Theme For Discussion

- Introductions
- Market Drivers, Trends & Directions
- Restorable, Recoverable, Available?
- Internal, Commercial or Hybrid?
- Program Road Map Alternatives
- Optimal Spend / Call To Action
About SunGard

- Leading provider of software and IT services for financial services, higher education and public sector
- Leading provider of information availability services
- 25,000 customers in 50 countries
- 16,000 employees
- $4 billion in revenue
- Fortune 500, privately held

SunGard was founded in 1983 through the LBO of a division of Sun Oil Company. SunGard went public in an IPO in 1986. Since 1986 SunGard has completed more than 150 acquisitions.

SunGard went private in 2005 as a result of an LBO valued at $11.5 bn. Investors include Silver Lake Partners, Bain Capital, Blackstone Group, Goldman Sachs Capital Partners, KKR, Providence Equity and Texas Pacific Group.
SunGard Availability Services

- **Market Leadership and Growth**
  - Significant customer base and solution mix
  - Over 25 years experience and more than 8,000 clients worldwide including 70 of the Fortune 100
  - Over 3,000 Managed Services & Hosting customers
  - Two Acquisitions in 2008 (Strohl and Vericenter)

- **We do business where you do business**
  - 60+ facilities worldwide
  - A nationwide network of SAS 70 Type II managed data centers
  - International presence with significant North American footprint

- **Experience**
  - ‘Break & build’ data center environments every day
  - 2300+ successful customer recoveries
  - Creative, flexible, & vendor independent

- **Financially Robust**
  - $1.6B Service Provider [$5B+ total SunGard]
  - Financial stability of a Fortune 500 company
What is Information Availability?

ALWAYS ON ... NO DOWNTIME ... NO DELAYS
- Uninterrupted communications
  - Application services help ensure availability of mission-critical data
  - 24/7 system availability and support

ALWAYS AVAILABLE ... 2 MINUTES ... 2 HOURS
- Minimal downtime and accelerated restarts
  - Keep backup data or equipment at a SunGard facility
  - Operations seamlessly transferred to a SunGard facility and back to your facility via dedicated network

ALWAYS READY ... 1 DAY ... 2 DAYS
- Quickly relocate and restart
  - Bring backup data and people to SunGard for real-time access to databases and automatic call distribution systems
  - Back up and running as quickly as possible

KEEPING PEOPLE AND INFORMATION CONNECTED®
International Reach

UNITED KINGDOM
- Bristol
- Coventry
- Crawley
- Dundee
- Elland (Leeds)
- Leatherhead
- Leicester
- Livingston
- Leeds
- London
- Poole
- Stockport
- Theale
- Warrington

LONDON
- Docklands Recovery Campus
- London Technology Centre (LTC)
- City Recovery Campus
- South Bank Recovery Campus

DENMARK
- Copenhagen

FRANCE
- Lognes
- Paris

BELGIUM
- Brussels

LUXEMBOURG
- Luxembourg

NORWAY
- Oslo

SWEDEN
- Stockholm
SunGard Global Network Backbone

Chicago Metro DWDM Infrastructure

ScaleJet U.K. DWDM Network

Northeast DWDM Infrastructure

Atlanta Metro DWDM Infrastructure

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Drivers, Trends & Directions
What Are IT Top-of-Mind Issues?

October 2006, Data Overview “Enterprise IT Infrastructure 2006 Adoption”

IT Decision-Makers Stay Focused On Basic Priorities (Cont.)

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<th>2</th>
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<td>Purchase/upgrade disaster recovery</td>
<td>21%</td>
<td>35%</td>
<td>31%</td>
<td>13%</td>
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<tr>
<td>Significantly upgrade security environment</td>
<td>22%</td>
<td>34%</td>
<td>31%</td>
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<tr>
<td>Support for regulatory compliance</td>
<td>31%</td>
<td>23%</td>
<td>24%</td>
<td>22%</td>
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<tr>
<td>Consolidate IT infrastructure</td>
<td>22%</td>
<td>32%</td>
<td>30%</td>
<td>17%</td>
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<tr>
<td>Use ITIL or COBIT IT process models to formalize IT operations</td>
<td>10%</td>
<td>21%</td>
<td>35%</td>
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<td>Deploy RFID technology</td>
<td>8%</td>
<td>23%</td>
<td>64%</td>
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<td>Move IT infrastructure management or maintenance offshore</td>
<td>5%</td>
<td>10%</td>
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<td>81%</td>
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</table>

