MAKING DISASTER RECOVERY STANDARD OPERATING PROCEDURE

Integrating DR Planning into Daily Information Technology Processes

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AGENDA

- Problem Statement
- Strategic Planning Integration
- Project Management Integration
- Service Level Management Integration
- Capacity Planning Integration
- Change Management Integration
- Incident Management Integration
- Performance Appraisal Integration
- Metrics

PROBLEM STATEMENT

- Information Technology processes typically do not take disaster recovery considerations into account until its time to conduct an exercise or even worse, at the time of a disaster

- It is difficult to obtain funding for disaster recovery of a system after it goes into production

- Auditors typically find DR plans out of date and not matching true recovery requirements

- Organizations are at risk during the timeframe plans and recovery requirements are out of date
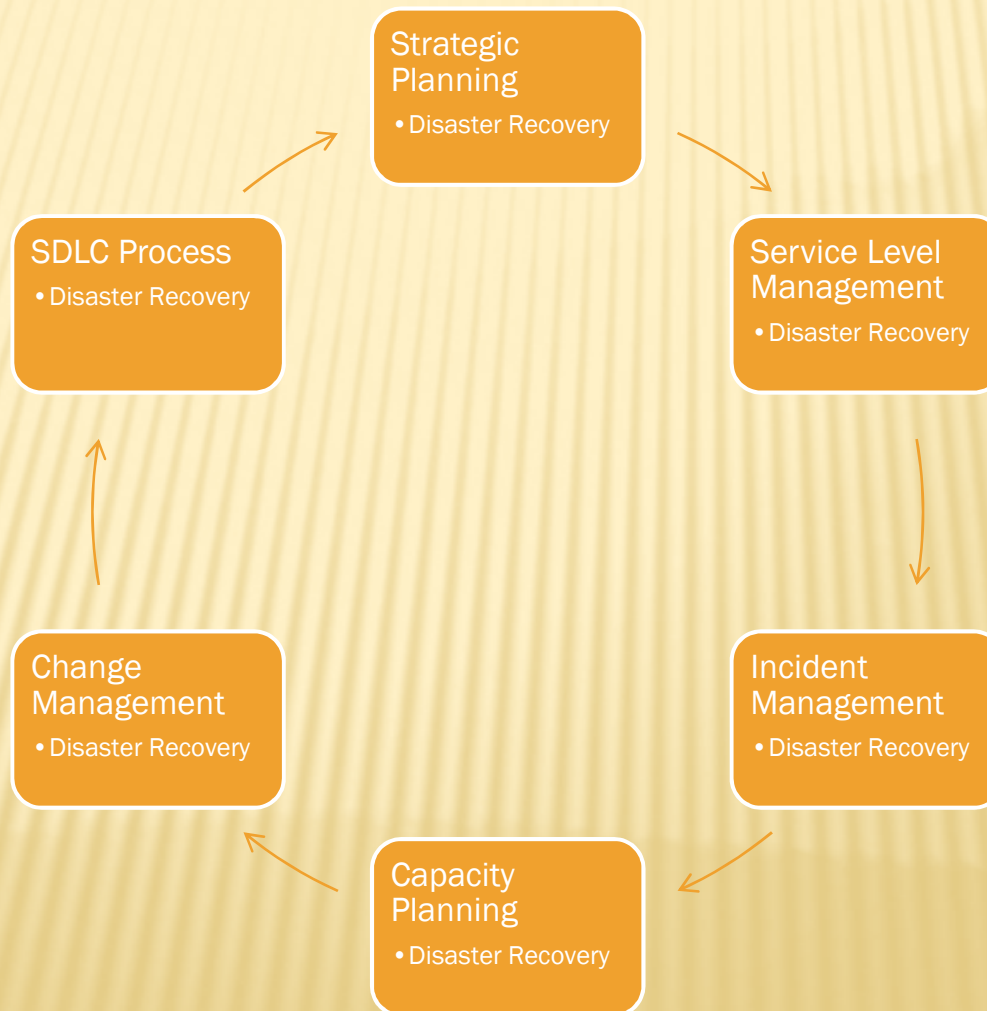
PROBLEM STATEMENT

