INFORMATION MANAGEMENT: STRATEGY, SYSTEMS, AND TECHNOLOGIES

CONTINGENCY PLANNING FOR SMALL- TO MEDIUM-SIZED BUSINESSES

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INSIDE

Upper Management's Role; Delegating Responsibilities;
Minimum Plan Outline; Business Impact Analysis

INTRODUCTION

Contingency planning need not break one's budget if organized and properly implemented. Most planning is based on common sense, and need not become a bureaucratic drill. Disasters of all sorts occur every day, and people seem to believe it is always the "other guy" who gets hit. It is only when an unplanned event occurs that directly affects one's business that it becomes a "disaster." For example, local floods, windstorms, or a fire down the street that closes off the street, the electrical service, and the water power all have the potential for putting a company out of business.

By carefully reviewing the company's vulnerability to a series of likely contingencies, it is possible to reduce the risks to a manageable whole. For the most part, most disasters can be organized under one of the following three categories: loss of information, loss of access, or loss of personnel.

In conducting the planning process, the manager must recognize that during a disaster, the business will not run as usual. In fact, there may well be a period of disorganization or limited operation during which it may be necessary to make do with limited or restricted resources.

> **PAYOFF IDEA**
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The Need for Management Emphasis

Contingency planning cannot be accomplished in a vacuum, or without proper support. Furthermore, it is absolutely necessary that the entire planning process be given full endorsement and support by the most senior level of management. In fact, it is often during the planning process that a lot of questions are asked and answers are found to resolve issues that may have been previously taken for granted.

Rather than delegate one person to create survivability solutions for the company, it is more desirable to involve the entire staff in the planning process. After all, in most businesses that have been operating successfully, the people who make the company function should be involved in creating the solutions for survivability.

Contingency planning need not be a task that must be completed in one pass. Rather, the process for contingency planning should be made part of every department's responsibility and accomplished over a structured time period. Each department should work through the planning process, identifying the most serious risks first, followed in order by those less serious.

Organizations should:

- Establish a project plan in which each department has identified priorities in connection with the recovery of its own operations during a disaster.
- Review its progress against a defined set of goals.
- Have each department responsible for developing its own plan for recovery, given specific disasters.

In addition, it should:

- Have the department prepare and write its own procedures for recovery. These in turn should be reviewed by senior management for completeness. With this type of management emphasis, a better product will result.

Distribute the Load Evenly

As another part of the planning process, each department head should be part of a disaster recovery team, along with key staff members. This makes it much easier to assign disaster recovery tasks to the right people. Organizations should establish a clear line of command with an established alert procedure that can be readily accessed by any member of the company.

For example, a bank established a remote telephone message center. Specific numbers were given to personnel at every level to be used to obtain specific instructions on recovery procedures during a specific disaster situation. In this way, no single person was flooded with calls for

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EXHIBIT 1 — Minimum Plan Outline

Section 1.0: Business Recovery Policy
Section 2.0: Damage Assessment
Section 3.0: Contingency Resources
Section 4.0: Weather-Related Contingencies
Section 5.0: Fire-related Contingencies
Section 6.0: Loss of Critical Services
Section 7.0: Failure of Internal Services
Section 8.0: Systemic Contingencies

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information for which he or she might not be prepared to provide a proper set of instructions. Furthermore, it avoided the confusion associated with having the wrong people obtain misleading information.

Start with a Minimum Plan Outline

Start by making a minimum plan outline for the business and then begin the planning process by filling in the blanks as one progresses. Exhibit 1 shows a basic outline from which to start. Use this outline and modify it to suit the business situation. Because every business is unique, there is no one plan outline that "fits all"; modifications will be required.

This outline is not intended to be the final answer to any business without a contingency plan. It is intended as a starting point from which to begin the process for getting a business contingency plan organized.

WHAT IS INVOLVED
The Business Impact Analysis

Organizations should begin by conducting a business impact analysis in which all of the business's operations are defined, and their priority with respect to each other operation are clearly understood. One should determine the timeline for each of these operations and the financial impact of each operation upon the business as a whole.

During this process, it will become apparent just how long the business can operate without one or more specific operations being in place. Management should have a clear understanding of the cost impact that a specific contingency will have on the business. Each operation timeline should clearly define the costs for this operation while it is not in service. Thus, by adding the cost impact of each operation timeline to recovery, the total cost impact of a contingency can be clearly understood.

