

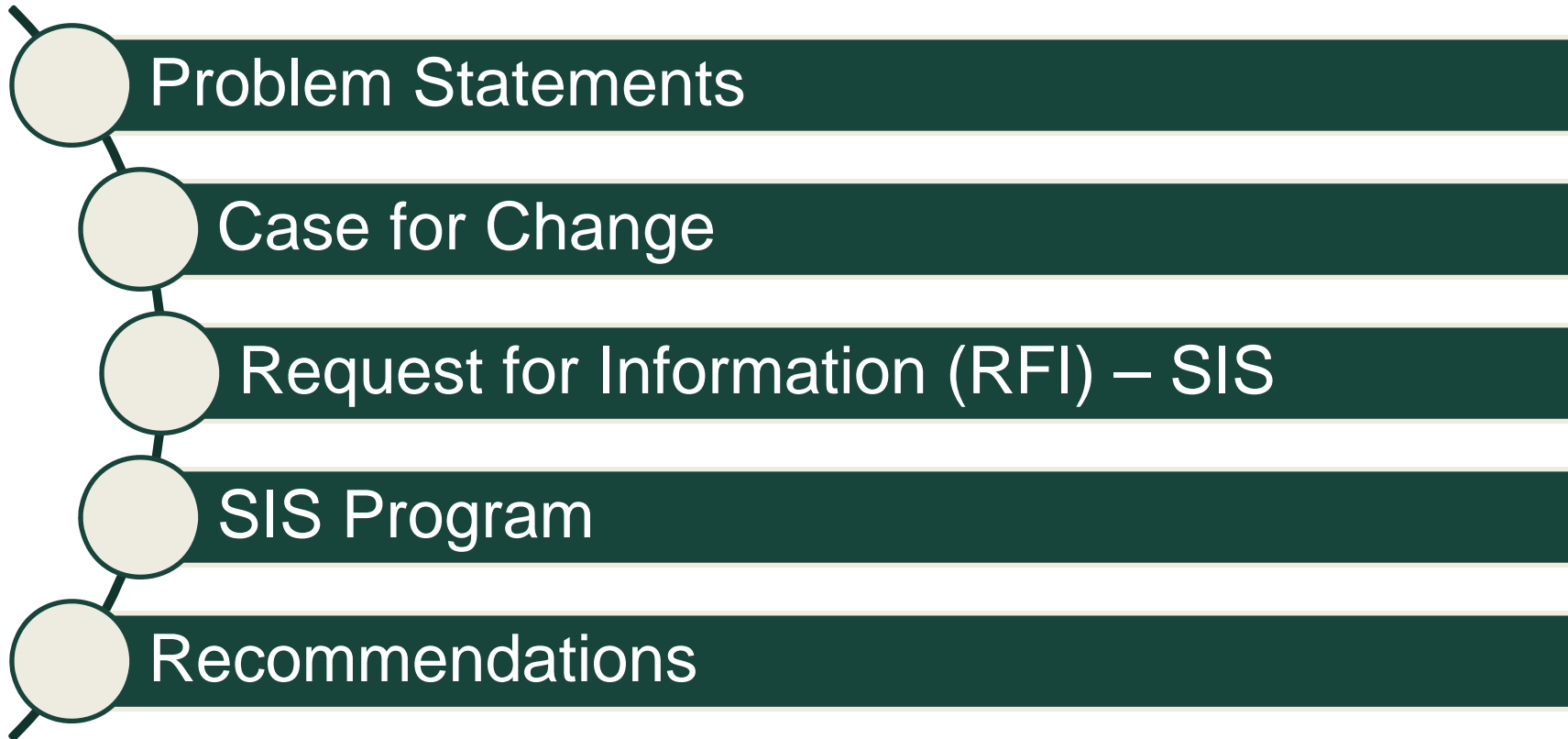
MACRAO CONFERENCE-2018

Student Information Systems (SIS)—Present and Future: the Good, the Bad, the Ugly

November 16, 2018



Agenda



Problem Statements

Problem Statements

1. Student Experience is the principal differentiator for higher education institutions. Many students believe their journey is **highly fragmented** and **lacks personalization**.

