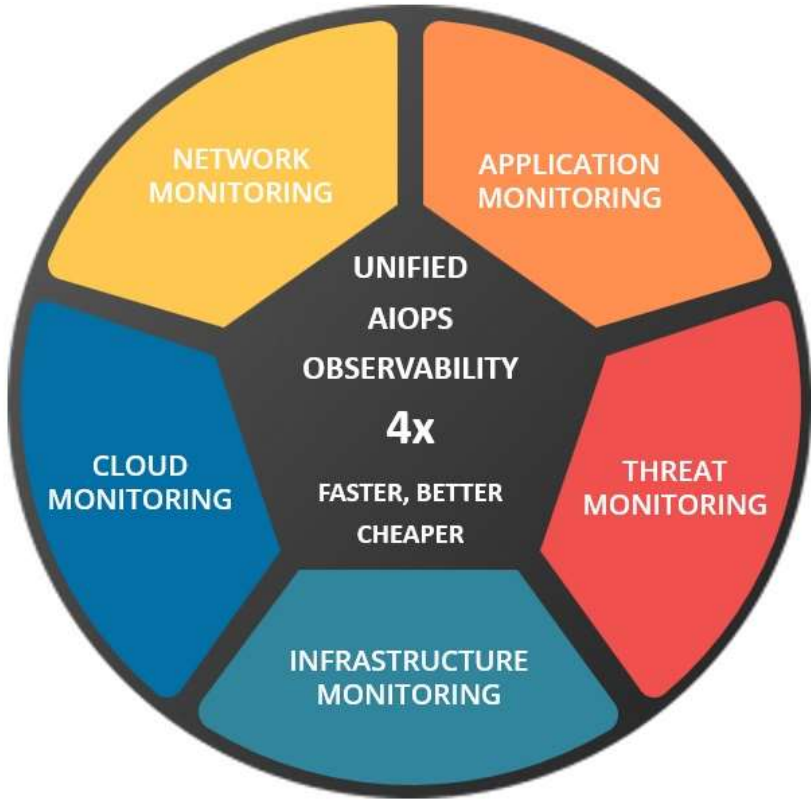# Enterprise360
Unified AIOPS Observability Platform

Full stack AIOPs based IT observability solution across network, application, infrastructure and cyber threats

Application Performance Monitoring	Network Performance Monitoring	Infrastructure Performance Monitoring	Cyber Threat Monitoring	AIOPS
User Experience Transaction Tracing APIs, DB, Log Monitoring	Link B/W, Errors, Drops, Outages Capacity Planning Traffic Monitoring	Servers/DBs/Virtualization/Storage/Cloud Monitoring Synthetic Tests	MITRE Threats Reputation Threats DDoS Attacks Network Anomalies	Predictive Analytics Auto Investigation Event Correlation Auto Remediation

Circle diagram: UNIFIED AIOPS OBSERVABILITY 4x FASTER, BETTER CHEAPER — NETWORK MONITORING, APPLICATION MONITORING, THREAT MONITORING, INFRASTRUCTURE MONITORING, CLOUD MONITORING

Salient Features

- Real time, unified AIOPS full stack IT monitoring in one solution
- AIOPS - predictive analytics, auto investigation and root cause analysis, event correlation, auto remediation
- End to end visibility from on-premises to private/public cloud
- Agentless monitoring - no overhead/cybersecurity compromise
- Out of box and customizable workflows
- Automated alerting and reporting
- Rich integrations - ITSM/SIEM, Email, Slack, Teams, Whatsapp etc
- Application specific troubleshooting workflows
- Integrated Solutions with ITSM, ITOM, ITAM partners

Key Benefits

- Proactive real time , unified and AIOPS based observability
- Reduced IT downtime/outages
- High performing IT applications and services
- Improved customer experience, employee productivity
- Cyber threats and attacks detection/investigation in early stages
- Accelerated digital transformation
- Increased IT cross team collaboration
- 4x faster MTTR (mean time to resolve) IT incidents
- 4x better visibility compared to individual monitoring tools
- 4x cheaper - simplified pricing for unified AIOPS observability

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Unified AIOPS Observability Coverage

