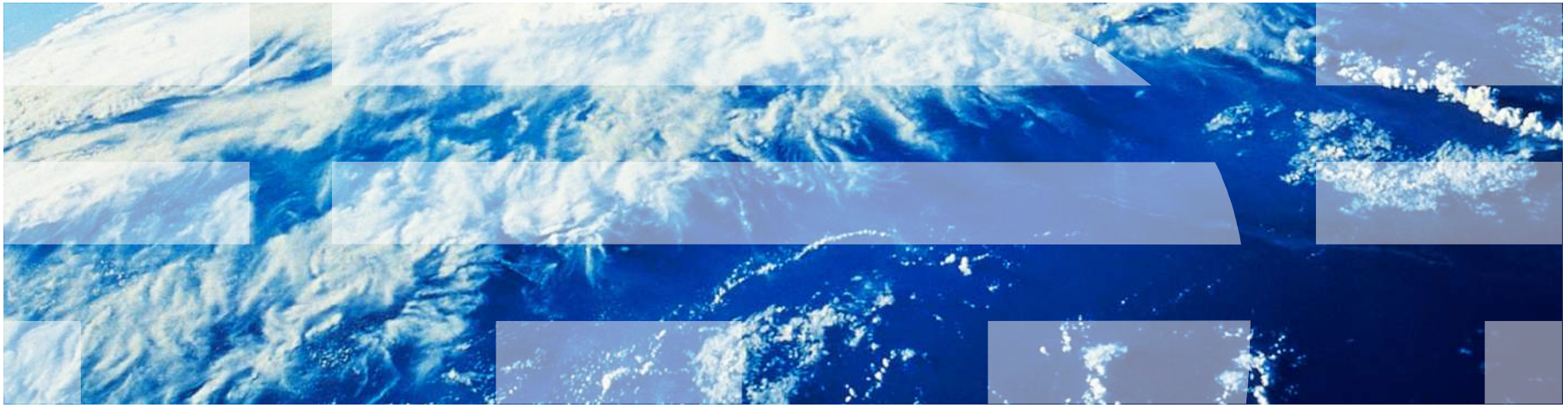
Improving Customer Time to Value with Upcoming New Release of TPC



© 2010 IBM Corporation

Disclaimer

- The information on the new product is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information on the new product is for informational purposes only and may not be incorporated into any contract. The information on the new product is not a commitment, promise, or legal obligation to deliver any material, code or functionality. The development, release, and timing of any features or functionality described for our products remains at our sole discretion.

© 2010 IBM Corporation

Agenda

- TPC First Half 2010 Highlights
- Overview of upcoming TPC 4.x release
- What our customers are saying about TPC 4.x
- New Tivoli Lab Services TPC ‘Value Pack’ Pilot Offering
- TPC Futures

© 2010 IBM Corporation

2010 Tivoli Storage Productivity Center Highlights

1H 2010

- **New solution that integrates Tivoli System Automation with Tivoli Storage Productivity Center** Available
  - Provides ability to perform full site-switch in the event of a disaster
- **TPC for Disk Mid Range Edition** Available

2H 2010

- **New TPC Release that will include:**
  - Simplified deployment and management enhancements
  - Automated end-to-end storage provisioning for all supported storage systems
  - Open systems high availability volume management

© 2010 IBM Corporation

IBM Distributed DR Manager

Tivoli System Automation and TPC-R Integration

Available

- 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*

10 IBM Corporation

TPC for Disk Midrange Edition

Available

- **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)
- **Available in AAS, PPA and HVEC**
  - Both STG and Tivoli Sellers get CREV

© 2010 IBM Corporation

TPC 4.x Summary

2H 2010

- **Storage Resource Agents**
  - File-Level Reporting
  - DB Scans / Reporting
  - Expanded Platform Support
- **Enhanced IBM Storage Hardware Management**
  - Native management of DS8K, SVC, XIV
  - XIV Performance Monitor
  - XIV Storage Provisioning
  - XIV Data Path Explorer
- **Automated End-to End Provisioning**
  - Heterogeneous SAN Planner
- **Usability Enhancements**
  - Automated Device Discovery
  - Device Diagnostic Assistant
- **Integration**
  - FcoE Toleration for Brocade
- **Replication**
  - Open HyperSwap for AIX/ DS8700*
  - Enhanced PPRC Path Management
  - Disaster Recovery Planner
  - Multiple Global Mirror Sessions

