

UNBIASED

INFORMATIO

# **Annual Conference**

ORIGINAL ESSENTIAL

Business Continuity: Pondering the Unponderable

**AFP**<sup>®</sup>

A Corporate-Bank Dialogue on Planning, Prevention and Protagonism



UNBIASED

INFORMATIO

### **AFP**<sup>®</sup> **Annual Conference**

Jim Loewen, CTP Assistant Treasurer **Consumers Energy** 

- 30+ Years experience in TM and cash operations
- Treasury lead in company wide development and implementation of BC/DR plan

Dan McCarty SVP – TM Market Manager **PNC** Bank

ORIGINAL ESSENTIAL

- 30+ Years experience in commercial lending and treasury managementM
- Member and past Chair: **ABA** Payment Systems Committee

### **Consumers Energy**

Fourth largest combination utility in the U.S.

- 1.8 million electric and 1.7 million gas customers
- 7,700 employees
- \$6.3 billion revenue
- \$15.7 billion assets







### **PNC Bank Corporate Profile**

#### Employees:

Approximately 57,000 in the U.S. and abroad *Size by Deposits:* 6<sup>th</sup> largest U.S. bank by

deposits

#### Customers:

More than 6 million consumer and small business customers *Locations:* 

Branches - About 2,900 in 18 states and the District of Columbia

Brokerage Offices - 40 offices in 12 states and the District of Columbia *ATMs:* More than 7,200 machines

Internet Address:

www.pnc.com



Pro Forma Financial Highlights*				
Assets	\$296 billion			
Deposits	\$206 billion			
Shareholder Equity	\$35 billion			
*As reported 03/31/12				



### **Ideas for our Discussion**

Concerns of Sub Optimal BC/DR: Risk Factors

Real Life: Some Examples to Consider

Business Continuity/Disaster Recovery...

...What's Involved

Focus of Contingency Planning:

**Corporate-Bank Interactions** 

**Ideas for Your Consideration** 





# **Ideas for our Discussion**

Concerns of Sub Optimal BC/DR: Risk Factors

Real Life: Some Examples to Consider

Business Continuity/Disaster Recovery... ...What's Involved

Focus of Contingency Planning:

**Corporate-Bank Interactions** 

**Ideas for Your Consideration** 







### **Risk of An Ineffective BC/DR Plan**

Disrupt network operations; cause business to come to a halt

- Reduction of Business Revenues
- Continuance of Expenses



Impact on Corporate Brand: Incalculable





### **Risk of An Ineffective BC/DR Plan**

Potential of Costly Litigation

Impact on Future Operations

Potential Loss of Clients



Worst case scenario: Business Closure



### **Top Threats to Business Continuity**



In this chart, each threat is evaluated against scale which translates into a score as follows:

- Extremely Concerned: 4
- Concerned: 3
- Somewhat concerned: 2
- Not concerned: 1

Note: not applicable is available as a non-scoring choice.

The highest score would be 4.00 which would equate to 100% of respondents for whom the threat is applicable marking it as extremely concerned.

This approach has generated some differences further down the scale where somowhat concerned numbers are a significant proportion. For example, human illness scores 2.39 or 9th position under this scoring method rather than 17th.





See Appendix A







### **Follow the Corporate Investment**



The flow of investment for IT Spend appears to match the concerns related to Business Continuity!

See Appendix B: College of Virtualization: Lessons in Implementing a Cost-Effective Disaster Recovery Plan Sponsored By: Dell & VMware



### **Ideas for our Discussion**

Concerns of Sub Optimal BC/DR: Risk Factors

Real Life: Some Examples to Consider

Business Continuity/Disaster Recovery... ...What's Involved

Focus of Contingency Planning:

**Corporate-Bank Interactions** 

**Ideas for Your Consideration** 





### **Disruptive Events... Some Examples**

#### September 11th, 2001

Too Many to Mention

### August 14th, 2003

Power Outage: August 14, 2003 at 4:10pm ET

#### August 23rd-30<sup>th</sup>, 2005

Hurricane Katrina and Hibernia Bank

### May, 2010

Downtown Nashville Flood

### February, 2011

#### Every other day

Data Breaches: TJX, Heartland, Sony...Global Payments



### **Disruptive Events... A Time Line**





### **Disruptive Events... By Location**





### **Disruptive Events... Data Breaches**

= 1 million records lost, colored by breach type (hack, stolen, lost, or fraud)