× Disaster Recovery is an Island in Most Organizations

Disaster Recovery

Strategic Planning

SDLC Process

Service Level Management

Capacity Planning

Change Management

Incident Management

DR DOES NOT STAND ALONE

DR Should be embedded within each IT process

Strategic Planning
- Disaster Recovery

Service Level Management
- Disaster Recovery

Incident Management
- Disaster Recovery

Capacity Planning
- Disaster Recovery

Change Management
- Disaster Recovery

SDLC Process
- Disaster Recovery

STRATEGIC PLANNING

- All organizations have a timeframe and process for setting future strategic goals
- Disaster Recovery Impacts to Identify
  + Financial Impacts: How do goals impact cost of disaster recovery?
  + Regulatory Impacts: Does new system have regulatory requirements that don't exist for current environment?
  + RTO and RPO objectives: Does new system change existing backup and recovery strategies?
  + Data Retention: Does the new system have different data retention requirements?
- Impacts are not specific at this point. Goal is to make management aware of potential DR impacts

STRATEGIC PLANNING

✖ How to Embed DR into the Strategic Planning Process

1. Gain an understanding of this process
2. Ask management to include you in the process if possible
3. Understand how strategic plans impact disaster recovery
4. Document and present impacts to management in a formal setting

✖ You will not have detailed costs at this point

PROJECT MANAGEMENT

- DR Linkage to Project Management
  - All organizations have a methodology for designing and implementing new systems
  - Examples:
    - Software Development Life Cycle (SDLC)
    - Agile
    - Project Management Institute (PMI)
    - Six Sigma
    - ITIL

PROJECT MANAGEMENT

✕ How to Embed DR in Project Management or Software Development Process

+ Identify the Program Management or Software Development group within your organization

+ Determine disaster recovery tasks for system implementation

+ Conduct a mini Business Impact Analysis on new system/application

+ Include DR in system requirements definition phase of project

+ Document detailed costs associated disaster recovery

+ Ensure DR is considered in go/no-go decision process

+ If decision is go without DR, develop a corrective action plan or have system owner sign off on accepting risk

SERVICE LEVEL MANAGEMENT

- **SLM Characteristics**
  - Service Level Agreements define system availability
  - Many customers assume DR is included in system availability commitment
  - Many SLA's do not include specific verbiage about disaster recovery or the language is vague
  - Most SLA's only address system up time and availability as it pertains to non-DR outages

SERVICE LEVEL MANAGEMENT

- **How to Embed DR in SLA**
  - Use results of BIA to determine RTO and RPO
  - Analyze current recovery strategy and how it impacts SLA
  - Work with SLM Team to create detailed verbiage in the SLA for disaster recovery
  - Ensure DR verbiage is separate from Availability requirements
  - Educate customers on updated SLA
  - Ensure SLA is updated as RTO, RPO or recovery solutions change

CAPACITY PLANNING MANAGEMENT

- Definition: The process of managing supply and demand to ensure services and supporting technology (HW/SW) meet current and future customer requirements

- Disaster Recovery should link to Capacity Planning to establish future disaster recovery budgets (for existing systems)

CAPACITY PLANNING MANAGEMENT

- How to Embed DR Within Capacity Planning
  - Identify capacity planning tools used to maintain inventory (There should be some type of CMDB)
  - Obtain access to capacity planning tools
  - Flag hardware that supports critical systems
  - Extract future growth projections for critical systems (if possible automate the extraction process)
  - Determine if growth carries over to DR
  - Build annual DR budget using input from capacity planning

CHANGE MANAGEMENT INTEGRATION

- Definition: Resolve problems and/or introduce new capability into production with minimal impact and risk to service
- Linking to the change management process helps define when changes to DR contracts go into affect and when plans need to be updated
- Modifying the contract and updating plans at this point is more efficient than waiting for audits. This ensures plans remain current

CHANGE MANAGEMENT INTEGRATION

- How to Embed DR in the Change Management Process

  + Identify the change management tracking tool in your organization
    Examples: NETIQ, HP Release Control, BMC Remedy

  + Nearly all change management tools have an approval and review
    workflow

  + Determine the types of changes you want to monitor
    Example : hardware, OS upgrades, storage upgrades, etc.)

  + Request to be added to the workflow as a reviewer for changes to critical
    systems(aim for approver role)

  + Modify software to add a required field to a change ticket for disaster
    recovery that the ticket owner must answer

  + Request to have reports or alerts generated and sent to you at a regular
    interval (automate process if possible)

- Being a reviewer will help you know when modifications must be
  made to recovery configurations and when plans need updating

INCIDENT MANAGEMENT INTEGRATION

- Definition: Restore/provide service to users as quickly as possible after an outage

- Most organizations have a separate incident management process for smaller disasters (server crashes, database corruption, frame failures, etc)

- There should only be one incident management process

INCIDENT MANAGEMENT INTEGRATION

- ✖ How to Embed DR into the Incident Management Process
  - ✚ Ensure that disaster recovery coordinator is included on notification list

  - ✚ Request a company cell phone where you can be contacted during off hours.