Network Monitoring & Mgmt	Application Monitoring	Infrastructure Monitoring	Threat Monitoring	Cloud Monitoring	AIOPS	Integrations/ Others
Full scale network monitoring using SNMP, Netflow and Packet based DPI	APM agent-based Monitoring for Java, NodeJS, Golang, PHP, .Net etc apps	Server Monitoring using agentless(SSH/WMI) or Agent based	MITRE ATT&CK framework Threat Detection & Investigation	Public Cloud Infra Monitoring (AWS, Azure, GCP etc)	On-Demand Predictive Analytics Any Dimension/Any Metric	Unified Dashboards for Network, App, Infra, Cyber Threats Monitoring
Link, Site, Host, Conversation, App Monitoring Change Mgmt, Capacity Planning, Forecasting	Database Monitoring (Elasticsearch, My/MS-SQL, Oracle Mongo, Maria , SAP-HANA etc)	Disk Monitoring Dell IPMI, HP ILO Monitoring Storage Monitoring (Netapp, EMC, HP etc)	DDoS Threat Detection & Investigation	Cloud DB Services Monitoring(Elasticsearch, MySQL, MongoDB etc)	On-Demand Root Cause Analysis Any Problematic Metric/Any Cause Metric	Fully Customizable Dashboards, Build your own Dashboards and Reports
Device Specialized NPM monitors (Cisco, Fortinet, Palotalto, Netscaler, HPE, Aruba, Brocade, Checkpoint etc)	App-Specific Monitors (HTTP, SSL, DNS, SSH, ICMP, SMTP, SIP, DHCP, POP3, RDP, DCE, RPC, FTP etc)	SNMP based Infra Monitoring (Any network device/Any MIB)	Reputation Threats using Stix/Taxii feeds	Kubernetes/ Dockers Monitoring	On-Demand Anomaly Detection Any Dimension/Any Metric	ITSM/SIEM/BI Tools Integration (Servicenow, SummitAI, Service desk plus, zoho, Freshworks, grafana, powerBI)
SNMP based Device NPM Monitoring (Any device/Any Vendor MIB)	Rest API Monitoring Real User Monitoring (RUM) IP Address & AD Monitoring	Virtual Infra Monitoring (Vmware, HyperV, Proxmox)	Network Anomalies	AWS Cloud Watch, Azure Monitor, GCP Monitor Integrations	Events Correlation*	Integrated Solutions with ITSM, ITOM, ITAM, Partners
Topology /Service Maps VPN, IPSLA, MPLS Unified SDWAN Monitoring Cisco UCM Monitoring	SaaS Apps Monitoring SAP Monitoring Tomcat, Apache, nginx etc monitoring	Ping , Traceroute, Synthetic Test Monitoring (Any HTTP/s URL)	Certificate Threats & Network Risks	Cloud API Monitoring	Auto Remediation/Self healing*	Alert on any Metric Report on any Dashboard Integrations (Email, Teams, Slack, Whatsapp etc)
WLAN (Meraki, Mist, Cisco, Ruckus etc) Remote Network Configuration Management (NCM)	Custom event, App log Monitoring Thread Dump Analysis JVM Monitoring	Network Devices Health Monitoring Routers/Switches/APs etc	Unknown Threats, Behavior Anomalies*	Network Monitoring in any Public Cloud		Automated Remediation (Open Scripting Framework)

* Roadmap

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Network Performance Monitoring(NPM) Coverage

NPM Technology

Packet based DPI(L2-L7)
Netflow based(L3)
SNMP based(L2)

Device specialized NPM

Monitor any MIB/any vendor. Custom device specialized built in NPM dashboards for Cisco, Meraki, Aruba, Ruckus, Fortinet, HP, Dell, Netscaler, Paloalto Checkpoint, Brocade etc

IPAM, Path Analysis

IP Address Management, Network Path Analysis

Link Monitoring

Link outages, Bandwidth, Drops, Errors, Congestion, Routing Issues, LB Issues, Network Latency, Traffic Throughput, Site-Site Traffic Monitoring

WLAN/VOIP Monitoring

Ruckus, Meraki, Cisco AIREOS, Juniper Mist, Extreme WLAN etc
Cisco CUCM Monitoring

Public Cloud Monitoring

Network monitoring for VPCs, compute instances, load balancers in any cloud

Application Monitoring

Special monitors for troubleshooting network KPIs for each app Eg: HTTP, SSL, SSH, DNS, DHCP, EMAIL, VOIP, DB, VPN etc
Trace every network/app connection – analyze, troubleshoot with session packet trace level evidence
Store and retrieve every packet for analysis

Capacity Planning And SLA Monitoring

Traffic growth on links, servers, apps, sites, regions, subnets, branches for capacity planning and forecasting, IPSLA Monitoring, SLA Reports

