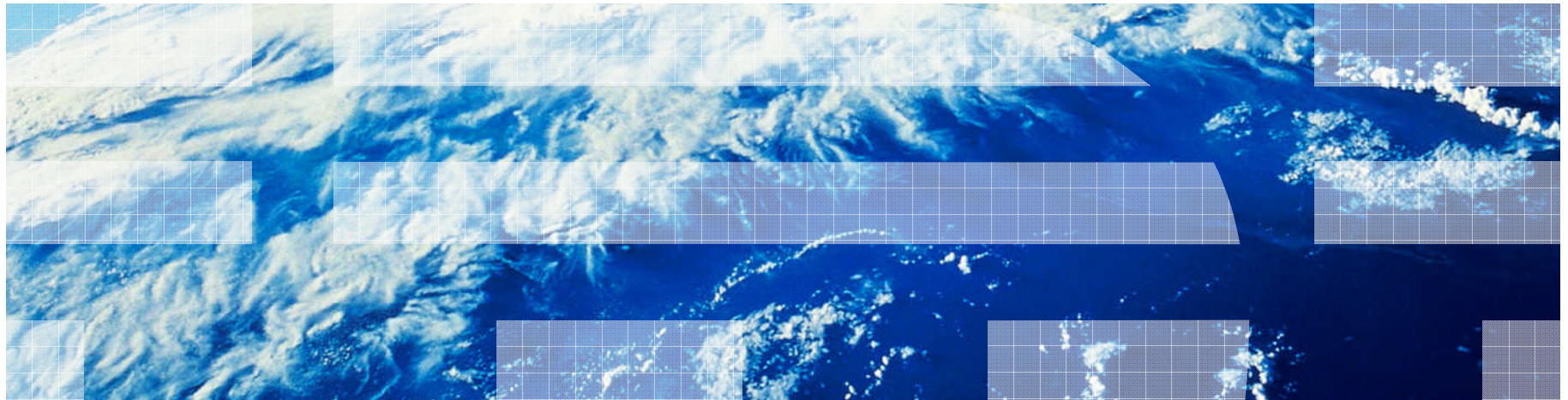# Tivoli Storage Productivity Center v4.2
What's New and Seller Education
August 17, 2010

John Connor
TPC Product Manager
jgconnor@us.ibm.com

Agenda

- Portfolio Overview

- Overview of TPC 4.2

- New Tivoli Lab Services TPC 'Value Pack' Pilot Offering

- Good Selling!
    - Seller Information

TPC Family Portfolio

- **Simplify storage deployment and management**

  - by reducing implementation time and operational complexities for administrators, improving management productivity

- **Optimize performance & storage utilization**

  - by improving overall availability of the storage network and mission-critical applications to become invisible to end-user

- **Centralize end-to-end storage management**

  - by greatly increasing management capabilities to a global level of the industry's most popular storage environments

- **Free's your IT staff to focus on mission critical tasks**
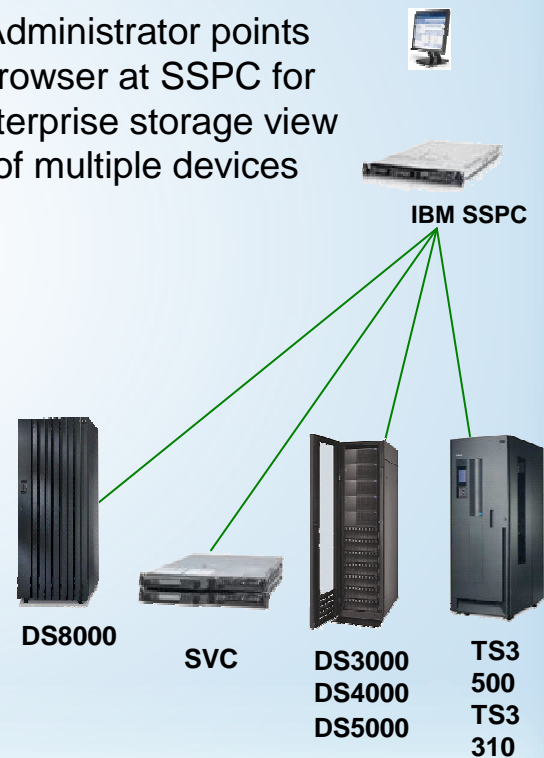
Storage Software Management Portfolio