  - ✚ Justify cell phone by stating DR Coordinator is on call 24 hours

  - ✚ Ask to facilitate incident management meetings for small disasters

  - ✚ Take the lead in documenting lessons learned and keeping a log of activities

  - ✚ Take the lead in creating contingency plans that address small scale outages

  - ✚ Conduct tabletop exercises for small scale exercises. Every tabletop does not have to address major disasters

PERFORMANCE APPRAISAL INTEGRATION

- Nearly all organizations use a performance appraisal system that rates employees soft and technical skills

- Many times employees have little motivation to participate in DR activities because ratings and raises are based on other areas that are considered more critical

- Disaster recovery responsibilities are not listed in most job functions

PERFORMANCE APPRAISAL INTEGRATION

- **How to Embed DR into Performance Appraisal Process**
  - Include performance goals in the appraisal process for various DR tasks
    - Plan updates
    - DR exercise preparation
    - Resolving DR related issues in a timely fashion
  - Include clear DR language in all job descriptions
  - Ensure new hires understand DR responsibilities
  - Ensure all employees understand DR responsibilities and the impact to their performance evaluations

METRICS

- Many organizations issue formal reports on the overall health of the organization to management using metrics

- Metric are often categorized by key functions within the organization such as help desk, capacity planning, availability management, service level management, etc.

- The health of <u>disaster recovery </u>is typically not included in these metrics

METRICS

- How to Embed DR in the Metric Reporting Process
  - View existing metrics report and determine how they can be tailored for DR
  - Identify and work with the organization responsible for creating the reports
  - If you are an ITIL organization, use Key Performance Indicators (KPI's) and Critical Success Factors (CSF's) to determine the health of DR and establish Metrics

FINAL THOUGHTS

- You must identify champions for your cause
- You must be persistent in scheduling time with key stake holders to implement the solutions
- Create strong business cases/justifications prior to meeting with key stake holders
- Don't worry if you don't get DR embedded in all areas
- Set reasonable expectations for embedding DR processes

QUESTIONS
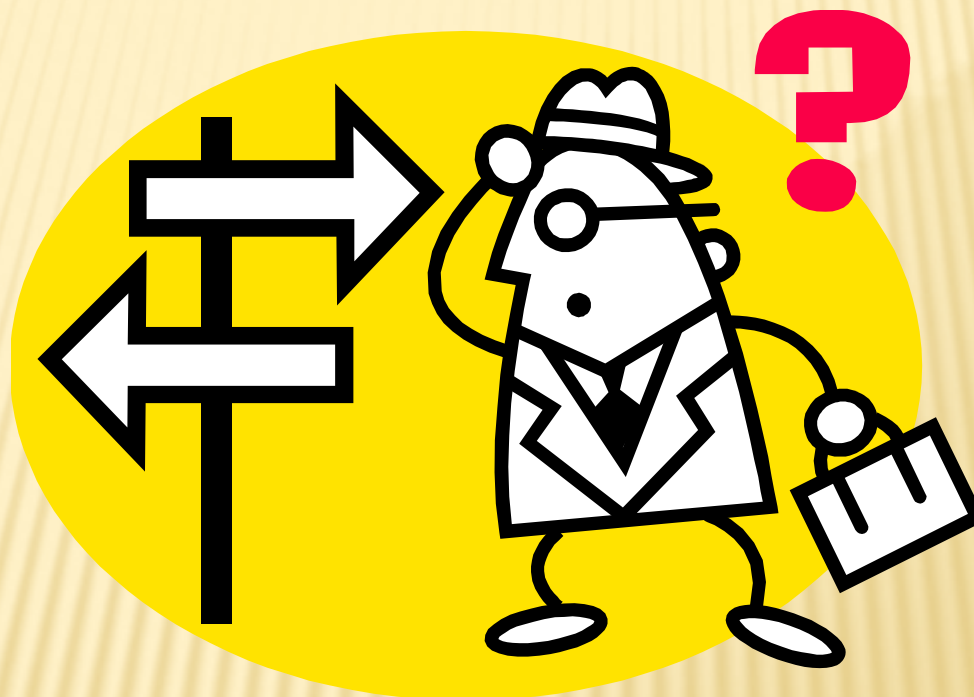
THANK YOU!

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