Executive Summary

Lone Star College System (LSCS) is the fastest growing community college system in the country. Its mission is to provide high quality, affordable educational opportunities and services to its students so they can achieve their goals. Lone Star College offers a wide variety of courses and programs to suit individual student needs and we are known for our affordability and outstanding teaching.

The mission of the Office of Technology Services (OTS) is to provide exemplary services that promote student success, quality instruction, effective employees, and a thriving community. The purpose of the Lone Star College Information Technology Strategic Plan is to guide the direction, focus, alignment, investments and initiatives of OTS to achieve this mission. The plan is completed after the system wide Strategic Plan is finalized to ensure both documents align and advance the organization’s needs. This IT Strategic Plan provides a roadmap for technology decision making and initiatives at Lone Star College for the next three years. It takes into consideration current and projected academic and administrative technology needs and several potential futures as identified through a scenario planning process. Internally, the Office of Technology Services pursues a five-prong strategy to execute the plan:

Strategic Alignment
There are two types of Strategic Alignment initiatives. The first set derives from Lone Star College’s Strategic Plan and the campuses’ strategic plans for 2012-2015. All of the objectives have a technology component and are a joint effort between OTS and system and campus leadership. The second set reflects initiatives Lone Star College is pursuing at a system wide-level as identified by Executive Council. These objectives may have some overlap with those in the first set, but are sufficiently distinct to warrant inclusion as separate initiatives.

Service Excellence
These initiatives focus on enhancing and expanding existing OTS-provided technology services.

Innovation
These initiatives advance the organization in the innovative use of technology to meet Lone Star College’s unique challenges and needs.

Security
These initiatives strengthen Lone Star College’s security systems, processes and approach to identity management.

IT Foundation
These initiatives maintain Lone Star College’s award-winning infrastructure to ensure it meets organizational technology needs.

The IT Operations Framework described in the strategic planning process operationalizes this plan to achieve the strategic goals of Lone Star College and the Office of Technology Services.
Planning Process & Scope of this Plan

This Information Technology Strategic Plan was a collaborative effort involving faculty, staff, administrators and students. Feedback was collected through surveys, focus groups, advisory councils and a SWOT analysis. In addition, research from Gartner, Inc. and EDUCAUSE helped inform the plan. For the first time, OTS also used scenario planning as a method to capture potential futures and pathways to those futures (Appendix A). The scope of this plan is from 2013-2016.

The planning process generated a set of enterprise strategy documents consisting of an IT Strategy, an IT Strategic Plan and an IT Operations Framework. The purposes of each are described below.
IT Trends in Higher Education

The Office of Technology Services considers IT trends in higher education as part of its IT strategy. Gartner’s 2012 IT Market Clock (shown below) provides vital information on key technology asset commoditization and market life cycles.
IT Trends in Higher Education (cont.)

The below chart maps key technology assets presently in use, works in progress or under consideration at Lone Star College with Gartner information on current market life status and expected changes using the IT Market Clock. This information is considered when setting current and future strategies for deployment, sourcing and retiring key assets in Lone Star College’s technology portfolio.

LSCS Technology Assets & Gartner’s IT Market Clock Recommendations

<table>
<thead>
<tr>
<th>Technology Asset</th>
<th>Position on IT Market Clock</th>
<th>Next Steps</th>
<th>Status at LSCS</th>
<th>Gartner Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRM (Retention)</td>
<td>Advantage</td>
<td>Choice in 0 to 2 years</td>
<td>Under consideration</td>
<td>Emerging asset class, but with a high pace to next phase, should monitor closely or even invest soon if retention is a problem</td>
</tr>
<tr>
<td>HR (Cloud)</td>
<td>Advantage</td>
<td>Choice in 2 to 5 years</td>
<td>Currently in place</td>
<td>Can pick up pace. Very interesting for early adopters and institutions with mature sourcing strategies</td>
</tr>
<tr>
<td>Office Suites (Cloud)</td>
<td>Advantage</td>
<td>Choice in 2 to 5 years</td>
<td>WIP for students</td>
<td>Emerging turbulence around this asset class. Institutions should monitor TCO and interoperability as cloud services mature.</td>
</tr>
<tr>
<td>HPC (Cloud)</td>
<td>Advantage</td>
<td>Choice in 0 to 2 years</td>
<td>Currently in place</td>
<td>Quickly maturing. Cloud HPC should be considered for pilot projects now, in order to build experience.</td>
</tr>
<tr>
<td>Lecture Capture and Retrieval</td>
<td>Choice</td>
<td>Cost in 2 to 5 years</td>
<td>Currently in place</td>
<td>High-value asset class that should already have an established implementation plan.</td>
</tr>
<tr>
<td>CRM (Enrollment)</td>
<td>Choice</td>
<td>Cost in 0 to 2 years</td>
<td>Under consideration</td>
<td>An asset on trajectory to be a baseline service for most institutions. Consider investing if competition for students is high.</td>
</tr>
</tbody>
</table>

