DNS, etc.) internally and externally.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Provide Institutional Training.</td>
<td>5. Provide consultation for network installation projects including existing, new and remodeled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Provide Instructional media production services.</td>
<td>6. Provide quality service in a timely manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Maintain the network infrastructure in support of the Flash Media Content Servers.</td>
<td>1. Network is available and reliable, providing 99.99% uptime.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Maintain the network infrastructure in support of the Echo Lecture Capture Processing and content storage server.</td>
<td>2. Provide a reliable backbone network that has a 99.99% uptime.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Maintain the network infrastructure in support of the NCAST Lecture Capture processing and content storage server.</td>
<td>3. Provide a reliable wireless network for the district community.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Provide connectivity for the Studio &amp; field media production services.</td>
<td>4. Allow computers to access the network in a fast &amp; efficient manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Maintain the network infrastructure in support of the Cable Broadcast head end - cable media distribution.</td>
<td>5. Provide quality service in a timely manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Service is provided as needed.</td>
<td>1. Network is available and reliable, providing 99.99% uptime.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Network is available and reliable, providing 99.99% uptime.</td>
<td>2. Provide a reliable backbone network that has a 99.99% uptime.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Network is available and reliable, providing 99.99% uptime.</td>
<td>3. Provide a reliable wireless network for the district community.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Network is available and reliable, providing 99.99% uptime.</td>
<td>4. Allow computers to access the network in a fast &amp; efficient manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Network is available and reliable, providing 99.99% uptime.</td>
<td>5. Provide quality service in a timely manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Network is available and reliable, providing 99.99% uptime.</td>
<td>1. Network is available and reliable, providing 99.99% uptime.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Maintain the network infrastructure in support of the Flash Media Content Servers.</td>
<td>2. Provide a reliable backbone network that has a 99.99% uptime.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Maintain the network infrastructure in support of the Echo Lecture Capture Processing and content storage server.</td>
<td>3. Provide a reliable wireless network for the district community.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Maintain the network infrastructure in support of the NCAST Lecture Capture processing and content storage server.</td>
<td>4. Allow computers to access the network in a fast &amp; efficient manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Provide connectivity for the Event Streaming.</td>
<td>5. Provide quality service in a timely manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Server Operations</strong></td>
<td><strong>Telephone Systems</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1. District I.S. Maintain/Support West Valley College DNS.</strong></td>
<td><strong>1. Provide/Maintain/Support Moves, Adds, and Changes for all telephone system users.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Allow servers to access the network in a fast &amp; efficient manner.</td>
<td>1. Provide quality service in a timely manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Maintain/Support WWW servers</strong></td>
<td><strong>2. Provide/Maintain/Support voicemail accounts for all part time faculty.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. WWW Servers are available and reliable, providing 99.99% uptime.</td>
<td>2. Provide quality service in a timely manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. VDI Servers are available and reliable, providing 99.99% uptime.</td>
<td>3. Provide quality service in a timely manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Maintain/Support the HP Blades server environment.</strong></td>
<td><strong>4. Maintain/Support the HP SAN environment.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Provide servers for district services that meets security standards.</td>
<td>5. Provide storage for district services that meets security standards.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. Maintain/Support the HP SAN environment.</strong></td>
<td><strong>5. Provide storage for district services that meets security standards.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Maintain/Support the Hitachi SAN environment.</td>
<td>6. Provide storage for district services that meets security standards.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6. Maintain/Support the Checkpoint firewall software.</strong></td>
<td><strong>6. Provide a reliable network by controlling the incoming and outgoing network traffic.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Provide a reliable network by controlling the incoming and outgoing network traffic.</td>
<td>7. Prevent the unauthorized distribution of copyrighted materials and software.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>7. Maintain/Support the Bluecoat packet shaper software.</strong></td>
<td><strong>7. Prevent the unauthorized distribution of copyrighted materials and software.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Prevent the unauthorized distribution of copyrighted materials and software.</td>
<td>8. Provide visibility of users accessing the wireless network.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>8. Maintain/Support the Bradford Network Access Control System.</strong></td>
<td><strong>8. Provide visibility of users accessing the wireless network.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Provide visibility of users accessing the wireless network.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups.</td>
<td>4. Maintain/Support Call Center Menus and functions.</td>
<td>4. Service is provided as needed.</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------</td>
<td>----------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Maintain/Support fax machine connectivity (legacy).</td>
<td>5. Phone line is available and reliable, providing 99.99% uptime.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Maintain/Support telephone directory for both campuses in an online form.</td>
<td>6. Updated directory.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Maintain/Support Classroom Phones.</td>
<td>7. Support the EOC Coordinator with managing and testing the phones.</td>
<td></td>
</tr>
</tbody>
</table>