Section 1: Business Recovery Policy

Based on this analysis, Section 1 should be completed first, in coordination with department managers. In this section, as a minimum, several is-

sues should be covered. Determining how the company will behave during a disaster is important, as is the explanation of the general policy for recovery from a disaster. This should cover:

- what is considered a disaster
- who is responsible for declaring a disaster
- which steps are to be followed
- who is to be contacted for specific responsibilities
- what is the order of notification for internal and external support resources

Furthermore, the business recovery policy should include the specific procedures to be followed in a specified contingency. Some of these will be outlined in the sections that follow in the plan outline. Specific instructions may be contained in addenda to this section, which might include building evacuation procedures, procedures to follow when the place of business has been closed for a specific period of time, and policy instructions for line reporting and contact procedures.

Some businesses might include a policy on public information and community relations in this section. This would include public relations instructions, special contacts, the release of information to the community, and a list of related public officials.

Inventory What You Have. In conjunction with the assignment of damage assessment teams, each team should be tasked with inventorying its respective departmental assets and resources required to conduct its operations. In the past, many companies felt that if they had a copy of their computer files off site, they would be safe. This has not proven to be an accurate assessment. Many companies have lost the institutional knowledge of the equipment that they require to run their business.

For example, records relating to machine tools, special manufacturing tool kits, test kits, and lab equipment have often been lost over time with no knowledge as to the acquisition procedures for such specialized equipment. In one case, the disk controller card failed for a server supporting local area network (LAN) for a company's financial center. This failure closed down operations for more than a week, until a proper controller card could be found. In today's fast-moving electronic world of E-commerce, it is mandatory that a complete spares program be maintained on site, to avoid the impact of equipment obsolescence coupled with a failed component.

Section 2: Damage Assessment
The completion of the inventory process will allow planners to complete the section on damage assessment. In this section, the planners will iden-

tify the damage assessment team members and detail their primary assignments. Essentially, the instructions in this section are aimed at telling people what they are supposed to do in time of a specific disaster situation. This section will detail where and how team members are to be assembled, and what they are to evaluate and report.

There should be team sections to cover each aspect of the business, as well as the equipment and facilities required to run the business. In some circumstances, these teams may have to be assisted by outside resources that have more specific expertise. For example, telephone and computer vendor support may be required to assess damage in these specialized areas. In this situation, the company will have to negotiate a separate contract for business recovery under the constraints of a disaster. This contract should identify what is covered and the responsibility of the vendor for full recovery of the equipment and functional operation of that facility.

Addenda can be attached to cover personnel with critical skills that would be required to bring up specialized operational areas. This list would also identify alternates to each person on the list, to cover personnel on extended leave, vacation, or sick leave. Obviously, all contact lists must have the most current telephone number and address for each person on the list, as well as alternate points of contact such as telephone numbers for relatives or friends.

Section 3: Contingency Resources

This section identifies the resources that will be required to support the company's operations in time of a specific contingency. Every operation must be thought through clearly to determine which resources or facilities would be required to get the company started. Costs for these resources as well as a source of supply must be planned in advance.

In this section, procedures must be spelled out for obtaining any number of items that are available to support the recovery of company operations. This might include outsourced services that are contracted for prior to time of need. For example, this section would contain the procedures for setup of the emergency communications systems. This procedure would identify the person responsible for setup and teardown of the system. Instructions would include setting up individual and group mailboxes. If an emergency broadcasting system is to be used, the procedures for setting up individual department instruction messages would be defined, as well as the department contact responsible for developing the message script.

Handling loss of information is critical to maintaining a business operation. An important area covered in this procedure would be the availability of an emergency start-up kit for the company. Such a start-up kit might be organized based upon departments, and would be available to

restart operations where all records have been lost. Procedures would be outlined for the monthly update of the contents of the kit, with department contacts identified who would be responsible for providing monthly update information.

Items in this kit would include: year-to-date financial information, customer order information, current factory orders, equipment configuration records, facility lists, copies of all manuals and product design information, bills of material, purchase orders, checks, and other items of information required to keep the business running if there is a complete loss of information.

In the case of a manufacturing operation, procedures must be in place for the immediate recovery of production. This may mean the establishment of temporary manufacturing facilities based upon contractual arrangements with partner companies. It may also mean the relocation of operations to another company plant. Whatever is required to restart all or parts of the production line must be thought through in advance of need. Applicable purchase orders must also be prepared to purchase services and items of supply that would be needed to support any of the department operations.