Key:  
- Gartner recommends action within 12 months
- Gartner recommends action within 24 months
- Recommendation is less urgent
## IT Trends in Higher Education (cont.)

LSCS Technology Assets & Gartner’s IT Market Clock Recommendations (cont.)

<table>
<thead>
<tr>
<th>Technology Asset</th>
<th>Position on IT Market Clock</th>
<th>Next Steps</th>
<th>Status at LSCS</th>
<th>Gartner Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAM (Organization-Centric)</td>
<td>Choice</td>
<td>Cost in 1 to 2 years</td>
<td>Currently in place</td>
<td>A key infrastructure asset. This should already be a part of the institution service catalog.</td>
</tr>
<tr>
<td>IAM (Federated)</td>
<td>Choice</td>
<td>Cost in 0 to 2 years</td>
<td>WIP</td>
<td>A key infrastructure asset. This should already be a part of the institution service catalog.</td>
</tr>
<tr>
<td>Mail (Cloud)</td>
<td>Cost</td>
<td>Replacement in more than 10 years</td>
<td>Under consideration</td>
<td>An obvious alternative sourcing model for an asset class that adds little differentiation possibilities.</td>
</tr>
<tr>
<td>LMS (Classic)</td>
<td>Cost</td>
<td>Replacement in more than 10 years</td>
<td>WIP</td>
<td>A key educational back-office asset. A relatively fast-moving market. Need to actively monitor the market for new delivery options and possible change in paradigm to a learning stack model.</td>
</tr>
<tr>
<td>Mail (Classic)</td>
<td>Cost</td>
<td>Replacement in 2 to 5 years</td>
<td>Currently in place</td>
<td>A critical asset, but not strategic. Consider moving to the cloud when current investments have depreciated, and resources can be put to good alternative use.</td>
</tr>
<tr>
<td>Office Suites (Classic)</td>
<td>Cost</td>
<td>Replacement in 2 to 5 years</td>
<td>Currently in place</td>
<td>A critical asset, but not strategic. Consider moving to the cloud when current investments have depreciated, and resources can be put to good alternative use.</td>
</tr>
</tbody>
</table>

**Key:**
- Red: Gartner recommends action within 12 months
- Yellow: Gartner recommends action within 24 months
- Green: Recommendation is less urgent
IT Trends in Higher Education (cont.)

Gartner’s 2012 Hype Cycle for Education was considered in the development of this IT strategy document.
IT Trends in Higher Education (cont.)

Gartner’s Priority Matrix for the Education 2012 Hype Cycle was also considered in the development of this IT strategy document.

### Benefit

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Years to Mainstream Adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than 2 Years</td>
</tr>
<tr>
<td><strong>Moderate</strong></td>
<td>E-Portfolios, Game Consoles as Media Hubs, Lecture Capture and Retrieval Tools, Mashups, Open-Source Portals, 802.11n, BYOD Strategy, E-Textbook, IT Infrastructure Utility, SaaS Administration Applications</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td></td>
</tr>
</tbody>
</table>
Summary of IT Strategy

The Office of Technology Services contributes to Lone Star College’s success by providing exemplary services that promote student success, quality instruction, effective employees, and a thriving community. It starts with guiding principles that inform decision making, includes policies, procedures and metrics to standardize operations and measure performance, and aligns spending and services with institutional needs. Our IT strategy to facilitate Lone Star College’s success is to:

