



## TYRONE SERVER MANAGEMENT

# Tyrone®

 **ProServe**  
Formerly known as TSM

### **TYRONE ProServe (FULL-FEATURED SERVER MANAGEMENT SOLUTION)**

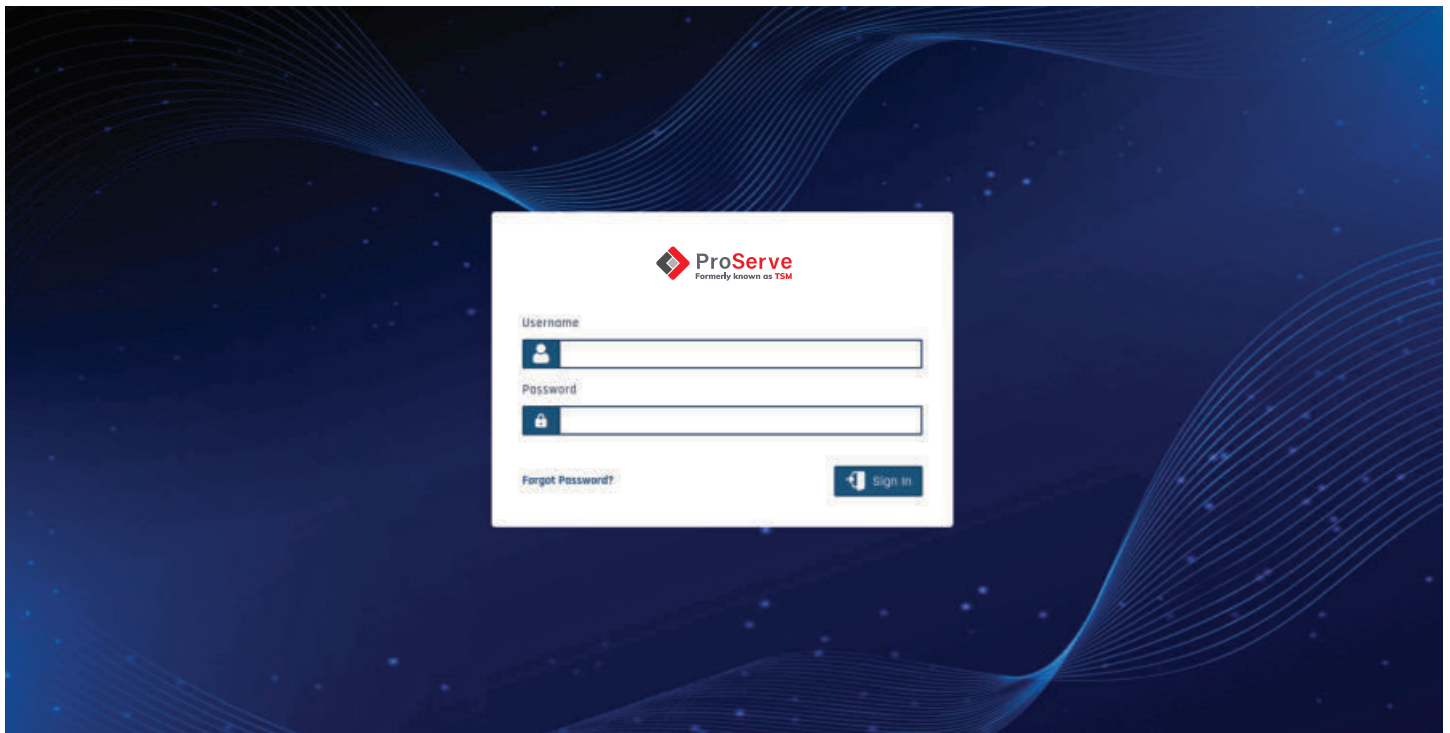
**Tyrone ProServe** is a suite of scalable and secure systems management solution. It allows IT managers to get remote access of Servers with BMC implementing IPMI and Agent based Management Applications. It allows users to monitor server system's health and to manage critical events of remote systems via GUI, CLI and API's

Key features of **Tyrone ProServe** includes

- IPMI 2.0 Support
- Redfish Support
- GUI, CLI, API's to control IPMI functions
- iKVM (Keyboard, Video, and Mouse)
- Virtual Media Redirection
- 3rd Party Authentication, Multi-Factor Authentication
- BIOS & Firmware update, OS Deployment
- System Management Architecture for Server Management (SMASH) Support

The high level architecture includes:

- Tyrone ProServe management
- Management console
- Network Connectivity LAN/WAN
- BMC Interface via IPMI/LAN Port



Tyrone ProServe detailed Specifications and Features:

## 1. Discovery and Group Management

Automatically discover provisioned servers within the IP range via out-of-band (agent free/IPMI) and in-band (agent managed) connections. IT managers can then group the discovered servers based on profile.

Host Discovery Wizard (Step 1 out of 3)

Username  Password

Discovery Type ☒ IP RANGE ☐ NETWORK RANGE

Start IP  End IP

Format: 0.0.0.0 Format: 0.0.0.0

[Begin Discovery](#)

Host Discovery Wizard (Step 1 out of 3)

Username  Password

Discovery Type ☐ IP RANGE ☒ NETWORK RANGE

Network

Format: 0.0.0.0/0

[Begin Discovery](#)

- Supports configuration of systems at DC and DR in High Availability model

Authentication High Availability Configure NTP Configure Email Configure SNMP Manage Alerts Manage Tags RBAC Manage Template

Authentication

Configure Authentication Source

Authentication Source ☐ LOCAL ☒ LDAP ☐ AAA

FQDN Server  DNS Server

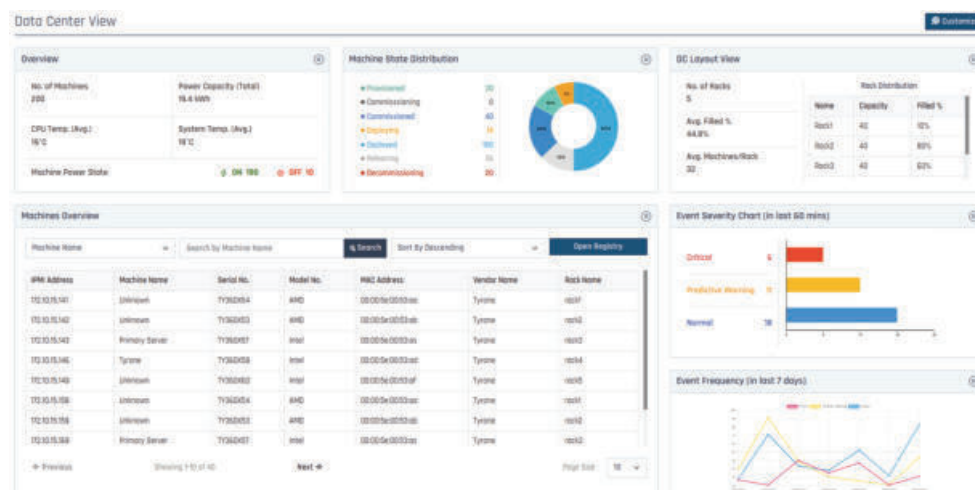
Format: <hostname>.<second-level-domain>.<top-level-domain> Format: 0.0.0.0

Username  Password

Type your username Type your password

[Configure](#)

- Remote accessibility to multiple servers simultaneously for single source of truth management (scalable to manage upto six thousands servers)



Asset Tracking and Management using inherent metadata tagging, enabling sorting mechanism using user defined attributes.

Tracking of hardware assets and firmware versions of all managed servers via out-of-band (agent free/IPMI) and in-band (agent managed) connections

- Asset Tagging based on user assign attributes
- Self Service portal for commissioning / decommissioning, provisioning / deprovisioning capabilities

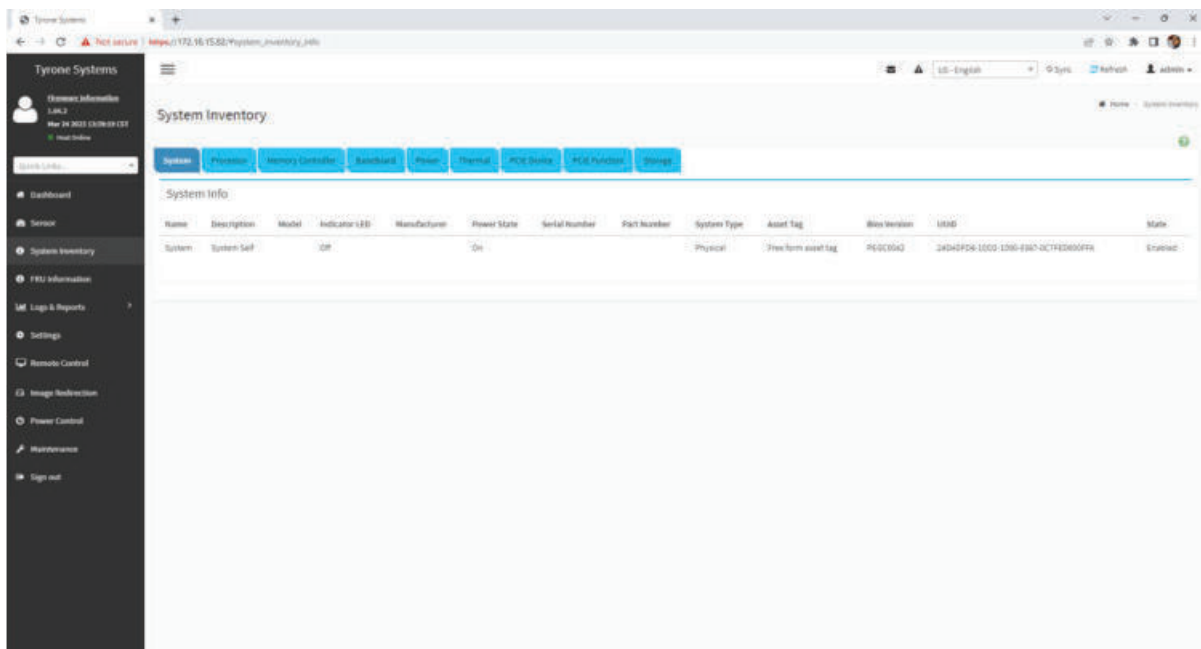
The screenshot shows the ProServe Settings page with the 'Manage Tags' tab selected. On the left is a sidebar with navigation links: Dashboard, Host Discovery, Assets Management, Analytics, Logs, and Settings. The main content area has a top navigation bar with links like Authentication, High Availability, Configure NTP, Configure Email, Configure SNMP, Manage Alerts, Manage Tags (active), RBAC, and Manage Template. Below this, the 'Manage Tags' section includes a 'Create Tag' form with fields for Tag Name, Tag Name (repeated), and Color, and a 'Tags List' table. The 'Create Tag' form has a 'Create Tag' button. The 'Tags List' table has columns for Tag Name, Tag Name, and Assigned Machine, with a 'Delete' button in the top right corner.