-



#### **AFP<sup>®</sup> Annual Conference**



# Ideas for our Discussion

Concerns of Sub Optimal BC/DR: Risk Factors

Real Life: Some Examples to Consider

Business Continuity/Disaster Recovery... ...What's Involved

Focus of Contingency Planning:

**Corporate-Bank Interactions** 

**Ideas for Your Consideration** 



### What's Involved

- Business Continuity vs. Disaster Recovery
   Differentiate
- Focus: What are you trying to accomplish
   RTO v. RPO: Have an SLA
- Business Continuity: A Process
- Impact Analysis: a Questionnaire
   See Appendix C
- Business Continuity: a Corporate Example





### **Consumers Energy: Definitions**

#### Crisis Management

The infrastructure needed to manage disasters

#### Business Continuity

The advance arrangements for continuing critical business processes if the primary work location and/or primary applications are unavailable

#### Disaster Recovery

A plan to recover those critical IT systems or infrastructure necessary to support key business processes in the event of a disaster



Crisis Management Plan (Yellow)



### What's Involved

- Business Continuity vs. Disaster Recovery
   Differentiate
- Focus: What are you trying to accomplish
   RTO v. RPO: Have an SLA
- Business Continuity: A Process
- Impact Analysis: a Questionnaire
   See Appendix C
- Business Continuity: a Corporate Example





### Focus: What are you trying to accomplish? Classification of Tasks



Figure 1: Data Value Hierarchy

College of Virtualization: Lessons in Implementing a Cost-Effective Disaster Recovery Plan Sponsored By: Dell & VMware



### **Business Continuity: RTO vs. RPO**

Have an SLA for your Recovery Time Objective...



College of Virtualization: Lessons in Implementing a Cost-Effective Disaster Recovery Plan Sponsored By: Dell & VMware



### What's Involved

- Business Continuity vs. Disaster Recovery
   Differentiate
- Focus: What are you trying to accomplish
   RTO v. RPO: Have an SLA
- Business Continuity: A Process
- Impact Analysis: a Questionnaire
   See Appendix C
- Business Continuity: a Corporate Example





- Governance
- Program Components
- Strategic Investments and Solutions Development
- Strategic Partnerships
- Industry Trends





#### **Program Components**

- Analysis and Planning
- Operational Availability
- Testing
- Training and Awareness
- Reporting
- Crisis Management





#### **Analysis and Planning**

- Understand and quantify business exposures/potential impact
- Plan for the recovery of key resources: people, processes, technology, facilities and vendor/partners
- Transparent reporting for recovery capabilities, residual risk and remediation
- Identify enhancements to Business Continuity Plan: Prioritize!
- Coordinate remediation with investment priorities
- Facilitate risk based decision making
- Develop escalation criteria for an event: great or small



#### Testing

- Validate recovery strategies at least annually or as necessary
- Review results with business unit, management, audit and regulatory agencies
- Gaps and enhancements tracked and prioritized for funding and completion
- Technology tests conducted at least annually
  - > Assuming primary data centers are unavailable
  - Use of real time information
  - Involve entire chain of distributed systems

### Reporting

- Integrated into BRP: Summarize and highlight recovery/ business resumption across business lines
- Provide transparent overview across all dependent units and to all levels of management



#### **Crisis Management**

- Crisis management teams:
  - Impact assessment
  - Notification of appropriate parties
  - Escalation to management
  - Coordinate overall effort
- Crisis communication: Regular updates with impact assessments to affected parties: Customers, employees, vendors, regulators
- Scenario based walkthroughs:
  - Understanding of crisis response
  - Impact assessment
  - Resumption capabilities
- Testing





## **Consumers Energy: A Bit of History**

#### 2009 Internal Audit report

- Incomplete or nonexistent business continuity plans
- No business continuity training
- > No comprehensive policy

#### 2010 Project

Development and implementation of policy, oversight structure and plans



### What's Involved

- Business Continuity vs. Disaster Recovery
   Differentiate
- Focus: What are you trying to accomplish
   RTO v. RPO: Have an SLA
- Business Continuity: A Process
- Impact Analysis: a Questionnaire
  - See Appendix C
- Business Resiliency: a Corporate Example





### What's Involved

- Business Continuity vs. Disaster Recovery
   Differentiate
- Focus: What are you trying to accomplish
   RTO v. RPO: Have an SLA
- Business Continuity: A Process
- Impact Analysis: a Questionnaire
   See Appendix C
- Business Continuity: a Corporate Example





