



OVERVIEW

IBM Tivoli Provisioning Manager helps organizations optimize efficiency, accuracy and service delivery by automating best practices for data center provisioning activities.

- Help automate best practices for common data center provisioning activities in support of change and release management processes, helping to optimize efficiency, accuracy and service delivery
- Discover and track data center resources to enable highly accurate server provisioning and software deployments
- Facilitate efforts to consistently follow your own policies and preferred configurations, in support of corporate and regulatory compliance efforts
- Automatically provision software and configurations to Microsoft® Windows® servers and clients, as well as Linux® and UNIX® servers
- Help optimize availability by maintaining configurations and managing changes to resources
- Use the Web Replay plug-in enhancement to capture and rerun scenarios for even the most highly complex tasks
- Integrate with a variety of technologies, including IBM Tivoli Change and Configuration Management Database (CCMDB), IBM Tivoli Intelligent Orchestrator, IBM Tivoli Provisioning Manager for OS Deployment and IBM Rational® Test Lab Manager
- Operating systems supported: AIX, Linux, Sun Solaris, Windows

Tivoli Provisioning Manager V5.1 new features

This section describes new features and enhancements to existing functionality in Tivoli Provisioning Manager V5.1 Enhancements have been made in the following areas:

- Discovery and inventory management
- Compliance management
- Groups
- Notifications
- Software distribution infrastructure
- Patch management
- Image management
- Reports
- Security
- User experience
- Web Services

Discovery and inventory management

New discovery features in version Tivoli Provisioning Manager V5.1 allow you to immediately populate the data model with hardware and software information and the relationships between the components. Improved discovery capabilities include the following new or improved discovery methods:

- *Tivoli Provisioning Manager network discovery*: Allows you to discover your IT infrastructure over SSH, SMB, or SNMP protocols to find computers and network devices. This integrated discovery capability is provided with the product and easy to configure and use.
- *Microsoft Active Directory discovery*: Allows you to discover computers by organizational unit, computer attributes defined in Microsoft Active Directory and Microsoft Active Directory groups.
- *Tivoli Provisioning Manager Inventory discovery*: Allows you to discover computer hardware, including printers, modems, mice, keyboards, monitors, BIOS, and LPARs. Inventory scans can also be run using the new group feature, and over the new distribution infrastructure for large scale implementations. This discovery method allows you to scan computer groups using software signatures and the new software signature management user interface. *The discovery library reader* that allows information from the DCM to be used by the IBM Tivoli Configuration and Change Management Database. It is also used to import data to DCM from the IBM Tivoli Configuration and Change Management Database.

Compliance management

Recent data security compromises in government and business highlight the need to audit clients and servers on a continuous basis. More than ever, executives have to be assured that their procedures address desktop data security. They need to know that both their client and server environments are Compliant. Compliance asks the question “Is the device implementing our defined corporate policy?” The new compliance management functionality in Tivoli Provisioning Manager V5.1 allow you to create compliance checks, which define your corporate security and software standards, and then compare the software and security setup on the clients and servers in your data center against those standards.

Groups

New to Tivoli Provisioning Manager V5.1 is the ability to organize devices and software using groups. You can create groups based on categories that make sense in your organization. Using a group is a convenient way to perform such operations as operating systems install, software distribution and running script and workflow tasks.

You can select group members manually or dynamically using report queries. Groups selected manually are static; members are added or removed manually. Groups defined by reports queries change dynamically to include members matching the conditions of the report upon which they are based.

Notifications

Users often need an audible or visible indication that their task or workflow has started, finished, or has encountered an error. Such notifications allow the user to continue working on other tasks, rather than monitoring the progress of a software distribution or installation process. You can now configure Tivoli Provisioning Manager to send e-mail notifications to users, updating them on the status of a specific task or workflow. Notifications are available for the following features:

- Reports
- Software management activities such as publishing, distributing, and installing
- Discovery activities
- Compliance

Software distribution infrastructure

Tivoli Provisioning Manager V5.1 includes a new scalable software distribution infrastructure. The new distribution infrastructure offers a flexible "manage to" infrastructure which supports a number of Tivoli Provisioning Manager services and enables the management of various endpoints, in a variety of topologies.

The Tivoli Provisioning Manager V5.1 software distribution infrastructure includes the following main components:

Tivoli Provisioning Manager V5.1 exploits the Tivoli Common Agent Services for software distribution and compliance. Tivoli Common Agent Services provides an infrastructure for managing the computer systems in your environment. The deployed agent software collects data from and performs operations on managed resources on behalf of a Tivoli management application. Tivoli Provisioning Manager V5.1 also supports managed environments where the Tivoli Common Agent Services are not available.

The Tivoli Provisioning Manager dynamic content delivery service enables the efficient distribution of files and bulk content to large numbers of targets using distributed depot servers and peer to peer services. Clients installed as subagents on all the managed systems or endpoints at the regional branch request to download files from depot servers or from other clients.

A device manager federator is installed on the provisioning server at the enterprise and is configured to act as a federated server. The federator implements a job distribution policy that pushes incoming jobs to all of the regional branch office agents. Currently, a two-tiered federated environment is supported.

Clients are installed as device manager subagents on the endpoints at the branch and are used for receiving job tasks from and returning results to the agents.

Patch management

Patch management is used to deploy missing software patches to target computers or groups of computers that require them. It provides a quick way to check the software installation status of multiple target computers without having to examine them all manually.