2. Systems to measure, support, and enhance student success are **not integrated and limit** the ability to be implemented and utilized holistically.

3. Decision makers find it **difficult** to extract and use actionable data, **inhibiting** strategic planning and daily operations.

4. MSU's SIS has become a portfolio of legacy technologies that do **not adequately support current business needs**

5. Many applications are past **end of life**. 50% of MSU staff, who are critical resources supporting SIS, are **retirement eligible** posing a significant risk to maintaining our current system.

SIS Portfolio – Pain Points

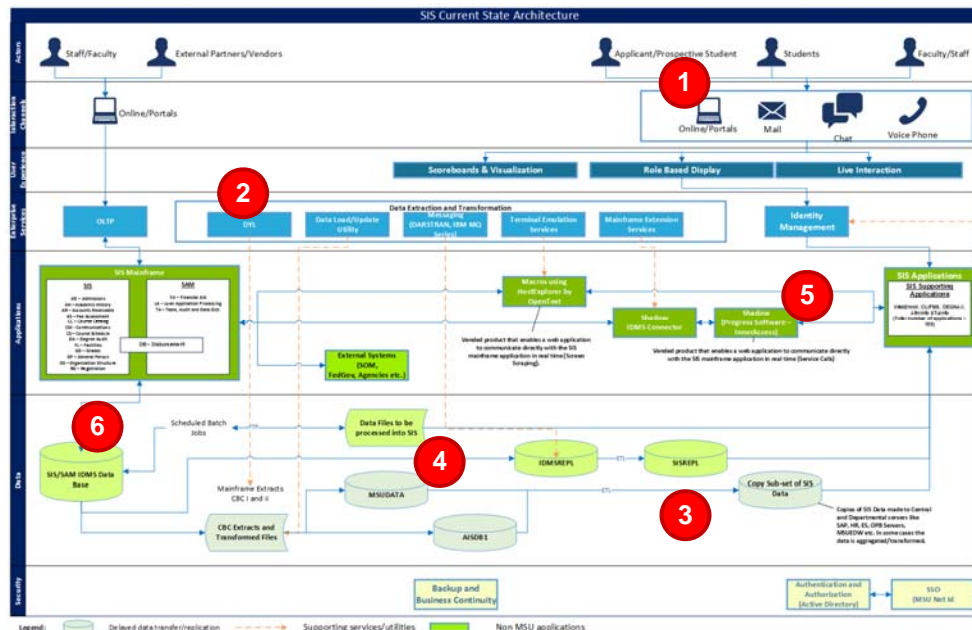
1. STUDENT EXPERIENCE

User experience for front end SIS applications is not seamless across devices and support for mobility and social channels is limited

2. OPERATIONAL EFFICIENCY

Multiple data extraction services/utilities are required to access SIS mainframe data creating a non integrated and complex solution

SIS Current State Architecture



6. TECHNICAL SKILLSET

Hiring and retaining staff skilled in antiquated programming language and willing to understand and work on legacy systems is a challenge

3. DATA USABILITY

Data available for use by supporting applications is not updated in real time creating inconsistency of information between business units/users

