Lessons Learned

- Good Examples
- Anticipated Adjustments
- Custom Tailoring Design
- Philosophical Conflict Resolution
- Rollout Walkthrough
- User Handholding
- Draft Reviews and Adjustments
- Drop Dead Date
- Missed Delivery Deadlines
- Summary Conclusions
- Next Steps
BIA

Lessons Learned

BIA DEFINED

- Process of determining the impact on an organization should a potential loss identified by the risk analysis actually occur. The Business Impact Analysis (BIA) should quantify, where possible, the loss impact from both a business interruption (number of days) and a financial standpoint.*

*BIA standards & definition currently be revised by DRII committee
BIA Lessons Learned

ANOTHER BIA DEFINITION

- Process designed to identify critical business functions and workflow, determine the qualitative and quantitative impacts of a disruption, and to prioritize and establish recovery time objectives.
BIA
Lessons Learned

MY BIA DEFINITION

- A survey that shows how soon you need to have something(s) and do something(s) in order to not ruin your reputation, not lose a lot of money, and not go out of business.
BIA Lessons Learned

BIA SURVEY PROCESS

- PLANNING survey
- CREATING survey
- DISTRIBUTING survey
- ANALYZING results
- PRESENTING findings
BIA

Lessons Learned

BIA PROCESS TOOLS

- Questionnaires
  - Pencil and Pad list
  - MS Office (Word, Excel, etc.)
  - Database
  - Vendor software
  - Other

- Interviews (phone/meeting)
- Workshop
- Combination of above
BIA Central Foundation

Comprehensive Business Continuity Program

Readiness (Plan Testing)

Plan Development

Risk Assessment (Feasibility) | BIA | Recovery Strategy (Incident Management)

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BIA Lessons Learned

BIA – start of BC Process

BIA as part of Standard BC Cycle
BIA Lessons Learned
EXAMPLES – basic considerations

Business Impact Analysis Outline Example
It is necessary to assess/rate the criticality (Mission Critical; Urgent; Nice to Have) of all the organization’s business processes and to determine/measure the impact (High; Medium; Low) and consequences of loss of service or a reduction in normal service levels.
BIA Lessons Learned
EXAMPLES – basic considerations

Contents

- Part 1
  - Functional **Criticality Assessment**
  - Key Business **Processes/Functions Dependencies**
- Part 2 **Impact/Maximum Downtime**
- Part 3 **Critical Equipment & Resource Supporting Functions**
- Part 4 **Mission Critical Records**
- Part 5 **Network & System Requirements**

CDM 2003
RLM 06/20/06
Part 1 – Key Business /Functions/Processes

Suggested 1st Step in BIA Process:
For each Function within a business area (Department), have the Department Manager or higher identify and rate their respective area’s functional requirements.
BIA Lessons Learned
EXAMPLES – basic considerations

- **MISSION CRITICAL** – the business cannot survive without it.
- **URGENT** – Important, and will result in some impact, but business will survive without it.
- **Nice to Have** – Neither Critical nor Urgent.
  Everyone has a ‘wish list.’
BIA Lessons Learned
EXAMPLES – basic considerations

Part 1 - Key Business Processes/Functions/Dependencies

The following slide is a descriptive list of the organization’s key business areas (Departments), in order of importance to the business, together with a brief description of the business function/process and main dependencies:
### BIA Lessons Learned

**EXAMPLES – basic considerations**

Part 1 – **Key Business Processes/Dependencies, cont’d.**

<table>
<thead>
<tr>
<th>KEY BUSINESS AREA</th>
<th>FUNCTION/PROCESS</th>
<th>MAIN DEPENDENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mailroom</td>
<td>Process/deliver mail</td>
<td>US Postal Svc. &amp; private carriers (Fed-X, UPS, etc.)</td>
</tr>
<tr>
<td></td>
<td>(postal/interoffice)</td>
<td></td>
</tr>
<tr>
<td>2. Sales</td>
<td>Register new clients</td>
<td>Marketing target lists</td>
</tr>
<tr>
<td>3. Shipping</td>
<td>Delivery</td>
<td>Production Operations</td>
</tr>
<tr>
<td>4. Accounting</td>
<td>Receipts/Payments</td>
<td>Accounting Applications</td>
</tr>
<tr>
<td>5. Etc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Functions/Processes are not Tasks

Function – A business function is a process that is performed by one or more Departments to provide a business service or product.