*trademark

© 2010 IBM Corporation

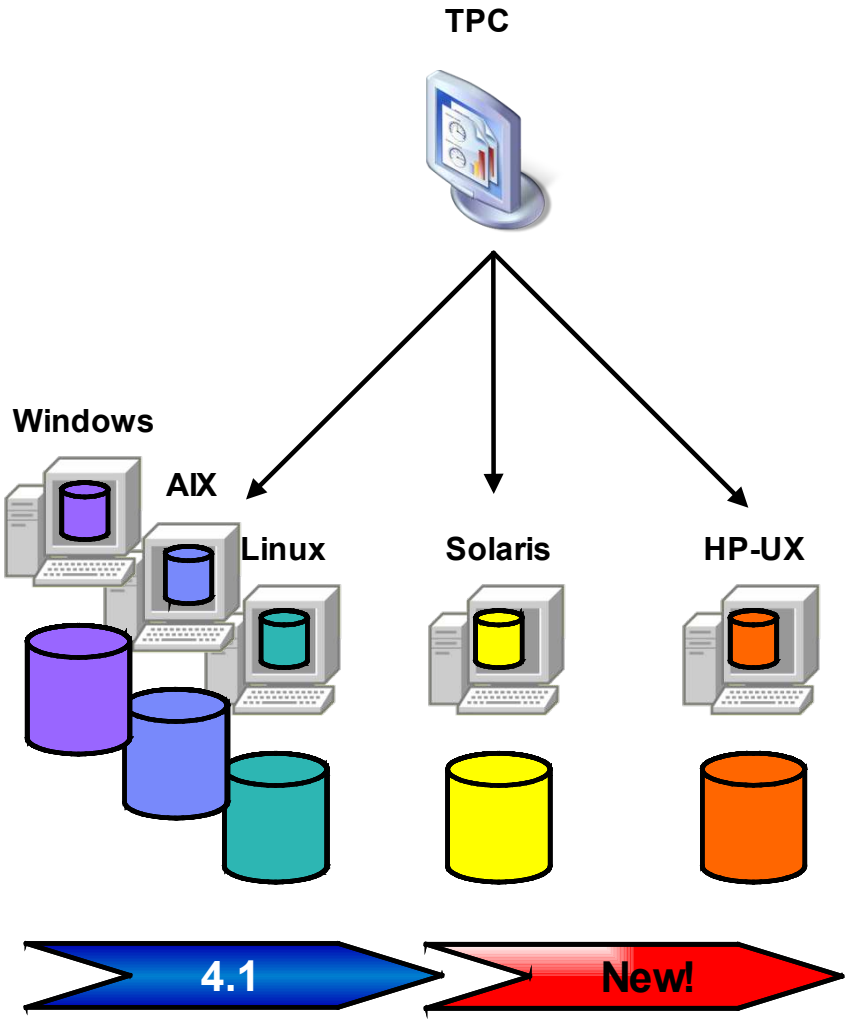
Storage Resource Agents

TPC 4.x
2H 2010

- **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**



© 2010 IBM Corporation

Enhanced Management of IBM Storage

TPC 4.x
2H 2010

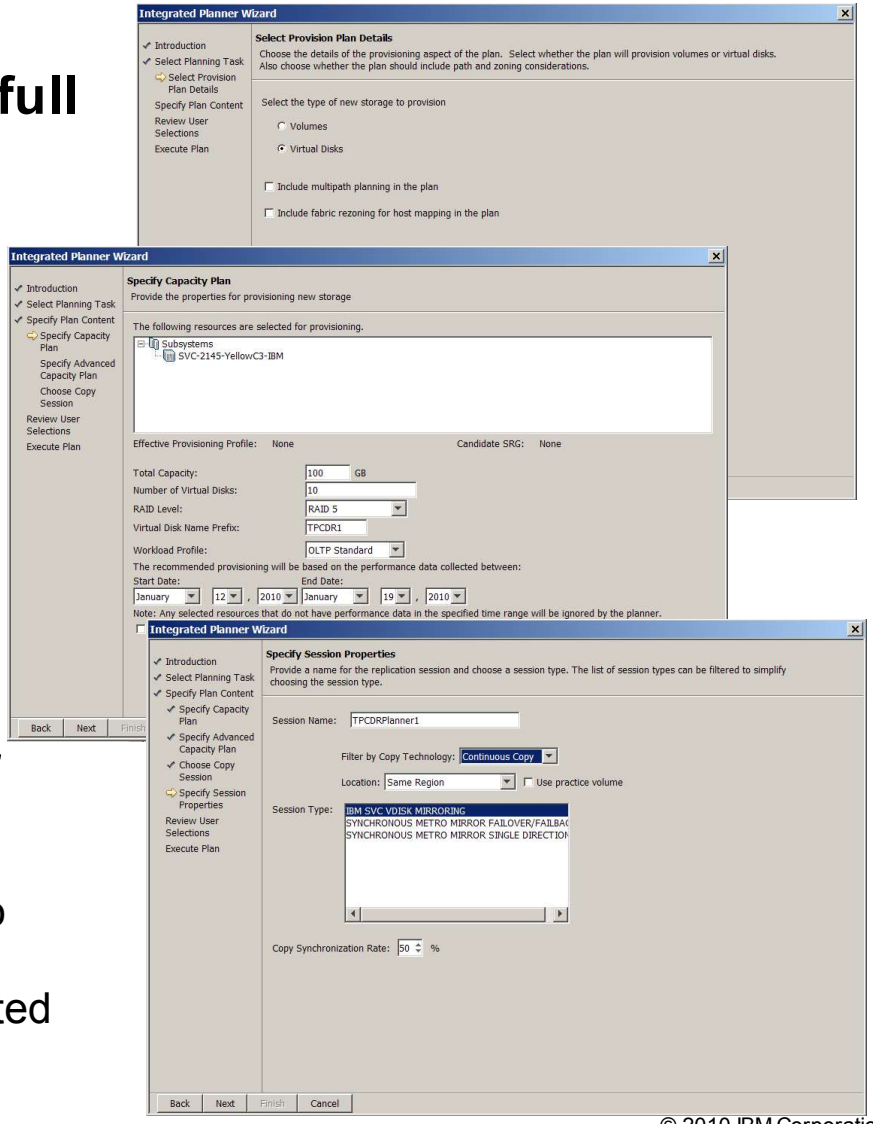
- **Improved performance and scalability**
  - For IBM SVC, DS8K and XIV
- **More advanced management capabilities for XIV**
  - Performance monitoring
  - Storage provisioning
  - Data path explorer

© 2010 IBM Corporation

Automated End-to-End Provisioning

TPC 4.x
2H 2010

- **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



© 2010 IBM Corporation

Usability Enhancements

TPC 4.x
2H 2010

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

- **Device Diagnostic Assistant**
  - Enhanced error code description with link to detailed technical documentation