- Graphical overview of host's resources

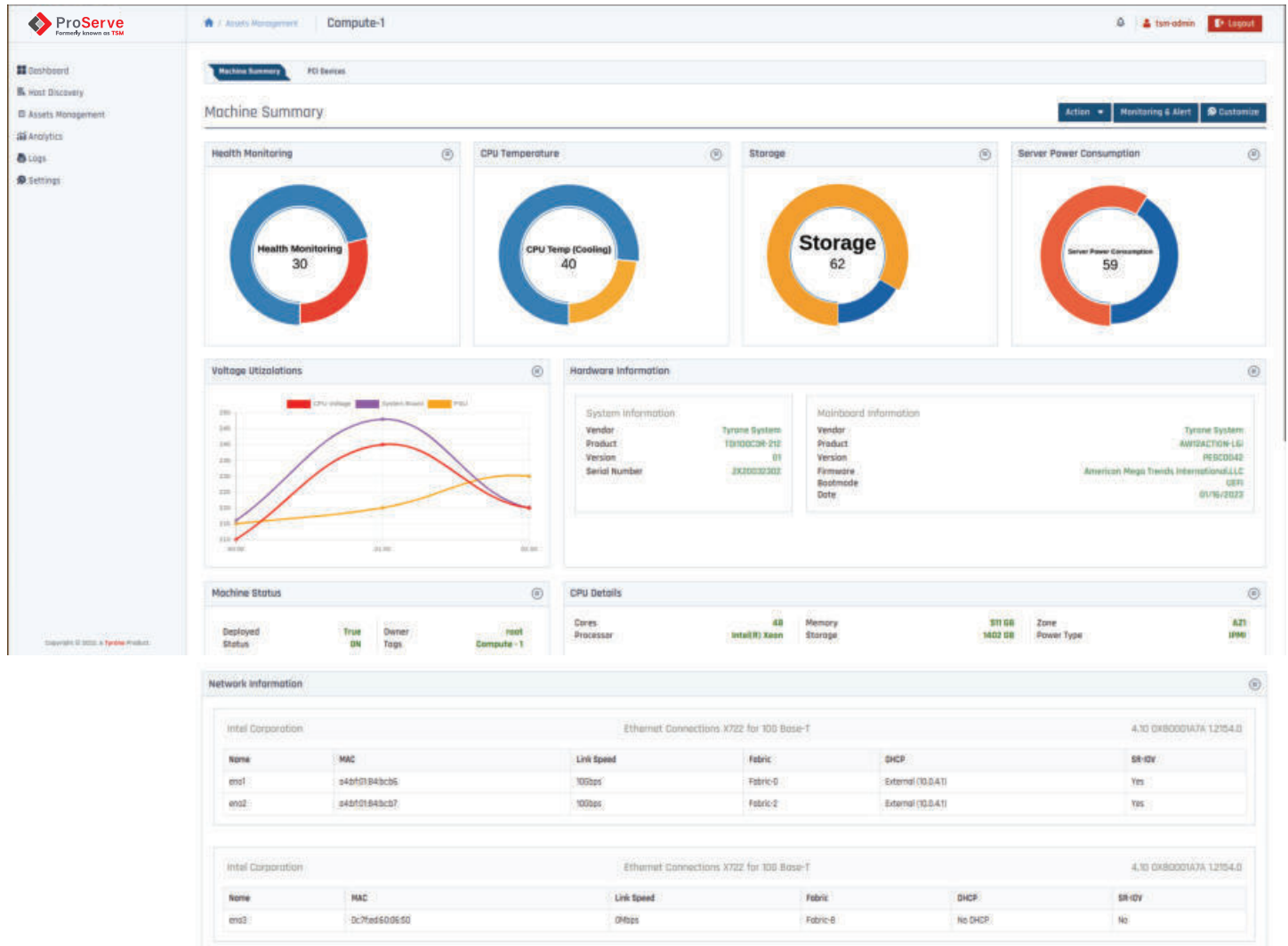
The screenshot shows the ProServe Assets Management page for 'Compute-1'. The left sidebar is the same as the previous screenshot. The main content area has a top navigation bar with 'Assets Management' and 'Compute-1'. Below this, the 'Machine Summary' section is active, showing a 'Machine Summary' tab and a 'PCI Devices' tab. The 'Machine Summary' section includes four donut charts: Health Monitoring (30), CPU Temp (Cooling) (40), Storage (62), and Server Power Consumption (59). Below these charts are two sections: 'Voltage Utilizations' showing a line graph for CPU, System, and I/O, and 'Hardware Information' showing system and mainboard details. At the bottom, there are 'Machine Status' and 'CPU Details' sections.



- Inventory details of host system like Processors, Memory, Storage, Networking, and other components and option to export in customized form.



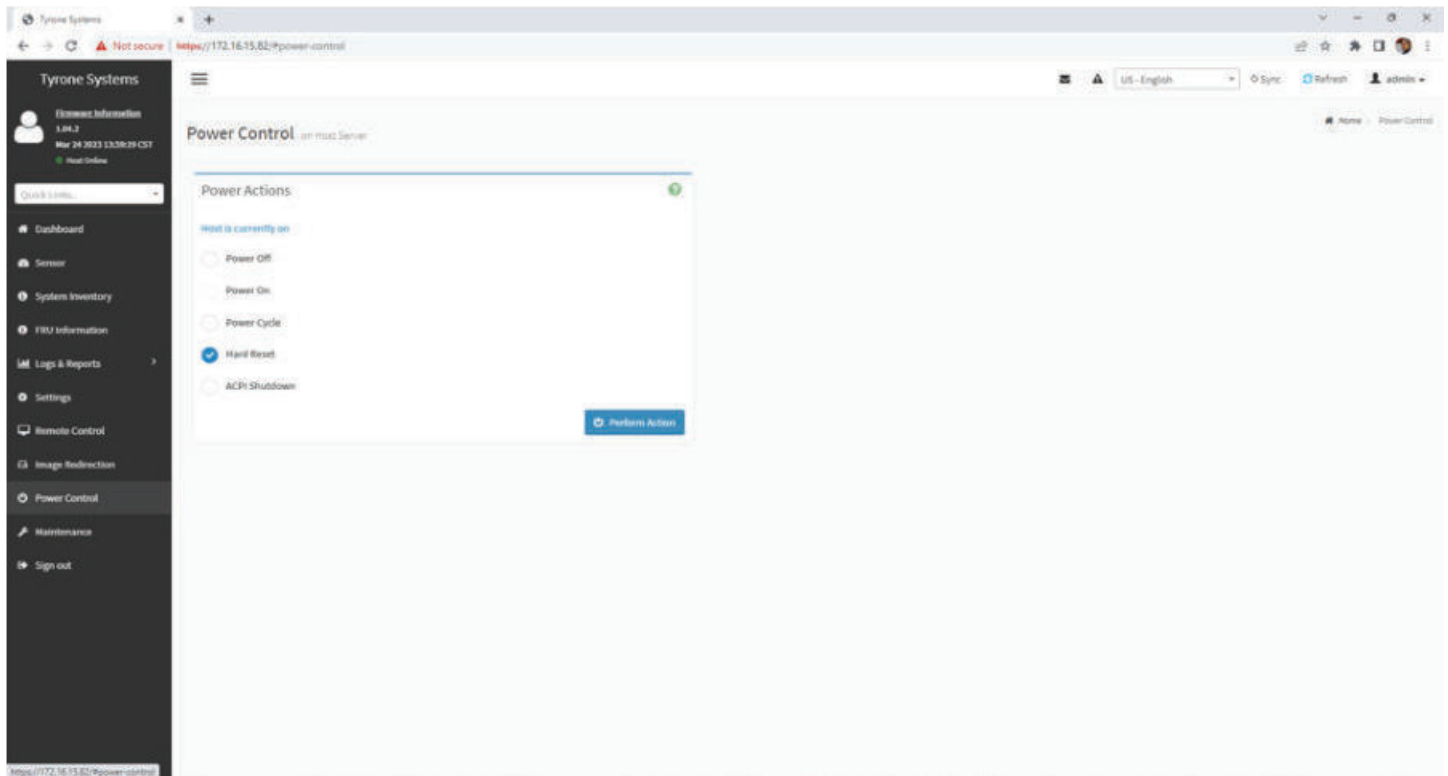
- View System information (firmware versions, server health, diagnostic information, Power statistics etc.)



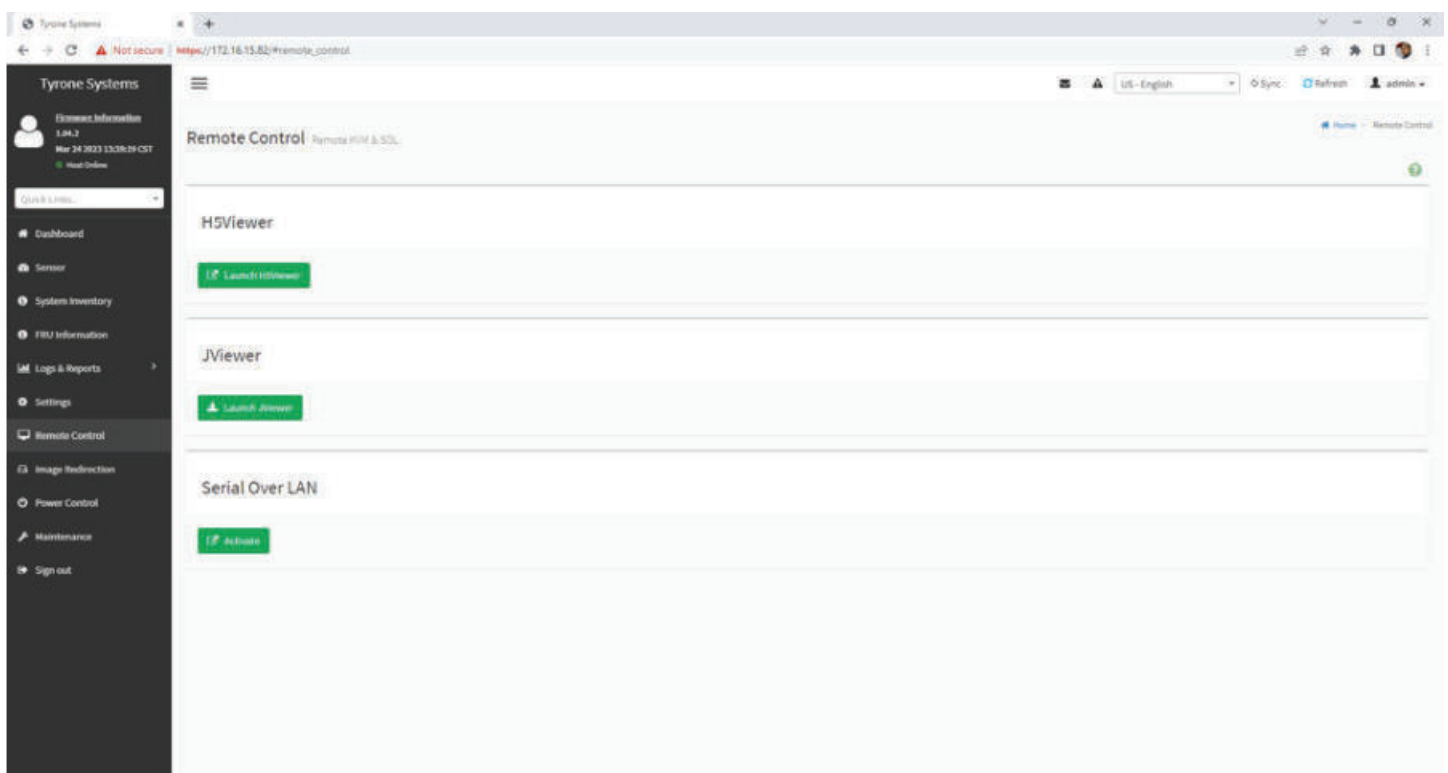
## 2. Remote Management, Configuration, Provisioning