Base: 715 decision-makers at North American enterprises
(percentages may not total 100 due to rounding)
### Risk Wheel

**Natural Threats**
- Tornado
- Earthquake
- Pandemic
- Ice Storm
- Hurricane

**Accidental Threats**
- Data Loss
- Power Failure
- Facility Fire
- Utilities - Gas Leak
- Network Outage

**TBD**
- TBD
- TBD
- TBD

**International Threats**
- Info. Security Breach
- Workplace Violence
- Terrorism
- Proximity Govt. Bldg.
- Unauthorized Access

**People**
- Asset Impact

**Facilities**
- Process

**Technology**
- TBD

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Today’s Business Requirements Are Different

**Historically:**
- Fires
- Hurricanes
- Tornadoes
- Earthquakes
- Floods
- Power failure

**Characteristics:**
Statistically predictable, quantifiable, insurable, well-understood

**Today:**
- Cybercrime and denial of service
- Terrorist targets of opportunity
- Wireless devices
- Trading partner connectivity
- Public infrastructure concerns (telcos, airlines, globalization)
- Protection of human capital
- The Truth: Current Capability

**Characteristics:**
Intentional, difficult to quantify, ambiguous boundaries, trust dimensions
Catastrophic Disasters

- Widespread and well documented destruction
- > 90% + of Business Continuity budgets
- Some chance of occurring
- Stakeholders understand and will have compassion in these situations

Service Interruptions

- Malicious events, Viruses, Human Error
  - Millions of dollars of quantifiable losses
- Infrastructure Failure
  - > 50% of outages are hardware or power related
- Perception is reality:
  Outage = Failure to anticipate
- Stakeholders will not tolerate an outage associated with this type of event
- Regulatory Agencies have little tolerance to unexplained compliance failures
Business Drivers

- Focusing on driving down costs to maximize ROI
- Streamlining Service Delivery across IT and Business Processes
- Shifting Toward Centralizing IT Infrastructures & Shared Services
- Execution of a Comprehensive Roadmap for an Optimal Sourcing Strategy
- Adopting Alternative Service Delivery Models
- Rationalizing and Managing Application Portfolios
Market Drivers and Trends

- Recovery Time Objectives (RTO) and Recovery Point Objectives (RPO) are shrinking
  - Increased pressures to develop a cost-effective yet highly performing BCDR solutions (across all verticals)

- Select sourcing replaces “traditional” takeover outsourcing
  - Emphasis on lower costs and time invested in supporting BCDR strategy
  - De-emphasis on “Desire For Control”
  - Higher willingness to use third party vendors as a part of co-sourcing

- Market Statistics:
  - 79% of current tape based recovery clients prefer an Advanced Recovery that includes vaulting or replication to a secondary location
  - 54% prefer that the vaulting or replication solution is managed by the provider
Recovery Time Objectives (RTOs) for Mission-Critical Functions by Industry

- **UTILITIES**
- **TRANSPORTATION**
- **SERVICES**
- **RETAIL/WHOLESALE**
- **LOCAL/STATE/REGIONAL GOVT**
- **FEDERAL GOVT**
- **HEALTHCARE PROVIDER**
- **FINANCIAL SERVICES**
- **ENERGY**
- **EDUCATION**
- **MANUFACTURING**
- **COMMUNICATIONS**

Legend:
- Less than 4 hours
- 4 to 12 hours
- 13 to 24 hours
- 25 to 72 hours
- More than 72 hours
Market Drivers and Trends

- Clients expect high levels of involvement from their 3\textsuperscript{rd} party provider
  - Management of Operating Systems, Applications, and supporting infrastructure for Production environments
  - Provider executes test and recovery validation

- Prevalent Datacenter challenges
  - Power and cooling costs continue to rise
  - Increasing need for flexibility and automation in server management
  - Rising needs for on-demand capacity for testing and development environments
Market Drivers and Trends

- **Server & Data Center Consolidation**
  - Traditionally for lower TCO, better control and increased flexibility
  - Increased ROI through multi-purpose use of existing infrastructure and virtualization strategies
  - Consolidation strategies leverage expanded production capabilities for DR (vendor or internal)

- **Implementation of virtualization technologies for DR**
  - Enable customers to recover faster, utilize hardware more efficiently and overcome hardware disparities in the Hotsite
  - 44% of all clients have implemented a form of virtualization
  - 26% of all clients will implement a form of virtualization over the next 12-18 months
So, What Are Your Peers Doing?

