

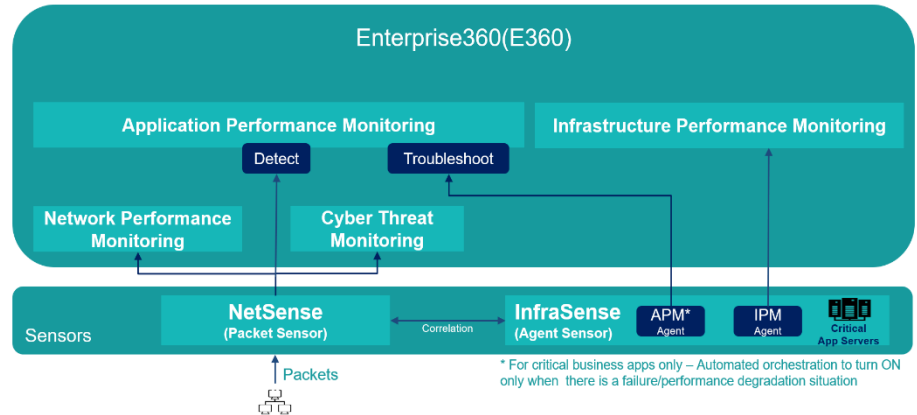
# Enterprise360 Unified Observability Platform

The Enterprise360 Unified Observability platform provides real-time observability into the performance of business-critical applications across network, application, infrastructure and cyber threat layers using telemetry data derived from ThoughtData sensors. Built on unique correlated analytics technology Enterprise360 delivers true unified observability helping IT teams to drastically reduce cost, tool clutter, maintenance and mean time to respond (MTTR) to critical IT incidents and issues even in complex multi-vendor environments. Correlated observability across multiple layers eliminates the need of manual data correlation using multiple tools.

## Unique correlated analytics technology

ThoughtData's NetSense packet sensor and InfraSense active sensors collect raw packets and logs respectively in enterprise network and extracts intelligent telemetry & key performance indicators (KPIs) for solving multiple application, network and infrastructure performance use cases along with cyber threat intelligence. NetSense and InfraSense sensors work in tandem inside enterprise network to collect crucial correlated & contextual information. NetSense packet sensor passively collects telemetry information from packets adding zero overhead to the network. InfraSense active sensor collects critical application transaction level failures and performance along with infrastructure KPIs related to application processes and overall server infrastructure. Automated orchestration between NetSense packet sensor and InfraSense active sensor removes the need for continuous application transaction level tracing which can cause continuous overhead to business-critical application performance for end users.

While NetSense packet sensor provides 24x7 Application failure, availability and performance degradation monitoring, deep application transaction level tracing can also be enabled on demand as needed and is readily available to do real time tracing of the application performance bottlenecks when needed for critical troubleshooting (refer Figure 1).



**Figure 1:** Unified Observability across network, application, infrastructure performance with cyber threat intelligence using best of passive and active instrumentation technology

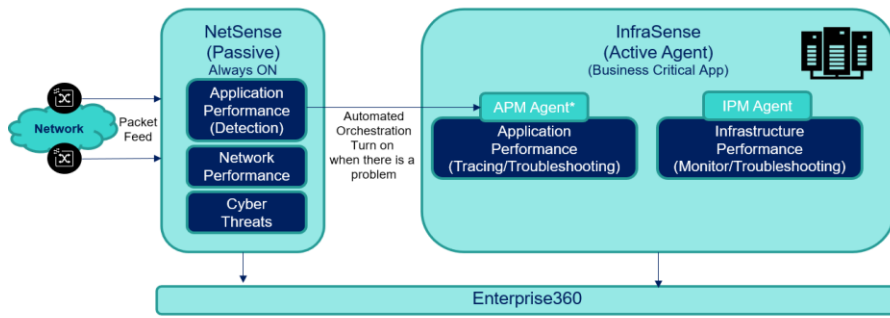
## Unified observability into business services performance using correlated workflows

Out of box workflows built inside Enterprise360 platform helps IT teams to start with high level overview of ongoing application, network, infrastructure performance & cyber threat issues and quickly navigate to troubleshoot each issue to get to the root cause in few steps.

Enterprise360 integrated workflows shows the interrelationships between different elements used in business service delivery, revealing the full context of issues contributing to application availability poor end user experience

- Application performance monitoring (APM) use cases**  
 Enterprise360 offers full end to end observability into business-critical applications availability and end user experience across hybrid IT infrastructure from on premises to private to public cloud. Visibility into every user's application session level latency and failure. Deep troubleshooting to application transaction level tracing with performance and failures. Service and transaction interactions. Root cause of application errors. Automated orchestration for on demand application transaction tracing helps Enterprises to only turn on application transaction level tracing during performance degradation and failure situations and removes the need of continuous overhead of APM agents on business-critical applications (refer Figure 2).

