BYOE middleware are the infrastructure components that bridge users, their devices, and their consumer-level applications to the institution’s data, services, systems, and enterprise-level applications.

Few institutions have formal planning strategies for user-provisioned technologies, but all are accommodating them in one way or another:

- 84% of IT leaders estimate cost increases for BYOE-related infrastructure upgrades over the next two years.
- 81% of IT leaders are motivated to reduce procurement costs of institutionally provided technology.

The data from this infographic come from the ECAR report The Consumerization of Technology and the Bring-Your-Own-Everything (BYOE) Era of Higher Education.

Visit educause.edu/byod-it-consumerization to view the full report.

**Risk Management**
- Securing data
- Managing access
- Securing systems and networks
- Managing identity and authentication

**User Awareness**
- Raising user awareness
- Educating users
- Enforcing compliance

**Focus on security**

**SECURITY CHALLENGES**

**TEACHING & LEARNING**

The prospect that most excites IT leaders in higher education about BYOE is the opportunity to diversify and expand the teaching and learning environment.

Three exciting prospects for BYOE:

1. Increasing student engagement with technology
2. "Walking the talk" of extending "the classroom" to anytime, anywhere
3. Making campuses desirable places to engage with technology and technology-enabled learning

**IT leaders say “Bring it on!”**

Planning doesn’t have to precede action when it comes to BYOE. Few institutions have formal planning strategies for user-provisioned technologies, but all are accommodating them in one way or another:

- 47% will provide their own cloud-based or online collaboration services.
- 60% of faculty and staff are estimated to bring their own devices to campus by 2014.

52% have formal strategy, 18% planning for one, and 30% not yet implemented.

**COST SAVINGS ARE ELUSIVE**

- Many IT leaders are motivated by cost savings.
- ...yet many predict it may cost more.

**INFRASTRUCTURE**

**DEVICES/USERS**

Cellular Coverage
Wi-Fi Coverage and Access
Ubiquitous Access
Platforms
Network Architecture

**INTERNET OF THINGS/DEVICES**

Consumer level
Enterprise level
Infrastructure as middleware
APPS/SERVICES

**SYSTEMS/DATA**

**EDUCATION CENTER FOR APPLIED RESEARCH**

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