### **Consumers Energy: Governance**





### Consumers Energy: Emergency Operations Center

### Emergency Management

Incident Command



#### Association for Financial Professionals\*

### Consumers Energy: Business Continuity Cycle





### **Consumers Energy: Technology**

#### Business Impact Analysis

- Priority Application Listing
- Company-wide prioritization of all systems and applications

#### Treasury

- Bank account database
- Contacts database



### **Consumers Energy: Treasury's Plan**

#### Work at Home

- Laptops
- Access to Key Contacts
- Bank Account Database
- Bank Reporting and Transaction Initiation Systems
- > 48 Hour Maximum Interruption







# **Financial Planning: Contingencies**

#### Collections

- Lockbox:
  - Can you receive data for posting?
  - Exception management: Post cash and correct issues later?

#### Wires (inbound):

- Do you have event notification?
- Information reporting: Intraday?
- Related data: FED reference number; Expanded remittance

#### ACH (inbound):

- Do you have event notification?
- Information reporting: Intraday?
- Related remittance data: CTX; CCD+
- > Card:
  - Notification
  - Level 1-3 data: Can you receive it for posting?



# **Financial Planning: Contingencies**

#### Disbursements

#### Demand Accounts (Checking):

- Authorized signers/resolutions: Limits, number of signers, physical location: Do you have paper and electronic copies?
- Check stock: Accessible?
- Check Positive Pay implications: Pay or no pay?
- Card access to account?

#### > Wire:

- Voice wires: Do you have PIN process established?
- Branch origination: Hours of operation; dollar limits; PINs
- Deadline of FED wire system

### > ACH:

- Can you create/confirm a payment/file (system availability)
- Windows of operation: ACH network and your bank
- Dual approval: Access and availability
- ACH Positive Pay implications



# **Financial Planning: Contingencies**

#### **Information Reporting**

- Visibility of activity (and of Cash!)
- Accessibility to company systems, web and bank systems

#### Liquidity

- > Daylight OD limits: For your company? For your bank?
- Availability of cash when receipts are interrupted
- > Overdraft (overnight) vs. extension of credit

#### **Communications – Immediate and Ongoing**

- Management and staff (Communication Tree)
- Key customers
- Vendor/Suppliers: Banks, third party service providers
- Insurance providers: notification may provide resources

### **Facility Planning**

- Primary and secondary operating sites
- Securing your facility and related assets (sanitation, water etc.)
- Supplies unique to your business



# **Ideas for our Discussion**

Concerns of Sub Optimal BC/DR: Risk Factors

Real Life: Some Examples to Consider

Business Continuity/Disaster Recovery... ...What's Involved

Focus of Contingency Planning:

**Corporate-Bank Interactions** 

**Ideas for Your Consideration** 





### **Ideas for Consideration**

#### **Implement Electronic Processes Wherever Possible**

- Improve recovery options
- Planned redundancy
- Remote accessibility
- Increased communication alternatives
- Security and system integrity

#### Collections

- > Plan for data interruption on both sides: Corporate and bank
- Decisioning for cash application separate from A/R data
- Have distribution plans for data

Alternate addresses for paper and electronic delivery

#### **Disbursements**

- Consider methods for payment origination
  - > ACH to wire? Electronic to paper?
- Plan now for alternate approval process
- Consider commercial cards for appropriate payments

![](_page_42_Picture_17.jpeg)

### **Ideas for Consideration**

#### **Payment System Redundancy**

- Internet access
- Maintain security within an event
- Monitor activities during an event
- Commercial cards

#### **Status and Location of Account Information**

- Do you have backup copies of information?
- > Do you have sufficient cash available for initial needs?

#### **Develop a List of Priority Payment Activities**

- Payroll
- Key supplies
- Utilities

# Talk to your bank...NOW!!!!

![](_page_43_Picture_14.jpeg)

![](_page_43_Picture_15.jpeg)

![](_page_44_Picture_0.jpeg)

**Annual Conference** 

![](_page_44_Figure_2.jpeg)

