FY 15-16 IT Services Accomplishments
Technology Innovation and Adoption is a Collaborative Activity

<table>
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<th>Accomplishments with Our Campus Partners</th>
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<td>Supplemental Application and Impaction Process</td>
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<td>Infrastructure: Wireless and Classroom Updates</td>
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<td>Finance</td>
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<td>Housing</td>
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<td>Television Upgrade to IP TV</td>
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<td>Student Academic Success Services</td>
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<td>Campus Safety: Phone Integration</td>
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<td>Digital Sign Integration</td>
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**Working Hand-in-Hand with Our Campus Partners to Deliver on SJSU’s Vision 2017 Priorities**
**Student Success Accomplishments — FY 15/16**

**Student Success Lifecycle Support***

**Admission/Pre-Matriculation**
- Deployed Supplemental Application & Impaction Processing automating admissions processing of Transfer Students for Fall 2016**
- Improved the business process for confirming Associate Degree for Transfers through the supplemental application
- Implemented Supplemental Application for student transfers — 2015 used by ~12k students, admitted ~8900 UDT students

**Orientation/Continuing Registration**
- Corrected Transfer Credit Rules for 11 community colleges
- Degree Audit/Academic Requirements Roadmap updated to current catalog
- Implemented College scheduler/MyScheduler to help students plan schedules — used by over 12K students
- VPN access added to enable off-campus student access, anytime, anywhere
- GradesFirst upgraded

**Grad Check/Graduation**
- Pilot Graduation Application (myGradApp) launched to automate graduation applications and allow faster posting of degrees following graduation
- Supporting Career Preparation — SJSU, IBM and GameStop sponsored a Hackathon event showcasing the coding expertise of 118 SJSU students
- SJSU Exam SSID locks down browsers to enable secure test taking — integrated into eCampus solution

**Alumni Networking**
- Pass newly graduated student data to new Alumni CRM system
- Created SJSU email accounts for Alumni and support University Advancements initiatives for engaging Alumni

* Accomplishments achieved through tight collaboration with our campus partners
** Deployed to upper division students only
“Most of our departments have responded to say that the supplemental courses for admissions have had a noticeable positive effect on the preparedness of our transfer students, and that many of them are on track to finish in two years.”

Jinny Rhee, College of Engineering Associate Dean, May 2016
Implemented technology improvements in 65 classrooms enabling wide screen viewing, simplifying interconnection with laptops and improving reliability

• Replaced more than 1,654 workstations and 2,000 monitors across campus
• Hundreds of ITS Services now running in virtualized environment (e.g., AtoG, SJSU1, SJSU.edu)
Building a Digital Campus —
Continued Classroom Modernization

Mobile HD Video Endpoints

• 17 large screen mobile TP systems are being piloted with positive results and feedback
  – 12 additional units 2016
• High Definition Video is primarily being used in classrooms for teaching purposes
  – Faculty are able to set up live video sessions in less than 5 minutes
• International reach to extend audiences
ITS has completed the rollout of Outdoor WiFi across 100% of the campus. This will enable:

- Athletics coaching tools
- Extending the classroom to outdoors
- Reducing networking costs of new buildings by eliminating wired networking buildout costs
  - ~$100k savings for Campus Village 2 Building by eliminating wiring costs
- EduRoam converged WiFi for all CSU guests

Outdoor and New Building WiFi
Campus Safety & Security — Accomplishments

Enabling safe, secure and reliable environment ensuring the safety and security of student, faculty, and staff

**Broadcast Solution**
- Enabled SJSU to send a broadcast message to office phones and speaker phones across campus
- Connected to 3,757 phones across campus
- 99.5% system uptime
- Infrastructure in place to integrate with digital signs (UPD)

**Rave Solution**
- Send emergency message via text and email to SJSU community
- Campus-wide capacity
- Example use case: CL building lockdown sent to cell phones via email and text warning community to stay away until further notice

**Silent Alert**
- Emergency contact button on desk phones to alert campus police to unsafe situation
- 3,990 VoIP phones
- Silently makes connection to UPD and turns on microphone to allow UPD to listen to the situation at that location

Campus Safety & Security — Enabling safe, secure and reliable environment ensuring the safety and security of student, faculty, and staff
Enhancing Information Security Across Campus

Information Security is the #1 Ranked Issue for Higher Ed (Educause 2016)

<table>
<thead>
<tr>
<th>Practice</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Information Security Standards</td>
<td>97%</td>
</tr>
<tr>
<td>Malware Threat App Deployed</td>
<td>92%</td>
</tr>
<tr>
<td>Security Audit Completed</td>
<td>78%</td>
</tr>
</tbody>
</table>
Enhancing Information Security Across Campus

Reasons why it’s #1:

• Provides a holistic, agile approach to building a secure network while minimizing exposure to security threats
• Strong information security practices provide a platform to create an agile and open application development capability
  – Reduced time to production for future applications
  – More adept to address dynamic academic/administrative needs
FY15/16 SJSU Information Security Has Delivered on These Top Priorities

