You Can Never Plan Enough

Building Your Treasury Operations Business Continuity Plan

City of Los Angeles • Office of the Treasurer
City of Atlanta • Department of Finance
Agenda

- Opening Remarks
- City Facts and Organization
- The Problem
- What are the Threats?
- Who Are the First Responders
- What Happens Now?
- Vision
- Planning for Success
- Assessments and Validation
- Gap Analysis
- Plan Design
- Next Steps

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City facts - Los Angeles

- Geographic footprint of 470 sq. miles
- 50,000 City Employees
- Greater than $17 billion in annual revenues
- Serving 4 million residents
- 39 City departments
- Busiest Port in the United States
- Nation’s largest municipal utility
- 4 airports
City facts - Atlanta

- Geographic footprint of 132 sq. miles
- 7,000 city employees
- $1.5 billion in annual revenues
- Serving 540,000 residents
- 22 City departments
- World’s busiest airport
- Capital city of the Southeast
- World headquarters for Coca-Cola, Delta Airlines and CNN
The problem

- The City has detailed emergency plans
  - No focus on the City’s financial activities
  - No formal plan to manage financial activities
- The City hasn’t assessed its financial business continuity needs
- Who are the major players in the financial process?
- What are the critical treasury and other City financial processes and interactions?
- How do the financial first responders communicate?
- What is the role of our financial services providers?
- What are the critical systems involved?
What are the threats?

City of Los Angeles
- Earthquakes
- Wildfires

General Threats
- Blackouts
- Terrorist Threats
- Power Disruptions
- Aging Infrastructure
- Non-integrated systems and processes
- Retirement of Knowledge experts

City of Atlanta
- Hurricanes
- Floods

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Who are the first responders?

Traditional first responders provide for public health and safety. They include many departments in city government.

- Police Officers
- Firefighters
- Public Works – debris removal, infrastructure repairs
- Building and Housing Inspectors
- Animal Services – care and feeding, sheltering, emergency medical care
- Recreation and Parks – sheltering
- Utilities – maintain power and water supply
What happens now?

- Declaration of Emergency
- Activation of Emergency Operations Center
- Mobilization of first responders
- Tracking of Costs for FEMA
- Periodic updates of disaster response to elected officials
What happens now

EOC Activation Levels

<table>
<thead>
<tr>
<th>Activation Level</th>
<th>Characteristics of Event or Incident</th>
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| **1** LA City Watch | • Severe weather advisories  
• Localized incident or planned event |
| **2** | • Large incident that requires resources beyond the capability of the ICP  
• Multiple incidents that require coordination of resources across field ICPs and synchronized information management  
• Incident that requires resource prioritization to support the incident and continuity of government services |
| **3** | • Significant City or regional emergency that requires resources beyond the capability of the ICP  
• Multiple incidents that require coordination of resources across field ICPs and synchronized information management |

In Omnia Paratus

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Disaster trivia – natural disaster

The Northridge Earthquake in Los Angeles struck at 4:31 a.m. on January 17, 1994. It caused wide scale damage to the area including destruction of several buildings and freeways. The quake lasted 45 seconds and had a magnitude of 6.7.

The earthquake cost an estimated $20 billion in damage.
“The City of Los Angeles and the City of Atlanta anticipate and adapt to all potential threats to the organization and provide continuous and reliable financial support to our first responders”
Planning for success

Identifying financial first responders
- Key financial departments
- Major users of financial services
- Financial services providers

Organizing decision making process
- Day to day decisions – not by committee
- Treasury drives the process
- Hand picked team members

Organizing project team
- Treasury as lead
- Emergency Management Department AGM
- DWP Financial Team

Developing Project Strategy
- Define project phases
- Identify major financial functions
- What are top five financial risks
Planning for success – Phase i

The Assessment Process begins . . .

- Who are the financial first responders
- Identify the key financial processes
- Customized approach to assessment process
  - Tier development
  - Financial complexity
  - Organizing discovery
  - Communication of major findings/risks
- Document all findings related to inflows, outflows, payroll, systems, debt, and cash/currency.
- Parking lot of pain points and non-financial related concerns and issues.
- Engage BCP experts from financial service providers
### Assessments and validation

#### Tier I Departments
- Treasurer
- Controller
- Finance
- Airports
- Harbor
- Public Works
- Department of Water & Power
- Information Technology Agency

#### Tier II Departments
- City Administrative Officer
- Transportation
- Building & Safety
- Recreation & Parks
- Police
- Fire
- Civilian Pensions
- General Services
- Sworn Pensions
- DWP Retirement
- Community Development
- Housing
- Animal Services
- Zoo