SDWAN Monitoring

Cross Vendor SDWAN Monitoring –Cisco Viptela, Versa, Fortinet, Citrix, Lavelle*, Aruba*, Fatpipe*
Branch outages, SP link performance, Routing issues, Underlay/Overlay network performance.
OMP, BFD KPIs
SDWAN Vendor KPIs

Network Maps

SNMP based Topology Maps, Network Traffic based real time traffic maps. Detect and troubleshoot dependencies, errors, latencies, traffic/throughput load

Customization

Customize out of box dashboards and build your own dashboards

Alerting/Reporting

Alert on any Metric Automated/Manual Alerts Report on any dashboard (Adhoc/Scheduled)

Remote User/VPN

Monitor, detect and resolve VPN issues

NCM Integration

Integrated - NCM solution

ThoughtData

* Roadmap

Enterprise360
Application Performance Monitoring(APM) Coverage

APM Coverage

Network Traffic/Deep Packet Inspection(DPI) based app monitoring
+
APM agent based end to end application transaction and exception stack tracing
+
Real User Monitoring
+
API based App Monitoring
+
Synthetic Tests, Log Monitoring, SaaS Monitoring

APM Agent Frameworks Supported

Java, NodeJS ,GoLang, PHP, Python, .Net etc

Network Traffic Based App Monitoring

Special monitors for troubleshooting each app protocol Eg: HTTP, SSL, SSH, DNS, DHCP, EMAIL, VOIP, DB, VPN etc
Trace every network/app connection – analyze, troubleshoot errors, latency, sub transactions, with application session level packet trace

Synthetic Monitoring

Setup any ping, traceroute or http/https based synthetic tests for apps. Measure performance and connectivity from simulated transactions

App Logs Monitoring

Export any standard/ custom logs or Syslogs and monitor and troubleshoot KPIs from logs

Database Monitoring

SQL, MySQL, MS-SQL, Mongo, MariaDB, HANA ElasticSearch, Oracle etc

Rest API based App Monitoring

50+ rest API Integrations
Vmware Vcenter/Esxi Kubernetes, Dockers
MS Teams/O365, Oracle, ElasticSearch, SAP etc

Real User Monitoring

Trace real user experience from user's browser. UI components performance.

API testing/monitoring

Monitor availability & performance of 3rd party APIs/services

TCP Monitoring

Monitor TCP errors, retransmissions, resets, zero window, latencies

Custom Dashboards

Customize and build your own dashboards

SaaS Apps Monitoring

Real time performance monitoring for any cloud based SaaS apps (Eg: Salesforce, Hubspot Zoom, Teams, O365, Azure AD etc)

Dependency Maps

Service, Node, URL, Transaction, internal and external API integration dependencies

Alerting/Reporting

Alert on any Metric Automated/Manual Alerts Report on any dashboard (Adhoc/Scheduled)

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Infrastructure Health & Performance Monitoring(IPM) Coverage

IPM Technology

Agentless Server Monitoring Linux(SSH), Windows(WMI/WinRM/Agent), SNMP, restAPI

Device specialized IPM

Monitor health MIB/any device/any vendor. Custom device specialized built in IPM dashboards for Cisco, Vmware, Meraki, Aruba, Ruckus, Fortinet, HP, Dell, Netscaler, Checkpoint etc

Server Monitoring (Unix/Linux/Windows/Solaris/HPUX)

CPU , Memory, Disk I/O, Network I/O, Storage, Processes/Services, Threads, Errors

Virtualization Infra Monitoring

Vmware, HyperV, Proxmox Monitor health and performance of vCenters, Esxi hosts and all VMs running via vCenter Monitor all VMs and health of HyperV, Proxmox host servers

Cloud Elastic Compute Health

AWS, Azure, GCP, Others

Cloud Infra Monitoring KPIs Integration

AWS Cloud Watch, Azure Monitor, GCP stack driver etc

Database Health Monitoring

SQL, MySQL, MS-SQL, Mongo, MariaDB, HANA ElasticSearch etc Cluster/Node/Proxy health and performance

Infra Logs Monitoring

Export any standard/custom Infra health logs and monitor KPIs from custom logs

Storage Systems

Netapp, Hitachi, EMC, Dell Unity etc

Customization

Customize out of box dashboards and build your own dashboards

Synthetic Monitoring

Ping, Traceroute Tests

OS Coverage

All Windows, Unix/Linux variants/versions, HP-UX, Solaris, AIX etc

Alerting/Reporting

Alert on any Metric Automated/Manual Alerts. Report on any dashboard (Adhoc/Scheduled)

