

TYRONE SERVER MANAGEMENT





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

	ProServe Formerly known ox TSM		
Usernam			
Password			
Forgot Pa:	sssword?	Sign In	





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				
Usernan	ame *		Password *	
Discover	ery Type *	IP RA	NGE	NETWORK RANGE
Start IP	ib *		End IP *	
Forma	nat: 0.0.0.0		Format: 0.0.0.0	
				Begin Discove

Host Discovery Wizard					
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		
Authenticatio	חכ									
Configure Auther	ntication Source									
		Authenticatio	on Source *			LOCAL		LDAP	ААА	
		FQDN Server	x			1	ONS Server*			
		Format: <ho< td=""><th>stname>.<second-le< th=""><td>vel-domain>.<top-level-< td=""><td>domain></td><td></td><td>Format: 0.0</td><th>0.0</th><td></td></top-level-<></td></second-le<></th></ho<>	stname>. <second-le< th=""><td>vel-domain>.<top-level-< td=""><td>domain></td><td></td><td>Format: 0.0</td><th>0.0</th><td></td></top-level-<></td></second-le<>	vel-domain>. <top-level-< td=""><td>domain></td><td></td><td>Format: 0.0</td><th>0.0</th><td></td></top-level-<>	domain>		Format: 0.0	0.0		
		Username*				1	Password*			
		Type your username				Type your possword				
									Configure	

• Remote accessibility to multiple servers simultaneously for management (scalable to manage upto six thousands servers)

verview			۲	Machine State Distributi	on	(1)	DC Layout View			
No. of Machines		Capacity (Total)		Provisioned	20		No. of Racks		Rack Distribu	ution
200	19.4 ki	Vh		Commisssioning	0	10%	5	Nome	Copacity	Filled %
CPU Temp. (Avg.) 19°C	Syster 19°C	n Temp. (Avg.)		Commissioned Deploying	40	x \$23	Avg. Filled % 44.8%	Rock1	40	10%
19.0	IA C			 Deployed Releasing 	100	13N	Avg. Machines/Rack	Rock2	40	80%
Machine Power Sta	ite	\$ ON 190	© OFF 10	Decommissioning	20		32	Rock3	40	60%
lachines Overview						۱	Event Severity Chart (in last	50 mins)		
Machine Name	✓ Sea	ch by Machine Nam	e	& Search Sort By Descen	ding ~	Open Registry	Critical 6			
IPMI Address	Machine Name	Serial No.	Model No.	MAC Address	Vendor Name	Rock Name	Predictive Warning 11			
172.10.15.141	Unknown	TY360X54	AMD	00:00:5e:00:53:00	Tyrone	rack1	Predictive Warning II			
172.10.15.142	Unknown	TY360X53	AMD	00:00:5e:00:53:ob	Tyrone	rack2	Normal 18			
172.10.15.143	Primary Server	TY360X57	Intel	00:00:5e:00:53:os	Tyrone	rack3	-		ù ù	
172.10.15.146	Tyrone	TY360X58	Intel	00:00:5e:00:53:od	Tyrone	rack4				
1001015110	Unknown	TY360X60	Intel	00:00:5e:00:53:af	Tyrone	rack5	Event Frequency (in last 7 da	ys)		
1/2.10.10.149	Unknown	TY360X54	AMD	00:00:5e:00:53:00	Tyrone	rack1	_	Court and Park in Strong	-	
	Unknown	TY360X53	AMD	00:00:5e:00:53:ob	Tyrone	rack2				-
172.10.15.158	Cristiowit				-	rack3				
172.10.15.149 172.10.15.158 172.10.15.159 172.10.15.159	Primary Server	TY360X57	Intel	00:00:5e:00:53:as	Tyrone	FOCK3	- // \ \			/





Asset Tracking and Management

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 comissioning /decommissioning, provisioning / deprovisioning capabilities

ProServe	♠ Settings	a sm-admin 🕞 Logout
■ Dashboard 画 Host Discovery 回 Assets Management 論 Analytics	Authentication High Availability Configure NTP Configure Email Configure SNMP Manage Alerts Manage Tags RBAC Manage Template Manage Tags	
Logs	Create Tag Tags List	Delete togs
Settings	Tog Nome Assigned Machine Color* 0	
Copyright 🗟 2022. A Tyrone Product.		

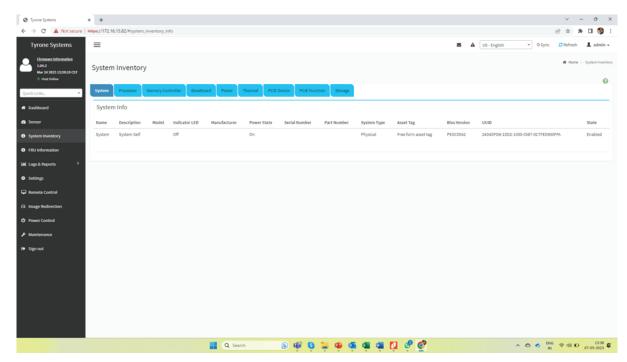
• Graphical overview of host's resources

Dashboard Kost Discovery Assets Management	Machine Summary PCI Devices							
Assets Management								
	Machine Summary						Action Monitoring & Aler	rt 👂 Customize
រណ៍ Analytics 🖨 Logs	Health Monitoring	CPU Temperature	2	(III) Storage		(B) S	Server Power Consumption	(1)
	Health Monitoring 30		mp (cooling) 40		Storage 62		server Power Consumption 59	
	Voltage Utizalations	(11)	Hardware Information					(8)
	CPU Velage oyuen board	PSJ	System Information Vendar Product Version Serial Number	Tyrone System TD1100C3R-212 01 2X20032302	Mainboard Information Vendar Product Version Firmware Bootmade Date			Tyrone System W12ACT10N-L6i PE6C0042 ernational.LLC UEFI 01/16/2023
	225 220 0000 0100	02:00	CPU Details					(8)
	Deployed True Owner	U	Cores	48	Memory	511 GB	Zone	AZ1

