

Business Continuity Planning Tools

MANY ORGANIZATIONS ARE FINDING THAT THE DECISION TO UNDERTAKE BUSINESS CONTINUITY PLANNING IS NO LONGER A MATTER OF CHOICE; it is a legal necessity. An effective business continuity plan can be developed either by a business continuity consultant or by in-house personnel. Consultants can bring considerable expertise and experience to the table and, in some cases, help overcome internal obstacles to the plan's development. The cost of consultant-developed plans, however, has put this service out of reach for most small and medium-sized organizations. This has led to an increased interest in in-house business continuity planning. Fortunately, there is now an increasing body of literature to help novices understand and implement business continuity planning; in addition, several software packages have been developed to aid in plan development and maintenance. This chapter reviews the merits of consultant-assisted business continuity planning, examines the available planning tools, and provides criteria for selecting a business continuity consultant or the right planning tool.

In the late 1980s, a legal doctrine emerged that placed personal liability on an organization's corporate officers for the protection of its automated systems and other information assets. Because of this legal liability for data loss, there has been an increased interest in business continuity planning, especially within financial institutions. For banks that participate in the U.S. Federal Reserve System, the office of the comptroller requires that boards of directors and bank management personally review and approve contingency plans that have been developed to safeguard their organization's systems and data. In other industries, the courts have repeatedly held for customers in suits against disaster-stricken companies that neglected to safeguard critical corporate assets — including information — before a disaster occurred.¹

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If the legal liability issue has led to an increased interest in business continuity planning, the record of recent disasters has further underscored and reinforced this interest. The National Fire Protection Association asserts that there were, on average, 83 fires per year in data centers and telephone equipment rooms from 1969 to 1983;² the actual number of smoke and rubble disasters covered by business continuity facilities during that period was six. However, in 1987, there were 18 highly publicized disasters in which organizations implemented business continuity plans and relocated operations to backup facilities. In every case, organization spokespersons attributed the survival of their businesses to the existence of a tested business continuity plan. These acknowledgments have led to a heightened perception of the threat of disaster, as reported in a 1988 Ernst & Whinney survey.³

The increased awareness of the need for business continuity planning has been accompanied by a marked rise in the memberships of contingency planning associations throughout the country. Popular IT journals that would rarely publish articles on contingency planning now feature special issues entirely devoted to the topic. In addition, new journals are being published that are dedicated to the subject of contingency planning.

In the business continuity services industry, the late 1980s and early 1990s have witnessed a boom of activity. In 1989, IBM Corp. announced a new Business Recovery Services offering, consisting of consulting services, mainframe- or minicomputer-based hot site facilities, and commercial cold sites. In addition, consulting firms report that they are busier now than ever before, and the major accounting and auditing firms (e.g., PricewaterhouseCoopers, Ernst & Young, KPMG, etc.) now offer contingency planning services to their clients.

Even with all of the evidence pointing to the benefits of business continuity planning, securing management commitment is difficult. In some cases, management may be reluctant to spend money to acquire the services and products it needs to implement the plan. This indicates a lack of understanding of the financial risks and exposures presented by disasters. Legal requirements that compel management to undertake planning must be communicated early. When legal exposure is not the primary factor, other risk factors must be cited to sell senior management (e.g., loss of clients or orders, high insurance premiums, unproductive use of time by employees who depend on computer resources, and inordinate expenditures for equipment and software that was not considered before the disaster). Once senior management gives the go-ahead, the first task facing the data manager is to decide who will develop the plan. One approach is to hire a consultant, and another is to develop the plan in-house. The following sections examine the arguments in support of each option.

THE CONSULTANT OPTION

Business continuity planning is no less complicated than a major systems development project. Recognizing the scope and complexity of business continuity planning, the data manager may be inclined to look to a consultant to manage the project.

Several factors support a decision to hire a consultant. Experienced consultants bring a set of proven tools to the project, which may mean the quick development of an effective plan. A practiced consultant understands the effective construction of a business continuity plan, asks the right questions, and typically knows who's who in the business continuity products and services industry. Consultants who work in a specific industry often tailor a methodology for business continuity planning to that industry, which reduces the amount of time needed to learn new skills and helps speed development. Further, consultants bring a fresh perspective to the process, spotting important recovery requirements that may be overlooked by employees.