SSPC and TPC Basic Edition

TPC Basic Edition delivers
- Discovery
- Topology view and Data Path Explorer
- Health/Status Monitoring
- Event Management
- Device Capacity Mgmt
- Policy-based Alerting

Installed with IBM HW at time of purchase

Administrator points browser at SSPC for enterprise storage view of multiple devices

IBM SSPC

DS8000

SVC

DS3000
DS4000
DS5000

TS3
500
TS3
310

Storage Software Management Portfolio

SSPC and TPC Basic Edition

TPC for Disk + Disk MRE*

- Performance management for SAN and attached disk storage devices
- Near real-time data path performance statistics
- Historical performance reports to help diagnose problems
- Performance trend analysis
- Export report data for offline processing

TPC for Data

- Enables visibility into detailed storage utilization
- Host, file system and file-level capacity analytics
- Advanced analytics for actual disk usage by file types, attributes, user
- Enables policy enforcement (enterprise-wide user quotas, data retention, inappropriate data

*Note: Restricted to managing VDS, DS3000, DS4000, DS5000 as stand-alone devices or when attached to an IBM SVC and IBM SVC Entry Edition.

Storage Software Management Portfolio

TPC Standard Edition

- **Includes TPC Basic Edition, TPC for Disk and TPC for Data and more**

- Enables end-to-end heterogeneous storage resource management with advanced analytics
- Provisioning planners provide workflow-like process for end-to-end storage provisioning
- Configuration change management to enable proactive management
- Performance analytics for optimization and tuning
- Host, file system and file-level capacity analytics
- Provides SAN Fabric Management

Storage Software Management Portfolio

SSPC and TPC Basic Edition

TPC for Replication

- Adds copy services management for IBM SAN-attached storage devices
- Supports FlashCopy, Metro Mirror, and Global Mirror configurations
- Automatic failover and failback in the event of a disaster
- Volume protection and practice volumes ensure the reliability of high priority storage assets
- Optional Three Site configuration for IBM DS8000 storage devices

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Storage Enterprise Resource Planner (SERP)

- Collects data from many instances of SRM and provides a view of assets with respect to geography and business infrastructure
- Excellent offering for customers with multiple storage vendors

9 *Note: Restricted to managing VDS, DS3000, DS4000, DS5000 as stand-alone devices or when attached to an IBM SVC and IBM SVC Entry Edition.

Delivering Improved Time to Value with TPC 4.2
Key enhancements, service offering drive improved TTV

- **Key Enhancements**

  - Simplified deployment and management enhancements

  - Enhanced native management of IBM Storage – SVC, DS8K and XIV

  - Automated end-to-end storage provisioning for all supported storage systems

 - Open systems high availability volume management

- **Pilot Service Offering – Performance & Reporting**

  - Specifically designed to address common customer concern that TPC is 'too complex'

  - Will help customers obtain greater value from TPC w/o over utilizing existing staff

  - Example deliverables:

    - Configure reporting for detailed file and DB level usage
    - Demonstrate use of perf. reporting to baseline storage usage and snapshots to identify changes
    - Create key storage infrastructure performance alerts and verify notification
    - Provide analysis of disk subsystem performance bottlenecks using native product tools
    - Demonstrate use of storage optimizing feature to help make informed data placement decisions

"Elimination of the agent manager and use of storage resource agents itself should be reason to upgrade. The amount of resource savings you get is going to pay for itself."
*Leading Health Insurance Provider*

10

Storage Resource Agents

- **Collect asset and capacity data** from supported servers without a resident agent

- **Lightweight native code** remotely pushed to servers for data collection and removed at completion

- **Improved performance**

- **Simplifies server data collection** and reduces administrator burden of managing and monitoring agents

New!

