

Critical First Steps

for

Ensuring

Business Continuity

It shouldn't take a catastrophe such as the terrorist attacks of Sept. 11, 2001, to make completing a business continuity plan (BCP) a top priority. The increased sense of urgency that followed in the wake of that tragic day, however, can catalyze positive actions that help prepare organizations for natural and man-made disasters, while equipping them to manage mission-critical facilities and equipment with greater proficiency.

The following scenario, based on the actual experience of a mid-size city* in the United States, illustrates essential first steps data center managers can take toward completing a BCP. By knowing what equipment they have, where it's located, its capabilities and characteristics, the possible

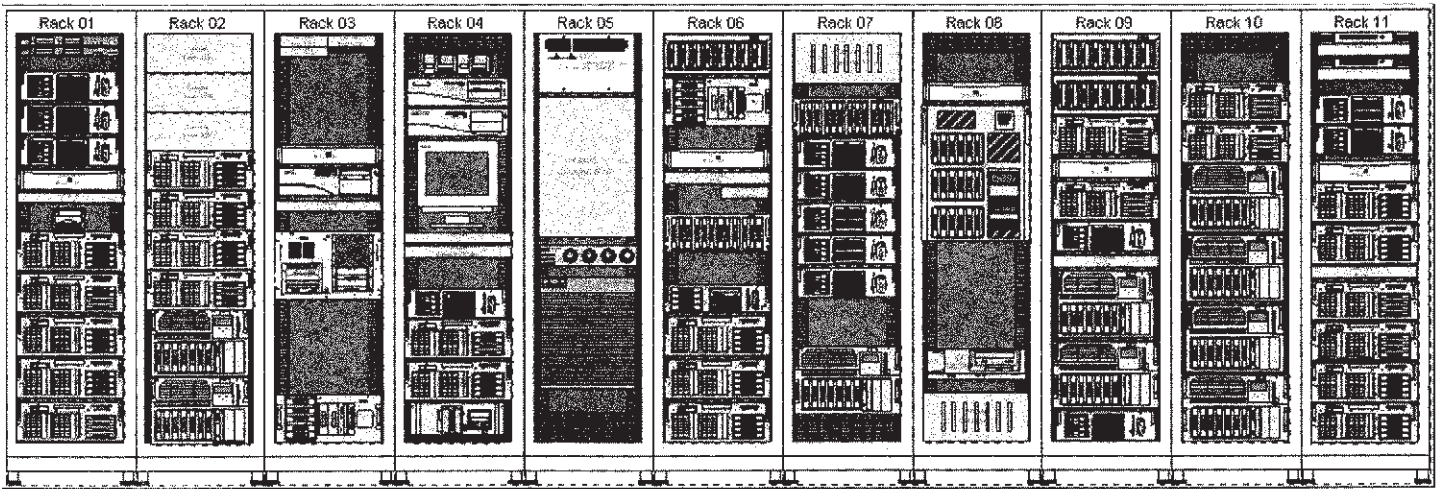
points of failure and what actions should be taken (in priority order), organizations can quickly and strategically respond to change — whether it is planned or unexpected.

Slightly more than a year ago, the City decided to reduce the cost of collecting and maintaining data about its IT infrastructure.

*For security purposes, the actual city involved has not been named.

by **John Grosskopf**

Figure 1 Elevation view of server racks



It also wanted to improve the accuracy and usefulness of the data it needed to better manage its IT assets.

Prior to this time, the City had hired a consultant on an annual basis to survey telecommunications and IT equipment. Each year, the City was provided with updated inventory information via a simple electronic spreadsheet.

Hiring consultants to repeat this survey each year was not only redundant, it was expensive. And, because there was no process for updating and maintaining data throughout the year, information in the spreadsheet quickly became obsolete. IT staff couldn't rely on it to plan for or prioritize repairs, replacement and improvements.

There were other challenges. The City had created basic drawings of floor plans with computer-aided design (CAD) software and had invested in computer-aided facilities management (CAFM) software to manage its facilities. The drawings, however, lacked key information that could help staff manage their IT infrastructure. Such information included the location, dimensions, specifications, layout and assigned users for IT equipment.

The City decided it needed a centralized database that wove together facility, IT infrastructure and human resource information, making it readily available for analysis and updates via electronic drawings and reports.

For the past year, the City worked to:

- Survey and record the location, specifications and configuration of its IT infrastructure
- Employ the CAFM software to electronically link a database with facilities information — such as space use, occu-

pancy type, life-safety features, furniture and IT asset inventories — to computer-generated drawings

- Customize the CAFM software to give their IT staff members the exact tools and information needed to manage their facilities and equipment as strategic assets
- Make accurate, scalable and interactive electronic drawings immediately available for review and easy to update

The physical survey of the data center entailed measuring and sketching the dimensions of the room in which it was housed as well as determining the size and location of all equipment and raised floor tiles. A CAD technician used this information to create electronic drawings, which were then linked to a new CAFM database.

The survey also included noting the asset number, make, model and serial number for each device, then creating custom fields in the CAFM program, recording this information and linking it to specific pieces of equipment via the asset number. This gave the City a top-down view of the data center.

Next, devices stored on the racks were measured and their locations mapped. The asset number, make, warranty information, model and serial number for each piece of equipment was recorded (figure 1, above, and figure 3, page 4). Adding this information to the CAFM database and linking it to existing data in the City's legacy database (such as date of purchase and cost) provided them with accurate electronic drawings that not only illustrated where mission-critical equipment was located, but also displayed important specifications (figure 2, page 3).