# Thank You!!!!!

**AFP**<sup>®</sup>

### **Standard Disclosure**

- PNC, PINACLE, Working Cash, ActivePay, Global Trade Excellence, XPACK and Vested Interest are registered marks of The PNC Financial Services Group, Inc.("PNC")
- Midland Loan Services, Enterprise!, CMBS Investor Insight, Portfolio Investor Insight, Borrower Insight, Deal Flow and Shared Servicing are registered marks of PNC Bank, National Association.
- Banking and lending products and services and bank deposit products and investment and wealth management and fiduciary services are provided by PNC Bank, National Association, a wholly-owned subsidiary of PNC and Member FDIC. Certain fiduciary and agency services are provided by PNC Delaware Trust Company. Equipment financing and leasing products are provided by PNC Equipment Finance, LLC, a wholly-owned subsidiary of PNC Bank, National Association. Aircraft financing is provided by PNC Aviation Finance, a division of PNC Equipment Finance, LLC. Merchant services are provided by PNC Merchant Services Company. Private equity financing is provided by affiliates of PNC Equity Management Corp. Mezzanine financing is provided by PNC Mezzanine Capital Corp. Investment banking and capital markets activities are conducted by PNC through its subsidiaries PNC Bank, National Association, PNC Capital Markets LLC, and Harris Williams LLC. Services such as public finance advisory services, securities underwriting, and securities sales and trading are provided by PNC Capital Markets LLC. Merger and acquisition advisory and related services are provided by Harris Williams LLC. PNC Capital Markets LLC and Harris Williams LLC are registered broker-dealers and members of FINRA and SIPC. Harris Williams & Co. is the trade name under which Harris Williams LLC conducts its business. Foreign exchange and derivative products are obligations of PNC Bank, National Association. Securities products and brokerage services are offered through PNC Investments LLC, a registered broker-dealer and member of FINRA and SIPC. Insurance products and advice may be provided by PNC Insurance Services, LLC.
- Important Investor Information: Brokerage and insurance products are:
  - > Not FDIC Insured. Not Bank Guaranteed. May Lose Value.
  - PNC does not provide legal, tax or accounting advice. PNC does not provide investment advice to Vested Interest plan sponsors or participants.
- Lending and leasing products and services, including card services, trade finance and merchant services, as well as certain other banking products and services, require credit approval.
- **©2012** The PNC Financial Services Group, Inc. All rights reserved.

![](_page_45_Picture_9.jpeg)

![](_page_46_Picture_0.jpeg)

#### Sample business impact analysis questionnaire

By Paul Kirvan, FBCI, CBCP, CISA

A <u>business impact analysis</u> (BIA) attempts to relate specific risks and threats to their impact on key issues like business operations, financial performance, reputation, employees and supply chains. The BIA is usually the starting point for risk identification in a business continuity context and the analysis' results should guide the risk assessment process.

The discovery process relies on questionnaires to gather relevant information. The person creating the BIA works to identify business attributes such as critical business processes, interdependencies among business units (both internal and external), supply chain dependencies, minimum acceptable office configurations and supplies, minimum time needed to recover operations, as well as minimum staffing required to provide business as usual. BIA questions are posed to key members of each operating unit in the company. A well-organized BIA questionnaire should be able to fulfill its discovery objectives in no more than 20 to 25 questions.

*The template below contains topics for suggested questions in your organization's <i>business impact analysis questionnaire*.

SAMPLE QUESTION/TOPIC	NOTES
Business processes	Describe the business processes for your business unit; minimum acceptable recovery time frames for the business unit, and for specific processes (e.g., accounting), applications (e.g., email), etc.
Dependencies among business units/processes	Define the business units and/or processes and/or systems that a business unit/process depends on to perform normally; specify if these are internal or external to the organization, such as supply chains.
Criticality of business processes	To the greatest extent possible, determine which business units and/or processes are the most essential to the company and its operations.
Availability of alternate business processes, staffing and resources	Specify alternate procedures, e.g., paper work orders or paper order forms, that can be used in lieu of the principal process; access to temporary staffing; and access to alternate operating resources such as a hot disaster recovery site.
Work backlog	For each defined business unit and/or process identified, how long will it take (e.g., hours) to process daily backlogs for each day of downtime? What technique is used, e.g., concurrent or sequential processing?
Critical records	Specify critical business records by record name,

