



How Challenges in Higher Education IT Form a Crossroads of Opportunity

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Charter Oak State College



4 Year Public Liberal Arts College

Created in 1973

Adult-centric

2,400 Students

100% Distance Learning Delivery



CTDLC: Who We Are



- Consortium, 50+ Members
- 10 Years Experience providing eLearning Experience in Northeast
- Non-Profit, State Agency, Higher-Education



CTDLC: What We Do

- Provide eLearning services
- Implementation, project management, and best practices consulting
- Instructional Design
- Tech Support (Helpdesk)
- SIS Integration
- Remote Management / Hosted Services
- Custom Development



Who We Support

- Higher Education
 - 2-Year & 4-Year
 - Public & Private
- K-12 and Adult Ed Program
- Non-Profits
- State Agencies
- Corporate (training)



What Do We Support

- Learning Management Systems
 - Angel
 - Moodle
 - Blackboard Vista
 - Blackboard Enterprise Edition
- Ancillary Products
 - Adobe Connect
 - Elluminate
 - iTunes U
 - Echo 360
 - Wimba
 - Misc. Web 2.0 (Wikis, Blogs, etc.)



What We've Developed



- ePortfolio.org
 - Project builder and assessment module
 - Build portfolios for academic, career, personal
 - User-Centered, flexible, reflective, goal oriented and career centered
- eTutoring.org
 - Collaborative online tutoring platform
 - Manage Tutors, Writing Lab, Synchronous Workspaces, Resources
 - Centrally hosted, reporting tools, LMS Integration, Security
- Virtual Learning Center
 - CT State Virtual High School

ePortfolio.org

eTutoring.org

Why is this important?

*“The ability to **respond creatively and intelligently** as well as with integrity. She praised CTDLC's ability to come up with innovative solutions, anticipate needs, and develop the right "sales message or product" while insisting on "walking the high road." The staff incorporated the findings from research into new and **improved educational practices, despite reluctance of others to change and budget barriers.**”*

CTDLC Strategic Planning
Client Interviews, 2007-8

Where are we today?



Not your
parents
Higher Ed....



Where are we today?



Challenges



Teaching and Learning is a 24/7/365 Environment

TECHNOLOGY

- Servers
- Bandwidth
- Generators, UPS, Redundant HVAC, Fire Suppression
- Firewalls, IPS/IDS

PERSONNEL

- Server & Application Support
- Helpdesk (min 12/7):

REDUNDANCY AT ALL LAYERS

Challenges: What are students saying?



Online Learning
Management

Service Desk /
Helpdesk

I want your system to
connect to my
preferred systems

IM with
Advisors &
Instructors

Support of
Mobile Devices

Anywhere
anytime
learning

IM with
Advisors &
Instructors

Social
Networking

Podcast
learning

Challenges

- Wireless (Student & Guest)
- Emergency Notification Systems
- Student & Faculty E-Mail
- ERP Systems
- Campus Portals
- Campus and Departmental Websites
- File / Print
- Disaster Recovery
- Federal Regulatory Concerns
- Learning Management Systems
- Streaming Video / Podcasting Technology
- Firewall / IPS / IDS