5. ENTERPRISE ARCHITECTURE

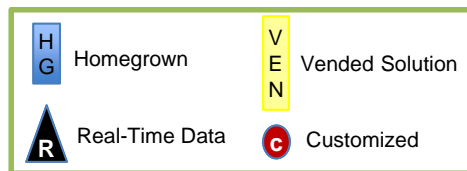
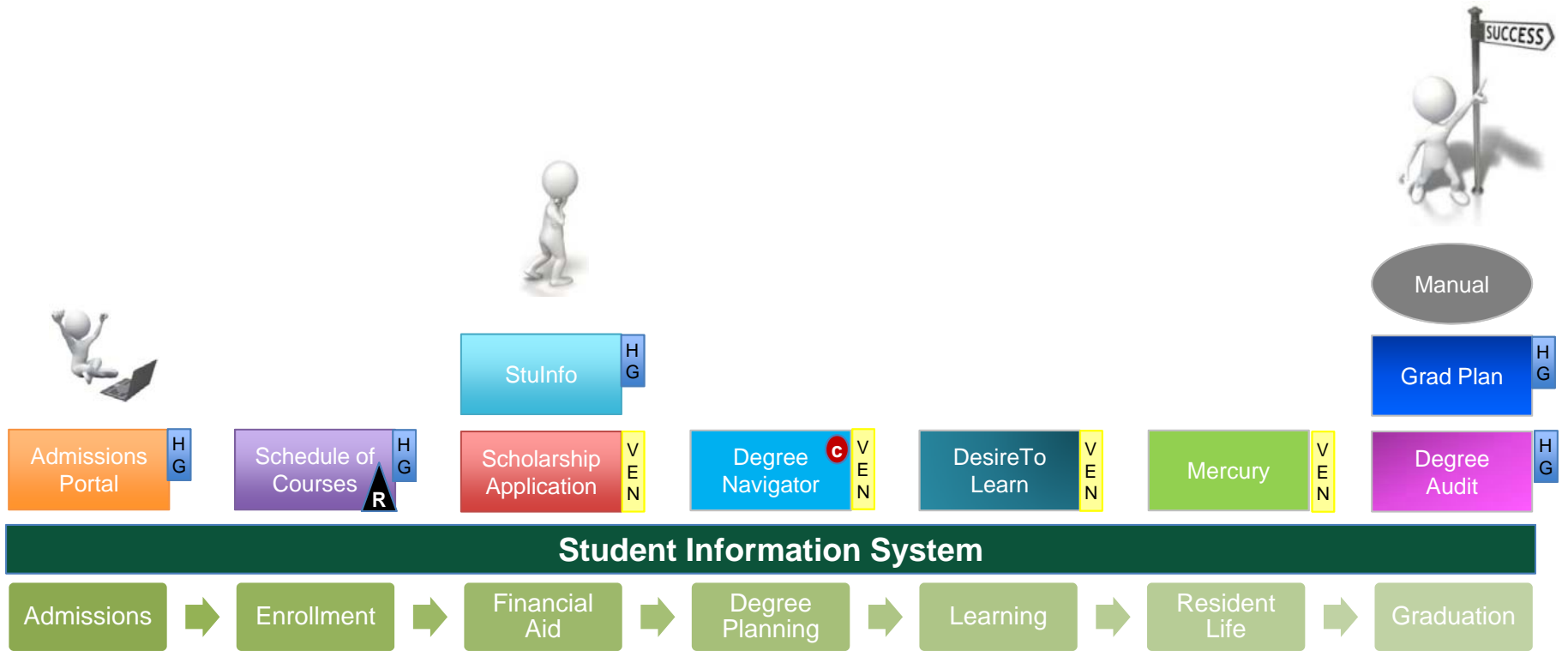
Interaction with the mainframes cannot be enabled through user friendly interfaces without the use of additional middleware increasing costs and risks

4. DATA EFFICIENCY

SIS mainframe data is replicated multiple times reducing data integrity and increasing the risk of data leaks



Current MSU Student Experience (Example)



Case For Change

MSU Six Imperatives

MICHIGAN STATE UNIVERSITY 2013-2020

**BOLDER
BY
DESIGN**

- 1. ENHANCE THE STUDENT EXPERIENCE** by expanding opportunities for where, when, and how students learn and increasing the value of an MSU degree.
- 2. ENRICH COMMUNITY, ECONOMIC, AND FAMILY LIFE** through research, outreach, engagement, entrepreneurship, innovation, diversity, and inclusiveness.
- 3. EXPAND INTERNATIONAL REACH** through academic, research and economic development initiatives, and strategic alliances.
- 4. INCREASE RESEARCH OPPORTUNITIES** by expanding funding to support high-impact scholarship and research.
- 5. STRENGTHEN STEWARDSHIP** by nurturing the university's financial assets, campus environment, infrastructure, and people.
- 6. ADVANCE OUR CULTURE OF HIGH PERFORMANCE** by elevating the quality and effectiveness of every product and process.