### SearchDisasterRecovery.com

	type of media, primary location of records and
	alternate location (as required).
Reporting requirements	What specific internal/external reporting, such as
	for regulatory requirements, is needed? Include
	the report name, author(s), recipient(s),
	frequency, delivery requirements, variances
	allowed and penalties (if any).
Difficulty of recovery	Define potential recovery issues in terms of
	difficulty to recover operations, time needed to
	recover and resources needed to recover.
Difficulty of restoration	Define potential restoration issues in terms of
	difficulty to restore operations to an as-normal
	or near-normal state.
Tolerance to outages	Assuming a serious situation, such as destruction
	of the company's headquarters location, how
	long (hours or days) could the business unit
	and/or system/application be unusable before its
	loss would impact the organization, its
	stakeholders, suppliers, regulators, etc.?
Maximum time for disruption to business	Determine the maximum amount of time, e.g.,
functions/processes/systems	hours, days, weeks, months, that business units,
	functions, processes, systems, employees, office
	space, etc. can be unavailable before the firm
	loses business, market share, revenues,
	customers, etc.
Disruption impact by timeframe	Using an acceptable time frame, such as days,
Disruption impact by timeframe	Using an acceptable time frame, such as days, weeks or months, define the impact to the
Disruption impact by timeframe	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of
Disruption impact by timeframe	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month.
Disruption impact by timeframe Disruption impact by severity of incident	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified
Disruption impact by timeframe Disruption impact by severity of incident	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g. manufacturing
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity e.g.
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0.
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business Disruption impact by operation	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts such as cash flow
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business Disruption impact by operation	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation.
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business Disruption impact by operation	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation, staff morale, employee hiring and retention.
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business Disruption impact by operation	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation, staff morale, employee hiring and retention, financial reporting, stakeholder perceptions.
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business Disruption impact by operation	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation, staff morale, employee hiring and retention, financial reporting, stakeholder perceptions, shareholder perceptions, and the impact to that
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business Disruption impact by operation	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation, staff morale, employee hiring and retention, financial reporting, stakeholder perceptions, shareholder perceptions, and the impact to that activity, e.g., worst case = 5, no impact = 0.
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business Disruption impact by operation Financial impact	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation, staff morale, employee hiring and retention, financial reporting, stakeholder perceptions, shareholder perceptions, and the impact to that activity, e.g., worst case = 5, no impact = 0. Determine the estimated impact to earnings,
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business Disruption impact by operation Financial impact	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation, staff morale, employee hiring and retention, financial reporting, stakeholder perceptions, shareholder perceptions, and the impact to that activity, e.g., worst case = 5, no impact = 0. Determine the estimated impact to earnings, profits, expenses, etc., in a variety of time frames,
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business Disruption impact by operation Financial impact	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation, staff morale, employee hiring and retention, financial reporting, stakeholder perceptions, shareholder perceptions, and the impact to that activity, e.g., worst case = 5, no impact = 0. Determine the estimated impact to earnings, profits, expenses, etc., in a variety of time frames, such as days, weeks and months.
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business Disruption impact by operation Financial impact Minimum acceptable staffing	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation, staff morale, employee hiring and retention, financial reporting, stakeholder perceptions, shareholder perceptions, and the impact to that activity, e.g., worst case = 5, no impact = 0. Determine the estimated impact to earnings, profits, expenses, etc., in a variety of time frames, such as days, weeks and months. Specify the minimum number of people needed
Disruption impact by timeframe         Disruption impact by severity of incident         Disruption impact by line of business         Disruption impact by operation         Financial impact         Minimum acceptable staffing	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation, staff morale, employee hiring and retention, financial reporting, stakeholder perceptions, shareholder perceptions, and the impact to that activity, e.g., worst case = 5, no impact = 0. Determine the estimated impact to earnings, profits, expenses, etc., in a variety of time frames, such as days, weeks and months. Specify the minimum number of people needed for each business unit to operate as-normal or
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business Disruption impact by operation Financial impact Minimum acceptable staffing	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation, staff morale, employee hiring and retention, financial reporting, stakeholder perceptions, shareholder perceptions, and the impact to that activity, e.g., worst case = 5, no impact = 0. Determine the estimated impact to earnings, profits, expenses, etc., in a variety of time frames, such as days, weeks and months. Specify the minimum number of people needed for each business unit to operate as-normal or near-normal.
Disruption impact by timeframe Disruption impact by severity of incident Disruption impact by line of business Disruption impact by operation Financial impact Minimum acceptable staffing Minimum acceptable configuration of systems	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation, staff morale, employee hiring and retention, financial reporting, stakeholder perceptions, shareholder perceptions, and the impact to that activity, e.g., worst case = 5, no impact = 0. Determine the estimated impact to earnings, profits, expenses, etc., in a variety of time frames, such as days, weeks and months. Specify the minimum number of people needed for each business unit to operate as-normal or near-normal. Specify minimum number of physical systems,
Disruption impact by timeframe         Disruption impact by severity of incident         Disruption impact by line of business         Disruption impact by operation         Financial impact         Minimum acceptable staffing         Minimum acceptable configuration of systems	Using an acceptable time frame, such as days, weeks or months, define the impact to the organization if an event occurs at certain times of the year, or certain days of the month. Specify the degree of severity of the identified outage or disruption, e.g., worst case = 5, no impact = 0. Specify the line of business (e.g., manufacturing, accounting) and the impact to that activity, e.g., worst case = 5, no impact = 0. Define operational impacts, such as cash flow, competitive position, public image, reputation, staff morale, employee hiring and retention, financial reporting, stakeholder perceptions, shareholder perceptions, and the impact to that activity, e.g., worst case = 5, no impact = 0. Determine the estimated impact to earnings, profits, expenses, etc., in a variety of time frames, such as days, weeks and months. Specify the minimum number of people needed for each business unit to operate as-normal or near-normal. Specify minimum number of physical systems, such as servers, routers, switches, workstations,