Consultants are expensive, however. Ironically, this may be an advantage in some cases. Business continuity planning requires the interaction of users and information systems personnel. In many large IS operations, fractious functions (e.g., programming and systems operations) must cooperate. Frequently, the only way to have all parties work together efficiently is to impress upon them the considerable cost of the consultant. Similarly, because senior management has made an investment in the consultant's plan, it may be less inclined to withdraw the support needed to implement the plan.

Data managers who are charged with choosing a consultant should be aware of the many myths surrounding consultant-driven plans. Many managers believe that because consultant plans are written by experts, they are more effective. With the business continuity information and tools available to all contingency planners, however, even novice planners can develop an efficacious plan.

Another fiction is that only consultant plans are executed successfully. Although this used to be the rule, in the past few years there have been numerous instances of successful recoveries in organizations that developed their plan in-house. Along those same lines, many managers believe that auditors will accept only consultant plans; in fact, as long as the plan has been fully tested and demonstrated to be effective, auditors will accept it.

There is a common but false belief that employees of an organization using consultants do not need to be involved in developing the recovery plan. At a minimum, any organization will need to have at least one employee work with the consultant to develop the plan. If the consultant

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works entirely alone, the plan will not work because staff members will not understand their part in it.

Selecting the Right Consultant

To guard against making a contract with the wrong consultant, the data manager should take five initial steps. These are discussed in the following paragraphs.

1. Obtaining Qualifications. It is important to request in advance the name and background of the consultant who will provide business continuity services. Which organizations has the consultant served? Were these clients satisfied with the job? An inexperienced consultant, even one that is in contact with more experienced professionals, should be avoided. The ideal consultant possesses a solid grasp of information systems, understands the specific requirements of the client's business, and has developed satisfactory business continuity plans for at least two other organizations.

2. Requesting a Plan Proposal. The consultant should submit a proposal that details the phases, tasks, and milestones of the planning project. Most consultants work from generic methodologies that they can adapt to specific client requirements. With the increasing availability of commercial products for planning and managing contingency planning and business continuity projects, consultants can no longer portray their work as mysterious or otherwise beyond the reach of nonpractitioners.

3. Validating Proposed Time and Cost Estimates. A consultant cannot develop meaningful time and cost estimates unless consulting services are packaged as a fixed-price contract. The data manager should be particularly wary if the consultant quotes exact costs or completion times without having assessed the organization's requirements.

Estimates provided by the consultant can be of value to the data manager in several ways. For example, valid time and cost estimates are useful benchmarks when the proposals of various consultants are being compared, especially if each estimate is made on the basis of similar projects for comparable businesses. To ensure that the data presented in each proposal is as accurate as possible, the data manager should verify that all predictable costs, including the consultant's travel and lodging, are reflected in the estimated cost.

4. Negotiating Cost. Initially, consultants often market their premium service, offering the less expensive shared-responsibility approaches only if they sense they may be pricing themselves out of a contract. Faced with the prospect of losing business, a consultant can be notably creative in finding cost-saving measures. One manager reported that the cost of the plan development was cut by putting corporate word processing at the

consultant's disposal to take care of all documentation and by designating one of the staff members to work full time with the consultant, replacing the assistant called for. Other managers have purchased a consultant's microcomputer-based business continuity planning tool, contracting with the consultant only for the initial analysis and data collection. The result: substantial cost reductions.

5. Assessing the Consultant's Relationships with Vendors. Many consulting firms have formal and informal relationships with vendors of business continuity products and services. In fact, some consultants argue that it is partly their extensive knowledge of and contacts within the industry that qualify them for the rates they command. These relationships can, in some cases, benefit the client organization. The client may thereby qualify for a discount on a fire protection system, off-site storage, or the use of a hot site.

The potential for misuse of these relationships is also present. An unethical consultant may be willing to forego the objective analysis of client requirements and recommend a product or service for which the consultant receives compensation. Therefore, it is important to know with whom the consultant has marketing agreements and how these agreements may translate into cost advantages. Most vendors will openly disclose special arrangements, particularly when they profit a potential client and, in the process, improve the marketability of their service.