Process – A series of actions, changes or functions that bring about a business service or product.

Tasks – Within every Business Function there can be many Tasks or steps that have to be performed to accomplish the Function.
Part 1 – Key Business Processes/Dependencies, cont’d.

Mailroom Business Unit Example – FUNCTIONS vs. TASKS

Main FUNCTION – Process Postal and Interoffice Mail

TASKS:
- Receive incoming mail from post office
- Sort the postal mail
- Distribute the postal mail
- Receive outgoing postal mail from departments
- Apply postage
- Deliver the mail to post office
- Etc.
For each key business area (Department) identified in Part 1, it is necessary to make an **assessment** of the **impact** of disruption to normal business operations and to identify the maximum **downtime** allowable.
### Part 2 – A. Financial Impact (for a department or business area)

**Example – Bank Wire Transfer Department**

<table>
<thead>
<tr>
<th>Estimated Impact</th>
<th>Consideration</th>
<th>Impact Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Peak days avg. volume of $ processed &gt; 10M</td>
<td>1</td>
</tr>
<tr>
<td>Medium</td>
<td>Peak days avg. volume of $ processed between 2M and 10M</td>
<td>7.5</td>
</tr>
<tr>
<td>Low</td>
<td>Peak days average volume of $ processed &lt; 2M</td>
<td>15</td>
</tr>
</tbody>
</table>

**Total impact score = Average Impact Score**  
High: 1 - 5    Medium: 5.5 – 10   Low: 10.5 - 15

**Wire Transfer Example Rating:** High

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### BIA Lessons Learned

**EXAMPLES – basic considerations**

#### Part 2 – B. Customer Service impact

<table>
<thead>
<tr>
<th>Estimated Impact</th>
<th>Consideration</th>
<th>Impact Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High</strong></td>
<td>- Time critical product or service</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>- All customers affected in a state, region or nationally</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Customer forgiveness for 1 business day or less</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Customer’s loss potential is high due to our service inability</td>
<td></td>
</tr>
<tr>
<td><strong>Medium</strong></td>
<td>- 50% of state/regional customers affected, or 25% national</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>- All customers affected at single location within a state</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Customer forgiveness for up to 3 business days</td>
<td></td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>- No time critical product or service</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>- Limited customer product or service impact</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Customer forgiveness for 4 days or longer</td>
<td></td>
</tr>
</tbody>
</table>

Wire Transfer Example Rating: 2

Total Impact = Average Impact Score
- **High**: 1 - 5
- **Medium**: 5.5 – 10
- **Low**: 10.5 - 15

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### BIA Lessons Learned

**EXAMPLES – basic considerations**

**Part 2 – C. Legal or Non-Compliance Impact**

<table>
<thead>
<tr>
<th>Estimated Impact</th>
<th>Consideration</th>
<th>Impact Rating</th>
</tr>
</thead>
</table>
| **High**         | Possibility of charter revocation  
                  | - High fine levels per transaction  
                  | - Substandard compliance posture  
                  | - High regulatory emphasis (FDICA, SOX, SAS-70, etc.)  
                  | - Significant outstanding examination recommendations | 1             |
| **Medium**       | Moderate fine levels per transaction  
                  | - Adequate compliance posture/high regulatory emphasis  
                  | - Few outstanding examination recommendations | 7.5          |
| **Low**          | Little or no regulatory emphasis  
                  | - Low or no transaction fine level | 15            |