Problem Statements

Case for Change

RFI - SIS

SIS Program

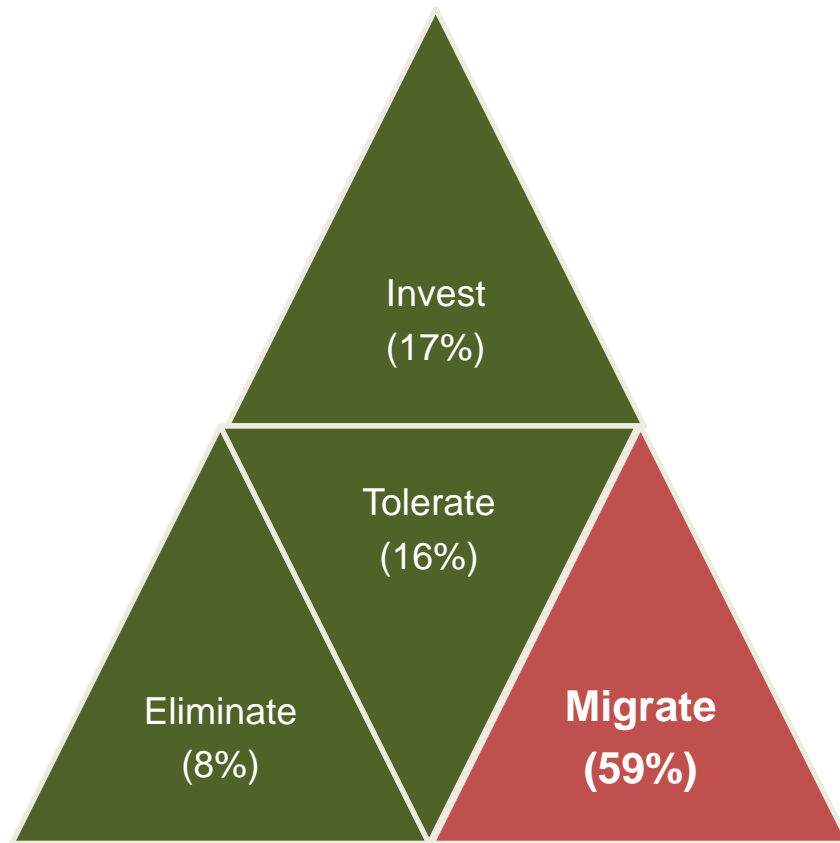
Recommendations

SIS Portfolio – Business Challenges

Recruitment	<ul style="list-style-type: none"> ◆ High Support Effort ◆ Dependency for Change
Financial Aid	<ul style="list-style-type: none"> ◆ Lack of Real Time Data In Holistic Environment ◆ Upgrade in Progress
Admissions and Enrollment	<ul style="list-style-type: none"> ◆ Timely Reporting for Data Analysis ◆ Data Transfer Risks ◆ Changing Business Needs
Financials Processing	<ul style="list-style-type: none"> ◆ Compliance Risk Due to Manual Assessment of Special Fees ◆ Student Financial Data Unavailable Due to Silos and Dependency
Student Success	<ul style="list-style-type: none"> ◆ Proactively Engage Students ◆ Early Decision-Making ◆ Academic Compliance Reporting ◆ Coordinated Care Mgmt.
Information Management	<ul style="list-style-type: none"> ◆ Foreign Student Location Tracking Compliance Risk ◆ Limited Vendor Support for Key Functionality
Technology and IT Services	<ul style="list-style-type: none"> ◆ Operational Risk ◆ Lack of Knowledgeable Resources ◆ Batch Based Processing ◆ Multiple Systems for Data Access



SIS Portfolio – Functionality and Risk Assessment



Approximately **200** SIS Applications

Tolerate

Typically the largest category in most inventories. Applications create enough business value and the costs and risks are manageable.

Invest

Solutions that offer significant business value. Business process needs are best-met by packaged solutions, but the system must continue to operate in support.