- Provide an infrastructure that promotes growth and innovation
- Manage finances and resources well
- Rapidly respond to changing needs
- Facilitate classroom innovation initiatives
- Partner with campus leadership to ensure OTS provides appropriate services and to eliminate those that are no longer needed
- Successfully lead and manage projects
- Skillfully negotiate licensing agreements and vendor contracts
- Keep current on emerging technologies
- Attract and retain highly competent IT professionals with a multitude of skills

Strategies, Goals & Objectives

The OTS strategies, goals and objectives are grouped according to our five-prong approach. The corresponding Lone Star College System strategic goal and objective is listed with each OTS objective.

Strategy: Strategic Alignment

There are two types of Strategic Alignment initiatives. The first set derives from Lone Star College’s Strategic Plan and the campuses’ strategic plans for 2012-2015. All of the objectives have a technology component and are a joint effort between OTS and system and campus leadership. See Appendix B for a list of these objectives.

The second set reflects strategic initiatives Lone Star College is pursuing at a system wide-level as identified by Executive Council. These objectives may have some overlap with those in the first set, but are sufficiently distinct to warrant inclusion as separate initiatives.

Student Success Initiatives

- Implement changes to iStar generated through the Texas Completes initiative (LSCS 1.1.1)
- Complete Texas State Reporting initiative (LSCS 7.1.14)

Global Expansion

- Support global expansion effort through the use of appropriate technology tools and services (LSCS 8.1.1)
Strategies, Goals & Objectives

**Strategy: Service Excellence**

These initiatives focus on enhancing and expanding existing OTS-provided technology services.

**Enhance OTS communications**

- Improve external OTS website to streamline and simplify information needed by faculty, staff and students (LSCS 6.3.1)
- Reorganize and update OTS’ SharePoint website to enhance internal communications and collaboration (LSCS 6.1.1)

**Expand availability and use of self-service tools**

- Identify needs and develop additional self-service tools for customers (LSCS 6.3.3)
- Market availability of self-service tools and improve how customers find them (LSCS 6.1.2)

**Maximize the use of the online IT request system**

- Deploy system’s Project Management Module to improve OTS operations, project management and governance (LSCS 7.1.8)
- Evaluate and improve IT request system based on customer satisfaction surveys and institutional needs (LSCS 7.1.9)

**Enhance iStar training**

- Review and update iStar training documentation (LSCS 7.1.10)
- Streamline and simplify how customers access iStar training documentation (LSCS 7.1.11)
- Evaluate iStar training and improve based on customer feedback (LSCS 7.1.12)

**Improve document management**

- Evaluate print management services for ways to reduce costs and increase efficiency (LSCS 9.4.19)
- Evaluate document imaging systems for ways to reduce costs and increase efficiency (LSCS 9.4.20)

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**Strategy: Innovation**

These initiatives advance the organization in the innovative use of technology to meet Lone Star College’s unique challenges and needs.

**Maximize involvement of Technology Advisory Councils (TACs) in IT decision making**

- Revitalize Campus Technology Advisory Councils (C-TACs) to facilitate instructional technology innovation at the campuses (LSCS 9.4.1)
- Revitalize System Technology Advisory Council (Sys-TAC) to facilitate system wide technology innovation (LSCS 9.4.2)
- Enhance communication and collaboration among and between TACs to facilitate IT decision making (LSCS 9.4.3)
Strategies, Goals & Objectives

Strategy: Innovation (continued)

Improve Chancellor’s Faculty Technology Innovation Grant (CFTIG) process
- Review CFTIG submission, selection and implementation process and improve based on faculty and staff input (LSCS 7.1.13)
- Promote involvement of C-TACs in the identification of CFTIG proposal ideas (LSCS 9.4.5)

Encourage innovation in IT
- Implement a process that encourages LSCS staff to pursue innovative ideas involving technology (LSCS 9.4.6)
- Identify professional development opportunities for OTS staff to facilitate innovation in IT (LSCS 9.4.7)

Support campus-led innovation
- Collaborate with faculty and staff to increase the number of think-tank projects and pilots on campus (LSCS 9.4.8)

Strategy: Security

These initiatives strengthen Lone Star College’s security systems, processes and approach to identity management.