THE IN-HOUSE OPTION

For many organizations, the use of consulting services is a luxury, a cost over and above the already expensive business continuity planning project that they must undertake to satisfy legal and audit requirements. Others take the view that any reasonably intelligent employee, equipped with management support and the technical details of an organization's system and network operations, can develop a competent business continuity capability.

The problems faced by organizations that elect to develop a contingency plan using in-house personnel are fourfold. First, many novice planners lack fundamental knowledge about the scope of business continuity planning. This problem is reflected by the inordinate amount of time spent by the novice planner who creates disaster scenarios and strategies for coping with them, or by the lengthy, theoretical dissertations on business continuity found in many internally developed plans.

The second problem confronting many do-it-yourself planners is one of procedure. Procedural difficulties arise from efforts to collect information from departmental managers and from outside agencies (e.g., fire department representatives, local civil emergency planners, and utility and

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telephone companies). Managers or planners who do not know the appropriate questions to ask or how to effectively manage interviews will confront major obstacles to plan development.

Vendor management is the third problem. If the planners are able to surmount the problems of scope and procedure and are able to develop an understanding of the needs and exposures that business continuity planning must address, they will still be thwarted by their lack of knowledge of commercially available products and services that help reduce exposure. Even if planners have a general knowledge of products and services, they may know little or nothing about product pricing or about the contracts that govern delivery of promised commodities.

Finally, there is a problem of plan articulation. The way a planner assembles information about systems, exposures, and recovery strategies into a business continuity plan document determines how useful the plan will be in an actual emergency and how difficult the plan will be to maintain. A well-written plan is structured so that only pertinent sections are given to recovery teams in an emergency and so that plan procedures can be implemented readily. The plan should be structured to be updated easily as the names of vendor contacts, recovery team members, detail of systems and network hardware, and software configurations change over time.

A partial solution to these difficulties is to use one of the numerous, commercially available business continuity planning tools: software packages typically designed for use on a microcomputer. Sometimes irreverently referred to as canned plans, these applications can provide scope, procedure, and format to business continuity planning projects.

WORD PROCESSOR-DRIVEN TOOLS VERSUS DATABASE-DRIVEN TOOLS

Business continuity planning tools come in a variety of forms. Some are simply boilerplate text documents, sold on diskette in American Standard Code for Information Interchange format. The user imports this plan into a word processor, and the plan can be modified or customized using word processor editing functions. Another type of packaged plan is database-driven. Both types of plans offer distinct benefits and are discussed in the following sections.

Word Processor-Driven Tools

There are several advantages to these plans, one of them being that the in-house planner is allowed to use familiar software (i.e., the word processor), which reduces the learning curve that frequently delays plan development. In addition, a text plan may be readily expanded to incorporate business continuity planning for user departments, for branch offices, or

to account for other requirements that may not be part of the generic plan. Finally, word processor-driven plans are easy to maintain using the global search-and-replace function that is part of most business word processors.

Once customized, the word processed plan is printed like any text document. The format and the content of the plan can be redesigned to resemble other business plans or to accommodate company standards relating to document preparation.

Database-Driven Tools

Another type of plan is database-driven. The generic portion of the plan is incorporated into the fields on the data entry screens, and the data requested from the user is specific and detailed. As the data is entered onto the screens, several relational databases are compiled containing information about systems, networks, and personnel. Then, through the use of vendor-supplied queries and programs, the business continuity plan is printed out as a series of reports.

Advantages of this approach to planning tool design are the enhanced organization and management of data derived from a database structure. For example, all data pertaining to recovery teams (e.g., the names and emergency telephone numbers of each team member) is located in a single database, making it easier to update the information regarding such matters as employee turnover or changes of telephone numbers.

Other vendors have developed planning tools that integrate enhanced database software applications (e.g., project management software) with a generic business continuity plan, claiming the combination supports not only plan development and maintenance but implementation. One such package provides decision support software that can be used during a disaster to collect data on the progress of the recovery effort.