Migrate

Business value and commitment to the applications will be high, but technical difficulties will abound. Hardware or software will no longer be supported. Skilled workers will be on the verge of retirement, and the pool of replacement skills will be declining.

Eliminate

Most of the applications that are in this category will have low business value and poor technology marks.

Problem Statements

Case for Change

RFI - SIS

SIS Program

Recommendations

Student Information System – Request For Information (RFI)

SIS – Guiding Principles

Student Experience

Student Success and Analytics

Capability Advancement

Operational Efficiency

Data Usability, Efficiency, and Governance

Enterprise Architecture

Problem Statements

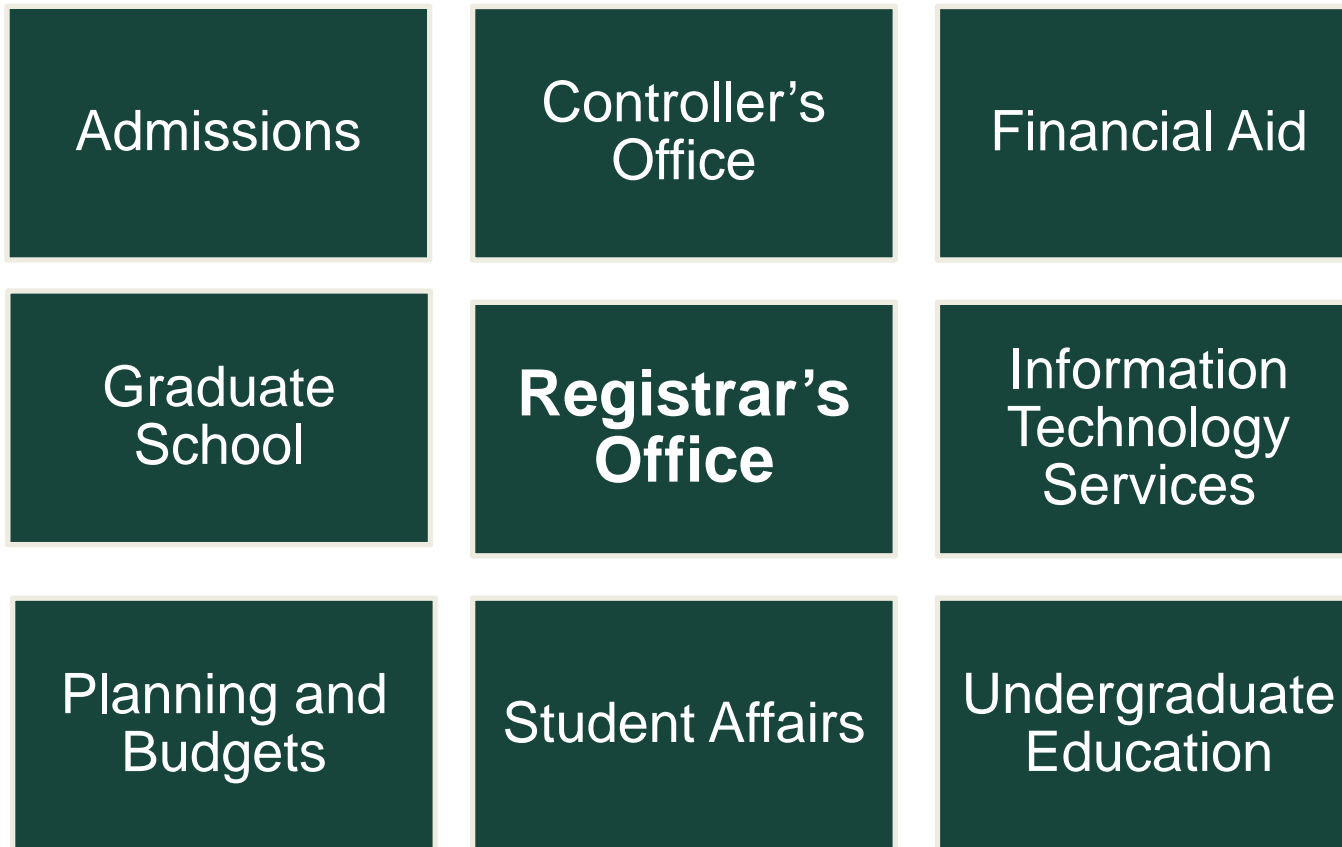
Case for Change

RFI - SIS

SIS Program

Recommendations

SIS RFI Cross-Functional Participants



SIS Request for Information – Key Findings

Classic Student Information Systems



Key Findings

- Proven capabilities
- Large peer support network of research institutions (Oracle: Michigan, Penn State, Wisconsin, Minnesota, UNC-Chapel Hill, etc.)
- Vendors are transitioning to their next generation platforms and many are on terminal release with published end of life dates
- MSU would be last of peers to implement

Next Generation Student Information Systems



Key Findings

- Broad capabilities exist with additional functionality in development
- Capabilities roadmap established to support peer implementation (Workday: Ohio State, LSU, Washington State, etc.)
- Long product life expectancy
- Design partnership opportunities (Workday)

Problem Statements

Case for Change

RFI - SIS

SIS Program

Recommendations

