

Business Continuity Drivers, Best Practices, and Solutions

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Why Plan for Business Continuity?



Agenda

- Why Plan for Business Continuity
- Business and Legislative Drivers for Business Continuity
- Business Continuity Best Practices and Methodology
- End to End Business Continuity Focus
- High Availability Network Solutions
- Marketplace Drivers for Storage Solutions
- Traditional Enterprise Recovery Solutions
- High Availability Business Continuity Solution Example

Why Plan for Business Continuity?

Pandemic: A **global** outbreak of a **serious illness** that spreads person to person. People have little or no immunity and there is no vaccine. **Challenges** with a Pandemic include, but are not limited to a) Rapid World-Wide Spread, b) Health Care Systems Overloaded, c) Medical Supplies Inadequate, and d) Economic and Social Disruption.

Recent Pandemic History:

1918 Spanish Flu

1957 Asian Flu

1968 Hong Kong Flu

2003 SARS – Economic Impact on Asia / Pacific Region was ~ \$40 Billion

Current Avian Flu Situation as of May 24, 2007:

50+ countries with outbreaks in wild birds or poultry

307 human cases in 12 countries with 186 deaths

(World Health Organization: 2007 = 44 Cases / 28 Deaths)

Pandemic Projections (US Impact)

	People	Workforce	GDP
Mild	75 Million	25%	1.5% (\$200 Billion)
Severe	90 Million	30%	5%

World Bank estimates a global economic impact of \$2 Trillion or 3% of the global economy's gross national product. (USA Today, Section B, September 18, 2006)

Why Plan for Business Continuity?

For the sixth consecutive year, AT&T has surveyed enterprises across the US to determine the state of business continuity planning in the private sector. AT&T polled 1,000 senior IT executives for their views on disaster planning/business continuity trends.



- Despite another year filled with hard-lessons learned from tornadoes, floods, and fires, more than 30% of business across the country are still not prepared for the worst case scenario.
- Over 82% of the executives said that cyber security is part of their overall business continuity plan in 2007. This is up from 80% in 2006, and 75 percent in 2005.
- Overall, a majority (57%) have updated their plans in the past 12 months. However, fewer than half (41%) had actually tested their plans in the same period.
- Of business hit by a disaster, only 41% “take action” when the federal or state government issues an alert. This is compared to 33% for those companies that have not been affected by a prior disaster.
- 15% of businesses surveyed advised that they lost up to \$500,000 per day, in lost revenue, repair, restoration, demolition, etc.

Business Drivers for Business Continuity and Compliance Storage Solutions

Customer/Market Trends

- On-Line Business
- 24 x 7, Always on
- Globalization



Stakeholder Trends

- Volatile Markets
- Officer Liability
- GLB / HIPAA
- OHS / SEC / Comptroller

Financial Trends

- Cost Reduction
- TCO/ROI Focus
- CapEx Reduction



Risk Trends

- Broader Threats
- Increased Vulnerability
- Greater Risk and Exposure

Organizational Trends

- Productivity Focus
- Scarce Qualified Resources
- Internet Time
- Consolidation



