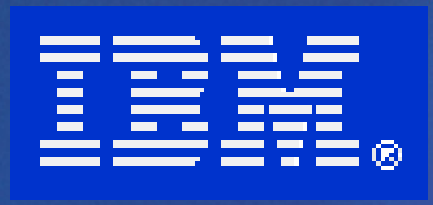

IBM System Storage®
Brocade Series update

Krzysztof Fingas

Area Manager

Brocade Communications Systems

13.09.2006

MAKE THE BROCADE CONNECTION

BROCADE

Agenda

- Brocade po 10 latach istnienia
- Ewolucja i dzisiejszy SAN
- Przegląd rodziny SilkWormów; FC, FCR, FCIP, iSCSI, FICON
- Wsparcie SAN dla koncepcji Disaster Recovery
- Software w SAN + licencjonowanie
- Wsparcie dla partnerów
- Bieżące promocje i nowości

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Brocade

The storage networking pioneer and leader

- **The storage networking leader:**
  - Ten years of pioneering leadership and innovation
  - Proven and tangible cost and management benefits
  - Platform for enterprise backup, disaster recovery, and high-availability solutions
  - Driving industry standards, interoperability, reliability, and partnerships
  - **More than 60%** of all installed storage networks are based on Brocade
- **Intelligent solutions and building blocks to drive *lower costs, greater flexibility and better compliance*:**
  - SilkWorm: Highest performance, broadest range, common code base
  - Tapestry: Intelligent solutions within and around networked storage
  - Services: Unique in-depth technical expertise and experience

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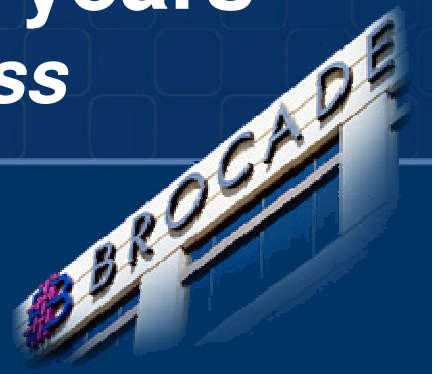
Brocade's SAN Business after 10 years

Strong Foundation for Continued Success



- **Strong Financial Position**
  - FY05 revenue of $574M, >$182.7M in Q2 FY06
  - Healthy product profitability to support investing
  - Revenue growth of 7% from Q106 and 26% from Q205
  - Generated nearly $55.7M in operating cash flow in Q106
  - $502M of net cash, compared to $468M Q205
- **Leadership in all segments of our business**
  - Strong demand for 4Gbit/sec technology in the industry
  - The only product family in the industry with a common operating system
  - > 11,000 directors installed worldwide supporting mission-critical applications
  - > 2,000 of these directors are 4Gbit/sec SilkWorm 48000
  - 56% overall SAN market share, 36% Director market share and growing

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The Brocade "Connection" Is Pervasive in Data Centers Worldwide

Hundreds of petabytes **of shared storage connected…**

…to more than *2 million* servers…

…across more than *100,000 SAN fabrics*…

***in the data path*…**

…of *tens of thousands* of applications…

…in the most critical, complex, costly, and secure data centers in the world.

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Ewolucja i dzisiejszy SAN

MAKE THE BROCADE CONNECTION

BROCADE

Dotychczasowe korzyści z SAN

Oszczędność czasu i pieniędzy, redukcja ryzyka

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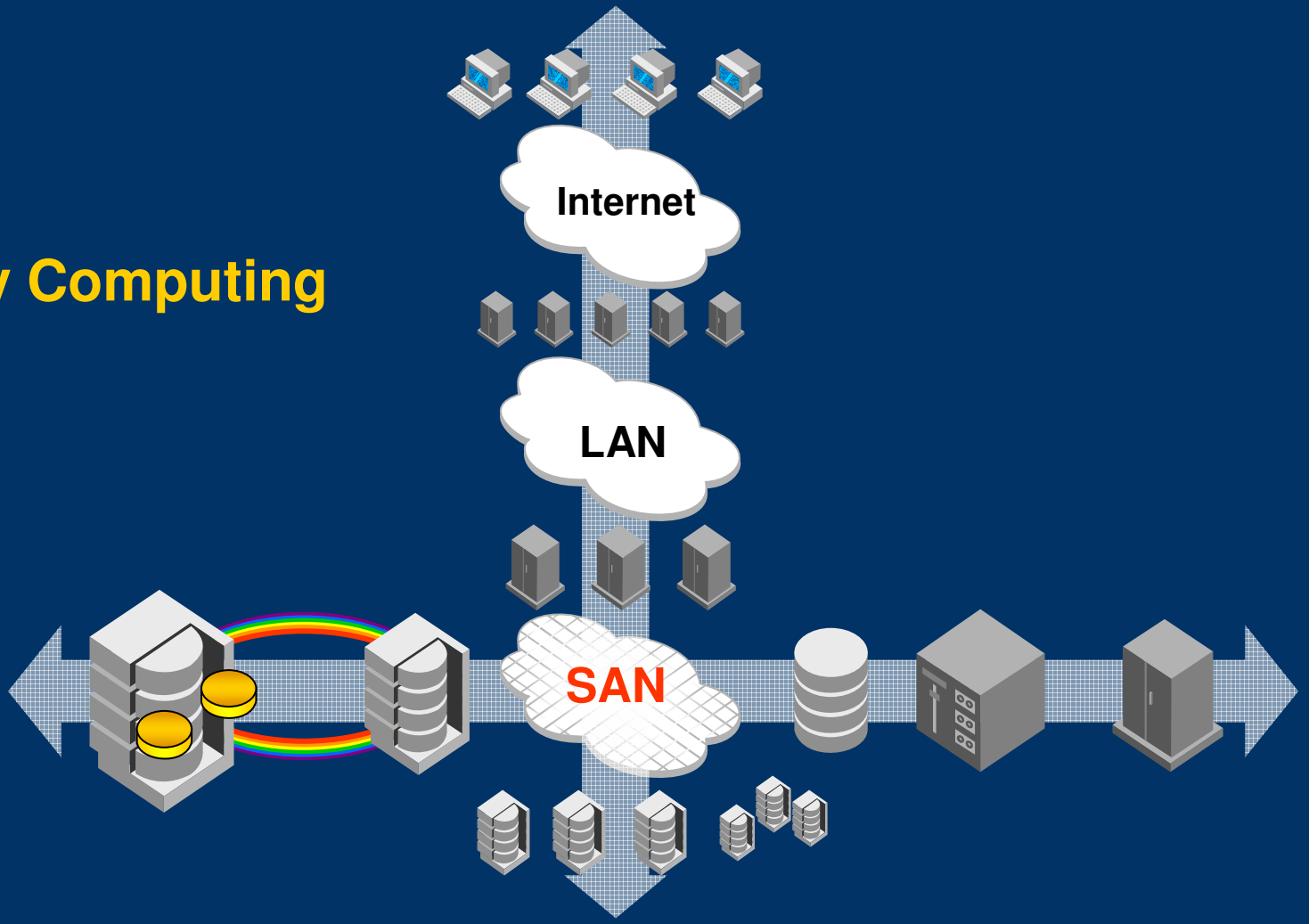
Sieć SAN znajduje się na przecięciu dwóch Strategicznych Trendów

Utility Computing



Information Lifecycle Management (ILM)

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Przyszłość Sieciowej Pamięci Masowej

Nowe obszary zastosowania – nowe korzyści:

Współpraca wysp SAN

5

Wzrost
utylizacji i komunikacji

- Redukcja czasu wdrożeń nowości

- Ochrona stabilności pracy produkcyjnej istniejących systemów

Inteligencja sieci SAN

6

Optymalizacja
współczynnika cena/wydajność storage'u poprzez wydajną migrację

- Niższe koszty replikacji danych w obszarze połączonych warstw storage'u

Utility Computing

7

Automatyzacja

- wsparcie sieci Fabric dla witualizacji serwerów i storage'u

- błyskawiczne uruchamianie serwisów oparte o zdefiniowaną politykę

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Przegląd rodziny SilkWormów; FC, FCR, FCIP, iSCSI, FICON

MAKE THE BROCADE CONNECTION

BROCADE

SilkWorm Family

Embedded to enterprise, common scalable Fabric OS

High Performance

Bladed Server Modules

SilkWorm 200E
8-16 Ports

SilkWorm 4100
16-32 ports

SilkWorm 4900
32-64 ports

SilkWorm 48000
256 ports

Low Cost

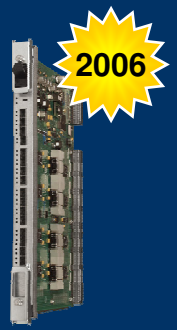
iSCSI Gateway

iSCSI and
Fibre Channel

WAN and Routing

AP-7420
FCIP/Routing
McDATA
Interop

FCIP/FC Routing



FCIP/FC Routing

Virtualization

AP-7420
Tapestry

Applications
Blade

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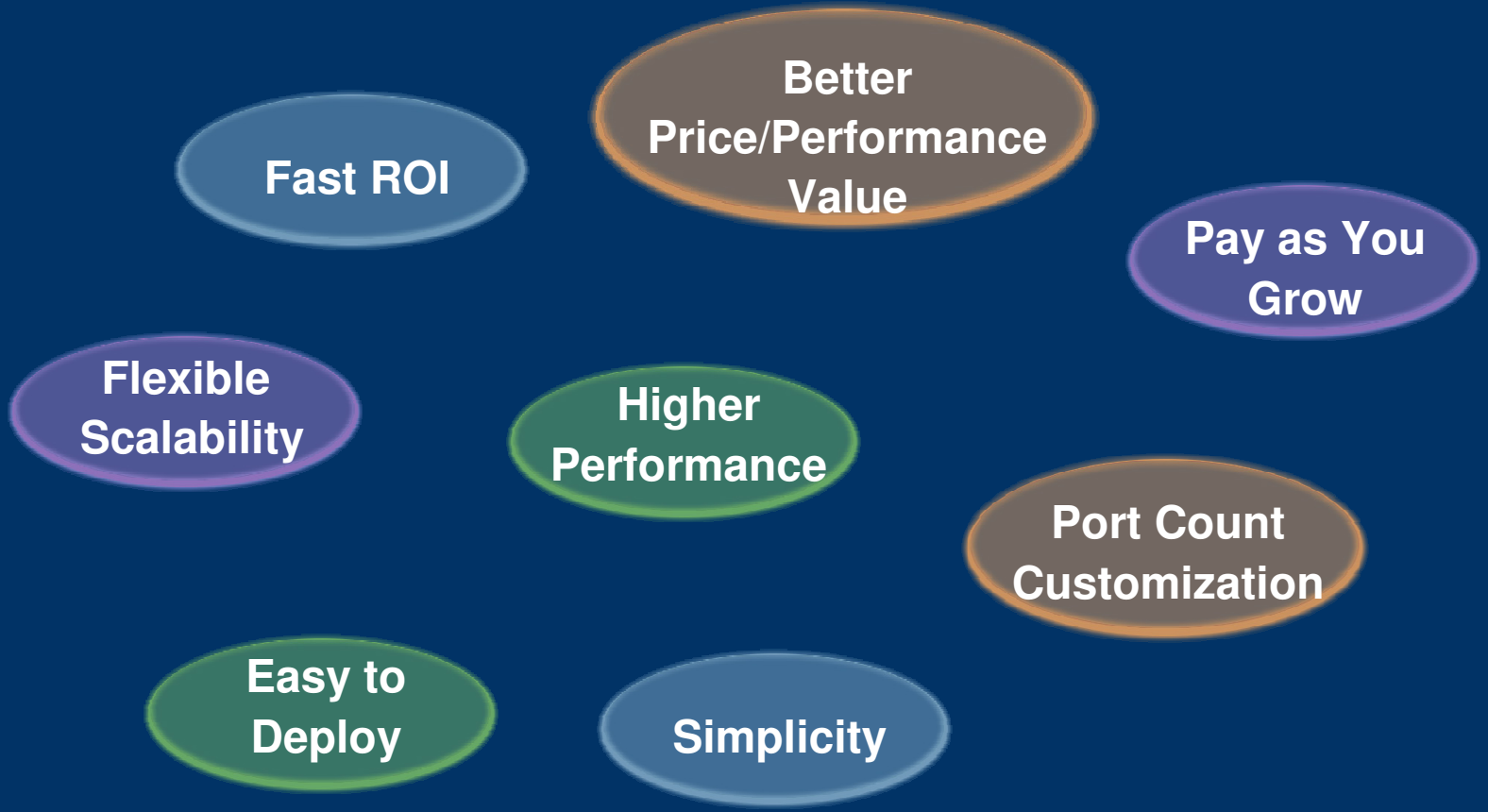
Need a New Class of Small Fibre Channel Switch