This procedure would also cover the movement to specialized services that are required to support specific operations of the company. For example, this might involve the process for setup and operation at an alternate computer center to support payroll, payables, and vendor support operations. Basically, this section needs to define all the necessary items required to support any portion of the company's operations. Furthermore, it must detail the procedures for acquisition of any required items of support.

Section 4: Weather and Acts of God

Weather contingencies or Acts of God are difficult to plan for because there is no way to predict their occurrence. Furthermore, some Acts of God will have a greater impact in certain parts of the United States than in others. For example, earthquakes have had their greatest impact on the west coast, as have volcanoes. That is not to say that similar Acts of God may not make their appearance elsewhere.

In the weather section, the planner should focus first on those situations that have taken place in the organization's immediate area of operations. Each weather-related contingency must be treated separately, with clear guidelines established for actions to be taken before and after the business has opened for a business day. It should be clear where employees are to get their information, and which actions they are to take.

All planning should consider the employees' and their families' welfare first. For example, during recent hurricanes in the southern United States, many manufacturing plants suffered severe damage. Storms im-

pacted entire communities for days. For this reason, the employees' first consideration was for their families' safety. Many companies had previously mapped out plans for employee family evacuation and safety, before plant operations were considered. With family members safely cared for, employees were more willing to come into their place of employment to secure operations.

Procedures for recovery and operation of alternate sources of external support must be clearly planned and thought out in advance of need. For example, in the case above, manufacturing plants suffering from utility outages as the result of storm damage were up and running with generators that where on hand or placed in reserve at a local supplier's facility.

Procedures for obtaining external contractor support for reestablishing specialized services denied during storm damage must be planned in advance of need. Contracts and purchase orders must be worked out, and the procedures for getting services in place must be clearly defined.

Section 5: Fire-related Contingencies

In this section, fire drill instructions are developed to identify who is responsible for fire safety, and to specify what action is to be taken during a fired drill. The principal person assigned as the company fire marshal is responsible for identifying the type of fire, as well as contacting local firefighting agencies if a fire cannot be contained by company personnel.

In each department, people should be identified as the responsible contacts for specific fire warden duties. These duties should be defined for each department. In addition, each department should have personnel assigned to close down certain activities, in order to minimize the impact of a fire on company records and equipment.

These activities include machine shutdown procedures, securing safes and fire storage cabinets, computer shutdown, data file removal, power-down procedures, and other procedures aimed at reducing the spread of a fire. These specific activities are defined in this section, as are those related to each departmental operation.

Medical emergency procedures are also defined here, as are the local first aid or EMT leaders for the company. The team members are responsible for obtaining medical emergency evacuation equipment and EMT support services. These procedures are covered in this section as they relate to a fire emergency.

In some companies with significant amounts of chemical-related manufacturing activities, personnel are assigned fire containment and firefighting responsibilities. These responsibilities and task assignments should be specified in this section. In addition, prescribed training in firefighting practices should be defined, and quarterly training schedules should be outlined in this section. Addenda that are part of this section

should list firefighting equipment configurations and the location of equipment, and should detail all equipment components.

Section 6: Loss of Critical Services

Individual services that are critical to the operation of the company and its ability to conduct business could shut down operations for a period long enough to cause serious damage.

Loss of Electrical Power. Loss of electrical service can cause a company to shut down all of its internal operations. In anticipation of such an emergency, some companies will maintain generator equipment. In this section it is important to identify the primary and secondary people available to put this equipment in operation. There should be step-by-step instructions for getting auxiliary power online. A vendor contracted to be available to start up standby electrical power should also be connected with this procedure.

Loss of Telecommunications. The instructions for resolving the loss of telecommunications could be as simple as a contact list for the local carrier or telephone contractor responsible for the internal telephone system. Because these services, together with data lines, might all be provided by separate service providers, it is necessary to identify each contact separately in a recovery instruction. This would include the vendor contact's home telephone or after-hours number.

There should be a company telecom manager and one alternate who are completely familiar with all of the telecommunications service providers. In connection with a failure in services, instructions must be available for the setup of remote call forwarding of sales and customer service calls. In addition, this should include an emergency message setup to a call answering device or service, supporting the company's main listed and customer service lines.

If there is a call management center, instructions need to be available for setup of call forwarding for all customer call traffic to an alternate call center.