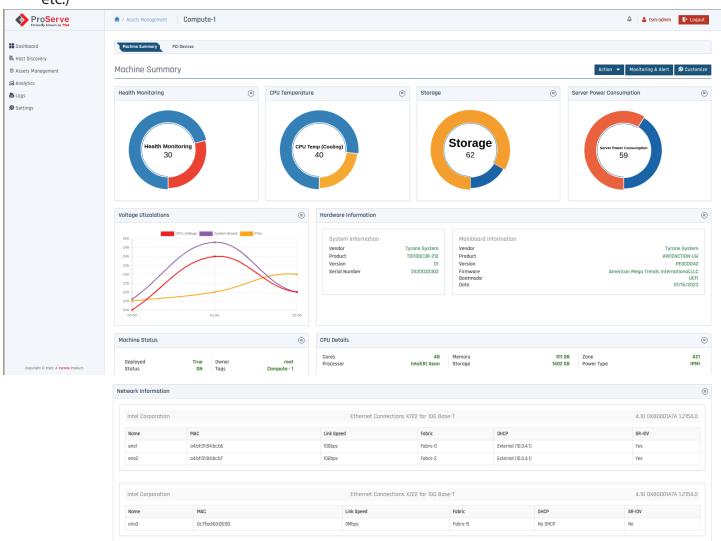




 Inventory details of host system like Processors, Memory, Storage, Networking, and other components



• 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.

- Tyrone Systems × + ∨ – 0 × Li2 文 本 □ 😒 : ■ A US-English • ¢ Sync © Refresh 1 admin • → C ▲ Not secure | https://172.16.15.82/#pc Tyrone Systems \equiv Einmearc III 1.04.2 Mar 24 2023 13:38:39 CST 4.0xine Home > Power Control Power Control on Host Server 0 Power Actions Dashboard Host is currently on O Power Off Power On System Inventory O Power Cycle 6 FRU Information Hard Reset 📕 Logs & Reports ACPI Shutdown • Settings O Perform Action Remote Control 🖨 Image Redirecti C Power Control 😝 Sign out 🔡 Q Search 🕒 🍻 💕 📮 🐢 🚎 🖏 🖏 🚺 🗳 🔮 ∧ ⊙ ● ^{ENG} ♥ ♥ ₽ 1345 ₽
- Power Management (Power ON/Power Off)

· Remotely connection via the iKVM

Tyrone Systems	× +							~ -	0 X
← → C ▲ Not secure	https://172.16.15.82/#remote_control							0 A A	🗆 🌖 i
Tyrone Systems	≡					S A US-English	* Ó Sync	C Refresh	1 admin -
Einmear: Information 1.04.2 Mar 24 2023 13:39:19 CST Host Online	Remote Control Remote KVM & SOL							# Home :	Remote Control
Quick Links	H5Viewer								
Sensor System Inventory	G* Launch HSWewer								
FRU Information Idd Logs & Reports	JViewer								
Settings Remote Control	📥 Launch JNewer								
Image Redirection Power Control	Serial Over LAN								
 Maintenance Sign out 	C [®] Activate								
		Q Search	ь 📽 🔮 📜	i 🔹 💁 🔹	🛯 🚺 🧬 🕜 👘	^		10 P	13:45





- 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 based on Admin policies for updates and deployment
- Provisioning of Power Policies, Profile import/export

shboard	Assets M	anagement									
st Discovery											
ets Management	Machine	e Name	 ✓ Search by Machin 	e Name		Q Search Sor	t By Descending	~			Action
olytics		IPMI Address	Machine Name	Serial No.	Model No.	MAC Address	Vendor Name	Rack Name	Tags	Power State	Machine State
		172.10.15.141	Compute-1	TY360X54	AMD	00:00:5e:00:53:aa	Tyrone	rack1	14	≯ ON	Commissioned
ings		172.10.15.142	Unknown	TY360X53	AMD	00:00:5e:00:53:ab	Tyrone	rack2	14	O OFF	Deploying
		172.10.15.143	Primary Server	TY360X57	Intel	00:00:5e:00:53:as	Tyrone	rack3	14	∳ ON	Deployed
		172.10.15.146	Tyrone	TY360X58	Intel	00:00:5e:00:53:ad	Tyrone	rack4	14	∳ ON	Deployed
		172.10.15.149	Unknown 🔒	TY360X60	Intel	00:00:5e:00:53:af	Tyrone	rack5	14	∳ ON	Deployed
		172.10.15.158	Unknown 🔒	TY360X54	AMD	00:00:5e:00:53:aa	Tyrone	rackt	14	≯ ON	Deployed
		172.10.15.159	Unknown 🔒	TY360X53	AMD	00:00:5e:00:53:ob	Tyrone	rack2	14	O OFF	Commissioned
		172.10.15.169	Primary Server	TY360X57	Intel	00:00:5e:00:53:as	Tyrone	rack3	14	∳ ON	Releasing
		172.10.15.178	Unknown	TY360X58	Intel	00:00:5e:00:53:od	Tyrone	rack4	14	∳ ON	Commissioned
		172.10.15.165	Tyrone	TY360X60	Intel	00:00:5e:00:53:af	Tyrone	rack5	14	≯ ON	Commissioned