Expand Identity Management systems and procedures
- Deploy IT identity management system and procedures (LSCS 7.1.1)
- Collaboratively improve identity management policies and procedures in other departments that have a technology-related impact (LSCS 7.1.2)
- Evaluate feasibility of external Security Operations Center services (LSCS 7.1.3)

Update IT security documentation
- Revise and update the OTS Disaster Recovery and IT Service Continuity Plans (LSCS 7.1.4)
- Expand security-related standard operating procedures (LSCS 7.1.5)

Improve security procedures
- Review security procedures system wide and expand as necessary (LSCS 7.1.6)
- Develop IT security awareness campaign for faculty, staff and students (LSCS 7.3.1)

Strategy: IT Foundation

These initiatives maintain Lone Star College’s major systems and award-winning infrastructure to ensure it meets organizational technology needs.

Improve use of Enterprise Resource Planning (ERP) system
- Upgrade PeopleTools software (LSCS 9.4.9)
- Upgrade Finance Module to FSMS 9.1
- Implement EPM/OBIEE Modules

## Strategies, Goals & Objectives

### Strategy: IT Foundation (continued)

**Improve use of Enterprise Resource Planning (ERP) system**
- Develop architecture to support global expansion (LSCS 9.4.10)
- Install required upgrades, bundles and maintenance items (LSCS 9.4.11)
- Implement EPM/OBIEE Modules (LSCS 9.4.21)
- Upgrade Finance Module to FSM 9.1 (LSCS 9.4.22)
- Convert and/or archive all Colleague data (LSCS 7.3.2)
- Upgrade or replace document imaging system (LSCS 9.4.12)

**Extend IT Infrastructure/Network**
- Evaluate fiber optic network services (LSCS 7.3.3)
- Expand storage capacity to meet increased demand (LSCS 7.3.4)
- Refresh existing infrastructure to allow for continued growth and enhanced use of applications/services (LSCS 7.3.5)

**Enhance Private Cloud**
- Consolidate resources to maximize Return on Investment (ROI) (LCS 7.3.6)
- Expand file storage capabilities for faculty, staff and students (LSCS 9.4.13)
- Expand desktop and user virtualization (LSCS 9.4.14)

**Expand use of collaboration tools**
- Upgrade video conferencing systems and services (LSCS 9.4.15)
- Promote use of collaboration tools with faculty, staff and administrators (LSCS 9.4.16)

**Update current technology equipment standards**
- Complete annual replacement of end-of-life computers in use at Lone Star College (LSCS 9.4.17)
- Develop A/V standards for 2013-2016 for classroom technologies (LSCS 7.1.7)

**Enhance IT project management**
- Develop a Project Management Portfolio of IT projects (LSCS 7.1.15)
- Mature capacity management of resources and staff (LSCS 7.3.7)

**Implement a new Learning Management System (LMS)**
- Implement a new Learning Management System (LMS) in collaboration with LSC-Online (LSCS 9.4.18)
## Major Programs

<table>
<thead>
<tr>
<th>Year</th>
<th>Program</th>
<th>Value</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td><strong>Student Success Roadmap Initiatives</strong></td>
<td>Increase student success &amp; completion at Lone Star College</td>
<td>Requires enterprise-wide business process changes</td>
</tr>
<tr>
<td></td>
<td>Program: Implement ERP and business process changes related to admissions, advising, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td><strong>ERP System Upgrades</strong></td>
<td>Resolves current ERP issues and provides enhanced functionality</td>
<td>Limited resources and expensive</td>
</tr>
<tr>
<td></td>
<td>Program: Complete necessary upgrades &amp; enhancements to ERP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td><strong>Portfolio Project Management</strong></td>
<td>Ensures LSCS projects are on time, on budget and within scope</td>
<td>Organizational maturity to adopt formal project management</td>
</tr>
<tr>
<td></td>
<td>Program: Establish an enterprise project portfolio methodology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td><strong>IT Security &amp; Identity Management</strong></td>
<td>Simplifies, automates and strengthens IT account provisioning processes</td>
<td>Limited resources and dependent on other projects</td>
</tr>
<tr>
<td></td>
<td>Program: Strengthen IT security and identity management procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Mobility/Accessibility</strong></td>
<td>Provides customers with anytime, anywhere, any device access to resources</td>
<td>Limited resources</td>
</tr>
<tr>
<td></td>
<td>Program: Expand IT Infrastructure to support mobility and accessibility</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Risks & Issues