CRITERIA FOR SELECTING BUSINESS CONTINUITY PLANNING TOOLS

Regardless of the mode of presentation employed, the primary determinant of the microcomputer-based business continuity planning tool's effectiveness is the generic plan that it provides. Although this built-in plan is neither right nor wrong, it may be more or less appropriate to a specific organization and its business continuity planning requirements. Several planning tools should be evaluated by an in-house contingency planner before one is selected.

The in-house contingency planner should outline various criteria to aid in evaluating packages (as well as consultant-developed plans). Some criteria are suggested by the following questions, and these criteria are out-

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Product Identification

Product Name: _____

Vendor: _____

Address: _____

Price: _____

	Yes	No	Comments
Scope			
Data Center Only			
Companywide			
Corporationwide			
Methodology			
Project Management			
(if No, state other)			
Plan Description (Check Yes if feature is provided)			
Generic Plan			
Action Plan			
Plan Activities			
Recovery Team Directory			
Vendor Information			
Equipment Inventories			
Records and Locations			
Network Descriptions			
System Descriptions			
Company Information			
User-Friendliness (Check Yes if feature is provided)			
User Interface (menus, windows, or mouse)			
Help Screens (contextual)			
Input Methods (nonredundant data entry, batch mode)			
Output Methods (diversity of reports, query language)			

Exhibit 28-1. Business continuity planning tools evaluation checklist.

Does the Tool Provide the Means for Developing a Business Continuity Plan for the Entire Organization? If business continuity planning is to be comprehensive, the selected planning tool must be able to handle plans for the recovery of more than hardware, software, and electronically stored data (e.g., telecommunications recovery) and for the restoration of company operations to an acceptable level. Most planning tools do not provide this capability in their generic, noncustomized form, despite vendor claims to the contrary. The contingency planner should determine, in advance, the degree to which the plan can be modified to meet the organization's needs.

Does the Planning Tool Require Adoption of an Approach to Recovery Planning That Differs from Methodologies Used in Other Planning Activities? Effective business continuity planning differs little from other types of business planning. Objectives are developed, tasks are derived from objectives, and criteria are set forth to gauge task and objective fulfillment. An

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experienced planner can use basic project management skills to develop and maintain an effective contingency plan; novice planners, however, may need more than a generic project management software package to develop their first plans. The package that a novice planner uses should not deviate drastically from a basic project management approach. If a manual is required just to understand the plan's methodology, it is probably not the most appropriate plan.

Is the Planning Tool Comprehensive? At a minimum, the essential sections in the plan are:

- *The action plan.* The order in which recovery activities must be undertaken to result in speedy business continuity.
- *Plan activities.* The tasks that must be undertaken in a recovery situation. These should be ranked in order of importance and related to an action plan.
- *Recovery teams and the notification directory.* The planning tool should have a location for recording the names of company personnel who will play a role in a recovery situation, as well as a list of telephone numbers for all personnel who must be notified in the event of a disaster.
- *Vendor information and contact directory.* The planning tool should provide a location for recording information about all vendors who will provide products or services during a disaster and the names and telephone numbers of vendor contacts.
- *Records requirements and locations.* The plan should include sections detailing the locations and types of vital records stored off site and the procedures for accessing them during recovery.
- *Equipment inventories.* An inventory of systems hardware and other equipment should be maintained in the plan, both for insurance purposes and for use as a checklist in plan testing.
- *Communications networks, line, and equipment requirements.* The plan should provide a description of network operations and communications line and equipment and of services recovery requirements.
- *Application systems software and hardware requirements.* This section should provide descriptions and should list the hardware necessary for operations and for meeting user hardware requirements.
- *Company information.* Information regarding an organization's lawyers, insurance policies, and lines of credit should be maintained in the plan document.