© 2010 IBM Corporation

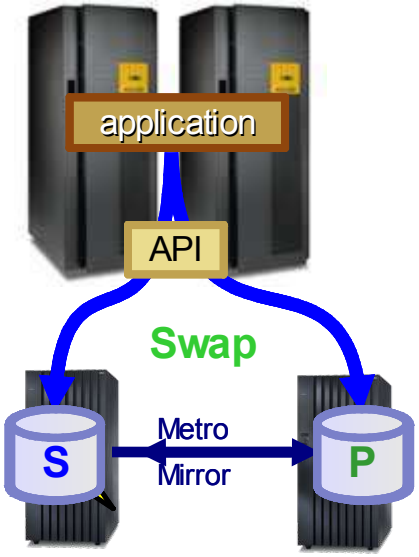
TPC for Replication

© 2010 IBM Corporation

High Availability Volume Management

TPC 4.x
2H 2010

- **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**



© 2010 IBM Corporation

Enhanced Peer to Peer Remote Copy Path Management

TPC 4.x
2H 2010

- **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**

© 2010 IBM Corporation

Disaster Recovery Planner

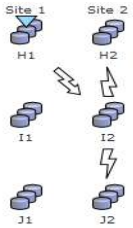
TPC 4.x
2H 2010

- **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

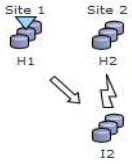
DS8000, DS6000 and ESS800 2-site

Global Mirror Both Directions w/Practice



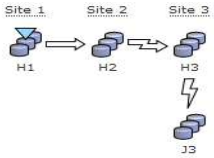
SVC 2-Site

Metro Mirror and Global Mirror w/Practice



DS8000 3-Site

Metro Global Mirror



© 2010 IBM Corporation

Multiple Global Mirror Sessions

TPC 4.x
2H 2010

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**

© 2010 IBM Corporation

Positioning the IBM Replication Management Portfolio

IBM Tivoli Storage FlashCopy Manager

- Integrated, instant copy for critical applications
- Virtually eliminates backup window
- Optional integration with TSM for full end-to-end backup and recovery

Local application snapshot protection and recovery

IBM Tivoli Storage Productivity Center for Replication

- Synchronous and Asynchronous replication management
- Application-level consistency groups
- Execute practiced application recovery procedures
- Automate fail-back after repair

Multi-site storage disaster recovery

IBM Distributed Disaster Recovery Manager

- Automated site switch for multi-tiered applications
