Power Auditor – Identified Savings

Product Training 2018

Power Auditor – How it Works

Systems are discovered on the network, and organized into groups. For each group of systems a range of hours is defined to specify the time those systems are expected to be powered on, and when they are normally shut down.

During the data collection phase, the Power Auditor is in Identified Savings mode. When we calculate Identified Savings, we compare the number of hours that a system is actually powered on with the number of hours we would like it to be running.

Once the baseline of data has been collected, we can move into Achieved Savings mode. Using Management Utilities along with SyAM System Client and SyAM System Area Manager, we apply Power Management settings to the systems so they will be powered off at a desired time for each day of the week.

Achieved Savings is calculated by comparing the actual powered on hours with the baseline of data that was collected during the Identified Savings period, before power management was implemented. The result is a report of what has actually been saved by enforcing power management policies.

3 Simple Steps to Perform Power Audit

- 1. Configure Power Auditor Administration Settings
  - Power Audit License / Cost for Electricity / Email Reports

- 2. Create a Power Audit Wizard
  - Using Active Directory OUs / IP Range

- 3. After 8 days Provide Identified Savings Report
  - Produce Identified Savings Summary Report

Step 1 - Configure Settings

- Under Functions choose Administration Settings

- Enter the cost per kw/h delivered

- Enter the Power Audit License – Confirm the time period

- Save Changes

Optional Settings Email / Reports

Configure the Email Settings to receive the Power Audits report via email
Check the box to use SSL and specify port 587.

Once you have moved into Achieved Savings mode, weekly and monthly achieved savings reports will become available.

Administration Settings - Users

In Power Auditor the Users tab of Administration Settings duplicates the functions of the same tab in Management Utility.

When you take any action on this tab in the Power Auditor, such as:

- Creating a new user
- Editing user features and tasks
- Removing a user
- Creating a new SQL login

that action is duplicated in the Management Utility, and vice versa.

Step 2 – Create Power Audit Wizard

- Under Functions choose Power Audit Wizard
- Click on the Start Wizard button
- This will now allow you to choose a Discovery and Power On Hours template for performing the Power Audit

Step 2 – Discovery Active Directory

- Give the Template a Name
- Click on Discover Domain button
- Check Replicate OU's
- Save Template

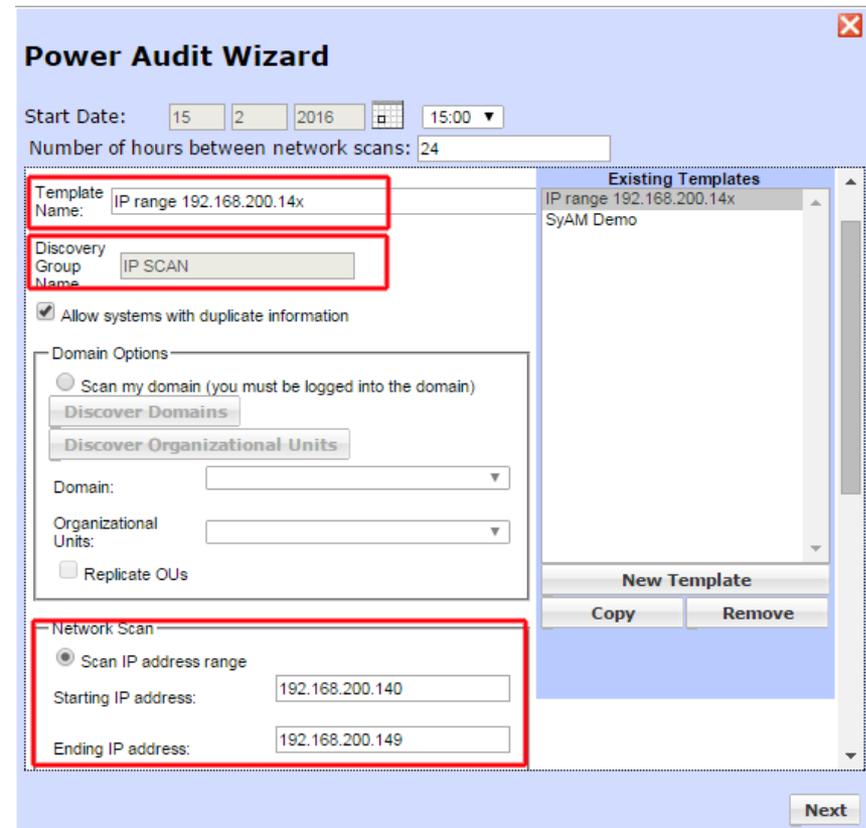- This will replicate the entire AD OU structure for the computers.

Step 2 – IP Range Directory

- Give the Template a Name
- Give the Discovery Group a Name
  Enter the Start and end IP Range
- Save Template

- This scan the range of IP Addresses
- Do not scan above 2,000 addresses per template

Power Audit Wizard – Discovery Template

Discovery templates define a group of machines. This can be done by specifying a range of IP addresses, with options to filter on the machine name. In an Active Directory environment, a discovery template can also use Windows domains and Organizational Units to define the group.

Enter the name of the discovery group. The group will be created in the Groups sections of Power Auditor and Management Utility, and the machines discovered using this template will be placed in the group. Note that multiple discovery templates can use the same group name.

Set your discovery range either by Domain and Organizational Unit or as an IP address range. Click on Allow Systems with duplicate information if there is a router between your Management Utilities server and the target IP range, as the router may not allow the target systems' MAC addresses to be passed, but instead represents the MAC address as the same for all systems. If you have selected a domain, you can check the Replicate OUs box to create subgroups for all Organizational Units in the domain.

