

EMERGENCY RESPONSE PLAN

SECTION 24: Business Continuity Planning

Updated: 05/2008

Division of Finance & Administration Business Continuity Planning Status Report (as of 5/15/08)

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I. Summary of Efforts and Progress

Several offices within the Division now have Business Continuity Plans (BCP) or documents very much like them.

For example, the combined departments of Administrative Computer Services, Telecommunications, Information Technology Security and Networking have created and maintained a Disaster Preparedness Plan since 2002 that now runs in excess of two hundred pages. This plan has most of the elements contained in a business continuity plan.

To supplement the quarterly interdivisional tabletop and simulated NIMS-style emergency response exercises the College conducts, an effort began in 2007 to involve all divisional offices to create their own BCP. It was understood that a BCP can easily take two to three years to fully mature into a comprehensive document, and that the length and breadth of the plan depends a great deal on the individual offices conceiving it.

The first office to begin the process was Student Accounts. Based on their experience, a development group consisting of the managers of Student Accounts, Payroll, Accounting, and the Mail Room was convened to develop a standard approach for business continuity planning within the Division. This group has developed a template for offices to employ in starting their BCP process and is working together to bring their staffs into the planning process. The BCP Development Group has also been charged to review the potential adoption of Berkeley University's online BCP tool, an open-source web application which can be customized for our use and which may have utility in part of the BCP process.

It is currently anticipated that the Division's Business Continuity Planning process will use a three-phase approach. Phase One uses basic BCP structure and well-understood requirements as a starting point and relies on emergent properties derived from the participants to help determine the best direction for the process. At the end of this phase it is expected that each office will produce a five to seven page prototype plans consistent with the template detailed in Section III below. Phase I is expected to be completed by December 31, 2008. Phase Two will involve the detailed documentation of each office's specific processes and integration of the plans into a division-wide whole. Phase Two is expected to be

completed by December 31, 2009. Phase Three will likely see further expansion and refinement of the plans, a framework for updating and review, and testing with tabletop exercises (or perhaps real-world events). Phase Three will be on-going.

II. Discussion Business Continuity Planning

Summary

A great deal of effort has been made by the offices of Facilities and Planning, University Police and Computing and Telecommunications Services to create Disaster Preparedness Plans to aid in supporting the mission of the College. Disaster planning can only go so far, however, without the active participation of other offices on campus: especially those offices whose work is fundamental to the operation of the College. It is the responsibility of those offices to make Business Continuity Plans; these plans detail procedures that ensure their ability to carry on business as usual or, conversely, to demonstrate which functions cannot be carried on under certain circumstances. This prevents bad surprises.

The creation of a Business Continuity Plan requires the consideration of:

- How operations depend on human resources, utility services and facilities,
- Procedures for continuing these operations in the event of the loss of any of the above,
- A prioritization of the operational elements to help decide how much effort and resources to devote to their continuity,
- The coordination of planning effort with other interdependent offices.

Business Continuity Planning must be done primarily by the staff of each office – they are the only ones who have sufficiently detailed knowledge of office operations. It can be the role of outside groups to act in an advisory capacity, but the individual offices provide the motivation and skill to produce a valuable plan. The Divisional level can and should provide coordination and direction for this effort.

Introduction

Some departments on campus with wide-ranging responsibilities have created highly-detailed Disaster Preparedness Plans. These plans set out procedures for dealing with the loss of facilities and infrastructure critical to the operation of the College. As an intellectual exercise their development also reveals vulnerabilities in current procedures and systems, permitting changes that decrease these vulnerabilities.

Planning for disaster cannot be a one-way street, however. No amount of planning and preparation can completely eliminate the possibility of unplanned events that have an impact on the operation of the College. Therefore, it is incumbent on individual offices across campus to consider their operations carefully and make plans for business continuity.

The objective is to have plans and procedures in place to be able to support the mission of the College under any reasonably conceivable circumstance.

These circumstances involve the loss or degradation of resources and services. These may include the temporary loss of utility services, temporary reduction in staff resources, or the complete loss of facilities due to disaster.

Utility Services

The operation of any office on campus depends to a greater or lesser extent on the existence of utility services. These fall into two categories:

- Environmental support: electricity, HVAC and water supply.
- Data and communications: telephone, intra- and extra-net.

