



Developer-Led iPaaS Evaluation Project

▶ Responsibility for researching and evaluating Integration-Platform-as-a-Service options for the institution is assigned to a specific employee, ideally a specific frontline developer.

The developer is selected for their capacity to innovate, given protected time to complete the analysis, and is expected to present an executive-level overview of findings and recommendations at the project's conclusion.

IT groups who have frontloaded research efforts for understanding campus technology needs report mutually reinforcing benefits:

- Strategic and tactical head-start advantage for increasingly large-scale integration projects
- Superior awareness of institutional maturity in integration service delivery and architecture needs
- Improved uptake of next generation integration tooling after acquisition
- Increased appreciation among developers of the need for cohesive and centralized integration best practices

Included in this Intensive

This practice implementation intensive provides a template to help IT Forum members accelerate adoption of more sophisticated and repeatable processes, including:





- **Suggested Implementation Timeline:** Guidelines to Optimize the iPaaS Transition
- **Researcher Selection Rubric:** Knowledge and Competency Strengths for Effective Innovation
- **Institutional Need Review Guidelines:** Key Queries to Evaluate Current-State Integration
- **iPaaS Evaluation Matrix:** Vendor Analysis Vectors to Compare Functionality in a Nascent Market
- **Conclusion Presentation Tips:** Research Communication Blueprints to Fast-Track Engagement

Formal R&D Drives Integration Maturity Progress

Staff-Led Projects Balance iPaaS Capabilities with Institutional Readiness

Integration tooling is usually selected to meet particular project requirements, with CIOs having limited ability to give strategic input or guidance in this area. This lack of thoughtful analysis of domain-specific tools and technological advancements is insufficient to serve an increasingly digitized institution. Now, progressive CIOs are investing in integration research and development, empowering their own staff to undertake campus-specific strategic research into the best tools to help transform their particular IT organization into one that is integrating strategically, and at scale.

Leading-Edge iPaaS Evaluations Outstrip Typical Efforts Across Four Differentiating Parameters:

	Typical Tool Evaluation	Leading-Edge Tool Evaluation
 <p>TIMING Proactivity in integration tool evaluation in relation to campus projects</p>	<p>✘ <i>IT leaders and project managers consider integration tools and processes on a per-project basis, with no long-term holistic strategy</i></p>	<p>✔ <i>IT organizations evaluate emerging tools and standards proactively, ensuring staff have sufficient lead time to scale new tool learning curves ahead of large or ongoing projects</i></p>
 <p>READINESS Emphasis placed on current organizational maturity and capabilities</p>	<p>✘ <i>Integration tool selection focuses on best-of-breed capabilities and campus aspirations, with limited consideration of organizational readiness to adopt and utilize</i></p>	<p>✔ <i>Integration tool selection encompasses thorough analysis of current organizational competency and bandwidth to scale the learning curve of new technologies</i></p>
 <p>SCOPE Breadth and depth of new integration tool analysis during evaluation</p>	<p>✘ <i>Tool evaluation focuses on a limited number of known brands and historical vendor partners, emphasizing the least disruption to current processes and workflows at the micro level</i></p>	<p>✔ <i>In-depth research and development activities help to align campus IT with current best practice enterprise IT service models, tools, and strategic roadmaps at the macro level</i></p>
 <p>FORMALITY Level of structure applied to research and development projects and review</p>	<p>✘ <i>Research and development for the IT organization is ad-hoc, and side-of-desk, with recommendations and analysis informally gathered and transmitted between staff and leadership</i></p>	<p>✔ <i>Direct research project ownership and structured deliverable requirements emphasize professional development and executive interest in investments in IT staff and tooling</i></p>

Source: EAB interviews and analysis.