Set filter options if desired. You may configure the filter so that only machine names which meet the filter are selected, or you may enter a list to exclude machine names. Wildcards can be used (an asterisk for any number of characters, a question mark for a single character to filter based on the position of a character.)
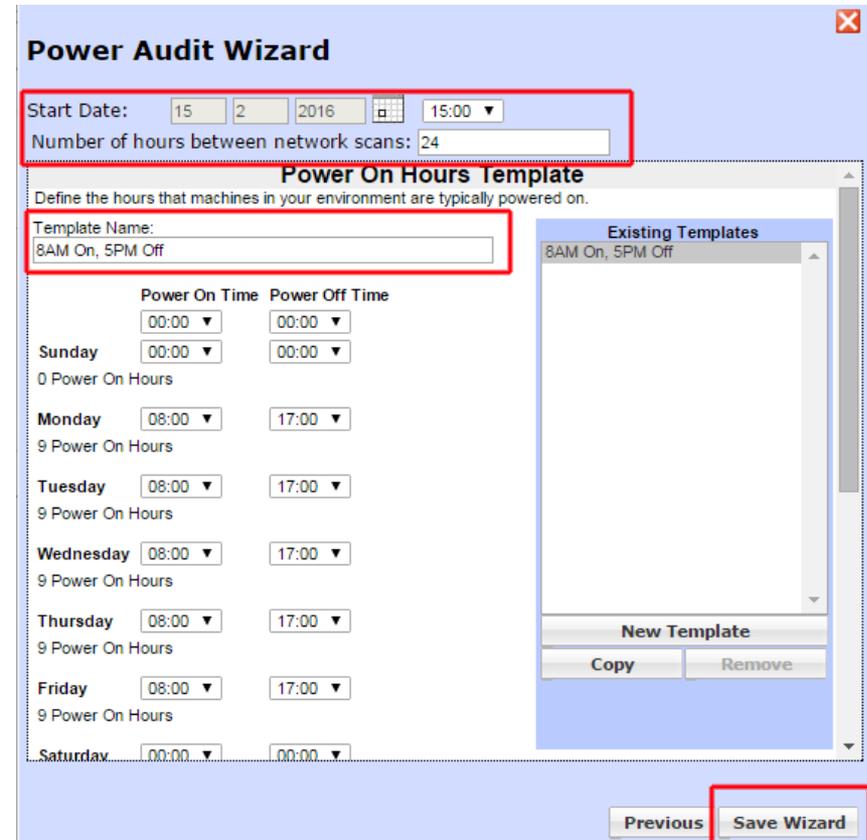
Step 2 – Power on Hours

- Choose the date and time to start the Power Audit and the frequency to check to find new systems added to your network
- You can select the default Power On Hours Template
  - 8-5pm = Systems powered on 45 hours a week
- Click Save Wizard

Or

- Create your own template – give it a name
- Select time on and off for each day
- Save template
- The Identified savings is based on this template – if systems are on for 60 hours a week and your power on hour template totals 40 hours a week we would show identified savings of 20 hours a week
- Choose your new template
- Click Save Wizard

Power Audit Wizard – Power On Hours Template

The Power On Hours Template specifies the hours that a group of machines should be powered on. Use the default template or create your own. The easiest way may be to copy the default template and then make any desired changes.

Power consumption calculations are based on wattage settings in this template. Defaults are supplied, to be changed as desired.

The Copy Into Power Template button creates a Power Management Template with the same name and settings in Management Utility. The Power Management Template can then be used to enforce power settings on managed systems.

Power Audit Groups

Once an audit has been created and machines in the group have been polled, the group name will appear in the Groups section. Click the group name to see all machines in the group. Identified savings will be calculated when the audit has been running during the entire preceding day, and updated automatically.

In an Active Directory environment, using discovery templates based on your domains and Organizational Units, the audit groups will reflect the way your machines are organized in Active Directory.

Groups

Summary
- 100-194
- Administration
- Development - East
- Development - Springfield
- Factory - Central
- Factory - East
- Finance
- IT Testing
- Lab - Franklin
- Lab - Springfield
- Operations
- Public
- QA
- Shipping/Receiving
- Training
- Warehouse

Power Audit Exclusions

Auditing Exclusion Rules allow you to exclude systems from power auditing based on machine name or IP address. Wildcards are allowed (a question mark for a single character, an asterisk for an unspecified number of characters). Systems are added to the list when they are selected and then removed from an audit in Power Audit Groups. Removing a group or subgroup does not add the systems to the Exclusion Rules list. The list is also not affected by removing systems from Groups in Management Utility.

For holidays and vacation periods you can set a range of dates in Extended Holiday / Vacation Days. On any day specified here, a system that is powered off all day will not be included in savings calculations. A system that is powered on for any part of the day will be included.

Power Auditor - Dashboard

Enterprise Overview of Real-time Power Savings data with reporting at location, department and system levels

Power Auditor – User Interface Panels

Power Chart

Menu

Groups

Functions

Savings Detail

At A Glance

Step 3 – Identified Savings Report

- After 8 days you will have a full 168 hour working week

- Under Functions choose Reports

- Choose Identified Savings Summary Report

- Enter the date for the last 7 days

- Generate Report to pdf or html

Step 3 – Produce Identified Savings Report

- The Power Audit Dashboard will present the rolling 7 days of the Power Audit