- Broad application and storage system support
- Combines capabilities of Tivoli automation and TPC for Replication

End-to-End recovery of applications and data

© 2010 IBM Corporation

What our Beta Customers are Saying

"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

"Tivoli Storage Productivity Center 4.x is much better and faster, and requires less interaction than previous versions. I expect a 10-15 percent time savings because of this."

Fortune 500 Disability, Life Insurance Provider

"We can now reduce the time to execute recovery functions to about 15 minutes. In the past, this could have taken two to three days. This will help us reach our goal of reducing recovery time to four hours."

National Health Insurance provider, TPC for Replication

© 2010 IBM Corporation

IBM Value Pack Service Offerings
Foundation Services for TPC

New Pilot!

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

© 2010 IBM Corporation

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

© 2010 IBM Corporation

TPC Roadmap

© 2010 IBM Corporation

TPC Future Release

1H 2012

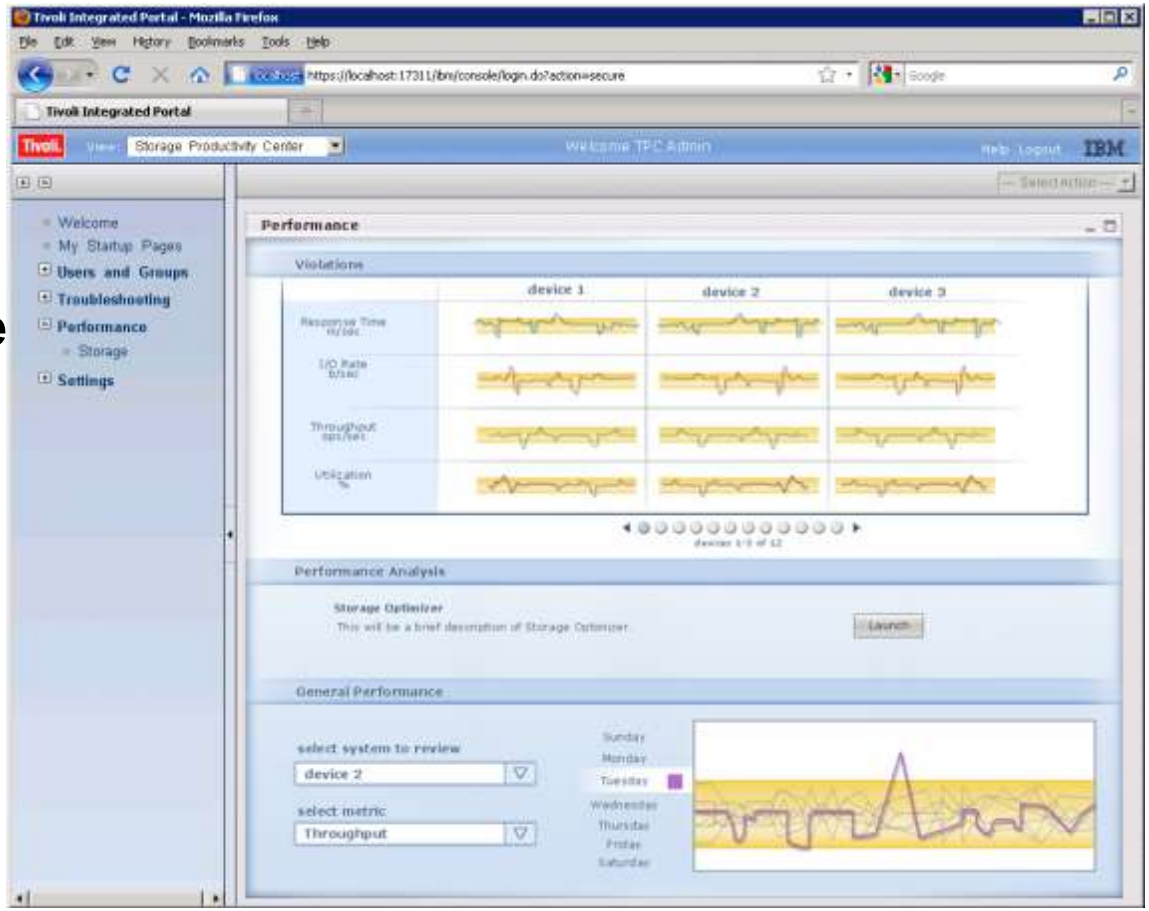
- **All new Web-based Web user interface**
  - Based on Tivoli Integration Portal (TIP)
- **Enhanced Tivoli Common Reporting with Cognos**
  - Data Abstraction
  - Simplified report editing
  - Ad-Hoc Reporting
  - Other capabilities such as e-mailing of reports, Additional report formats (XML, CSV), and greater granular data security
- **Storage tiering optimization**
- **Smart Business Storage Cloud / SoNAS support**
- **Installation enhancements**