Challenges: Continued

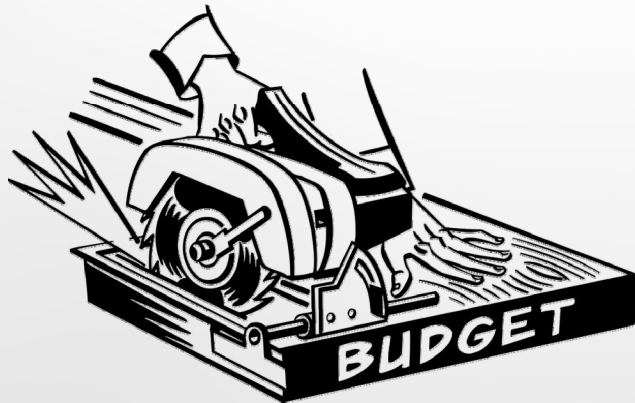


How Do We Use This Technology

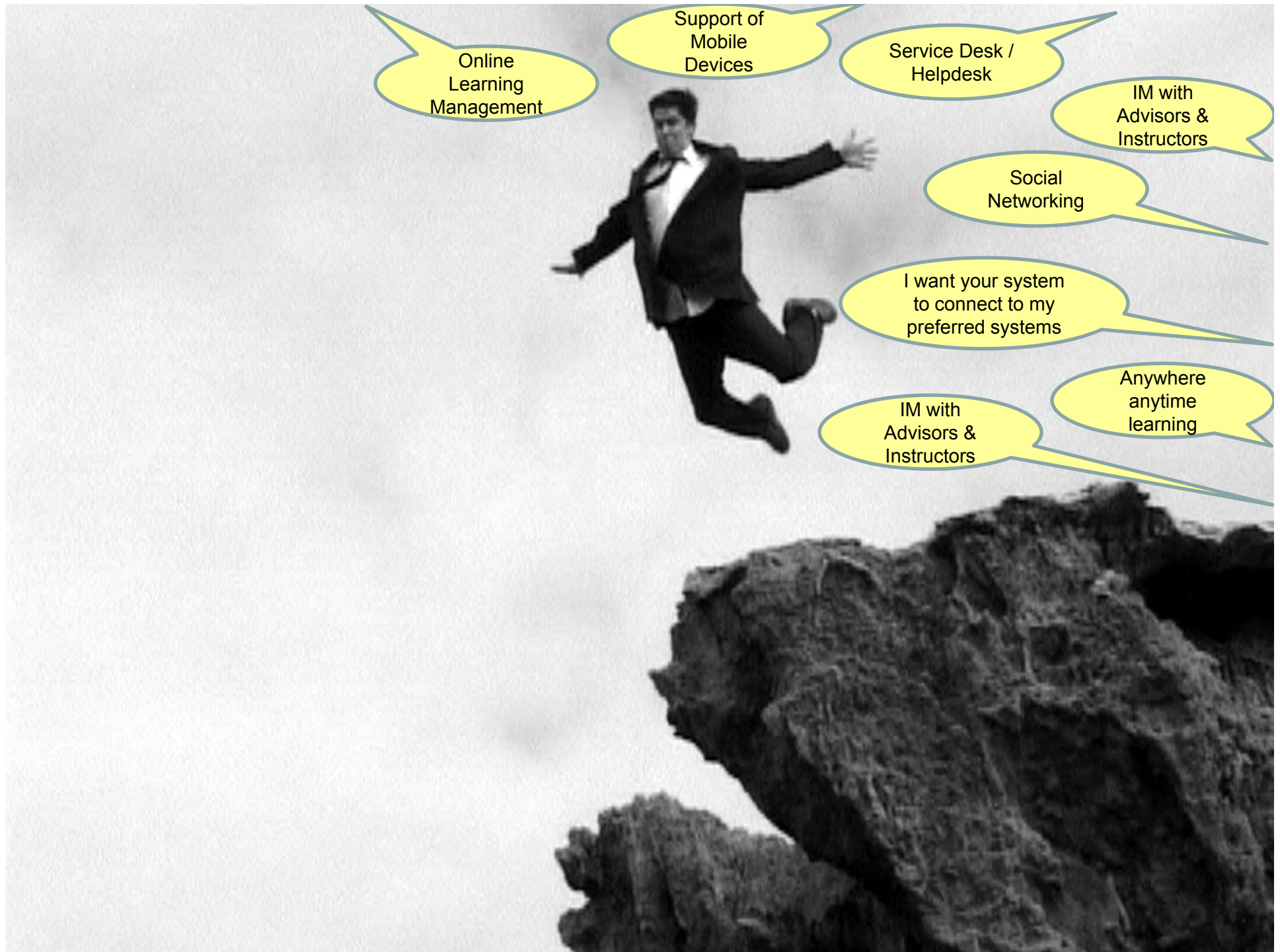
- Faculty Training
- Student Training
- Best Practices
- Peer Collaboration
- How do we get help

I Forgot To Mention

“We’re going to need you to continue to do everything you have planned, everything that’s in Institution’s and IT Strategic plan....