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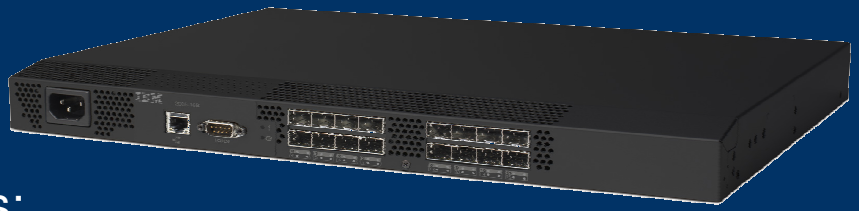
Introducing the IBM TotalStorage® 2005-B16

Delivering Brocade value at the right price for small SANs



- Flexibility to meet current and future needs:
  - Range from a standalone 8-port switch to a multi-switch 16-port solution
  - Ports on Demand—"pay as you grow", start with 8 ports and grow to 16 ports
- Simplified deployment and management:
  - No previous SAN experience needed to use the EZSwitchSetup wizard:
    - Eliminates the need for advanced skills to manage IP addressing or zoning configurations (simplified device discovery and management)
    - GUI and help files in 10 languages
  - Web Tools EZ provides intuitive, graphic management of the switch
- Industry-leading performance:
  - Future-proofs first SANs with new 4 Gbit/sec technology
  - Provides 8, 12, or 16 ports in a 1U enclosure
  - Auto-detecting 4/2/1 Gbit/sec Fibre Channel technology
  - Non-blocking 4 Gbit/sec Fibre Channel performance

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Configuration Options

- The IBM TotalStorage® 2005-B16 scales from a standalone 8-port switch to a fully capable 16-port edge switch:
  - Within the same device and with soft upgrades (license keys)
- Flexible configurations:
  - Base switch: 4 Gbit/sec, 8 ports, no E_Port
  - With or without SFPs
  - Upgrade options:
    - Add E_Port to have multiple switches in a fabric
    - Add one 4-port Ports on Demand increment to reach 12 ports
    - Add a second 4-port Ports on Demand increment to reach 16 ports

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EZSwitchSetup Value Proposition

- Simplifies the installation and maintenance of the IBM TotalStorage® 2005-B16 :
  - EZSwitchSetup is included as standard software
- Provides new SAN users a path to higher value-add SAN architectures:
  - Web Tools and Advanced Zoning are linked to EZSwitchSetup
- Doesn't burden experienced SAN users:
  - Use of EZSwitchSetup is completely optional:
    - Novice users are encouraged to use EZSwitchSetup
    - Experienced users are encouraged to use advanced tools – CLI, Web Tools, Advanced Zoning

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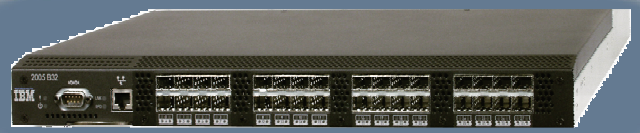
IBM 2109 B32 – THE 1st 4Gb switch

Highlights



- Highest performance mid-range fabric switch available
  - **First to Market with 4Gb Fibre Channel Switch**
  - **16, 24 or 32 ports-on-demand for instant scalability**
  - **4Gb technology at 2Gb price point = superior ROI and investment protection**
  - **Compatibility across entire Brocade SAN family**
  - HA features – hot code load, hot swap power, cooling
- Ideal for small SAN (core) and large SAN (edge) applications
  - **Ease of use and leverage of full Brocade management/monitoring tools and SAN ecosystem**
  - **FICON/CUP Ready**
  - **ISL Trunking bandwidth up to 32Gbit/sec for core-to-edge**
  - **Extended distance links up to 500km**
  - **Enterprise Availability Features**
  - **Single code stream into the product line from 8 to 128 ports**

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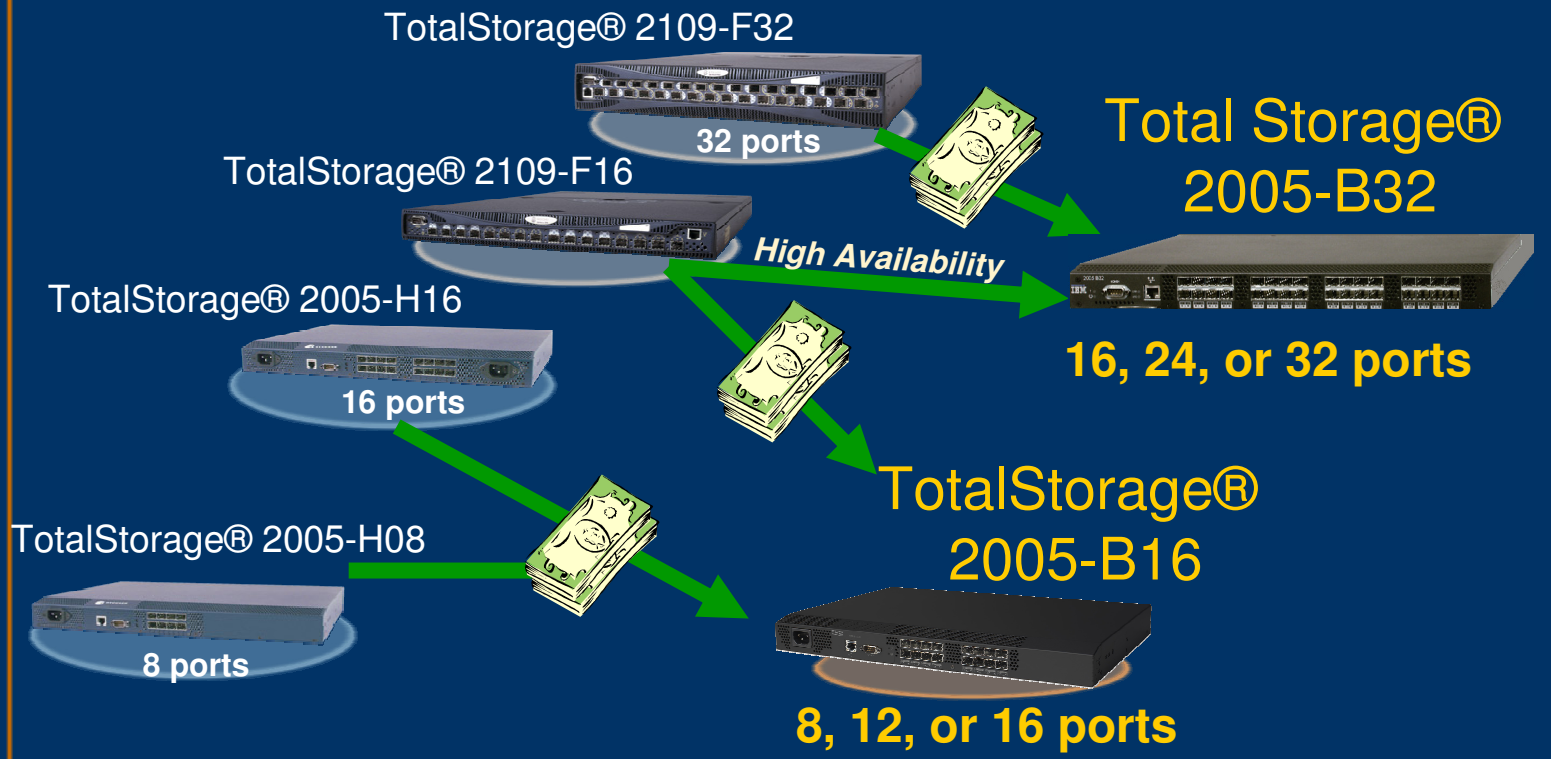
More Play, Less Pay

Increased functionality at lower price points

Transitions:
- TotalStorage® 2005-B32 replaces TotalStorage® 2109-F32
- TotalStorage® 2005-B16 replaces TotalStorage® 2005-H08/H16
- TotalStorage® 2109-F16 replaced by TotalStorage® 2005-B32 if high availability is a factor, and by TotalStorage® 2005-B16 if price is the issue



Adds:
- **4 Gbit/sec**
- **Ports on Demand**
- **Simplified product line**

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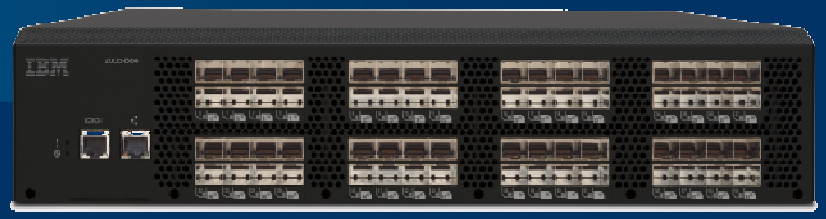
IBM System Storage® SAN64B-2 (2005-B64)

64-port Fibre Channel Switch

Highlights



- Industry-leading port density:
  - 64-port 4 Gbit/sec 2U enterprise switch
- Unmatched performance:
  - 1:1 subscription at 4 Gbit/sec for all 64 ports
- Pay-as-you-grow flexibility:
  - Ports on Demand options for 32, 48, and 64 ports

Key Capabilities

- High-availability features (hot code load; hot-swap power and cooling)
- Advanced performance functionality:
  - ISL Trunking with 32 Gbit/sec trunks (8 ports at 4 Gbit/sec)
  - Dynamic Path Selection, end-to-end performance monitoring
- Long-distance support:
  - 500 km at 1 Gbit/sec, 250 km at 2 Gbit/sec, 100 km at 4 Gbit/sec
  - Trunks: 250 km at 4 Gbit/sec (2 ports x 2 Gbit/sec)
    100 km at 10 Gbit/sec (5 ports x 2 Gbit/sec)
- Common Fabric OS with existing entry-to-enterprise SilkWorm platforms

Ideal for:

- Enterprise edge consolidation
- Dual-fabric core switches

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Optimal Solution for SAN Consolidation

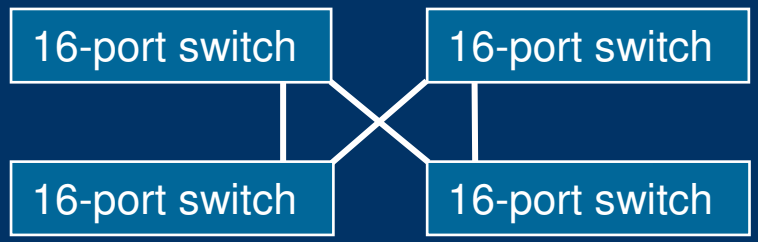
64 user ports

- **Performance:**
  - Any-to-any guaranteed
- **Management:**
  - Fewer devices to manage
- **Reliability:**
  - No SFPs or cables required for ISLs