#### Tier III Departments
- Aging
- City Attorney
- City Clerk
- City Council
- Cultural Affairs
- Convention Center
- Disability
- El Pueblo
- Emergency Management
- Employee Relations Board
- Ethics Commission
- Library
- Mayor
- Neighborhood Empowerment
- Personnel
- Planning

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Assessments and validation

Definition of Critical, Core and Delayed Functions

**RED** Critical, Must be accomplished in 1-3 days

**YELLOW** Core Function, must be accomplished within 7 days

**GREEN** Delayed function, can be accomplished at an unspecified later date
Assessments and validation

FINANCIAL BUSINESS CONTINUITY PLAN
OFFICE OF THE TREASURER – CRITICAL FUNCTIONS

- CASH MANAGEMENT
  - ELECTRONIC FUND TRANSFERS
  - PROVIDE CURRENCY
  - Security – Banking Administration

- INVESTMENTS
  - BUY AND SELL SECURITIES

- SYSTEMS
  - INTERNET ACCESS
  - PROVIDE ACCESS TO STORED DATA
  - SECURITY ADMINISTRATION
  - CASH WIZ

- ACCOUNTING
  - INVESTMENT ACCOUNTING
  - CASH RECONCILIATION

- DEBT MANAGEMENT
  - DEBT SERVICE PAYMENTS

- PERSONNEL

LEGEND
- Red – Critical, 1-3 days
- Yellow – Core Function, 7 days
- Green – Delayed Function, beyond 7 days

http://atlantaghr.gov/
Assessments and validation

FINANCIAL BUSINESS CONTINUITY PLAN
OFFICE OF THE TREASURER SUMMARY BY COMPONENT TYPE

VENDOR
- Red Tier
  - Garcia: Currency
  - Broker/Dealers: Purchase and Sale of Securities
- Green Tier
  - None at this time
- Yellow Tier
  - None at this time

SYSTEM
- Red Tier
  - GCD: Electronic Fund Transfers, Cash Reconciliation
- Green Tier
  - Bloomberg: Buy and Sell Securities
  - CashWiz: Cash Reconciliation
  - FMIS: Cash Reconciliation, BRI Interface
  - BRI: Debt Service Payment Reconciliation
  - Sympro: Investment Accounting
  - CCV: Cash Reconciliation
  - Bondedge: Purchase and Sale of Securities
  - MECCAS: Cash Reconciliation
- Yellow Tier
  - None at this time

BANK
- Red Tier
  - Wachovia/Wells Fargo: Electronic Fund Transfers, Purchase and Sale of Securities (for liquidity)
  - Bank of New York: Purchase and Sell Securities, Investment Accounting
  - US Bank: Debt Service Payments
- Green Tier
  - None at this time

INFORMATION MATERIAL/DOCUMENT
- Red Tier
  - Wachovia/Wells Fargo: Accounting Documentation, Electronic Fund Transfers
  - Documentation for Currency: Currency
  - Securities Listings: Purchase and Sale of Securities
  - List of Broker/Dealers: Purchase and Sale of Securities
  - BONY Account Nos. and Contacts: Purchase and Sale of Securities
- Yellow Tier
  - None at this time

STAFF
- Red Tier
  - Manual Accounting Documents: Investment Accounting and Cash Reconciliation
  - BONY Market Values: Investment Accounting
- Green Tier
  - None at this time

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FINANCIAL BUSINESS CONTINUITY PLAN
OFFICE OF THE TREASURER CASH MANAGEMENT CRITICAL FUNCTIONS

1. MANUAL EFT PAYMENTS
   - COMMUNICATION (INTERNAL)
   - OR
     - REMOTE ACCESS
     - STAFF
   - COMMUNICATION TO BANK
   - Wachovia Connection & Wells Fargo CEO

OUTGOING ELECTRONIC FUND TRANSFERS

2. AUTOMATIC PAYMENTS
   - ACH & POSITIVE PAY
   - CITY DEPARTMENT FINANCIAL SYSTEM
     - DWP SYSTEMS
     - PAYROLL CONTROLLER
     - PENSION

GCD Generates ACH Payments

CITY DEPARTMENT FINANCIAL SYSTEM

BANKING SECURITY ADMINISTRATION

Normal Operations
Primary - Director of Cash Management
Secondary - Chief Accountant, Personnel Director, Assistant Treasurer, Treasurer