*...and you need to do it with **7% less** than you did it last year”*



Online
Learning
Management

Support of
Mobile
Devices

Service Desk /
Helpdesk

IM with
Advisors &
Instructors

Social
Networking

I want your system
to connect to my
preferred systems

IM with
Advisors &
Instructors

Anywhere
anytime
learning

Major Financial Issues

- Reduction in budget
- Reduction in personnel
- Reduction in projects in pipeline due to above (hopefully)
- Reduction in training
- Reduction in travel
- Reduction in R&D / New Technologies



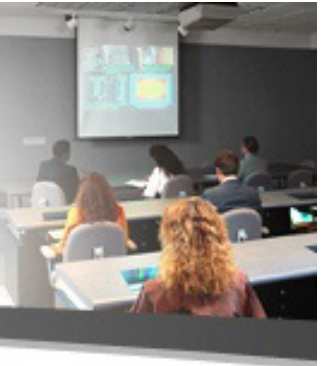
What Can We Do to Help



Philosophy: Higher Ed

“I get by with a little help from my friends”

- Educause (Workshops, conferences, collaborations)
- ECAR (Papers, discussions, cost effective practices)
- NERCOMP (License agreements, consortia purchases)
- State Wide Collaborations
 - Connecticut Education Network (CEN)
 - Minnesota Online
 - Arizona Universities Network
 - CT Distance Learning Consortium
 - Colleges of the Fenway
 - UMass Online



Managing the Funding Gap



Source Externally

The movement to use alternative sources to provide IT services was already underway before the economic downturn began. Open-source collaborations and the outsourcing of student e-mail are two prime examples. **Many expressed belief that budget cuts would hasten their need to engage in collaborations with other institutions** or source services to the cloud. They also saw the crisis as giving them more license to experiment and perhaps take some risks by adopting services or service delivery methods that are less proven. **Attendees reported that their agendas for collaboration were already expanding. Several institutions were entering into regional purchasing collaboratives. Others reported that they were considering arrangements to manage an application for another institution in their area.**

**Managing the Funding Gap:
How Today's Economic Downturn Is Impacting IT Leaders and Their Organizations
An EDUCAUSE White Paper from the December 2008 ECAR Symposium
Philip J. Goldstein
January 2009**

Looking through a New Lens

- Why are we doing it?
 - Do we need to continue to do it?
 - Is it a core competency?
 - Has it become a utility?
- Are we good at it?
- Is it on mission?
- Who's My Stakeholder?
- What's My ROI?



Change Isn't Easy...



7 Rs of Change Management

- Who **RAISED** the Change?
- What is the **REASON** for the change?
- What **RETURN** will the change deliver?
- What **RISKS** are there if we do or do not carry out the change?
- What **RESOURCES** will be required to perform this change?
- Who is **RESPONSIBLE** for this change being performed?
- What **RELATIONSHIPS** are there between this and other changes?

My Challenge to the IT Community



“That’s a great idea and we could save a lot of money by collaborating together. Unfortunately our security policy doesn’t allow us to do this.”

Security is very important as is Higher Education’s need to protect student data. Don’t let your IT department derail any substantive changes before they start by quoting security policies. Rather, ***work with IT to find a common ground that secures data but allows mobility to think and act creatively.***

Example #1: e-Mail

- New “free” offerings from Microsoft and Google offering students massive storage, accessibility, and integration into their existing preferred productivity applications



Example #1: Continued

- Cost Savings
 - Mail server licensing (reduced FTE count)
 - Storage (SAN hardware, switching fabric, support agreements)
 - Reduction of IT FTE to support
 - Reduction / Elimination of gateway virus threats, breeches, attacks.
 - Reduction of helpdesk tickets (password resets)



