

Signs of the Times

Business Continuity, Disaster Recovery, and IT Audit

John Culshaw
University of Colorado at Boulder Libraries
Win Shih
University at Albany, SUNY

Our Disaster Recovery Plan Goes Something Like This...



Introduction

- Growing interdependence of technology
- 50% institutions experiencing IT disruption in last 5 years (ECAR)
- #6 of Top 10 projects in '07 (*Baseline*)
- Top 5 critical issues facing Higher Ed CIO (EDUCAUSE)
- Business continuity, disaster recovery, risk assessment, business impact, and IT audit

Business Impact Analysis

- Identify unit's functions and critical processes
- Examine likely threats to those processes
- Create mapping between functions and IT resources (campus + library)
- Determine impact and recovery time
- Identify the dependencies on IT resources
- Integrate with IT recovery plan

Library IT Services Work Areas					
Service Code	Service	Critical	Vital	Sensitive	Non-Critical
LIT1	Library Web server	*			
LIT2	Google Mini	*			
	Library Intranet Server (hosting password journal accessing information)		*		
LIT3	Development Server (Website application)		*		
LIT4	Impulse Server (Library catalog, Circulation, Millennium, Authentication)	*			*
LIT5	File server (G/H/S drive)	*			
LIT6	Application Server (LRC educational software)	*			
LIT7	Streaming Video Server	*	*		
LIT8	Print servers (GoPrints/Staff printer)	*			
LIT9	Backup Operation (all servers)	*			
LIT10	Online Access Support	*			
LIT11	IT Help Desk (Web, phone, cell, email)	*			
LIT12	Workstation support (monthly patching, software installation)		*		
LIT13	Week Night and Weekend IT Coverage	*			
LIT14	Asset Management (Hardware / Software)			*	
LIT15	Training (Hardware / Software)			*	
LIT16				*	

Workgroup	Service Description	Critical	Vital	Sensitive	Non-critical	IT Requirement	
						Library	Campus
Access Services	Circulate collection materials in all formats	*				LIT5, LIT9, LIT10, LIT14	TC1, TC2, TC3, TC4, NS2, AAS5, O24
	Interlibrary loan (sending and borrowing)		*			LIT9, LIT14	TC1, TC2, TC3, TC4, O24
	Manage course reserve in print and digital format	*				LIT5, LIT10, LIT14	TC1, TC2, TC3, TC4, NS2, AAS5
	Manage collaborative remote storage facility			*		LIT5, LIT9, LIT10, LIT14	TC1, TC2, TC3, TC4, AAS5
	Manage access to library public workstations	*				LIT14	TC1, TC2, AAS5
Reference Services	Answer patron questions at service desk, by phone, via email, and chat	*				LIT14	TC1, TC2, TC3, TC4
	Provide in-depth research support			*			TC1, TC2, TC3, TC4
	Provide one-on-one consultation			*			TC1, TC2, TC3, TC4
	Provide comprehensive instructional services	*				LIT8	TC1, TC2, TC3, TC4, O22
Technical Services	Catalog materials in all formats		*			LIT5, LIT10, LIT14	TC1, TC2, TC3, TC4
	Inventory library resources in all formats		*			LIT5, LIT10, LIT14	TC4
	Maintain library's ejournal holding information		*				TC1, TC2, TC3, TC4

Recover Time Objective:
 Critical: 0-12 hours; Vital: 13-24 hours
 Sensitive: 1-3 days; Non-critical: 3+ days

Risk Assessment

Overall Risk = Probability * Severity (Magnitude – Mitigation)

Threat	Probability 1-5 (high-low)	Magnitude 1-3 (high-low)	Overall Risk
Earthquake	9	3	9
Fire	2	3	6
Flood / Flash Flooding	2	2.5	5
Hurricane	1	2	2
Ice Storm	5	3	15
Landslides	1	3	3
Power Failure	2	3	6
Computer Crime	3	3	9

Literature Review

Boss, R.W. (2002). Disaster planning for computers and networks. <<http://www.ala.org/ala/pla/plapubs/technotes/disasterplanning.cfm>> (Accessed August 7, 2007).

Dewey, B.L., DeBlois, P.B., & the EDUCAUSE Current Issues Committee. (2006). *Current IT Issues Survey Report, 2006*. *EDUCAUSE Quarterly*, 29(2), 12-30.

Cervone, H.F. (2006). Disaster recovery continuity planning for digital library systems. *OCLC Systems & Services: International Digital Library Perspectives*, 22(3), 173-178.

Gulachek, B. (2005). Business continuity planning: process, impact, and implications. *EDUCAUSE Center for Applied Research Bulletin*, 2005(13).

Hertzberg, R. (2007). Top 10 projects in '07. *Innovations: a Supplement to Baseline, CIO Insight, and eWeek*, 2007(4), 18-22.

Jarnel, J. (2005). Lemons to lemonade: disaster preparation and recovery. *EDUCAUSE Center for Applied Research Bulletin*, 2005(5).

Kahn, M.B. (2004). *Protecting your library's digital resources: the essential guide to planning and preservation*. Chicago, IL: American Library Association.

Pirani, J.A., & Yansky, R. (2007). Shelter from the storm: IT and business continuity in higher education. *Roundup: Tools for Navigating Complex Decisions*. <<http://www.educause.edu/ir/library/pdf/ECM0702.pdf>> (Accessed August 7, 2007).

Question and Answers