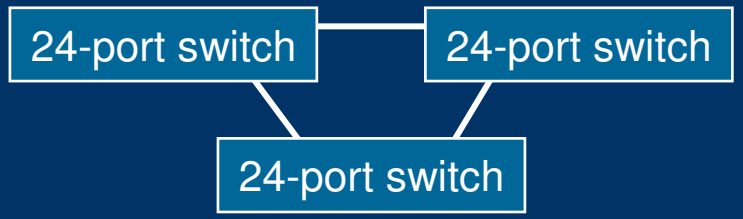
- **Efficiency:**
  - Fewer total ports required to achieve 64 ports for connectivity
  - Less rack space for the same performance
  - Higher total bandwidth

32 + 32 – 4 ISL ports = **60 user ports**

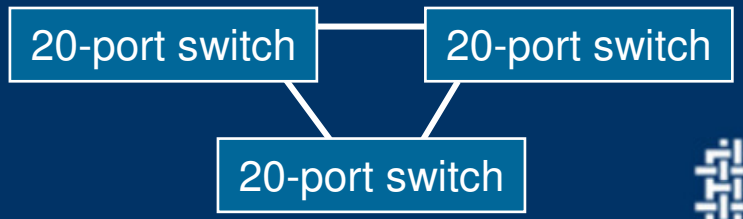
(4 x 16) – 8 ISL ports = **56 user ports**



(3 x 24) – 6 ISL ports = **66 user ports**



(3 x 20) – 6 ISL ports = **54 user ports**



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Feature and Benefits of B64 Summary

Feature	Benefits
64 non-blocking ports	Ideal for infrastructure simplification
Hot code activation	Enterprise-ready
Ports on Demand feature	Pay-as-you-grow scalability
Uses existing Fabric OS and hardware	Well known/stable platform and interoperability with older software
FICON/CUP-ready	Ideal for Series z tape environments
Competitive TCO	Lower cost of ownership than directors
Simple single-box concept	Fabric growth with switch architecture
Fewer ports used for ISLs	Optimized price/port ratio

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TotalStorage® 2109-M48 Gbit/sec Director

New High-End Extension to the SilkWorm Family

Product Highlights:

- 256 ports in a single domain director
  - 4 Gbit/sec 16- and 32-port blades
  - FC, FC Routing, FCIP, iSCSI, FICON
- 1/2/4 Gbit/sec auto-sensing technology

Unique and Leading Capabilities:

- Most efficient director, delivers significant TCO savings
- Enhanced ISL Trunking, up to 32Gbit/sec with 8 links
- Dynamic Path Selection for to optimizing fabric-wide performance and load balancing
- Extended Fabrics for business continuance operations
  - Full 4 Gbit/sec performance up to 100km
  - Trunking 3 ISLs 12Gbit/sec @ 100km, 6Gbit /sec @ 250km
- FICON/CUP intermix FICON/FCP on port-by-port basis

Ideal for:

- Mission-critical cores in core-edge SANs
- High density SAN consolidation
- High port count stand-alone director

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TotalStorage® 2109-M48 Use Cases

- Deployment
  - Mission-critical core and high-density edge in core-edge SANs
  - High port count stand-alone director
  - For open systems and/or IBM zSeries server environments

- Applications
  - High availability
    - 5-nines infrastructure for servers and storage to support application uptime
  - Storage consolidation
    - Shared infrastructure to increase utilization and lower management expenses
  - Accelerated data backup
    - High-speed network to reduce backup duration and shirk backup windows
  - Business continuance:
    - Foundation for automatic transfers of data to remote sites for disaster recovery

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Why are customers selecting Brocade Directors for FICON today?

- **Investment Protection**
  - Brocade offers the ONLY 4Gb FICON director now (Silkworm 48000)
  - FICON/CUP certification from IBM for 48000 & 4100
  - Support for NPIV
- **Superior Performance**
  - Central Channel Memory Architecture, Virtual Channels
- **Best Security&Flexibility in Intermix Mode**
  - Hardware Enforced Zoning, Intermix mode supported on port-by-port level
- **Best Performance&Manageability in Cascaded Mode**
  - Self-managing trunks: 32 Gb/sec (8 x 4 Gb trunk in cascaded mode)
- **Highest Availability (proven in Amadeus TPF stress-testing)**
  - e.g. Zero-second CP failover
- **Typically best Price/Performance**

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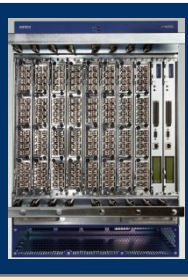
TotalStorage® 2109-M48 Leads the Market in TCO

Efficiency Delivers Significant Savings vs. Competition



	McDATA i10K	*Cisco MDS 9509*	TotalStorage® 2109-M48	*Brocade Advantage*
Power (W)	2500	2196	915	Up to **3 times** more efficient, **>$8,500** savings for each unit over 3-year period
Cooling (BTU)	8535	7497	3107	
Watts / Port	9.8	9.4	3.6	
Power / Gb BW	4.88	4.68	**0.89**	

With 4Gbit/sec, Brocade is the only vendor delivering a Gbit of bandwidth <1W

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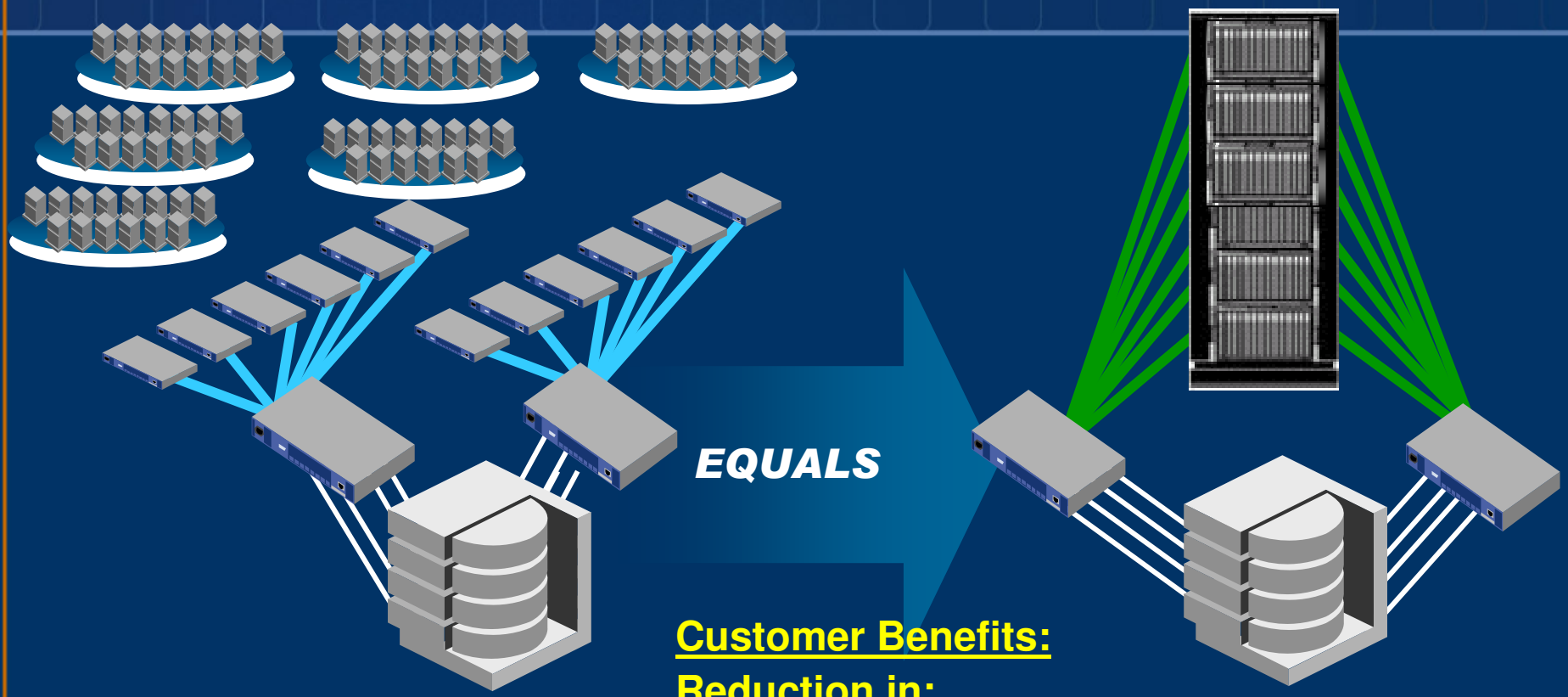
The Power of Integration

SAN & Server Simplification in Action



Customer Benefits:

Reduction in:

Cost

Complexity

Space

Power

OpEx

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IBM SAN Switch Modules for IBM BladeCenter®

Highlights

- ***Brocade's industry leading SAN technology and IBM's most flexible compute architecture*** ***IBM BladeCenter***
- **2-Gbit/sec Entry and Enterprise versions**
  - –14 internal and 2 external
- **4-Gbit/sec 10 and 20-Port versions**
  - –14 internal and 6 external

Unique capabilities

- **High Availability Features:**
  - –Dual, redundant, hot-swap switch configuration
  - –Hot Code Activation
  - –Fabric Watch for proactive error capture
- **Superior Performance Features:**
  - –ISL Trunking and Dynamic Path Selection

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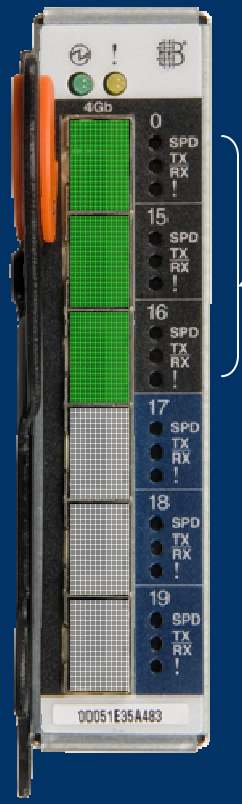
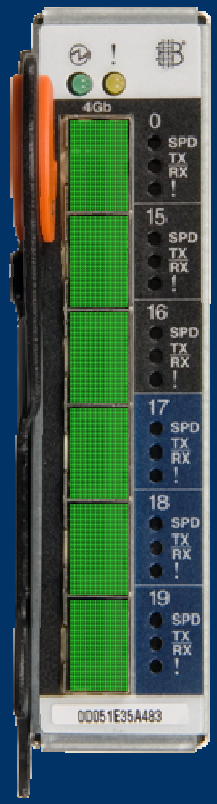
Comparing IBM 4Gbit/sec SAN Switch Models



10-Port Model

(32R1813)

- 7 Internal Ports active
  - •Server Bays 1-7
  - •Copper SERDES
  - •2 or 4 Gbit/sec auto-detect
  - •F-Port
- 3 External Ports active
  - •Ports 0,15,16
  - •SFP Media
  - •1,2,4 Gbit/sec Auto-detect
  - •U-Ports
- Licenses include:
  Full Fabric, WebTools, Zoning



20-Port Model

(32R1812)

- 14 Internal Ports active
  - •Server Bays 1-14
  - •Copper SERDES
  - •2 or 4 Gbit/sec auto-detect
  - •F-Port
- 6 External Ports active
  - •Ports 0,15-19
  - •SFP Media
  - •1,2,4 Gbit/sec Auto-detect
  - •U-Ports
- Licenses include:
  Full Fabric, WebTools, Zoning & 10-Port Upgrade