**Example Rating:** 15

*High: 1 – 5  Medium: 5.5 – 10  Low: 10.5 – 15*
# BIA Lessons Learned

**EXAMPLES – basic considerations**

## Part 2 – D. Other Impact Considerations

<table>
<thead>
<tr>
<th>Estimated Impact</th>
<th>Consideration</th>
<th>Impact Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High</strong></td>
<td>- Facility risk due to nearby demolition or construction</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>- Unit/function experiencing high rate of change/growth</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Unit/function located in politically unstable area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Unit/function is critical to recovery of other units</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Inability to function = catastrophic loss of reputation</td>
<td></td>
</tr>
<tr>
<td><strong>Medium</strong></td>
<td>- Site has unstable power supply and/or no UPS</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>- Major events are scheduled which will increase site risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Probability of a natural disaster is moderate to high</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Reputation impacted by negative press accounts</td>
<td></td>
</tr>
</tbody>
</table>

High: 1 - 5        
Medium: 5.5 – 10    
Low: 10.5 - 15
### Estimated Impact | Consideration | Impact Rating
--- | --- | ---
**Low** | - Low rate of change  
- No environmental or physical problems at site  
- Function is not critical to recovery of other functions  
- Only localized or internal negative impact to reputation is felt  
Wire Transfer Example Rating: 12 | 15

Average Impact Score = Total score/4  
Example 30/4 = 7.5

High: 1 - 5  
Medium 5.5 – 10  
Low 10.5 - 15

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### Part 3 – Critical Equipment & Resource Supporting Functions

<table>
<thead>
<tr>
<th>CRITICAL EQUIP. &amp; RESOURCES</th>
<th>USUAL QTY</th>
<th>0-4 HR</th>
<th>4-8 HR</th>
<th>8-24 HR</th>
<th>48-72 HR</th>
<th>5 DAYS OR &gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. # Offices</td>
<td>50</td>
<td>5</td>
<td>10</td>
<td>25</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>(desks/chairs, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Workstation – Desktop</td>
<td>30</td>
<td>5</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>3. Workstation – Other</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Public Printer(s)</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Copier</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Fax</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. High Speed Printer(s)</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Private Printers</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Special Local Networking</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Special Space Requirements (Lab)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Laptops &amp; Docking Stations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Non-Standard Desktops/Laptops</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
BIA Lessons Learned
EXAMPLES – basic considerations

Part 4 - Mission Critical Records

How are "mission critical records" items protected in your business function (list magnetic media first, then hard copy, and then any mission critical records on local drives)?

A mission-critical or vital record is an item of information that is required for the resumption of a business process, but is not necessarily delivered by a recovered system or application. Examples are operational procedures, printed reference material or documentation, legal documents, etc. Electronic or computer files should be recovered under centralized arrangements. However, files saved to local drives (e.g., desktop storage) will, of course, not be recovered this way.
BIA Lessons Learned
EXAMPLES – basic considerations

Part 4 – Mission Critical Records, continued

Legend:
[1] Record Type - MM (Magnetic Media); HC (Hard Copy); LD (Local Drive)
[2] Backup Frequency – D (Daily); W (Weekly); M (Monthly); O (Other/elaborate)

<table>
<thead>
<tr>
<th>VITAL RECORD</th>
<th>TYPE [1]</th>
<th>STORED WHERE</th>
<th>BACKED UP (yes/no)</th>
<th>OFF SITE (yes/no)</th>
<th>RESTORES IN PLACE (yes/no)</th>
<th>TESTED (yes/no)</th>
<th>BACKUPS are TAKEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Client Contracts</td>
<td>MM</td>
<td>Iron Mt.</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>M</td>
</tr>
<tr>
<td>2. Personnel Records</td>
<td>HC</td>
<td>Corp.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>M</td>
</tr>
<tr>
<td>3. Legal Documents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Sales Contracts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A. Recovery Time Objectives (RTO)

[1] What are the critical applications/network systems that support your business functions?