*Needs further detailing
Assessments and validation

FINANCIAL BUSINESS CONTINUITY PLAN
OFFICE OF THE TREASURER CASH MANAGEMENT CRITICAL FUNCTIONS

CURRENCY

- ARMORED TRANSPORT GARDA
  - CASH DEPOSITS
  - CASH ORDERS

- TREASURY VAULT
  - EMERGENCY CASH SAFEKEEPING

- BANK BRANCHES
  - PROXIMITY TO LOCATION BANKERS

- DOCUMENTATION (FOR RECEIVING CURRENCY)
- BANK AGREEMENTS AUTHENTICATION AUTHORIZATIONS

- PROVIDE EMERGENCY CASH TO
  - FIRST RESPONDERS
  - PHYSICAL SECURITY - LAPD - GSD POLICE
  - CITY DEPARTMENTS

Bank

Need to check with Banks to get more detailed description of process
i.e., Field Operations for First Responders, Cash Delivery

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FINANCIAL BUSINESS CONTINUITY PLAN
OFFICE OF THE TREASURER INVESTMENTS CRITICAL FUNCTIONS

PURCHASE AND SALE OF SECURITIES

BROKER DEALERS
- INTERNET ACCESS
  - BLOOMBERG
  - E-MAIL
- CASH FLOWS TO BANKS

INFORMATION MATERIALS
- SECURITIES LISTINGS
- POLICY AND GUIDELINES
- BONY ACCOUNT NUMBERS AND CONTACTS

COMMUNICATION (INTERNAL)
- LOCATION
- PHONE TREE IF NO LOCATION
- 2 WAY RADIOS OR SATELLITE PHONE?

BLOOMBERG (IF AVAILABLE)
- Bloomberg Anywhere Key
- Used for tracing during normal operations

BONEDGE (ANALYSIS ONLY IF AVAILABLE)

ADDITIONAL DETAIL
WISH LIST - ALTERNATE COMMUNICATION (HAL EXPRESSED SATELLITE PHONE OR 2 WAY RADIO)

BANK OF NEW YORK
WACHOVIA/WELLS FARGO

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http://atlantagacities.org
Assessments and validation

FINANCIAL BUSINESS CONTINUITY PLAN
OFFICE OF THE TREASURER SYSTEMS CRITICAL FUNCTIONS

Emergency Power supply

POWER

DMZ Zone
SAN
Email Server

Security
Administration

Systems Manager
Cash Mgmt Manager
Executive GM/AGM

System Staff

REMOTE ACCESS

Offsite Location

Laptop/ Other Computer
GETS CARD

Sprint internet cards

INTERNET ACCESS

IT A

Storage Area Network

ITA’s network connection

BACK UP DATA STORAGE

Tree Server in CITY’s network

Volume Shadow copy

Tape retains 2-3 weeks of data

TREASURY TAPE STORAGE

Critical data only
Bank Data

CITY HALL EAST STORAGE

Van Nuys CITY HALL STORAGE

Van Nuys PROCESS STILL NOT COMPLETE DATA IS SUPPOSED TO AUTOMATICALLY TRANSFER OVER

ADDITIONAL DETAIL

"WISH LIST – Internet via satellite cards or satellite phone.
- Extra server to recover data on
- More storage space, to extend pass backing up only critical data"
Assessments and validation

FINANCIAL BUSINESS CONTINUITY PLAN
OFFICE OF THE TREASURER ACCOUNTING CRITICAL FUNCTIONS

INVESTMENT ACCOUNTING

SYMPRO

IF NO SYMPRO, GATHER INTO BOOK OR CHANDLER ASSET MGMT

NEED PHYSICAL STORAGE OF MANUAL ACCOUNTING DOCUMENTS I.E. BOX

BANK OF NEW YORK

Custodian bank books and keeps records of holdings and market values which have settled.

CHANDLER ASSET MANAGEMENT

Chandler Asset Management is updated with current security holdings

CASH RECONCILIATION

CCV
(CASH BOOK)

FMIS
(BOOK BALANCES)

CASHWIZ
(DEPOSIT DATA)

GCD
(EFTS)

MECCAS
(Internet Allocation)

INTERFACE WITH IMS

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Assessments and validation

FINANCIAL BUSINESS CONTINUITY PLAN
OFFICE OF THE TREASURER DEBT MANAGEMENT CRITICAL FUNCTIONS

DEBT SERVICE PAYMENTS

ELECTRONIC FUND TRANSFERS

US BANK PAYING AGENT

RECONCILE WITH INTERNAL PAYMENT SCHEDULE

BRI/BAPS

INTERFACE

FMIS

http://treasurer.lacity.org/

http://atlantaga.gov/
The Gap Analysis process begins . . .

- What are the critical vulnerabilities that must be corrected now before the plan can be implemented?
  - Data backup
  - Bank protocols
  - Offsite locations
  - Communication tools

- What scenarios should be developed to determine the appropriate level of response?
  - Defining different types of disruptions – local, citywide system, natural disaster, power failure, fraud, vendor supplier shortage.