- Focused on Architectural Availability vs Restoration
- Augmenting Internal Skills With Subject Matter Expertise
- Leveraging partners for intellectual capital, experience and managed services
- Designing Services, Processes & Applications With Continuity Criteria Built in (ROI)
- Designing Scalable, Tiered, Hybrid Recoverability Solutions
- Utilizing Internal & Hybrid Alternate Sites for Tiered Recoverability
Restorable, Recoverable or Available?
Tiered Recovery Spectrum

- High Complexity
  - Continuous Operations
  - Rapid Recovery
  - Data Shadowing
  - Transaction Protection
  - Alternate Site Recovery
  - Enterprise Coverage
  - Quick Ship
  - Mobile

- Traditional Disaster Recovery Services

- Low Complexity
  - Advanced Recovery Services

- Disaster Tolerance
  - Low
  - High
Recovery Time Guidelines

- **0 - 12 hrs** RTO/RPO
- **12 - 24 hrs** RTO/RPO
- **24 - 48 hrs** RTO/RPO
- **48-72 hrs** RTO

Financial Impacts And Recovery Costs

Supporting Technology

- **Dedicated/Managed:** dedicated equipment, data replication
- **Advanced Recovery:** dedicated and shared equipment with data replication
- **Advanced Tape Recovery:** restore ATOT/ATOD with advanced tape recovery resources
- **Traditional Recovery:** Restore from tape ATOT/ATOD
Internal, Commercial or Hybrid?
Discussion Points

- **Opportunity**
  - Control
  - Perceived ROI thru merger, acquisition and/or consolidation

- **Business need**
  - Dependence on access to information
  - Reduced recovery points & times
  - Customer & Supplier satisfaction, SLA’s, legal & regulatory compliance
  - Security: Minimize risks & exposures

- **Technology drivers**
  - Growth of disparate technologies
  - Growth of aggregate data/storage requirements (inability to restore from tape)
  - Complexity of integrated processes, applications and inter-dependencies
  - Improving total cost/performance: TCO equation requires factual answers
  - Simpler to implement high-availability solutions, facilitating scalability & testability

- **Internal drivers**
  - Politics/Control
  - Resource sharing potential (staff & environments)
  - Focus on core business: Are core competencies being effectively leveraged?
Most organizations have 50% or more of the equipment needed to facilitate a high-availability architecture:
- The challenge is to find the solution provider capable of enabling the re-purposing of the infrastructure in a reasonable amount of time with integrity

High Availability is less disruptive on your staff and more easily tested:
- Resiliency and availability is a “posture”
- Restorability is an audit check list item

One size does not fit all:
- Services providers must offer you a continuum of services to meet different recovery needs (tiers) for each business function

Service Providers that don’t operate “living, breathing” Data Centers can not be expected to improve your “posture”
Road Map Alternatives
Road Map: Desired Outcomes

Provide optimal spend alternatives for enhanced resiliency & recoverability

- Restorable, recoverable or available today?
- Structured discovery of Tier One architecture & inter-dependencies
- Validate requirements for Tier One processes are resilient/recoverable today from a business process perspective
- Validation of system & applications interdependencies
- Consensus on the environmental requirements for Tier One
- General Categorization of Tier 2-4 requirements & solutions sets
- Conclusions & recommendations on roadmap alternatives with cost estimates
Develop A Programmatic Approach
Optimal Spend / Call To Action
What Our Customers Are Talking About:

**Lower Costs**
- Leverage Hosting economies of scale
- Infrastructure is a commodity
- Optimal Spend Solutions

**Technology Evolution**
- IT Infrastructure
- Virtualization
- Tiered Recoverability, not point solutions

**Reliability**
- Information Availability
- Professional Services
- Programmatic Approach
- Security
- Service Level Agreement

**Scalability**
- Infrastructure “on demand”
- Diverse solution portfolio
- Ability to address rampant growth

**Flexibility & Service**
- Customization
- Better alternative to “Corporate IT”
- Treated like a customer
Call To Action: Execute Your Game Plan

- Establish multi-faceted dialog now to share experience and intellectual capital

- Establish executable baseline capabilities & constraints to quantify & qualify current & evolving risk profile (compliment ongoing activities)

- Determine optimal spend (internal, hybrid, commercial)

- Collaborate, develop and execute on agreed to initiatives and timeframes

- Become better prepared for your next ‘event’
Our Role Has Evolved