- **File level and DB scanning**

TPC

Windows

AIX

Linux   Solaris   HP-UX

4.1   New!
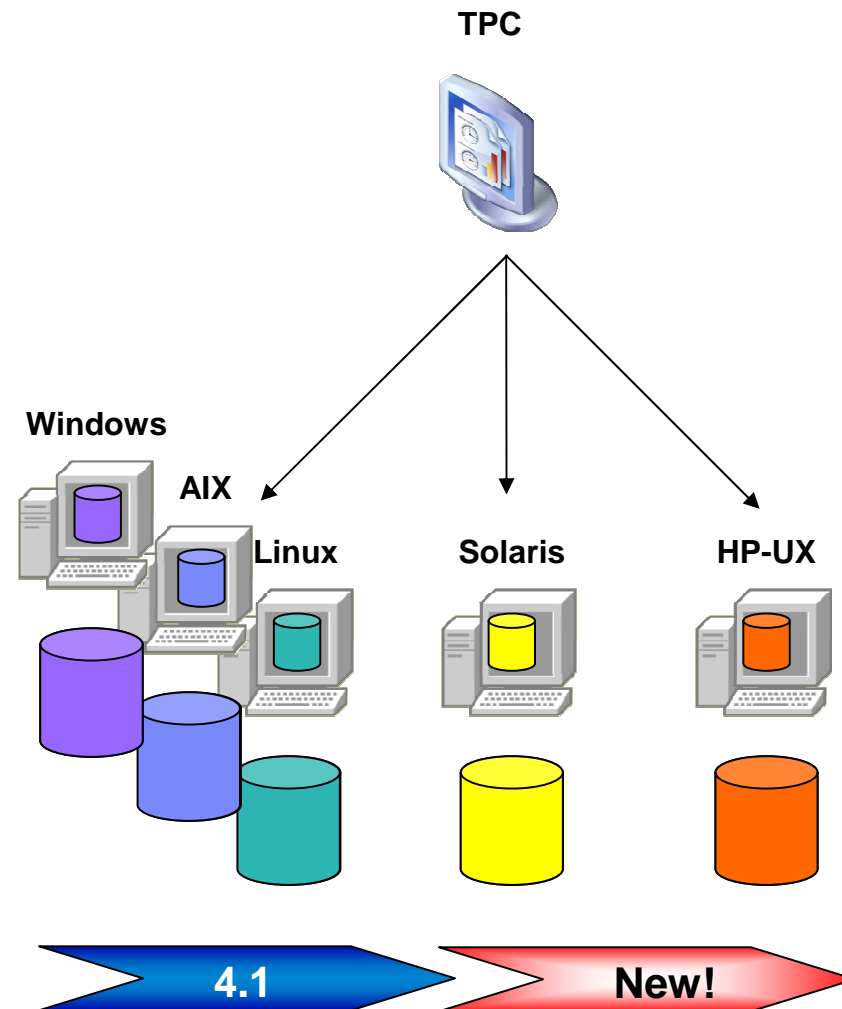
Enhanced Management of IBM Storage

- **Improved performance and scalability**

  - For IBM SVC, DS8K and XIV

- **More advanced management capabilities for XIV**

  - Performance monitoring

  - Storage provisioning

  - Data path explorer
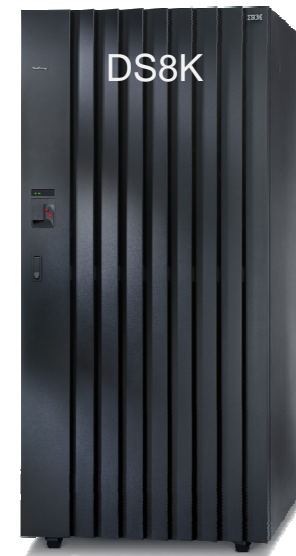
Automated End-to-End Provisioning

■ **New wizard-based experience for full provisioning tasks**

  - Support for all storage systems

  - Performance based recommendations for IBM storage

  - Operator control over which steps to include

■ **Includes copy services configuration capabilities**

  - Configure FlashCopy or Mirroring for additional volume protection

■ **Ad-hoc or scheduled execution of plan**

  - Approve all steps in configuration prior to execution

  - Schedule provisioning jobs to be completed during change control windows

13

Usability Enhancements

- **Automated Device Discovery**
  - IBM SVC, DS8K and XIV devices can now be automatically discovered
  - Wizard based capability to discover and configure device

- **Enhanced Error Messages**
  - Enhanced error code description with link to detailed technical documentation

14

TPC for Replication Enhancements

High Availability Volume Management
Open HyperSwap for IBM AIX environments

- **Ability to swap IBM DS8000 volumes in seconds**
  - Can be command driven or can be automated upon a storage system failure
  - Designed to scale to multi-thousands of volumes

- **Switches Metro Mirror primary storage system to the secondary storage system**
  - No operator interaction is needed for event driven operation
  - Function is configured and managed by TPC-R