New with Tivoli Provisioning Manager V5.1 is the ability to manage patches using the scalable software distribution infrastructure. The distribution infrastructure enables the management of a large number of target computers in a variety of topologies, and provides a fast and reliable way to distribute and install patches on target computers or groups of computers that require them.

You can perform patch management on Microsoft Windows, Red Hat Linux, and AIX And Solaris operating systems.

Image management

Tivoli Provisioning Manager V5.1 is designed to provide a flexible environment to manage and install operating system software. One of the most important functions of this feature is that it allows managing the most common requests related to a workstation life cycle, without requiring any on-site visit, thus Reducing the total cost of ownership of each managed system. The operating system is installed by using images created using the boot server.

An image is a representation of a computer program and its related data such as the kernel, file systems, libraries, and programs of the managed system at a given point in time. Tivoli Provisioning Manager provides the capability to discover, manage, and deploy images for new image installations and backup and recovery.

Using Tivoli Provisioning Manager, you can perform the following main tasks:

- Capture an image from a source system
- Deploy an image to one or more target systems
- Restore a snapshot image to recover a target system

Tivoli Provisioning Manager V5.1 now includes Rembo - an IBM technology. The Rembo Boot Server is provided with Tivoli Provisioning Manager, allowing you to provision operating systems. When you use image management in Tivoli Provisioning Manager, target computers or workstations connect to the Rembo Boot Server during the boot phase and begin the installation of the operating system across the network.

Reports

Reporting allows you to visualize the state of your enterprise and quickly summarize results for executive and operational decisions. New reporting features include:

- Additional predefined reports, reflecting new features in Tivoli Provisioning Manager.
- A new Web-based query builder, which allows you to easily customize existing reports or create new reports.
- Easier access to information in the data model through more than 40 high-performance views.
- Easier sharing of report definitions through enhanced import and export capabilities in the Web interface.
- Charts and graphs.
- The ability to schedule reports to run at a later time including repeating intervals.
- E-mail report distribution and notification.
- Integration with third-party reporting software.

Security

Security enhancements in Tivoli Provisioning Manager V5.1 include:

Overall, this version has fewer and clearer permissions, making it easier for you to customize user roles and permissions. Version 3.1 included over 20 default user roles. Tivoli Provisioning Manager version 5.1 collapses the 20 different user roles from previous versions into the following nine roles:

- System Administrator: Access to everything
- Inventory Specialist: Manages all aspects of the inventory
- Network Administrator: Access to all network inventory
- Storage Administrator: Manages all aspects of storage
- Software Operator: Manages all aspects of software and deployment
- Change Approver: Approves compliance recommendations such as installing missing software
- Automation Package Developer: Develops automation packages and workflows
- Software Package Creator: Access to the Software Package Editor
- Service Subscriber - Manages services and subscriptions
- Easier access group management: An access group is a logical organization of data center model objects, devices, and software over which a user is granted access. New cascade rules set the inheritance of permissions for parent and child objects.

You can also assign and clone instance access permissions from the user page in the Web interface. A user's access permissions.

User experience

Tivoli Provisioning Manager V5.1 introduces a new user interface which has been redesigned to enhance the user's experience with Tivoli Provisioning Manager. Improvements have been made in the following areas:

- The user interface has been visually redesigned, greatly improving the usability of Tivoli Provisioning Manager. A consistent color scheme and style, simplified tool bars, and meaningful icons all help the user to complete tasks quickly and easily. Users can also collapse the navigation tree, allowing them to focus on the tasks they use most frequently.

The new Welcome experience provides an introduction to Tivoli Provisioning Manager V5.1 through product tours and tutorials. The Welcome experience contains the following types of information.

- Product tour: Provides a short conceptual overview of the key functional components of Tivoli Provisioning Manager and how they work together.
- Tutorials: Demonstrates how to do a particular task. User can watch a short "movie" of key tasks.
- Information center: Launches the product information center to access full product documentation.
- Web resources: Links various related online information, including software support, automation resources, training and certification, and Tivoli resources.

Tivoli Provisioning Manager V5.1 introduces task and role-based views of the user interface, allowing users to see only authorized tasks and objects. The navigation pane, notebook tabs, and menu actions all display appropriately according to the user's role and permissions. For example, a user assigned the system administrator role will see all available tasks in Tivoli Provisioning Manager V5.1, while a user assigned the software operator role will see only tasks related to software management pages.

IBM Tivoli Provisioning Manager

The Web interface home page can be customized, allowing you to set your home page to your most commonly used task page. Tivoli Provisioning Manager V5.1 also has context-sensitive help for every page in the Web interface, helping users find information quickly and easily. The context-sensitive help provides page and field-level information and links directly to the appropriate task in the Tivoli Provisioning Manager information center.

Web Services

Tivoli Provisioning Manager V5.1 includes an enhanced Web Services component. Using the Web Services Resource Framework (WSRF) you can access, manipulate, or change objects directly in the data model. Web Services, including the Web Services Resource Framework (WSRF) services, allow you to access the Tivoli Provisioning Manager V5.1 data model objects remotely using Web Services APIs rather than launching the Web interface.

References

1. IBM Official Website
2. IBM Tivoli Software Red Books
3. IBM Tivoli Software Presentations
4. IBM Tivoli Software Demos