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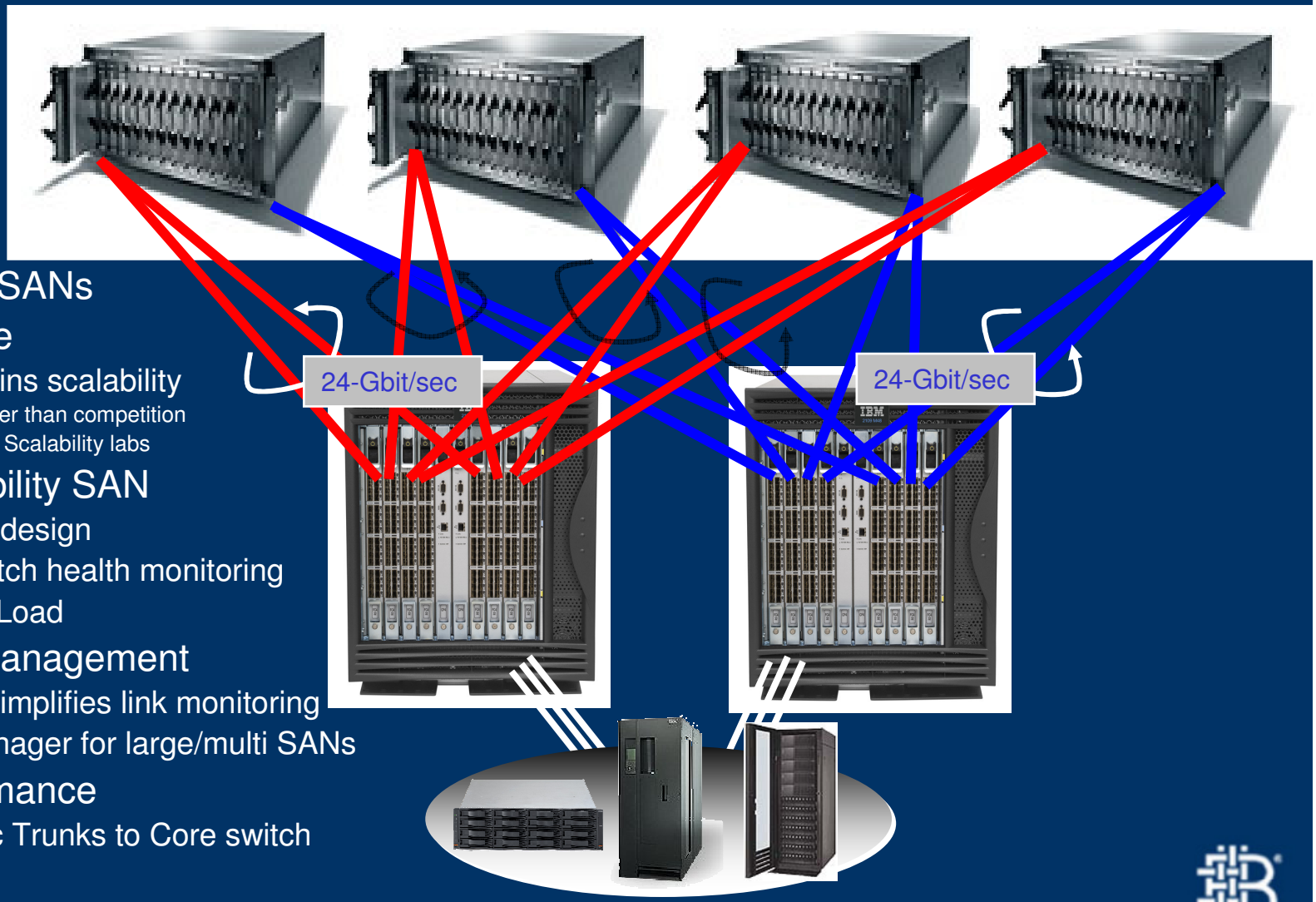
Superior SAN Scalability
Build Enterprise BladeCenter Data Centers



- Build Large SANs with Brocade
  - 50+ Domains scalability
    - 20+ greater than competition
    - Proven in Scalability labs
- High Availability SAN
  - Dual SAN design
  - Fabric Watch health monitoring
  - Hot Code Load
- Simplified Management
  - Trunking simplifies link monitoring
  - Fabric Manager for large/multi SANs
- Best Performance
  - 12Gbit/sec Trunks to Core switch

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Wsparcie SAN dla rozwiązań Disaster Recovery

MAKE THE BROCADE CONNECTION

BROCADE

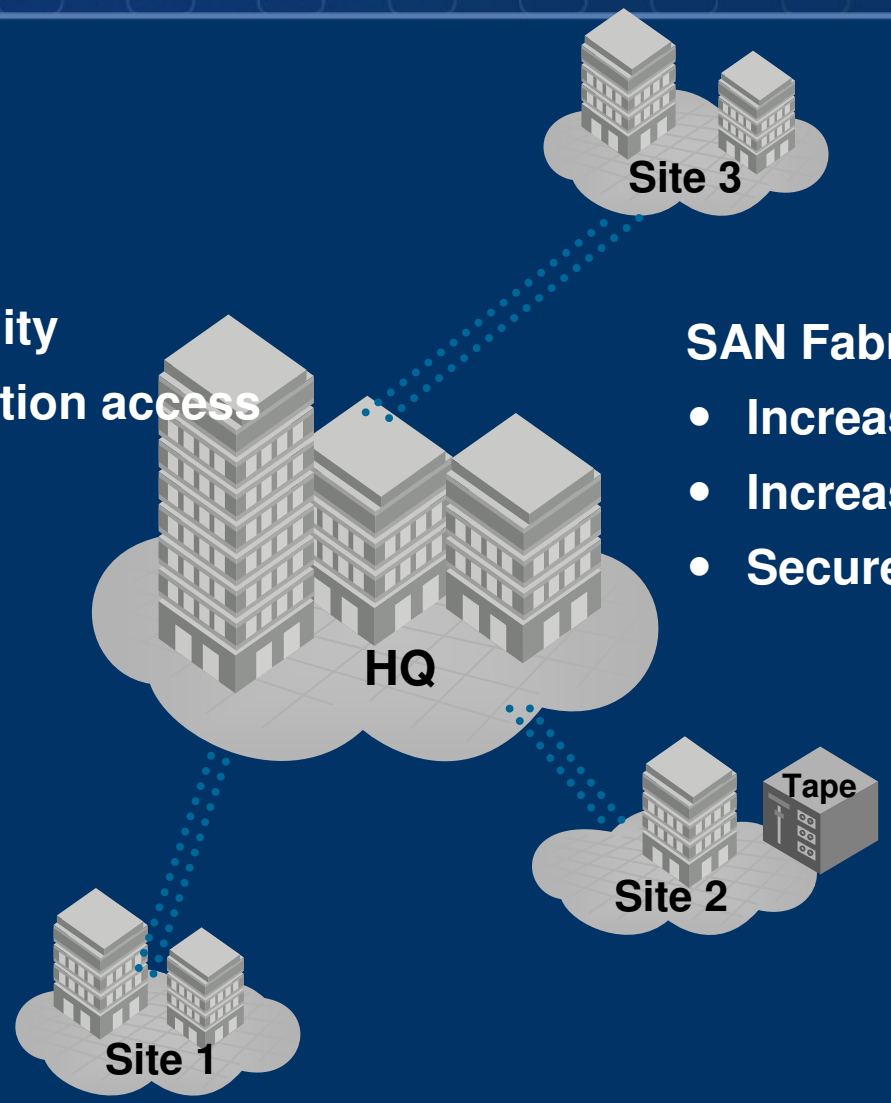
Business Continuity Solutions

Benefits:

- Asset Protection
- Data protection
- Business Continuity
- Improved information access

Methods:

- Mirroring
- Clustering
- Backup/restore
- Redundancy
- Remote Sites



SAN Fabric Demands:

- Increased distance
- Increased performance
- Secure Connection

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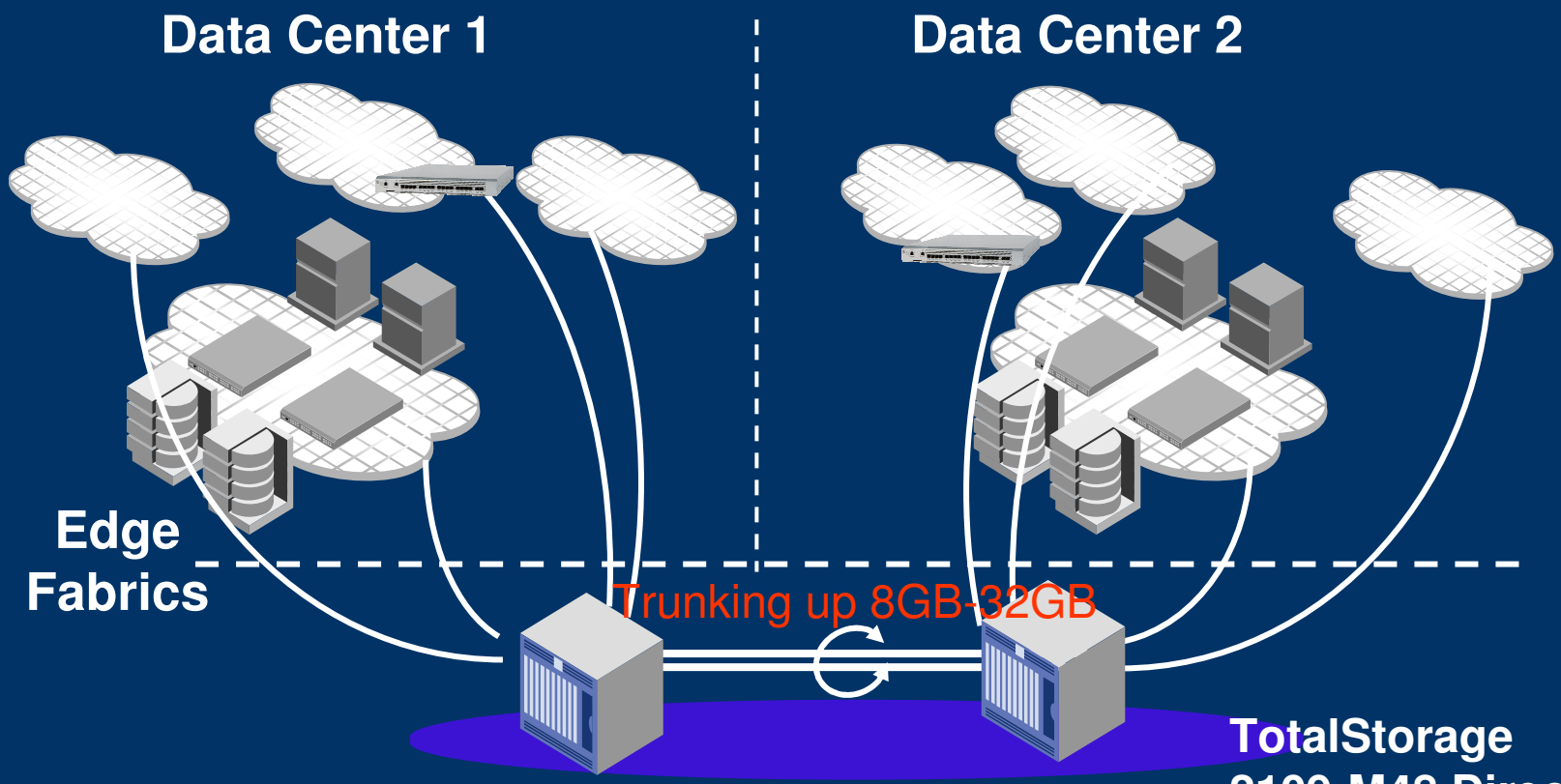
Extend your Data Center Brocade can up tp 32 GB with Trunking between the Data Center FC or use IP Connections