- **Feature is non-disruptive**
  - Applications keep using same device addresses

- **Integration with AIX 5.3 (or later) provides higher availability for AIX environments**

- **Available with TPC-R 2-site BC license and Metro Mirror functions enabled on hardware**

application

API

Swap

S — Metro Mirror → P
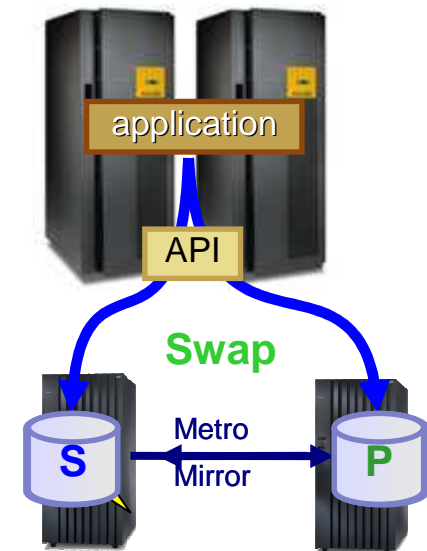
Enhanced Peer to Peer Remote Copy Path Management

- **Improved control of which data paths will be established**

  - Previously TPC-R automatically picked data paths or used ones that were already established.

  - Users can now specify exactly which data paths to use

- **Allow specific port pairs to be specified when establishing PPRC data paths between two logical subsystems.**

  - Prevent customers from having to run a separate script to establish specific PPRC data paths.

- **Ensures redundant port combinations**

Disaster Recovery Planner

- **Plan for replication of storage when its provisioned**

  - Supports DS8000, SVC, DS6000 and ESS

  - Creates Replication session and addition of copy-sets to it

  - New policies in Configuration Analyzer to check SRG-Replication Session plan compliance.

- **TPC SAN Planner feature**

  - TPC for Replication license required

Examples

DS8000, DS6000 and ESS800 2-site

Global Mirror Both Directions w/Practice
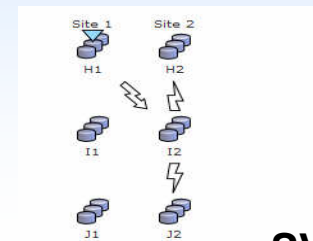
DS8000 3-Site

Metro Global Mirror
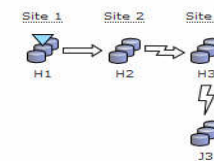
SVC 2-Site

Metro Mirror and Global Mirror w/Practice
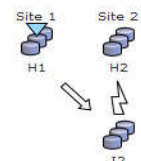
Multiple Global Mirror Sessions

Today

- **Hardware restriction of 1 GM Master per storage system**

New!

- **Users will be able to create and start multiple GM sessions**
  - Can create and interact with GM sessions in the same way as done currently
- **Enhanced TPC-R monitoring capabilities**

DS8K
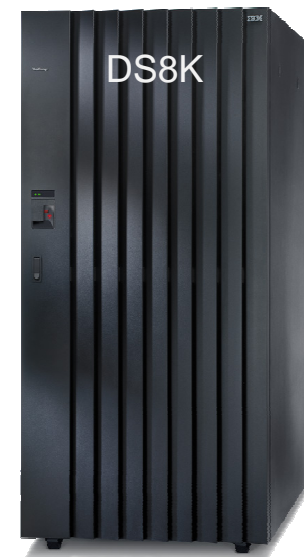
IBM Distributed DR Manager
Tivoli System Automation and TPC-R Integration

- **End-to-end recovery of applications spanning heterogeneous and virtual environments**
  - *Reduces down time of critical business applications*
  - *Improves reliability of the IT infrastructure*

- **Automatic start, stop and move of tiered applications**
  - *Relieves operator from manual command entry, improving efficiency by reducing operator errors*

- **Able to define interdependent resource relationships and associate conditions with resources**
  - *Enables lower-priority business applications to be shut down while keeping higher-priority business applications running*

- **Integrated monitoring and control of storage hardware replication sessions**
  - *Support for Metro Mirror sessions, providing synchronous copy services across multiple sites*

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Site Switching with IBM Distributed DR Manager

- **Single Cluster** automation and high availability can be ensured…

  – Tivoli System Automation for Multiplatforms on Windows, AIX, Linux and SUN Solaris

  – Other clustering products such as IBM HACMP, Microsoft® Server Cluster, Veritas Cluster on SUN

- **… but Cross-cluster dependencies** in many business processes require a wider perspective.