Loss of Transportation Services. This section should include instructions for engaging an alternative to local transportation services that may be lost due to a strike or other emergency. These instructions should outline the procedures for getting a replacement service, together with the necessary purchase orders. Where hazardous material (HAZMAT) removal is concerned, instructions relating to the proper U.S. EPA environmental documentation must be included in this section. Addenda may also be made, part of which lists available vendors, with vendor contacts.

Section 7: Failure of Internal Services

Internally, the company may lose the support of equipment or facilities vital to the smooth operation of the company's productive energies. These include failures or business interruption due to mechanical failures, failure of computer support, loss of data records, loss of E-business support, HAZMAT, fumes, or internal explosions.

Mechanical. This section outlines the people responsible for the recovery and support of mechanical, heating, and air-conditioning systems. It also includes the vendor contacts responsible for individual items of equipment, and the procedures for engaging their services. Also included should be the types of equipment used in conjunction with manufacturing processes, as well as the most immediate source(s) for replacement of items of equipment, parts, and service.

Computer. This section includes the instructions for restarting all computer equipment, including the server or servers required to support any local area networks. Instructions must be available for the orderly shutdown and start-up of all equipment. Also included should be all of the instructions for loading and initializing all applications support programs and related databases. All equipment must be itemized as to the type and level of hardware components for both desktop and computer servers. Vendors contracted to support the computer facilities should be identified, together with the systems for which they are responsible.

Database instructions must be included that define the proper backup and initialization of all data files, and recovery of backup data files that are stored locally. Contacts for the remote data backup storage service should also be provided. All instructions should be at the level of detail that could be understood by the least knowledgeable or least qualified staff members.

E-business. Today, many companies use a World Wide Web site that is hosted off-premises to support customer relations and technical information, as well as order entry and order inquiry. It is vital that instructions be made available regarding the procedures to be followed when an E-business capability is compromised. These instructions might include customer care procedures, restart of the Web site, and Internet service supplier contacts, as well as backup and recovery procedures for the Web site. Internet service providers are not yet conditioned in the care and support of business Web sites that support ongoing business processes. It is therefore important that end users be prepared to support their own operations.

HAZMAT, Fumes, and Chemical Spills. Chemical intrusion can have a significant impact on a company's business operations. Procedures

must be developed to ensure the safety of all employees, as well as the safety of the premises, as dictated by applicable laws and work rules. Key personnel must be identified who are familiar with all of the procedures required to protect the company, company employees, and company resources.

Section 8: Systemic Disaster Recovery

A variety of disasters can affect a company in today's culture that in years past were not of concern. Without being dramatic, the planner must think through the position of the company in the event that an employee decides to create a violent act against the company or fellow employees. Furthermore, defensive procedures are required should an employee sabotage the company's property or computer network, or steal valuable assets.

Procedures must be defined to cover the company in case an employee embezzles money from the company or takes propriety property for transfer to a competitor. A strategy must be in place so that the loss of key personnel — which includes executives — will not threaten the continued success of the company in the marketplace. These acts must be clearly thought through, with proper procedures for ensuring the position of the company to continue in its defined market space.

Increasingly, companies are falling into bankruptcy due to product failures and recall actions. Strategies must be worked out in advance to ensure that the company will have alternatives for meeting such situations should they occur.

SUMMARY

This discussion has briefly outlined very basic considerations for a business contingency plan. Because there are no two companies that are structured completely alike — even those that compete in the same marketplace — there can be no one plan that fits all. For the company that has no plan, this article provides a basic starting point from which to launch an effort to protect the company against a disaster, no matter how minor it may appear when it takes place. As a rule, very few disasters are headline grabbers. Most disasters may even be minor disruptions, but when they impact an unprepared business, then a real disaster might ensue.

The easiest way to get something started in contingency planning is to appoint key employees to two action teams: one team focused on first aid training, and a second group focused on fire prevention. Organizations should call the Red Cross and request first aid and CPR instruction for the first group, and engage the local fire company to teach fire prevention to the second group. The organization should have each group

prepare a basic company instruction guide, and then it should switch training for each group.

The organization has now created the nucleus for a business contingency plan, a group trained to deal with immediate emergencies of fire or employees hurt at work, and a group preconditioned to continue the development of a business contingency plan. The cost for this quick start is nearly nothing, and can be integrated into a company's training program. Contingency planning is not a manual that gets written and forgotten, but an ongoing process for successful survival.

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