# ZENworks Reporting Universe Objects and Predefined Reports Reference

**ZENworks Reporting 5 Beta** 

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# **About This Guide**

This ZENworks Reporting Universe Objects and Predefined Reports Reference includes information about universe objects and predefined reports that are used in the Zenworks Reporting. The information in this guide is organized as follows:

- Chapter 1, "ZENworks Reporting Universe Objects," on page 7
- Chapter 2, "ZENworks Reporting Predefined Reports," on page 61

# **Audience**

This guide is intended for ZENworks Reporting administrators.

# **Feedback**

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation.

## **Additional Documentation**

ZENworks Reporting is supported by other documentation (in both PDF and HTML formats) that you can use to learn about and implement the product. For additional documentation, see the ZENworks 11 SP4 documentation Web site (http://www.novell.com/documentation/zenworks114/).

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# **ZENworks Reporting Universe Objects**

The universe objects (domain objects, items, or fields) are objects used under different components in ZENworks Control Center (ZCC). In ZENworks Reporting, these universe objects are used for creating and generating various business reports. The reports can be viewed and saved in different formats or outputs.

The ZENworks Reporting supports PDF, Excel (Paginated), Excel, CSV, DOCX, RTF, Fleshpot, ODS, XLSX (Paginated), XLSX (Paginated), and XLSX output formats.

In this chapter the following components' universe objects are available:

- Section 1.1, "Patch Management Universe Objects," on page 7
- Section 1.2, "Bundles and Policies Universe Objects," on page 10
- Section 1.3, "License Management Universe Objects," on page 12
- Section 1.4, "ZENworks System Universe Objects," on page 13
- Section 1.5, "Endpoint Security Universe Objects," on page 17
- Section 1.6, "Inventory Management Universe Objects," on page 26
- Section 1.7, "Asset Management Universe Objects," on page 36
- Section 1.8, "Discovered Devices Universe Objects," on page 55

### To use universe objects:

- 1 Click Create > Ad Hoc View.
- 2 In the Data Chooser panel, select Domains.
- 3 Click ⊕ to expand the treeview structure, then select domain that you want to use. You can only view the domains for which you have rights.
- 4 Click Choose Data.
- 5 In the *Data Chooser* panel, click *Fields* to select items to use in the Ad Hoc View. For more information, see "Ad Hoc Editor".

# 1.1 Patch Management Universe Objects

The following universe objects are used in ZENworks Control Center under the Patch Management component:

- Patch Management: The Patch Management domain set.
- Baselines: Baseline indicates that the updated files have been placed in the download directory so that when managed devices register with the server, they can obtain the latest updates. Baseline updates are assigned to all devices when they are downloaded.
  - Group Folder: Folder path in the ZENworks Configuration Management group hierarchy.
  - **Group Name:** Name of the group associated with the baseline.
  - Group Type: The type of group associated with the baseline.

- Device Details: The details of the device.
  - Device ZUID: A unique ID that identifies a device in the ZENworks environment.
  - **DNS**: DNS name of the baseline device.
  - Hostname: Name of the machine or hostname that is added to the Servers or Workstations folders. It is not provided to any groups.

#### Device Patch Audit

- Audit Log Date: Date on which a patch that was applied to a device was logged.
- Patch Status on Device: Status of a patch on a device (patched, not patched, or not applicable).

#### Group Scan Audit Summary

- Audit Summary Date (Group): Date on which the group audit summary is recorded.
- Total Not Applicable (Group): Total number of group devices that are not not applicable to the patch.
- Total Not Patched (Group): Total number of group devices for which the patch is applicable but not patched.
- Total Patched (Group): Total number of group devices that are patched in this group.
- Patch Audit Summary
  - Audit Summary date (Device): Date on which the audit summary was recorded.
  - Total Not Applicable (Device): Total number of devices to which the patch is not applicable.
  - Total Not Patched (Device): Total number of devices to which the patch is applicable but not patched.
  - Total Patched (Device): Total number of devices on which the patch is applied.

#### Patch Bundles

- Admin Initiated Remediation Bundle: Name of the administrator who initiated the remediation bundle.
- Assigned Device Name: Name of the device to which the patch bundle is assigned.
- Deployed Patch Bundle: Deployed patch bundle that is initiated by an administrator.
- **Deployed Patch Bundle Version:** Version of launched bundles that are initiated and remediated by an administrator.
- Is Deployed: Specifies whether the patch bundle is deployed to the assigned device.
- Deployed Patch Bundle Status Events
  - Event Status: Status of the deployed event.
  - Event Type: The type of deployed event.
  - Failure Event Message: The message appears when a patch bundle fails.
  - Failure Event Time: The time when the patch bundle failed.
  - Language: Language used for the event message.
  - Last Successful Execution Time: Time at which the patch bundle was executed successfully.
  - Probable Cause of Failure: Probable cause of failure for any event.

#### Patch Packages

- License Name: Name of the license that is associated with a package.
- License URL: URL to the package license, if applicable.

- Package Name: Name of the package viewed in ZENworks.
- Patch Trend Reporting: The patch trend reporting.
- **Device Name:** Name of the patched device.
- **Group Name:** Group name of the patched device.
- **IP Address:** IP address of the patched device.
- OS Name: Operating system running on the patched device.
- Registration Date: Date on which the patched device was registered.
- Service Pack: Operating system service pack installed on the patched device.
- Patches
  - **Description:** Detailed information about the patch.
  - **Is Patch Cached:** Specifies whether the patch will be cached on the server.
  - Is Patch Deployed: Specifies whether a patch bundle has been deployed.
  - **Is Patch Enabled:** Specifies whether the patch is enabled for use.
  - Last Modified: Date on which the patch was last modified (by default it is null).
  - OS Language: Operating system language.
  - **OS Name:** A short name provided to the supported operating system.
  - OS Service Pack: Operating system service pack installed on the patched device.
  - OS Type: Operating system type, for example: Windows, Linux, and so on.
  - OS Version: Operating system version, for example: 2003, XP, Vista, and so on.
  - Patch Count: Count of patch records defined by other row attributes.
  - Patch Impact: The relative importance of a patch: critical, recommended, informational, and so on.
  - Patch Media Status: Status of the patch media.
  - Patch Name: Name of the patch.
  - Patch Vendor: Software manufacturer responsible for the patch.
  - Released On: Date on which the patch was released.
  - Vendor Product ID: A unique product ID used by the patch manufacturer.
  - Patched Devices: Total number of patch devices.
    - **Device Folder:** Folder path in the ZCM hierarchy to the device.
    - **Device Name:** Name of the device to which the patch was deployed.
    - **Device ZUID:** A unique ID identifies a device in the ZENworks environment.
    - Error Device Count: Total number of devices with patch errors.
    - Not Applicable Device Count: The device count that is not applicable.
    - Not Patched Device Count: Device count not patched.
    - Patched Device Count: The device count that is patched.
    - Total Device Count: Total number of devices.
    - Patch Device Status: Status of the patch device (patched, not patched, or not applicable).

# 1.2 Bundles and Policies Universe Objects

The following universe objects are used in ZENworks Control Center under the Bundles and Policies component:

- Bundles and Policies: The reporting objects that are associated with bundles and policies.
- Assignment
  - Assignment Status: The assignment status of a bundle or policy associated with a device
    or a user.
  - Assignment Type: The type of assignment (bundle, policy, and so on).
  - Consumer Folder: Name of the consumer folder.
  - Consumer LDAP ID: The user source UID in the LDAP user source. This is used for getting detailed user information.
  - Consumer Name: Name of the device consuming an assignment.
  - Consumer ZUID: A unique ID that identifies a user or a device in the ZENworks.
  - Content Folder: Name of the content folder.
  - Content Name: Name of the content.
  - Content Parent Folder: Path to the parent folder for the assignment.
  - Content Parent Name: Name of the parent object that supports the content (bundle, policy, and so on).
  - Content Server: Name of the content server.
  - Content Server Folder: The path to the content server.
  - Content Server Type: The type of content server.
  - Content Type: The type of content.
  - Content ZUID: Name of the object that supports the content (bundle, policy, and so on).
  - Position: The position of the content server.
  - Replication State: Status of the content replication.

#### Bundles

- Bundle Size (KB): The size of the bundle in kilobytes.
- Bundle Type: The type of bundle (Windows Bundle, Linux Bundle, and so on).
- Bundles Assigned to Device: Bundles that are assigned to a device.
- Category: The category of the bundles.
- Compliance Status: Compliance status of the bundle.
- Creation Date: Date on which the bundle was created.
- **Dependency Bundle:** The associated bundle that are action elements for the selected bundle.
- Description: The description of the bundle.
- Devices Assigned to Bundles: Number of devices associated with the bundle.
- Display Name: Name of the bundle displayed on the managed device.
- Error Warning Status: A notification appears if error messages are outstanding for the bundle.
- Folder Location: The path to the location.
- Is Bundle Enabled: Specifies whether the bundle is enabled for use.

- Name: Name of the bundle.
- Platform: The bundle platform.
- Version: The version of the bundle.

#### Deployment

- Bundle Count: Total number of bundles.
- Device Folder: The path to the folder in the ZCM hierarchy where the device is located.
- **Device Name:** Name of the device to which the bundle or policy is deployed.
- Device ZUID: A unique ID that identifies a device in the ZENworks.
- Last Successful Execution Time: The time when a bundle was successfully executed.
- Patch Count: Total number of patches.
- Policy Count: Total number of policies.
- Source: The source of the deployment.
- System Update Count: Total number of system updates.
- **Type:** The type of deployment.
- User LDAP ID: A unique ID assigned to the LDAP user.
- Version: Version of the deployment.
- **User:** Name of the user who deployed the patch.
- Bundle details
  - Deployment Failure Device: Deployment failed for a number of devices
  - **Deployment Pending Device Count:** Deployment pending for a number of devices.
  - Deployment Success Device Count: Deployment successful for a number of devices.
  - **Distribution Status:** Status of the bundle distribution.
  - **Distribution Time:** The time when a bundle was distributed.
  - Install Status: The installation status of the bundle.
  - Install Time: The time when a bundle was installed.
  - Language (Distribution):
  - Language (Install):
  - Language (Launch):
  - Launch Status: The launched status of the bundle.
  - Launch Time: The time when a bundle was launched.
  - Overall Deployment Status: Status of the deployment.
  - Probable Cause of Distribution Failure: The probable cause for distribution failure.
  - Probable Cause of Install Failure: The probable cause for installation failure.
  - Probable Cause of Launch Failure: The probable cause for launch failure.

#### Policy details

- Enforcement Failure Device Count: Total number of devices that failed during deployment.
- Enforcement Pending Device Count: Total number of devices pending during deployment.
- Enforcement Status: The enforcement status of the deployment.

- Enforcement Success Device Count: Total number of devices successful during deployment.
- Language (Enforcement):
- Probable Cause of Enforcement Failure: The probable cause for enforcement failure.
- Time of Success or Failure: Time of success or failure of a device deployment.
- Time of Last Successful Enforcement: Time of last successful snforcement.
- Policies: The details of the policies.
  - Apply Immediately: Specifies whether the policy must be applied immediately.
  - Compliance Status: The compliance status of the policy.
  - Description: The description of the bundle.
  - Devices Assigned To Policies: Total number of devices associated with the policy.
  - Error Warning Status: A notification appears if error messages are outstanding for the policy.
  - Folder Location: The path to the policy location.
  - Is Policy Enabled: Specifies whether the policy is enabled for use.
  - Name: Name of the policy.
  - Platform: Name of the policy platform.
  - Policies Assigned To Device: The policies that are assigned to a device.
  - Policy Type: The type of policy that is assigned to a device.

# 1.3 License Management Universe Objects

The following universe objects are used in ZENworks Control Center under the License Management component:

- License Consumption by Device
  - Calculated Date: Date on which the audit was calculated.
  - Platform: Operating system of the platform.
  - Total Device Consumption: Total number of licenses used for managed and inventoried devices.
  - Inventory Only Devices License Consumption
    - Average Inventory Only Consumption: Average number of inventory only devices that consumed the licenses.
    - Maximum Inventory Only Consumption: Maximum number of inventory only devices that consumed the licenses.
    - Minimum Inventory Only Consumption: Minimum number of inventory devices that had the licenses.
    - Total Inventory Only Consumption: Total number of inventory devices that had the licenses.
  - Managed Devices License Consumption
    - Average Managed Consumption: Average number of managed devices that consumed the licenses.
    - Maximum Managed Consumption: Maximum number of inventory devices that used the licenses.

- Minimum Managed Consumption: Minimum number of managed devices that consumed the licenses.
- Total Managed Consumption: Total number of managed devices that used the licenses.
- License Consumption by User
  - Average User Consumption: Average number of users who used the licenses.
  - Calculated Date: Date on which the audit was calculated.
  - Maximum User Consumption: Maximum number of users who used the licenses.
  - Minimum User Consumption: Minimum number of users who used the licenses.
  - Total User Consumption: Total number of users who used the licenses.
- ZENworks License Information
  - License Details: General license details.
  - Expiration Date: Date on which the license expires.
  - License Status: Status of the product license.
  - Licensed Product: Name of the licensed product.
  - Product Version: The licensed version of the product.

# 1.4 ZENworks System Universe Objects

The following universe objects are used in ZENworks Control Center under the ZENworks System component:

- ZENworks System: Reporting objects about the overall health of ZENworks.
- **ZCM Zone:** The zone instance name.
- Administrator Information
  - Administrator: Name of the administrator.
  - Administrator Authoritative Source: The ruling authoritative source for the administrator.
- Discovery Tasks: The detailed information about customer-defined discovery tasks.
  - Discovery Type: The type of discovery tasks: IP or LDAP.
  - Has Credentials: Specifies whether credentials are associated with this task.
  - IP Ranges: The list of IP ranges used in an IP search.
  - Last Credentials Update: Date on which the task credentials were updated.
  - Last Discovered Count: Number of devices that were discovered last time during the discovery task was functioning.
  - Last Finish Time: The time when the task was completed.
  - Last Start Time: The time when the task was started.
  - LDAP Base DN: The top level of the LDAP directory.
  - LDAP Contexts: List of contexts used in the LDAP Search.
  - LDAP Port: The port used for connecting the LDAP server.
  - LDAP Search Filter: The LDAP search filter used by the task.
  - LDAP Server: Name of the LDAP server.
  - LDAP Source Name: The LDAP source name used by the task.

- Persist Credentials: Specifies whether credentials are saved for reuse by this task.
- Request Count: Number of addresses to be interrogated.
- Requests Completed: Number of addresses that have been interrogated.
- Running Status: The current status of the task.
- Task Folder: The path to the folder in the ZCM hierarchy where the task is located.
- Task Name: Name of the task.
- Use SSL: Specifies whether the SSL can be used by this task or not.