Remote Management of multiple servers simultaneously for management tasks such as BIOS / firmware / driver update, scheduling, configuration and provisioning etc.

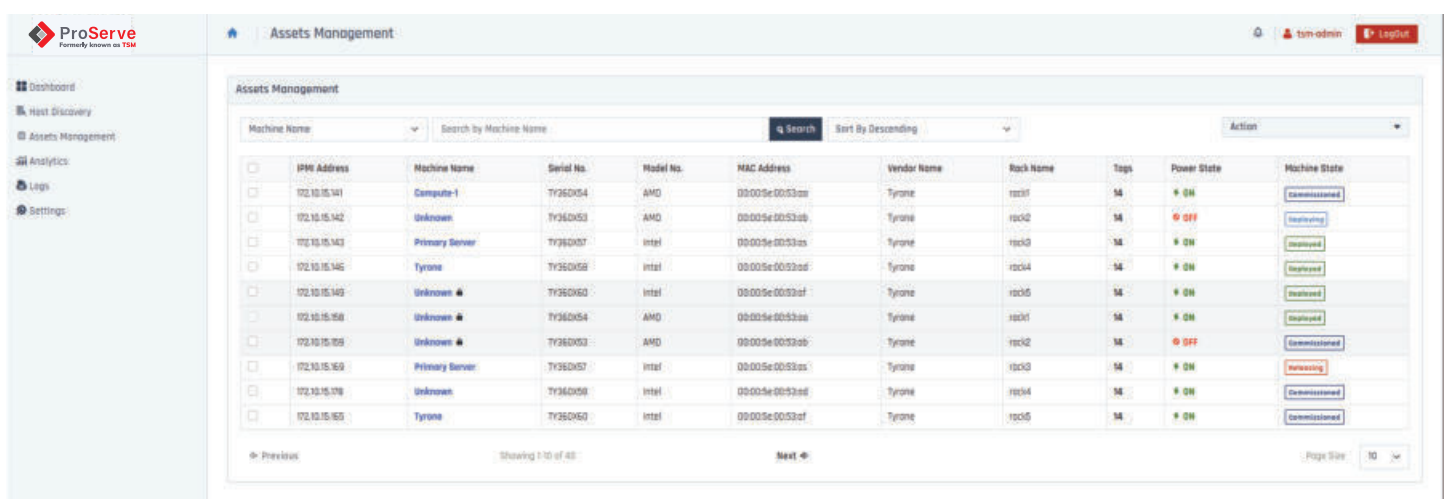
- Power Management (Power ON/Power Off)



- Remotely connection via the iKVM



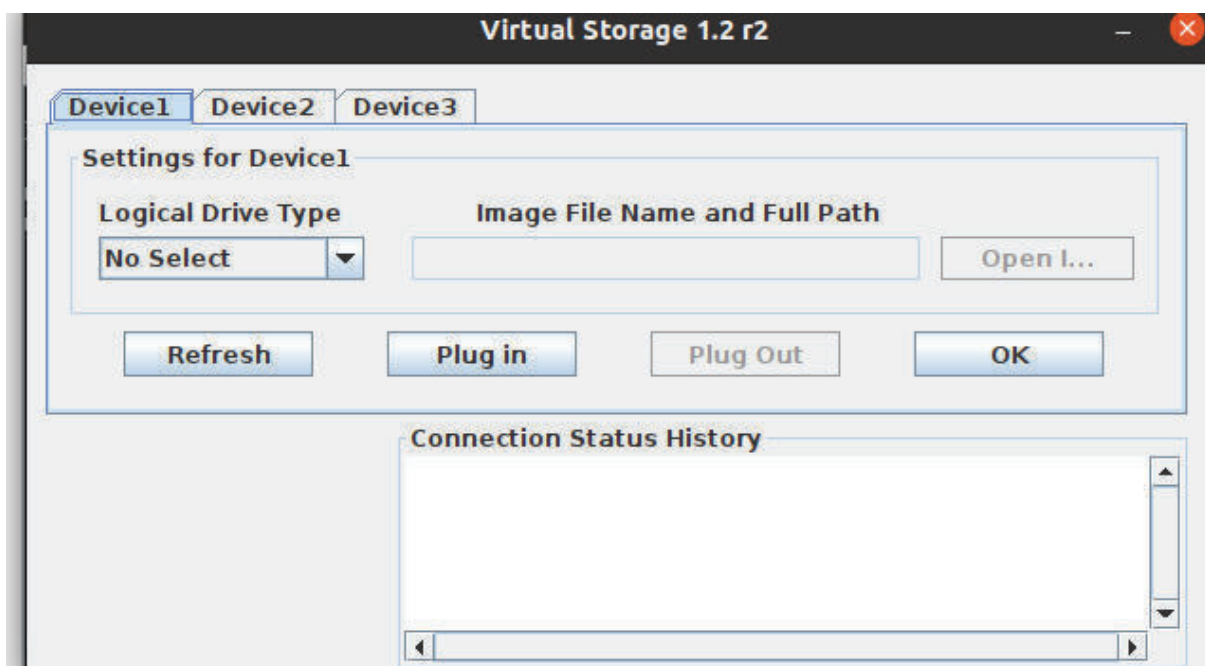
- Out-of-band BIOS/BMC/Firmware Update
- Life cycle management thru single unified platform and with capabilities of discovery, commissioning, deploying and retiring Servers
- Patch management for drivers, softwares update
- Provisioning with OS image (Ubuntu, CentOS, Windows, RHEL etc.) for profile creation and deployment with the press of a button
- Cloning of Servers based on common Hardware Profile based deployment (simultaneous on multiple systems) and Batch processing using user defined scripts based on Admin policies for updates and deployment and provide user specific templates to carry out simultaneous operations
- Batch processing of using user defined scripts templates based on Admin policies for updates and deployment
- Provisioning of Power Policies, Power Management Monitoring Profile import/export



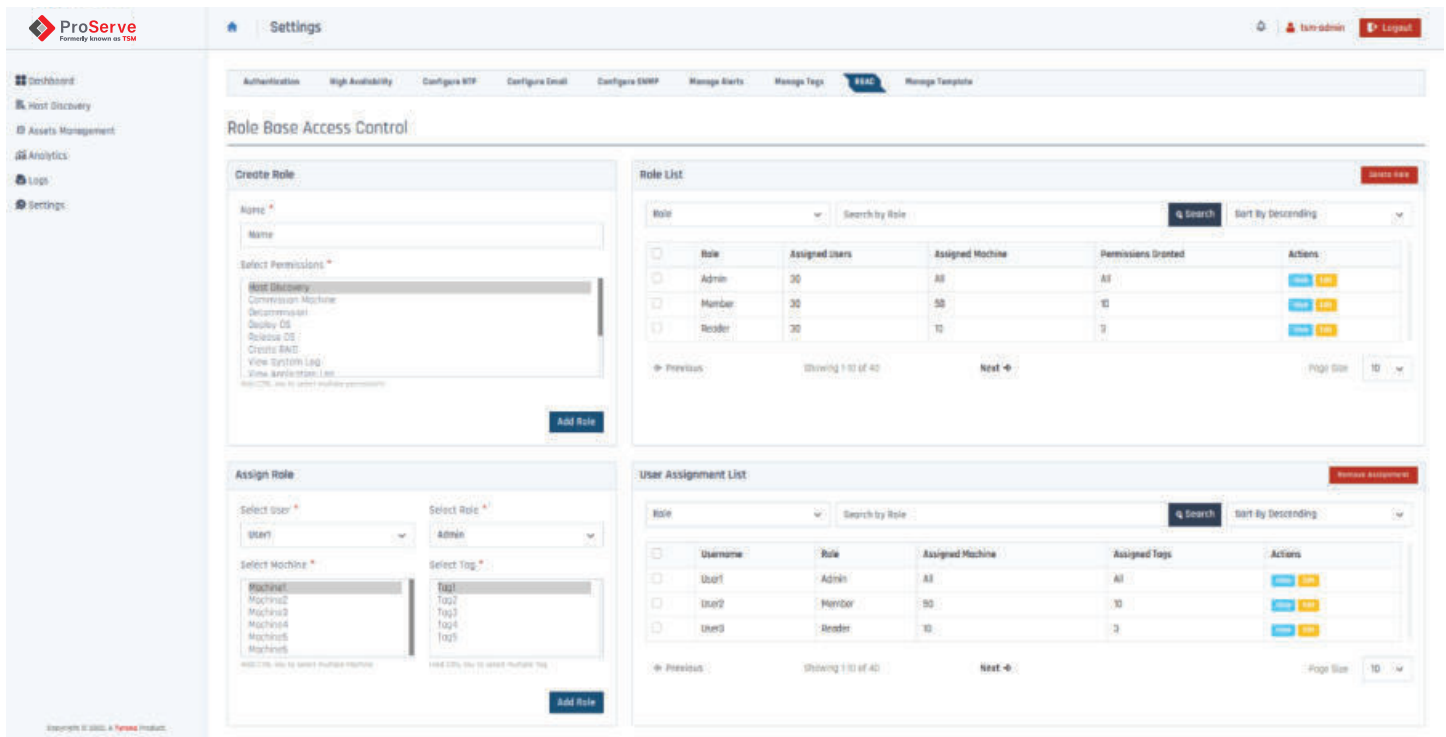
The screenshot shows the ProServe Assets Management interface. On the left is a sidebar with navigation links: Dashboard, Host Discovery, Assets Management, Analytics, Logs, and Settings. The main area is titled 'Assets Management' and contains a table of server assets. The table has columns for IPN Address, Machine Name, Serial No., Model No., MAC Address, Vendor Name, Rack Name, Tags, Power State, and Machine State. The table lists 10 servers with various details like IP addresses, machine names (e.g., Compute-1, Unknown, Primary Server, Tyrone), serial numbers, model numbers, MAC addresses, vendor names, rack names, tags, power states (ON, OFF), and machine states (Commissioned, Deploying, Deployed, Pending).