Image redirection

	Virtual Storage 1.2 r2	- 🛛
Device1 Device2 De	vice3	
Settings for Device1		
Logical Drive Type	Image File Name and Full Path	
No Select 🔻		Open I
Refresh	Plug in Plug Out	ОК
	Connection Status History	
		•





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

)iscovery 5 Management	Authentication High Availability Role Base Access Contro	Configure NTP Configure Emoli	Configure SNMP	Manage Alerts	Manage Tags RBAC	Manage Template		
lics	Create Role		Role List					Del
ettings	Name *				✓ Search by R	ole	Search	Sort By Descending
	Select Permissions *			Role Admin	Assigned Users	Assigned Machine	Permissions Granted	Actions View Edit
	Host Discovery Commission Machine Decommission			Member	30	50	10	Vicer Edit
	Deploy OS Delorse OS			Reader	30	10	3	View Edit
	Beplay OS Relaces DS Critate RMD View System Log <u>View Log</u> and known Log end Critit, key to sided multiple permissions	٨dd	- Pret		30 Showing 1-10 of 40	Next ≁	3	Poge Size 10
	Release OS Create RAID View System Log View Application Log	Add	4 Pret				3	
	Release DS Crotes RAID View System Log L. View Analization Lon. end Chill, wy to when motion permissions	Select Role *	4 Pret	vious		Next &	3 Q Search	Poge Size 10
	Release OS Droter RAID View System Log -View System Log -View Annifertinia Jon -Red CTR, Ny forseket multiple permissions Red CTR, Ny for select multiple permissions	Select Role *	Pret	vious	Showing 1-10 of 40	Next &	Q Search Assigned Tags	Page Size 10 Present Att Sort By Descending Actions
	Release OS Drotter RAU View System Log Liver System Log Assign Role Select User * User v	Select Role * Admin	Role User Ass Role	ious Ignment List	Showing 1-10 of 40	Next -Ф	Q Search	Poge Size 10 Annual Act

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

O Tyrone Systems	× +			∨ - 0 ×
← → C ▲ Not secure	https://172.16.15.82/#settings/network			ie 🖈 🖬 🌖 🗄
Tyrone Systems	=		2 4	US - English 🔹 🗘 Sync 🖸 Refresh 💄 admin 🗸
Einmearc Information 1.04.2 Mar 24 2023 13:39:39 CST Hind: Online	Network Settings			# Home > Settings > NetworkSettings
Quick Links. •	Network IP Settings	Network Bond Configuration	Network Link Configuration	DNS Configuration
Sensor	8			
System Inventory	Sideband Interface (NC-SI)			
FRU Information				
🕍 Logs & Reports 🔹 🔸				
 Settings 				
Remote Control				
A Image Redirection				
O Power Control				
😝 Sign out				
		🚦 Q. Search 🚯 💕 😭 🐂 🚳 🕻	🛎 💷 🚺 🦿 💇 🦔	∧ ⊘ € ^{ENG} ♥ 00 ₺ 1416 ₽

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





ProServe	 Settings 					🛕 🤮 tsm-admin 🕩 Logo
Jashboard	Authentication High Availabili	ty Configure NTP Configure Email Con	igure SNMP Manage Alerts Manage Tags	s RBAC Nonage Template		
lost Discovery	Kothenocation Righ Availabilit	y compare wir compare zmail com	igure same – monoge kierts – monoge rogs	KBAC Monage remplate	×	
Assets Management	Manage Template					
nalytics						
ogs	Create Policy Template					
ettings		Template Name*		Choose Operating System *		
				Ubuntu LTS		~
		Enoble CLI	Enable SSH	Enable We	b Server 🛛	
		Create RAID Configuration *				
			ND		YES	
		Choose RAID Combination *	RAID O	RAID 1	RAID 5 RAID 6	5
					Create	e Template
	Template List				Create	
	Template List Machine Name	✓ Search by Mochin	e Nome			Delete Terro
		Search by Machin Operating System	e Nome Enable CL	Enable SSH		Defete Temp
	Machine Name			Enable SSH Yes	Q Search Sort By	Descending
	Machine Name	Operating System	Enable CLI		Q Search Sort By Enable Web Server	Elecending RAID Type
	Machine Name Template Name Trensleter	Operating System Ubuntu 22,04	Enable CLI No		Q Search Sort By Enable Web Server	Descending RAID Type RAID 5
	Machine Name Template Name Trensleter	Operating System Ubuntu 22,04	Enable CLI No		Q Search Sort By Enable Web Server	Descending RAID Type RAID 5
	Machine Name Template Name Trensleter	Operating System Ubuntu 22,04	Enable CLI No		Q Search Sort By Enable Web Server	Descending RAID Type RAID 5

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.

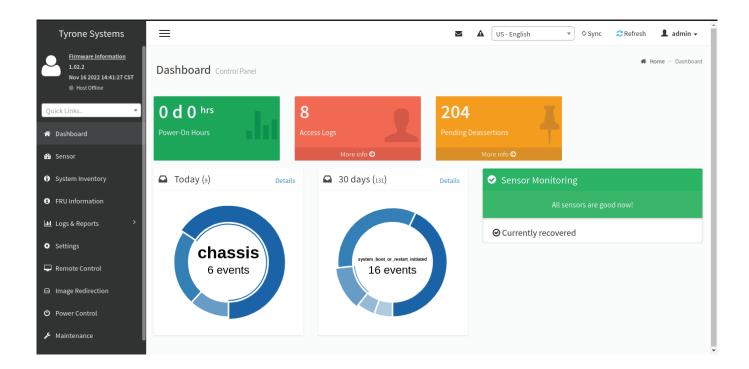
- Monitor server and sub-component health in real time and act on alerts
- Health status of critical components like Processors, Memory, Storage, Networking, and other parameters such as system cooling, temperature etc., blink LED to identify server
- Check the firmware version of Tyrone Servers and identify outliers
- Comprehensive Inventory Management

Copyright 8 2022. A Tyrone Product.

