Intermodal Business Continuity – Technology View

Joel Tracy
CIO
IMC Companies
What is IMC Companies?

- 7 companies united in their efforts to provide exceptional international supply chain solutions
- Companies with local market ownership and knowledge
- A team of 1,500 employees
- Equipment including over 1,200 power units, 125 maintenance and repair vehicles and more than 6,000 containers and chassis in our container depots
- A unique resource designed to meet specific intermodal transportation needs
### Our Brands

<table>
<thead>
<tr>
<th>Brand</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMCG</td>
<td>Inland trucking and full service depots. Service available in Memphis, Nashville, Birmingham, Dallas, and Alliance.</td>
</tr>
<tr>
<td>AIS</td>
<td>South Atlantic trucking. Service available in Charleston, Savannah, Charlotte, Jacksonville, Norfolk, and Atlanta.</td>
</tr>
<tr>
<td>GIS</td>
<td>Gulf trucking. Service available in Houston, Laredo, Mobile, and New Orleans.</td>
</tr>
<tr>
<td>NDS</td>
<td>Agent based trucking company. Service available in Atlanta, Baltimore, Charleston, Charlotte, Chicago, Cincinnati, Dallas, El Paso, Houston, Jacksonville, Los Angeles, Mobile, New Orleans, Norfolk, Savannah, and Wilmington.</td>
</tr>
<tr>
<td>DNJ</td>
<td>Great Lakes trucking. Service available in Chicago, Indianapolis, Kansas City, Omaha and St. Louis.</td>
</tr>
<tr>
<td>FI</td>
<td>Mobile maintenance and repair. Service available in Alliance, Dallas, Denver, El Paso, Houston, Kansas City, Memphis, Nashville, North Platte, Salt Lake City and St. Louis.</td>
</tr>
<tr>
<td>IGS</td>
<td>Single source logistics solutions.</td>
</tr>
</tbody>
</table>
Our National Footprint

THE IMC COMPANIES NETWORK

EXISTING LOCATIONS

FUTURE EXPANSION
Intermodal Business Continuity - Technology View

• Business continuity is near the top of most IT organization’s list of strategic initiatives
• High costs & downtime implications drive this
• Complexity of Intermodal logistics magnifies the impact
Wide Range of Threats

- Cyber attacks
- Natural disasters
- User errors
- Fire
- Water
- Budget & Staff limitations

To mitigate downtime at our facilities we decided that we must be more vigilant in making our infrastructure, applications and essential data more resilient and always available.
Mitigation Plan

• Move to TIER III hosted datacenter in Franklin TN
• Network connectivity provided by two different carriers
• Two different electrical backup generators and backup batteries
• Secondary datacenter in Memphis with synchronized data
Best Practices Learned

• Automate failover, recovery and restore steps
• Ensure backup strategy is in place for virtual machines and networks
• Schedule periodic failover and recovery tests
• Prioritize tier 1 applications that are need first
• Integrate mobility into continuity plan
• Regularly review technology operation readiness and assurance
Summary

• Intermodal logistics is complex with many interrelated business processes
• Downtime has negative effects on business operations
  • Results in lost revenue, diminished customer confidence and increased compliance risk
• Continued focus on business continuity preparedness and testing is essential