



IT Valley

Managed Services

Tivoli Storage Manager

1- Customer pain points of data backup

IBM Tivoli Storage Manager works to alleviate customers' storage management concerns, including:

- Business impact of unsecured and unrecoverable data in the event of a disaster
- Increasing time and cost of data and application protection and disaster recovery
- Need to provide near continuous data availability, while enabling comprehensive and accurate recovery
- The volume of data that has to be managed and protected is growing at unmanageable levels without the use of highly automated, autonomic-like tools
- Complexity due to the proliferation of heterogeneous storage environments caused by consolidation of business, servers, and storage
- Shortage of skilled people resources which demands that highly automated tools be deployed to allow consistent practices across platforms, minimize human error, and improve the amount of storage a single storage administrator can handle. Meeting service-level objectives and providing near continuous availability by reducing the amount of data and time it takes to perform backup while enabling comprehensive and accurate recovery

2- TSM Features

TSM provides enterprises with these key features:

- Robust protection of customers' data assets.
- Centralized backup and archiving of data networked throughout an organization.
- Automated backup-restore and archive-retrieve of the data from more than a dozen different platforms.
- Policy-based disaster preparation, planning, and recovery to control storage costs efficiently.
- Efficient Data archiving capability.
- Online "hot" data protection of the most popular business-critical applications.
- Improved performance for TSM clients via online image backups, providing fast restores and backups with little or no disruption.
- Cyclic redundancy checking capability between the TSM server and client, providing a higher level of data integrity.
- A health monitor showing status of scheduled events, database and recovery log.
- Calendar-based scheduling to increase flexibility.

3- TSM benefits

- Centralized Storage Management that helps reduce administration costs.
- Ability to utilize SAN technology to offload the production network and reduce overall IP traffic.
- Ability to reduce the time required for data backups.
- One of the industry's fastest recovery times.
- Optional automated space management data file migration (Hierarchical Storage Management, or HSM).
- High-speed, policy-based disaster recovery for business continuance.
- Ability to write to on-site and off-site pools concurrently.
- Ability to add optional data protection for popular e-mail, databases, and ERP applications

4- TSM highlights

- Backs-up and restores data using multiple techniques to reduce the total time required.
- Prepares for, and recovers from disasters by maintaining an additional copy of active data for safekeeping at an off-site location.
- Archives and retrieves data by moving inactive data to offline storage, freeing up online disk space for more important active data.
- Automatically removes data from online storage to offline storage via Hierarchical Storage Management (HSM), leaving an online data-stub for easy access of the offline data.
- Provides 24x365 application protection, working with popular applications to control the time and method by which a data transfer to offline storage occurs

5- IT Valley Capabilities

- Gathering information and checking Hardware and software prerequisites and planning for deployment
- Installing Tivoli Storage manager server and configuration
 - ❖ Install and verify the IBM Tivoli Storage Manager Server
 - ❖ Install and verify Integrated solution console and Administration Center
 - ❖ Define storage pools
 - ❖ Define volumes on storage pools
 - ❖ Monitor storage pools
 - ❖ Define a policy domain
 - ❖ Define a policy set
 - ❖ Define a management class
 - ❖ Assign a default management class
 - ❖ Validate and activate a policy set
 - ❖ Define the Database Volume to TSM
 - ❖ Mirror the Database
- Installing IBM Tivoli Storage manager clients Install and verify the backup- archive client
 - ❖ Install and verify the administrative Command Line Client
 - ❖ Register Client nodes
 - ❖ Configure client access to the server
 - ❖ Control client access to the server
 - ❖ Set up client options
 - ❖ Use include/exclude to control client backup processing
 - ❖ Create a schedule
 - ❖ Define Association of client to schedule
 - ❖ Monitor a schedule
 - ❖ Obtaining information from schedule logs
- Creating and configuring server maintenance script
 - ❖ Create a device class for backing up the database
 - ❖ Backup the database
 - ❖ Perform an incremental backup of the database
 - ❖ Query status of database backups
 - ❖ Put the recovery log in roll forward mode
 - ❖ Perform a backup of the storage pools
- Installing IBM Tivoli Storage Manager for Database
 - ❖ Tivoli Data Protection for Oracle
 - ❖ Tivoli Data Protection for MS SQL
 - ❖ Tivoli Data Protection for Informix

5- IT Valley Capabilities (Cont'd)

- Installing IBM Tivoli Storage Manager for Mail
 - ❖ Tivoli Data Protection for Exchange
 - ❖ Tivoli Data Protection for Domino
- Configuring TSM to Backup DB2
- Tune your TSM server in order to enhance its performance

Tivoli Service Automation Manager

1- Features and benefits

IBM Tivoli Service Automation Manager can help both enterprise data centers and service providers improve the service they provide to the business and its users. It offers:

- A higher degree of standardization and automation for deployment and management of IT services. Standardization helps improve overall operations. The more you can standardize the more you can reduce operating expense such as labor and downtime – which is the fastest growing portion of IT expenditure
- The ability to maintain or improve quality and cost per IT service
- A management stack that is easier to handle and provides for smoother transition from pre-production to production
- The ability to be audit proof and integrated with process governance
- Reduced manual (and costly) interventions
- The ability for IT to reduce the skill requirements needed for deploying and managing IT services, from standard to complex multi-tier environments
- The capability of deploying IT services faster to meet the increased need and growing number of requests for development, test, pre-production and production systems
- The opportunity for IT focus valuable, highly skilled (and expensive) staff on high-priority projects by reducing the callouts of their experts on tasks that can be automated or managed by the user