SAP   dependency   **DB2®**   **CRM**

Web ← dependency → **WebSphere.** ← dependency → **Stock Trading Application**

Linux Cluster   **Cluster**   **AIX.** Cluster
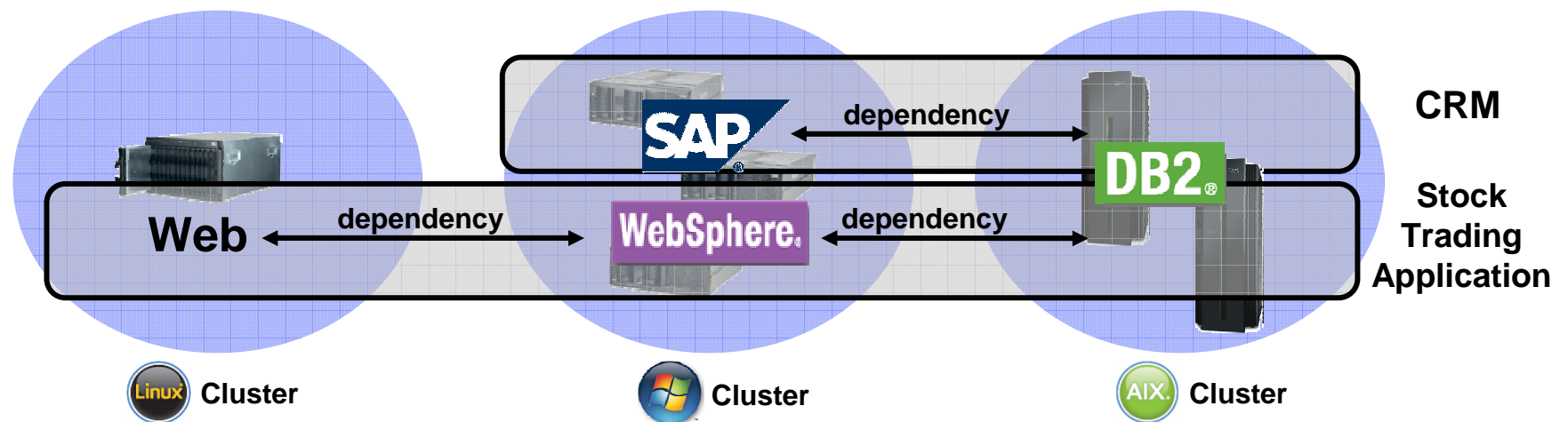
IBM Distributed DR Manager
Scenario – Planned Site Switch

Site I **Site II**

Automated Steps

1. **Operator initiates planned site switch**

2. **TSA-AM triggers TPC-R to switch replication direction**

3. **TSA-AM starts application components at Site II**

Web **Web**

Tivoli System Automation Application Manager (TSA-AM)

WebSphere. WebSphere.

SAP SAP

Cooperative Integration

DB2® DB2®

Tivoli Storage Productivity Center for Replication (TPC-R)