#### Linux Subscriptions

- Created by: Name of the user who created the subscription.
- **Download Folder:** Folder in which the bundles are created.
- **Is Enabled:** Specifies whether subscription is enabled or disabled. Disabled subscriptions are not used to download patches.
- Last Replication Time: The time when the subscription was last replicated to the server.
- Last Successful Replication Time: The time when the replicated server was successful.
- Replicated Server: Server to which the content is replicated.
- Repository Type: Type of the subscription repository (NU, RCE, RHN, RPM-MD, STATIC, and ZLM).
- Subscription Folder: ZENworks folder that contains the subscription.
- Subscription Name: Name of the subscription.
- Subscription Status: Status of the Subscription (New, Assigned, In Progress, Success, Failed, Cancelled, and Suspended).
- Session Details: The details of the ZENworks login session.
  - Bundles: Number of bundles created in this session.
  - Catalogs: .
  - **Downloaded Packages:** The number of packages downloaded.
  - End Time: End time of the replication session.
  - **Initiated by:** The entity that initiated this session.
  - Replication session Status: Status of the replication session (New, Assigned, In Progress, Success, Failed, Cancelled, or Suspended).
  - Start Time: The time when the replication session starts.
- Managed Device Status: The detailed information about devices that are in the ZENworks database.
  - Compliance Status: Specifies whether the device is compliant with all applied bundles and policies that are managed in ZENworks database.
  - Critical Device Count: Number of critical status devices.
  - Date Added: Date on which the device was registered to the zone.
  - Department: Name of the department.
  - **Device Folder:** Folder path in the ZCM hierarchy to the device.
  - Device Name: Name of the device.
  - Device Type: The type of device (Workstation or Server).
  - **Device ZUID:** A unique ID that identifies a device in the ZENworks environment.
  - DNS Name: The DNS name of the device.

- Error Count: Number of errors in a device.
- Error Warning Status: Specifies whether the device clear any errors or warnings.
- Inventoried Device Count: Number of inventory only devices.
- Is Agent Deployed: Specifies whether the ZENworks Adaptive Agent has been deployed to this device.
- Is Device Inventoried: Specifies whether this is an inventory-only device.
- Is Device Lost: Specifies whether the device has been flagged as lost. Since,it was not communicating with an agent.
- Is Device Managed: Specifies whether the device is managed by ZCM.
- Is Device Retired: Specifies whether the device is retired.
- Is Primary User Calculated: Specifies whether the primary user is determined by the device.
- Language: Language of the operating system installed on the managed device.
- Last Contact: The date and time of the last contact with the Adaptive Agent.
- Last Full Refresh: The last time that the device refreshed its information (bundles, policies, configuration information, registration information, and so forth).
- Location: Location of the device. This is not the network location, but a location assigned by the administrator for grouping the device.
- Managed device count: Number of managed devices.
- Non Compliance Count: Number of items that are not compliance with a device.
- Non Compliant Device Count: Number of devices that are non-compliant.
- Normal Device Count: Number of normal status devices.
- **OS Name:** The short name of the operating system.
- OS Product Name: Name of the operating system.
- Owner:
- Platform: The platform that supports the device (Linux or Windows).
- Primary User: The primary user associated with the device. If no user is associated, the field is empty.
- Retired Date: Date on which the device expired.
- Serial Number: The serial number of the device.
- **Site:** Name of the site where managed device is located. The site associated with the device. This is assigned by the administrator for proper grouping of device.
- Time Zone: Number of hours offset from UTC where the device is located.
- Warning Count: Number of warnings for a device.
- Warning Device Count: Number of devices that have a warning status.
- ZENworks Agent Version: Current version of the ZENworks Adaptive Agent on this
  device.

# Out of Band Power Management

- Current Power State: Current status of the power.
- Device Path: Path where a device is located.
- Device Time:
- Last Power State: The last status of the power.

- Machine Name: Name of the machine.
- Power Action Initiated by: Name of the user who initiated the power action.
- Power Management Action: The action initiated by the power management.
- Server Time:
- Status:

#### System Messages

- Component Name: The ZENworks component that provided the message component name.
- Date Time Acknowledged: The date and time when the message was acknowledged.
- Date Time Logged: The date and time when the message was logged.
- Message: Message code received from the device. Message description is the actual message.
- **Message Description:** The detailed information about the message.
- Severity: The severity of the event referenced in the message.
- Total Error Messages: Total number of error messages.
- **Total Information Messages:** Total number of information messages.
- Total Messages: Total number of messages.
- Total Warning Messages: Total number of warning messages.
- System Statistics: ZENworks operation statistics.
  - **Server Folder:** Folder path to the server in the ZCM hierarchy.
  - Server Name: Name of the server.
  - Server Type: The type of ZCM server.
  - Server Name Last Calculation Time: The time when the last server statistics were calculated.
  - Server Name Has Time Synchronized: Specifies whether ZENworks server is synchronized with the time server.
  - Server Name Devices Accessing: Number of devices accessing the system.
  - Server Name Users Accessing: Number of users accessing the system.
  - Server Name Images Taken: Number of images created.
  - Server Name Images Restored: Number of images pushed out.
  - Server Name PXE Boot Queries: Number of devices gueried through PXE at boot-up.
  - Server Name Policies Delivered: Number of policies delivered.
  - Server Name Bundles Delivered: Number of bundles delivered.
  - Server Name Content Delivered: Number of content items delivered.
  - Server Name Maximum Bundle Size: Size of the largest bundle created.
  - Server Name Average Bundle Size: Average size of all bundles created.
  - Server Name Maximum Content Size: Size of the largest content created.
  - Server Name Average Content Size: Average size of all content created.
  - Server Name Content Used Disk Space: Amount of disk space used by content.
  - Server Name Database Used Disk Space: Amount of disk space used by the database.
  - Server Name Total Connections Today: Total connections to the database today.

- Server Name Average Connections Per Day: Average connections per day.
- Server Name Maximum Connections: Maximum number of connections for any day.
- Server Name Peak CPU Usage: Peak CPU usage for the server in MH .
- Server Name Average CPU Usage: Average CPU usage.
- Server Name Number of Tracking Days: Number of tracking days.

# System Update

- Applied Date: Applied date of the System Update or PRU.
- Download Date: Download date of the System Update or PRU.
- Importance: Importance of the System Update or PRU.
- Release Date: The release date of the System Update or PRU release date.
- Target Type: The target device types for the update (ZEN Server, Managed Device, Imaging, and Reporting).
- **Update Name:** System Update name or Product Recognition Update (PRU).
- Update Status: Status of System Update or PRU in the zone (Error, Cancelling, Cancelled, Available, Downloading, and Importing).
- Update Type: System updated type.
- Device Status
  - Date Applied: Date on which the device is updated.
  - **Device Update Status:** Status of the updated devices (Error, Update Aborted, Status Unknown, Update Assigned, Installing Update, Awaiting Reboot, Reboot In Process, Reboot Process Cancelled, Rebuilding Deployment Packages, Update Completed with Errors, Update Completed, and Update Superceded).
  - **Is Applicable:** Specifies whether the device is applicable for the update.
  - Is Ignored: Specifies whether the device is ignored for the update.
  - Is Timed out: Specifies whether the device is timed out during the update.

#### ZENworks Agent

- Component Name: The component name of the product category.
- **Component Version:** The version of the ZENworks Agent component.

# 1.5 Endpoint Security Universe Objects

The following universe objects are used in ZENworks Control Center under the Endpoint Security component:

- Endpoint Security: The reporting objects about the Endpoint Security.
- Endpoint Security Policies: The reporting objects about the Endpoint Security Policies.
  - Apply As Default Policy: Specifies whether this is a default policy.
  - Date Created: Date on which the policy was created.
  - Date Modified: Date on which the policy was modified.
  - Include Default Policy: Specifies whether the default policy is included.
  - Inherit Update Messages: Specifies whether the updated messages were received.
  - Is Deleted: Specifies whether the policy has been deleted from ZENworks.
  - Is End Point Security Policy: Specifies whether this an Endpoint Security Policy.

- Is Global Policy: Specifies whether this is a global policy.
- Is Inherited from Hierarchy: Specifies whether this policy is inherited from the hierarchy.
- Is location based: Specifies whether this is a location based policy or not.
- **Is policy Enabled:** Specifies whether the policy is enabled or not.
- **Is Sandbox:** Specifies whether this is a sandbox version of the policy or not.
- Latest Policy Version: Specifies whether this is the latest version of the policy or not.
- Policy Description: The description of the policy.
- Policy Folder: The path to the folder where the policy is located.
- Policy Location: Location of the policy.
- Policy Name: Name of the ZESM policy.
- Policy Type: The type of policy. The values are ZESM Application Control Policy, ZESM
  Comm Hardware Policy, ZESM Data Encryption Policy, ZESM Firewall Policy, ZESM
  Location Assignment Policy, ZESM Security Settings Policy, ZESM Storage Control Policy,
  ZESM USB Connectivity Policy, ZESM VPN Enforcement Policy, and ZESM Wireless
  Policy.
- Policy Version: Version of the policy.
- Effective Policy
  - Device ID: The device ID of an effective policy.
  - Timestamp: The timestamp for an effective policy.
- Policy Specific Attributes: The specific attributes of the policy.
  - Application Control
    - Application Control List
      - ACL Order: Order of the Application Control List (ACL).
      - Application Control List Name: Name of the application control list.
      - Application Name: Name of the application.
      - Default Behavior
        - No Execution: Blocks the application from executing and blocks a nonexecutable file from opening.
        - No Internet Access: Blocks the application from accessing the Internet.
        - No Restrictions: Clears the restrictions if any (No Execution or No Internet Access) from the application. This enables you to override any restrictions for the application that are received from another application control policy.
      - **Description:** The description of the application control list.
      - **Is Enabled:** Specifies whether the application control list is enabled or not.

#### Communication Hardware

- Adapter Bridging: Bridging enables the device to act as a hub for accessing the multiple network segments.
- Allowed Communication Hardware: This hardware is allowed to communicate.
- **Disabled Communication Hardware:** This hardware is disabled to communicate.
- Hardware Type ID: An ID assigned to the hardware type.
- Hardware with Global Settings: This hardware is configured with global settings.

- Is Adapter Bridging Message Disabled: Specifies if adapter bridging is disabled.
- Adapter Bridging Message
  - Display Text: Message of the adapter bridging.
  - Include Message Hyperlink: Specifies whether message hyperlink is included or not.
  - Link: The message hyperlink.
  - Message Body: Body of the adapter bridging message.
  - **Message Title:** Title of the adapter bridging message.
  - Parameters: The message link parameters.

#### Approved Adapters

- Approved Dialup Adapters
  - Dialup Adapter Name: Name of the dialup adapter.
- Approved Wired Adapters
  - Adapter MAC Address: A MAC address of the approved wired adapter.
  - Adapter Name: Name of the approved wired adapter.
- Approved Wireless Adapters
  - Adapter MAC Address: A MAC address of the approved wireless adapter.
  - Wireless Adapter Name: Name of the approved wireless adapter.

### General Settings

- 1394 (FireWire): Controls the IEEE 1394 Fire Wire bus.
- Bluetooth®: Controls the Bluetooth access port.
- **Dialup:** Controls the dialup adapters (modems).
- IrDA®: Controls the infrared access port.
- Serial and Parallel: Controls the serial and parallel communication ports.
- Wired: Controls the wired network adapters. This setting is available only for location-based policies.
- Wireless: Controls the Wi-Fi network adapters.

# Data Encryption

- Decryption
  - Is Policy Password Enabled for Decryption: Specifies whether the policy password is enabled for description or not.
  - Is Strong User defined Password Required: Specifies whether a strong user-defined password is required for decryption or not.
  - Is User defined Secondary Passwords Allowed: Specifies whether userdefined secondary passwords are allowed for decryption or not.

#### Removable Storage Devices

- Copy Decrypt Tool to RSD: Specifies whether to copy a decrypt tool to a Removable Storage Devices (RSD) or not.
- Is RSD Encryption: Specifies whether encryption is enabled for RSDor not.
- Is RSD Strong Password required: Specifies whether a strong password is required for RSD or not.

- Is RSD User-defined Password enabled: Specifies whether user-defined password is enabled for RSDs or not.
- RSD Encrypted Folder Name: An encrypted folder name of the RSDs.

# Safe Harbor Encryption

- Is Safe Harbor Encryption for Fixed Disks enabled: Specifies whether the safe harbor encryption for fixed disks are enabled or not.
- Is Safe Harbor User Folders Allowed: Specifies whether safe harbor user folders are allowed or not.
- Safe Harbour Folder Location: The location of the safe harbour folder.

#### Firewall

- **Default Behavior:** The default behavior is applied to all ports and protocols unless it is overridden by a port, protocol rule, or an Access Control List (ACL). The possible default behavior is Stateful, Open, Closed, or Inherit.
- Disable Windows Firewall and Register ZESM Firewall in WSC: Specifies whether the Windows firewall is disabled and the ZESM firewall isregistered in WSC.

#### Port or Protocol Rules

- Default Behavior: The default behavior is Stateful, Open, Closed, or Inherit.
- **Description:** Description of the port or protocol rule.
- **Is Enabled:** Specifies whether the port or protocol rule is enabled or not.
- Name: Name of the port or protocol rule.
- Port or Protocol Order: The sequential order of the port or protocol.
- Port Type
  - End Range: Ending range of the port.
  - Port Type Order: The order of the port types.
  - Port or Protocol Type: The type of port or protocol.
  - Start Range: Starting range of the port.

### Standard Access Control Lists

- Allow 8021x: Specifies whether 802.1X is allowed or not. 802.1x is a
  port-based network access control that uses Extensible Authentication
  Protocol (EAP) or certificates.
- ARP: Specifies whether Add or Remove Program (ARP) is allowed or not.
- Ethernet Multicast: Specifies whether ethernet multicast is allowed or not.
- ICMP: Specifies whether the Internet Control Message Protocol (ICMP) is allowed or not. ICMP is used by the operating system of network computers to send the error messages.
- **IP Multicast**: IP multicast is a method of sending Internet Protocol datagrams to a group of receivers in a single transmission.
- IP Subnet Broadcast: Value stating whether the ACL type IP subnet broadcast, subnet broadcast packets is allowed or inherited from the policy that is assigned higher in the policy hierarchy.
- LLC: Specifies whether the Logical Link Control (LLC) is allowed or not.

- SNAP: Specifies whether Subnetwork Access Protocol (SNAP) is allowed or not.
- ZENworks Server: Specifies whether ZENworks service is allowed or not.