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Enterprise360
AIOPS

Predictive Analytics	Auto Root Cause Analysis Investigation	Events Correlations*	Auto Remediation
On demand predictive analysis Any server – any metric Any link – any metric Any network device – any metric Any application – any metric Multiple AI Prediction Models Result with prediction accuracy Make IT forecasting decisions based on predicted results	On demand auto root cause analysis investigation for a problematic metric Correlate any problematic metric with a series of possible root cause metrics Multiple Correlation AI Models Result with correlation accuracy	Auto events correlation with chain of events/alerts Detect single source of all ongoing chain of events Analyze correlations Avoid noise and get notified only for actionable and correlated events	On demand auto remediation to resolve problems Develop and integrate custom remediation scripts Trigger remediation jobs with playbook* integrations Achieve any software automation for automated remediation of most common day to day IT issues

* Roadmap

Enterprise360
Remote Network Configuration Management (NCM)

Technology

Remote configuration management for any device with CLI based configuration support

Devices Supported

Router, Switches, Firewalls, Access Points, Servers, Wireless LAN Controllers, Load Balancers, IPS, IDS Devices, WAF, Threat Intelligent Gateways, VPN Gateways, Endpoint Security Devices, SP CPE Devices, Edge Devices etc

Backup Configuration

On demand or periodic backup Schedule automated backup tasks with flexible scheduling options

Remote Configuration

Bulk push remote configuration. Customize & create configuration templates. Create custom command list per template. Deploy config snippets via CLI, or bulk push automatically to hundreds of devices at once using scheduled tasks

Compare Configuration

Download, Compare Config changes within/ across devices. Config change notifications and alerts

Compliance

Org wide config compliance checks, Detect devices with non compliance policy. Out of box standard/custom compliance checks – PCI, SOX, RBI* etc

Rest API*

RestAPI based NCM

Alerting

Out of box and customalerts for config changes, bulk push, compliance, violations, upgrades.

Reporting

Out of box or Customized on demand/scheduled reports for any config management

High Availability

High Availability and Scalability NCM Solution

Role Based Config Mgmt

Role based config management access View configuration changes and privilege based bulk push/upgrade access

Remote Shell Access*

Remotely launch shell console to managed NCM devices to perform on demand configuration

Integrations

AD, MFA, EMAIL and other ready to use integrations

* Roadmap

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ThoughtData vs Competition
4x More Value – Unified AIOPS Observability @ Faster MTTR, Lesser Cost

Feature	ManageEngine	Solarwinds	Zabbix	NetScout	AppDynamics	Nagios	ThoughtData
Unified Monitoring – Network , App, Infrastructure, Cyberthreats	Separate products No CyberThreats	Separate products No CyberThreats	Separate products No CyberThreats	Separate products No APM/Infra	APM Only No Network/ CyberThreats	Separate products No CyberThreats	✓ Unified Solution
Network Monitoring–Layer 2-7(SNMP+Netflow+Packet/DPI)	SNMP, Netflow	SNMP, Netflow	SNMP, Netflow	Separate products	No Network Monitoring	SNMP, Netflow	✓
Application Monitoring–(Network+APM+API+Synthetic+Logs)	APM, Logs, Synthetic Separate products	APM, Logs Separate products	API, Logs, Synthetic Separate products	Network Only No APM, Logs, API	APM, Synthetic Only	Logs, Synthetic Only	✓
CyberThreat Monitoring(MITRE+DDOS+Reputation+Anomalies)	✗	✗	✗	Separate products	✗	✗	✓
Customizable Workflows and Dashboards	✗	✗	✗	✗	✗	✗	✓ Customize Any Dashboard
No additional OS or database license or compute costs	✗	✗	✓	✓	✗	✓	✓
Builtin Network Configuration Management	✓	✓	✗	✗	✗	✗	✓
50% lesser compute resources than competing products	✗	✗	✗	✗	✗	✗	✓
True AIOPS	✗	✗	✗	✗	✗	✗	Beta Release
Pricing	Complicated Feature Based Expensive	Complicated Separate products Expensive	Open Source Support Based Expensive	Complicated Separate products Very Expensive	Complicated Feature Based Expensive	Complicated Feature Based Expensive	Simplified #Devices Based Affordable