There always exists the possibility of the unplanned interruption of one or more of these services for extended periods. Each department should consider whether and how they can continue operations in the face of such outages.

Staff Resources

Sufficient staffing is essential to the proper operation of any office. Managers should consider how operations can continue during the unavailability of current staffing levels. These losses could be due to widespread illness, job actions such as strikes or work slowdowns, or even future staffing reductions due to budgetary constraints. Managers should also consider how operations will proceed if people responsible for leadership and decision-making are suddenly unavailable for whatever reason.

Disaster

A less likely possibility with much greater impact involves the loss of office facilities, either temporarily or permanently, due to disasters such as fire or flood. Business continuity in this case involves relocation to other spaces, and may require the consideration of how operations can be conducted after the loss of (or loss of access to) physical records.

Process:

Analysis

In carrying out Business Continuity Planning; the first step involves an analysis of the functions performed by an office. This analysis should address the following questions:

1. How vital to the functioning of the College are the operations of the office?
2. Do operations fluctuate in intensity or importance over the course of the year? If so, when are the peak times?
3. Which utility services are most critical to operations?
4. Could the office tolerate partial losses of services?
5. What physical documentation does the office rely on for operations?
6. What is the bare minimum level of functionality necessary for the office?
7. What staff and physical resources are necessary to maintain minimum functionality?
8. How long can the College tolerate reduced or zero functionality from an office?

It is unlikely that many (or even any) of these questions will have clear-cut answers. There are too many variables to consider, and too many scenarios that play against these variables. It should

therefore be understood that a foolproof continuity plan may be impossible to construct. This does not mean that such an exercise is without value. Any planning that can be carried out ahead of time when everything is warm and well-lit is better than ad-hoc arrangements made under the pressure of time and disaster.

Planning

After the initial analysis has been completed, managers should compile a loose set of plans for operations under the most likely general scenarios – loss of data network, electrical power or telephone service. Assuming that the operations of an office can be broken down into specific, discrete elements, and then each of these elements must be addressed in the following terms:

1. What utility services does the element depend on?
2. How can the element be carried out in the event of the loss of utilities?
3. When utility services are restored, does additional work need to be done to complete operational elements?
4. Do the operations of other offices suffer if operational elements cannot be carried out in a normal manner? Can this liability be overcome?
5. How long can the function of the college realistically continue in the absence of each operational element?
6. Are there key staff people that certain operational elements cannot be performed without? Would cross-training close these vulnerabilities?
7. Is there a clear mechanism for passing operational responsibilities in the event that managers are unavailable?
8. In the event of temporary staff losses, is it possible to share the human resources of other offices in order to maintain operations?
9. Each office's collection of operational elements mix with all the other elements of all the other offices in a division to form a priority list in terms of importance to the function of the College. How do the elements of a given office stack up against the competing needs of other offices in terms of business continuity?

Periodic Review

A completed Business Continuity Plan should be reviewed at least annually; changes to procedures, staffing and operational responsibilities can render a plan obsolete (or worse, misleading) if it is not a living document. The plan should include additional reference materials such as a detailed staff directory, organizational charts, and contact information for any external agencies/vendors/support people that the office depends on.

Divisional Coordination

Since no office operates in a vacuum, it is suggested that all managers in a given division spend some time in coordinating their Business Continuity Plans to make sure there are no conflicts or overlaps, and to give mutual support and motivation in the planning process. The administrative level of each division should also be made aware of the general outline and progress of Business Continuity Planning, and should possess copies of all available documentation arising from planning.

III. Business Continuity Plan Checklist

The following BCP Content Checklist is the template the division's offices follow in developing their plans.

1. Office Name
2. Office Mission
3. Chain of Command & Emergency Contacts (Names, Titles and Contact Information)
4. Organization Chart (including position titles, employee name and contact information)
5. Office Responsibilities (primary tasks, critical tasks, and necessary activities)
6. Workflow (including calendars and timelines)
7. Function, Task and Activity & Staff Assignment List or Matrix
8. List and Location(s) of Task and Activity Training Manuals/Emergency Staffing Checklists
9. List or Matrix of Cross-trained Individuals (both inside and outside office)
10. Interdependent Offices (upstream and downstream of office's outputs)
11. Physical Resources & Dependancies (i.e. space, equipment, software, system connectivity, data, outside agencies or vendors, etc)
12. Emergency Preparedness Response Plans (including location of plans, date of last update & date of last practice exercise)
13. Other Information or Plans (e.g. staff demographic info, succession plans)

IV. Example of Fully Developed BCP:

Although the "Administrative Information Technology Disaster Preparedness Plan" was developed before the creation of the standard Business Continuity Plan Template and Contents Checklist, it includes the critical elements contained in a BCP.