**Training**

<table>
<thead>
<tr>
<th>1. Facilitate meetings, seminars, interviews, training content production.</th>
<th>1. Service is provided as needed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Support Skype and CCC-confer services.</td>
<td>2. Provide quality service in a timely manner.</td>
</tr>
<tr>
<td>3. Maintain/Support videoconference hardware/facility.</td>
<td>3. Provide quality service in use of the videoconference equipment.</td>
</tr>
<tr>
<td>4. Maintain/Support Media Production support/Lecture Capture hardware.</td>
<td>4. Provide quality service in use of the media production equipment.</td>
</tr>
<tr>
<td>5. Provide training for ShoreTel VoIP telephone system.</td>
<td>5. Technology training and support for employees is provided.</td>
</tr>
<tr>
<td>6. Provide IS Support “Frequently Asked Questions”.</td>
<td>6. FAQs are provided as needed.</td>
</tr>
<tr>
<td>7. Host Training at the IS Training Room (WV) and IS Conference Room (MC).</td>
<td>7. Hosted trainings are provided as needed.</td>
</tr>
</tbody>
</table>

**Web Services**

<table>
<thead>
<tr>
<th>1. The content management system OU Campus is SaaS (software as a service) and all OU Campus software and hardware is handled by OmniUpdate, the vendor for OU Campus.</th>
<th>1. OU servers are available and reliable, providing 99.99% uptime.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Assign, create, and maintain OU Campus users, usergroups, and permissions.</td>
<td>2. Efficient User maintenance of College website department/service-area pages.</td>
</tr>
<tr>
<td>3. Maintain/Support the College Web and blogs</td>
<td>3. Provide college staff</td>
</tr>
<tr>
<td>District I.S. Strategic Plan</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td></td>
</tr>
</tbody>
</table>

4. Maintain and support the public facing website, westvalley.edu including unassigned OU Campus pages, information architecture, supporting documents and graphics.

4. Provide marketing and external communication options to users.


4. Provide marketing and external communication options to users.


5. Provide document mgmt., collaboration & communication options to users.

and reliable, providing 99.99% uptime.

and faculty an environment to create their web & blog pages.
## Appendix 15 Technology Refresh Standards

<table>
<thead>
<tr>
<th>Information System Technology Refresh Standards</th>
<th>Expected Lifespan of Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equipment Type</strong></td>
<td><strong>Core Routers - at least 4 years, but not more than 7.</strong></td>
</tr>
<tr>
<td>1. Wired Network</td>
<td><strong>Switches - at least 6 years, but not more than 7.</strong></td>
</tr>
<tr>
<td>2. Wireless Network</td>
<td><strong>Access Points - at least 5 years, not more than 7.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Controller - at least 5 years, but not more than 7.</strong></td>
</tr>
<tr>
<td>3. Network Appliances</td>
<td>*</td>
</tr>
<tr>
<td>4. Uninterruptable Power Supply</td>
<td>*</td>
</tr>
<tr>
<td>5. Servers</td>
<td>*</td>
</tr>
<tr>
<td>6. Storage Area Network</td>
<td><strong>Storage Area Network - 4-5 years.</strong></td>
</tr>
<tr>
<td>7. Tape Storage Unit</td>
<td><strong>Tape Backup Library - 3-4 years.</strong></td>
</tr>
<tr>
<td>8. Computers</td>
<td><strong>Desktop Computer - 4-5 years.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Laptop Computers - 3-4 years.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Tablet / IPADS - Limited information, but typical refresh would be 3 years in order to keep up with technology</strong></td>
</tr>
<tr>
<td>9. Audio Visual</td>
<td><strong>Projector - at least 5 years or until it becomes too costly to repair.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Projector Screen - at least 10 years or until it becomes too costly to repair.</strong></td>
</tr>
<tr>
<td>10. Emergency Replacement (Unanticipated Costs)</td>
<td><strong>Disk Storage - Increase storage as data volume increases.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Equipment Repairs – Repair equipment as needed.</strong></td>
</tr>
</tbody>
</table>
Appendix 16  Computer Refresh Flowchart
Appendix 17  West Valley College I.S. Building