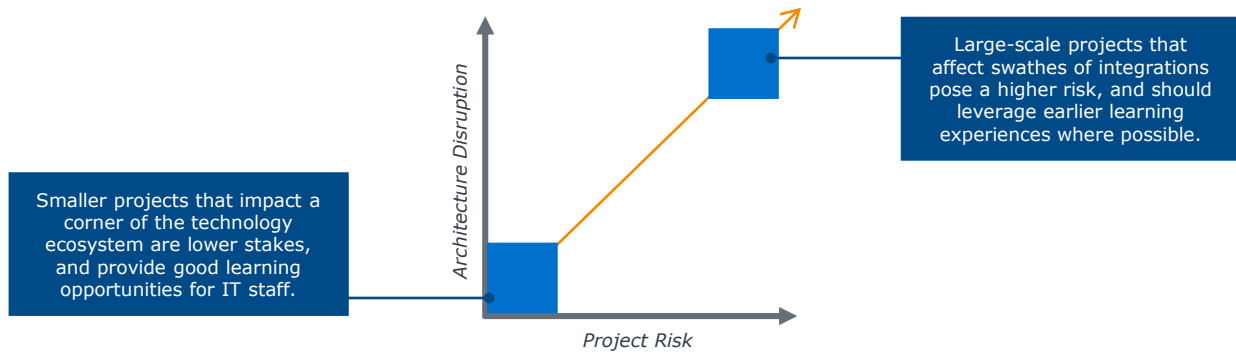
Implementation Timeline: Evaluate Early, Start Small

Successful iPaaS Transitions Occur Over Protracted Timelines

Overhauling the institution’s integration architecture requires successful implementations of large-scale projects around important nodes in the campus IT ecosystem. Despite the potential for transformation, charging into big projects with new, unfamiliar tooling and processes increases the risk of project setbacks. CIOs must therefore conduct evaluations and tool onboarding efforts far in advance to give developers and project managers ample opportunity to scale the iPaaS learning curve.

Evaluate Today to Build Staff Competency for Tomorrow

Factoring in Evaluation Timelines and Low-Risk Training Projects Amplifies Investment Successes



Give Researchers a Head Start Against Larger-Scale Projects

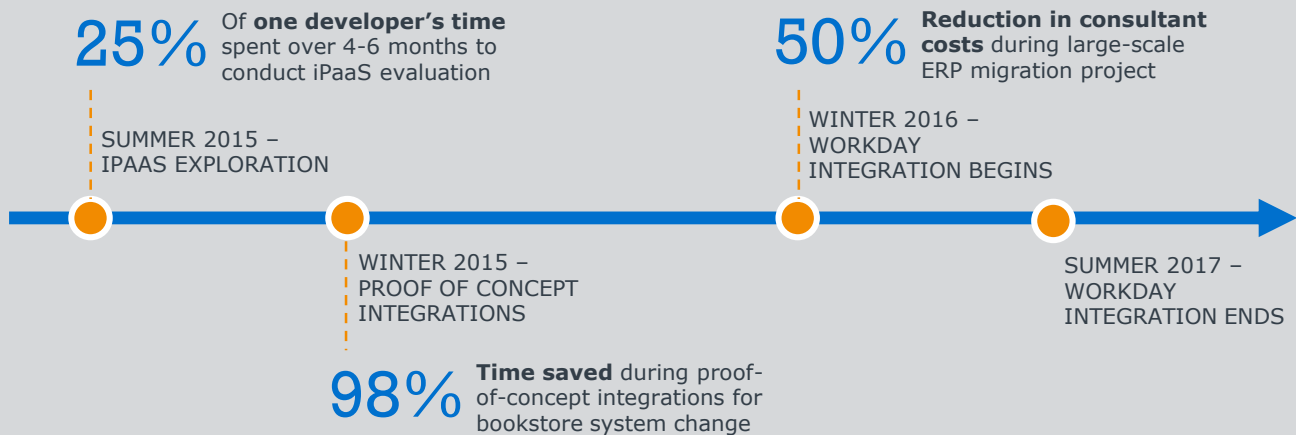
Many institutions only discover integration skill and tool deficits when large, disruptive projects are already underway. Setting a dedicated researcher against integration research during the vendor evaluation phase of larger-scale projects gives IT a chance to get ahead of upcoming needs.



Leverage Small Projects to Develop Staff Competency

To minimize risk and increase efficiency in larger-scale integration projects, ensure that integration developers gain confidence with new tools and processes across a series of smaller-scale, less disruptive integration projects in advance of big, architecturally disruptive initiatives.

Vassar College’s Frontloaded Evaluation Paid Dividends During ERP Migration



Source: EAB interviews and analysis.

Researcher Selection Rubric

Knowledge and Competency Strengths for Effective Innovation




Many top-down tool adoption efforts have limited success in developer communities, therefore engaging a frontline staff member to lead the institution's iPaaS evaluations is a powerful option. Alongside institutional knowledge and respect among integration staff, selected individuals must be possessed of passion and project management capacity to drive the evaluation forward alongside their regular activities. While analysis is a stretch role for developers, CIOs report the ancillary benefit of engaging some of their most valuable employees, positioning them to take on more senior leadership and strategic roles.