### SearchDisasterRecovery.com

	operations.
Minimum acceptable applications	Specify minimally necessary operating systems,
	databases, applications, utilities, etc. needed for
	employees and operations.
Minimum acceptable infrastructure	Specify such items as power, HVAC, voice and
requirements	data communications, water supplies, food
	supplies.
Minimum acceptable space requirements	Specify minimum physical space required by
	employees, e.g., 40-50 square feet.
Minimum acceptable work space requirements	Specify such items as office supplies, furniture,
	lighting, phone/data connections, electrical
	outlets.
Define unique or specialized requirements	There may be a need for specialized systems,
	such as high-speed printers, plotters and
	graphics workstations; define the minimally
	acceptable number and type.
Anticipated changes to the business	Provide details on special situations, such as
	mergers and acquisitions and planned physical
	moves, the presence of which could affect how
	the organization recovers.
Other	Specify any other issues or concerns that may
	affect the recovery of a business unit, systems
	supporting that business unit, staffing, etc.

# HORIZON SCAN 2012

BCI Survey Published January 2012

### Global business continuity concerns are driven by IT and Internet vulnerabilities in 2012.

![](_page_49_Picture_3.jpeg)

![](_page_49_Picture_4.jpeg)

Dominating the horizon scanning of business continuity professionals around the world are threats arising from IT, telecom and Internet dependencies.

The top threats evaluated through risk assessment, based on those registering *extremely concerned* and *concerned*, include the following:

- Unplanned IT and telecom outages
   Data breach (i.e. loss or theft of
- confidential information)
- Cyber attack (e.g. malware, denial of service)

It would be wrong, however, to push these threats down to IT departments to deal with. Data breaches and cyber attacks have far reaching reputational and compliance consequences. Cyber attacks might be incurred as a result of more strategic business issues (a modern form of boycott or retaliatory measures for perceived business ethic violations) as well as attempts to steal information. Additionally, regulators such as the US Securities and Exchange Commission are formalising their disclosure requirements in relation to cyber security risks and cyber incidents. The survey results also show that business continuity practitioners are applying BCM to a far wider range of threats than those with which the discipline is traditionally associated. For example, *Business ethics incident, new laws and regulations,* the *availability of credit* and *exchange rate volatility* all feature in the planning of BCM practitioners.

This should not be a surprise given that *business resilience* requires a comprehensive approach, one that BCM offers. BCM provides the link between the organization's objective, the risks that it agrees to take, and the measures needed to manage the resulting vulnerabilities.

The survey does raise a question as to the extent that individual organisations can deal with these challenges by themselves and the extent to which shifts in public policy are required in order to help businesses. Dealing with the world as it is, BCM can help with exploring alternative strategies in business execution, but governments can do more to mitigate the threat environment through closer international co-operation around critical global infrastructures.

![](_page_50_Picture_0.jpeg)

The top five threats evaluated through risk assessment, based on those registering *extremely concerned* and *concerned*, are as follows:

- Unplanned IT and telecom outages – 74%
- Data breach (i.e. loss or theft of confidential information) 68%
- Cyber attack (e.g. malware, denial of service) – 65%
- Adverse weather (e.g. windstorm/ tornado, flooding, snow, drought)
   – 59%
- Interruption to utility supply (i.e. water, gas, electricity, waste disposal) – 56%

Additional and/more specific risks identified by respondents included: Impact of the 2012 Olympics, raw material prices, social networking (reputational damage), escalation of the euro financial crisis and vandalism/theft.