Is the Package User-Friendly? An excellent business continuity planning application should be as user-friendly as any other software package. In fact, given the specialized work of the package, the planning tool should be even more user-friendly. Some of the factors that contribute to user friendliness are:⁴

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- *The user interface.* Complex packages should require less expertise from the user. This rule of thumb applies to nearly all applications. A well-designed package should provide menus, displays, and straight-forward escape routes. Mouse controls might also be desirable, though system portability would be reduced if a fallback to cursor control is unavailable.
- *Help screens.* Contextual help screens are a definite advantage. Printed manuals are not as useful as help screens that can be invoked from anywhere in the program to explain how to avoid or repair errors and list available options.
- *Tutorials or samples.* A business continuity planning tool should give the user an idea of what an actual business continuity plan looks like. The microcomputer-based tool should come equipped with a sample that can be modified by the user to accommodate an organization's requirements.
- *Input.* Data input should be as simplified a procedure as possible. This is a key issue in determining which type of planning package — word processor-driven or database-driven — is best for a specific environment. The plan should be organized to reduce or eliminate redundant data entry. In addition, it may be useful if the planning tool allows the importation of outside files through batch conversion or some other method, because some of the information needed for the plan may have been assembled in another form or for another purpose and importing files will reduce duplicate entry.
- *Output.* The planning tool should be able to output an actual plan. The plan should be divided into sections by subject or task, and its form should be flexible enough to accommodate documentation standards.

What Is the Pedigree of the Planning Tool? Many business continuity planning tools were developed by consulting firms for the consultant's use at client sites. In some cases, the package was subsequently licensed for use by the client who then maintained the plan. Consulting firms began to customize their planning tools for business continuity backup facility vendors and their clients. Finally, direct sales to the client became a lucrative source of business for consulting firms. Hence, many tested, reliable planning tools were originally used to develop actual plans for specific organizations. Untested planning tools may produce inadequate plans, a fact discovered only after testing or — in the worst case — in an actual disaster. Therefore, the pedigree of the plan is extremely important.

These considerations aid in the selection of the best business continuity planning tool for a particular organization. In addition to these, the price of the planning tool, the availability of telephone support, and other factors that contribute to the selection of any software package are also important.

WHAT PLANNING TOOLS DO NOT PROVIDE

Business continuity planning tools can aid the in-house planner in many ways. They can provide an example of the structure of a plan, which may be unavailable from other sources. From this base, the planner can build and customize. Most tools also provide emergency action plans for reacting to disasters of varying destructive potential. This helps to set limits on the endless creation of scenarios that often strangles novice planners' efforts. Planning tools underscore the information that the planner must acquire. Knowing what questions to ask and having a format for entering responses can speed project completion.

However, business continuity planning tools are also limited in what they can provide. For example, no planning tool can provide the in-house planner with the skills needed to obtain the cooperation of departmental managers in assessing those systems that are critical. Planning tools do not provide planners with the skills required to evaluate vendor offerings, to negotiate contracts for hot-site services, or to develop effective off-site storage plans. Nor can a planning tool convince senior management of the need for business continuity planning.

On the other hand, planning tools can be used to articulate a plan for business recovery, a plan that can be tested, refined, and maintained. An effective tool will pay for itself in the time saved in maintaining the plan. This is arguably the greatest benefit business continuity planning tools can offer.

SOURCES OF INFORMATION ON PLANNING TOOLS

Generally, the best sources of information about business continuity planning and tools are professional contingency planning associations. The number of these organizations has increased dramatically over the past several years, and membership is booming.

Most contingency planning group members are business continuity or security planners from organizations within a specific geographic region. Members exchange ideas and information openly about their situations and offer advice and solutions from their own experiences. These groups can be valuable sources of new techniques and methods of plan development — from presenting the plan to management to deciding on the best records-salvaging strategy. Many associations are self-appointed watchdogs over the essentially unpoliced business continuity industry. The groups invite vendors to demonstrate products and provide insight into their particular expertise. In addition, most business continuity groups do not allow their vendors to interfere with candid appraisals of products and services, including business continuity planning tools.

CONCLUSION

Because of the costs associated with contracting a business continuity consultant, many organizations choose to develop a contingency plan in-house, either by using planning tools or by using a consultant for the initial stages of the development. Either choice is valid, but business continuity planning tools do not provide a comprehensive solution to an organization's business continuity planning needs. Only by careful study of the literature of business continuity planning and by interacting with other business continuity planners can novice planners obtain the competence to develop effective recovery capabilities for their firms. On the other hand, planning tools can be a useful adjunct in plan development activities by providing an example of plan format and by exposing the user to the plan's unique approach and method.