First Floor
Second Floor

- District Office
- Mgr Office
- Mgr Office
- Printer
- Office
- Office
- Applications Offices
- Work Rm
- Network Closet
- Conf Rm
- Lobby 2
- Storage
- Office
- Office
- Men Restroom
- Women Restroom
- Break Room
- Meeting Room
- Lobby 1
Appendix 18  Mission College I.S. Building
Appendix 19  West Valley College I.S. Data Center
Appendix 20 Mission College I.S. Data Center
Appendix 21 West Valley College Network Layout

Red – 40 Gigabit Redundant Backbone
Blue – 10 Gigabit Backbone
Appendix 22 **Mission College Network Layout**

**Red** – 40 Gigabit Redundant Backbone  
**Blue** – 10 Gigabit Backbone
Appendix 23 **WVM Combined Network Infrastructure**
Appendix 24 **Telecommunication Infrastructure Layout**
Appendix 25 Desktop Infrastructure

Figure 6: Types of Computers

Figure 7: Types of Operating Systems
Appendix 26 **WVMCCD ERP Systems Interfaces**

**EXTERNAL AGENCIES**

- **State Curricunet**
  - Course data

- **Curricunet**
  - Course data

- **St. County QSS**
  - Payroll

- **PCreators Benefits Administration**
  - Faculty and Staff Benefits

- **Parking Stickers**
  - Bogg Student Waivers

- **Barnes and Noble**
  - Section Book assignments

- **Veterans Affairs**
  - Veterans Benefits

- **Nat. Student Clearing House**
  - NSLC Rpt

- **Cal State Reporting**
  - MCTech

- **DEPT. EDUCATION**
  - Pell, ACG, FSEOG, FWS, FFEL

- **Santa Clara County Sheriff’s Office**
  - CLETS

- **Santa Clara ISD**
  - CJJC

**WVMCCD ERP Systems Interfaces**

**INTERNAL AGENCIES**

- **State Chancellors Office**
  - Curriculum MIS Student MIS

- **State Chancellors Office**
  - SV: Student Vettes, SD: Student Disability, SS: Staff details, EJ: Staff details

- **CCCApply**
  - Online Interface

- **WVM Exchange**

- **myWebServices**
  - Batch Interface

- **myWVM Portal**
  - Batch Interface

**DISTRICT WEBSITE**

- **Writing Lab**
  - Section Load

- **Student Active Directory domain**
  - Student Active Directory Accts

**WORK ORDER SYSTEM**

- **DataWarehouse**
  - Cognos Reporting

- **Informed Filler**
  - Contracts and Load Sheets

- **SARS**
  - Counseling contacts

**DIST. Lrng Fac Eval**

- **PBX System**
  - Telephone Management System

**INTERNAL AGENCIES**

- **Datatel Colleague**
  - Student Data
  - Financial Aid
  - Accnt Receivable
  - Accts Payable
  - Class Schedule
  - Finance Data
  - Purchasing
  - HR

- **Anole**
  - Anole – sqlized Colleague

- **Datatel Colleague**
  - DataWarehouse

- **KBOX**
  - Laserfische

**EXTERNAL AGENCIES**

- **WVM Assessment Center**
  - Student testing

- **MCTech**
  - Roster into for Labs

- **Writing Lab**
  - Student hour tracking

- **Tutor Track**
  - Student hour tracking

**INTERNAL AGENCIES**

- **State Chancellors Office**
  - CCCApply
  - Student applications

- **District Website**
  - Online Courses

- **Angel**
  - Alert system

- **EverBridge**
  - Alert system

**INTERNET AGENCIES**

- **myWebServices**
  - Student Data
  - Financial Aid
  - Accnt Receivable
  - Accts Payable
  - Class Schedule