2- Service structure

Services offered by Tivoli® Service Automation Manager are organized as follows

- **Service definition**
This is a basic set of rules for creating a specific IT landscape. Tivoli Service Automation Manager delivers preconfigured service definitions that can be used as templates in tailoring (customizing) the definition to meet your specific needs .
- **Service deployment instance**
This represents an actual IT landscape described by the service definition.
- **Service topology**
This is the set of hardware servers and software representing the IT landscape .
- **Monitoring definition**
A monitoring definition is the framework for activating monitoring software to detect possible problems in a deployed landscape .

- **Management plans**

Management plans are predefined modifications of the provisioned landscape .

- **Job plans**

Job plans implement the management plans in terms of software .

- **Workflows**

Workflows are preconfigured sequences of steps that perform a specific function. For example, there are workflows to instantiate (deploy) a service, make management changes once the instance has been deployed, and perform error handling .

- **Work orders**

Work orders provide the framework for executing management plans .

- **Resources**

Resources are actual hardware and software that can be used in constructing the landscape .

3- ITVALLEY capabilities

- Systems checking and prerequisites investigation
- On site discovery
- Design and customize your environment
- Install and configure the different component of the solution:
 - ❖ User interface
 - ❖ Service definition application
 - ❖ Service deployment instance application
 - ❖ Recourse allocation application
 - ❖ Monitoring definition application
 - ❖ Service topology application
 - ❖ Service topology node application
 - ❖ OS appliance service application
 - ❖ IT topology service application
 - ❖ Auxiliary application

Tivoli *Maximo*
Asset
Management

1- Features

Maximo is the global standard in software for enterprise asset management (EAM) and maintenance.

This powerful tool helps automate all aspects of maintenance operations, including equipment history, scheduling, preventive maintenance, work orders, labor and expense tracking, procurement and reporting.

With Maximo, organizations of all sizes reduce equipment downtime, closely control and track maintenance expenses, cut spare parts inventories and costs, improve safety, increase purchasing efficiency, and more effectively deploy productive assets, personnel and other resources.

Maximo® Asset Management software unifies comprehensive asset life cycle and maintenance management on a single platform.

This asset management software provides insight for all of your enterprise assets, their conditions and work processes, for better planning and control.

- Manages asset deployment, specifications, monitoring, calibration, costing and tracking from a single system
- Provides enterprise asset management software for long and short-term planning, preventive, reactive and condition-based maintenance, schedule management, resource optimization and key performance indicators
- Plans inventory to meet maintenance demand, making the right parts available at the right location when needed
- Manages vendor contracts with comprehensive support for purchase, lease, rental, warranty, rate, master, blanket and user-defined contracts
- Aligns service levels with business objectives by defining service offerings and establishing service level agreements (SLAs)

IBM Maximo Asset Management software provides asset lifecycle and maintenance management for all asset types on a single platform. It is used to help maximize the value of critical business and IT assets over their lifecycles with workflows by enforcing best practices that yield benefits for all types of assets, including transportation, production, delivery, facilities, communications and IT. Industry-tailored solutions are available for utilities, nuclear power, transportation, government, telecommunications, life sciences, and oil & gas.

The current release, IBM Maximo Asset Management 7.5, is the third release built upon a J2EE Service Oriented Architecture. It is an Enterprise Asset Management, Service Management and IT asset management suite of applications that are scalable and easily integrated into existing Enterprise Resource Planning (ERP) systems.

Maximo is also the basis of Tivoli Process Automation Engine, which is the central part of Tivoli Service Automation Manager.

2- Advantages and benefits

Features	Advantages	Benefits
<p>Manage all of your asset deployment, specifications, monitoring, calibration, costing and tracking from a single system.</p>	<p>Comprehensive maintenance work management solution for planned and unplanned activities including long- and short-term planning, preventive, reactive and condition-based maintenance, schedule management, resource optimization and key performance indicators.</p>	<p>Plan inventory to meet maintenance demand precisely, making the right parts available at the right location when needed.</p>
<p>Manage your vendor contracts with comprehensive contract management support for purchase, lease, rental, warranty, rate, master, blanket and user-defined contracts.</p>	<p>Define service offerings and establish service level agreements (SLAs) to help align service levels with business objectives.</p>	<p>Scalable service oriented architecture with a flexible business process configuration platform that adapts to your changing business requirements and easily connect with the rest of your enterprise system.</p>

3- Business benefits

While traditional CMMS systems focus on maintenance, Maximo Asset Management is an Enterprise Asset Management system that provides comprehensive support for your asset, maintenance, resource and parts supply chain management needs.

4- IBM Maximo Asset Management

Maximo Asset Management by IBM combines comprehensive asset life cycle management with maintenance management on a single platform. The system allows you to monitor all of your enterprise assets, their conditions and work processes, resulting in lower downtime, lower cost of operations, and better planning and control.