ProServe	 Analytics 			😂 🛔 tsm-admin 🕞 Logout			
■ Dashboard 戦 Host Discovery	Server Analytics Predictive Analytics						
回 Assets Management 論 Analytics ● Logs	Server Analytics (Data Center View) CPU Temperature (In a day)	Total Power Consumption	System Temperature (In a day)	Change View Data Center View Server View			
₿ Settings							
	Foult Records • System 24 • Voltage 62 • Fam 3 • Recert Supply 8	Event Severity Chart (in last 60 mins)	(e) Event Frequency (in last 7 days)				

Tyrone





	× +																- 0
A Not secure	Mtps://172.16.15.82	/#system_inventory_info													E	2 2 1	
	System Proc	essor Memory Contro	ller BaseBoard	d Power Therr	nal PCIE Dev	Ice PCIE Functi	on Storage										
4	Fan Info						<u> </u>										
rd	rannio																
	Name	Member Id *		Physical Context		State		Reading(RPM)		UF	UC	UNC		LNC	LC	L	F
entory	FAN1	16		Fan		Enabled		8200.000000		NA	NA	NA		NA	800	5	00
ation	FAN2	17		Fan		Enabled		7900.000000		NA	NA	NA		NA	800	5	00
_{erts} >	FAN3	18		Fan		Enabled		8200.000000		NA.	NA	NA.		NA	800	5	00
	FAN4	19		Fan		Enabled		7800.000000		NA	NA	NA		NA	800	5	00
	FAN5	20		Fan		Enabled		8200.000000		NA.	NA	NA.		NA	800	5	00
ntrol	FAN6	21		Fan		Enabled		7900.000000		NA	NA	NA.		NA	800	5	00
rection	FAN7	22		Fan		Enabled		8300.000000		NA.	NA	NA.		NA	800	5	00
log	FAN8	23		Fan		Enabled		8200.000000		NA	NA	NA		NA	800	5	00
ince																	
	Temperatur	re Info															
	Name		Member Id 🕈	Physica	el Context		State	Reading[Celsius)		UF	UC	UNC	LNC		LC	LF
	CPU0_Temp		12	Intake			Enabled	50.00000)		96	93	NA	NA		NA	NA
	CPU1_Temp		13	Intake			Enabled	41.00000)		96	93	NA	NA		NA	NA
	CPU0_VR		16	Intake			Enabled	40.00000	>		110	105	NA	NA		NA	NA
	CPU1_VR		37	Intake			Enabled	27.00000)		110	105	NA	NA		NA	NA
	Inlet		18	Intake			Enabled	25.00000)		75	70	NA	NA		NA	NA
	PCH		11	Intake			Enabled	51.00000)		104	99	NA	NA		NA	NA
	Ambient		12	Intake			Enabled	46.00000	>		85	80	NA	NA		NA	NA
	BMC		13	Intake			Enabled	45.00000)		90	85	NA	NA		NA	NA
	X550		14	Intake			Enabled	47.00000	>		123	118	NA	NA		NA	NA
	CPU0_JDIMMA0		48	Intake			Absent	NA			90	85	NA	NA		NA	NA
				Q Search		<u>ь</u> 💕 😘	🔁 🚳	🛛 🚺 🤇	ی 🕑 🗴				,		ENG	♥ 0) ₩	07-05-3

Tyrone®



Tyrone Systems	× +					~ - 0 ×
← → C ▲ Not secure	https://172.16.15.82/#fru					🖻 🖈 🗯 🖬 🚳 E
Tyrone Systems	=				S A US-English * \$\$ync	CRefresh 💄 admin 🗸
Einmeare Information 1.04.2 Mar 24 2023 13:38:19 CST With Online	FRU Field Replacable Units					₩ Home > FRU
Quick Links	Available FRU Devices					
# Dashboard	FRU Device ID	0~				
Sensor	FRU Device Name	FRU				
System Inventory						
FRU Information	Chassis Information		Board Information		Product Information	
🕍 Logs & Reports	Chassis Information Area Format Version	1	Board Information Area Format Version	1	Product Information Area Format Version	1
O Settings	Chassis Type	Main Server Chassis	Language	English	Language	English
Remote Control	Chassis Part Number	132CH-R1600	Manufacture Date Time	Sat May 6 11:32:00 2023	Product Manufacturer	TyroneSystems
Image Redirection	Chassis Serial Number	519-22100200100039	Board Manufacturer	TyroneSystems	Product Name	Camarero
Power Control			Board Product Name	AW12XN-L6I	Product Part Number	TDI100C3R-212
			Board Serial Number	A58030120426	Product Version	01
F Maintenance			Board Part Number	AW12XN-L6i	Product Serial Number	2%2208623050
😝 Sign out					Asset Tag	SOE300356210Z
		Q Search	🕒 🕸 🥞 😫 🕸 🚳	🛯 💷 🚺 🧬 💇 👘	^ O G ING	© <00 € 13:42 ∰

- 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 of unhealthy devices in Servers (Processor, MBD, Memory, Fan, Power Supply, Storage, Voltage / Sensor Reading, Network Controllers) (of multiple components) with alerts, anomaly detection, Server failure Indication and alerts
- Telemetry data for analytics

ProServe Formerly known as TSM	 Analytics 		🛕 🤮 tsm-admin 🕑 Legaut
E Dashboard 長 Host Discovery Assets Management 縦 Analytics	Terver Analytics Predictive Analytics Server Analytics (Data Center View)		Change View 🔹 🤧 Customize
E Logs	CPU Temperature (in a day)	Total Power Consumption	System Temperature (In a day)
∯ settings			
	Fault Records (ii)	Event Severity Chart (in last 60 mins)	Event Frequency (in last 7 days)
	 System 24 Voltoge 52 Fan 3 Temperature 6 Power Supply 8 	Critical 6 Predictive Warning 11 Normal 18	





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 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.