[2] For each application or service enter into the "% Used" column the amount of time your department spends using this application as a "%" of its overall workload.

[3] Indicate the Recovery Time Objective (RTO) using the table on the next slide by putting the appropriate letter in a column.

The RTO is the time you believe the application or system should recommence its service following an unplanned or abrupt interruption.
### A. Recovery Time Objectives (RTO)

**Priority Legend**

- **A** = No Impact
- **B** = Potential Financial Impact
- **C** = Serious Financial Impact

<table>
<thead>
<tr>
<th>APP/NET</th>
<th>PRIMARY FUNCTION</th>
<th>% USED [2]</th>
<th>4 hr</th>
<th>8 hr</th>
<th>24 HR</th>
<th>48 HR</th>
<th>72 HR</th>
<th>&gt; 5 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. E-Mail</td>
<td>Sales</td>
<td>65%</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>2. MS Office</td>
<td>Reporting</td>
<td>35%</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>3. Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**RTO [3]**

(max downtime – time app should be up)
B. Recovery Point Objectives (RPO)

What amount of data loss is acceptable?

For example, can your business allow for a few hours of lost data or does data need to be restored back to the precise time at which the service failed? Please keep in mind that the closer to the 'point of failure' that you need your data from the last time it was backed up or replicated, the more expensive the solution is likely to be.
BIA Lessons Learned
EXAMPLES – basic considerations

Part 5 – Network, System and Data Requirements

B. Recovery Point Objectives (RPO), continued

PRIORITY LEGEND
A = NO IMPACT
B = POTENTIAL FINANCIAL IMPACT
C = SERIOUS FINANCIAL IMPACT

<table>
<thead>
<tr>
<th>No lost data</th>
<th>High Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 hour of lost work</td>
<td>High Cost</td>
</tr>
<tr>
<td>A few hours to 8 hours of lost work</td>
<td>Med/High Cost</td>
</tr>
<tr>
<td>Up to 24 hours of lost work</td>
<td>Medium Cost</td>
</tr>
<tr>
<td>Undetermined downtime</td>
<td>Low Cost</td>
</tr>
</tbody>
</table>
BIA Lessons Learned
EXAMPLES – basic considerations

Part 5 – Network, System and Data Requirements
B. Recovery Point Objectives (RPO), cont’d.

<table>
<thead>
<tr>
<th>Computer Apps/Services</th>
<th>POINT of RECOVERY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Lost Data</td>
</tr>
<tr>
<td>1. Oracle (example)</td>
<td>A</td>
</tr>
<tr>
<td>2. Siebel (example)</td>
<td>A</td>
</tr>
</tbody>
</table>

PRIORITY LEGEND
A = NO IMPACT
B = POTENTIAL FINANCIAL IMPACT
C = SERIOUS FINANCIAL IMPACT
BIA Lessons Learned
EXAMPLES - Good Fit for BIA Objective

- BASIC STRUCTURE (Example presented)
- SPECIALIZED TARGET OBJECTIVE
  - Primarily for highly rated processes/functions
    - e-Commerce/Sales/Payroll/Accounting/HR
    - Geographic Region
    - Vendor dependency
    - Any other business area with unique Mission Critical features/requirements
- CUSTOM TAILORED
  - Primarily for Impact measurement
    - Financial/Customer Service/Legal/Regulatory/Other
BIA Lessons Learned

ANTICIPATE ADJUSTMENTS

- Design to cover the Average
- Adjust later
  - Greater Explanation
  - Request More Data
  - Adjust Results
- Balance Results
BIA Lessons Learned
CUSTOM TAILORING DESIGN

- BIA Objective
- Scenario Assumptions
- Test Runs
- Adjustments
- Management Concurrence
- Anticipate Further Adjustments
BIA Lessons Learned