Technology Trends

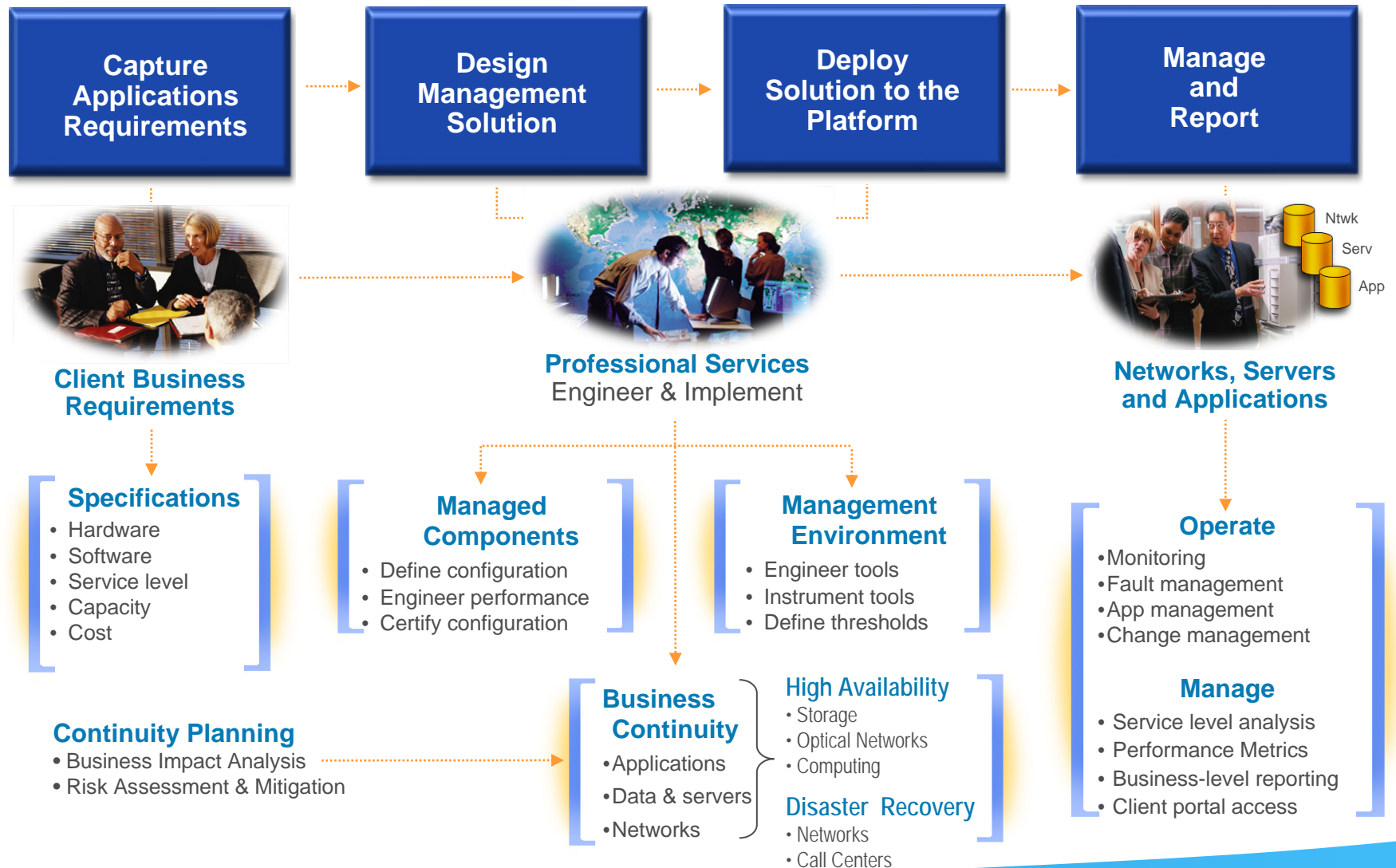
- Improved Network Capability
- Exponential Storage Growth
- Emerging Protocols
- Application Management

All drive the demand for a highly available infrastructure.