Extended SANs
- DWDM, CWDM, dark fiber
- FCIP

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IBM TotalStorage® 2005-R18, FR4-18i Blade 4GB FC to FC Routing Blade+External Router

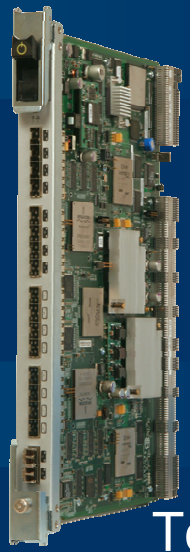
Product Highlights

- Unified SAN architecture
- Dual GigE FCIP ports for connecting to IP networks
- 1, 2, or 4 Gbit/sec Fibre Channel routing ports to connect Fibre Channel SAN fabrics or storage devices

Key Differentiators

- **Superior performance:**
  - Industry-first 4 Gbit/sec Fibre Channel routing
  - Optimizations for high-latency, low-bandwidth WANs
  - Line-rate performance for high-speed WANs
  - Hardware-based compression
- **Efficiency:**
  - Efficient encapsulation of Fibre Channel into IP
- **High scalability:**
  - 16 4 Gbit/sec Fibre Channel routing ports, 2 GigE FCIP ports
  - 8 FCIP tunnels per port

TotalStorage R18 Switch



TotalStorage FR4-18i M48 Director Blade

Ideal for:

- Efficiently connecting large SANs without merging
- Implementing SAN services across data networks

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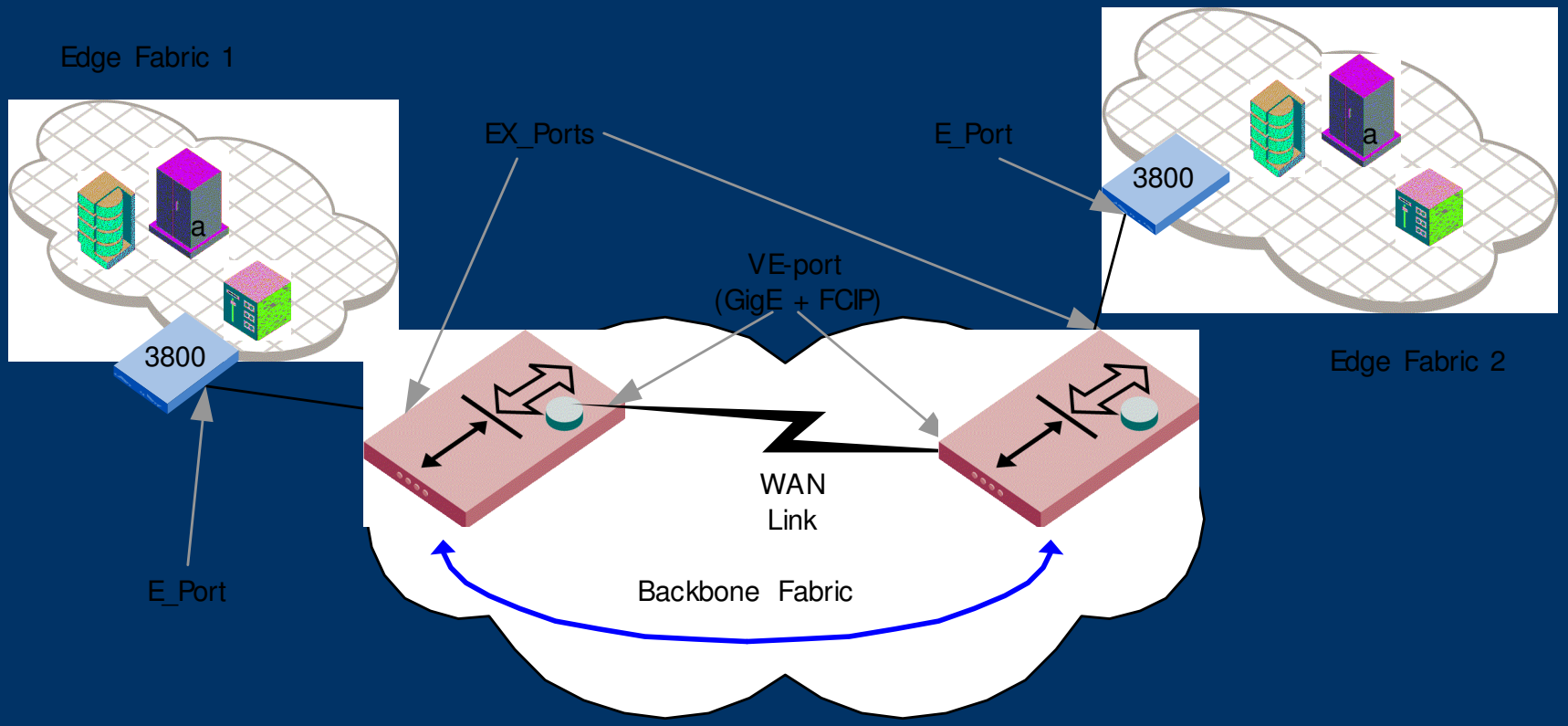
Fabric Isolation: Fibre Channel Routing and FCIP

- Integrate Fibre Channel routing services with FCIP
- Isolate WAN link failures and reconfiguration propagation across fabrics



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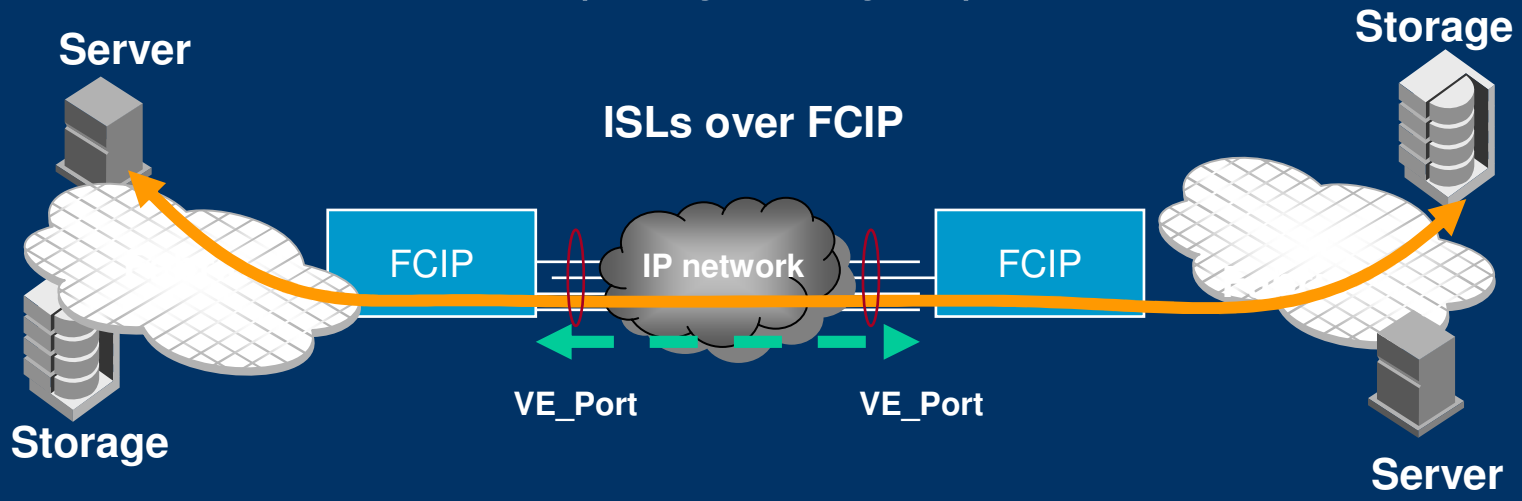
FCIP Implementation

- FCIP is a tunneling protocol to transport Fibre Channel ISL traffic
- Uses a guaranteed, in-order delivery transport in the IP network
- From the fabric view, an FCIP link is an ISL transporting all Fibre Channel control and data frames between switches
- The IP network and protocols are invisible to the fabric
- But, special challenges exist in transporting Fibre Channel traffic over the IP WAN, requiring storage-optimized features in FCIP



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FCIP Feature Set

- Eight virtual FCIP tunnels per Gigabit Ethernet port:
  - –Enables economic fan-in to a central site or multiple virtual FCIP links between two sites
- Traffic shaping per FCIP tunnel:
  - –Accommodates low bandwidth and enables QoS on a per-tunnel basis
- Hardware compression:
  - –Maximizes throughput over WAN links without performance degradation
- Line-rate performance:
  - –Maximizes performance in expensive high-speed networks

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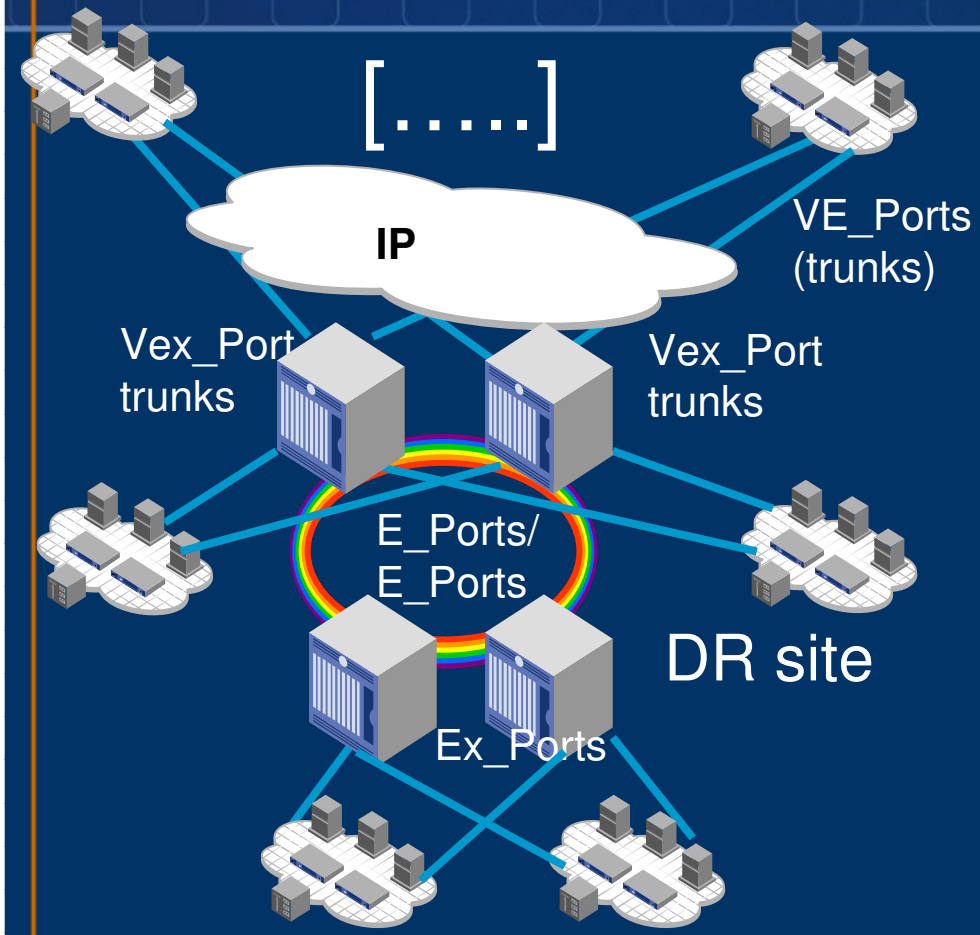
Use Case

