Rutgers University
Administrative System
Transformation with Cloud
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Speaking with you today

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Agenda

- Rutgers University
- Life in a Cloud
- Implementation approach and timeline
- Journey ahead
### Rutgers University

<table>
<thead>
<tr>
<th>4 Campuses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camden</td>
</tr>
<tr>
<td>New Brunswick</td>
</tr>
<tr>
<td>Newark</td>
</tr>
<tr>
<td>Rutgers Biomedical and Health</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>31 Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>100+ Undergraduate Majors</td>
</tr>
<tr>
<td>200+ Graduate Majors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diversity</th>
</tr>
</thead>
<tbody>
<tr>
<td>65,000+ Students</td>
</tr>
<tr>
<td>Representing all 50 States</td>
</tr>
<tr>
<td>More than 120 countries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Merger</th>
</tr>
</thead>
<tbody>
<tr>
<td>On July 1, 2013 UMDNJ merged with Rutgers University</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annual Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3.9 Billion</td>
</tr>
</tbody>
</table>
Project Objectives

- Implement standardized systems based on optimized processes for the University
- Improve management reporting across systems and the University
- Expand automation with a move toward real-time processing and integration
Rutgers consolidated application footprint

Financial Management
- General Ledger
- Fixed Assets*
- Financial Reporting
- Cash Management
- Accounts Receivable
- OTBI for Financials

Grant/Project Budget Tracking
- Project Costing
- Project Billing
- OTBI for Projects
- Grants Management
- Project Control
- Enterprise Contract

Procurement
- Procurement Integration
- Accounts Payable
- Expenses
- OTBI for Procurement

Integration
- BI Publisher data extraction and bursting
- Inbound/Outbound integration and transformation
- PaaS: Java Cloud Services – SaaS Extension (JCS-SX)

* Phase Two
Life in the Cloud
Life in the Cloud

**Innovate**
- How you work
- Transparency of information
- How you collaborate

**Transform**
- No customizations
- Configure based on industry leading practices
- Standardize

**Accelerate**
- Continuous upgrades
- Optimization of new functionality
- Smoothing of IT spend

Key drivers

**Self service reporting**
Anytime information access instead of “Pull and Publish” reporting

**Flexible structures**
Reporting optimized by chart of accounts design and projects sub-ledger

**Accelerated processing**
Efficient financial process management of pre-close, close, and post-close reporting

**Real time data expectations**
Information fluent end users empowered by real time tools reducing reliance on IT
Key drivers (continued)

- **Elimination of shadow systems**
  Reduced complexity and improved cost efficiencies supported by consistent data

- **Evolved user expectations**
  Answering expectations of end users as to how and when information is accessed

- **Improved control automation**
  Enforcement of compliance decisions that impact revenue, billing, and spending

- **Clear reporting delineation**
  Detailed operational tracking and project-based financials for improved funding decisions
Implementation timeline & approach
We leveraged agile concepts in order to iteratively deliver the solution with speed, flexibility, and transparency while maintaining rigorous project discipline.

**Implementation timeline with prototyping**

<table>
<thead>
<tr>
<th>Sept-26-2016</th>
<th>Finance and Grants Implementation</th>
<th>Nov-26-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>M2</td>
<td>M3</td>
</tr>
</tbody>
</table>

**Iterative, Hybrid-Agile Design**

- **Mobilize**
  - Architect

- **Configure and Prototype**
  - Configure
  - Refine/Confirm
  - Prototype 0
  - Demonstrate

- **Refine**
  - Prototype 1
  - Build
  - Confirm

- **Test and Train**
  - System Integration Testing
  - User Acceptance Testing

**Structured Testing**

- Potentially releasable software
- Go-Live
- Traditional Testing and Break/Fix
Data conversion approach

Having a consistent process and approach to extract, validate, transform, and reconcile data loaded is critical and takes effort.

Benefits

• Streamlines conversion steps and documentation for easy auditability
• Iteratively creates a repeatable conversion process to be executed during production cutover
• Allows for any cleansing or enrichment decisions to be clearly explained and approved
• Helps to drive timely business validations and reconciliations in accordance with the project timelines

Legend

- Client  - Deloitte  - Needs corrective action and re-validation of the file
Stakeholder engagement layers

Active engagement at multiple levels throughout the university

Governance Roles

- Executive Steering Committee
- AIS Steering Committee / SIS Steering Committee
- Business Advisory Group(s)
- Subject Matter Experts (SMEs) / Team Members / School/Unit Representatives
Rutgers project team structure estimated resources
The team was structured to align with the overall program

- **Advisory Groups**
  - Business Advisory Group
  - School and Unit Representatives

- **Functional Leads**
  - 1 FTE

- **Project Leadership**
  - 1 FTE

- **Project Champions**
  - 0.5 FTEs

- **Project Management Office**
  - 1 FTE

- **Technical Leads (TECH)**
  - 2 FTEs

- **Change Management/Communications/Training Leads (OCM)**
  - 2 FTEs

- **Security and Controls Leads (SC)**
  - 0.25 FTEs

- **Finance (FIN)**
  - 1 FTE

- **Grants/Projects (PGM)**
  - 2 FTEs

- **Procure to Pay (PTP)**
  - 1 FTE

- **Chart of Accounts (COA)**
  - 1 FTE

- **Change Management**
  - 0.5 FTEs

- **Communications**
  - 1 FTE

- **Training**
  - 0.5 FTEs

- **Application Security**
  - 1 FTE

- **Controls**
  - 1 FTE

- **Single Sign On (SSO)**
  - 0.5 FTEs

- **Interfaces**
  - 1 FTE

- **Conversions**
  - 1 FTE

- **Extensions**
  - 1 FTE
Resource commitments over the program delivery
Setting expectations early and engaging the right resources will determine the success of the endeavor