#### Access Control Lists

- ACL Behavior: Behavior of the access control list.
- ACL Order: The sequential order of the ACL.
- Description: Description of the access control list.
- Is Enabled: Specifies whether the ACL is enabled or not.
- Is Port Rule Configured: Specifies whether the port rule is configured for the ACL or not.
- Name: Name of the ACL.
- Configured Port Rule
  - **Default Behavior:** Default behavior of the port rule.
  - **Description:** Description of the port rule.
  - **Is Enabled:** Specifies whether the port rule is enabled or not.
  - Name: Name of the port rule.
  - Port Types
    - End Range: The ending range of port type.
    - Port/Protocol Type: The type of port or protocol.
    - Start Range: The starting range of port type.

# Address Types

- Address Type: The type of network address (IP address or Mac address).
- Address Type Order: The sequential order of the address type.
- IP or Mac address: The network IP address or Mac address.

### Location Assignment

- Allow Manual Change: Specifies whether the manual change is allowed (Yes, No, or Inherited).
- Display Message: Specifies whether the message should be displayed or not.
- Is Default Location: Specifies whether this is a default location or not.
- Location Name: Name of the location.
- Show Location in Agent List: Specifies whether the location in the agent list must be displayed (Yes, No, or Inherit).
- Custom Message
  - Display Text: Display text of the custom message.
  - Include Message Hyperlink: Specifies whether the message hyperlinks must be included in the custom message or not.
  - Message Body: In a Location Assignment Policy, body of the message is displayed when location changes.
  - Message Hyperlink: In Location Assignment Policy, hyperlink is displayed when location changes.
  - Message Title: The title of the message.

• Parameters: The custom message parameters.

### Scripting

# Script settings

- Language: Language of the Script. Possible values can be J script or VB script.
- Run As: The context in which script would run. Possible value is system or user.
- Script Content: Actual content of the script.
- Trigger settings

### Agent triggers

- On Network change: If the script is executed any time the agent detects a network change that could affect the location assignment.
- On Network connect: If the script is executed any time a network connection occurs. This could be a wired network that is detected after plugging in a network cable, a wireless network detected through an access point, or a network detected through a modem.
- On Network disconnect: If the script is executed any time a network might disconnect.
- On policy enforcement: If the script is executed any time this policy is enforced.
- On security policy change: If the script is executed any time the agent receives a change to any of the security policies (Firewall, Communication Hardware, and so forth).

# Location triggers

- Is Location trigger enabled: Specifies whether the location trigger must be enabled or not.
- Is Manual change must: Specifies whether the change must be done manually.
- Switching from location: Name of the location, from which the device is switching, after executing the script.
- **Switching to location:** Name of the location, to which the device is switching, after executing the script.

## Time triggers

- Is Time trigger enabled: Specifies whether the time trigger is enabled or not.
- Time interval (Days): Number of days after initial re-enforcement of the policy that is after executing the script. If the policy is changed and republished, the interval is restarted.
- Time interval (Hours): Number of hours after initial re-enforcement of the policy that is after executing the script. If the policy is changed and republished, the interval is restarted. .
- Time interval (Mins): Number of minutes after initial reenforcement of the policy that is after executing the script. If the policy is changed and republished, the interval is restarted.

#### Security Settings

- Enable Client self-defense: Specifies whether client self-defense is enabled or not.
- Enable Password Override: Specifies whether enable password must be overriden (Yes, No, or Inherit).
- Enable Uninstall Password: Specifies whether uninstall password is enabled or not.

# Storage control

- Auto Play Access: Specifies whether the auto play access is provided to CD or DVD (Disable, Read-Write, Read-Only, Deny access, or Inherit).
- CD or DVD Access: Specifies whether CD or DVD access is allowed (Disable, Read-Write, Read-Only, Deny access, or Inherit).
- Floppy Drive Access: Specifies whether floppy drive access is allowed or not.
- Is Preferred device list enabled: Specifies if the preferred device list is enabled or not.
- Removable Storage Access: Specifies whether removable storage access is allowed (Disable, Read-Write, Read-Only, Deny access, or Inherit).

#### Preferred Device List

- Comments: List of comments for the preferred device.
- **Default Device Access:** The default access for this device.
- Device Description: Description of the device.
- **Device Order:** Preferred sequential order of the device in the list.
- Device Serial Number: Serial number of the preferred device.
- Enforcement: Enforcement for the device.
- Name: Name of the preferred device.

#### • USB

- Default Devices Access: Default device access setting (Enabled, Disabled, or Inherit).
- Human Interface Devices Access: Human interface devices access setting (Enabled, Disabled, or Inherit).
- Mass Storage Class Access: Mass storage class device access setting (Enabled, Disabled, or Inherit).
- Printing Class Access: Printing class device access setting (Enabled, Disabled, or Inherit).
- Scanning or Imaging (PTP) Access: Scanning or Imaging device access setting (Enabled, Disabled, or Inherit).
- USB Devices Access: Specifies whether an USB device access setting is enabled or not.

#### USB Device Access

- Allowed USB Devices: Number of USB devices allowed to access.
- BDC Device: The value of BDC device to which the USB device belongs to.
- Blocked USB Devices: .
- Device Access: Specifies whether the device access setting is enabled, disabled, or inherit.

- Device Access Sequence: The device access sequence.
- Device Class: Value of the device class to which the USB Device belongs to.
- **Device Protocol:** Protocol used for this device.
- Device Sub-Class: Value of the device sub-class to which the USB Device belongs to.
- Friendly Name: Friendly name of the device.
- Manufacturer: Manufacturer of the device.
- Name: Name of the device
- OS Device Class: The device class of the operating system.
- OS Device ID: Operating system device ID.
- Product: The product name of the device.
- Product ID: The product ID of the device.
- Serial Number: Serial number of the device.
- Vendor ID: The vendor ID of this device.
- USB Version: USB version of the device.

#### VPN Enforcement

- Switch to Location: Name of the switched location.
- Trigger Locations Name: The trigger location name.
- Connect Settings
  - Connect Command Link: Executable path of the VPN client, if the VPN client is automatically launched on detection of internet.
  - Connect Command Param: The connect command parameters.
  - Disconnect Command Link:
  - **Disconnect Command Param:** The disconnect command parameters.
  - Use Connect Command: The use connect command.
  - Use Disconnect Command: Specifies whether the use disconnect command is allowed or not.
  - Use VPN Message: Specifies whether the VPN message is allowed or not.
  - VPN Message
    - Display Text: The VPN message display text.
    - Include Message Hyperlink: Specifies whether the message hyperlink is included in the VPN message or not.
    - Link: The link in the VPN message.
    - Message Body: The body of the VPN message.
    - Message Title: The title of the VPN message.
    - Parameters: The link parameters in the VPN message.

#### • Wi-Fi®

- Ad Hoc connections: For the policy whether Adhoc connections are allowed or inherited.
- **Display message when min security not met:** This message is displayed when the minimum security requirement has not been met.

- Minimum Wi-Fi ® security: Wi-Fi minimum security (No Encryption, WEP, WPA, WPA2, or Inherit).
- Wi-Fi ® connections:
- Minimum Security Message
  - Display Text: Displays the text about the connect command link.
  - Include Message Hyperlink: Specifies whether hyperlink message is include in the minimum security message or not.
  - Link: The link provided in the minimum security message.
  - Message Body: The body of the minimum security message.
  - Message Title: The title of the minimum security message.
  - Parameters: The link parameters of the minimum security message.

#### Wi-Fi ® Access Points

- Access Points Order: Order in which access point are maintained in list.
- **Enforcement:** Specifies whether an enforcement of the wireless access point is white list or black list.
- Mac Address: MAC address of the wireless access point.
- Name: Name of the wireless access point.
- **SSID:** The Service Set Identifier (SSID) is controlled by the Wireless Access Point (WAP) for the network.

#### Zone Policy

- Created Date: Date on which the zone policy is created.
- Is Currently Effective: Specifies whether the zone policy is currently effective.
- Modified Date: Date on which the zone policy was modified.
- Path: The full path of the zone policy.
- Policy Sequence: The sequence of the zone policy.
- **Zone Policy:** Name of the zone policy. This provides the level of assignment for the zone policy setting.

# Policy Assignments

- Assignment Status: The assignment status of a bundle or policy to a device or a user.
- Assignment Type: The type of assignment (bundle, policy, and so on).
- Consumer Folder: Path to the device consuming an assignment.
- Consumer LDAP ID: The User Source UID in the LDAP user source. This is used for getting detailed user information such as the user's name, email ID, phone number, and so on from reports created from the user source universe.
- Consumer Name: Name of the device consuming an assignment.
- Consumer ZUID: A unique ID that identifies a user or device in the ZENworks environment.
- Content Folder: Name of the folder holding the bundle or policy content.
- Content Name: Name of the object holding the content bundle, policy, and so on.
- Content Parent Folder: Path to the parent folder for the assignment.
- Content Parent Name: Name of the parent object holding the content bundle, policy, and so on.
- Content Server: Name of the content server associated with the assignment.

- Content Server Folder: Path to the content server.
- Content Server Type: The type of the content server.
- Content Type: Type of content for an assignment.
- Effective Date: The effective date indicates the date on which the policy was created.
- Is Zone policy Assignment: Specifies whether this policy is assigned through the zone policy or not.
- Replication State: The content replication status SYNCSTATE.
- Consumer Name Devices: Name of the consumer devices.
- Consumer Name Users: Name of the users to which the policy assignment is done.

# 1.6 Inventory Management Universe Objects

The following universe objects are used in ZENworks Control Center under the Inventory Management component:

## Device Change History

- Change Date: Date on which the device is changed.
- Change New Value: The new field value.
- Change Old Value: The old field value.
- Change Source: Where the change originated within the application.
- Change Type: The type of change Created, Edited, Deleted, Moved, and Retired.
- Changed Field: The label for the field changed.
- Date System Added: Date on which the system is added.
- Date System Deleted: Date on which the system is deleted.
- Change Modifies (Device): Number of edited records within time scope of report.
- Change Total (Device): Total number of records within time scope of report.
- Deleted Devices: Number of deleted records within time scope of report.
- New Devices: Number of created records within time scope of report.

#### General Device Attributes

- Are Virtual Machines Hosted: Specifies whether Virtual Machines are hosted on this
  device or not.
- Device ZUID: A unique ID that identifies a device in the ZENworks environment.
- DNS Name: The DNS name of the device.
- Entered User Email: The email address of the user.
- Entered User Fax: The fax number of the user.
- Entered User First Name: The first name of the user.
- Entered User Last Name: The last name of the user.
- Entered User Middle Name: The middle name of the user.
- Entered User Name: The first, middle, and last names of the user.
- Entered User Phone: The phone number of the user.
- **Inventory Type:** The inventory type of the device.
- Is Machine Virtual: Specifies if this is a virtual machine or not.

- Login Name: The login name of the last logged in user.
- Machine GUID: A unique ID that identifies a managed device in the ZENworks environment.
- Machine Name: The machine name of the device.
- Platform: The basic device platform Windows, Linux, and so on.
- Primary User Name: The primary user of the device based on an authoritative source.
- Virtual Machine Type: Type of the virtual machine, such as VMWare and Virtual PC.
- Guest VM Count: Number of Virtual Machines on a particular device.
- Managed Device Count: Number of managed devices with inventory processed.
- System Profile
  - Available Memory Slots: The number of open memory slots.
  - **Building:** The building where the device is located.
  - Cost Center: The cost center associated with the device.
  - CPU Product Name: The product name of the CPU.
  - CPU Speed (MHz): The speed of the CPU.
  - **Default Gateway:** The default network gateway for the device.
  - **Department:** The department associated with the device.
  - Floor: The floor in the building where the device is located.
  - Free Disk Space (MB): Total free hard disk space on the device.
  - Hard Disk Space (MB): Total hard disk space on the device.
  - IP Address: IP address of the device.
  - LAN Address: The LAN address of the device.
  - Operating System: Operating system manufacturer, product name, and version.
  - **OS Build:** The build number of the operating system.
  - OS Manufacturer: The manufacturer of the operating system.
  - OS Product Name: The product name of the operating system.
  - OS Service Pack: Operating system service pack.
  - OS Version: Operating system version.
  - **Phone:** The phone number associated with the device.
  - Room: The room where the device is located.
  - Site: The site where the device is located.
  - **Subnet Mask:** The network subnet mask for the device.
  - System Asset Tag: The system asset tag.
  - System Chassis: The chassis type of the device Laptop, Desktop, Server, and others.
  - System Description: The details of manufacturer, product name, and model of the system.
  - System Manufacturer: Name of the system manufacturer.
  - System Model: The model of the system.
  - System Product Name: The system product name.
  - System Serial Number: The system serial number.

- Total Memory (MB): Total amount of memory in the device.
- Windows Domain: The Windows domain with which the device is associated.
- **CPU Count:** The number of processors used in the device.
- Virtual Machines: Basic information about the virtual machines.
  - **Guest VM Display Name:** Name displayed by the virtual machine.
  - Guest VM Guest OS: Operating system running on the virtual machine.
  - Guest VM LAN Address: The LAN address for the virtual machine.
  - Guest VM Type: The virtual machine type. For example, VMWare and Virtual PC.

#### General Device Status

- Device Create Date: Date on whichDate on which device data was created.
- Device Date Last Modified: Date on which device data was last modified.
- Device Retired Date: Date on which the device was marked as retired.
- Is Device Inventoried: Specifies whether this is an inventory-only device or not.
- Is Device Managed: Specifies whether the device is managed by ZCM or not.
- Is Device Migrated from ZAM: Specifies whether the device is migrated from ZENworks Asset Management or not.
- Is Device Retired: Specifies whether the device is retired or not.
- Last Successful Load: Date on which the data for the device was loaded into the database.
- Last Successful Scan: Date on which the inventory was scanned.
- Inventoried Device Count: Number of inventoried devices.
- Managed Device Count: Number of managed devices.
- Retired Device Count: Number of retired devices.

#### General Product Information

- · Hardware Products: Specifies whether the products are hardware products or not.
- MAC Products: Specifies whether the products are MAC products or not.
- **Product Description:** The details of the product, such as product manufacturer, name, and version.
- Product Manufacturer: Name of the product manufacturer.
- Product Name: Name of the product.
- **Product Source:** The source of the product, where it was defined.
- **Product Type:** The product type software, operating system, system, monitor, printer, and so on.
- Product Version: The version of the product.
- Software Products: Specifies whether the products are software products or not.
- UNIX Products: Specifies whether the products are Unix products or not.

### Inventory Administrator Defined Fields

- Component ADFs: Administrator Defined Fields (ADFs) associated with software and hardware.
- **Product ADFs:** Administrator Defined Fields (ADFs) associated with recognized products.
- User ADFs: Administrator Defined Fields associated with users.
- Workstation ADFs: Administrator Defined Fields associated with workstation devices.