Example #2: Online Learning Budget



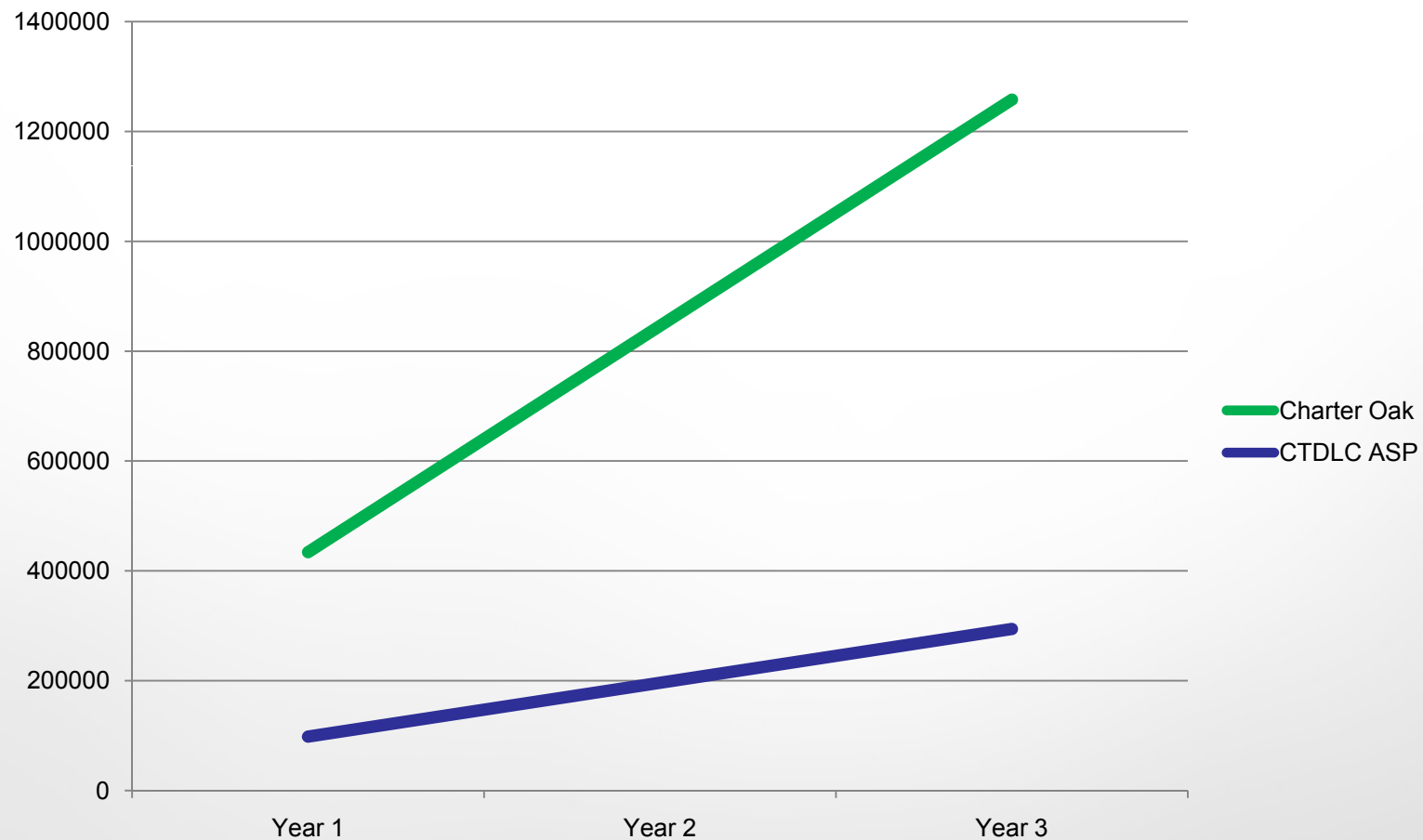
Service / Hardware	Cost
2 Servers (App and DB)	\$22,000
Bandwidth 5MB	\$12,000
Staff Overhead (SQL DBA, Blackboard App Admin)	\$160,000
Helpdesk 12/7 (students w/FT Mgmt)	\$140,000
Overhead (30%)	
<i>TOTAL (Yearly Reoccurring Cost)</i>	<i>\$434,000</i>