Discovery	Authentication High Av	vallability Configure NTP Configure Email Configure SNMP Mana	e Alerts Monoge Togs RBAC	Manage Template		
s Management	Manage Alert					
tics	Setup Alert Notification					
ngs	Туре	Event	Severity	□ Email	SNMP DIPM	1
	System	Health check failed	Warning			
	System	Auto system reset	Warning			
	User	Bandwidth threshold	Unknown			
	System	Deployment foiled	Warning			
						Арр
pyright 8 2022. A Tyrone Product.						
						v - 0
C A Not secure https:	//172.16.15.82/#logs/event-log					ici ☆ 🛊 🖬
C A Not secure https:	//172.16.15.82/#logs/event-log			5	▲ [US-English *] ©Sync	ici ☆ 🛊 🖬
C A Not secure Hittps: rone Systems Enumeric	//172.16.15.82/#logs/event-log				▲ US-English • \$5ync	ici ☆ 🛊 🖬
C A Not secure Helps: rone Systems = Ennware Information 104.2 Her 24 2023 13:319:39 CST	//172.16.15.82/#logs/event-log	s			▲ US-English v ¢Sync	ピ☆ ネロ CRefresh Ladmi
C A Not secure MMps: rone Systems Ensware Information 1A-2 Mar 24 2023 13:01:01:51 CST Mar 24 2023 13:01:01:51 CST	//172.16.15.82/#logs/event-log	s			▲ US-English v ØSync	년 ☆ 🏞 🖬 CRefresh 💄 admi
C A Not secure Hitps: rone Systems = Einseer Information 1342 Her 24 2023 1320139 CST Hard Define	//172.16.15.82/#logs/event-log	s			▲ US-English v ¢Sync	ピ☆ ネ ロ CRefresh Ladmi
C A Not secure Heller.	//172.16.15.82/#logs/event-log	s • End Date • Filter by type All Events	~	All Sensors 👻	▲ US-English v ØSjinc	ピ☆ ネ ロ CRefresh Ladmi
C A Not secure Heller trone Systems E Lease A 2022 Listenston Lease A 2022 Listenston matchine bound File	//172.16.15.82/#logs/event-log		•	All Sensors 👻		년 ☆ 🎓 🗖
C A Not secure Heller trone Systems Edication (Constant) LAG 2011 Exactly Constant) Exactly 2012 Exactly Const encloses toks particular (Constant) Exactly 2012 Exactly Const encloses toks encloses	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date Start Date		•			년 ☆ 🎓 🗖
C A Not secure Heave none Systems E Tommer Monardian LM3 Intervent M31213/R19CST Intervent	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date Start Date		~	All Sensors 🔹		년 ☆ 🎓 🗖
C A Not secure HMMP.	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date Start Date			All Sensors 🔹	tion disensional Event Logs	년 ☆ 🎓 🗖
C A Not secure Here Announce Information Cone Systems Cone Systems Cone Systems Cone Cone Cone Cone Cone Cone Cone Cone	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date Start Date		May 2023	All Sensors 🔹 🗎 Class Cuer	tog: 23 out of 23 event entries	Ling the second
And secure Market	//172.16.15.82/#loga/event-log E rent Log All sensor event logs ter by Date Start Date UTC offset: GMT + 5:30		Hay 2023	All Sensors Clear Lver Event I ID: 28 Chassisintrusion sensor of type	tion disensional Event Logs	년 ☆ 🎓 🗖
A Not secure HAPPAN Anot secure HAPP	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date start Date UTC offset: GMT + 5:30		Hay 2023	All Sensors 🔹 🗎 Class Cuer	tog: 23 out of 23 event entries	Ling the second
A Not secure Newsell Not secure Newsell Newsell Not secure Newsell Ne	//172.16.15.82/#loga/event-log E rent Log All sensor event logs ter by Date Start Date UTC offset: GMT + 5:30		May 2023	All Sensors Clear Lver Event I ID: 28 Chassisintrusion sensor of type	ting Literational livent Logs Literation Log: 28 out of 28 event entries physical_security logged a general chassis	Ling the second
A Not secure Newsell Not secure Newsell Newse	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date start Date UTC offset: GMT + 5:30		May 2023	All Sensors Cited Color Event I Color 10: 28 ChassisIntrusion sensor of type Intrusion	ting Literational livent Logs Literation Log: 28 out of 28 event entries physical_security logged a general chassis	C a day ago
C A Not secure Network Cone Systems Cone Systems Cone Systems Cone Systems Cone Systems Not Secure Cone Not	//172.16.15.82/#loga/event-log E rent Log All sensor event logs ter by Date Start Date UTC offset: GMT + 5:30		Vag 2021	All Sensors Cited Color Event I Color 10: 28 ChassisIntrusion sensor of type Intrusion	Logs Loownload Event Logs Loownload Log: 28 out of 28 event entries	C a day ago
C A Not secure Merry One Systems Semeat Information (A42 Intervention Interventio	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date Start Date UTC offset: GMT + 5:30		Vag 2021	All Sensors All Sensors Clear Core Event 1 Dr. 28 ChassisIntrusion sensor of type Intrusion ID: 27 sensor of type system_event ion	Logs Loownload Event Logs Loownload Log: 28 out of 28 event entries	Liè x admi C Refresh a admi Home - Dre d Interpreted Event Reps C a day app O a day app