- Software and Hardware Information: The details of inventoried software and hardware.
  - Hardware Model: The model of the hardware.
  - **Is Hardware Active:** Specifies whether the hardware is active.
  - Is Hardware Retired: Specifies whether the hardware is retired.
  - Is Product Merged: Specifies whether the product has been merged with the knowledge base.
  - Is Software Active: Specifies whether the software is active.
  - Is Software Retired: Specifies whether the software is retired.
  - Product Asset Tag: The product asset tag.
  - Product Category: The product category.
  - Product Date Last Modified: Date on which the product was last modified.
  - Product Deletion Date: Date on which the product was deleted.
  - **Product Description:** The details of the product with product manufacturer, name, and version.
  - Product First Discovered Date: Date on which the product was first discovered.
  - Product Manufacturer: The manufacturer of the product.
  - Product Name: Name of the product.
  - Product Retirement Date: Date on which the product was retired.
  - **Product Serial Number:** The serial number of the product.
  - Product Source: The source of the product, where it was defined.
  - Product Subcategory: The product subcategory.
  - Product Type: The product type software, operating system, system, monitor, printer, and so on.
  - Hardware Count: Amount of hardware assessed against other filtering criteria.
  - **Software Version:** The version of the software.
  - Software Count: Amount of software measured against other filtering criteria.
  - File Scan Information: Information about the files that are not associated with recognized software.
    - File Category: The file scan category System, Ancillary, Other, None.
    - File Count: The number of files measured against other filtering criteria.
    - File Date: Date on which the file is scaned.
    - File Extension: The type of file.
    - File Folder: The path at which the file is located.
    - File Name: Name of the file.
    - File Size: The size of the scanned file.
    - VRB Company: The company name from the Version Resource Block (VRB).
    - VRB File Version: The file version from the VRB.
    - VRB Language: The file language from the VRB.
    - VRB Product Name: The product name from the VRB.
    - VRB Product Version: The product version from the VRB.
    - File Count (Unique): Number of unique files measured against other filtering criteria.

- File Installations: Summary of the number of installations for this file.
- Hardware Change History: The details of the hardware changes.
  - Change Date (HW): Date on which the hardware data was changed.
  - Change New Value (HW): The new field value.
  - Change Old Value (HW): The old field value.
  - Change Source (HW): Where the change originated within the application.
  - Change Type (HW): The type of change created, edited, deleted, moved, retired.
  - Changed Field (HW): The label for the changed field.
  - Change Creates (HW): Number of created records within the time scope of the report, filtered for hardware.
  - Change Deletes (HW): Number of deleted records within the time scope of the report, filtered for hardware.
  - Change Modifies (HW): Number of modified records within the time scope of the report, filtered for hardware.
  - Change Moves (HW): Number of moved records within the time scope of the report, filtered for hardware.
  - Change Retires (HW): Number of retired records within the time scope of the report, filtered for hardware.
  - Change Total (HW): Number of records within the time scope of the report, filtered for hardware.
  - **Deleted Products:** Number of products marked as deletion within the time scope.
  - **New Products:** Number of product records marked as created within the time scope.

## Hardware Specific Attributes

# AC Power Policy

- IDle Action Policy: Based on the power policy, a device might change to an idle state if it is not used for a period of time. The possible values are Hibernate, Sleep, Standby, None, and so on.
- IDle Hard disk Timeout (Minutes): Based on the power policy, if a device is not used for a period of time (in minutes), the hard disk might be turned off.
- **IDle monitor timeout (Minutes):** Based on the power policy, if a device is not used for a period of time (in minutes), the monitor might be turned off.
- System hibernate timeout (Minutes): Based on the power policy, if a device is not used for a period of time (in minutes), the device might be hibernate.
- System standby timeout (Minutes): Based on the power policy, if a device is not used for a period of time (in minutes), the device might be change to standby state.

### • BIOS

- BIOS DMI Version: The version of the Desktop Management Interface (DMI) System Management BIOS (SMBIOS).
- BIOS Family: The Basic Input or Output System (BIOS) family.
- BIOS Release Date: The release date of the BIOS.
- BIOS Version: The version of the BIOS.
- Is ACPI Supported: Specifies whether Advanced Configuration and Power Interface (ACPI) is supported or not.

- **Is APM Supported:** Specifies whether Advanced Power Management (APM) is supported or not.
- CD or DVD Drives: The details of the CD or DVD drives.
  - CD or DVD Device Type: The drive device type CD Reader, DVD ROM, CDR, and so on.
  - CD or DVD Drive Count: Number of CD or DVD drives in a device.
  - CD or DVD Drive Letter: The letter of this drive.
  - CD or DVD Interface Type: The drive interface type IDE, SCSI, USB, and FireWire.

#### • CPUs

- Core Count: Number of Central Process Unit (CPU) cores.
- CPU Speed (MHz): The speed of the CPU.
- CPU Type: The type of the CPU.
- Family: The CPU family.
- Is 64 Bit: Specifies whether it is a 64-bit CPU or not.
- **Is Hyper-Threaded:** Specifies whether the CPU hyper-threaded.
- **Is MMX Supported:** Specifies whether the CPU supports MMX.
- Model: The CPU model.
- Stepping: The CPU stepping result.
- Vendor ID: The manufacturer of the CPU.

#### Disk Drives

- **Disk Drive Count:** Number of disk drives in a device.
- Disk Drive Number: The drive number of the disk.
- **Disk Interface Type:** The type of drive interface IDE, SCSI, USB, or FireWire.
- Disk Space (MB): Total disk capacity.
- Is SMART Supported: Specifies whether the Self-Monitoring, Analysis, and Reporting Technology (SMART) is supported by disk drive or not.
- Logical Drives: A list of drive letters on this disk.

#### Floppy Drives

- Floppy Capacity (MB): The storage capacity of the drive.
- Floppy Drive Letter: The drive letter of the floppy.

#### Kevboards

• **Keyboard Interface Type:** The drive interface type – PS/2, USB, and unknown.

#### LAN Adapters

- IP Address (Adapter): IP address that is mapped to the adapter.
- LAN Adapter Count: Number of LAN adapters for a device.
- LAN Address (Adapter): The 48-bit Ethernet address associated with this card.
- Subnet Mask (Adapter): The subnet masks that are assigned to this adapter.

# Logical Drives

- Available Space (MB): The free space available on this drive.
- Drive Letter: The drive letter.

- Drive Number: The number of the drive.
- Drive UNC Path: The Universal Naming Convention (UNC) path of the drive.
- File System: The file system type FAT, FAT32, NTFS, and so on.
- Is Drive Remote: Specifies whether the logical drive remote is connected to the device.
- Logical Drive Count: Number of logical drives in a device.
- Logical Number: The sequential number of this drive on the disk.
- Total Space (MB): Total space on this drive.
- Volume Label: The volume label of the drive.
- Volume Serial Number: The serial number of the drive.

# Memory Modules

- Form Factor: The memory form factor DIMM and SIMM.
- Is ECC Present: Specifies whether error checking and correction are available.
- Is Parity Present: Specifies whether the parity bit is available.
- Memory Module Count: Number of memory modules for a device.
- Memory Speed (ns): Access time in nanoseconds.
- **Memory Type:** Type of memory DDR, DDR2, SDRAM, and so on.
- Module Size (MB): The size of the module in MB.
- **Socket:** The socket designator for the module.

#### Mice

 Mouse Interface Type: The mouse interface type – PS/2, serial, USB, Bus, and InPort.

#### Modems

- Modem Comm Port: The communications port to which the modem is attached.
- Modem Speed (bps): The maximum speed of the modem.
- Modem Type: The type of modem—internal, external, and PC Card.

#### Monitors

- CRT Monitors: The details of CRT monitors.
- Diagonal Size (Inches): The calculated diagonal size.
- **Display Type:** The type of display.
- **EISA Manufacturer:** The manufacturer of Extended Industry Standard Architecture (EISA) cards.
- Monitor Count: Number of monitors assigned to a device.
- Non CRT Monitors: Number of non-CRT monitors.
- VESA Product: The product name.
- Week Manufactured: The week of the year (1-52) in which the product was manufactured.
- Year Manufactured: The year in which product was manufactured.

# Network Drivers

- Network Driver Description: The network driver description.
- Network Driver File: The network driver file name.

Network Driver File Version: The file version of network driver.

#### Parallel Ports

- **Is ECP Supported:** Specifies whether the Extended Capabilities Port (ECP) is supported.
- **Is EPP Supported:** Specifies whether the Enhanced Parallel Port (EPP) is supported.
- Parallel Port Logical Name: Name of the port, for example, LPT1.

#### Power Capability

- **Is APM Supported:** Specifies whether the APM is Supported.
- Is Disk Spin Down Supported: Specifies whether disk spin down is supported.
- Is Processor Throttling Supported: Specifies whether the processor throttling is supported.
- Is S1 ACPI Sleep State Supported: Specifies whether the S1 Advanced Configuration and Power Interface (ACPI) sleep state is supported.
- Is S2 ACPI Sleep State Supported: Specifies whether the S2 ACPI sleep state is supported.
- Is S3 ACPI Sleep State Supported: Specifies whether the S3 ACPI sleep state is supported.
- Is S4 ACPI Sleep State Supported: Specifies whether the S4 ACPI sleep state is supported.
- Is S5 Power Off State Supported: Specifies whether the S5 ACPI sleep state is supported.
- Is Video Dimming Supported: Specifies whether video dimming is supported.
- Is Wake-Up Supported: Specifies whether wake-up is supported.

#### Printers

- IP Address (Printer): Specifies the IP address of the printer.
- **Is Printer Remote:** Specifies whether the printer is a remote to the device.
- Printer Count: Number of printers associated with a device.
- Printer Driver: The printer driver name.
- Printer Port: The port to which the printer is assigned. For an example, LPT1.
- Printer UNC Path: The UNC path of the printer.
- Windows Name: The Windows name provided to the printer.

### Removable Media Drives

 Removable Media Interface Type: The removable media drive interface type – IDE, SCSI, USB, or FireWire.

#### Serial Ports

• Serial Port Logical Name: Name of the port. For an example, COM1.

#### System Boards

- Bus1 Slots: The number of slots for the first bus.
- Bus 1 Type: The bus type ISA, PCI, MCA, EISA, PCMCIA, and VL.
- Bus 2 Slots: The number of slots for the second bus.
- Bus 2 Type: The bus type ISA, PCI, MCA, EISA, PCMCIA, and VL.
- L2 Cache Size: The size of the L2 cache.

- L2 Cache Speed (ns): The access time of the L2 cache in nanoseconds.
- L2 Cache Write Policy: The L2 cache write policy write back, through, and variable.
- System Board ID: The ID assigned to the system board.
- System Board Revision: The motherboard version.

#### System Resources

- **Description:** Name of the system associated with this resource information.
- **DMAs:** The direct memory access data for the system.
- I/O Map: The I/O map for the system.
- IRQs: The interrupt request settings for the system.
- Memory: Memory details of the system.
- Systems: The system details.
  - Chassis Type: The type of chassis.
  - Cover Removal Date: Date on which the cover was removed.
  - Cover Removed: Specifies whether the cover has been removed.
  - Thermal State: The thermal state of the system.

#### Video Adapters

- Adapter Memory Size: The memory size of the adapter.
- Adapter Memory Type: The memory type of the adapter.
- Bits per Pixel: The number of bits per pixel.
- Minimum Horizontal Resolution: The minimum horizontal resolution.
- Minimum Refresh Rate: The minimum refresh rate.
- Minimum Vertical Resolution: The minimum vertical resolution.
- Minimum Horizontal Resolution: The minimum horizontal resolution.
- Minimum Refresh Rate: The minimum refresh rate.
- Minimum Vertical Resolution: The minimum vertical resolution.
- Pixel Shader Major Version: The major version of the Pixel Shader software changes.
- Pixel Shader Minor Version: The minor version of the Pixel Shader software changes.
- Video Adapter Count: The number of video adapters for a device.

# Software Change History

- Change Date (SW): Date on which the software data was changed.
- Change New Value (SW): The new field value for the software.
- Change Old Value (SW): The old field value for the software.
- Change Source (SW): Specifies whether the change was originated within the application.
- Change Type (SW): The type of change created, edited, deleted, moved, and retired.
- Changed Field (SW): The label for thechanged field.
- Change Creates (SW): Number of records created within the time scope of the report, filtered for software.
- Change Deletes (SW): Number of deleted records within the time scope of the report, filtered for software.

- Change Modifies (SW): Number of records modified within the time scope of the report, filtered for software.
- Change Moves (SW): Number of records moved within the time scope of the report, filtered for software.
- Change Retires (SW): Number of records retired within the time scope of the report, filtered for software.
- Change Total (SW): Number of records within the time scope of the report, filtered for software.
- **Deleted Products:** Number of product records marked for deletion within the time scope.
- New Products: Number of product records marked as created within the time scope.
- Software Specific Attributes: Additional details about specific types of software.
  - Distribution Model: How the product is sold commercial, freeware, shareware, and so on.
  - License Type: The type of license associated with the software Full, Eval, OEM, and so on.

#### Hot Fixes

- Hot Fix Date Installed: Date on which the hot fix was installed.
- Hot Fix Description: The description of the hot fix.
- Hot Fix Registry Key: The registry key that indicates the hot fix has been installed or not.
- Q-Number: The Q- or KB- number of the hot fix.

## Operating Systems

- Boot Drive Letter: The drive from which the OS started (without a colon).
- Boot Time: The time on which system starts booting.
- **Build:** The build string.
- Hours Since Boot: Number of hours since the device last booted up.
- Service Pack: The service pack string.

#### Software Details

- Additional SW Info: Additional details of the software.
- Anti-Spyware Definition: The version of the anti-spyware definition file.
- Anti-Spyware Engine: The version of the anti-spyware recognition engine.
- Anti-Virus Definition: The version of the anti-virus definition file.
- Anti-Virus Engine: The version of the anti-virus recognition engine.
- **Build Number:** The application build number, if recorded.
- Path: The path to the folder where the software resides.

# 1.7 Asset Management Universe Objects

The following universe objects are used in ZENworks Control Center under the Asset Management component:

- Asset Management
  - Application Usage
    - Application User Information: Reporting objects for users who have used applications.
      - App User Email: The email ID of the application user.
      - App User Fax: The Fax number of the user.
      - App User First Name: The user's first name.
      - App User Last Name: The user's last name.
      - App User Middle Name: The user's middle name.
      - App User Name: The entered name elements.
      - App User Phone: The phone number of the user.
      - App User Phone (2): The phone number (2) of the user.
      - Is App User Deleted: Specifies whether the application user is deleted or not.
    - File Scan Usage Information: The usage details of files that are not associated with recognized software.
      - Active Hours File: The active usage time of the application.
      - File Category: The file scan category (System, Ancillary, Other, or None).
      - File Count: Total number of files measured against other filtering criteria.
      - File Count (Unique): Number of unique files assessed against other filtering criteria.
      - File Date: Date on which the file was updated.
      - File Extension: The extension of the file.
      - File Folder: The path where the file is located.
      - File Installations: Summary of the number of installations for this file.
      - File Size: The size of the file.
      - File Name: Name of the file.
      - Startup Count (File): The number of times that the file has been launched (if usage enabled).
      - Used Hours (File): Total execution time.
      - VRB Company: The company name from the Version Resource Block (VRB).
      - VRB File Version: The file version from the VRB.
      - VRB Language: The file language from the VRB.
      - VRB Product Name: The product name from the VRB.
      - VRB Product Version: The product version from the VRB.
    - Local Application Usage: Details for reporting on locally installed applications.
      - Active Hours Local: Total local application active hours measured against other filtering criteria.