Respected Staff with Research Acumen Drive Effective Projects, Improve Adoption



Conducting Staff Strengths Exercises Helps Identify Hidden Research Capacity

At Vassar College, the Deputy CIO had evaluated developers' unique motivators and qualities as part of a departmental strengths coordination exercise. Through the exercise, one developer's potential for research and development came to light.

				
Project Initiation	✓	✓		
Persistence	✓		✓	✓
Foresight	✓		✓	
Problem Solving	✓	✓	✓	✓
Detail-Oriented	✓			✓
Inquisitive	✓		✓	
Independent	✓	✓	✓	✓

Online quizzes to test dominant organization and time management impulses vary, but are widely available, and should take staff no longer than 5-10 minutes to complete.

An Exercise, Not an Audit

"It worked because the staff knew this was about finding strengths—everybody on the team is good at something! Even with just a vague idea of our strengths mix we could put staff together in ways that move projects along better, or assign them to work that tapped into their passions."

Beth Hayes, Deputy CIO
VASSAR COLLEGE

Institutional Need Review Guidelines

Key Queries to Evaluate Current-State Integration

As with many forms of technology implementation, institutional readiness is a key factor in the adoption of iPaaS technologies. Without a proper understanding of staff skills, capacity, and current practices, institutions can end up selecting “best-of-breed” tools that don’t meet their specific needs, are too sophisticated to operate, or too costly to scale. Evaluating current-state integration across the institution empowers researchers to enter into detailed conversations with potential vendors, with a good understanding of likely initial need and growth projections.

Frontload iPaaS Research with Institution-Focused Integration Analysis

Anticipate the **readiness and capacity of staff** to engage with and adopt new integration tooling

People: Who is Doing Our Integration Work?



- Which members of the central IT organization currently perform integration work? In which teams do they sit?
- Which units on campus have distributed IT staff that support their integrations?
- How many people build integrations for the institution?

Gain insight into the **institutional integration technologies** that are currently used on campus

Tools: What Technologies Do We Currently Use, and How Are They Managed?



- What tools and technologies are we currently using?
- How do we pay for or license those tools?
- Are we using any iPaaS solutions on a subscription basis, whether through lines of business or consultants?

Anticipate the impact of **new tools and processes** on current state integration support and future demand

Process: What is Our Integration Current State?



- What are our current integration processes?
- How many integrations are we running, and in what patterns?
- What are our highest priorities moving forward, including preferred architecture and process?

Poor Needs Assessment Proves Costly Down the Road



Too Complicated to Use

“We signed a contract with one iPaaS provider over a year ago, and it just doesn’t get used – we picked a tool that’s too complicated for our maturity without investing more in the learning process.”

Director of IT Strategy
PRIVATE R1 UNIVERSITY



Too Costly to Scale

“We signed up to a per-integration model, but now that’s making it hard to get units to buy in. We want scale, but they don’t want the added expense. We might have been better served by a full site license.”

Developer III
LARGE PUBLIC UNIVERSITY

iPaaS Evaluation Matrix

Vendor Analysis Vectors to Compare Functionality in a Nascent Market

Comparing the relative merits and limits of different vendors' plethora of integration tool options can grow complex quickly, given the lack of common terminology across distinct platforms. Keeping sight of the institution's maturity and aspirations, as well as imposing structure on relative value assessments are crucial for supporting robust conclusions and institutional recommendations.