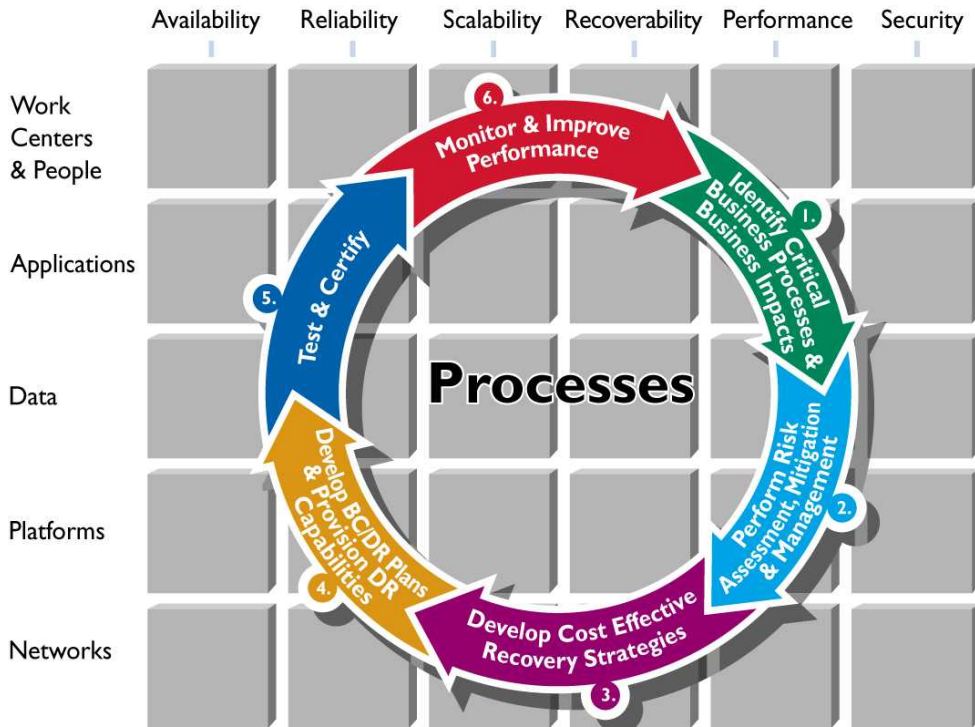
Legislative Drivers for Business Continuity Solutions

Ruling	Who Is Impacted	Regulatory Challenges
SEC 17a-4 17a-3	Broker/Dealers	<i>Email, Instant Messaging must be stored for 3 yrs, in 2 separate & distinct places, & must be easily accessible</i>
NASD 3010	Broker/Dealers	<i>Requires 'supervision' including implementation a formalized review process of incoming/outgoing emails & instant messaging</i>
Federal Reserve/SEC/OCC	Financial Institution	<i>Specific Business Resumption Recommendations</i> <ul style="list-style-type: none"> ▪ Resume business within 2 hrs. ▪ Recover financial transactions within next business day ▪ Ensure Back-Up Facilities are "Out Of Region" from Primary Site ▪ Perform cross organization tests to assure compatibility
Sarbanes-Oxley	CEO, CFO, Public Firms	<i>A broad auditing, financial disclosure & corporate governance law. Imposes substantive rules as to the conduct of a <u>publicly-held company</u></i>
HIPAA	Healthcare Insurance	<i>Standardize the use & transfer of oral, printed, & electronic records.</i> <i>Privacy & Security driven (protects the disclosure of all patient <u>health information</u>)</i>
Financial Services Modernization Act (Gramm-Leach-Bliley)	Financial	<i>Requires banks to develop privacy notices & give their customers the option to prohibit banks from sharing customer information</i>
FDA - Title 21 CFR Part 11	Pharmaceutical	<i>Outlines criteria for acceptance by the FDA of electronic records, electronic signatures, and handwritten signatures executed to electronic records as equivalent to paper records and handwritten signatures executed on paper</i>
Basel II	Financial	<i>Relates to where and how a <u>financial institution's</u> information and data is provided and controlled</i>
California SB 1386	Any Entity Dealing w/ CA Residents	<i>Businesses must inform residents if their name, SS#, Driver's license, Credit Card, or Bank account were compromised</i>

Business Continuity Best Practices and Methodology



End-to-End Business Continuity Focus



Practices

- **Business Process Modeling**
- **Managed Risk Services**
 - Business Impact Analysis
 - Risk Assessment
 - Mitigation Strategy Development
- **Business Continuity Planning**
 - Business Continuity Strategy Planning
 - Business Continuity Plan Development
 - Business Continuity Plan Testing
 - Business Continuity Plan Certification
 - Emergency Response Plan Development & Testing
- **Business Continuity Program Management**

Have you performed a BIA and Risk Assessment for your business?