IPN Address	Machine Name	Serial No.	Model No.	MAC Address	Vendor Name	Rack Name	Tags	Power State	Machine State
192.16.15.141	Compute-1	TY36DX54	AMD	00:00:5e:00:53:0a	Tyrone	rack1	14	ON	Commissioned
192.16.15.142	Unknown	TY36DX53	AMD	00:00:5e:00:53:0b	Tyrone	rack2	14	OFF	Deploying
192.16.15.143	Primary Server	TY36DX07	Intel	00:00:5e:00:53:0c	Tyrone	rack3	14	ON	Deployed
192.16.15.145	Tyrone	TY36DX58	Intel	00:00:5e:00:53:0d	Tyrone	rack4	14	ON	Deployed
192.16.15.149	Unknown	TY36DX50	Intel	00:00:5e:00:53:0e	Tyrone	rack5	14	ON	Deployed
192.16.15.158	Unknown	TY36DX54	AMD	00:00:5e:00:53:0f	Tyrone	rack1	14	ON	Deployed
192.16.15.159	Unknown	TY36DX53	AMD	00:00:5e:00:53:10	Tyrone	rack2	14	OFF	Commissioned
192.16.15.169	Primary Server	TY36DX57	Intel	00:00:5e:00:53:11	Tyrone	rack3	14	ON	Pending
192.16.15.178	Unknown	TY36DX58	Intel	00:00:5e:00:53:12	Tyrone	rack4	14	ON	Commissioned
192.16.15.185	Tyrone	TY36DX50	Intel	00:00:5e:00:53:1f	Tyrone	rack5	14	ON	Commissioned

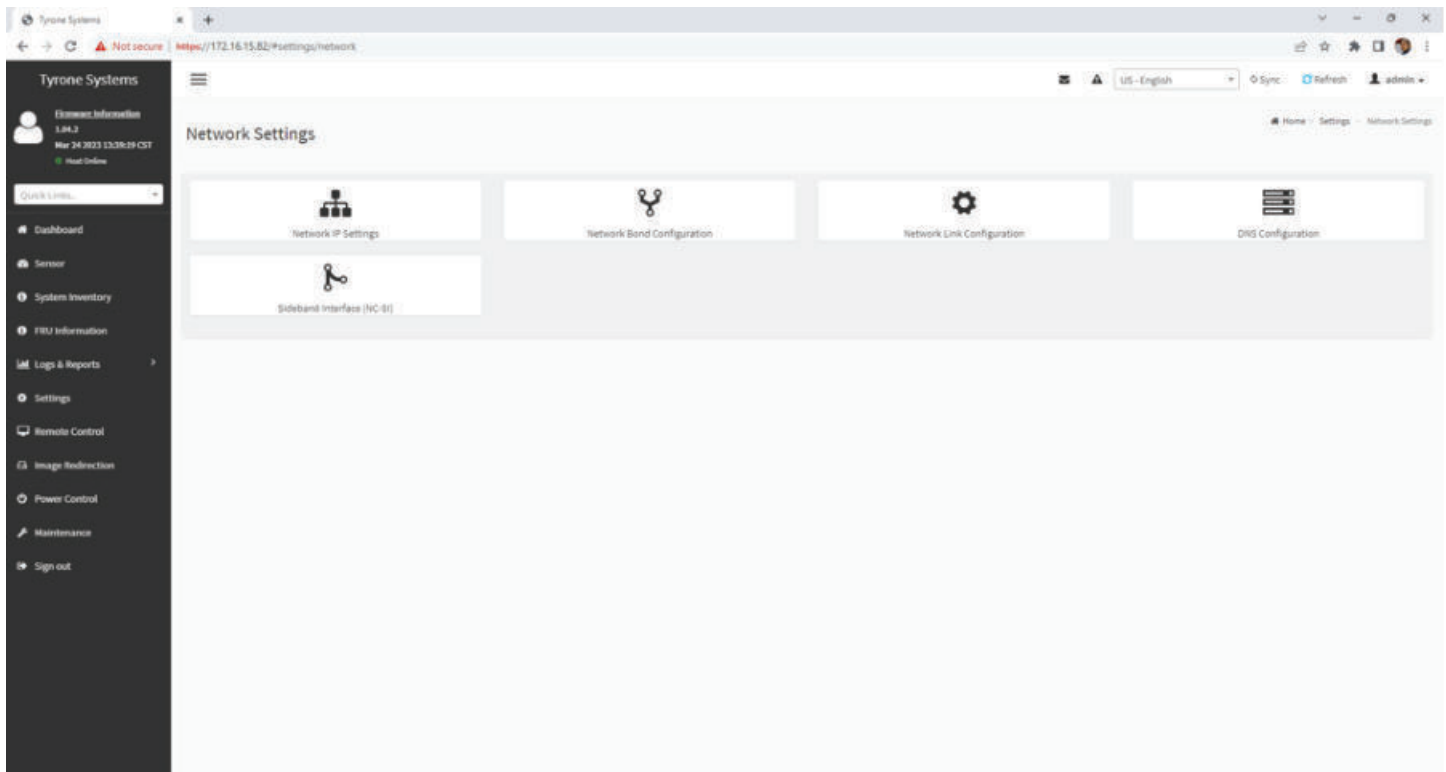
- Image redirection



- Configurations can be saved as template and can be reused.

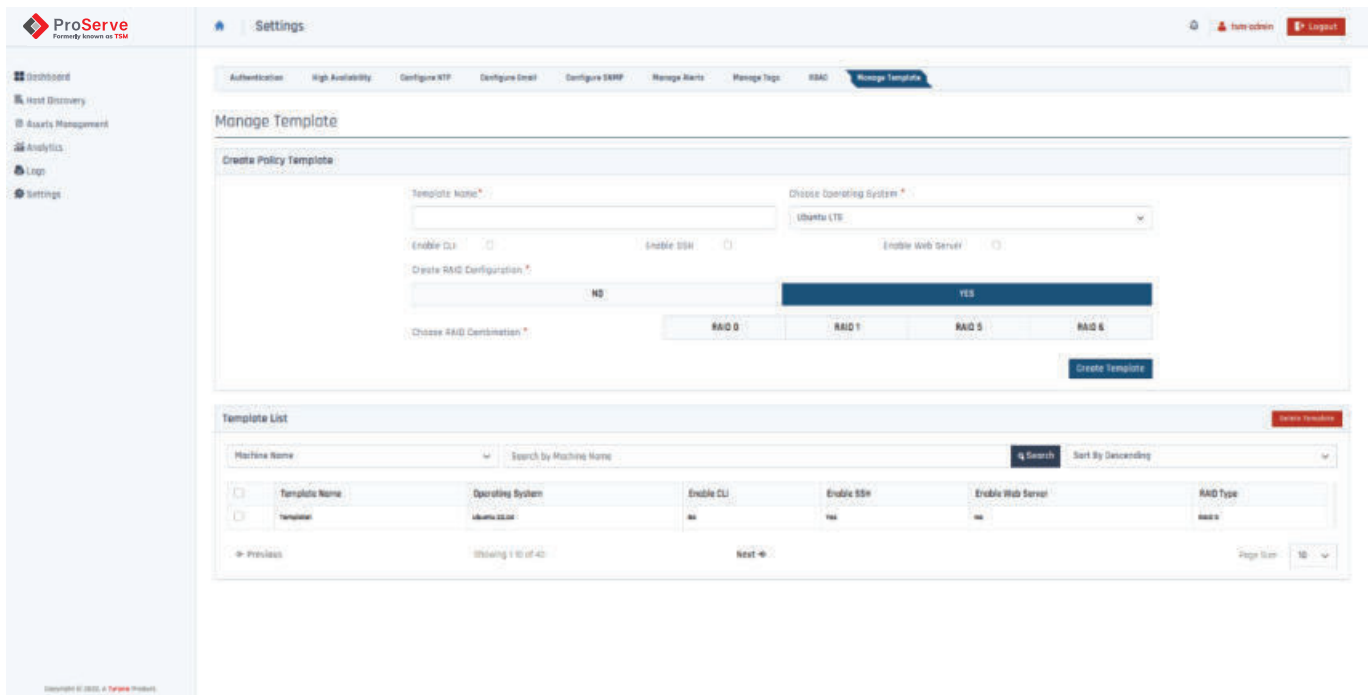


- IP address management with DHCP and DNS for Configuration and Management of Network



- Configurations can be saved as template and can be reused.