- **Writing Lab**
  - Student hour tracking

- **Tutor Track**
  - Student hour tracking

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  - Alert system

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**INTERNET AGENCIES**

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  - Accts Payable
  - Class Schedule

- **Writing Lab**
  - Student hour tracking

- **Tutor Track**
  - Student hour tracking
Appendix 27  **MyWVM Portal**

MyWVM Login Page:
Appendix 28 Student Portal

Mission College Student Portal Site:

West Valley College Student Portal Site:
Appendix 29  **Staff/Faculty Portal**

Staff/Faculty Portal
### Appendix 30  **Timeline for Major Projects**

#### Table 23: Timeline for Major Projects

<table>
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<th>2014</th>
<th>2015</th>
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<td>2Q</td>
<td>3Q</td>
<td>4Q</td>
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<tr>
<td>West Valley College MPOE Relocation</td>
<td>Planning</td>
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<td>Ellucian SQL Migration – Phase 1</td>
<td>Planning</td>
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<tr>
<td>Ellucian SQL Migration – Phase 2</td>
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<td>Evaluating</td>
<td>Eval / Implement</td>
<td>70% Implementation completed</td>
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<tr>
<td>VDI for Staff Computers Pilot</td>
<td>Evaluating</td>
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<td>Eval / Implement</td>
<td>Eval / Implement</td>
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<td>Measure C Projects On-going Support</td>
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Appendix 31  Acceptable Use Policy

BP 3720  COMPUTER AND NETWORK USE

References:
   Education Code Section 70902;
   Government Code Section 3543.1(b);
   Penal Code Section 502;
   Cal. Const., Art. 1 Section 1;
   17 U.S. Code Sections 101 et seq.

Employees and students who use District computers and networks and the information they contain, and related resources have a responsibility not to abuse those resources and to respect the rights of others. The Chancellor shall establish procedures that provide guidelines to students and staff for the appropriate use of information technologies. The procedures shall include that users must respect software copyrights and licenses, respect the integrity of computer-based information resources, refrain from seeking to gain unauthorized access, and respect the rights of other computer users.

AP 3720 INFORMATION TECHNOLOGY USE

References:
   17 U.S. Code Sections 101 et seq.;
   Penal Code Section 502, Cal. Const., Art. 1 Section 1;
   Government Code Section 3543.1(b);
   Federal Rules of Civil Procedure, Rules 16, 26, 33, 34, 37, 45

The District Information Resources are the sole property of West Valley-Mission Community College District. They may not be used by any person without the proper authorization of the District. The Information Resources are for District instructional and work-related purposes only.

This procedure applies to all District students, faculty, and staff, and to others granted use of District information resources. This procedure refers to all District information resources whether individually controlled or shared, stand-alone or networked. It applies to all computing and telecommunication facilities owned, leased, operated, or contracted by the District. This includes non-District owned devices whenever such devices are connected to District networks or information resources. This procedure includes all electronic devices, wired and wireless, that are used to gain access to the District information technology equipment and resources.

Conditions of Use

Individual units within the District may define additional conditions of use for information resources under their control. These statements must be consistent with this overall procedure but may provide additional detail, guidelines, and/or restrictions.

Legal Process
This procedure exists within the framework of the District Board Policy, state and federal laws, collective bargaining contracts, and student code of conduct. A user of District information resources who is found to have violated any of these policies will be subject to disciplinary action up to and including, but not limited to, loss of information resources privileges; disciplinary suspension or termination from employment or expulsion; and/or civil or criminal legal action.

**Copyrights and Licenses**

Information Technology users must respect copyrights and licenses to software and other on-line information.

**Copying** – Technology and information resources protected by copyright may not be copied except as expressly permitted by the owner of the copyright or otherwise permitted by copyright law. Technology and information resources may not be copied into, from, or by any District facility or system, except pursuant to a valid license or as otherwise permitted by copyright law.