C A Not secure Newser One Systems Summark Information A42 Intervet 24221 12 12 12 12 12 12 Intervet 24221 12 12 Intervet 24221 12 Intervet	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date Start Date UTC offset: GMT + 5:30		••••••••••••••••••••••••••••••••••••••	All Sensors All Sensors Clear Core Event 1 Dr. 28 ChassisIntrusion sensor of type Intrusion ID: 27 sensor of type system_event ion	Logs &Countoud Event Logs &Countout Log: 28 out of 28 event entries	Liè x admi C Refresh a admi Home - Dre d Interpreted Event Reps C a day app O a day app
C A Not secure Newser Cone Systems Cone Systems Cone Systems Cone Systems Cone Systems Not Cone Not Cone N	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date Start Date UTC offset: GMT + 5:30		••••••••••••••••••••••••••••••••••••••	All Sensors Clear Even Covert Event ID: 28 ChassisIntrusion sensor of type Intrusion ID: 27 sensor of type system_event log ID: 25 sensor of type system_event log ID: 25 sensor of type system_event log	Aloge Alovenious Event Logy Aloveniou Log: 28 out of 28 event entries	Le day app O a day app O a day app O a day app O a day app
C A Not secure Here A Not secure Here A Not secure A Not	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date Start Date UTC offset: GMT + 5:30		••••••••••••••••••••••••••••••••••••••	All Sensors Clear Event Cevent DD: 28 Chassistintrusion sensor of type Intrusion ID: 27 sensor of type system_event log ID: 26 sensor of type system_event log	Aloge Alovenious Event Logy Aloveniou Log: 28 out of 28 event entries	Le day app O a day app O a day app O a day app O a day app
C A Not secure Newser rome Systems Enemets Information 1.44.2 Interval Addition and A display in the secure and the secu	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date Start Date UTC offset: GMT + 5:30	End Date Filter by type All Events	••••••••••••••••••••••••••••••••••••••	All Sensors Clear Even Covert Event ID: 28 ChassisIntrusion sensor of type Intrusion ID: 27 sensor of type system_event log ID: 25 sensor of type system_event log ID: 25 sensor of type system_event log	Aloge Alovenious Event Logy Aloveniou Log: 28 out of 28 event entries	Liè x admi C Refrech a admi Home - tre Home - tre d Interpreted Evert logs O a day app O a day app O a day app O a day app
C A Not secure May Forme Systems	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date Start Date UTC offset: GMT + 5:30	End Date Filter by type All Events		All Sensors Clear Even Covert Event ID: 28 ChassisIntrusion sensor of type Intrusion ID: 27 sensor of type system_event log ID: 25 sensor of type system_event log ID: 25 sensor of type system_event log	ttgp Literritud Event Logs Literritug Log: 28 out of 28 event entries physical_security logged a general chassis gged a pef action gged a pef action gged a pef action a lower critical going low	Liè x admi C Refrech a admi Home - tre Home - tre d Interpreted Evert logs O a day app O a day app O a day app O a day app
C A Not secure Marge Forme Systems Enseme Information 1.44.2 Marge 2013/23/13/15/15/15/1 Marge 2013/23/13/15/15/15/1 Marge 2013/23/13/15/15/15/1 Marge 2013/23/13/15/15/15/15/15/15/15/15/15/15/15/15/15/	//172.16.15.82/#ioga/event-log erent Log All sensor event logs ter by Date Start Date UTC Offset: GMT + 5:30	End Date Rher by type All Events		All Sensors Cevent i Event i 10: 28 ChassisIntrusion sensor of type Intrusion 10: 27 sensor of type system_event lo 10: 25 sensor of type system_event lo	ttgp Literritud Event Logs Literritug Log: 28 out of 28 event entries physical_security logged a general chassis gged a pef action gged a pef action gged a pef action a lower critical going low	Perferent A admi C Referent A admi A Hore - Eve A dot agrap O a day ago
C A Not secure Heller rone Systems E Intervent Information 1.04.3 Intervent Information Intervent Information	//172.16.15.82/#logs/event-log E rent Log All sensor event logs ter by Date Start Date UTC offset: GMT + 5:30	End Date Rher by type All Events		All Sensors Cevent i Event i 10: 28 ChassisIntrusion sensor of type Intrusion 10: 27 sensor of type system_event lo 10: 25 sensor of type system_event lo	tog: 28 out of 28 event entries upsical_security logged a general chassis gged a pef action gged a pef action gged a pef action a lower critical going low	Perferent A admi C Referent A admi A Hore - Eve A dot agrap O a day ago