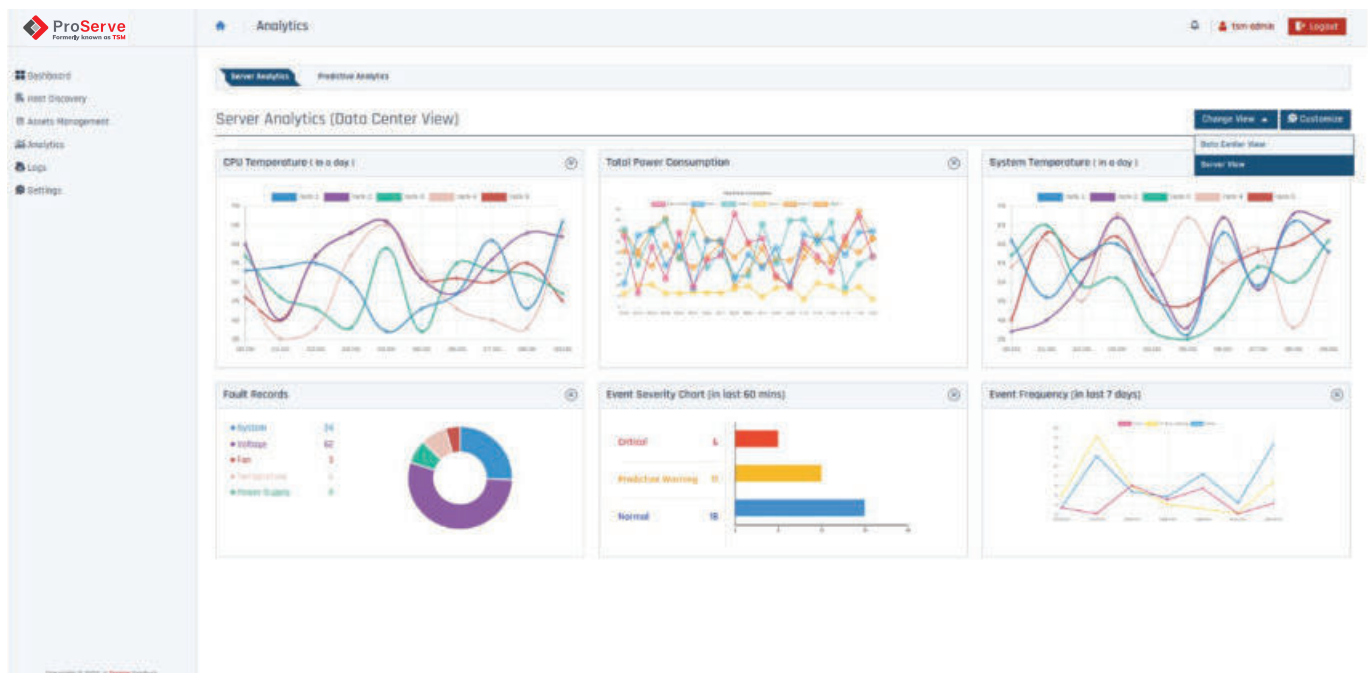


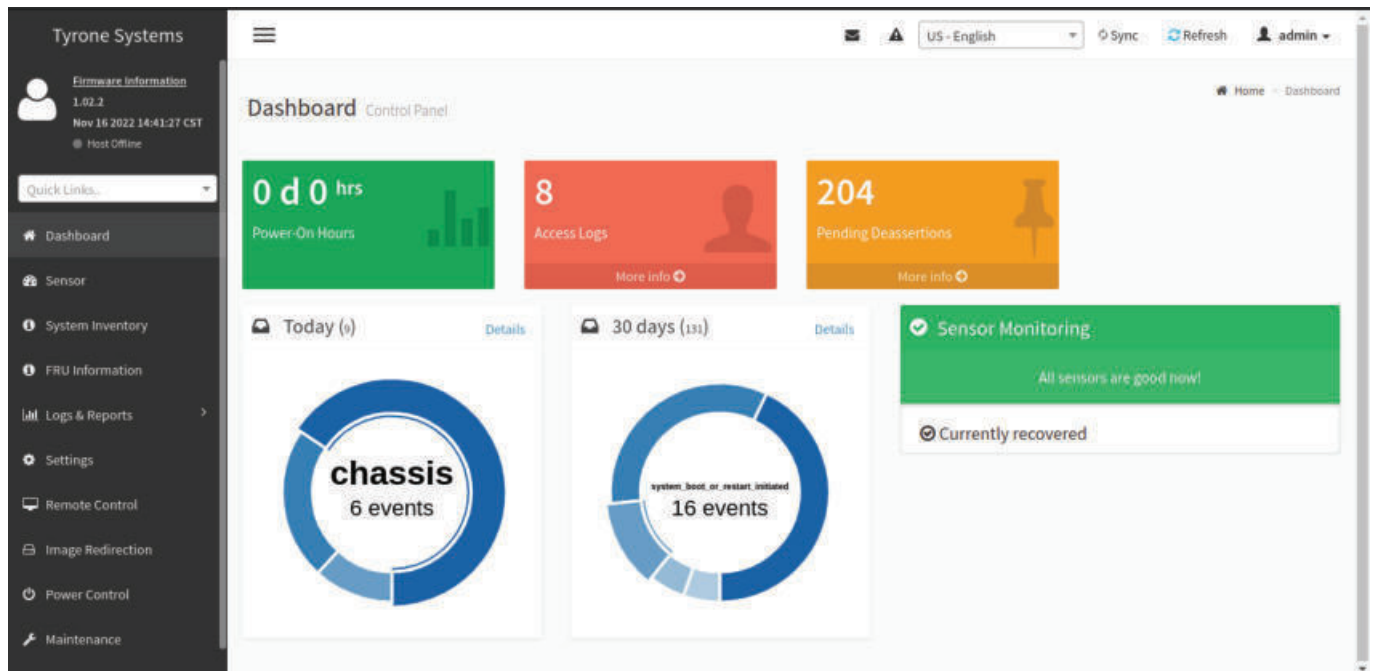


### 3. Real Time Monitoring and Analytics

Server health management with real-time subcomponent monitoring, error detection, proactive health management, and server firmware synchronization to ensure performance and stability of a system.

- Monitor server and sub-component health in real time and act on alerts.
- Health status of critical components like Processors, GPU, Memory, Storage, Networking, and other parameters such as system cooling, temperature etc., blink LED to identify server.
- Storage drives detection and reporting for actual & impending alerts. Self-Monitoring, Analysis and Reporting Technology (S.M.A.R.T) enabled system monitoring and management.
- Check the firmware version of Tyrone Servers and identify outliers
- Comprehensive Inventory Management.
- Integrated server Diagnosis to automatically detect and Diagnose issue.





**Tyrone Systems** | [https://172.16.15.82/system\\_inventory\\_info](https://172.16.15.82/system_inventory_info)

**Quick Links:** Dashboard, Sensor, System Inventory, FRU Information, Logs & Reports, Settings, Remote Control, Image Redirection, Power Control, Maintenance, Sign out