<table>
<thead>
<tr>
<th>ROLE</th>
<th>Mobilize</th>
<th>Architect</th>
<th>Configure and Prototype</th>
<th>Test and Train</th>
<th>Deploy and Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>Steering Committee Members</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>PMO (Core Team)</td>
<td>Project Manager</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td></td>
<td>Testing / Cutover / Stabilization Lead</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Functional (Core Team)</td>
<td>Functional Team Leads</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td></td>
<td>Functional Team Members</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Technical (Core Team)</td>
<td>Technical Team Lead</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td></td>
<td>Boundary System Lead</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td></td>
<td>Technical Developers</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Organizational Change Management (Core Team)</td>
<td>OCM Lead</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td></td>
<td>Communications Lead</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td></td>
<td>Training Lead</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td></td>
<td>Trainers</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Security and Controls (Core Team)</td>
<td>Security and Controls Lead</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td></td>
<td>Application Security Specialist</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<tr>
<td></td>
<td>Controls Lead</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td></td>
<td>Single Sign On (SSO) Lead</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Project Advisors</td>
<td>Subject Matter Advisors</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td></td>
<td>End User Testers</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

Notes:
- ● = 50% to 99% Dedicated
- ○ = 26% to 50% Dedicated
- □ = <=25% Dedicated
- ★ = 100% Dedicated
Preparation & planning key considerations

The speed of cloud implementations and changes to business processes leave less room for missteps.

Increased implementation speed leaves little time to course correct; for that reason, our team follows these key principles:

1. **Institute Strong Governance**
2. **Define Success Criteria up Front**
3. **Standardize and Optimize Business Process**
4. **Take a Structured Approach to Testing**
5. **Make Data a Priority**
6. **Be intentional about Change Management & Communication**
7. **Have a Risk Mitigation Strategy**

- **Utilize Accelerators**
- **Define Success Criteria First**
- **Structure Testing**
- **Establish Governance**
- **Mitigate Risks**
- **Engage Change Network**
- **Prioritize Data**
### How Rutgers tackled common challenges

Some challenges were easier to address than others

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>End user expectations management</td>
<td>Build a robust change management structure into your project</td>
</tr>
<tr>
<td>Mandatory, frequent application upgrades and maintenance</td>
<td>Establish an upgrade center of excellence and proactively anticipate impacts to integrations</td>
</tr>
<tr>
<td>Total reliance on cloud provider to address issues</td>
<td>Set clear expectations early for issue management, ISM presence, and escalation path with vendor</td>
</tr>
<tr>
<td>Aggressive timeline impacting system testing, conversion validation, and ongoing operations</td>
<td>Set clear expectations early surrounding testing timelines, organization involvement, and data quality</td>
</tr>
<tr>
<td>Conversion of multiple source systems with differing processes, data, and structures</td>
<td>Convert early and often with the understanding that most conversion issues are data quality related</td>
</tr>
<tr>
<td>Evolving cloud integration tool availability and complexity</td>
<td>Leverage custom PaaS tools to address out-of-the-box integration challenges</td>
</tr>
<tr>
<td>Delivering with offsite consultants</td>
<td>Co-locate key consulting resources to ensure design decisions are informed</td>
</tr>
<tr>
<td>Keeping the university community engaged and aware during entire project lifecycle</td>
<td>Ensure that you have a considered the appropriate stakeholders in your multi-layered governance model</td>
</tr>
</tbody>
</table>
Journey ahead
Changing functional and IT roles
The growth of cloud based solutions has forced the need for traditional roles to evolve and converge

<table>
<thead>
<tr>
<th>Capability</th>
<th>Business</th>
<th>IT</th>
<th>Vendor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report Development</td>
<td>↑</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Master Data Maintenance</td>
<td>↑</td>
<td>↓</td>
<td>—</td>
</tr>
<tr>
<td>Configuration Maintenance</td>
<td>↑</td>
<td>↓</td>
<td>—</td>
</tr>
<tr>
<td>Upgrade Planning Frequency</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Upgrade Testing</td>
<td>↑</td>
<td>—</td>
<td>↑</td>
</tr>
<tr>
<td>New Capability Evaluation Frequency</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Infrastructure Maintenance</td>
<td>—</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Code Development</td>
<td>—</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Vendor Coordination</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Business Process Knowledge</td>
<td>↑</td>
<td>↑</td>
<td>—</td>
</tr>
</tbody>
</table>

**Legend:** ↑ Increase in Effort  ↓ Decrease in Effort  — Minimal Change in Effort

IT must shift from a cost center to a business enabler while the business must be more active in supporting the solution
What’s next for Rutgers

- Phase 2
- Finance
- HCM & Payroll
- Advanced Analytics and BI
- CRM
- Student System
Q&A