Tyrone®



					😂 🔷 tsm-admin 🛛 🕑 Log
Doshboard	Application Logs System L	ogs Deployment Logs Use	er Logs		
Host Discovery					
	System Logs				
A long of l					
Provide and Point Configuration Provide Configuration					
Settings	IPMI	✓ Search by IPMI		Q Search Sort By Descending ~	Export 💌
	Time of Event	IPMI Address	Machine Name	Log Messages	
	12/05/2023		Tyrone		
	12/05/2023	172.27.152.89	Skylus	Out of memory: Kill process 1234 (firefax) score 5678 or socrifice child	
	12/05/2023		Unknown	Starting Network Manager	
	4 Previous	Showi	ing 1-10 of 48	Next 🗇	Page Size 10 🗸
	+				v - 0
→ C ▲ Not secure M	Nps://172.16.15.82/#maintenance				v - o 论文 参口(
Tyrone Systems					
Tyrone Systems	=				순 ☆ 🐎 🖬 (
Tyrone Systems Emmer Information 1.04.2 Mir 24 2022 13:31:35:35 CST © Heat Online	≡ Maintenance		آفًا	6	년 ☆ 赤 ロ (로 쇼 US-English * OSync CRefresh 集 ad
Tyrone Systems Emmer Information 1.04.2 Mir 24 2022 13:31:35:35 CST © Heat Online	≡ Maintenance	on		•	L2 ☆ ≯ □ S ▲ US-English → O Sync O Refresh ▲ ad # Home - No ▲
Tyrone Systems	Maintenance Backup Configurati	on .	Firmware Image Location	n Firmware Information	L2 ☆ ★ □ ■ ▲ US-English → OSync @ Refresh ♣ ac # Home → Ma Firmware Update
Tyrone Systems Elmeant Information 3-4-2 Mar 9 2023 12:31:83 est - Reat Codies CKLINES Dashboard Sensor	E Maintenance Backup Configurati		Firmware image Locati	on Firmware information	L2 x x x L S A US-English v ¢ Sync @ Refresh 1 ac # Nome > No Primware Update
Tyrone Systems Eliminate Information Set	E Maintenance Backup Configurati		Firmware Image Location	on Firmware information	L2 x x x L S A US-English v ¢ Sync @ Refresh 1 ac # Nome > No Primware Update
Tyrone Systems Immuni Information L42 M 3 123113311331133113 Ctions Ctions Ctions Sensor System Inventory FRU Information	Eachup Configurat		Firmware Image Location	on Firmware information	L2 x x L S A US-English v O Sync O Refresh 1 ac a Home - Ha Firmware Update
Tyrone Systems Insure Information In-3	E Maintenance		Firmware Image Location	on Firmware information	L2 x x L S A US-English v O Sync O Refresh 1 ac a Home - Ha Firmware Update
Tyrone Systems Image: Interest Information Image: Imag	E Maintenance		Firmware Image Location	on Firmware information	L2 x x L S A US-English v O Sync O Refresh 1 ac a Home - Ha Firmware Update
Tyrone Systems	E Maintenance		Firmware Image Location	on Firmware information	L2 x x L S A US-English v O Sync O Refresh 1 ac a Home - Ha Firmware Update
Tyrone Systems	E Maintenance		Firmware Image Location	on Firmware information	L2 x x L S A US-English v O Sync O Refresh 1 ac a Home - Ha Firmware Update
Tyrone Systems	E Maintenance		Firmware Image Location	on Firmware information	Le x x I I S A US-English • O Sync O Refresh 1 ad a Home - Hal N Firmware Update
Tyrone Systems	E Maintenance		Firmware Image Location	on Firmware information	Le x x I I S A US-English • O Sync O Refresh 1 ad a Home - Hal N Firmware Update
Tyrone Systems	E Maintenance		Firmware Image Location	on Firmware information	Le x x I I S A US-English • O Sync O Refresh 1 ad a Home - Hal N Firmware Update

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 configurations.
- Highly Customizable dashboard (user de¬fined with flexible name and widgets), Multiplatform Support, Industry Standard Protocols and underlying tools
- Role based Access Control (RBAC)





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

ProServe				Releas	e 03						
d	Assets M	lanagement		Secure	e Erase the disk *						
overy					NO	YES					
inagement	Machir	ne Name	 ✓ Search by Machi 	ne Name			scending	~			Action
		IPMI Address	Machine Name	Serial		Release OS	Vendor Nome	Rack Name	Togs	Power State	Lock Machine
		172.10.15.141	Compute-1	TY360X54	AMD	00:00:5e:00:53:00	Tyrone	rack1	14	* ON	KVM Over HTML
		172.10.15.142	Unknown	TY350X53	AMD	00:00:5e:00:53:ob	Tyrone	rack2	14	© OFF	Decommission
		172.10.15.143	Primory Server	TY350X57	Intel	00:00:5e:00:53:05	Tyrone	rack3	14	≸ ON	Rollout OS
		172.10.15.146	Tyrone	TY360X58	Intel	00:00:5e:00:53:od	Tyrone	rack4	14	\$ ON	Release OS
		172.10.15.149	Unknown 🔒	TY360X60	Intel	00:00:5e:00:53:of	Tyrone	rack5	14	≸ ON	Power ON
		172.10.15.158	Unknown 🔒	TY360X54	AMD	00:00:5e:00:53:00	Tyrone	rack1	14	≶ ON	Power OFF
		172.10.15.159	Unknown 🖷	TY360X53	AMD	00:00:5e:00:53:0b	Tyrone	rack2	14	O OFF	Assignment
		172.10.15.169	Primary Server	TY360X57	Intel	00:00:5e:00:53:os	Tyrone	rack3	14	≶ ON	Releasing
		172.10.15.178	Unknown	TY360X58	Intel	00:00:5e:00:53:od	Tyrone	rack4	14	≯ ON	Commissioned
		172.10.15.165	Tyrone	TY360X60	Intel	00:00:5e:00:53:of	Tyrone	rack5	14	≯ ON	Commissioned
	de Pre	vious				Next 🗢					