PHILOSOPHICAL CONFLICT RESOLUTION

APPROACH OPTIONS

1. By Department or Unit (Top-down)
2. By Critical Function (Bottom-up)

• Functions are not tasks
  - **Identify/Rate Functional Priorities**
    -- Mission Critical; Urgent; Nice to Have
  - **Measure Impacts** resulting from disruption/loss of functionality
    -- High; Medium; Low
• Dependencies of Each Other (Inflows & Outflows)
  - Downstream Impact Identified
    -- Impact measured against predefined timeline
  - Double Reporting backed out
<table>
<thead>
<tr>
<th>DEPARTMENT A</th>
<th>DEPARTMENT B</th>
<th>DEPARTMENT C</th>
<th>ETC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Receives items</td>
<td>- Would do something with items and pass them to Dept. C but can’t</td>
<td>- Would do something with items and pass further down chain, but can’t</td>
<td>Down through the remainder of the processing chain</td>
</tr>
<tr>
<td>- Performs action</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Passes items to Department B</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
BIA Lessons Learned

PHILOSOPHICAL CONFLICT RESOLUTION

Confused?

Here is a SUGGESTED APPROACH

1. Establish Each Department’s Criticality (Mini BIA)
   A. Rate Departmental Functions
      - Mission Critical; Urgent; Nice to Have
      -- If none Mission Critical, do a full-blown BIA?
   B. Measure Departmental Impact
      - High; Medium; Low
      -- If none High, full-blown BC plan required?
2. Identify Critical Departments’ Functions, Processes and Dependencies (Full-Blown BIA Approach Options, slides 33 & 34)

3. Identify Potential for Impact if any Individual Point in the Chain is impacted (Slide 35)

4. Keep Track of Potential Impacts and Back Out Duplicate Impact Figures for Company-Wide Potential Impact Reporting
BIA Lessons Learned

ROLLOUT WALKTHROUGH

Scheduled in Project Plan
Appropriate Venue
BIA Input Vehicle
- Review in Detail
- Confirm Understanding
- Gain Commitment
Review Examples
Present Scheduling Assumptions
BIA Lessons Learned

USER HANDHOLDING

- Walkthrough BIA Input (screens/formats)
- Be Available for Questions
- Schedule Progress Reviews (weekly)
  - Don’t wait until all the input is completed and submitted to obtain status and validate progress. Take checkpoints.
  - Review and Analyze BIA ‘sections’ as they are completed
• Allow Adequate **Turn-around Time**
  - Two Calendar Weeks from Draft to Final
    - Average Estimate
• Allow Additional Time for **Combined Analysis**
  - Review of all BIAs Received
BIA Lessons Learned

DROP DEAD DATE!

- No ‘Analysis Paralysis’
  - Pick a **delivery date** and stick with it
  - Look for reluctance to **commit**

- Objective – **GOOD**, not necessarily perfect
  - VERY GOOD Estimate of:
    - Risk
    - Potential outage Impact
    - Recovery Needs
    - RTOs/RPOs

- Must be **Audit** Proof

- Must satisfy Adequate Recovery design parameters
BIA Lessons Learned

MISSED DELIVERY
DEADLINES

Be AWARE of and ANTICIPATE any negative BIA vibes:
- Reluctance to Commit at all or various levels
- Unclear Authority Level or assignment responsibility
- Conflicting Projects and/or Priorities
- Scarce Resources

Remind users of approaching deadlines

Solicit Sr. Management support ASAP if delays persist

Remember that the BIA delivery responsibility lies with you, the Business Continuity professional!
BIA Lessons Learned

NEXT STEPS

- Develop Disaster Recovery Strategy and Plan
- Develop Business Continuity Plans
- Test. Test, Test
- Maintain
- Conduct BIAs Annually - PROCESS, not an End
BIA Lessons Learned

REFERENCES

- Suggested Reading
  - "Building a BIA Process: A Hands-on Blueprint"
    by Barry A. Cardoza, CBCP
    published by K&M Publishers, Inc.
    -- http://www.kmpub.com

- Contact
  - Robert L. Moisoff
    -- RLJMoisoff@AOL.com