This diagram reflects the impact & likelihood of risks to this IT Strategic Plan with mitigation strategies.

- **Risk:** Difficult to recruit or retain talented IT staff due to highly competitive IT industry
  **Mitigation:** Work with HR to restructure classification and compensation structure

- **Risk:** Failure to establish IT Governance
  **Mitigation:** Strengthen existing relationships and communications

- **Risk:** Increased IT costs
  **Mitigation:** Centralized purchasing, standardization of equipment, elimination of redundancies, aggressive contract negotiations

- **Risk:** Project cost overruns, scope creep, failure to meet project objectives
  **Mitigation:** PM methodology

This diagram reflects the potential impact future events might have on this Plan.

- **Likely to generate more projects**
  - Successful Bond Referendum
  - Shared Services Growth

- **Likely to generate fewer projects**
  - Decreased State Funding
  - Decreased Enrollments
  - Continued Global Expansion

Lone Star College System IT Strategic Plan 2013-2016
Metrics

The Office of Technology Services uses a variety of metrics to measure progress and completion of the IT Strategic Plan. They include: Key Performance Indicators (KPIs) on system and service performance; surveys and focus groups on customer satisfaction; and milestone completion on projects. Communication of the same is provided to faculty, staff and administrators through dashboards, executive reports, updates in the monthly OTS newsletter, and face-to-face meetings.

Below is a sampling of the various metrics used by the Office of Technology Services:

Strategic Alignment
- Increase use of WebEx and Video Conferencing for administrative meetings (Goal 6: Enhance internal and external systems of communication, Objective 1: Promote electronic communications)
- Decrease number of successful phishing attempts among employees (Goal 10: Plan and manage sustainable quality growth, Objective 2: Strengthen security measures across system)

Service Excellence
- Improve customer satisfaction with external OTS website (Goal 1: Enhance OTS communications, Objective 1: Improve external OTS website to streamline and simplify information needed by faculty, staff and students)
- Decrease number of password resets calls to the Service Desk (Goal 2: Expand availability and use of self-service tools, Objective: Market availability of self-service tools and improve how customers find them)

Innovation
- Increase number of eligible CFTIG grant proposals 10% each year of Plan (Goal 2: Improve Chancellor’s Faculty Technology Innovation Grant process, Objective 1: Review CFTIG submission, selection and implementation process and improve based on faculty and staff input)
- Increase successful achievement of technical certifications by OTS staff 10% each year of Plan (Goal 3: Encourage innovation in IT, Objective 2: Identify professional development opportunities for OTS staff to facilitate innovation in IT)

Security
- Reduce number of duplicate IDs in ERP system (Goal 2: Enhance Identity Management systems and procedures, Objective 1: Deploy IT identity management system and procedures)
- Conduct disaster recovery exercise to test procedures (Goal 1: Update IT security documentation, Objective 1: Revise and update OTS Disaster Recovery and IT Service Continuity Plans)

IT Foundation
- Increase available storage capacity by 20% (Goal 2: Extend IT Infrastructure/Network, Objective 2: Expand storage capacity to meet increased demand)
- Increase number of projects delivered on time (Goal 5: Enhance IT project management, Objective 2: Mature capacity management of resources and staff)
Appendices
Appendix A: OTS Scenario Planning
Appendix B: Lone Star College’s Strategic Plan 2012-2015 Technology-Related Objectives
Appendix C: Project Management Portfolio 2013-2016

References
Lone Star College System Strategic Plan
Office of Technology Services IT Strategy
IT Operations Framework
Disaster Recovery Plan
OTS Communication Plan
Information Security Plan