Student Information System Program

SIS Program Projects

SIS Readiness

- Organizational Change Management
- Vendor Engagement(s)
- Current State Process Mapping/Requirements
- Establish Project Governance

SIS Augmentation

- Admissions CRM Implementation
- Health Unified System Implementation
- *Degree Audit and Academic Planning Implementation*

SIS Implementation

- NextGen OR Classic

Problem Statements

Case for Change

RFI - SIS

SIS Program

Recommendations

SIS Program – SIS Readiness Project

Project

Scope	<ul style="list-style-type: none">▪ Organizational Change Management▪ Current State Mapping & Policy/Process Pain Point Identification▪ Requirements Definition▪ Solution & Services RFP, Selection and Procurement▪ Peer and Vendor Engagement▪ Data Access, Reporting, and Integration Planning▪ Implementation Project Planning▪ Develop Project Governance Structure
Reasons to Select	<ul style="list-style-type: none">▪ MSU culture requires preparation to successfully implement with minimal customizations▪ MSU current state cannot be quickly provided to services consultant during implementation (e.g., minimal documentation and/or detailed subject matter expertise)▪ MSU desires to select solution and services partners through RFP process▪ MSU requires more detailed information to finalize solution approach▪ Future data and integration strategies are not established
Benefits	<ul style="list-style-type: none">• Prepares the University and core project team for implementation by providing a dedicated focus on activities needed for success
Risks	<ul style="list-style-type: none">▪ Classic (e.g., Oracle Campus Solutions) solutions may no longer available to MSU at the time of RFP