- Ave. Usage Days Local: Number of usage days per installed copy that an application was used.
- Current Installations Local: Number of copies of a local application found installed within report parameters.
- First Used (Local): Date when the local application was first used by a particular device.
- Instances Used Local: Number of copies of an application used by a particular user.
- Last Used (Local): Date when the local application was last used by a particular device.
- Local Usage Date: Date of usage for a local application.
- Number of Users (Local): Number of users who used the local application within a selected date range.
- Startup Count (Local): Total number of local application startups measured against other filtering criteria.
- Total Active (Local): Number of installed applications with active time during a selected date range.
- Total Not Used (Local): Number of installed applications without use within a a selected date range.
- Total Used (Local): Number of installed applications with used time during a selected date range.
- Usage Days Local: Number of days a local application was used during a selected date range.
- Used Hours Local: Total local application used hours measured against other filtering criteria.
- Network Application Usage: Details for reporting on network applications.
  - Active Hours (Network): Total network application active hours measured against other filtering criteria.
  - Devices Used From: Total number of device network application installations that were used.
  - First Used (Network): Date when the network application was first used by a particular device.
  - Installations Used: Total count of network application installations used.
  - Last Used (Network): Date when the network application was last used by a particular device.
  - Network App Date Last Modified: Date on which the network application was last modified.
  - Network App Description: The details of application manufacturer name and version.
  - **Network App File Version:** The detailed file version for the network application.
  - **Network App Filename:** The file name of the network application.
  - Network App First Discovered Date: Date on which the network application was first discovered.
  - **Network App Language:** The language for the network application (if available).
  - **Network App Manufacturer:** The manufacturer of the network application.

- **Network App Path:** The path to the network application on the server.
- **Network App Product Name:** The product name of the network application.
- Network App Server: The server where the network application is located.
- Network App Share: The share on the server where the network application was found.
- Network App Version: The version of the network application.
- Network Usage Date: Date of usage for a network application.
- Startup Count (Network): Total number of network application startups measured against other filtering criteria.
- Usage Days: The network application installations that were used for total number of days.
- **Used Hours (Network):** Total network application used hours measured against other filtering criteria.
- Served Application Usage: Details for reporting on served applications.
  - Active Hours (Served): Total served application active hours measured against other filtering criteria.
  - Applications Served: Total number of applications served from a server during the selected date range.
  - Ave. Usage Days (Served): Number of usage days per user that a served application was used.
  - Current Installations (Served): Number of copies of served application found installed within report parameters.
  - Devices Used From: Total number of devices from which the served application was used.
  - First Served: Date on which the served application was first served to a particular device.
  - First Used (Served): Date on which the served application was first used by a particular device.
  - Instances Used (Served): Number of copies of a served application used by a particular user.
  - Last Served: Date on which the served application was last served to a particular device.
  - Last Used (Served): Date on which the served application was last used by a particular device.
  - Number of Users (Served): Number of users who used the served application within a selected date range.
  - Served Usage Date: Date of usage for a served application.
  - Servers Used From: Total number of servers that served an application.
  - Source Device: Name of the device that is hosting the served application.
  - Startup Count Served: Total number of served application startups measured against other filtering criteria.
  - Total Active (Served): Number of served applications with active time during a selected date range
  - Total Not Used (Served): Number of served applications with no used time during a selected date range.

- Total Used (Served): Number of served applications with used time during a selected date range.
- Usage Days (Served): Number of days a served application was used during a selected date range.
- Used Hours (Served): Total served application used hours measured against other filtering criteria.
- Total Local and Served Application Usage: Information for reporting on the combination of local and served applications.
  - Active Hours Combined: Total application active hours measured against other filtering criteria.
  - Ave Usage Days (combined): Number of usage days of application per user.
  - Combined Usage Date: Date of usage for an application.
  - Current Installations (Combined): Number of copies of an application found installed within report parameters.
  - First Used Combined: Date when the application was first used by a particular device.
  - Instances Used (Combined): Number of copies of an application used by a particular user.
  - Last Used Combined: Date on which the application was last used by a particular device.
  - Number of Users (Combined): Number of users who used the application within a selected date range.
  - Startup Count Combined: Total number of application startups measured against other filtering criteria.
  - Total Active (Combined): Number of applications with active time during selected date range.
  - Total Not Used (Combined): Number of applications with no used time during selected date range.
  - Total Not Used (Combined): Number of applications with no used time during selected date range.
  - Total Used (Combined): Number of applications with used time during a selected date range.
  - Usage Days (Combined): Number of days an application was used within a selected date range.
  - **Used Hours Combined:** Number of days the application was used within a selected date range.
- Usage Device Information: Objects for reporting about the devices on which usage data was recorded.
  - **Building:** Name of the building where the device is located.
  - Cost Center: The cost center associated with the device.
  - **Department:** The department associated with the device.
  - Device ZUID: A unique ID that identifies a device in the ZENworks environment.
  - DNS Name: The DNS name of the device.
  - Floor: The floor in the building where the device is located.
  - **Inventory Type:** The inventory type of the device.

- **Is Device Retired:** Specifies whether the device is retired.
- Login Name: The login name of the last logged in user.
- Machine Name: The machine name of the device.
- Phone: The phone number associated with the device.
- **Platform:** The basic device platform Windows, Linux, and so on.
- Room: The room number where the device is located.
- Site: The site associated with the device.
- Usage Product Information: Objects for reporting about products with usage data.
  - Current Installations: Number of copies of a named application found installed within report parameters.
  - Distribution Model: How the product is sold Commercial, Feeware, Shareware, and so on.
  - Is Product Retired: Specifies whether the software product is retired.
  - License Type: The type of license associated with the software Full, Eval, OEM, and so on.
  - Product Asset Tag: The product asset tag.
  - Product Category: The product category.
  - Product Deletion Date: Date on which the product was deleted.
  - **Product Description:** The product manufacturer name and version.
  - Product First Discovered Date: Date on which the product was first discovered.
  - **Product Manufacturer:** The manufacturer of the product.
  - Product Serial Number: The product serial number.
  - **Product Source:** The source of the product where it was defined.
  - Product Subcategory: The product subcategory.
  - Software Version: The version of the software.
  - Product Name: Name of the product.
- Web Application Usage: The details for reporting on web applications.
  - Active Hours (Web): Total web application active hours measured against other filtering criteria.
  - Devices Used From (Web): Total count of devices that web applications were used from.
  - First Used Web: Date on which the web application was first used by a particular device.
  - Last Used Web: Date on which the web application was last used by a particular device.
  - **Number of Users:** Number of users who used the local application within a selected date range.
  - Startup Count (Web): Number of web application startups measured against other filtering criteria.
  - Usage Days: The web application installations that were used for total number of days.
  - **Used Hours (Web):** Total web application hours measured against other filtering criteria.

- Web App Attribute: The web attribute value.
- Web App Attribute Type: The type of web attribute used to identify the application – Title bar or URL.
- Web App Creation Date: Date on which the web application was created.
- Web App Date Last Modified: Date on which the web application was last modified.
- Web App Deletion Date: Date on which the web application was deleted.
- Web App Language: The language of the web application.
- Web App Manufacturer: The manufacturer of the web application.
- Web App Name: Name of the web application.
- Web App Usage Date: Date of usage for a web application.
- Web App Version: The version of the web application.
- **Web Browser Type:** Type of web browser used when running a web application.
- Asset Management Administrator Defined Fields: Groups of Administrator Defined Fields (ADFs) for different parts of the Asset Management database.
  - Contract ADFs: ADFs associated with Contract Management.
  - License ADFs: ADFs associated with License Management.
- Contract Management: The details of the contract management.
  - Contract Details:
    - Contract Description: A description of the contract.
    - Contract ID: A unique ID that is assigned to a contract.
    - Contract Name: Name of the contract.
    - Contract Status: Current status of the contract Pending, Active, or Expired.
    - Contract Total Cost: Total cost associated with the contract.
    - Contract Type: The type of contract Lease, SLA, NDA, Warranty, and so on.
    - Current End Date: The end date of the contract.
    - Internal Contact Email: The email address of the internal contract.
    - Internal Contact Name: Name of the internal contact for the contract.
    - Internal Contact Phone: The phone number of the internal contact.
    - **Is Contract Evergreen:** Specifies whether there is an evergreen option on this contract.
    - Key Terms: Summary of contract terms.
    - Notice Date: Date on which notice of a pending renewal is provided.
    - **Notice Description:** Description to be provided with the renewal notice.
    - Original Start Date: Date on which the contract was started.
    - **Program Name:** Type of vendor program associated with the contract.
    - Renewal Option: Specifies whether there is a renewal option for this contract.
    - Renewal Provision: Description of renewal options for the contract.
    - Time Remaining (Months): The number of months remaining in the contract.
    - Vendor Contract ID: The contract ID for the vendor.

- Contract Documents: The documents associated with contract.
  - **Document Description:** Description of the document.
  - **Document ID:** A unique ID that is assigned to the document by the user.
  - File Size (KB): File size of the document.
  - **File Type:** File extension of the document.
  - Filename: The filename of the document.
  - Uploaded By: The ZENworks user who uploaded the document.
  - Uploaded Date: Date on which the document was uploaded.
- Lease Details: The details of the lease.
  - Acceptance Date: Date on which the leased equipment was accepted.
  - Defaults and Remedies: Description of defaults and remedies.
  - Delivery Date: The delivery date for the lease.
  - **Delivery Procedures:** Description of any equipment delivery procedures.
  - End of Lease Provisions: Description of provisions for the end of the lease.
  - Equipment Modification Provisions: Provisions for modification to the leased equipment.
  - Inspection Date: Date on which the leased equipment was inspected.
  - Insurance Cost: The cost of insurance.
  - Insurance Provisions: Insurance provisions included in the lease.
  - Lease Order Date: The order date for the lease.
  - Lease Ship Date: The ship date for the lease.
  - **Prevailing Law:** Prevailing law that applies to the lease.
  - Purchase Option: Information about any option to purchase the leased equipment.
  - Return Obligations: Any return obligations associated with the lease.
  - Rights to Relocate: Description of rights to relocate equipment covered by the lease.
  - Signature Date: Date on which the equipment was signed for lease.
- Relationships: Objects for reporting on items associated with contracts.
  - Associated Demographics: Details of demographics associated with a contract.
    - Associated Cost Center: Cost center values associated with a contract.
    - Associated Department: Department values associated with a contract.
    - Associated Site: Site values associated with a contract.
  - License Entitlements: Details of the license entitlements.
    - Entitlement Description: The description of the entitlement.
    - Entitlement Type: The type of entitlement.
    - License Period: The license period of the entitlement.
    - License Quantity: The license quantity.
    - Term License Status: Status of the entitlement.

- Network Devices: Details of network devices associated with a contract.
  - Device Description: Device manufacturer and product name.
  - Device Name: The device name from SNMP.
  - DNS Name: The DNS name of the device.
  - Network Device Type: The device type such as Hub, Router, Printer, or Switch.
  - Primary IP Address: The primary IP address of the device.
- Parent Contract: Details of parent contracts.
  - Parent Contract Description: A description of the contract.
  - Parent Contract ID: The contract identifier.
  - Parent Contract Name: Name of the contract.
  - Parent Contract Status: Current status of the contract Pending, Active, or Expired.
  - Parent Contract Type: The type of contract Lease, SLA, NDA, Warranty, and so on.
- Users: Details of users associated with contracts.
  - Entered User First Name: The first name of the user.
  - Entered User Last Name: The last name of the user.
  - Entered User Email: The email address of the user.
  - Entered User Fax: The fax number of the user.
  - Entered User Middle Name: The middle name of the user.
  - Entered User Name: The first, middle, and last name of the user.
  - Entered User Phone: The phone number of the user.
- Workstations and Servers: Details of workstations and servers associated with a contract.
  - Cost Center: The cost center associated with the device.
  - **Department:** The department associated with the device.
  - IP Address: IP address of the device.
  - Is Device Retired: Specifies whether the device is retired in ZENworks.
  - LAN Address: The LAN address of the device.
  - Login Name: Name of the last logged in user.
  - Machine GUID: A unique ID that identifies a device in the ZENworks environment.
  - Machine Name: The machine name of the device.
  - Site: The site associated with the device.
- Renewal Details: Details of contract renewals.
  - Date Renewal Entered: Date when the renewal was entered.
  - End Date After Renewal: Contract end date after the renewal is applied.
  - End Date Before Renewal: Contract end date prior to the renewal.
  - Renewal Effective Date: Date on which the renewal starts.
  - Renewal Entered By: ZENworks user who entered the renewal.
  - Renewal Notes: Notes about the renewal.

- SLA Details: Details of Service Level Agreements (SLA).
  - Actual Service Level: The actual state of the service level.
  - **Defined Service Level:** Description of the contracted service level.
  - Percent Met: The percentage to which the service level has been met.
  - Service End Date: End date of the SLA.
  - Service Start Date: Start date of the SLA.
- Vendor Details: Details about vendors.
  - Account Number: The vendor's account number.
  - **DEMOGRAPHICINSTQTY:** Number of demographic installations.
  - Primary Contact Email: The primary contact email address.
  - Primary Contact Name: The primary contact name.
  - **Primary Contact Phone:** The primary contact phone number.
  - Secondary Contact Email: The secondary contact email address.
  - Secondary Contact Name: The secondary contact name.
  - Secondary Contact Phone: The secondary contact phone number.
  - Vendor ID: The ID assigned by the administrator to vendor.
  - · Vendor Name: Name of the vendor.
- Notifications: Notification details about important events.
  - Auto Delete: Specifies whether the notification will be automatically deleted.
  - Contract Type: The type of contract Contract, Lease, and SLA.
  - Create Date: Date on which the notification was created.
  - Days Prior: Number of days prior to the event when the first notification will be sent.
  - Document Type: Types of documents associated with the notification contract or license.
  - Field Label: The label associated with the field name.
  - Field Name: The field name associated with the notification.
  - Frequency: The frequency with which the notification will be repeated.
  - Last Sent Date: Date on which the notification was sent.
  - Locale: Localization language used for the notification.
  - Message Text: The body text for the notification message.
  - Next Scheduled Date: The next due date for the notification.
  - Notification Name: Name of the notification.
  - Notification Status: The current status of the notification Pending, In progress, Completed, or Disable.
  - Notification Type: The type of notification
  - Notifications Failed: Number of failed notifications.
  - Notifications Sent: Number of notifications that have been sent.
  - Recipients: Email addresses of the receiver to which the notification has been sent.
  - Repeat Count: Number of times the notification will be repeated.