- Define the leaderships roles and responsibilities
FINANCIAL BCP
RELATIVE TO EOC ACTIVATION LEVELS

*FINANCIAL BCP EMPHASIZES GEOGRAPHIC IMPACTS, WHILE EMD FOCUS IS ON SEVERITY OF THE INCIDENT. HOWEVER, IT IS USEFUL TO BE AWARE OF THE STATUS OF EOC ACTIVATION IN THE EVENT A DISRUPTION OCCURS.*
Gap analysis

Five Critical Financial Functions are Identified

- Payroll
- Accounts Payable
- Cash Inflows
- Debt Payments
- Currency Systems
# Citywide Financial Systems

- **PAYSR** Payroll System
  - Centrally located servers
  - One redundant location
  - One backup location

- **SMS** Supply Management System
  - Centrally located servers
  - No redundant location
  - One backup location

- **FMIS** Financial Management Information System
  - Legacy system
  - Centrally located servers
  - One redundant location
  - One backup location

- **FMS** Financial Management System
  - New financial ERP system
  - Unknown redundant and backup locations

- **GCD** Grand Central Disbursement
  - Centrally located servers
  - No redundant location
  - No backup location

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Disaster trivia – natural disaster

In September of 2009 it rained for 9 days straight in Metro Atlanta, Northern Georgia and 4 surrounding states. An estimated 20,000 homes and businesses were damaged and freeways were impassible. The Chattahoochee River rose to a 500 year flood level. 10 Atlantans lost their lives.

The Flood of 2009 cost an estimated $500 million in damage.

http://t-reasur. atlantagov/
Planning for success – phase iii

The Plan Design Process Begins . . .

• The Plan should include the following components:
  • Executive Summary
    • Overview, organizational structure, and benefits
  • Overall Approach
    • Vision
    • Assessment Process
    • Validation
    • Testing
  • Strategy
    • Incident Response Level
  • Overview of Major Financial Functions
  • Overview of Citywide Financial Systems
  • Addenda
    • Assessment documentation
    • Contacts
    • Confidential Financial Information – Accounts, EFT Protocols, Contracts, etc.
The Testing Process is Initiated . . .

- The testing scheduled is defined.
  - Annual
  - Bi-annual
  - As-needed

- All five financial categories are included in each test.

- Responsibility for testing individual department readiness is delegated.

- Treasury is responsible for the testing process and monitoring feedback and taking any corrective action.

- Treasury reports to executive leadership on readiness level of the City.
Testing – Business Continuity Lifecycle

- Understanding the Organization
- Determining Financial Business Continuity Plan Strategy
- Assessment
- Gap Analysis
- Plan Design
- Developing and Implementing a Financial Business Continuity Plan Response
- Testing
- Exercising, Maintaining and Reviewing
Mars Climate Orbiter and the Mars Polar Lander were developed to study the atmospheric conditions on the planet Mars. A navigation error caused the lander to fly too low in the atmosphere.

The cause of the crash was a programming error. A sub-contractor on the program used imperial units as used in the United States instead of the NASA specified metric units as used in Europe.

The cost of the crash was estimated at $125 million.
Planning for success – phase v

Implementation and Updates are Scheduled . . .

- Treasury takes the lead for continuous process improvement of the financial business continuity plan.
- Treasury develops reporting tools to assess and track department readiness.
- Treasury develops the framework for reporting results to various agencies.
- Treasury expands their role as an essential financial partner for the City of Los Angeles and a leader in treasury management best practices.
Conclusion

• Assessment process most critical to identifying problems.

• Departments have a new perspective on their own financial business continuity needs and the gap analysis to be conducted internally.

• Departments were unsure of the process at first but quickly realized the importance of planning for the future.

• Treasury had to adjust the scope of the project due to the enormity of the information gathered and problems/issues discovered.

• Executive leadership once again looks to Treasury for innovation and expertise in supporting the City’s critical financial functions.
On August 14, 2003, a power surge knocked out power to over 50 million residents in Northeastern and Midwestern United States and Ontario, Canada.

Nine nuclear power reactors – six in New York and one each in New Jersey, Ohio and Michigan were shut down because of the loss of offsite power.

Power also disrupted numerous services including the loss of water due to the shut down of pumping stations, stranded passengers on rail lines including the New York subway, grounded flights at several airports, no traffic lights, and people stranded in elevators.

The cause of the power surge was ultimately blamed on a high-voltage power line located in northern Ohio that had brushed against some overgrown trees. The line had softened under the high heat of the current. This type of failure should have tripped an alarm in the control room but the alarm system failed.

Estimated damage from the power outage was $6 billion.