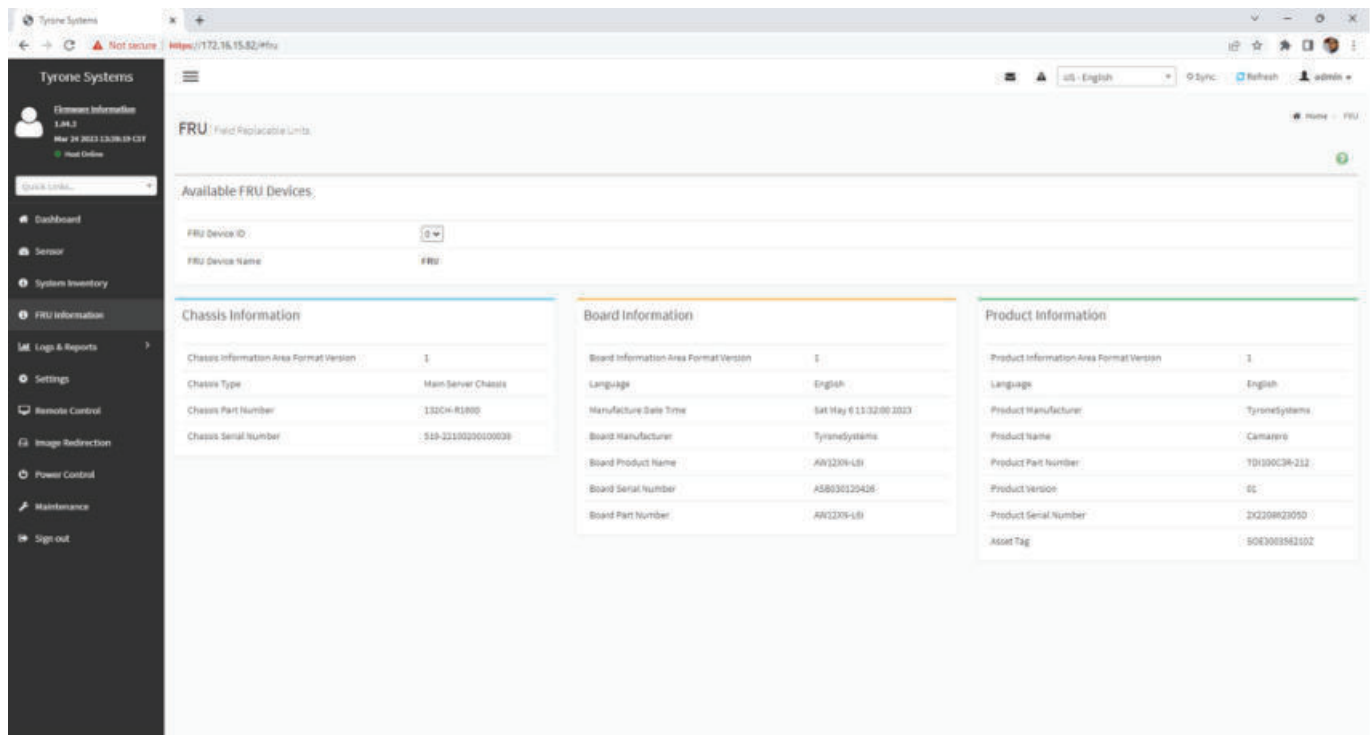
**System Inventory Info**

**Fan Info**

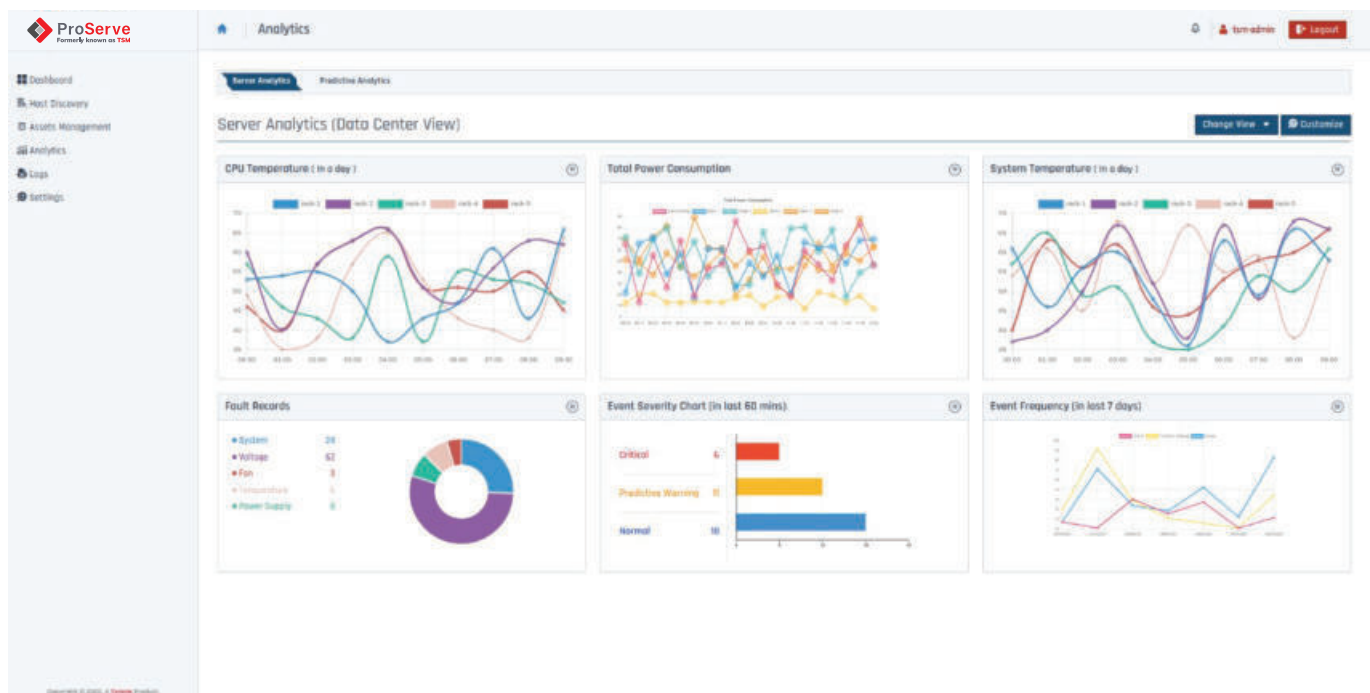
Name	Member ID	Physical Context	State	Reading(RPM)	UF	UC	UMC	LMC	LC	LF
FAN1	16	Fan	Enabled	6200.000000	NA	NA	NA	NA	800	500
FAN2	17	Fan	Enabled	7900.000000	NA	NA	NA	NA	800	500
FAN3	18	Fan	Enabled	8200.000000	NA	NA	NA	NA	800	500
FAN4	19	Fan	Enabled	7800.000000	NA	NA	NA	NA	800	500
FAN5	20	Fan	Enabled	8200.000000	NA	NA	NA	NA	800	500
FAN6	21	Fan	Enabled	7900.000000	NA	NA	NA	NA	800	500
FAN7	22	Fan	Enabled	8300.000000	NA	NA	NA	NA	800	500
FAN8	23	Fan	Enabled	8200.000000	NA	NA	NA	NA	800	500

**Temperature Info**

Name	Member ID	Physical Context	State	Reading(Celsius)	UF	UC	UMC	LMC	LC	LF
CPU0_Temp	32	Intake	Enabled	50.000000	90	93	NA	NA	NA	NA
CPU1_Temp	33	Intake	Enabled	45.000000	95	93	NA	NA	NA	NA
CPU0_VR	36	Intake	Enabled	40.000000	120	105	NA	NA	NA	NA
CPU1_VR	37	Intake	Enabled	27.000000	110	105	NA	NA	NA	NA
WHE	38	Intake	Enabled	25.000000	75	70	NA	NA	NA	NA
POH	41	Intake	Enabled	51.000000	104	99	NA	NA	NA	NA
Ambient	42	Intake	Enabled	40.000000	85	80	NA	NA	NA	NA
BMC	43	Intake	Enabled	48.000000	90	85	NA	NA	NA	NA
K500	44	Intake	Enabled	47.000000	123	118	NA	NA	NA	NA
CPU0_DIMM0	46	Intake	Absent	NA	90	85	NA	NA	NA	NA



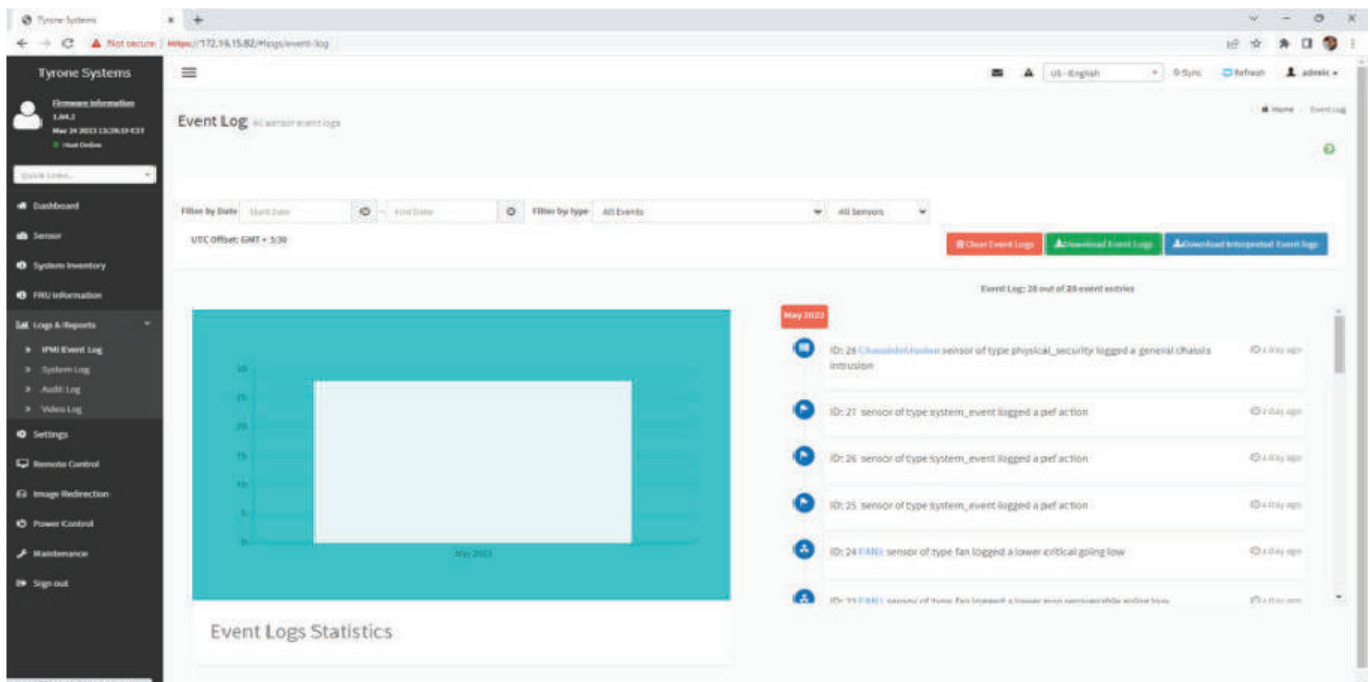
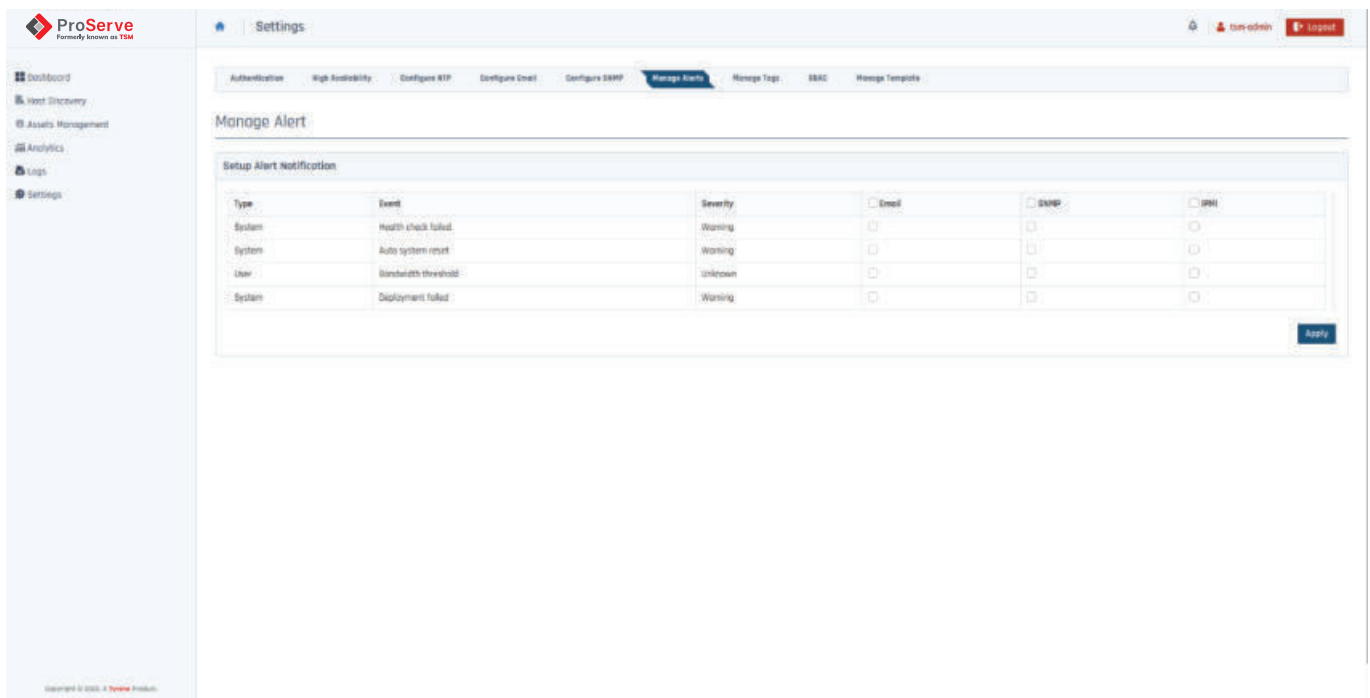
- Enhanced Capacity Planning
- Automatic Under-utilized Server Identification by analysing historical utilization and power data
- Data Center Layout Management by power budget enforcement, power capping etc.
- Predictive detection with built in analytics and intelligence to detect unhealthy devices in Servers (Processor, MBD, Memory, Fan, Power Supply, Storage, Voltage / Sensor Reading) (of multiple components) with alerts, anomaly detection, Server failure Indication and alerts
- Telemetry data for analytics