Primary ←——**Replication***——→ **Secondary**

22
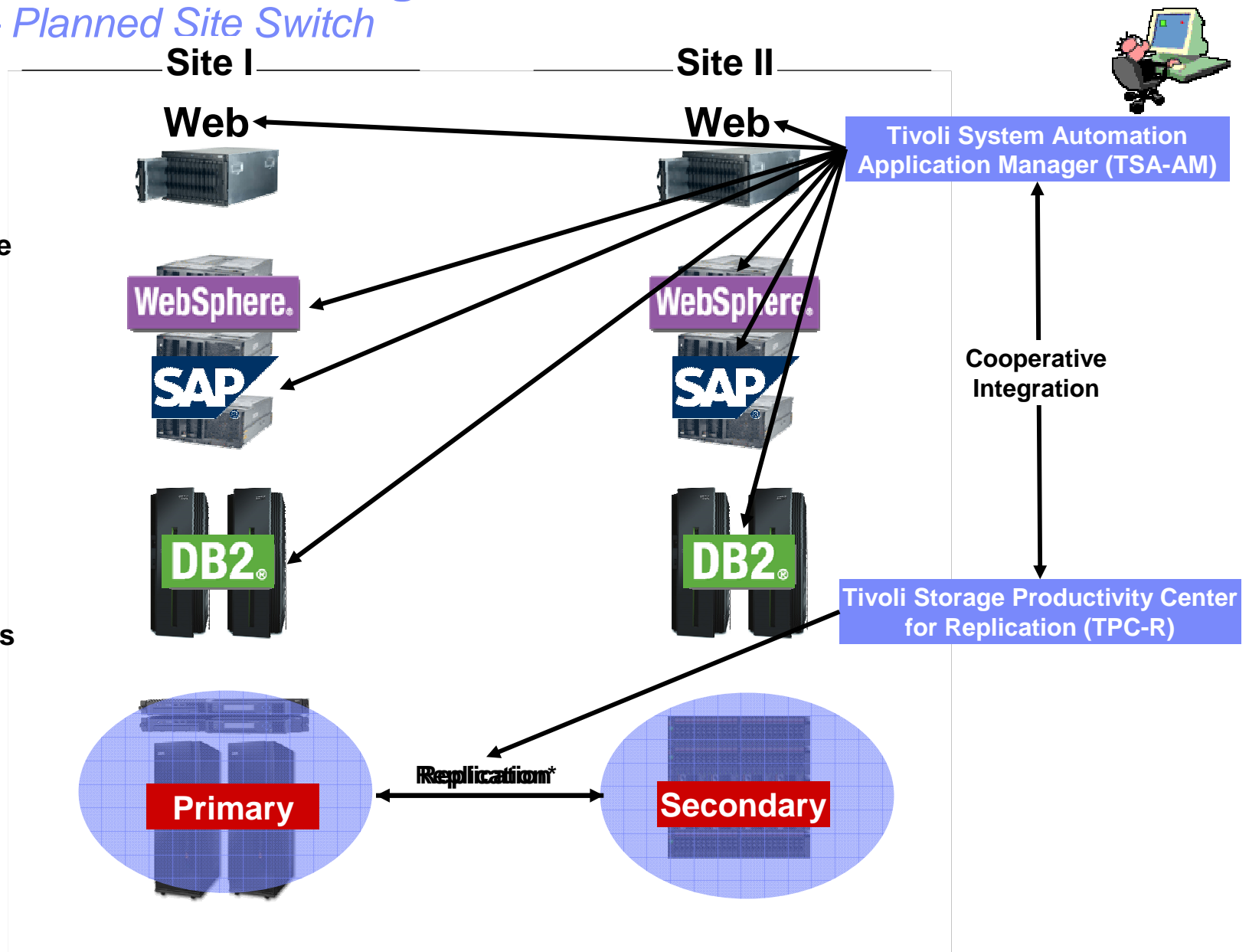
A Leading U.S. Insurer
Reducing storage management time by 50 percent

The need:

This leading U.S. insurer has used IBM® Tivoli® Storage Productivity Center (TPC) software on IBM AIX for 7 years to centralize monitoring of storage performance, capacity utilization and data replication services. However, with growing complexity of its storage environment and rapidly increasing data volumes, the company needed to further simplify management and reduce storage TCO.

The solution:

During its beta test of TPC 4.2, the insurer reported improved productivity and time-to-value. Enhanced storage resource agents reduced scan run times. New APIs and enhanced topology maps provided an end-to-end view of the environment for better decision making. Real-time monitoring of replication models and role-based access eliminated previously time-consuming manual processes.

The benefits:

- 50 percent reduction in time involved in managing the TPC environment and ability to reassign several FTEs to new strategic initiatives
- Dramatically faster problem determination through enhanced topology views
- Enhanced decision making through improved data availability, quality and accuracy

"Elimination of the agent manager and use of storage resource agents themselves should be reasons to upgrade. The amount of resource savings you get is going to pay for itself."

—Storage Specialist, A Leading U.S. Insurer

Solution components:

- IBM® Tivoli® Storage Productivity Center 4.2

A Large Insurer
Reducing costs by optimizing resource utilization

The need:

Facing nearly 30 percent data growth annually and the need to reduce operational costs, IT staff for this large insurer implemented IBM® Tivoli® Storage Productivity Center (TPC) 4.1.1 to gain visibility into storage utilization and optimize storage area network (SAN) resources. The TPC 4.2 beta test gave staff the opportunity to test new features for further simplifying management and reducing TCO.