Example #2: Online Learning Leveraging Collaborative Model



	Institution	CTDLC
2 Servers (App and DB)	\$22,000	HOSTING \$44,000 P/Yr
Bandwidth 5MB	\$12,000	
Staff Overhead (SQL DBA, Blackboard App Admin)	\$160,000	
Helpdesk 12/7 (students w/FT Mgmt)	\$140,000	\$14,000
Overhead (30%)		Internal College Project Mgmt 1/3 time \$30,000
<i>TOTAL (Annual Cost)</i>	<i>\$434,000</i>	<i>\$98,000</i>

Example #2: Online Learning Three Year Hosted - Savings



Example #2: Online Learning Collaboration “Value Proposition”



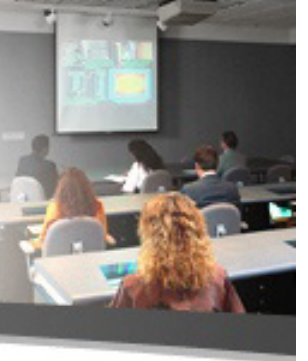
- Bought into existing LMS Personnel (1/4 time)
- Upgraded service/feature – reduced license cost
- Received services and uptime guarantee 99.5% or greater
- Contracted with a 7 day 14 hr per day helpdesk – minimal training and knowledge transfer.
- ***Amortized startup costs across length of LMS contract***
- ***Contractual ability to increment contract growth with usage growth***

Question Campus Network

- Centralized
- Distributed
- Departmental

Centralized Computing Advantages

- Reduces duplicating
- Inventory control
- Maintenance
- Centralizes critical backup systems / HVAC / Gen
- Economies of scale for personnel



Infrastructure: Strategy for Aging Servers



- Extend warranties and support agreements (Life of the asset)
- Virtualization
 - Migrate multiple physical computers to single virtual machine
- Centralization Requirements
 - Reduce / remedy turf wars
 - Policy on ownership / availability
 - Develop SLA / OLA documents with end departments



Infrastructure Aging Desktops

- Extend warranties
- Where possible, standardize technology / reduce support costs
- FMV leases
- Desktop virtualization



ERP Co-Location or Integration

- Co-locate / ASP / Collaboration to

Deliver ERP System

- Reduce personnel costs
- Create fixed payment structure
- Provide time & material vehicle for changes
- Provide emergency support
- Fully leveraging the portal
- Modules / components that we can purchase to
- reduce duplicate/manual entry.

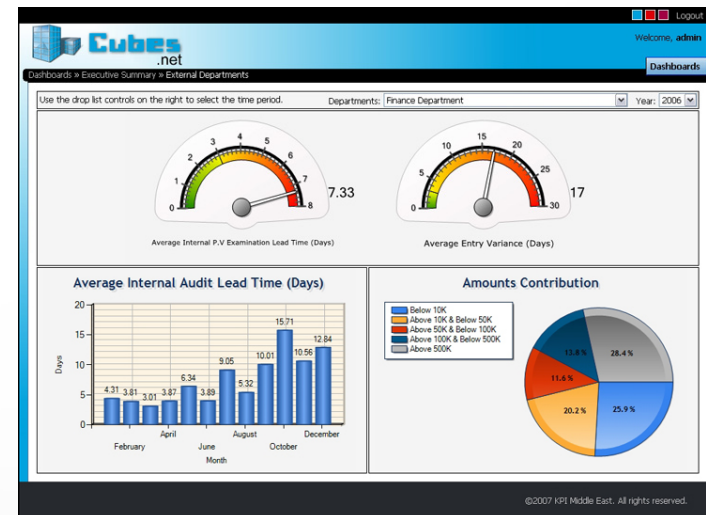


- ERP Integration

- Expend personnel time integrating ERP with disparate systems (Alumni System, Admissions System, Portal, Website)
- Reduce duplicate entry

ERP Continued

- Are we fully realizing the value of our ERP?
- Do we have business intelligence built in?
- Have we purchased modules / paying maintenance on things we're not using?
- How are we providing value to the business?