Do you have a Business Continuity Plan and do you exercise it regularly?

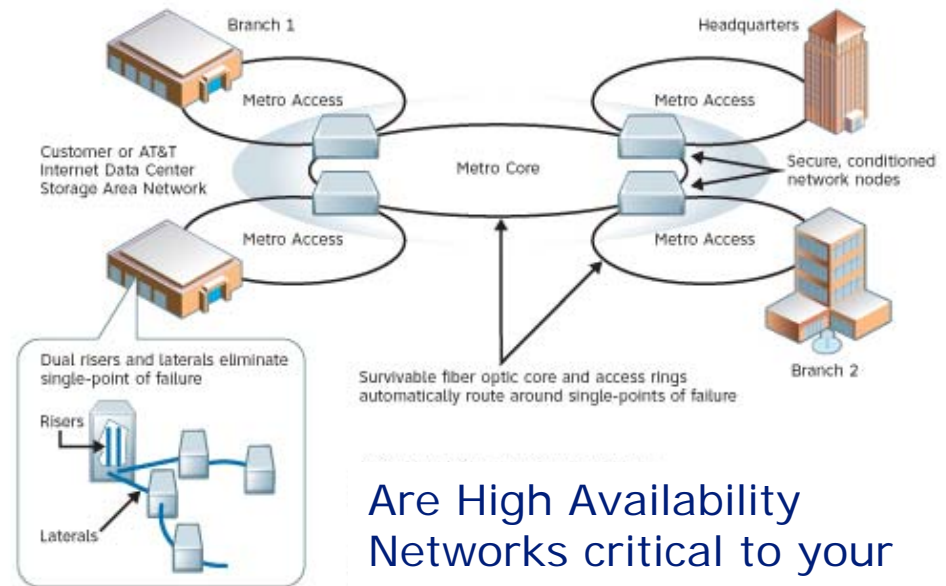
If not, why not?

High Availability Network Solutions

Exclusive use of a fiber optic metropolitan area network (MAN) and shared use Long Haul Core (Wavelength) that employs both Dense Wave Division Multiplexing (DWDM) and SONET technology.

Benefits:

- Secure private communications network
- Diverse connections to Points of Presence
- Protocol independent service channels
- No single point of failure
- Scalable design to meet changing infrastructure requirements
- Reliability engineered to application requirements and client risk profiles.



Are High Availability Networks critical to your business infrastructure?

Bandwidth/Speeds: OC-3, OC-12, OC-48, OC-192

Supported protocols include Native IT (ESCON, FICON, FC, GigE, D1, FDD1); Fiber Channel; DS-1 / DS-3; OC-3, OC-12, OC-48, and OC-192 bandwidths; Fast Ethernet; ISC; D1 Video; ETR; and SONET.

Marketplace Drivers for Storage Solutions

Drivers for Storage Solutions

- Availability and Protection of Mission Critical Data Requirements
- Business Continuity and Disaster Recovery Requirements
- Reduction in Cost of Service without Reduction in Quality of Service
- Business and Regulatory / Compliance Requirements (SEC, HIPAA, SOx)
- Storage Capacity Growth Rates Averaging 45% annually
- 64% of companies admit their data backup and disaster recovery plans "have significant vulnerabilities."

Storage Solutions Customers Require Today

- Storage Consolidation and Optimization
- SAN Implementation and Management
- Data Protection / Security
- Remote Replication
- Email, Data, and Content Archiving
- Storage Tiers / Data Lifecycle Management
- Server and Storage Virtualization

Traditional Enterprise Recovery Solutions

Traditional recovery solutions which provide business continuity solutions to help ensure you are prepared for any unplanned event that impacts your company's profitability.

Flexibility in WHAT to Recover

End-User/Work Group Space for People:

For organizations that need alternate work, call center, and/or office space for end-user positions, PC's, telecommunications capabilities, and IT resources to recover their business processes.