The solution:

With TPC 4.2, this insurer gained greater insight into SAN resources, including IBM System Storage® XIV® systems, to optimize performance and utilization. New storage resource agents reduced the application footprint and CPU cycle times, and simplified deployment and management of monitors to improve staff productivity. A job scheduling display replaced time-consuming processes to further increase efficiency.

The benefits:

- Expands visibility into SAN to improve decision making and optimize resource utilization

- Simplifies deployment, monitoring and management, reducing upgrade time from 2 days (for TPC 4.1.1) to 2 hours and improving staff productivity

- 90 percent reduction in footprint on the server

"I'd definitely recommend upgrading to Tivoli Storage Productivity Center 4.2. The new functions offer a dramatic improvement in efficiency and monitoring over previous versions."

—Senior System Engineer,
A Large Insurer

Solution components:

- IBM® Tivoli® Storage Productivity Center 4.2

What TPC 4.2 customers are saying

"TPC 4.2 has really simplified the configuration of objects, such as storage arrays, and makes it much easier for us to add them in"

A Large Insurer

"Elimination of the agent manager and use of storage resource agents itself should be reason to upgrade. The amount of resource savings you get is going to pay for itself."

A Leading U.S. Insurer

"I'd definitely recommend upgrading to Tivoli Storage Productivity Center 4.2. The new functions offer a dramatic improvement in efficiency and monitoring over previous versions."

A Large Insurer

"The time savings will help free up staff to focus on virtualization and other strategic projects that we'd like to do."

A Leading U.S. Insurer

TPC 4.2 delivers ...

- **Expanded end-to-end storage management**

  - Enhanced centralized management capabilities providing improved visibility

  - Improved performance and scalability.

  - Integrated Storage and replication functions

- **Reduces Storage Complexity**

  - Simplified deployment , management & expanded platform support

  - New customizations provide flexibility, control to administrators on operational processes based on their requirements

  - SAN Planning using Wizard driven approach

- **Reduces downtime , Increases performance, improves service levels**

  - Open systems high availability volume management

  - Enhanced storage resource agents improving response times

  - Enriched problem determination & speedy problem resolution

- **Reduce Storage TCO**

  - Simplified day to day operations

  - Improved personnel productivity

Selling TPC 4.2

IBM Value Pack Service Offerings
Foundation Services for TPC

Designed for those customers who need help with:

- Obtaining greater value from TPC without over utilizing existing staff

- Controlling escalating storage costs

- Planning for capacity upgrades

- Minimizing outages and keeping up with SAN changes

- Simplifying management of multi-vendor storage devices

For up to 3 customer professionals

Duration: 5 days delivered remotely or on site

Benefits

- Train staff on product features quickly to get immediate value from the product

- Centralize storage management and improve Storage Administrative efficiency

- Accurately inventory storage assets

- Manage storage usage and provide capacity planning information

- Reduce complexity of storage infrastructure analysis with end to end path information

- Correlate disk storage to host usage

Deliverables

- Configure reporting for detailed storage assets and storage capacity

- Create key storage infrastructure alerts and verify notification

- Demonstrate E2E disk to host volume correlation and reporting

- Demonstrate storage provisioning and command line tools for provisioning or reporting

- Provide documentation for daily storage and product maintenance

http://workbench.tivlab.austin.ibm.com/web/guest/enable/mktsvc/offerings

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IBM Value Pack Service Offerings
Performance and Reporting Services for TPC

New Pilot!

Designed for those customers who need help with:

- Obtaining greater value from TPC without over utilizing existing staff

- Control escalating storage costs

- Minimizing performance bottlenecks

- Minimizing outages & keeping up with changes in the SAN

For up to 3 customer professionals to gain experience in advanced TPC configuration and analysis

Duration: 5 days delivered remotely or on site

Benefits

- Train staff on product features to get immediate value from the product

- Improve storage utilization and service levels

- Correlate disk storage to host usage

- Track historical performance of storage systems and view trend information to proactively address performance issues

- Change configuration management

- Performance analysis with root cause identification

Deliverables

- Configure reporting for detailed file and DB level usage

- Demonstrate use of perf. reporting to baseline storage usage and snapshots to identify changes

- Create key storage infrastructure performance alerts and verify notification

- Provide analysis of disk subsystem performance bottlenecks using native product tools