The City's IT staff can now quickly

update the database to reflect moves, adds and changes by clicking on, dragging and dropping the illustration of a piece of equipment in a new location on a floor plan or rack drawing. Information electronically linked to the device that was moved (or altered) is then dynamically updated throughout the database.

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City staff members decided to test these capabilities by using an upcoming remodeling project to develop strategies for documenting and electronically managing its IT network. This project entailed remodeling an office area in one of the City's buildings, installing new workstations and equipment, and upgrading this area to use fiber optic technology.

They began with the creation of a CAFM background for the model office area. Polygons were drawn around each workstation on the CAFM floor plan to define its

Figure 2 Data fields customized to meet client needs

Can You Say Yes?

Data center managers who can answer yes to all of the following questions are not only prepared to respond to natural or man-made disasters, but they are also equipped to manage their mission-critical facilities as strategic business assets.

- Is your business continuity plan (BCP) documented and easily accessible to all personnel responsible for enacting it?
- Is your BCP remotely accessible?
- Has your BCP been tested?
- Is your critical data continually backed up at an offsite location?
- Can you quickly assemble your key personnel in the event of an emergency?
- Can you quickly identify emergency equipment (shutoffs, extinguishers, etc.) and egress routes?
- Do you know which hardware and software are critical for enacting the BCP?
- Do you have vendor contact information for this mission-critical hardware and software?
- Can you restore data center operations quickly enough to minimize business interruption?
- Do you have a hot site (or even a cold site) identified and prepared for use in the event of a catastrophic loss?
- Do you know the cost and can you secure the funds necessary to rebuild?
- Do you have a process, adequate staff and funding in place to ensure that the accuracy of your information is constantly maintained?

—J.G.

Device	
Manufacturer	Compaq
Model	ProLiant 350R
Description	High Performance Web Server
Asset #	3363845
Use Status	InstaRec
Current Space	CADC.1.SF-SVR-1-CMPD350R-01.48.
Device Name	CMPD350R-01
Manufacturer Device Specs	
Volts (50 Hz)	240
Power (kVA)	6
Phases	60
Max Temp. (°F)	50
Wet Bulb (°F)	35
Min Humidity (%)	10
Max Humidity (%)	8
Min Temp. (°F)	30
Max Temp. (°C)	10
Wet Bulb (°C)	35
To Air (BTU)	38.7
To Water (BTU)	1.010
Height (in)	6.10
Width (in)	17.70
Weight (lbs)	15.80
Height (mm)	30.00
Width (mm)	128.5
Depth (mm)	460.00
Weight (kg)	401.30
Asset Coverage	
Coverage Type	Warranty
Start Date	6/1/00
Term (months)	5/1/04
Expiration	6/31
Cost/Period	\$180
Power Source	
Power Strip ID	CADC.1.SF-SVR-1.PS-A
Power Strip	A-Left
Power Supply #	01
PDU	PDU01
Panel	01
Breaker	03
Load (Amps)	2.50
Breaker ID	CADC.PDU01.01.03
Space	
Building	Smith Building
Floor	B1
Space #	100
Department	Information Services
Space Type	Computer Room
Rack Location	
Building	CADC.1.SF-SVR-1
Floor	AA-26

boundaries and establish its location. The following data was then input or imported and linked to each individual workstation:

- Vendor-supplied CAD office system and furniture information
- A classification relating the work station to standards developed by the Building Owners and Managers Association (BOMA)
- Specific IT equipment and network data.

A CAD diagram was also created to document the size and characteristics of the IDF rack and the equipment located on it. This information was then linked to the CAFM program.

After IT staff completed a physical survey of equipment, graphic symbols were devel-

oped for PCs, jacks and phones, then hot-linked to data that described the specific characteristics and capabilities of each device. This greatly expedited creation of a diagram illustrating connectivity. By simply clicking on symbols, it was possible to electronically link each PC to a port to a patch panel to a switch on the IDF rack.

The final step was to associate workstations and equipment to specific individuals. This was accomplished by linking information in the City's legacy human resource database to fields in the CAFM database. Changes in equipment, location or replacement of devices could then be recorded in the central CAFM database, with data updated automatically to relate these changes to individuals.

The management benefits of the new centralized CAFM system are clear:

- The cost of hiring consultants to conduct a new equipment survey each year has been eliminated.
- It has automated the move/add/changes workflow and made it easier to maintain the accuracy of data. The City's IT staff simply click, drag and drop graphics to record data center or network changes electronically. Data is dynamically updated throughout the integrated databases.
- Space and capacity planning tasks are completed more quickly. IT staff can also explore "what if" scenarios before making actual changes.
- Accessing cost, warranty and other data via a few keystrokes makes planning and budgeting easier.

- Help desk staff now use the system to diagnose problems by tracing them through the possible points of failure in the network. When the cause of a problem is located, information about service contracts is immediately available for the device in question.

Having achieved "proof of concept" via a small-scale remodeling project, the City has decided to proceed with enterprisewide implementation. The long-term success of this project depends on the City also securing funding to dedicate staff time for ongoing maintenance of information in the database.

To more fully prepare for a natural or man-made disaster, the City would need to address additional questions included in the sidebar (page 28), such as identifying a possible cold or hot site. By completing critical first steps, however, the City now has the core information needed to complete a business continuity plan. They can accurately estimate costs and know exactly what is needed to quickly replicate or replace their IT infrastructure. ■

John Grosskopf, business analyst with RSP i-SPACE and AFCOM member, has 12 years of IS experience and 10 years of experience in CAFM and CAD applications development. Some of the mission-critical projects he has completed include development of graphic data center management applications in the United States and abroad. If you have questions or comments, please feel free to contact him directly at john.grosskopf@rsparch.com.

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Figure 3 Illustration showing which devices have service contracts