- Sender: Name of the notification sender.
- **Subject:** The subject line for the notification message.
- Documents: Details of documents that are attached to contracts, purchases, and entitlements.
  - **Document Description:** Description of the document.
  - **Document ID:** A unique ID that is assigned to the document by the user.
  - Document Location: Location of the original document (download source).
  - **Document Path:** Path in ZENworks where the document is organized.
  - Effective Date: Date on which the document is effective.
  - File Size (KB): File size of the document.
  - **File Type:** File extension of the document.
  - Filename: File name of the document.
  - **Uploaded By:** The ZENworks user who uploaded the document.
  - Uploaded Date: Date on which the document was uploaded.
  - Attached to Contract: Details of the attached documents associated with the contracts.
    - Attached By: The ZENworks user who attached the document to the contract.
    - Attached Date: Date on which the contract and document were associated.
    - Contract ID: A unique ID that is assigned to a contract.
    - Contract Name: Name of the contract.
  - Attached to Entitlement: Details of the entitlement to which documents are attached.
    - Attached By: The User logged into ZENworks who attached the document to the entitlement.
    - Attached Date: The Date on which the purchase and document were associated.
    - Entitlement Description: Description of the entitlement.
  - Attached to Purchase: Details of purchase summaries to which documents were attached.
    - Attached By: The ZENworks user who attached the document to the purchases.
    - Attached Date: The Date on which the purchase and document are associated.
    - **Summary Description:** Description of the purchase summary record.
- License Management: The details of license management.
  - Catalog Products: Objects for reporting on the catalog of products associated with purchase records.
    - Catalog Manufacturer: Manufacturer of the purchased product.
    - Catalog Product: Catalog product manufacturer, product name, and version.
    - Catalog Product Name: Product name of the purchased product.
    - Catalog Version: Version of the purchased product.
    - Is Excluded: Specifies whether this purchase is excluded from the default license reconciliation list.
    - Is Upgrade: Specifies whether this purchase is upgraded from the prior purchased product.

- Licenses per Package: Number of licenses acquired by purchasing this product package.
- Manufacturers Part Number: Part number for the product used by the manufacturer.
- Product Notes: Notes about the purchased product.
- Product Type: Type of purchased product Full License, Upgrade, Media, OEM, and so on.
- Reconciled Catalog Products: Number of reconciled catalog products within report parameters.
- Reseller SKU:
- Total Catalog Products: Total number of catalog objects within report parameters.
- Is Reconciled (Catalog): Has this catalog product been reconciled to a license record
- Reconciled Licensed Product: Licensed product reconciled with catalog products.
  - License Description: License product manufacturer, product name, and version.
  - License Manufacturer: The manufacturer for the licensed product.
  - License Name: Name of the licensed product.
  - License Version: The version of the licensed product.
- Discovered Products: Objects for reporting products discovered as part of the Inventory.
  - Active Usage Quantity
  - Additional Consumption: Any additional consumption of the product entered manually.
  - Discovered Notes: Notes about the discovered product.
  - Discovered Product: Discovered product manufacturer, product name, and version.
  - **Discovered Product Manufacturer:** The manufacturer of the discovered product.
  - Discovered Product Name: Name of the discovered product.
  - Discovered Product Platform: Operating system platform on which the discovered product runs.
  - Discovered Product Source: The discovery source for the product Novell,
     Collector or Admin defined.
  - Discovered Product Version: Version of the discovered product.
  - **Distribution Model:** How this product is distributed (Commercial, Freeware, Shareware, and so on).
  - **Excluded:** Specifies whether the product is excluded by default from ZENworks or not.
  - Excluded by User: Specifies whether the user is excluded from using the product or not.
  - Is Reconciled: Specifies if this discovered product has been reconciled to a license record.

- License Type: The type of license for the product Full, Eval, OEM, and so on.
- Quantity Ignored: Count of instances discovered on ignored devices.
- Quantity Installed: Number of installed instances of the product discovered by Inventory.
- Standards Category: Name of the standards category that the product is assigned to, if any.
- Suite Name: Name of the suite to which the product belongs, if any.
- Consumption: Information about license consumption for discovered products.
  - Additional Consumption: Any additional consumption of the product entered manually.
  - Ignored Installations: Count of instances discovered on ignored devices.
  - Net Consumption: The net consumption (inventoried and manual) for the discovered product.
  - Recognized Installed: Number of installed instances of the product discovered by the inventory.
- Discovered Product Usage: Information about reporting on discovered product usage.
  - Active Hours (Discovered): Total discovered product active hours measured against other filtering criteria.
  - Ave. Usage Days (Discovered): Number of usage days per installed copy that a discovered product was used.
  - First Used (Discovered): Date on which the discovered product was first used by a particular device.
  - **Is App User Deleted:** Specifies whether the application user is deleted.
  - Last Used (Discovered): Date when the discovered product was last used by a particular device.
  - Number of Users (Discovered): Number of users who used the discovered product within a selected date range.
  - Total Not Used (Discovered): Number of discovered products not used within a selected date range.
  - Total Used (Discovered): Number of discovered products used within a selected date range.
  - Usage Date (Discovered): Date of usage for a discovered product.
  - Usage Days (Discovered): Number of days a discovered product was used within a selected date range.
  - **Used Hours (Discovered):** Total discovered product used hours measured against other filtering criteria.
- **Installations:** Information about installations of discovered products.
  - Cost Center: The cost center associated with the device.
  - **Department:** The department associated with the device.
  - IP Address: IP address of the installation device.
  - Login Name: Name of the last logged in user.
  - Machine GUID: A unique IDthat identifies a device in the ZENworks environment.
  - Machine Name: Name of the device.

- Site: The site associated with the device.
- System Serial Number: The serial number of the device.
- Inventoried Products: Inventory information about the discovered products.
  - Product Category: The product category.
  - Product Description: The details of the product with product manufacturer, name, and version.
  - **Product Manufacturer:** The manufacturer of the product.
  - Product Name: Name of the product.
  - Product Platform: The platform of the product.
  - Product Subcategory: The product subcategory.
  - Product Version: The version number associated with the product.
- Suites: Objects for reporting on components that are part of software suites.
  - Suite Parent Description: Suite component manufacturer, name and version.
  - Suite Parent Installed Quantity: Number of installed instances of a suite component.
  - Suite Parent Manufacturer: The manufacturer of the suite.
  - Suite Parent Product: The suite name.
  - Suite Parent Version: The version of the suite.
  - Suite Components: Objects for reporting on components that are part of software suites.
    - Component Description: Suite component manufacturer, name, and version.
    - Component Manufacturer: The manufacturer of the suite component.
    - Component Name: The suite component name.
    - Component Version: The version of the suite component.
- Active Usage Quantity: Number of installed suite components reporting usage activity.
- Installed Quantity: Number of installed instances of a suite component.
- Licensed Products: Objects for reporting on licensed products.
  - Allocate By: The type of demographic to be used for allocations site, department, cost center.
  - Allocate Imports: Specifies whether imported purchases will be allocated if demographics are available.
  - Allocated Quantity: Total quantity of product licenses allocated.
  - Calculated Consumption: Number of licenses used.
  - Calculated Index: Degree of over or under compliance across all entitlements from Inventory.
  - Calculated Licenses: Number of calculated licenses available.
  - Calculated Over Licensed: Number over licensed.
  - Calculated Under Licensed: Number under licensed.
  - Calculation Date: Date of last compliance calculation.
  - Compliance State: Compliance state for this license Over, Under, or Equal.

- Has Manual Consumption: Consumption source for a license record Inventory or Manual.
- Is Reconciled to Catalog Product: Specifies whether this catalog product been reconciled to a license record.
- Is Reconciled to Discovered Product: Specifies whether this discovered product been reconciled to a license record.
- License Notes: Notes about the licensed product.
- License Product: License manufacturer, product name, and version.
- License Product Manufacturer: The manufacturer for the licensed product.
- License Product Name: Name of the licensed product.
- License Product Version: The version of the licensed product.
- License Records: The records of the licensed product.
- Manual Consumption: Number of licenses consumed for a licensed product as recorded through manual entitlement.
- Manual Index: Degree of over or under compliance across all entitlements Manual.
- Manual Licenses: Number of licenses from manual source.
- Manual Over Licensed: Number by which a licensed product is over-licensed based on manual entitlement.
- Manual Under Licensed: Number by which a licensed product is under-licensed based on manual entitlement.
- Total Licenses: Total licenses for the licensed product across all attached purchases.
- Total Licenses Consumed: Total product licenses consumed.
- Total Licenses Installed: Total instances installed for this licensed product.
- Unused Installations: Number of installed applications without use within a selected date range.
- Active Usage: Number of applications with active time within a selected date range.
- Allocations: Objects for reporting on license allocations based on demographics.
  - Demographic Allocated Licenses: Number of licenses allocated by this demographic.
  - Demographic Installations: Installations matching with demographic allocations.
  - Demographic Over Allocations: Demographic overall allocations (Total demographic allocations – Demographic installations).
  - Demographic Under Allocations: Demographic under allocations (Total demographic installations – Total demographic allocations).
  - **Device Installations:** Installations matching with device allocations.
  - Device Over Allocations: Device over allocations (Total device allocations Total device installations).
  - Total Installations: Total installations for an associated license.
  - Total Over Allocations: Total over allocations (Total allocations Total demographic and device allocations).

- Total Under Allocations: Total under allocations (Total installations total allocations).
- Unallocated Installations: Unallocated installations (Total installations demographic and device allocations).
- Unallocated Quantity: Number of unallocated licenses.
- Demographic Allocations: Objects for reporting on license allocations based on demographics.
  - Allocated Quantity: Number of licenses allocated.
  - Allocation Cost Center: The cost center associated with an allocation.
  - Allocation Department: The department associated with an allocation.
  - Allocation Site: The site associated with an allocation.
  - Allocation Type: The type of site allocation.
  - Category Type: The category type of the site.
  - **Demographic Unit Name:** Name of the demographic unit.
  - Device Count: Number of devices.
  - Installed Quantity: Number of devices installed.
  - Variance Quantity: The difference between the number of allocated licenses and the number of product installation assigned to the demographic.
- Device Allocations: Objects for reporting on license allocations based on devices.
  - Device Allocation Quantity: Number of devices allocated for each licensed product.
  - Duplicate Allocation: Yes, if the device is allocated by demographic as well as by device.
  - Installed Quantity: Count of associated product instances installed ("0" if not installed).
- Compliance: Information about calculated compliance.
  - Calculated Compliance
    - Installations Covered: Installations covered by an entitlement.
    - License Model: The license model for the entitlement (Machine, OEM, or Per-Installation).
    - License Quantity (Calculated): Calculated license quantity.
    - Quantity Consumed (Calculated): Total calculated license quantity consumed.
  - Compliance by Demographics
    - Compliance By Cost Center
      - Active Usage Quantity: Active usage count per cost center.
      - Cost Center: The cost center associated with Compliance.
      - Installed Quantity: Total installations against this license.
      - Over Licensed Quantity:
      - Purchased Licenses: Total number of purchased licenses.

- Under Licensed Quantity: Under Licensed Quantity (Consumption - total licensed or allocated licenses).
- Unused Quantity: Number of unused licenses.

#### Compliance By Department

- Active Usage Quantity: Number of active usage cost center.
- **Department:** The department associated with compliance.
- Installed Quantity: Total number of installations against this license.
- Over Licensed Quantity
- Purchased Licenses: Total number of purchased licenses.
- Under Licensed Quantity: Under licensed quantity (Consumption - total licensed or allocated licenses).
- Unused Quantity: Number of unused licenses.

#### Compliance By Site

- Active Usage Quantity: Active usage count per cost center.
- Cost Center: The cost center associated with compliance.
- Installed Quantity: Total installations against this license.
- Over Licensed Quantity:
- Purchased Licenses: Total number of purchased licenses.
- Under Licensed Quantity: Under licensed quantity (Consumption - total licensed or allocated licenses).
- Unused Quantity: Number of unused licenses.

#### Entitlements

- Consumption Data Source: Consumption Data Source = Consumption source for a license record Inventory or Manual.
- Entitlement Description: Description of the entitlement (license record name if migrated from ZAM).
- Entitlement Notes: Miscellaneous notes about the entitlement.
- Entitlement Status: Status of the entitlement (Active, Pending, or Expired).
- Entitlement Type: The type of entitlement (Full License, Version Upgrade, or License Maintenance).
- License End Date: The expiration date of license.
- License Model: The license model for the entitlement Machine, OEM, or Per-Installation.
- License Model Name: Name of the license model in use.
- License Period: The license period for the entitlement Perpetual or Term.
- License Quantity: Number of entitled licenses.
- License Quantity Available: Number of licenses available from inventory.
- License Quantity Consumed: Number of consumed licenses from inventory.
- License Quantity Upgraded: Number of licenses upgraded by this entitlement.
- License Start Date: The start date for a term license.

- Platform: Device platform for this entitlement Windows, Mac, Linux, Multiple, and so on.
- VM Use Rights: Information related to the usage rights for this entitlement about virtual machines.
- Coverage:
  - Covered Machines: Objects for reporting machines associated with entitlements.
    - Covered Machine Name: Machine name for a covered device.
    - Covered Serial Number: Serial number for a covered device.
    - **Is Entitlement Installed:** Specifies whether the software covered by this entitlement is installed on this device.
    - Is License Consumed: Specifies whether the license associated with this entitlement is consumed.
    - Is Machine Deleted: Specifies whether the machine has been deleted.
    - Is Machine Retired: Specifies whether the machine has been retired.
  - Covered Users: Objects for reporting on users associated with entitlements.
    - Covered Quantity Installed: Number of installed copies of associated discovered product(s) for a particular user.
    - Covered User Folder: Folder in authoritative source where the covered user is found (if applicable).
    - Covered User Last Name: Last name of the covered user.
    - Covered User Name: Full name of the covered user.
    - Covered User Phone: Phone number of the covered user.
    - Is Covered User Deleted: Specifies whether the covered user has been deleted.
    - Is User License Consumed: Specifies whether the license associated with a covered user has been consumed.
  - Discovered Product Versions Covered: Discovered products associated with entitlements.
    - **Discovered Description:** Discovered product manufacturer, product name, and version.
    - **Discovered Manufacturer:** Product manufacturer of the discovered product.
    - **Discovered Product:** Name of the discovered product.
    - **Discovered Version:** Version of the discovered product.
  - Ineligible Users: Objects for reporting on users excluded from userbased entitlements.
    - Ineligible Quantity Installed: Number of installed copies associated with discovered product(s) for a particular user.
    - Ineligible User Folder: Folder in an authoritative source where an ineligible user is found (if applicable).
    - Ineligible User Last Name: Last name of the ineligible user.