Disaster recovery for distributed sites



Headquarters and disaster recovery sites with redundant directors, each with a TotalStorage FR4-18i blade

Key characteristics:

☑ One main site, many remote sites

Typical industries:

- Large retail
- Large insurance
- Distributed manufacturing
- Diversified financial

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Software Licencjonowanie

MAKE THE BROCADE CONNECTION

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Brocade's *Condor* ASIC: Five Benefits

1. 4 Gbit/sec Fibre Channel system on a chip:
   - Lowers overall system power requirements
2. Enhanced long-distance support with 1024 buffer credits:
   - More buffer credits equals higher performance over distance
3. Dynamic Path Selection:
   - Improves performance of networks prone to ISL congestion
4. Hardware support for up to 16 virtual channels:
   - Prevents ISL blocking and balances performance
5. 8-port Trunking:
   - Industry-leading 32 Gbit/sec ISLs between switches

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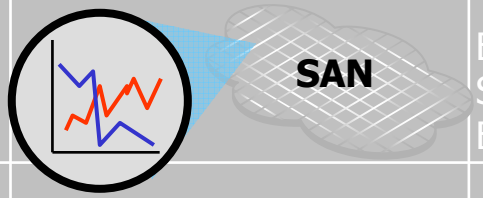
Brocade Enhances SAN Solutions

Unique Advanced Fabric Services

All Brocade products offer these intelligent SAN features:

Feature	Description	SAN Benefits	
Fabric Watch	Monitoring and alerting of key SAN statistics such as perf, error, security		Enhance Business Continuity Improve application availability Alert admin of marginal/hard errors
ISL Trunking	Connect Switches with up to 32Gb/S performance optimized trunks		Enhance Infrastructure Simplification Optimize SAN traffic performance Increase availability of data access
Adv Perf Monitoring	Highly granular SAN perf monitoring to differentiate traffic between devices		Enhance performance monitoring Simplify capacity planning Enable bill-back capabilities
Advanced Security	Robust encryption, authentication and authorization SAN policies		Enhance Business Continuity Protect SAN from hackers Reduce user errors

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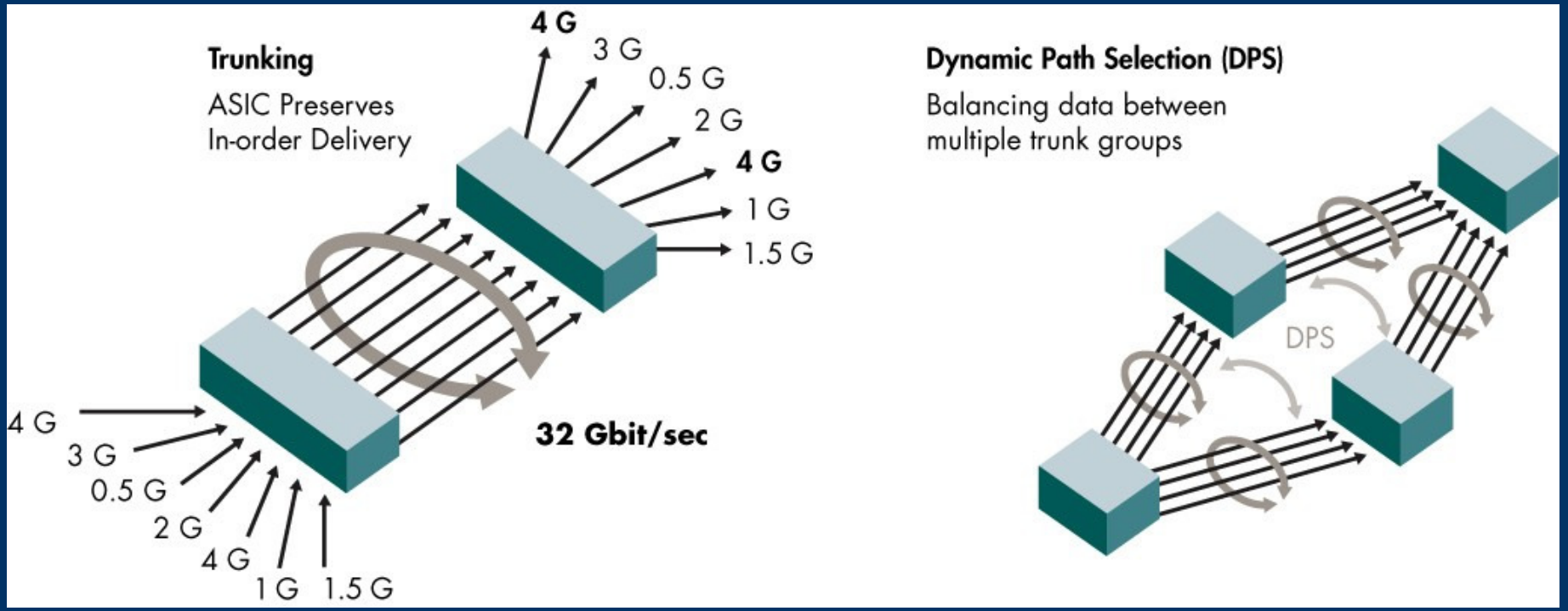
Dynamic Path Selection



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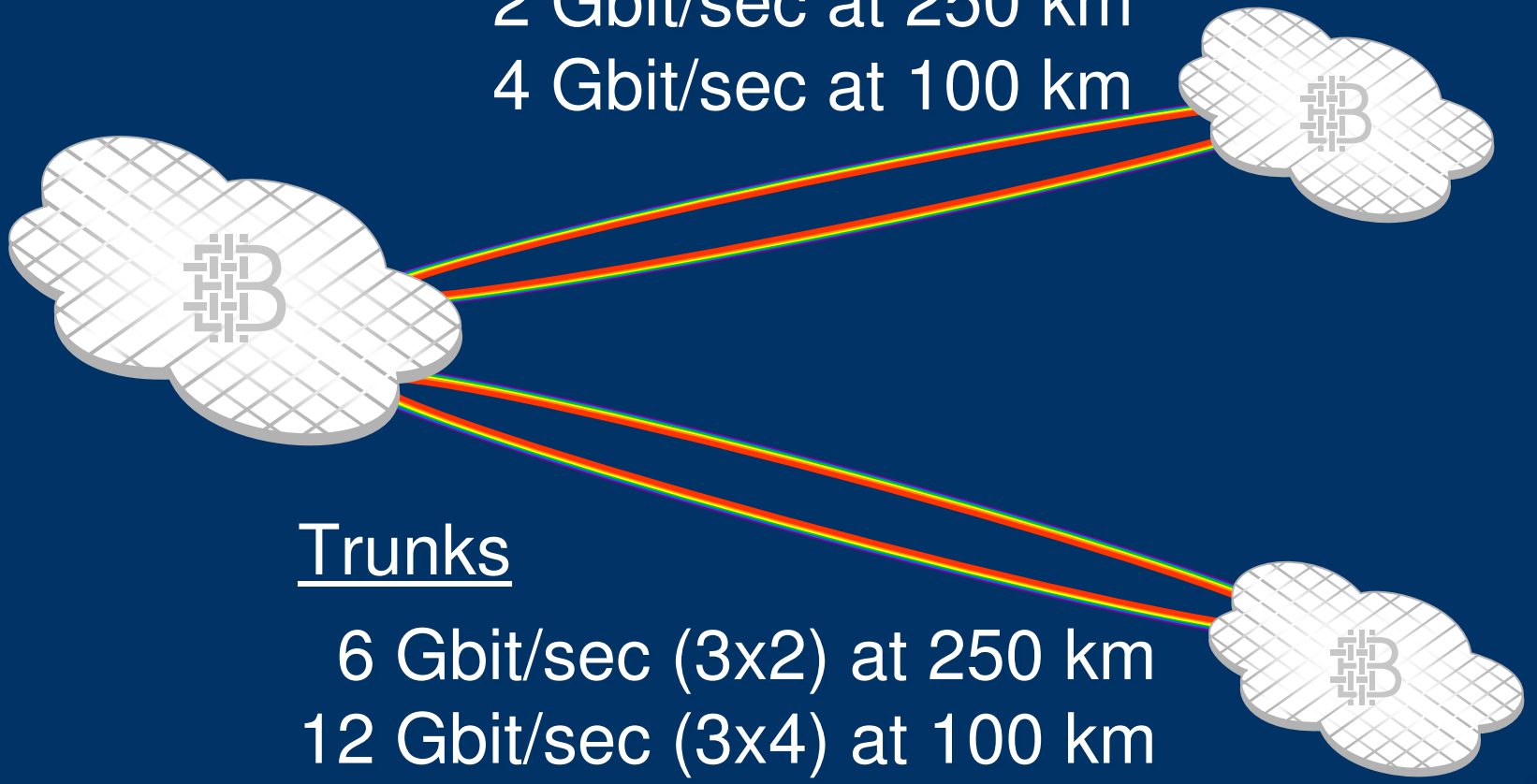
Extended Distance Support License – Extended Fabrics

Ports 1 Gbit/sec at 500 km
2 Gbit/sec at 250 km
4 Gbit/sec at 100 km



Trunks

6 Gbit/sec (3x2) at 250 km
12 Gbit/sec (3x4) at 100 km

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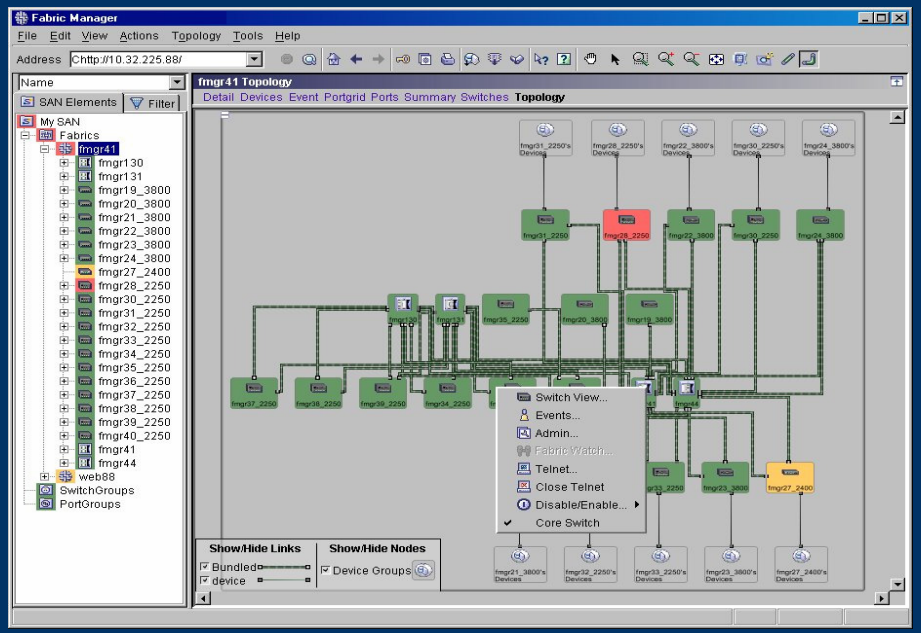
Fabric Manager 5.1 Today



- Single point of management for Brocade SANs
- Discovery and aggregation of management data
- Point-and-click implementation for complex tasks
- Automation of repetitive tasks
- Automated monitoring of fabrics for user defined changes
- SAN-wide historical performance monitoring

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Wsparcie dla użytkowników Technologii Brocade