Systems Recovery for Information Systems

For organization that need to recover distributed systems, Intel-based platforms and/or mainframe systems.



Flexibility in WHERE to Recover

Center-Based Solution:

For organizations that need a FIXED LOCATION for either End-Users and/or Systems Recovery

Mobile Solution

For organizations that need a recovery solution BROUGHT TO THEIR LOCATION for either End-Users and/or Systems Recovery

Subscriber Solution

For organizations that need RECOVERY EQUIPMENT ONLY brought to supplement your internal recovery

Solution Example: High Availability Business Continuity Solution

Business Challenge:

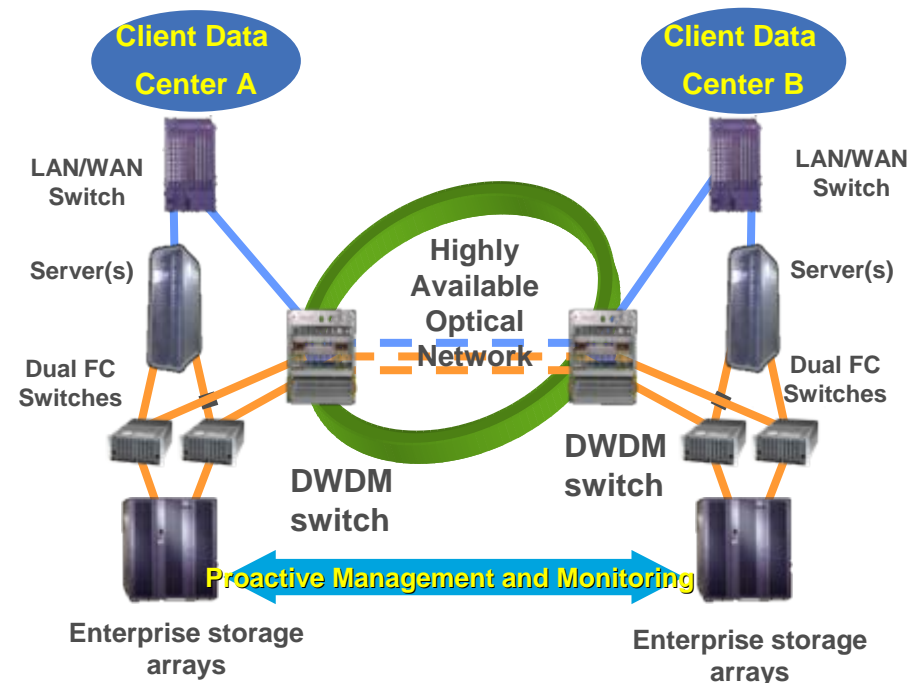
- Ensure availability of business-critical applications
- Enhance security and reliability for time sensitive, high-bandwidth content, TV, websites, newspapers

Solution:

- End to end open systems computing, storage and optical network solution
- Stretch cluster effectively spans dual sites via DWDM to achieve 100% application availability
- Sites are physically apart while acting as one unified Cluster