- Demonstrate use of storage optimizing feature to help make informed data placement decisions

29

http://workbench.tivlab.austin.ibm.com/web/guest/enable/mktsvc/offerings

Upgrade your Customer's TPC environments

- *Trade-ups are available for customers wanting to upgrade from **TPC for Data V3 and TPC for Data V4 to TPC Standard Edition V4.x** The trade-up part numbers are tier based as follows:*

  - *Per Terabyte (1-12) License and SW S&S 12 Months*   *D0921LL*
  - *Per Terabyte (13-32) License and SW S&S 12 Months*   *D092BLL*
  - *Per Terabyte (33-64) License and SW S&S 12 Months*   *D0927LL*
  - *Per Terabyte (65-100) License and SW S&S 12 Months*   *D092ILL*
  - *Per Terabyte (101-250) License and SW S&S 12 Months*   *D092MLL*
  - *Per Terabyte (251+) License and SW S&S 12 Months*   *D092PLL*

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  - *Per Terabyte (13-32) License and SW S&S 12 Months*   *D092ALL*
  - *Per Terabyte (33-64) License and SW S&S 12 Months*   *D0926LL*
  - *Per Terabyte (65-100) License and SW S&S 12 Months*   *D092HLL*
  - *Per Terabyte (101-250) License and SW S&S 12 Months*   *D092LLL*
  - *Per Terabyte (251+) License and SW S&S 12 Months*   *D092NLL*

For more info

- **External Website**

- **Sales Kits:**

    – IBM'ers

        - https://w3.ibm.com/software/xl/portal/content?synKey=L934824B97776P66#overview

    – BP's

        - https://www.ibm.com/usrsrvc/account/userservices/jsp/login.jsp?persistPage=true&page=/partnerworld/wps/servlet/mem/ContentHandler/L934824B97776P66&PD-REFERER=none&error

    – Product Management Wiki (IBM only)

        - http://w3.tap.ibm.com/w3ki07/display/IBMSM/IBM+Tivoli+Storage+Productivity+Center

- **Resource Library**

- **Interoperability Matrix**

- **Business Value Analyst Tool**   Updated!

    – IBM Sellers

        - http://w3.ibm.com/software/xl/portal/content?synKey=V684337Z99308Q32#overview

    – IBM Business Partners

        - https://www.ibm.com/partnerworld/wps/servlet/mem/ContentHandler?cmsId=V684337Z99308Q32

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- **SW IOT**
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- **CEEMEA**
  - Jean-Michel Doudot, Jean-Michel_Doudot@ch.ibm.com

Additional Customer Facing Slides

Positioning the IBM Replication Management Portfolio

IBM Tivoli Storage FlashCopy Manager

- Integrated, instant copy for critical applications
- Virtually eliminates backup window

Local application snapshot protection and recovery

- Optional integration with TSM for full end-to-end backup and recovery

IBM Tivoli Storage Productivity Center for Replication

- Synchronous and Asynchronous replication management
- Application-level consistency groups

Multi-site storage disaster recovery

- Execute practiced application recovery procedures
- Automate fail-back after repair

IBM Distributed Disaster Recovery Manager

- Automated site switch for multi-tiered applications

End-to-End recovery of applications and data

- Broad application and storage system support
- Combines capabilities of Tivoli automation and TPC for Replication

TPC for Disk Midrange Edition

- ## Provides the same features and functions as TPC for Disk (enterprise offering)

  - Performance management, monitoring and reporting for IBM System Storage DS3000, DS4000, DS5000, SVC Entry Edition, SVC and Virtual Disk System (VDS)

- ## Restricted to managing VDS, DS3000, DS4000, DS5000 as stand-alone devices or when attached to an IBM SVC and IBM SVC Entry Edition.

  - Restrictions are governed by licensing Terms and Conditions with separate license key

- ## Offers highly competitive pricing for the IBM's midrange offerings

  - Simple fixed pricing metric based on DS3/4/5 storage devices/enclosures
  - Can offer up to 80% price reduction compared to TPC for Disk (enterprise offering)

- ## List price = $8099 per DS3000, DS4000, DS5000 enclosures / storage controllers

  - SVC, SVC EE and/or VDS controllers are not counted as enclosures when computing TPC for Disk MRE pricing within these environments (see pricing examples for further details)