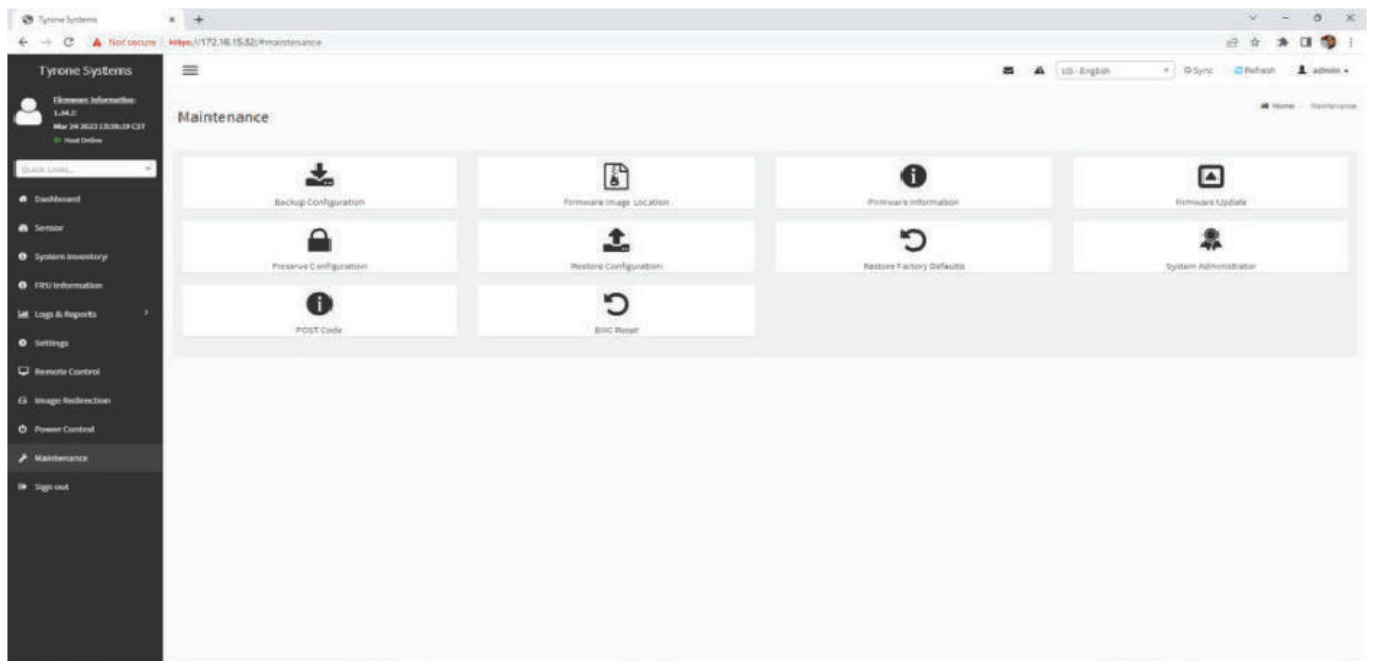
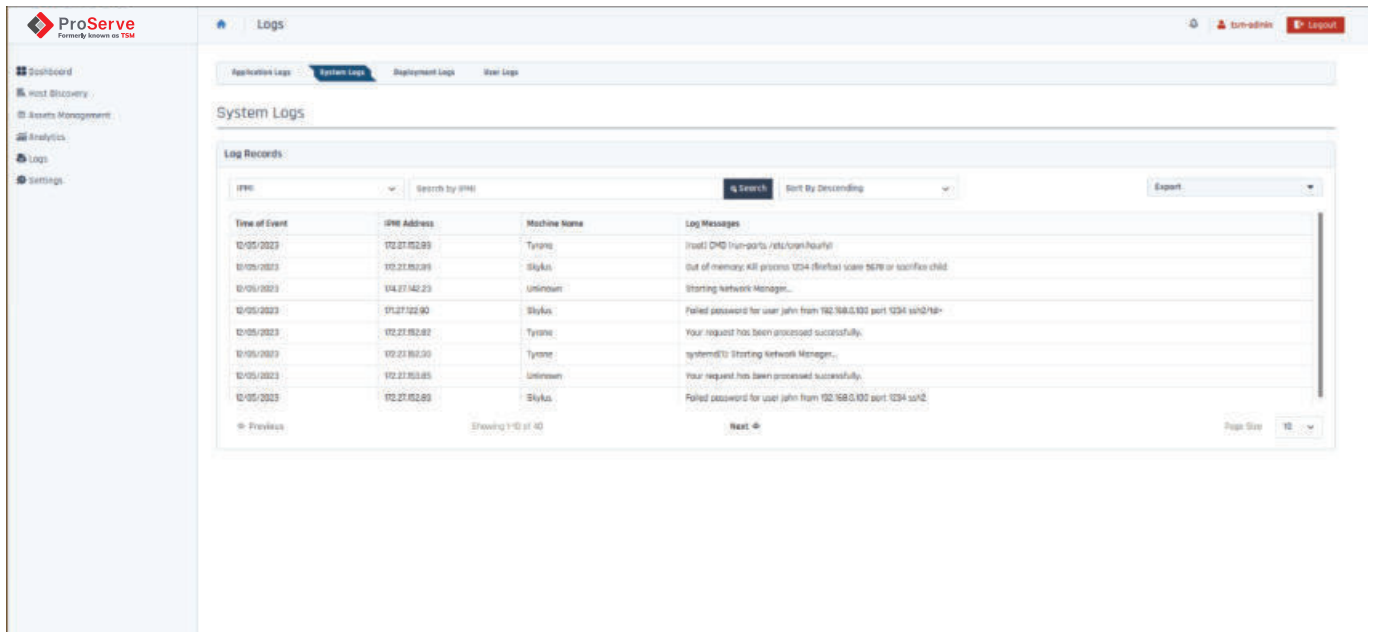


## 4. Notifications, Alerts, Reporting & Servicing

Monitoring of data center health, power, and thermals in real time and providing alerts and notifications

- Alerts based on custom power & thermal events
- Centralized reporting tools that provide comprehensive details inventory reporting, tailored reports etc.
- Event logs (with monitoring and extraction) based on real time events / health reporting,
- Offers Self Service portal for firmware and patch deployments.).
- Provision for integration of status monitoring of tickets generated and warranty details.
- System intrusion alerts\ notification through unified dashboard





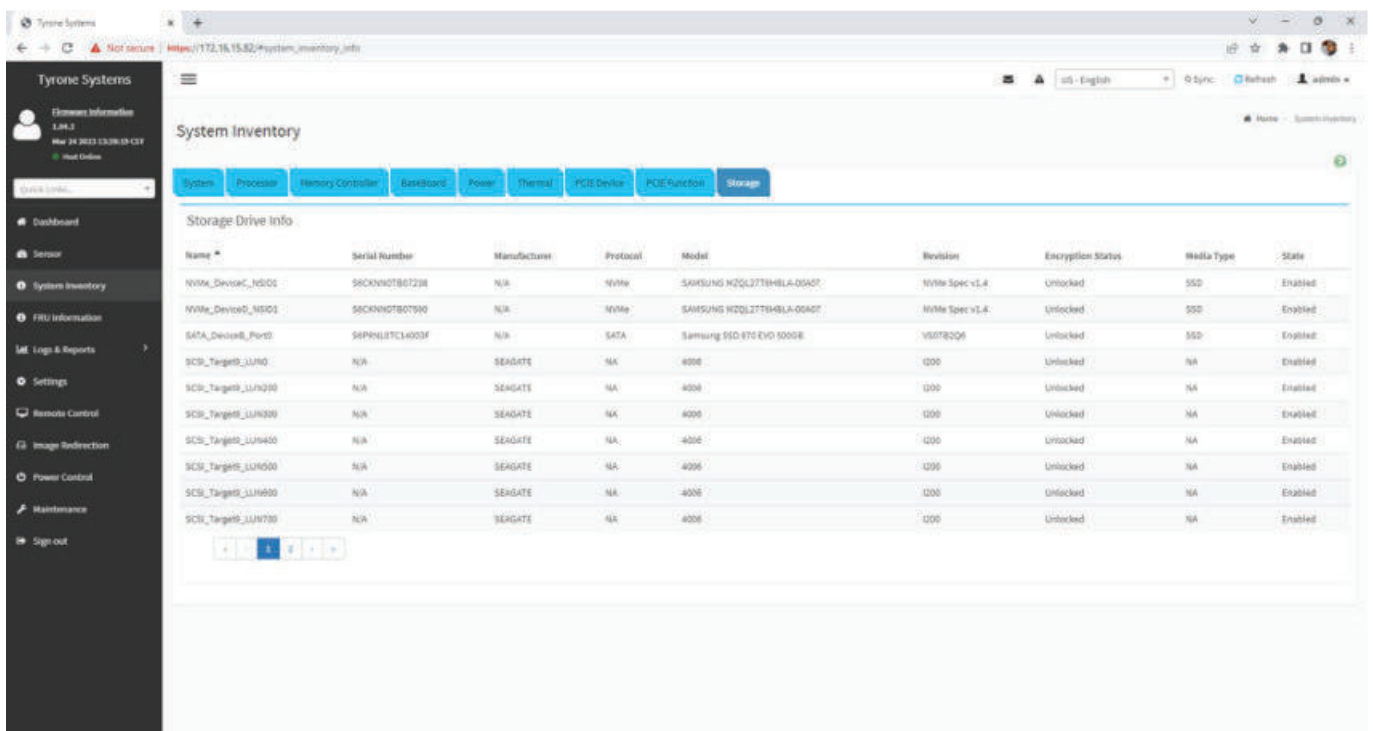
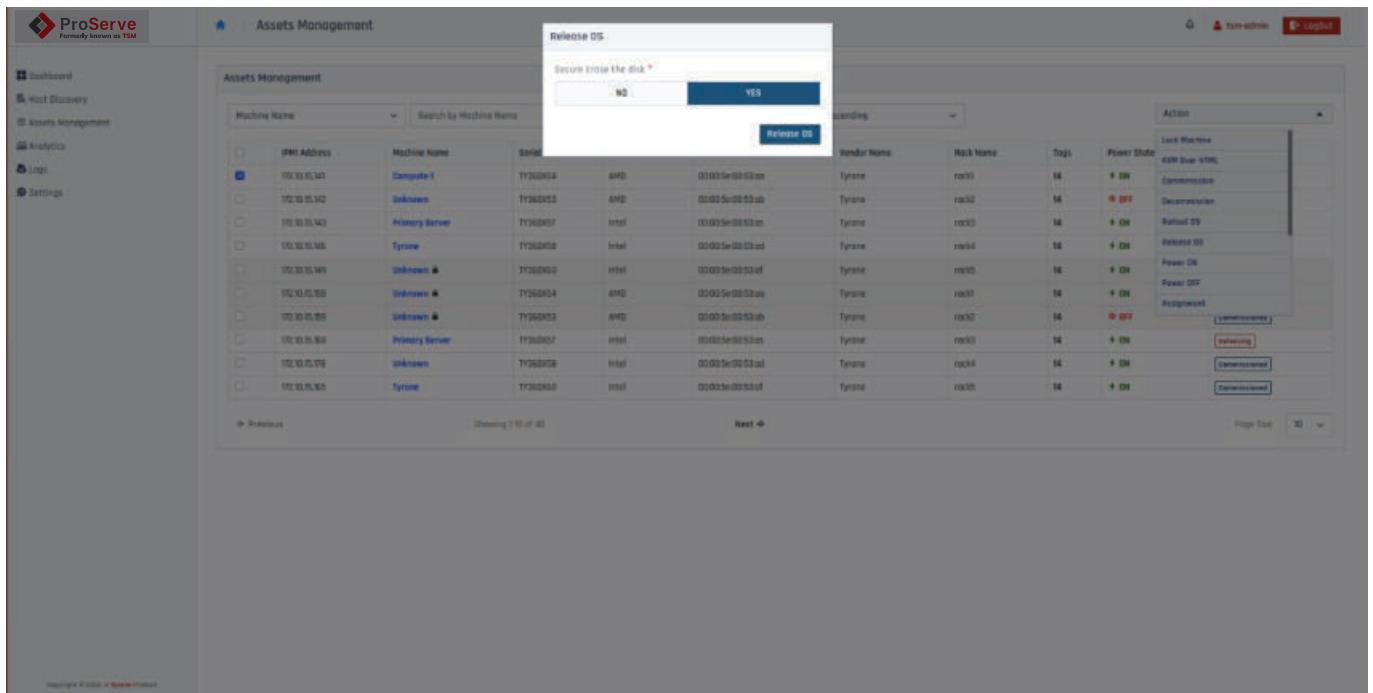
## 5. Miscellaneous