The Table of Contents for the "Administrative Information Technology Disaster Preparedness Plan" is given below. The full plan is in excess of 200 pages and it would not be practical to include it for these purposes. The full plan can be made available to authorized individuals as needed. The table of contents demonstrates the scope and detail of the plan. The plan was last updated on 05/07/2008.

Table of Contents

- 1. *Introduction*
- 2. *Definitions*
- 3. *Incidents*
 - 3.1 *Incident Management*
 - 3.2 *Notification of Appropriate Offices*
 - 3.3 *Post-Incident Review*
 - 3.4 *Business Continuity Planning*
 - 3.4.1 *Summary*
 - 3.4.2 *Introduction*

 - 3.4.3 *Utility Services*
 - 3.4.4 *Staff Resources*
 - 3.4.5 *Disaster*
- 4. *Facilities*
 - 4.1 *Netzer Computer Center*
 - 4.1.1 *Hardware*
 - 4.1.2 *Network*
 - 4.1.3 *Security*
 - 4.1.4 *Equipment Configuration Database*
 - 4.1.5 *Data Backup*
 - 4.2 *Failure Modes*
 - 4.2.1 *Mode One – Software*
 - 4.2.2 *Mode Two – Hardware*
 - 4.2.3 *Mode Three – Facilities*
 - 4.2.4 *External Monitoring of Systems and Services*
 - 4.3 *Contingency Planning*
 - 4.3.1 *Process*
 - 4.3.2 *Using Office Trailers as Temporary Server/Switch Facilities*
 - 4.3.3 *Additional Commentary*
 - 4.4 *Telecommunications Data Network*
 - 4.4.1 *Network Hardware Rack*
 - 4.4.1.1 *Internet Router*
 - 4.4.1.2 *Core Router & Firewall*
 - 4.4.1.3 *SUNYNet*
 - 4.4.1.4 *Packetshaper*
 - 4.4.1.5 *Dial-up Access Server (RAS-8)*
 - 4.4.1.6 *TCO-a.switch*
 - 4.4.2 *Network Servers Rack*
 - 4.4.2.1 *NS1, NS2, NS3*
 - 4.4.2.2 *WINSI(dhcp)*
 - 4.4.2.3 *NWKMGR*
 - 4.4.3 *Data Backup Procedures*
 - 4.4.4 *Emergency Power*
 - 4.4.5 *Contract Support Numbers*
 - 4.4.6 *Equipment Inventory List*
 - 4.5 *Telephone Service Infrastructure*
 - 4.5.1 *Recommendations, Threats and Vulnerabilities*
 - 4.5.1.1 *Forward Planning Considerations, Recommendations and Observations*
 - 4.5.1.2 *Threats and Vulnerabilities*
 - 4.5.2 *Details of Existing Circuits, Local Loops and Routes*
 - 4.5.2.1 *Visio Diagram of Circuits, Loops and Routes*