**Number of Simultaneous Users** - The number and distribution of copies must be handled in such a way that the number of simultaneous users within the District or any portion of the District does not exceed the number of original copies purchased or otherwise legally acquired by the District or any portion of the District, unless otherwise stipulated in the purchase contract.

**Copyrights** – In addition to software, all other copyrighted information (text, images, icons, programs, etc.) retrieved from computer or network resources must be used in conformance with applicable copyright and other law. Copied material must be properly attributed. Plagiarism of computer information is prohibited in the same way that plagiarism of any other protected work is prohibited.

**Fair Use** - Fair use explicitly allows use of copyrighted materials for educational purposes such as criticism, comment, news reporting, teaching, scholarship, and research. Rather than listing exact limits of fair use, copyright law provides four standards for determination of the fair use exemption:

- **Purpose of use**: Copying and using selected parts of copyrighted works for specific educational purposes qualifies as fair use, especially if the copies are made spontaneously, are used temporarily, and are not part of an anthology.
- **Nature of the work**: For copying paragraphs from a copyrighted source, fair use easily applies. For copying a chapter, fair use may be questionable.
- **Proportion/extent of the material used**: Duplicating excerpts that are short in relation to the entire copyrighted work or segments that do not reflect the "essence" of the work is usually considered fair use.
- **The effect on marketability**: If there will be no reduction in sales because of copying or distribution, the fair use exemption is likely to apply.

**Integrity of Information Resources**

Technology users must respect the integrity of technology-based information resources.

In making acceptable use of resources you are expected to:

- use resources only for purposes authorized by this procedure;
• protect your user ID, password, and resources from unauthorized use;
• access only information that is your own, that is publicly available, or to which you have been given authorized access;

Unacceptable use of resources may include but is not limited to:
• attempt to circumvent, subvert, or disable system or network security measures;
• engaging in activities that may lead to disrupting services;
• intentionally damage files or make unauthorized modifications to District data;
• download, make or use illegal copies of copyrighted materials, software, or music, store such copies on District resources, or transmit them over District networks;
• creation or display of threatening, obscene, racist, sexist, defamatory, or harassing material which is in violation of existing law or District policy;
• use of the District’s resources or networks for personal profit;
• installation of unauthorized hardware or software onto any District owned computer/network (the Information Systems Department or appropriate District authorized personnel is responsible for all installations, requests for exceptions should be sent to the Director of Information Systems)

Modification or Removal of Equipment
Technology users must not attempt to modify or remove technology equipment, software, or peripherals that are owned by others without proper authorization.

Unauthorized Use
Technology users must not interfere with others access and use of the District information resources. This includes but is not limited to: the sending of chain letters or excessive messages, either locally or off-campus; printing excess copies of documents, files, data, or programs, running grossly inefficient programs when efficient alternatives are known by the user to be available; unauthorized modification of system facilities, operating systems, or data storage systems and structures; attempting to crash or tie up District networks or information resources; and damaging or vandalizing District computing and telecommunication facilities, equipment, software or computer files.

Unauthorized Programs
Technology users must not intentionally develop or use programs which disrupt other technology users or which access private or restricted portions of the system, or which damage the software or hardware components of the system. Technology users must ensure that they do not use programs or utilities that interfere with other technology users or that modify normally protected or restricted portions of the system or user accounts. The use of any unauthorized or destructive program will result in disciplinary action as provided in this procedure, and may further lead to civil or criminal legal proceedings.

Unauthorized Access
Technology users must not seek to gain unauthorized access to information resources and must not assist any other persons to gain unauthorized access.
Password Protection - An information technology user who has been authorized to use a password-protected account on District systems or controlled by the District on other systems may be subject to both civil and criminal liability if the user discloses the password or otherwise makes the account available to others without permission of the system administrator. Users are required to change passwords as mandated by the District.

Unauthorized Access includes but not limited to:

- unauthorized use of another person’s system access, user ID, password, files, or data, or giving the use of one’s system, user ID, password to another individual or organization;
- attempt to disguise the identity of the account or computer you are using;
- attempt to gain unauthorized access to resources and data, including other’s passwords;

Abuse of Computing Privileges

Users of District information resources must not access information technology equipment and resources, or networks without proper authorization, or intentionally enable others to do so, regardless of whether the information technology equipment and resources, or networks in question is owned by the District. For example, abuse of the networks to which the District belongs or the technology equipment and resources at other sites connected to those networks will be treated as an abuse of District computing privileges.