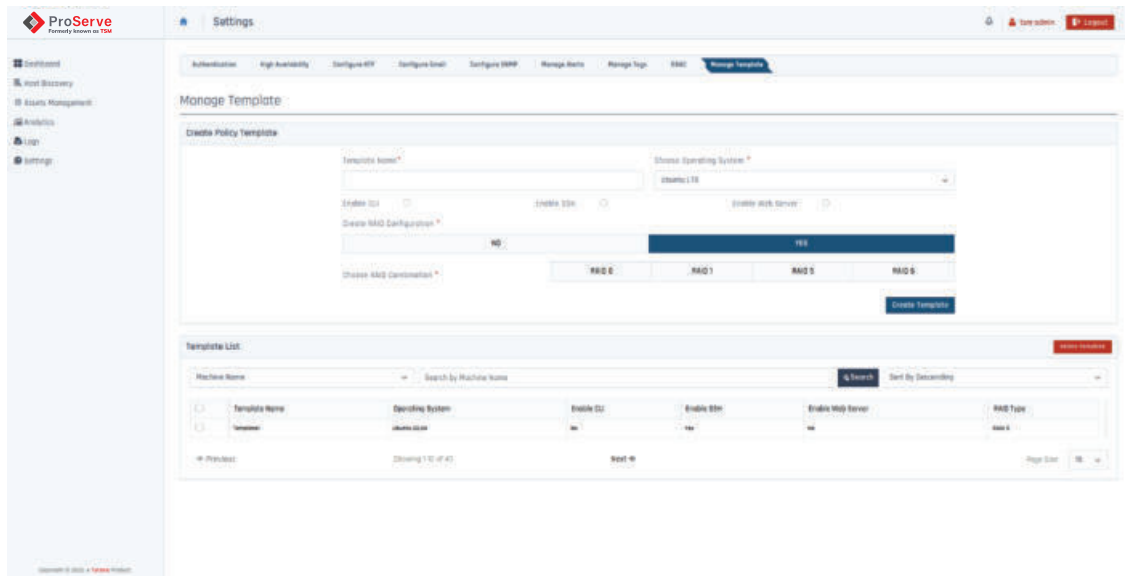
ProServe provides various miscellaneous features and can be customized as per user requirements by providing below enumerated features :

- Secure SED Management, Auto Lock with Local Key Management, Instant Secure Erase with coherent controller management utility, RAID Management & Virtual Disks Creation
- Intuitive web console that provides features with provision for inventory & health alerts
- RESTful APIs for Integrate with other solutions, Provides SDK based on programming language like Python or similar. Custom scripts confi-gurations.
- Highly Customizable dashboard (user de-fined with flexible name and widgets), Multiplatform Support, Industry Standard Protocols and underlying tools



- Alert if select component(s) populated are not in OEM Hardware System Compatibility list





- Dynamic enable/disable of ports (USB etc.) remotely

**USB Configuration**

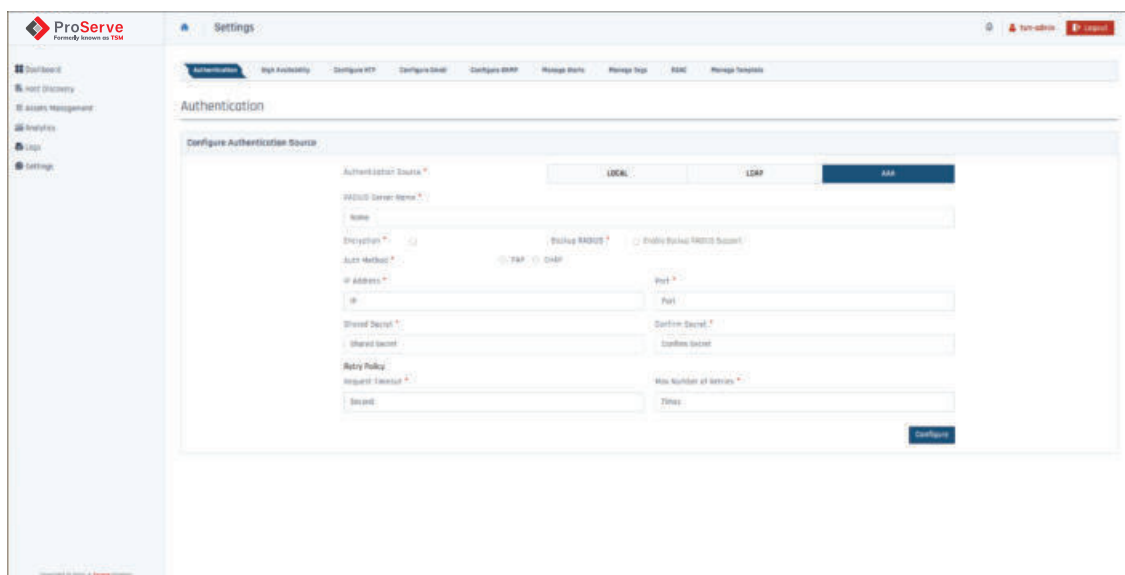
Select a BIOS Variable: **USB Front Ports Enable**  
 BIOS Variable Value: **On (Enabled)**  
 Setup Page: **Advanced/USB Configuration/USB Front Ports Enable**

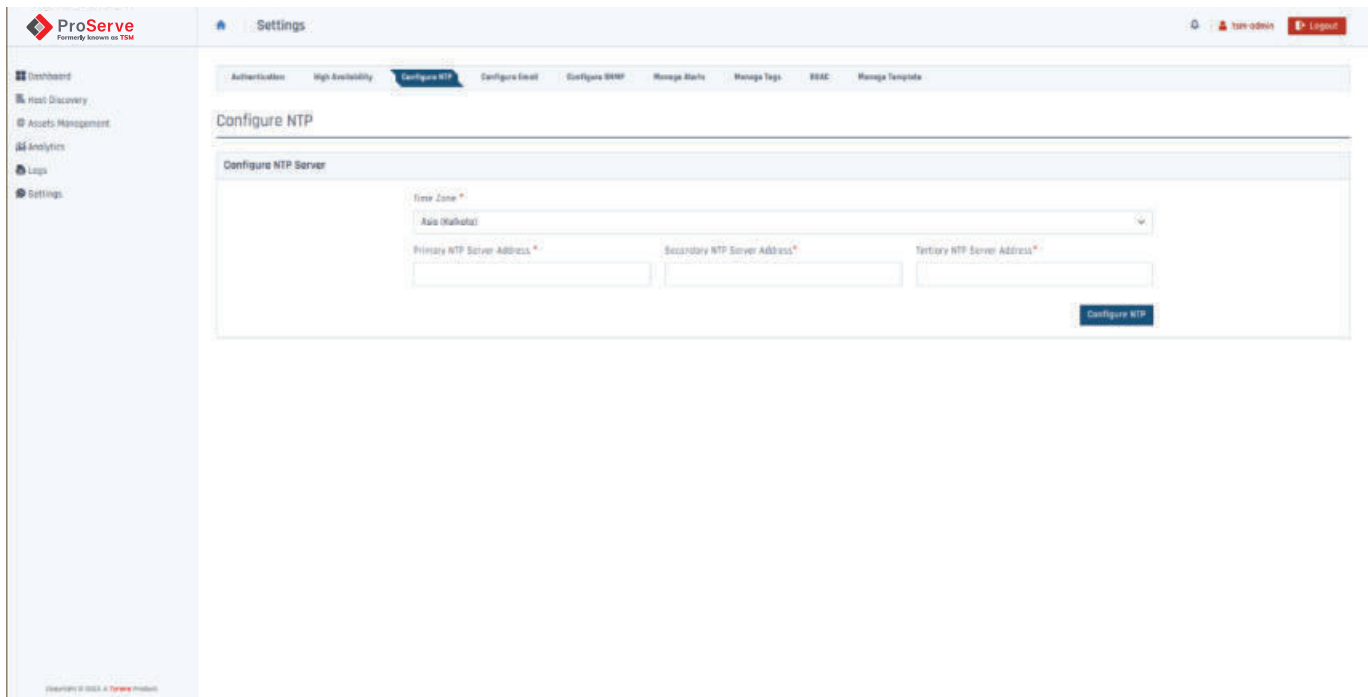
Key Name	BIOS Variable Description	Value	Save/Value	ID
USB Front Ports Enable	Enable or disable the USB Front Ports	On (Enabled)	On (Enabled)	0
USB Rear Ports Enable	Enable or disable the USB Rear Ports	On (Enabled)	On (Enabled)	1
USB Internal Ports Enable	Enable or disable the USB Internal and BMC Ports	On (Enabled)	On (Enabled)	2

## 6. Secure Authentication

Tyrone ProServe provides secure management using various authentication measures for secure Server Management. Such examples of measures include:

- HTTPS
- LDAP
- NTP
- Active Directory
- SMTP
- SNMP
- Radius/AAA
- SSH





## 7. Technical information

Tyrone ProServe uses industry standard protocols, Interface mechanism and user interface which enable user to perform System Management with ease and provides facility to customize, integrate in multi platforms. Such details are covered vide a comprehensive list comprising of:

### a. Hardware Protocols:

- IPMI (2.0)
- Redfish
- HTTPS
- SSH/CLI
- SNMP

### b. Management Interface:

- BMC, IPMI 2.0, IPMI over LAN,
- Serial over LAN
- Out of Band Management
- Agent based Management
- iKVM
- Virtual Media
- Redfish & SMASH Support

### c. User Interface:

- REST APIs,
- HTML5 GUI
- JAVA
- CLI / PowerShell

# TSM Product datasheet doesn't cover all features, there may be extensive features happened to be part of the TSM but have not reflected here. For such details kindly contact local Tyrone representative.