![](_page_50_Picture_8.jpeg)

# Based on your analysis, how concerned are you about the following threats to your organization in 2012?

Unplanned IT and telecom outages Data breach (i.e. loss or theft of confidential information Cyber attack (e.g. malware, denial of service) Adverse weather (e.g. windstorm/tornado, flooding, snow, drought) Interruption to utility supply (i.e. water, gas, electricity, waste disposal) Fire 67 Supply chain disruption (up- and down-stream) 60 Act of terrorism Health & Safety incident 50 Transport network disruption 48 Earthquake/tsunami 40 Availability of talent/key skills (e.g. "bench strength") 39 Environmental incident 38 Business ethics incident (e.g. human rights, corruption) 34 New laws or regulations 34 Energy cost/availability 34 Human illness (e.g. influenza) 32 Availability/cost of creditor finance 30 Extremely concerned Industrial dispute 30 Concerned Social/civil unrest 30 Key customer insolvency Somewhat concerned 30 Product safety incident 27 Not concerned Exchange rate volatility 25 Not applicable Conflict/war 22 Product quality incident 21 Closure of airspace (e.g. volcanic ash cloud) Scarcity of natural resources (e.g. raw materials) Animal disease

![](_page_50_Figure_11.jpeg)

Base: 458. Multiple responses allowed.

Copyright ©The Business Continuity Institute 2012

![](_page_51_Picture_0.jpeg)

In this chart, each threat is evaluated against scale which translates into a score as follows:

- Extremely Concerned: 4
- Concerned: 3
- Somewhat concerned: 2
- Not concerned: 1

Note: *not applicable* is available as a non-scoring choice.

The highest score would be 4.00 which would equate to 100% of respondents for whom the threat is applicable marking it as *extremely concerned*.

This approach has generated some differences further down the scale where *somewhat concerned* numbers are a significant proportion. For example, *human illness* scores 2.39 or 9th position under this scoring method rather than 17th.

![](_page_51_Picture_9.jpeg)

# Based on your analysis, how concerned are you about the following threats to your organization in 2012 (Scale 1-4)

Unplanned IT and telecom outages		1		I	I	1	3.01
Data breach (i.e. loss or theft of confidential information						2.	89 ]
Cyber attack (e.g. malware, denial of service)						2.83	3
Adverse weather (e.g. windstorm/tornado, flooding, snow, drought)						2 70	
Interruption to utility supply (i.e. water gas electricity waste disposal)						2.70	
Supply chein dicruption (up, and down stream)							
						2.55	
						.52	
					2.40		
Human liiness (e.g. influenza)					2.39		
Availability of talent/key skills (e.g. "bench strength")					2.37		
Act of terrorism					2.34 _		
Environmental incident					2.32		
Health & Safety incident					2.31		
New laws or regulations					2.23		
Social/civil unrest					2.16		
Business ethics incident (e.g. human rights, corruption)					2.05		
Energy cost/availability					2.05 🛛		
Industrial dispute					2.05 ]		
Key customer insolvency					2.04 🛛		
Product quality incident					2.04 🛛		
Earthquake/tsunami					2.01		
Availability/cost of credit or finance				1	.99 ]		
Exchange rate volatility				1	.98 🛛		
Product safety incident				1.9	95 🛛		
Closure of airspace (e.g. volcanic ash cloud)				1.75			
Conflict/war				1.72			
Scarcity of natural resources (e.g. raw materials)				1.59			
, Animal disease				1.53			
0	.00	0.50	1.00	1.50	2.00	2.50	3.00

Base: 458. Multiple responses allowed.

![](_page_52_Picture_0.jpeg)

While there is general consensus around key threats in financial services, information and communications, and professional services, manufacturing places supply chain disruption as their focal point, while human illness reaches the top three among public administration sector respondents.

The extent of cross-sector dependencies on underlying IT and Internet infrastructures is otherwise the notable finding from this survey.

Other sectors covered within the overall survey response are health & social care, education, retail/ wholesale, engineering/ construction, entertainment and leisure, transport and storage, support services, mining and guarrying, and agriculture, forestry and fishing.