© 2010 IBM Corporation

Web Based User Interface

1H 2012

- Redesigned Web-based interface based on customer feedback
- Navigation built around the tasks needed for the environment
- Rapid access via simplified navigation
- Enhanced reporting which allows custom defined reports



© 2010 IBM Corporation

Enhanced Tivoli Common Reporting with Cognos

1H 2012

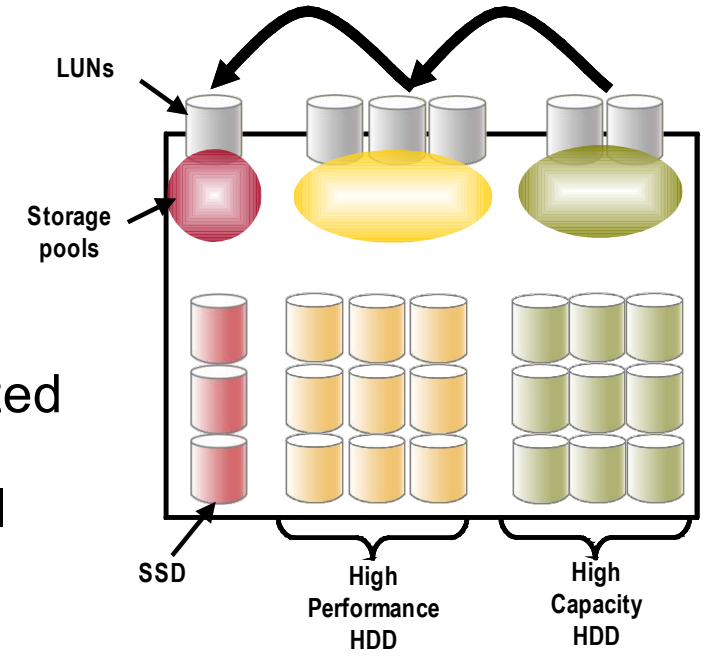
- **Cognos Reporting & Modeling solution includes:**
  - **Data Abstraction**
    - Modeled Tivoli data makes report creation/ customization simple for customers
  - **Simplified report editing**
    - Run an out-of-the-box report, and launch the editor in context to make changes
  - **Ad-Hoc Reporting**
    - Novice users can rapidly create reports with intuitive drag & drop function via the Query Studio
  - **Other capabilities**
    - e-mailing of reports
    - Additional report formats (XML, CSV)
    - Greater granular data security
    - And more...
- **Brings industry leading reporting suite to Tivoli customers at no additional charge**