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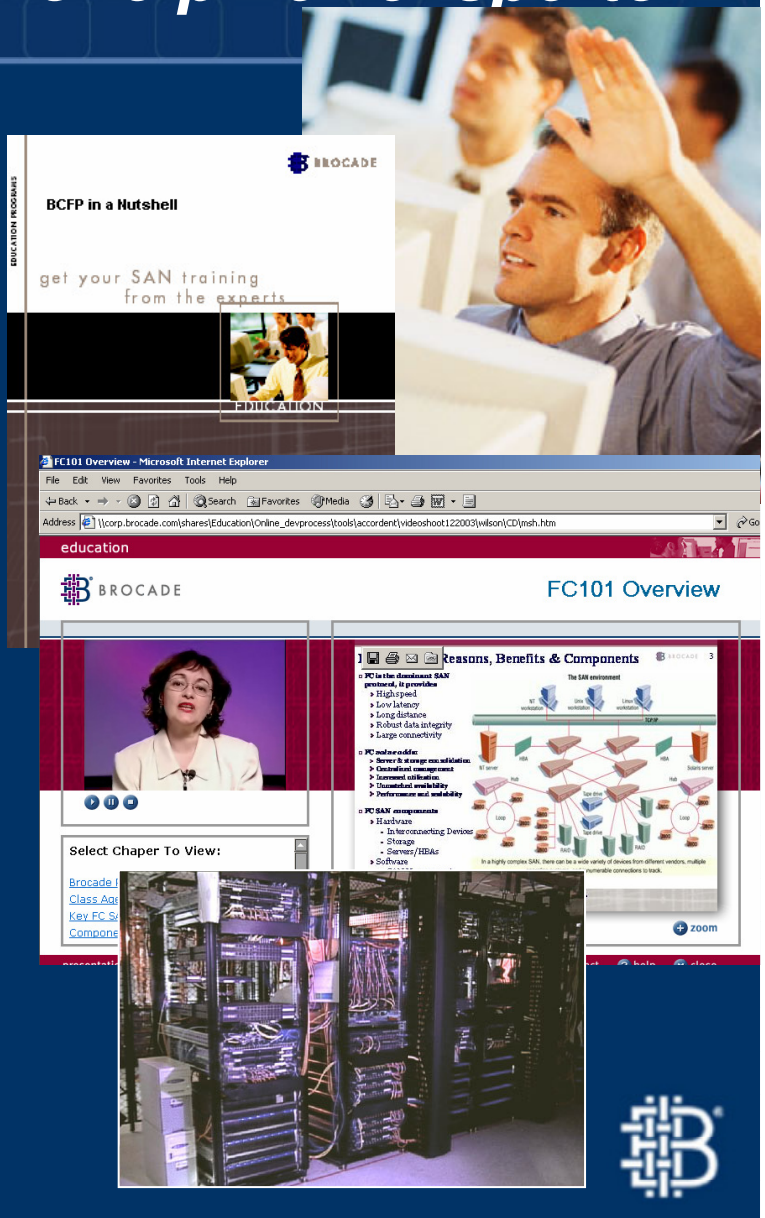
Usługi edukacyjne Brocade

Zaawansowane szkolenia prowadzone przez ekspertów

- Wartościowy i trudny (!) program certyfikacyjny
- Sale szkoleniowe i laboratoria m.in. w San Jose i Genewie
- Wyśmienite wyposażenie laboratoriów, w tym SAN w Centrali oferujący zdalny całodobowy dostęp z dowolnego miejsca na świecie
- Światowa sieć certyfikowanych partnerów edukacyjnych
- Możliwe szkolenia w siedzibie użytkownika
- Szkolenia multimedialne: filmy, symulacje i interaktywne testy
- Darmowe dodatki: szkolenia www, praktyczne poradniki i testy



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Poziomy Certyfikacji w Brocade
Kształcenie i certyfikacja ekspertów SAN

Brocade Certified Fabric Professional (BCFP)
Ten poziom certyfikacji wskazuje na biegłą znajmość produktów Brocade SilkWorm i głęboką wiedzę z teorii Fibre Channel.

Brocade Certified SAN Designer (BCSD)
Ten poziom certyfikacji świadczy o dogłędnej znajmości koncepcji i zasad budowy sieci SAN od podstawowych komponentów poprzez integrację z aplikacjami, aż do wykorzystania najnowszych i zaawansowanych komponentów pamięci masowej.

Brocade Certified SAN Manager (BCSM)
Ten poziom certyfikacji świadczy o nieprzeciętnie szczegółowej wiedzy z zakresu administacji produktami Brocade SilkWorm i zarządzania całymi sieciami SAN (kandydat musi mieć certyfikat BCFP).

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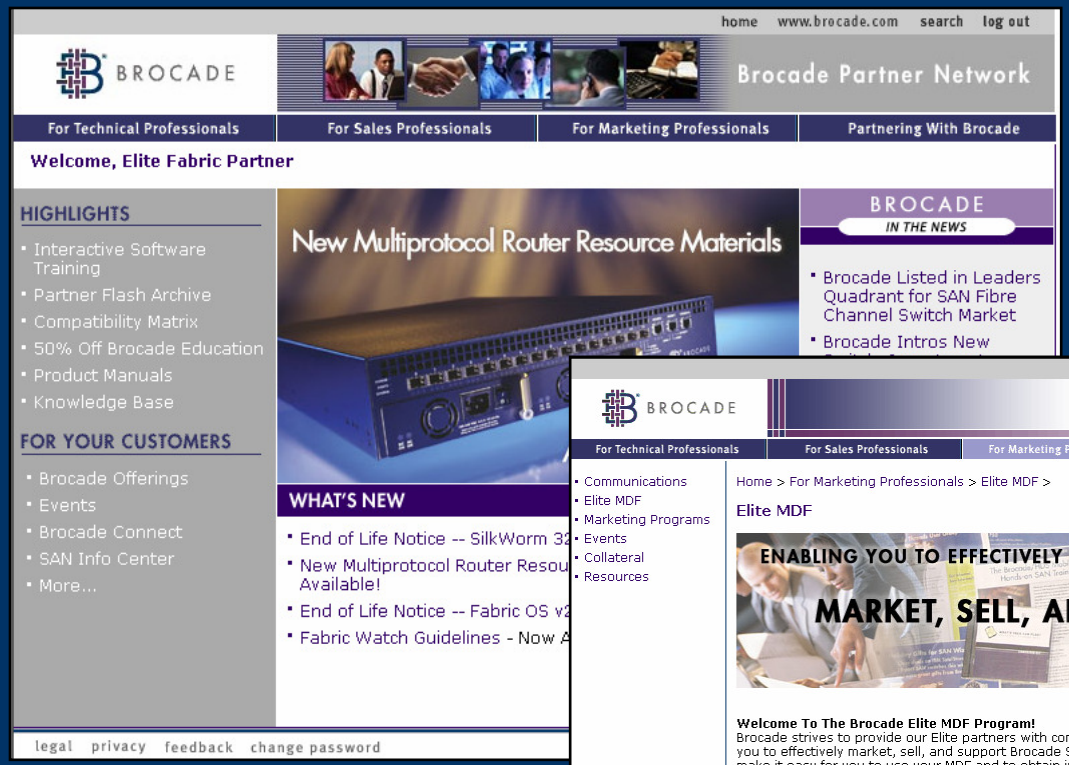
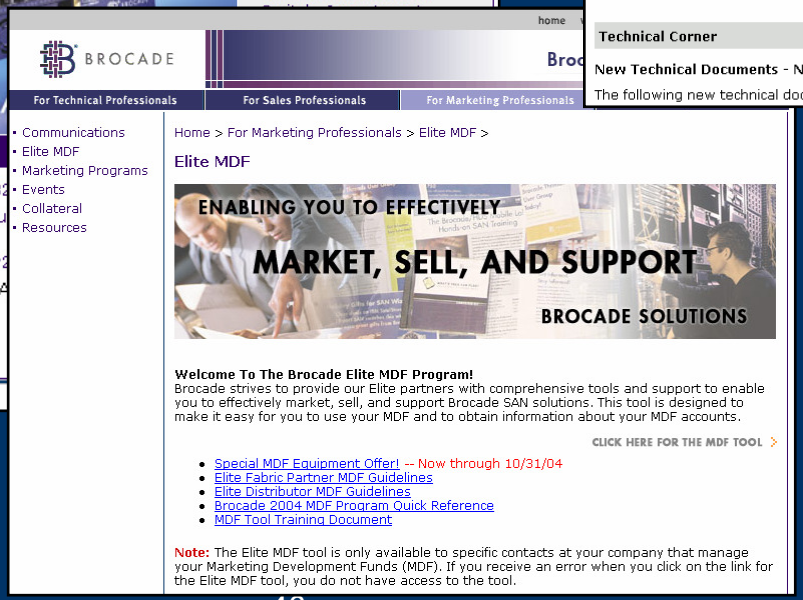
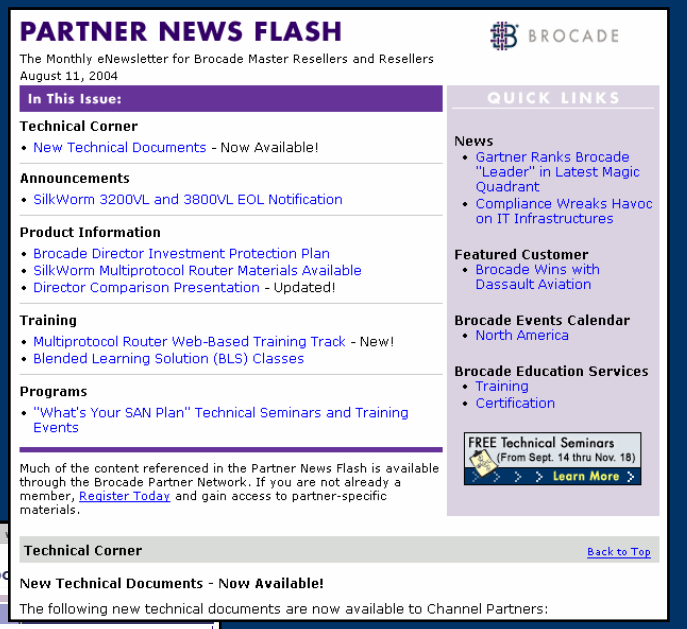
Unikalne programy dla partnerów Brocade

Portal Partner Network oraz gazetka Partner Newsletter

Portal dla zarejestrowanych partnerów







Partner Flash Newsletter

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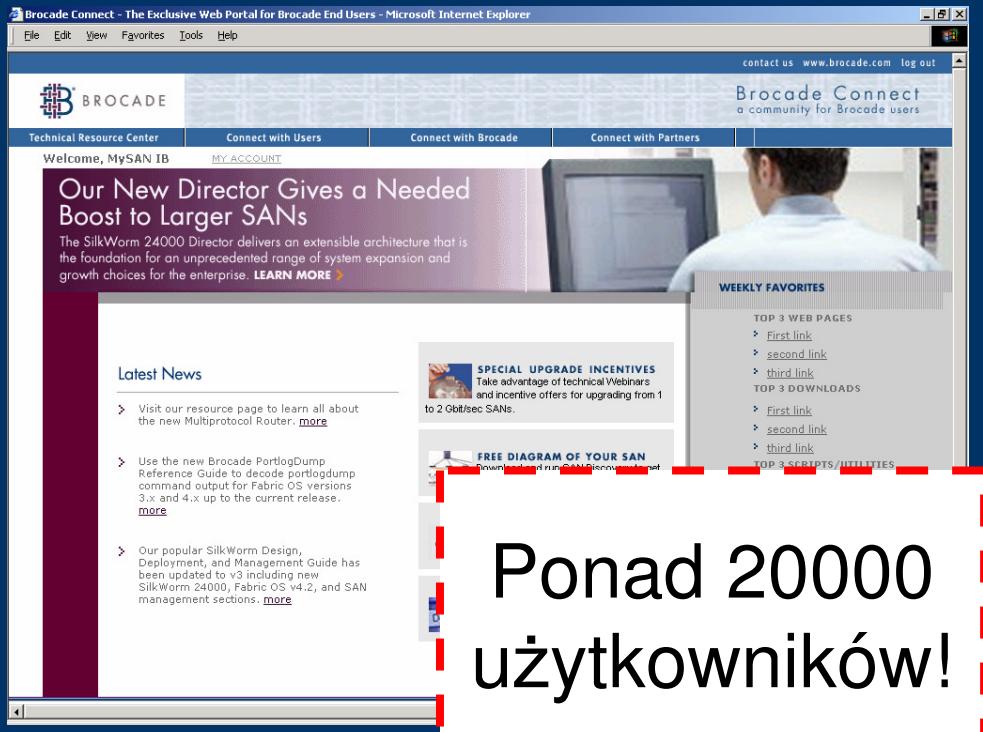
Brocade Connect

Portal www dla społeczności użytkowników Brocade

Miejsce „spotkań” administratorów SAN. Techniczne wskazówki i narzędzia dla optymalizacji produktywności.