Reporting Problems

Any defects discovered in system accounting or system security must be reported promptly to the appropriate system administrator so that steps can be taken to investigate and solve the problem.

Password Protection

A technology user who has been authorized to use a password-protected account may be subject to both civil and criminal liability if the user discloses the password or otherwise makes the account available to others without permission of the system administrator.

Usage

Technology users must respect the rights of other technology users. Attempts to circumvent these mechanisms in order to gain unauthorized access to a system or to another person’s information are a violation of District procedure and may violate applicable law.

Unlawful Messages – Users may not use electronic communication facilities to send defamatory, fraudulent, harassing, obscene, threatening, or other messages that violate applicable federal, state or other law or District policy, or which constitute the unauthorized release of confidential information.

Commercial Usage – Electronic communication facilities may not be used to transmit commercial or personal advertisements, solicitations or promotions (see Commercial Use, below).

Information Belonging to Others – Users must not intentionally seek or provide information on, obtain copies of, or modify data files, programs, or passwords belonging to other users, without the permission of those other users and the system administrator.

Rights of Individuals – Users must not release any individual’s (student, faculty, and staff) personal information to anyone without proper authorization.

User identification – Users shall not send communications or messages anonymously or
without accurately identifying the originating account or station.

Political, Personal and Commercial Use – The District is a non-profit, tax-exempt organization and, as such, is subject to specific federal, state and local laws regarding sources of income, political activities, use of property and similar matters.

Political Use – District information resources must not be used for partisan political activities where prohibited by federal, state or other applicable laws.

Personal Use – District information resources should not be used for personal activities not related to appropriate District functions, except in a purely incidental manner.

Commercial Use - District information resources should not be used for commercial purposes. Users also are reminded that the “.edu” domains on the Internet have rules restricting or prohibiting commercial use, and users may not conduct activities not appropriately within the those domains.

Nondiscrimination

All users have the right to be free from any conduct connected with the use of West Valley-Mission Community College District information technology equipment and resources, or network which discriminates against any person on the basis of BP 3410. No user shall use the District information technology equipment and resources, or network to transmit any message, create any communication of any kind, or store information which violates any District procedure regarding discrimination or harassment, or which is defamatory or obscene, or which constitutes the unauthorized release of confidential information.

Disclosures

No Expectation of Privacy – The District reserves the right to monitor all use of the District network and information resources to assure compliance with these policies. Users should be aware that they have no expectation of privacy in the use of the District network and information resources. The District will exercise this right only for legitimate District purposes including, but not limited to, ensuring compliance with this procedure and the integrity and security of the system.

Possibility of Disclosure – Users must be aware of the possibility of unintended disclosure of communications.

Retrieval – It is possible for information entered on or transmitted via computer and communications systems to be retrieved, even if a user has deleted such information.

Public Records – The California Public Records Act (Government Code Sections 6250 et seq.) includes information resource transmissions in the definition of “public record” and nonexempt communications made on the District network and information resources must be disclosed if requested by a member of the public.

Litigation – Information resource transmissions and electronically stored information may be discoverable in litigation.

Dissemination and User Acknowledgment

All users shall be provided copies of these procedures and be directed to familiarize themselves with
them.

A "pop-up" screen addressing the e-mail portions of these procedures shall be installed on all email systems. The "pop-up" screen shall appear prior to accessing the e-mail network. Users shall sign and date the acknowledgment and waiver included in this procedure stating that they have read and understand this procedure, and will comply with it. This acknowledgment and waiver shall be in the form as follows:

**Computer and Network Use Agreement**

I have received and read a copy of the District Computer and Network Use Procedures and this Agreement dated, ________________________, and recognize and understand the guidelines. I agree to abide by the standards set in the Procedures for the duration of my employment and/or enrollment. I am aware that violations of this Computer and Network Usage Procedure may subject me to disciplinary action, including but not limited to revocation of my network account up to and including prosecution for violation of State and/or Federal law.