© 2010 IBM Corporation

Tiered Storage Optimization

1H 2012

- **Automated management of multi-tiered storage environment**
  - Provides recommendations for workload migration based on performance and capacity utilization
  - Ensures only highest performing workloads are allocated to most expensive disk
- **Integrated with existing Storage Optimizer capabilities**
  - Enables administrator to define unique thresholds for each tier
  - Recommendations can be executed automatically based on policy or manually via administrator control



© 2010 IBM Corporation

TPC SoNAS Storage Management

1H 2012

- **Discovery & visualization**
- **Health monitoring**
- **Performance monitoring**
- **Provisioning**

© 2010 IBM Corporation

Storage Financial Management

1H 2012

Description:

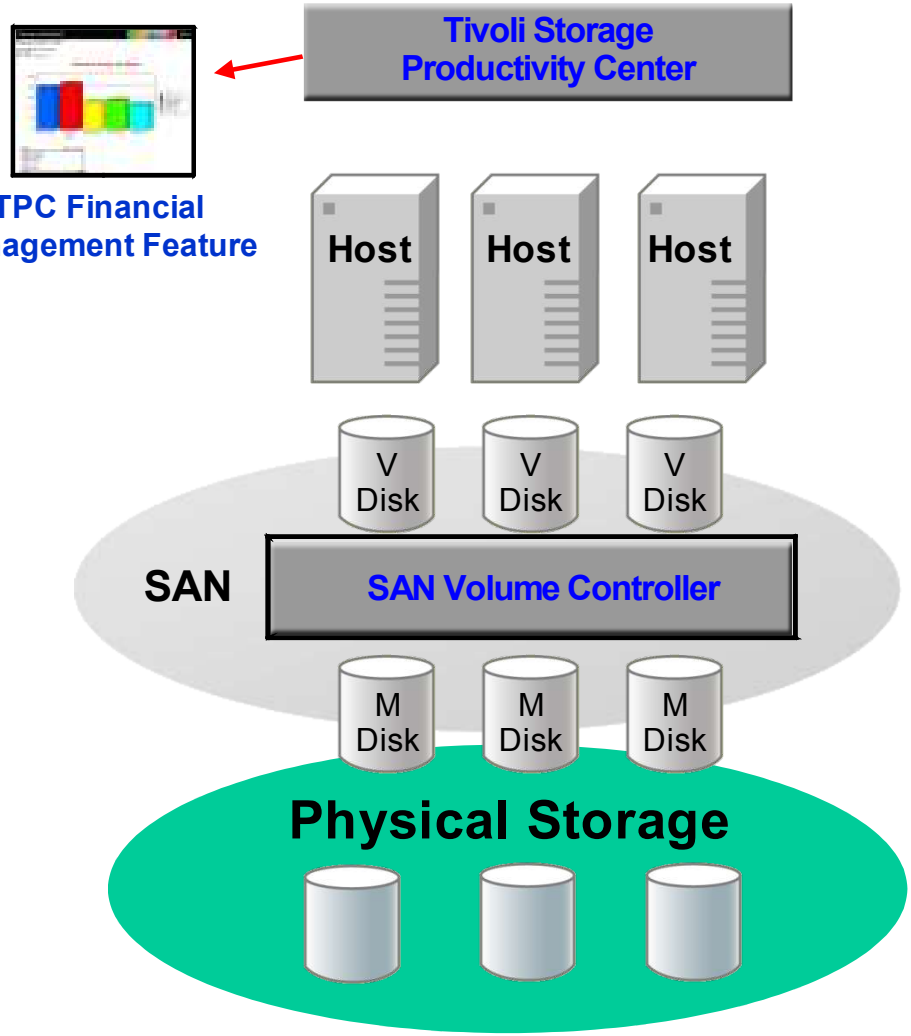
IT Finance needs to understand storage usage so that they can perform cost allocation or charge back users of storage

Pain Points:

- No understanding of who is using the storage resources
- Unable to allocate storage costs
- No mechanism to chargeback storage usage

Solution:

Tivoli Storage Productivity Center (TPC) Standard Edition will include a Financial Management feature that utilizes TUAM technology in order to generate storage usage and cost reports



© 2010 IBM Corporation

© 2010 IBM Corporation