![](_page_52_Picture_4.jpeg)

#### Threat evaluation by primary activity of the organization (SIC 2007 sectors)

Sector	Top 3 Threats	"Extremely Concerned" plus "Concerned" (%)	the full scale (1= not concerned; 4 = extremely concerned)
Financial Services	<ul> <li>Unplanned IT/telecom outage</li> </ul>	80%	3.15
(Base = 124)	Cyber attack	71%	2.99
	Data breach	68%	2.90
Information & Communications	<ul> <li>Unplanned IT/telecom outage</li> </ul>	81%	3.11
(Base = 77)	Data breach	77%	3.14
	Cyber attack	75%	3.01
Professional Services	Data breach	66%	2.82
(Base = 70)	<ul> <li>Unplanned IT/telecom outage</li> </ul>	65%	2.87
	Cyber attack	60%	2.83
Public Administration	Adverse weather	74%	2.86
(Base = 43)	<ul> <li>Unplanned IT/telecom outage</li> </ul>	60%	2.76
	Human illness	60%	2.64
Manufacturing	Supply chain disruption	76%	3.00
(Base = 17)	<ul> <li>Unplanned IT/telecom outage</li> </ul>	71%	2.82
	<ul> <li>Product safety incident</li> </ul>	53%	2.71
Health and Social Care	Adverse weather	69%	3.00
(Base = 17)	Data breach	69%	2.94
	<ul> <li>Unplanned IT/telecom outage</li> </ul>	63%	3.00
Utilities	Cyber attack	82%	3.12
(Base = 17)	Adverse weather	81%	3.13
	<ul> <li>Interruption to utility supply</li> </ul>	77%	3.18

Average score across

![](_page_53_Picture_0.jpeg)

There is a remarkable consistency across geographical areas in terms of the threats under consideration. However, looking beyond those countries with higher response levels, there are some interesting deviations:

In India, transport network disruption was rated at 3.33, followed by social/civil unrest at 3.11. Third place belonged to fire, which scored 3.00.

In the United Arab Emirates (UAE) *availability of talent /skills* reached third place with a score of 2.88.

Not surprisingly in Japan, consideration of an *earthquake/ tsunami* scored 3.38, in fact every respondent was either *extremely concerned* or *concerned*.

![](_page_53_Picture_5.jpeg)

#### Threat evaluation by country of the respondent (top responses)

	Top 3 Threats	"Extremely Concerned" plus "Concerned" (%)	Average score across the full scale (1 = not concerned; 4 = extremely concerned)
UK	<ul> <li>Unplanned IT/telecom outage</li> </ul>	71%	2.88
(Base = 167)	Data breach	59%	2.71
	Adverse weather	58%	2.68
USA	Unplanned IT/telecom outage	80%	3.22
(Base = 78)	Data breach	78%	3.11
•	Adverse weather	76%	3.03
Australia	Unplanned IT/telecom outage	75%	2.98
(Base = 44)	Adverse weather	68%	2.74
•	Data breach	68%	2.67
Canada	Cyber attack	65%	2.68
(Base = 23)	Data breach	57%	2.73
•	Adverse weather	57%	2.64
South Africa	Unplanned IT/telecom outage	93%	3.43
(Base =15)	Data breach	87%	3.33
	<ul> <li>Interruption to utility supply</li> </ul>	79%	3.07

![](_page_54_Picture_0.jpeg)

In difficult economic times it is positive to see that BCM investment is holding firm for a majority of respondents and increasing for 25% of them. For 10% it is a different story, facing budget cuts and greater pressures to deliver with fewer resources.

Comments from respondents:

- "[I] have to fight for every penny"
- "There is a 3% reduction across the board on operational budgets"
- "The investment will be higher as a result of the Olympic Games"
- "Looking to get more for the same investment"

![](_page_54_Picture_7.jpeg)

In 2012, how will investment levels in Business Continuity Management compare to levels in your organization in 2011?

![](_page_54_Figure_9.jpeg)

Base: 454

![](_page_55_Picture_0.jpeg)

#### About the survey

458 organizations responded to the online survey conducted from 5th to 20th December 2011. The question asked was: "Based on your analysis, how concerned are you about the following threats to your organization in 2012?" Respondents were asked to rate their level of concern against 28 identified threats. Respondents were drawn from 49 countries and 15 industry sectors.

For questions about the survey, contact Lee Glendon CBCI, lee.glendon@thebci.org

Copyright ©The Business Continuity Institute 2012