Disaster Recovery Collaboration



In 2008-9, Connecticut Education Network (CEN) collaboratively purchase and aggregate:

- Racks
- UPS
- Switching
- Bandwidth

Leverage consortia buying power and collaboration to work together

- Idea exchange
- Site visits
- Best practices

Training / Professional Development



- Sponsor “Lunch and Learn” with other area college’s and universities
- Seek out online learning opportunities
 - License Entire Tech Catalog
- Become your own training center
 - Reduce out of state travel
 - Overhead costs
 - Share discount rates with peers
- Leverage local Community College Catalog to replace some tech courses at traditional training centers

Green Computing / Green Data Centers



- Reduce both power consumption and carbon footprint
- Reduce sizing and draw on HVAC equipment

IDC examined the impact that rising energy costs have on data center servers and found that over the next two years you're going to spend \$0.70 in power and cooling for every \$1 spent on hardware. Over the next five years it's likely your energy costs could end up exceeding your hardware costs.

*Economic analysts at IBM estimate the typical 25,000 square foot data center spending \$2.6 million on energy each year **can save 50 percent using green technologies and employing server consolidation.***

Green Servers Provide a Competitive Advantage
http://www.devx.com/IT_Innovation/Article/39160/7301

Helpdesk

- Shared Multi-Institutional Helpdesk
 - Learning Management Systems
 - OS Support
 - Virus / Spyware Support
 - Return to Tier 1 Student Support
 - Combining Library, Computer Lab, and ITS Helpdesk functions
 - Leverage help / expertise from corporate via public / private partnerships (HDI)



Where Do We Start?



Leave your EGO at the door

- *Remedy turf wars*
- *Change politics / policies*
- *Bring value to the business*
- *Develop SLA/OLA with internal and external students and departments*

Start finding commonality

- Similar hardware
- Similar software
- Similar training needs
- Similar institution (public or private)
- Same state
- Same problem



“Don’t Waste a Good Crisis”



Look for support to stop supporting ancient / inefficient technologies

- Fax machines
- Ink jet printers (faculty & staff)
- Remote Access (dial-in)
- Staff with multiple computers
- Question size of campus computer labs

Convenience has a cost to support and it's time to reevaluate the convenience vs. cost relationship.

If this was our household money, would we still spend it?

Governance Structure

- Do we have a good governance structure?
 - Now is a great time to develop one
 - Low cost / no cost
- Benefits
 - Will help as budget cuts need to be made
 - Sets up structure for when economy shifts



Evaluate Free Services



Free Services

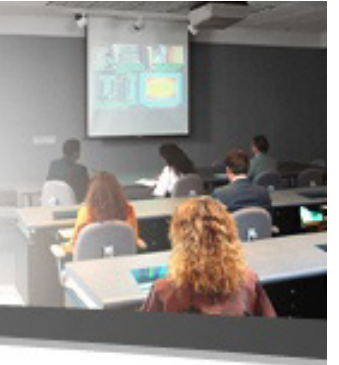
- iTunes U
- Gmail
- Live@edu

Collaborative Approaches

- Collaborative project plan creation / sharing
- Project implementation
- Collaborative hosting

For anything you are looking for?

- Evaluate Current Position
 - What is current tool
 - What is current tool's roadmap
 - What is path for upgrade
 - What are support and license costs
 - Room for Open-Source Solution?
 - Can you renegotiate your existing license?



Resources

- **MANAGING THE FUNDING GAP: HOW TODAY'S ECONOMIC DOWNTURN IS IMPACTING IT LEADERS AND THEIR ORGANIZATIONS**

<http://connect.educause.edu/Library/Abstract/ManagingtheFundingGapHowT/48051>

- **EDUCAUSE ECONOMIC DOWNTURN**

http://connect.educause.edu/term_view/Economic%2BDownturn

- **EDUCAUSE ECONOMIC STIMULUS**

http://connect.educause.edu/term_view/Economic+Stimulus

- **NACUBO “Implications of the *Economic Downturn* for *Higher Education*”**

www.nacubo.org/documents/business_topics/Impact_of_economic_downturn10-20-08.Crowe.pdf

- **Highereducation.org Coping with Recession: Public Policy, Economic Downturns and Higher Education**

<http://www.highereducation.org/reports/cwrecession/cwrecession3.shtml>





Questions?