Problem Statements

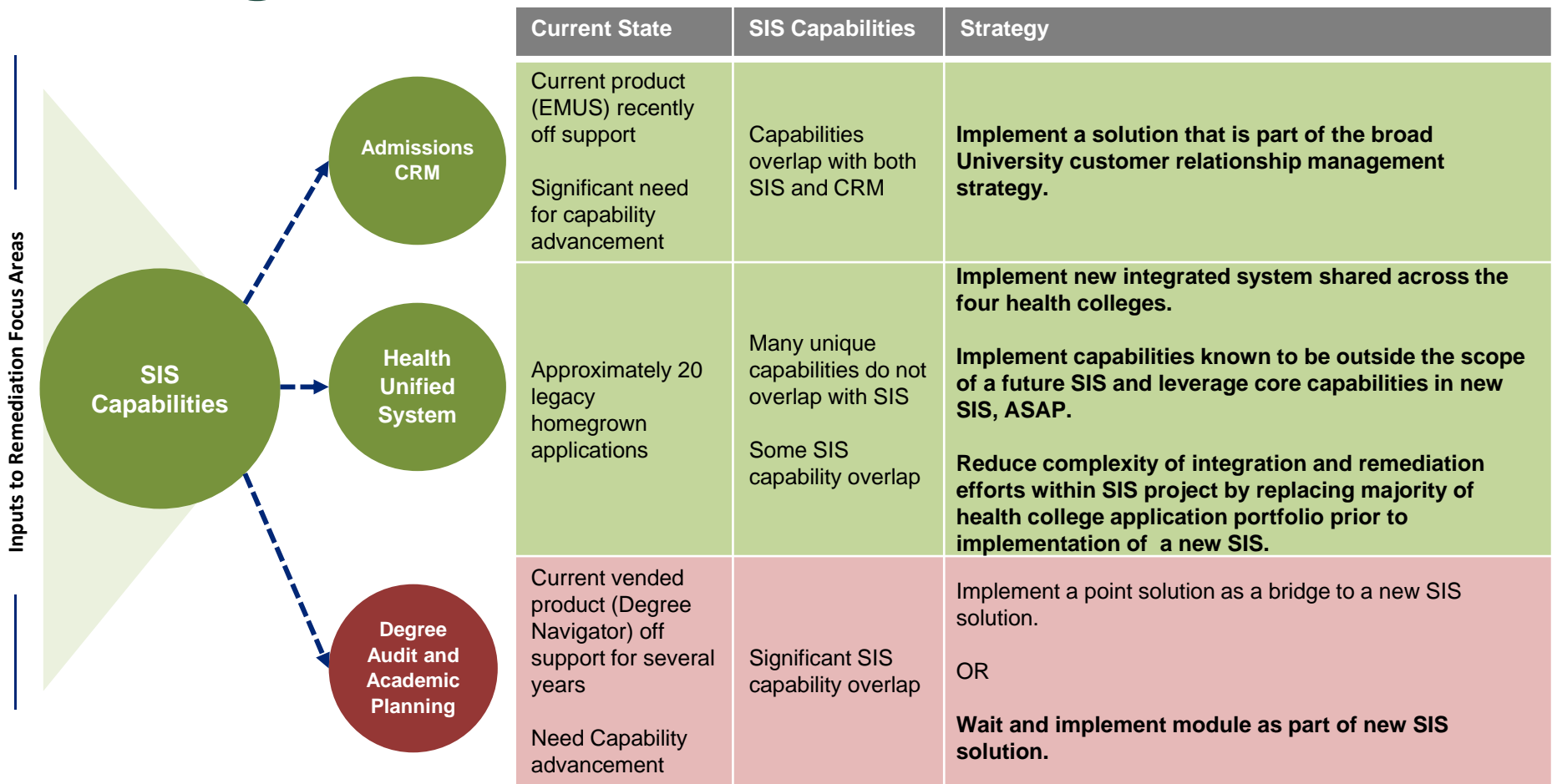
Case for Change

RFI - SIS

SIS Program

Recommendations

SIS Augmentation – FY2019 Considerations



As a SIS replacement implementation is scheduled, final SIS augmentation initiatives must meet one of the following criteria:

- 1) Provide capabilities outside the scope of a future SIS solution and reduce complexity to the SIS application portfolio
- 2) Address an immediate need and provide near-term return on investment



SIS Program – Augmentation

Admissions CRM

Health Unified System

Scope	Implement TargetX (Salesforce) , a modern recruitment and admissions solution to support University admissions goals	Implement MedHUB for the four health colleges
Reasons to Select	<ul style="list-style-type: none"> ▪ Capabilities are needed immediately to support University recruitment and admissions goals ▪ Needed capabilities are out of scope of SIS ▪ Solution will reduce integration complexity during SIS implementation ▪ Current solution has high risk profile (e.g., security, operational failure) 	<ul style="list-style-type: none"> ▪ Policies and processes will be optimized across 4 colleges ▪ Required capabilities are out of scope of SIS ▪ Solution will reduce integration complexity during SIS implementation ▪ Current solution has high risk profile (e.g., security, operational failure)
Benefits	<ul style="list-style-type: none"> ▪ Provides capability advancement in the near-term ▪ Reduces integration complexity during SIS implementation 	<ul style="list-style-type: none"> ▪ Optimizes policies and processes across 4 health colleges ▪ Provides capability advancement in the near-term to 4 colleges ▪ Reduces integration complexity during SIS implementation
Risks	<ul style="list-style-type: none"> ▪ Future SIS solution may result in duplication of capabilities 	<ul style="list-style-type: none"> ▪ Future SIS solution may result in duplication of capabilities