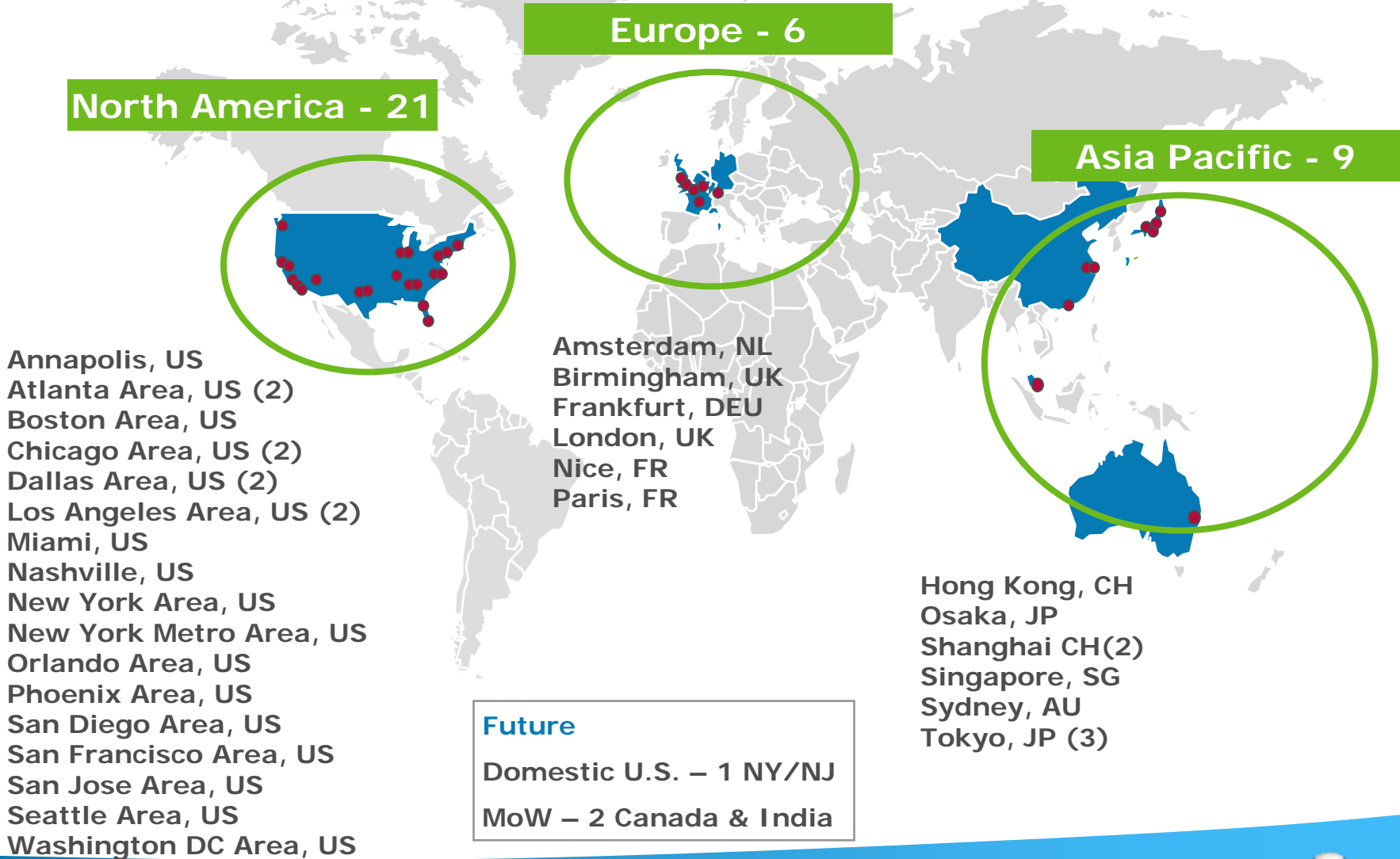
Impact:

- With this project clients are responding to changing market demands and are at the leading edge in the use of advanced technology solutions.
- Clients are positioned to further ensure uninterrupted service to their customers, while decreasing costs and improving operational efficiencies.



36 AT&T Internet Data Centers Worldwide

Current IDC footprint totals over 1.9 million ft²



Risk Assessment and Business Continuity Planning

9 Questions About Your Business Continuity Plan

Mitigate Risk, Protect Mission Critical Data

1. Have you analyzed which business processes, applications and services are most critical?
2. Have you assessed the impact of a potential disruption?
3. Have you created a strategy to mitigate risk?
4. What security measures are in place?
5. Are key locations hardened, conditioned facilities?

Meet Customer and Regulatory Requirements

6. Have your customers or business partners mandated performance or availability service levels?
7. What current or emerging regulatory requirements must be complied with?

Invest Wisely

8. Have you quantified the potential costs of downtime or total business failure?
9. Have you developed sound business cases to optimally invest in risk mitigation?



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Thank You!

Question & Answer

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