Payroll Disaster Recovery on One CD

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Agenda

- Company Overview
- Background of Disaster Recovery
- Goals
- Payroll Disaster Recovery Equipment
- Three Phases of Payroll Disaster Recovery
- Maintenance & On-going Testing
- Summary
- Questions and Answers
Jet Propulsion Laboratory

- Federally Funded Research and Development Center
  - Funded by National Aeronautics Space Administration (NASA)
  - Operated by Caltech

- Robotic Planetary Exploration
- Bi-weekly Payroll for 5,500+ employees

www.jpl.nasa.gov
Payroll Disaster Recovery

Background of Disaster Recovery

- No mirroring facility available
- Off-site storage for data tape daily
- The company-wide disaster recovery plan takes 48-hour recovery time to bring up Oracle application off-site
- Needed a solution to pay employees within 24 hour turnaround
Payroll Disaster Recovery

Goals

- Cost-effective solution
- Self-contained solution
- Recovery/Reconciliation process enabled
- Maximum data accuracy to reduce manual entries
- User-friendly solution for non-technical personnel
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Goals Cont.

- To meet the following JPL business policies:
  - In the event of a disaster during pay week, employees will receive payments based on the previous net pay
  - Upon recovery, the correct amount due to the employee or JPL will be resolved as quickly as possible
  - Controls will be in place to ensure recovery methods produce the expected results
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Equipment

- The following equipment is needed at an off-site location
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Three Phases of Payroll Disaster Recovery:

- Phase 1: On-site Payroll Disaster CD Creation
- Phase 2: Off-site Payroll Payments Process
- Phase 3: On-site Recovery / Reconciliation

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Phase 1- Payroll Disaster CD Creation

- CD to contain the following data:
  - Nacha File
  - Check File
  - Employee Status Change file
  - Shell Script
  - User Procedure
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Phase 1- Payroll Disaster CD Creation

- The payroll users run a concurrent process to create the disaster recovery data every bi-weekly payroll run.
- Employee status change nightly run
- Shell Scripts

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Phase 1 - Payroll Disaster CD Creation

Yes

Is Current Payroll Non Deduct

No

Capture Previous Payroll Data and modify the Payment date

Create Nacha and Check files

Capture Current Payroll Data and modify the Payment date
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Phase 1- Payroll Disaster CD Creation

Disaster
Recovery
Primary Process
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Phase 1 - Payroll Disaster CD Creation

Sub-Process
Generate Checks
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Phase 1 - Payroll Disaster CD Creation

Sub-Process
Generates NACHA

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Phase 1 - Payroll Disaster CD Creation

Sub-Process
Move files to Secure Location
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Phase 1- Payroll Disaster CD Creation

- A nightly batch process is scheduled to capture Employee Status Change since the last deduction payroll.
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Phase 1 - Payroll Disaster CD Creation

Nightly Batch Process
Employee Status Change
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Phase 1- Payroll Disaster CD Creation

- Two Unix shell scripts are used to purge the terminated employees and re-sequence the number of each record.
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Phase 2 - Payroll Payments Process

• Required to complete this process is the off site equipment stated earlier and the CD created in Phase I
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Phase 2 - Payroll Payments Process

- Prepare NACHA payment file and archive all the files for auditing purposes.
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Phase 2 - Payroll Payments Process

- Prepare Check File after apply changes.
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Phase 3 - Recovery/Reconciliation Process

- Recovery Steps
  - Determine the point of recovery
  - Based on the recovery point, run payroll in Oracle
  - Run the disaster recovery process
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Phase 3 - Recovery/Reconciliation Process

- Reconciliation Steps
  - Generate the net amount for Oracle Payroll and offsite payments
  - Run process to generate Overpayment / Underpayment entries to BEE
  - Execute Variance report
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Phase 3 - Recovery/Reconciliation Process

Disaster Recovery
Post Process
Payroll Disaster Recovery
Phase 3 - Recovery/Reconciliation Process

Employee Variance Report

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# Payroll Disaster Recovery
## Phase 3 - Recovery/Reconciliation Process

<table>
<thead>
<tr>
<th>Employee Name</th>
<th>Employee Number</th>
<th>Net Amount</th>
<th>Net Change</th>
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<td>HU, TAY S</td>
<td>111221</td>
<td>$932.15</td>
<td>-$324.01</td>
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*** End of Report ***
Payroll Disaster Recovery
Phase 3 - Recovery/Reconciliation Process