SIS Program – SIS Implementation

	Classic	NextGen
Scope	Implement the terminal release of Oracle Campus Solutions and leverage the mature and proven capabilities of the platform	Join design partnership with Workday and be among the first large institutions to implement a SIS
Reasons to Select	See Decision Criteria slide	See Decision Criteria slide
Benefits	<ul style="list-style-type: none"> ▪ Advancing Capabilities: Most mature capabilities ▪ Existing Peers: Large peer base ▪ Student Experience: Recent self-service and mobile redesign ▪ Operational Efficiency: Integrated core capabilities with known bolt-on requirements 	<ul style="list-style-type: none"> ▪ Advancing Capabilities: Significant capability investments planned; capabilities continuously and immediately available ▪ Student, Faculty, and Staff Experience: Mobile first ▪ Operational Efficiency: Highly configurable design provides promise of reduction of bolt-on needs ▪ System Availability: High availability by design ▪ Enterprise Architecture: Upgrades and disaster recovery managed by the vendor; potential alignment with impending Human and Capital Management reimplementation
Risks	<ul style="list-style-type: none"> • Terminal Release – Vendors no longer investing and end of life dates have been published • Capabilities – Similar to Current Platform • Faculty and Staff Experience – Non-staff user experience not fully addressed in recent release • Enterprise Architecture – Potential alignment with impending Human and Capital Management reimplementation 	<ul style="list-style-type: none"> • Developing Product – Essential capabilities are not delivered as promised resulting in project cost overruns • Small Growing Userbase for SIS



Decision Criteria

Classic

- Cost: control short-term costs
- Time: known time to delivery
- Capability: guaranteed functionality to fulfill the needs of today
- Culture: If we believe stakeholders' demands for customization cannot be controlled, classic is a costly bridge solution to NextGen

Next Generation

- Cost: minimize long-term total cost of ownership
- Time: lengthened time to delivery
- Capability: modern architecture provides foundation for functionality to fulfill the needs of tomorrow
- Culture: If we believe MSU will embrace industry best practices by not customizing, then NextGen is a strategic investment

Problem Statements

Case for Change

RFI - SIS

SIS Program




Recommendations



Recommendation

Recommended Actions

1 Initial SIS Actions

<p>Implement Final SIS Augmentation</p> 	<p>Prepare for SIS Implementation</p> 	<p>Monitor SIS Vendor Transition</p> 
<p>Implement solutions that reduce complexity or to address immediate needs</p>	<p>Complete business and technical preparation prior to implementation</p>	<p>Actively engaged in collaboration opportunities to further inform solution selection</p>

2 Recommended Next Steps

Formalize a SIS program and initiate projects to enable a successful SIS implementation, regardless of selected solution approach

<p>Admissions CRM</p> <ol style="list-style-type: none"> 1. Implement TargetX (Salesforce) 	<p>Health Unified System</p> <ol style="list-style-type: none"> 1. Implement MedHUB 2. Implement capabilities known to be outside scope of SIS 	<p>SIS Readiness</p> <ol style="list-style-type: none"> 1. Organizational Change Management 2. Policy Changes and Process Mapping 3. Data and Integration Planning 4. RFPs (Solution & Services) 	<p>SIS Engagement</p> <ol style="list-style-type: none"> 1. Peer site visits 2. Broad attendance in user groups (e.g., Workday Rising, Higher Education User Group) 3. Join design partnership (e.g., Workday)
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3 SIS Solution Approaches

<p>Classic</p> <p>Replace the legacy solution as a bridge to NextGen solution</p>	<p>NextGen</p> <p>Replace the legacy solution with an emerging NextGen solution</p>
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SPARTANS WILL.

QUESTIONS