Completed an intensive Information Security Audit mandated by the CSU System, leading to the following enhancements:

- Antivirus and patch management deployed across campus, on all devices, minimizing vulnerabilities of malicious software and hacking attack
- Consolidation of Active Directories tightens control of access to key SJSU applications
- Standardization of “hire to retire” information security procedures closes access cracks across valid user communities
- Encryption, log management, and record retention campus-wide standards to strengthen information security audit and control practices
Go Forward Vision
### Vision
Enable Student Success & San Jose State Innovation Across Campus

**Support SJSU’s Four Pillars of Student Success & SJSU’s Strategic Plan through innovative use of technologies and solutions for faculty, students and staff**

### Mission

**IT Strategies**

<table>
<thead>
<tr>
<th>Key IT Programs</th>
<th>Business Outcomes/Success Metrics</th>
</tr>
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<tbody>
<tr>
<td>MyGPS (My Graduation Pathway to Success)*</td>
<td>MyGPS application suite* deployed on time and under budget and used by 10K+ students</td>
</tr>
<tr>
<td>Centralized &amp; Secure Student Information</td>
<td>Student data warehouse as Single Source of Truth for Information driving retention and graduation rates</td>
</tr>
<tr>
<td>Analytics for Advising &amp; Course Scheduling</td>
<td>Reporting &amp; Analytical tools for student enrollment, admissions, bottleneck course ID &amp; advising</td>
</tr>
<tr>
<td>Enable Student Success Lifecycle Management</td>
<td>3x # of Admin automated workflows (10)</td>
</tr>
<tr>
<td>Building a Secure, Digital Campus</td>
<td>99.9% Safety Systems Uptime</td>
</tr>
<tr>
<td>Modernizing Academic Technologies</td>
<td>All SJSU users will set @sjsu.edu as their forward address in google mail</td>
</tr>
<tr>
<td>Academic Technology Continuous Modernization</td>
<td>CMS Security Request Process complete within 3 days of request</td>
</tr>
<tr>
<td>Relocating Disaster Recovery Location</td>
<td>Double Classroom Video Endpoints to 100 by 2017</td>
</tr>
<tr>
<td>Academic Technology Continuous Modernization</td>
<td>90% of the Classroom’s Technology will be &lt;4 Yrs Old</td>
</tr>
</tbody>
</table>

* MyGPS Application Suite: MyScheduler, MyRoadmap, MyProgress, MyPlanner, MyGradApp
Student Success —
Top Priority for Higher Ed

Higher Ed Institutions’ Faculty Importance of Student Success Solutions*

- Personalized support and information on your students’ progress toward their degree goals: 76%
- Guidance about courses students might consider taking in the future: 71%

Recent Educause survey of Higher Education Faculty found that over 70% believe there is significant value in solutions that assist students in managing their academic careers.

* “Top 10 IT Issues 2016: Divest, Reinvest, and Differentiate”, Educauseview, January 2016; N=336
Student Success — Top Priority for Higher Ed

Higher Ed Institutions with Student Success Applications*

- **68%** Degree audit
- **30%** Advising Center Management
- **30%** Academic Early Alerts
- **27%** Education Plan Creation/Tracking
- **16%** Course/Program Recommendations

*“Top 10 IT Issues 2016: Divest, Reinvest, and Differentiate”, Educauseview, January 2016; N=336

However, Student Success Advisement Applications are only deployed in less than 1 in 3 institutions, presenting a significant gap at most institutions today.
SJSU has the foundational technology to build upon and create Student Success Advisement Applications
Student Success – AtoG Self-Service Application Projects

**TODAY**
- Difficulty identifying at-risk students
- ADT inadvertently claimed or not matched with major
- Course availability may not meet demand
  - Transfer credit or test credit may not properly identify course pathway
  - Transfer students enter with credits that do not meet major requirements

**FUTURE**
- Analytics creating visibility into high risk students
- Algorithmic models to ensure proper ADT placement
- Data driven predictions of course demand
  - Analytics creating visibility into high-risk students
  - Transfer credit posted prior to enrollment
  - Algorithmic models to ensure proper ADT placement
  - Streamlined graduation approval process
- Post-matriculation transfer credits evaluated too late
- Insufficient tracking of student advising plans
- Complex and laborious to change majors
- Lack of course availability delays graduation
- Graduation delayed because of unknown requirements
- Lengthy grad application to approval process

* Working in tight collaboration with our campus partners
CSU-Fullerton is a public master’s university with an undergraduate enrollment of 33,000 students and a six-year graduation rate of 62%.

In 2013, CSU-Fullerton launched a five-year strategic plan with ambitious goals of narrowing the graduation gap for underrepresented minority students by 33% and raising overall graduation rates to 60%.