- Ineligible User Name: Full name of the ineligible user.
- Ineligible User Phone: Phone number of the ineligible user.
- Is Ineligible User Deleted: Specifies whether the ineligible user is deleted.
- Entitlement Change Log: Objects for reporting logged changes to entitlements.
  - Changed By: Name of the user who changed the entitlement.
  - Date Changed: Date when the entitlement was changed.
  - **Description After:** Description of the entitlement after the change.
  - **Description Before:** Description of the entitlement before the change.
  - Quantity After: License quantity of the entitlement after the change.
  - Quantity Before: License quantity of the entitlement before the change.
- Proof Of Ownership: Several classes of objects used to report on proof of ownership.
  - Associated Catalog Products: Catalog products associated with proof of ownership.
    - Catalog Description: Catalog product manufacturer, product name, and version.
    - Catalog Manufacturer: Manufacturer of the purchased product.
    - Catalog Product Name: Name of the purchased product.
    - Catalog Version: Version of the purchased product.
    - Licenses per Package: Number of licenses provided with purchase of this product package.
  - Associated Contracts: Contracts associated with proof of ownership.
    - Contract ID: A unique ID that is assigned to a contract.
    - Contract Name: Name of the contract.
    - Contract Status: Current status of the contract Pending, Active, or Expired.
    - Contract Total Cost: Total cost associated with the contract.
    - Contract Type: The type of contract Lease, SLA, NDA, Warranty, and so on.
    - Current End Date: The end date of the contract.
    - Original Start Date: Date on which the contract was started.
  - Associated Documents: Reporting objects for documents attached to contracts.
    - **Document Description:** Description of the document.
    - **Document ID:** A unique ID that is assigned to the document by the user.
    - File Size (KB): File size of the document.
    - File Type: File extension of the document.
    - Filename: The filename of the document.
    - **Uploaded By:** The ZENworks user who uploaded the document.
    - **Uploaded Date:** Date on which the document was uploaded.

- Purchase Summary Records: Objects for reporting on purchase summary records for proof of ownership.
  - Summary Date Entered: Date on which the contract and document were associated.
  - Summary Description: Description of the purchase summary record.
  - Summary Entered By: Name of the ZENworks user who entered the purchase summary record.
  - Summary License Quantity: The license quantity of the purchase summary record.
  - **Summary Notes:** Notes about the purchase summary record.
  - Summary Total Cost: Total cost of the purchase summary.
  - **Summary Record Documents:** Reporting objects of documents attached to summary records.
    - **Document Description:** Description of the document.
    - Document ID: A unique ID that is assigned to the document by user.
    - File Size (KB): File size of the document.
    - **File Type:** File extension of the document.
    - Filename: The Filename of the document.
    - Uploaded By: The ZENworks user who uploaded the document.
    - **Uploaded Date:** Date on which the document was uploaded.
- **Unresolved Installations:** Objects for reporting on product installations not reconciled to a licensed product.
  - **Discovered Product:** Name of the unreconciled discovered product.
  - Licenses Consumed: Number of licenses consumed by the unreconciled discovered product.
- Purchase Records: Objects for reporting on purchase records.
  - Company: Company placing the purchase order.
  - Order Date: Date on which the order was placed for products.
  - **PO Number:** The purchase order number provided for purchasing products.
  - Purchasing Notes: Notes about the purchase record.
  - Recipient: The recipient of the order.
  - Reseller: Reseller with whom the order was placed.
  - Shipping Address: The address provided for shipping the products.
  - Shipping City: Name of the city shipped to.
  - Shipping Country: Name of the country shipped to.
  - Shipping Postal Code: The postal code shipped to.
  - Shipping State: Name of the state shipped to.
  - Purchase Details: Details about the individual purchases.
    - Expiration Date: Date on which the purchase record expires.
    - Extended Price: Extended price = Quantity X Unit price.

- **Invoice Number:** The invoice number for the purchase.
- **Product:** The product of the ZAM.
- Purchasing Comments: Comments about the purchase.
- Purchasing Cost Center: Cost center to which the purchase is assigned.
- Purchasing Department: Department to which the purchase is assigned.
- Purchasing Serial Number: The serial number of the purchased item.
- Purchasing Site: Site responsible for the purchase.
- Quantity: Number of items purchased on this line item.
- Unit MSRP: Manufacturer's Suggested Retail Price for each purchased unit.
- Unit Price: Actual price for each purchased unit.
- Software Collections: Objects for reporting administratively defined collections of products.
  - Active Usage Quantity: Number of installed suite components reporting usage activity.
  - Collection Description: Collection manufacturer, product name and version.
  - Collection Manufacturer: The manufacturer of the collection.
  - Collection Platform: Operating system on which the collection runs.
  - Collection Product: The product name of the collection.
  - Collection Version: The version of the collection.
  - Date Collection Last Modified: Date on which the collection information was last modified.
  - Installed Quantity: Number of installed instances of a suite component.
  - Collection Member Products: Information about products that are members of collections.
    - **Is Component Required:** Specifies whether a particular product component of the collection required for recognition.
    - Member Product Description: Collection manufacturer, product name, and version.
    - Member Product Manufacturer: The manufacturer of the collection.
    - Member Product Name: The product name of the collection.
    - Member Product Platform: Operating system on which the collection runs.
    - Member Product Version: The version of the collection.

# 1.8 Discovered Devices Universe Objects

The following universe objects are used in ZENworks Control Center under the Discovered Devices component:

- **Discovered Devices:** Reporting objects for data generated through the discovery process.
  - Device Specific Attributes
    - NetWare Server: The details of the NetWare server.
      - NetWare Server Internal IPX Number: The Internetwork Packet Exchange (IPX)
        number assigned to the NetWare server.

- NetWare Server Name: The NetWare server name.
- NetWare Server OS Release Date: The NetWare server OS release date.
- NetWare Server OS Serial Number: The NetWare server OS serial number.
- NetWare Server OS SFT Level: The NetWare server OS System Fault Tolerance (SFT) level.
- NetWare Server OS Version: The NetWare server OS version.
- NetWare Server OS Version Count: Number of the NetWare servers by OS version.
- Network Hub: The details of the network hub.
  - **Hub Firmware Revision:** The hub firmware revision.
  - Hub Firmware Revision Count: Number of network hubs from the firmware revision.
  - Hub Ports: Number of ports present in a network hub.
- **Network Printer:** The details of network printers.
  - Pages Printed: Total number of pages printed on a network printer.
  - Printer Alert: An alert from a printer.
  - Printer Alert Count: Number of printer alerts.
  - Printer Alert Detail: The details of the printer alert.
  - Printer Alerting Subunit Name: The part of the printer that caused the alert.
  - Printer Firmware Revision: The network printer firmware revision.
  - Printer Firmware Revision Count: Number of network printers by firmware revision.
  - Severity Level: The error severity level of the printer.
  - **Supply Description:** The description for the network printer supply type.
  - Supply Type: A network printer supply type.
  - **Training Level:** The level of training required to handle the alert.
- Network Router: Details of network routers.
  - Router Firmware Revision: The router firmware revision.
  - Router Firmware Revision count: Number of network routers by firmware revision
  - Router Ports: .
- Network Switch: Details of the network switches.
  - Switch Firmware Level: The switch firmware revision.
  - Switch Firmware Revision Count: Number of network switches by firmware revision.
  - Switch Ports: .
- Windows Devices: Details of the Windows (32-bit) devices.
  - Logged On User: Name of the user who logged into the Win32 device while scanning.
  - Workstation Domain: The domain for the Windows (32 -bit) device.

- General Discovered Device Attributes: Additional detailed information about any discovered device.
  - Asset Tag: The device asset tag.
  - Class B ID (xxx.xxx): The string ID that indicates Class B devices.
  - Class C ID (xxx.xxx.xxx): The string ID that indicates Class C devices.
  - **Discovered Type:** A generalized device type such as workstation or server.
  - DNS Name: The DNS name of the device.
  - Manufacturer: The device manufacturer.
  - Network Device Type: .
  - Primary IP Address: The primary IP address of the device.
  - Primary MAC Address: The primary MAC address of the device.
  - Product Name: The product name of the device.
  - Serial Number: The serial number of the device.
  - **Device Description:** The device manufacturer and product name.
- General Discovered Device Status: General status information of any discovered device.
  - **Device Count:** Number of devices based on other columns in the report.
  - Device Count (by Product): Number of devices based on other columns in the report.
  - Discovery Mode: The mode of the device discovered IP, LDAP, ZEN or ZAM Migration, CSV, and Admin.
  - Ignored Device Count: Number of ignored devices.
  - Initial Discovered Date: Date on which the device was first discovered.
  - **Is Device Ignored:** Specifies whether the device is ignored from the list of devices in ZENworks Control Center.
  - Is Device Inventoried: Specifies whether this is an inventory-only device.
  - Is Device Managed: Specifies whether the device is managed by ZCM.
  - Is Device Retired: Specifies whether the device must be retired in the ZCM.
  - Last Discovered Date: Date on which the device was last scanned.
  - Manageable Device Count: Number of devices that are manageable by ZCM.
  - Managed Device Count: Number of managed devices.
  - Is Device Manageable: Specifies whether this device is manageable by ZCM.
  - Adaptive Agent Attributes: Objects describing ZENworks Adaptive Agent.
    - Agent Version: The version of the ZCM agent installed.
    - **ZENworks Management Zone:** The ZCM zone to which this device is assigned.
  - **Deployed Device Status:** Objects describing the deployment status for devices.
    - Deployed Devices Count: Number of devices for which agents have been deployed.
    - **Deployment Status:** Status of agent deployment to this device.
    - Is Agent Deployed: Specifies whether the ZCM agent is deployed to this device.
- Manageable Device Attributes: Additional attributes for different types of manageable devices.
  - Host Name: The host name of the device.
  - LDAP Domain: The LDAP domain name of the device.

- Memory Size (bytes): Memory size of the device in bytes.
- Manageable Device CPU: CPU details in manageable devices.
  - CPU Count: The number of processors in a manageable device.
  - CPU Description: Description of the processor.
  - CPU Speed (MHz): The speed of the processor in MHz.
  - CPU Type: The type of processor.
  - Manageable Device Logical Disk: The logical disk details of manageable devices.
    - **Disk Capacity (bytes):** Capacity of the disk in bytes.
    - Disk Free Space (bytes): Free space available on the disk in bytes.
    - **Disk ID:** An ID that is consistent with the operating system.
    - Logical Disk Count: The number of logical disks in a manageable device.
  - Manageable Device Network Adapter: Network adapter details of manageable devices.
    - Adapter DNS Name: The domain name associated with the network adapter.
    - Adapter IP Address: IP address associated with the adapter.
    - Adapter MAC Address: MAC address of the adapter.
    - Is Primary Adapter: One network adapter per device indicated as the primary adapter.
    - Network Adapter Count: The number of network adapters in a manageable device.
  - Manageable Device Operating System: Operating system details of the manageable devices.
    - OS Category: The type of operating system Linux, Windows, UNIX, and Macintosh.
    - OS Display: Name of the operating system.
    - **OS Platform:** The hardware platform of the operating system SLES, SLED, WINXP, WIN2K3, and so on.
    - OS Service Pack: The service pack number of the operating system.
    - OS Suite Count: Number of operating system suites associated with a manageable device.
    - **OS Suite Type:** Operating System suites such as Workstation, Server, Enterprise, and so on.
    - OS Type Count: Number of OS types associated with a manageable device.
    - OS Vendor: The vendor of the operating system.
    - **OS Version:** The version of the operating system.
    - **OS Version Count:** The number of operating system versions associated with a manageable device.
    - ◆ OS Version Type: The version type of the operating system OS, Kernel, and Extra.
- Network Attributes: Objects for reporting on network attributes of devices.
  - Administrative Status: The required status of the interface Up, Down, Testing, and Unknown.

- Interface Bandwidth Speed (bps): An estimate of the interface's current bandwidth in bits per second.
- Interface Description: Details about the hardware interface Manufacturer, Product name, and Version.
- Interface Type: The network interface used by the device.
- IP Address: IP address indicates the entry's addressing information.
- MAC Address: MAC address of the device.
- Max Datagram Size: The maximum size of the largest datagram on the interface.
- Operational Status: The current operational status of the interface Up, Down, Testing, and Unknown.
- Subnet: The first three octets of the device IP address the Class C subnet.
- Subnet Mask: The subnet mask associated with the IP address for this entry.
- **SNMP Attributes:** Information returned from the SNMP probe of a device.
  - **SNMP Contact:** The device contact information from the SNMP.
  - SNMP Description: The device description from SNMP.
  - **SNMP Location:** The device location from SNMP.
  - SNMP Name: The device name from SNMP.
  - **SNMP Object ID:** The object ID of the device from SNMP.
  - SNMP Services: Available device services from SNMP.
  - **SNMP UP Time (Hours):** Duration (in hours) for which the device has been up and running from SNMP.

# **2** ZENworks Reporting Predefined Reports

Predefined reports are provided with ZENworks Reporting. They are well formatted and has been built by using the iReport designer tool. These reports are specific to a domain and are available in a zipped resource file, which is imported into ZENworks Reporting during installation, or can be configured later by using the ZENworks Reporting Configuration Tool.

Predefined reports are available for the following components:

- Section 2.1, "Asset Management," on page 61
- Section 2.2, "Bundles and Policies," on page 63
- Section 2.3, "Discovered Devices," on page 64
- Section 2.4, "Endpoint Management," on page 64
- Section 2.5, "Patch Management," on page 65
- Section 2.6, "ZENworks System," on page 66
- Section 2.7, "ZENworks Audit," on page 67

To generate a ZENworks predefined report:

- 1 Log in to ZENworks Reporting.
- 2 Navigate to View > Repository > Folders > Organization > Reports > ZENworks > Predefined Reports.
- 3 Go to the required component folder.
- 4 Click the required predefined report.

# 2.1 Asset Management

This section includes information about the predefined reports related to Asset Management:

- Section 2.1.1, "License Allocation Reports," on page 61
- Section 2.1.2, "Purchases Reports," on page 62
- Section 2.1.3, "Software Compliance Reports," on page 62
- Section 2.1.4, "Suites," on page 63
- Section 2.1.5, "Licensed Products and Entitlements Reports," on page 63

## 2.1.1 License Allocation Reports

- Allocations vs. Installations: For each licensed product, this report displays the difference between the allocated licenses and the total number of installations. This report lists the total number of licenses that are installed, allocated, overallocated, and underallocated for each licensed product.
- Current Allocations: For each licensed product, this report lists the number of licenses that are currently allocated, and unallocated quantity.