Assessing Capabilities, Scalability, and Cost Structuring Across Vendors

	Assessment Criteria	Description/ Examples	Vendor #1
Platform Capabilities	Data Virtualization	How does the tool support integrations to facilitate an application to retrieve and manipulate data without requiring technical details about the data?	
	Data Load & Synchronization	What different functions facilitate copying data and establishing consistency among data from a source to a target system, including transformation?	
	Process Automation	How does the platform support application integration to streamline discrete, manual business activities to reduce costs and capture efficiencies?	
	Shared Services	Can we expose reusable services from an application for the purpose of sharing data or coordinating activities (SOA)? How are services managed?	
	APIs	How does the platform expose and manage data and application functionality as a service for others within and beyond IT to use?	
	Security Provision	How does the platform secure data in motion, federate access control to integration capabilities, and protect service access?	
Cost Structuring	Higher Education Expertise	What is the breadth and depth of the vendor's experience or specialism in supporting higher education customers? Do they support institutional peers? Can we identify and engage with fellow clients?	
	Licensing Models	How flexible and various are the usage models (and costs) available to support the transition from exploration through to enterprise coverage?	
	Non-Profit Agreements	Are there reduced pricing arrangements, open source hubs, or customer perks for educational or research non-profit organizations? What are they?	
Scaling Potential	Support and Training	What is the availability and cost structure associated with start up and ongoing training costs for institutional developers and staff?	
	Collaborative Activity	How would the platform support many "citizen integrators" around campus as technical capacity and data sophistication grows in departmental units?	
	Monitoring & Management	Does the platform aggregate management capabilities for monitoring deployed integration processes and flagging failures?	

The criteria selected for assessing iPaaS vendors should blend best-of-breed capabilities with campus-specific needs, gathered during the institutional need assessment.

Campuses with highly specific needs can add weighting scores to criteria.

Vendor profiling should be **expansive**, and aggregate information from a variety of sources, including:



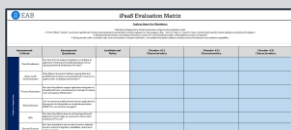
Secondary Literature Review



Conversations with Consultants



Conversations with Vendors



To access a downloadable template for evaluating the capabilities and fit of different vendors' iPaaS platforms, visit: https://attachment.eab.com/wp-content/uploads/2019/08/IT-Forum-2018-iPaaS-Evaluation-Template_030918.xlsx

Conclusion Presentation Tips

Research Communication Blueprints to Fast-Track Engagement

Tailoring which results of the research are highlighted to each audience can help win support from varied stakeholders. For campus leadership, a clear articulation of the business case for adoption will help to smooth any authorization processes and secure appropriate financial backing. Distributed and central IT staff will likely be more compelled by a discussion of how an iPaaS solution can dramatically decrease the time to implement new solutions and increase the long-term value of technology investments.

CIO-Facing Executive Summary

Leadership summaries should provide a high-level overview of the purpose, scope, and outcomes of the research project.

**iPaaS Investigation:
Executive Summary**

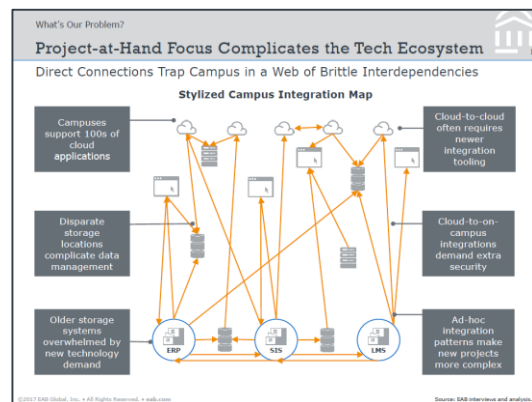
Purpose: With the growing number of SaaS systems being implemented across campus, the investigation into iPaaS solutions helped determine the need for a single platform to manage ESB, ETL, and API-driven data integration between cloud systems, on-premise systems, and hybrid systems.

Scope: The iPaaS research involved investigating the reasons clients use iPaaS, the benefits and drawbacks of using an iPaaS system, reviewing market trends in data integration, and directly contacting software vendors.

- ✓ Cover risks and benefits of iPaaS implementation particular to the institution
- ✓ Draw direct conclusions relating to the analysis of different vendors and the potential impacts of adoption
- ✓ Provide concrete “next steps” and recommendations for consideration
- ✓ Keep documents brief to maximize readability for leadership

Staff-Facing iPaaS Exploration

When sharing research findings across the IT organization, include the broader context of the project to drive support for change.



- ✓ Give broader context around the campus need for integration solutions
- ✓ Explain the nature of Software as a Service and Platform as a Service, and their role in the IT Organization’s strategy
- ✓ Cover the broad recommendations and the associated risks and benefits
- ✓ Invite developers and IT staff from around the institution to build cohesive direction

Additional Resources From the IT Forum



Recognizing that technical communications with non-technical stakeholders are a growing challenge for IT professionals, the IT Forum has packaged our institutional technology research into campus-friendly materials.

1. Campus education documents exploring the purpose and practice of integration in higher education are available at <https://eab.com/research/it/resource/what-is-integration-higher-education/>

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