To accomplish this, Fullerton took an innovative approach that combined infrastructure changes, the addition of a new Graduation Specialist role empowered with a technology toolbox, and a focus on tech-enabled, scalable interventions:

- Student Success Dashboard
- SSC Platform
- Homegrown Advising Network Portal

"Amplifying the impact of new initiatives with technology to exceed strategic goals,” EAB, November 20, 2015
CSU-Fullerton Student Success — Case Example

Student Success Collaborative Application

Single dashboard for advisors to review student academic status:

- Summary of academic history
- View transcripts
- Explore major changes and risk level
- Set reminders
- Create watch lists
- Track advisement history
Single dashboard for advisors to review student academic status:

- Summary of academic history
- View transcripts
- Explore major changes and risk level
- Set reminders
- Create watch lists
- Track advisement history
Student Success Application — Where We Want to Go

Transfer Application — Student Success Solution Future Capability

1. Sum transferrable credits
2. Report progress toward gen ed, major, and elective requirements
3. Provide estimated time-to-degree
4. Quantify estimated cost-to-degree
5. Offer saved profile to track progress
6. Suggest course corrections to save time and money

Image Credit: Franklin University.
1. Sum transferrable credits
2. Report progress toward gen ed, major, and elective requirements
3. Provide estimated time-to-degree
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5. Offer saved profile to track progress
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Academic Technology
Continuous Modernization

Classroom Technology Initiatives

- Standardize a 4-year refresh cycle on technology in classrooms to reduce support costs, improve reliability and increase adoption.
- Next gen classroom technologies are moving to a single standard set of solutions (reduce maintenance costs, parts, etc.).
Academic Technology
Continuous Modernization

Lecture Capture and Media Streaming Initiatives

- Support the burgeoning demand on campus to simply capture, stream, store and view video from any device in a secure manner
- Create a unified approach to lecture capture and media streaming that provides a simple, robust user experience
Common Higher Ed Student Success Information Management Challenges

Lack of Integration Means Lack of Information

- **Advising staff** do not know whether students have attended tutoring sessions.
- **Advancement staff** do not know how to track students once they graduate.
- **Academic leaders** struggle with optimal course pathing for students.
- **Student success staff** cannot incorporate pre-enrollment data into student risk models.

Source: “Towards the Student-Centric Campus”, The Advisory Board Company, 2015
Common Higher Ed Student Success Information Management Challenges

Institutional Data Management: Maturity Status

- **Our data are standardized to support comparisons across areas inter-institution**
  - 36%

- **Our data are standardized to support comparisons across areas intra-institution**
  - 44%

- **We have policies that specify rights and privileges regarding access to institutional and individual data**
  - 68%

Lack of integrated, standard data impacts:

- Timeliness and predictive course demand capability
- Analytical data-driven student advisement

SJSU Student Success – Decision Support  
Data Foundation for Academic Advisement

- Enabling Student Success requires a unified, consistent and institutionalized set of data definitions and business rules creating actionable data for E-Advising
  - Identify students close to graduation
  - Identify academic high risk students and connecting them with support services
  - Identify students who have not completed gateway course, or the STEM core, on the expected schedule
- Better class capacity planning for bottleneck courses (exposure and prediction of course demand)
- Timely profiling analysis of Students for Enrollment Services
- Enhanced data timelines of ERS reporting to CSU
- A sustainable, adaptive Business Intelligence capability that can be refined to meet SJSU academic and administrative needs
- Student level data to appropriate parties in a secure environment providing robust tools for reporting, dashboards, analytics, and queries

SJSU Data Warehouse Solution

- SAMI (Student Affairs)
- College Scheduler
- CMS (PSFT)
- LMS (Canvas)
- Ad Astra
- Database
Automating Administrative Workflows and Augmenting Digital Documentation

Immediate Deployments

• Finance and Enrollment Services — create a more efficient and scalable process

Future Opportunities

• Undergraduate Admissions — improve the efficiency of posting transfer credit; automate the transcripts process
• Graduate Admissions — automate the application process end-to-end (e.g., streamline the two-tier admission process with greater automation, request to change major) with a checklist status tool
• Office of the Registrar — convert over 1 million documents and assist in advanced process reporting
• Financial Aid — verification assists in financial aid process improvements, accelerating financial aid awards during the admissions window
• Graduate and Undergraduate Programs
• Human Resources
Future Technology Enhancements to Campus Security

• Augmenting the current network of 50 digital signs to 100
  - To be integrated with broadcast emergency system by UPD

• Extending the use of Digital Camera Security System beyond the current 90 cameras across campus

• Integrating the Broadcast & Rave solutions will maximize the speed and reach of emergency messages across campus

• Broadcast system is being:
  - Integrated with existing PA systems already resident in buildings across campus. i.e., Student Union, Gymnasium (future funding required)
  - Enhance with speaker to address class room building (future funding required)
Thank You!