	× + https://172.16.15.82/#system_inve	ntory info						マ 日 立	-
Tyrone Systems	=					2	US - English	▼ ØSync ØRefr	
Eirmware Information 1.04.2 Har 24 2023 13:39:19 CST I Host Online	System Inventory							M H	forme > System inver
icktinks	System Processor Men	nory Controller BaseBoard	Power Thermal	PCIE Device PCI	E Function Storage				
Dashboard	Storage Drive Info								
Sensor	Name *	Serial Number	Manufacturer	Protocol	Model	Revision	Encryption Status	Media Type	State
System inventory	NVMe_DeviceC_NSID1	S6CKNN0TB07238	N/A	NVMe	SAMSUNG MZQL27T6HBLA-00A07	NVMe Spec v1.4	Unlocked	SSD	Enabled
RU Information	NVMe_DeviceD_NSID1	S6CKNN0TB07590	N/A	NVMe	SAMSUNG MZQL27T6HBLA-00A07	NVMe Spec v1.4	Unlocked	SSD	Enabled
	SATA_DeviceB_Port0	S6P6NL0TC14003F	N/A	SATA	Samsung SSD 870 EVO 500GB	VS0TB2Q6	Unlocked	SSD	Enabled
ogs & Reports >	SCSI_Target9_LUN0	N/A	SEAGATE	NA	4006	1200	Unlocked	NA	Enabled
iettings	SCSI_Target9_LUN200	N/A	SEAGATE	NA	4006	1200	Unlocked	NA.	Enabled
Remote Control	SCSI_Target9_LUN300	N/A	SEAGATE	NA	4006	1200	Unlocked	NA	Enabled
mage Redirection	SCSI_Target9_LUN400	N/A	SEAGATE	NA	4006	1200	Unlocked	NA.	Enabled
Power Control	SCSI_Target9_LUN500	N/A	SEAGATE	NA	4006	1200	Unlocked	NA.	Enabled
	SCSI_Target9_LUN600	N/A	SEAGATE	NA	4006	1200	Unlocked	NA.	Enabled
4aintenance	SCSI_Target9_LUN700	N/A	SEAGATE	NA	4006	1200	Unlocked	NA	Enabled
ägn out	< (1 2 >	•							
			Q Search		P 🕤 🐂 🚳 🚳 🚺 🛇 🄇	9 _			15





ashboard ast Discovery	Authentication High J	vailability Configure NTP	Configure Email Configure SNNP Manag	e Alerts Monoge Togs	Nanzge Templote			
isets Management	Manage Template							
lytics 5	Create Policy Template							
tings		Template N	ome*	Choo	se Operating System *			
				Ub	intu LTS	~		
		Enable CLI	Enable	SSH 🗆	Enable Web Server			
		Create RAII	Configuration *					
			NO		Y	ES		
		Choose RAI	D Combination *	RAID 0	RAID 1 R/	ID 5 RAID 6		
	Template List					Create Template	8	elete 1
	Machine Name		✓ Search by Machine Name			& Search Sort By Descending		
	Template Nor	e	Operating System	Enable CLI	Enable SSH	Enable Web Server	RAID Type	
	Templotel		Ubuntu 22.04	No	Yes	No	RMD 5	
	♣ Previous		Showing 1-10 of 40	Next 👁			Page Size	10

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

USB Configuration				
Select a BIOS Variable USB Front Ports Enable BIOS Variable Value 0x1 (Enabled) Setup Page Advanced/USB Configuration/USB From	It Ports Enable			
Key Value	BIOS Variable Description	Value	SavedValue	ID
USB Front Ports Enable	Enable or disable the USB Front Ports	0x1 (Enabled)	0x1 (Enabled)	0
USB Rear Ports Enable	Enable or disable the USB Rear Ports	0x1 (Enabled)	Ox1 (Enabled)	1

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
- SSH

ProServe Formerly known as TSM	 Settings 					🖨 🛔 tsm-admin	Ð
oard	Authentication High Availability	Configure NTP Configure Emoli Configure SNMP	Monoge Alerts Monoge Tage	RBAC Monoge Template			
scovery Management	Authentication						
G							_
covery lanagement	Configure Authentication Source						
		Authentication Source *	LOCAL	LDAP	AAA		
		RADIUS Server Name *					
		Nome					
		Encryption *	Bockup RADIUS *	nable Backup RADIUS Support			
		Auth Method * O PAP C	CHAP				
		IP Address *		Port *			
		IP		Port			
		Shared Secret *		Confirm Secret *			
		Shared Secret		Confirm Secret			
		Retry Policy Request Timeout *		Max Number of Retries *			
		Second		Times			
					Configure		



Tyrone®

ProServe Formerty known as TSM	 Settings 				🛕 🔒 tsm-admin	P Logout
E Dashboard	Authentication High Availability	Configure NTP Configure Emoil Configure SNMP	Nonoge Alerts Manage Tags RBAC Manag	ja Templats		
墨, Host Discovery						
Assets Management	Configure NTP					
ត៍ Analytics						
a Logs	Configure NTP Server					
ℬ Settings		Time Zone *				
	Acia (Kolkoto)					
		Primary NTP Server Address *	Secondary NTP Server Address*	Tertiory NTP Server Address*		
				Configure NTP		
Copyright 82 2022. A Tyrone Product.						

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.

Page No.16



For any enquiries, write to us at info@tyronesystems.com

() ()

facebook.com/**tyronesystems** twitter.com/**tyronesystems** linkedin.com/company/**tyrone-systems** www.tyronesystems.com

Images are for representation only. The actual product may differ from the image shown. The specifications are subject to change without notice. For updated specifications, please contact Tyrone Systems. All company names, brand names, trademarks and logos used in this document are the properties of their respective owners