- 4.5.2.2 TTY Console Information
 - 4.5.2.3 Power Transfer Phone Line Assignments
 - 4.5.2.4 Payphone Numbers and Locations
 - 4.5.2.5 Blue Light Phones
 - 4.5.2.6 Entrance Phones
 - 4.5.2.7 Excess Capacity by Building (Available Pair Counts)
 - 4.5.3 Telecommunications Infrastructure
 - 4.5.3.1 Telecommunications Infrastructure Mapping Project
 - 4.5.3.2 CAD/CAM Drawings of Oneonta Telecom Infrastructure and Floor Plan Drawings by Building
 - 4.5.3.3 Cable Locator and Hazardous Gas Sensor Devices
 - 4.5.4 Conduit Cross Sections and Splice Drawings
 - 4.5.5 Emergency Contact Information
 - 4.5.5.1 Emergency Vendor Contact Information
 - 4.5.5.2 Emergency College Contact Information
 - 4.5.5.3 Other SUNY Oneonta Contact Numbers
 - 4.5.5.4 Switch Room, Electrical, HVAC and Emergency Generator Support Contacts
 - 4.5.5.5 Campus Cell Phone List
 - 4.5.5.6 Office Phone Numbers Listed by Building, Office and Room
 - 4.5.5.7 Telephone Number Extension Assignment List
 - 4.5.5.8 Residence Director and Reception Desk Phone Numbers by Building
 - 4.5.6 Procedures and Logistical Arrangements Necessary to Support the Recovery of Operations
 - 4.5.6.1 Remote Call Forwarding
 - 4.5.6.2 Disaster Crash Cart
 - 4.5.6.3 Satellite Phone Information (Examples of Rentals)
 - 4.5.6.4 Contacting Insurance Agents
 - 4.6 Call Center
 - 4.6.1 What the Call Center Does
 - 4.6.2 Call Routing
 - 4.6.3 Call Center Resources
 - 4.6.4 Call Center Software Library
 - 4.6.5 Call Center Relocation Plan
 - 4.6.6 Call Center Contact Information
5. Contact Directories
 - 5.1 Computer and Telecommunications Services
 - 5.2 Other I.T. Staff
 - 5.3 President's Cabinet
 - 5.4 Call Escalation Tree
6. Updating and Testing the Plan
7. Reference Section
 - 7.A Equipment Configuration Database for 4.1.4
 - 7.B Hewlett Packard Parts/#s for 4.1.4
 - 7.C Master Campus Map for 4.4
 - 7.D Firewall PDF for 4.4.1.2
 - 7.E CAD Drawings for 4.5.3.2
 - 7.F AT&T Support Information for 4.5.5
 - 7.G Essential Function Continuity Statements
 - 7.G.1 Division of College Advancement
 - 7.G.1.1 College Advancement
 - 7.G.2 Division of Academic Affairs
 - 7.G.2.1 Academic Affairs
 - 7.G.2.2 Milne Library

- 7.G.2.3 *Academic Information Technology*
- 7.G.2.4 *Continuing Education, Summer Session & Graduate Studies*
- 7.G.2.5 *Print Shop*
- 7.G.2.6 *IRC Television & Radio Services*
- 7.G.2.7 *Registrar's Office*
- 7.G.3 *Division of Student Development*
 - 7.G.3.1 *Student Development*
 - 7.G.3.2 *Educational Opportunities Program*
 - 7.G.3.3 *Admissions*
 - 7.G.3.4 *Residence Community Life*
 - 7.G.3.5 *Center for Multicultural Experiences*
 - 7.G.3.6 *Athletics/Recreation/Intramurals*
 - 7.G.3.7 *Hunt College Union*
 - 7.G.3.8 *First Year Experience & Orientation*
 - 7.G.3.9 *College Assistance Migrant Program*
 - 7.G.3.10 *Judicial Affairs*
 - 7.G.3.11 *Counseling Center*
 - 7.G.3.12 *Financial Aid*
 - 7.G.3.13 *Academic Advisement*
 - 7.G.3.14 *University Police*
 - 7.G.3.15 *Student Health Center*
- 7.G.4 *Division of Finance and Administration*
 - 7.G.4.1 *Finance & Administration*
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 - 7.G.4.3 *Administrative Desktop Support*
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 - 7.G.4.10 *Payroll*
 - 7.G.4.11 *Human Resources*
 - 7.G.4.12 *Employment Opportunities*
 - 7.G.4.13 *Mail Services*
 - 7.G.4.14 *Student Accounts*

V. Conclusions

Business Continuity Planning is critical to the basic functionality of an institution in times of crisis. But it also serves as an aid to strategic planning of many kinds. The BCP process encourages a thorough and continuous review of how we do business. Such reviews frequently produce valuable operational and planning insights. Good Business Continuity Planning is no easy task, however. It requires a commitment of time, reflection, cooperation and continuous review.

The greatest impetus to planning is for administrators to stress its importance. The greatest resource for the creation of a quality product is the College's staff. When staff are fully invested in the process and value its product, the outcome will be a better prepared to manage the unexpected and better equipped to serve our students during the "normal" times of change and challenge.