- **Demographic Over-Allocation:** Lists all licensed products for which the number of licenses allocated demographically is more than the number of licenses installed demographically.
- **Demographic Under-Allocation:** Lists all licensed products for which the number of licenses allocated demographically is less than the number of licenses installed demographically.
- **Device Over-Allocation:** Lists all licensed products for which the number of device-allocated licenses is less than the number of installations associated with devices.
- Duplicate Allocations: Lists all licensed products that have device allocations that duplicate the demographic allocations.
- Installations with no Allocations: Lists all licensed products that have installed licenses that are not covered by demographic or device allocations.
- Licensed Products Allocations: Lists the demographic allocations and device allocations of the licensed product. You can filter the data based on the department and the site.
- Licensed Products Allocation Details: Lists the allocation and installation details for all the licensed products. Before running the report, choose the appropriate values for the following parameters:
  - Manufacturer of the licensed product
  - Name of the licensed product
  - Specific version of the selected licensed product
  - Demographic unit to which the licensed product is allocated. This could be site, department, or cost center.

Click *Apply* > *OK* to generate the Licensed Product Allocation Details report. Based on the input data, the report displays the following allocation details:

- The site, cost center or department to which the licensed product is allocated
- Total number of allocated licenses
- Actual number of installed licenses
- Total number of devices available in the demographic unit
- Difference between the allocated and the installed licenses

The report also displays the installation details such as Device Name, IP Address of the Device, Last Usage Date, Site, and Inventory Scan.

#### 2.1.2 Purchases Reports

- Purchase Record Detail: Lists all purchase order details such as PO number, invoice number, order date, reseller, manufacturer, and quantity along with unit price and MSRP (Manufacturer's Suggested Retail Price).
- Purchase Record Summary: Compiles the purchase records by catalog product. For each catalog product, lists the product type, purchase quantity, average unit price, and total price.

## 2.1.3 Software Compliance Reports

- Compliance Status: Provides information about the compliance status of the selected licensed product. It lists the license consumption details, such as installed quantity, calculated license quantity, consumed quantity, and net consumption. It also lists details about any unresolved installations.
- **Discovered Product Summary:** Provides details about the discovered product that is reconciled with the licensed product.

- Software Compliance Report: Provides information about the compliance status of all licensed products. Includes general details such as the number of unreconciled catalog and discovered products. For each licensed product, includes details such as license quantity, installation quantity, active usage quantity, and unused installations.
- Software Compliance Status Summary: Summarizes the total number of licensed products, purchase records, catalog products, and the discovered products.

#### **2.1.4 Suites**

• **Discovered Standalone Components:** Lists the individual components of a suite that has been discovered through an inventory scan of devices. For each component, the report lists the total number of installations and the actual number of installations used.

## 2.1.5 Licensed Products and Entitlements Reports

 Licensed Products and Entitlements: Lists the licensed products and details of the related entitlement.

### 2.2 Bundles and Policies

- Bundle Deployment Details Devices: Displays information about deployment details either for a single bundle or multiple bundles in the Management Zone. For each bundle, this report summarizes the distribution, installation, and launch status across devices.
- Bundle Deployment Status: Displays information about deployment details either for a single bundle or multiple bundles in the Management Zone. For each bundle, this report lists the version, assignment types, and number of devices on which the bundle deployment is successful, pending, or failed.
- Bundle Distribution Details: Displays information on deployment details for a single bundle or multiple bundles on one or more devices in the Management Zone. For each bundle, this report lists a full set of distribution, installation, and launch details across the selected devices.
- **Bundle Information:** Displays information about a single bundle or multiple bundles. This report lists the bundle folder location, bundle type, and version, along with the assigned consumer and assignment type.
- Bundle Install Details: Displays information about bundle installation. This report lists the device name, installation status, installation time, and probable cause of installation failure.
- Bundle Launch Details: Displays information about bundle launch. This report lists the device name, launch status, launch time, and probable cause of installation failure and last successful execution time.
- Bundles and Policies Assigned to Devices: Displays information about all the policies that are assigned to a particular device. For each selected bundle and policy, this report lists the device details to which they are assigned. These details include the device name and device folder, along with the device path and content path.
- Content by Bundles and Policies: Displays the content server for the selected bundles and policies. It also provides the replication state for the selected content on the server.
- Content by Server: Displays content information for the selected server. The information includes the content name, content type, replication state, and disk space.
- Policy Enforcement Details Devices: For each selected policy, this report lists the devices on which the policy is enforced. It also includes details of enforcement, such as enforcement success or failure and the time of enforcement.

• **Policy Enforcement Status:** For each selected policy, this report lists the enforcement status. This report lists the number of devices on which policy enforcement was successful, is pending, or has failed. It also includes details about the type of policy and its folder location.

## 2.3 Discovered Devices

- CISCO Routers: Displays information about the discovered Cisco routers in the Management Zone.
- Deployable Devices: Displays the discovered devices that are identified as types to which you
  can deploy the ZENworks Adaptive Agent.
- Managed Devices by ZENworks Management Zone: Displays the discovered devices that have the ZENworks Adaptive Agent installed on them. It also displays the ZENworks Management Zone information of the discovered devices.
- **Printed Page Count by Printer:** Displays the discovered printers and the number of pages printed by each printer.
- Printer Alerts: Displays printer alerts and the alerting units of the discovered printers.
- **Printer Supply Levels:** Displays the supply levels for units, including toner, waste toner, and user of the discovered printers.
- **Unmanaged Servers:** Displays the discovered devices that has been identified as servers to which you can deploy the ZENworks Adaptive Agent.
- **Unmanaged Workstations:** Displays all the discovered devices that has been identified as workstations on which you can deploy the ZENworks Adaptive Agent.
- Managed Device Listing: Displays the discovered, inventoried, and managed devices in the Management Zone. This report is included in the ZENworks System folder (Novell ZENworks Reports > Predefined Reports folder).
- **Non-Compliant Devices:** Displays the number of non-compliant devices that are present in the Management Zone. This report is included in the *ZENworks System* folder (*Novell ZENworks Reports > Predefined Reports* folder).

## 2.4 Endpoint Management

- Policy Assignments by Device: Lists all (or selected) devices and their assigned policies. Also
  lets you to view the effective policy settings for a device. For the effective policy settings to be
  available in the report, you must have enabled effective policy reporting. You can see more
  details of an assigned policy.
- Policy Assignments by User: Lists all (or selected) users and the policies assigned to them. In this report you can see more details of an assigned policy.
- Zone Policy Details: Lists policies related to the Management Zone.
- Effective Policy: Displays the device's effective policy settings for each type of policy.
- Application Control Policy Details: Lists the details for one or more policies related to application control. These details include location assignments, along with application control settings.
- Communication Hardware Policy Details: Lists the details for one or more communication hardware policies. These details include location assignments, along with various adapter details.

- Data Encryption Policy Details: Lists the details for one or more policies related to data encryption. These details include data encryption settings, along with safe harbor settings for each policy.
- Firewall Policy Details: Lists the details for selected firewall policies. These details include location assignments, firewall settings, ACL details, and port details.
- Location Assignment Policies Details: Lists the details for one or more location assignment policies. It also displays details about the allocated locations.
- Security Settings Policy Details: Lists the details for one or more security settings policies.
- Storage Device Policy Details: Lists the details for one or more storage device policies.
- USB Policy Details: Lists the details for one or more USB connectivity policies. It also lists the
  device details.
- VPN Enforcement Policy Details: Lists the details for one or more VPN enforcement policies.
- Wi-Fi Policy Details: Lists the details for one or more Wi-Fi policies. These details include location assignments, Wi-Fi settings, and Wi-Fi access points.

## 2.5 Patch Management

- Application Discovery Not Deployed: Displays information about application discovery that
  has not been deployed. This report lists the device name, OS name, ZENworks Agent version
  and last contact.
- Application Discovery Not Run in a Specified Time: Displays information about device patch status by vendor. This report lists the device name, OS name, ZENworks Agent version, and last contact.
- Baseline Report: Displays information about a patch that is assigned to a device. This report lists the device group name, agent name, patch name, and patch status.
- Bundle Deployment Summary: Displays only the devices on which the patch bundle is deployed. This report lists the deployment name, patch name, assigned device name, and patch device status.
- Critical Patch Report: Displays information on critical patches that are assigned to the devices. This report provides the summary of the errors; total number of devices; and the patch status as patched, not patched, or not applicable.
- **Device Patch Status by Vendor:** Displays information about device patch status. This report lists the agent name, vendor, patched, not patched, not applicable, released on, is patch enabled, and patch impact.
- Mandatory Baseline By Patch: Displays information about patches that has been assigned as
  a mandatory baseline on a device. This report lists the group name, patch name, criticality,
  vendor, released on, enabled status, cached status, patched, host name, DNS, and patch device
  status.
- Mandatory Baseline Details: Displays information about the device group name and device name on which the mandatory baseline patch has been applied. This report lists the device group name, criticality, name, device name, and patch device status.
- Mandatory Baseline Summary: Displays information about patches assigned as a mandatory baseline on a device. This report lists the vulnerability name, released on, criticality, group name, applicable, devices, patched, and not patched.
- Patch Analysis: Displays information about patches assigned as a mandatory baseline on a device. This report lists the vendor, patch name, released date, criticality, applicable, patched, not patched, and % patched.

- Patch Assessment Report: Displays information about all released patches and their impact. This report lists the vendor, released patches, and patch impact.
- Patch Bundle Deployment Status: Displays information about all released patch bundles and their status. This report lists the admin-initiated remediation bundle, deployed patch bundle, event type, and event status.
- Patch Deployment Summary: Displays information about all released patch bundles and their status. This report lists the admin-initiated remediation bundle, deployed patch bundle, event type, and event status.
- Patch Detail Report: Displays detailed information about patches. This report lists the patch name, patched status, total devices, and % patched.
- Patch Release Report: Displays information about released patches. This report lists the patch device status and device name.
- Patch Tuesday Report: Displays information about Tuesday's released patches. This report lists the patch name, patch status, and total devices.
- Top 10 Not Patched Critical Patches: Displays information about the most critical patches that are not deployed. This report lists the patch name and patch impact.

# 2.6 ZENworks System

- Device Listing: Displays information about the discovered, inventoried, and managed devices in the Management Zone. For managed and inventoried devices, this report lists the name, folder, device type, platform, and DNS name. For discovered devices, this report lists the DNS name, IP address, and MAC address, and whether the device can be managed using ZENworks.
- Linux Subscription Session Details: Displays the replication details of the Linux subscription replication session, such as the number of bundles and catalogs, and the packages that are downloaded in a particular session with each replication.
- **Linux Subscriptions:** Displays information about the Linux subscription, the repository, and the replication details.
- Managed Devices System Update Status: Displays information about the system update status for managed devices in the Management Zone. For each device, it lists whether the update is completed or not. It also lists the ZENworks Agent version and ZENworks Agent component.
- Non-Compliant Devices: Displays information about the number of non-compliant devices that
  are available in the Management Zone. This report lists the name, folder, and platform along with
  the OS name.
- Out of Band Power Management: Displays information about the Intel AMT power management activities performed on a selected device over a period of time. For such a device, it lists the name, path, power management action, last power state, current power state, and other statuses.
- Windows 7 System Readiness Report: Using this report, an administrator can find out how
  many devices in a zone can be readily upgraded to Windows 7. It provides a set of input controls
  by using which devices can be filtered based on operating system, available free disk space,
  total memory, and minimum CPU speed. This report also provides a graphical display of the
  information.
- **ZENworks License Information:** For a user selected period, this report lists the ZENworks license information for the Management Zone. For each ZENworks product, it displays the license status along with the expiration date. It also displays the minimum and maximum number of managed devices and users in the zone for the selected period.

- **ZENworks Messages:** This reports lists the ZENworks messages logged for a specified period. You can filter error, warning, or informational messages. For each message and message description, device name and timestamp are displayed. It also displays a graphical summary of message based on the message type.
- ZENworks Server Statistics: For each ZENworks server in the Management Zone, this report
  lists vital information such as space used by content, number of connections, average
  connection per day, peak CPU usage, average CPU usage, number of accessing devices and
  users, and bundle sizes.

#### Power Management:

- Device AC Power Policy: Displays information about the AC power management settings
  for policy compliance in each of the devices in the Management Zone. This report also
  provides a graphical representation of the number of devices in a zone with respect to
  complying or not complying with the green standards.
- Power Compliance Hardware Capability: Displays information about hardware capabilities of the devices in the Management Zone with respect to green computing and compliance of each of the devices with the green standards.
- Power Compliance Time Since Boot: Displays information about power management activity of the devices in the Management Zone. It also displays the devices that are switched on for long periods of time (24 hours), which means they do not meet the green standards.

## 2.7 ZENworks Audit

To generate ZENworks Audit predefined reports:

- 1 Log in to ZENworks Reporting.
- 2 Navigate to View > Repository > Folders > Organization > Reports > ZENworks Audit > Predefined Reports.
- **3** Click the required predefined report.
- All Audit Events in a Month: This report displays information about the audit events for a
  particular month across the Management Zone. You can filter based on event classification,
  primary target object name, event created on, or event name. This displays only the change
  audit events.
- All Critical Events by Administrator: This report displays information about the critical events generated by the ZENworks administrator for specific period. You can filter based on event classification, event created on, or event initiator name. This displays only the change audit events.
- Change Audit Events per ZCC Session ID: This report displays information about the set of
  activities that are performed in a session. You can filter based on event classification, event
  created on, session ID, or IP address. This displays only the change audit events.
- Critical Events Logged by Managed Device in Last Month: This report displays information
  about the set of critical events generated by the managed device. You can filter based on event
  initiator type, event created on, event classification, or event name. This displays only the device
  audit events.
- Events Expiring in One Week: This report displays information about the events that are expiring from the database within a week. You can filter based on event classification or event expiration date.

- Failed Login Attempts for Managed Devices: This report displays information about the failed login events for a specific managed device. You can filter based on event created on, event name, or device name.
- File Transfers during Remote Management: This report displays information about the total files transferred in a particular remote management session for a specific period. You can filter based on event created on or event name.
- Files Transferred from Managed Device: This report displays information about the files transferred to or from a managed device in the Management Zone. For example, files transferred from USB to a managed device or from a managed device to USB. You can filter based on event created on or event name.
- Logged Intruder Detection Events: This event is recorded when a remote operator specifies
  the wrong credentials several times during a remote session and if those invalid attempts cross
  the limit specified in the Policy settings. This report displays information about logged intruder
  events. You can filter based on event created on or event name.
- Policies Changed over a Period: This report displays information about policies that are changed over a specific period.
- Remote Management Events in a Period: This report displays information about events in a particular remote management session for a specific period. You can filter based on event name, event created on, or event classification.
- ZCC Login Failures: This report displays information about the ZENworks Control Center login failures. The failure could be because of a wrong password, lack of permission, or cancellation of certification. You can filter based on event message, event name, device name, or event created on.