DARMOWY dostęp do:

- Skrypty i narzędzia od Brocade’a oraz innych użytkowników SAN
- Fora dyskusyjne
- Dokumentacje techniczne
- „Release notes”
- Ewaluacyjne wersje oprogramowania
- Powiadomienia o możliwych zagrożeniach i zaleceniach
- I jeszcze więcej!



Ponad 20000 użytkowników!

Rejestracja poprzez **www.brocade.com/jointheclub**

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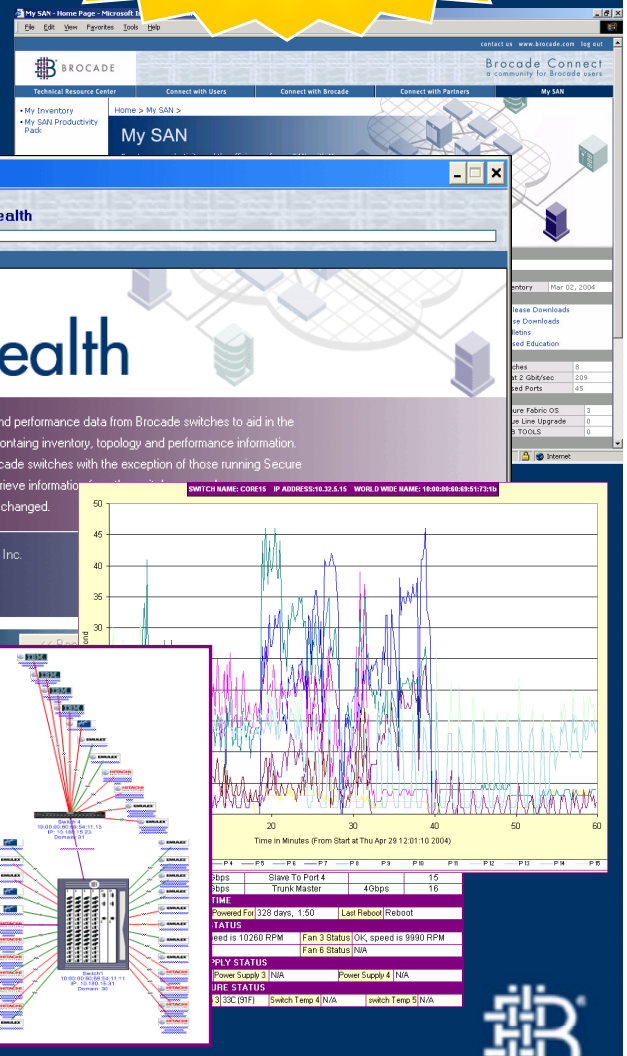
Narzędzie Brocade SAN Health

Szybka, prosta i bogata analiza SAN

Dostępna w sieciach Brocade Connect i Brocade Partner!

- SAN Health umożliwia prosty audyt i analizę sieci SAN:
  - Inwentaryzacja przełączników, wersji firmware'u i architektury sieci fabric
  - Pomiar wydajności i sprawdzenie poprawności pracy plus wskazanie błędów
  - Wygenerowanie szczegółowego raportu (inwentaryzacja) z rekomendacjami, wykresami wydajności i diagramem Visio



Zamów darmowe CD lub ściągnij z sieci!

Bieżące promocje i nowości

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IBM TotalStorage®

IBM

IBM Programs Summary Q4 2006

"AUGUST 2006 ISSUE"

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IBM/Brocade Sales Programs

Corporate and NA Specific

- *M48 Director "Power UP" Program (thru 9/30/06)*

  Requires the customer to buy (1) M48 with 64 ports. Subsequent blade purchases for that system will be treated as a buy 1, get 1 free

  RPQ# 8S0721 (16-port Blade) & 8S0720 (32-port Blade)

  (Form completed by IBM or BP, sent to IBM & Brocade)

- *B32 Switch "Top Off" Program (thru 9/30/06)*

  The customer buys (1) B32 with 16 ports and (1) 8 port POD: Brocade/IBM will provide the customer the last incremental 8-port POD free

  RPQ# 8S0723

  (Form completed by IBM or BP, sent to IBM & Brocade)

- *B64 "Port Aggregation" Program (thru 9/30/06)*

  The customer buys (1) B64 with 32 ports, and trades in 32-ports of 1 or 2 Gbps old switching products (any brand). Brocade/IBM will provide the customer a 16-port POD free

  RPQ# 8S0757

  (Form completed by IBM or BP, sent to IBM & Brocade)

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B64 (SW4900) – 1 & 2 Gig Refresh

- Customer buys 1 x B64 (32 ports – base machine configuration)
- Customer trades – in 32 ports (1 or 2 Gig)
- Additional 16 port PoD provided free of charge
- Certificate of Destruction required for all ports traded - in

- This is an IBM RPQ standard program
- IBM RPQ number is 8S0757

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Brocade Business Partner Sales Program

- *American Express Brocade Rewards* (to Oct 31, 2006)
  - *1,000 AmEx points for either a 2109 - M48*
  - *200 AmEx points for a 2005-B32*
  - *200 AmEx points for a (SW4020) SAN Switch Module for BladeCenter*
  - *100 AmEx points for a 2005-B16 – Full 16 ports*
  - *500 AmEx points for a 2109-A16 Multi-Protocol Router*
  - *100 AmEx points for 1 SAN Health engagement for an end-user*
  - ***NEW: IBM 2005-B64- $250***
  - ***NEW: IBM 2005-R18 - $500***
  - ***NEW: FC Routing Blade for M48- $200***

http://brocade.altourawards.com/default.asp

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Prawie z ostatniej chwili!

Brocade kupuje McData

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Deal Overview and Timeline

- **August 8, 2006**
  - Brocade announces intent to acquire McData
  - Stock transaction
- **Process from August 8, 2006 until deal closure**
  - Companies operate separately and compete as they have been
  - No interaction between sales teams allowed
  - Integration planning (not implementation)
- **Process after deal closure**
  - Brocade will be the future company
  - Integration implementation (structure, products, etc.) will begin

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This Transaction is Driven by the Desire to Deliver More Customer Benefits

- **Deal rationale**
  - Broader and more compelling offerings
  - Gives necessary scale to accelerate new, innovative solutions
  - Significant cost synergies
- **Customer benefits today**
  - Absolute commitment to investment protection and certainty of supply and support
  - Stronger company to deliver solutions and support
  - Commitment to future converged roadmap and platforms
- **Customer benefits at deal closure**
  - Drive interoperability and unified management
  - Accelerate time-to-market of new, innovative solutions
  - Lower TCO
  - Greater choices and flexibility for next-generation data centers

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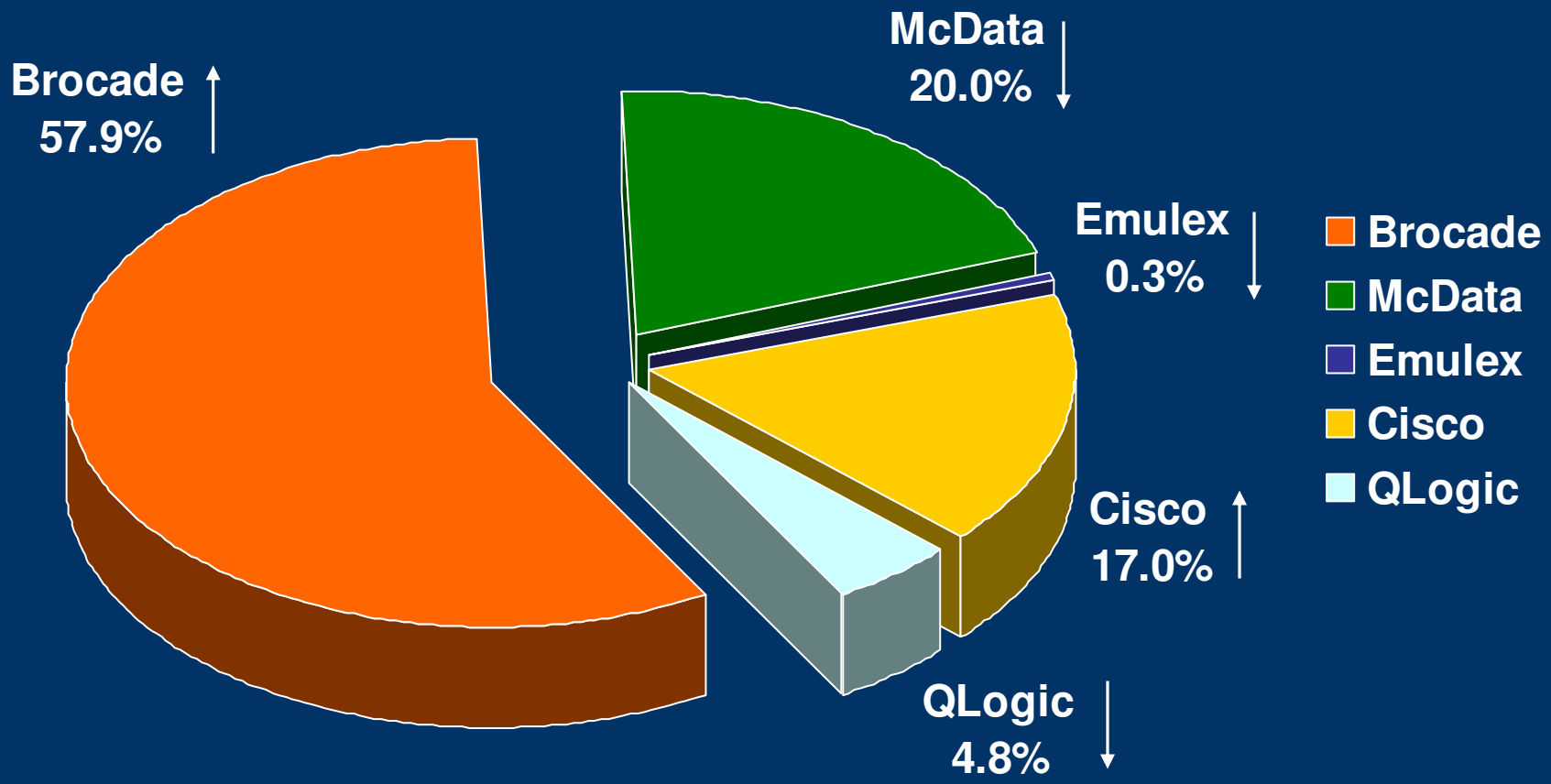
Total Ports Shipped (Switch + Directors)
Market Share Q2CY06



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Dziękuję...

kfingas@brocade.com

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