- Infrastructure performance monitoring (IPM) use cases**  
 Observability into application server and process level infrastructure performance running anywhere inside the enterprise network, resource availability, usage, process level resource bottlenecks, error conditions. Correlate and discover how poorly designed, out of capacity and failing infrastructure resources are causing degraded business services performance and poor end user experience. A very low footprint IPM agent on the business-critical application server collects resource level performance KPIs directly from operating system with zero overhead to the application stack.
- Network performance monitoring (NPM) use cases**  
 Observability into network links, link down, overload and congestion conditions, network latency, error conditions at IP and transport layers, retransmissions, fragmentation and segmentation related issues. Link throughput analysis, Link and site level capacity planning and traffic forecasting. Correlate and discover how poorly designed, congested, out of capacity and failing network resources are causing degraded business services performance and end user experience. Discover network wide vulnerabilities resulting in cyber threats.



\*Available for Java, .Net, GoLang, Node.js, RUM.js, Rack, Rails

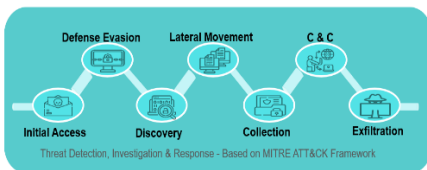
Figure 2: Monitor 24x7 application availability & performance using passive packet sensor technology and on demand turn on APM agent during performance degradation situations

• **Full scale cyber threat intelligence**

Built on MITRE ATT&CK framework, Enterprise360 provides out of box full scale observability into cyber threats across

- o Initial Access
- o Credential Access
- o Discovery
- o Execution
- o Lateral Movement
- o Command & Control
- o Exfiltration

In each category Enterprise360 uncovers different types of ongoing attacks, methods used by adversaries to exploit network, application and infrastructure vulnerabilities. Provides deep application-level investigation for each type of attack all the way up to session and infrastructure level intelligence to assess overall impact of cyber threat, level of compromise, stage of the attack. Correlate and discover how ongoing cyber threats are causing outage of business services and poor end user experience.



**Enterprise360 out of box workflows**

- **Application Specific Monitors** – Enterprise360 built in application monitors helps different application administrators to triage application specific issues. Out of box troubleshooting monitors are available for following common applications
  - o Web apps – HTTP, SSL
  - o Network Apps – DHCP, DNS, SNMP, ICMP, SSH, Certificate, RDP, DCE, RPC
  - o File Transfer Apps – FTP, SMB
  - o VOIP Apps – SIP
  - o MAIL Apps – SMTP, POP3
  - o Auth & VPN Apps – NTLM, Kerberos
  - o VPN Apps – OpenVPN, SSL VPN

- o **Database Apps** – MySQL  
Each monitor provides deep dive application specific triage workflows to isolate the sources contributing to application failures, performance, impacted users, session level intelligence & evidence.

- **Specialized Monitors** – Enterprise360 built in specialized monitors helps IT teams solve specific use case troubleshooting scenarios
  - o **Enterprise Dashboard**– Troubleshoot enterprise-wide high-level visualization of ongoing problems across network, application, infrastructure & cyber threats.
  - o **Cyber Threat Monitor**– Troubleshoot all ongoing cyber threats, investigate each threat to understand overall impact, stage of threat, levels of compromise, methods used and vulnerabilities exploited by adversaries.
  - o **APM Workflows**  
**APM Dashboard** – Troubleshoot business critical applications with deep application transaction level tracing, understand failing transactions, individual transaction level latency, application services and process dependency, failing frameworks, user application usage environment.

**APM Span**

For each application transaction troubleshoot performance of sub transactions, database level queries, latency and failures of each sub transactions.

**APM Error**

For each failing application transaction troubleshoot real root cause errors, exceptions and stack trace.

**APM Service Map**

Interactive visualization into application service, transaction level and external dependencies.

- o **Log Monitor** – Troubleshoot application process level failures/performance issues.
- o **Host Monitor** – Troubleshoot individual host specific issues in the network.

- o **TCP Monitor** – Troubleshoot issues related to TCP stack for business applications.
- o **Traffic Monitor** – Troubleshoot all aspects of network link level troubleshooting.
- o **Site Monitor** – Troubleshoot site level issues inside the network with context of subnet range/site name.
- o **Server Infrastructure Monitor**– Troubleshoot overall server level resource usage and performance issues.
- o **Server Infrastructure Storage Monitor**– Troubleshoot server storage level resource usage and performance issues.
- o **Docker Monitor**– Troubleshoot business application service performance running in containerized architectures in docker environments.
- o **Remote User Monitor**– Troubleshoot remote user failures and performance issues in connecting securely to enterprise network.
- o **Service Maps** – The enterprise-wide service maps deliver real-time connected visualization for overall service health status, metrics, alarms, and intelligent early warning indicators to quickly spot performance issues related to network, application, infrastructure and cyber threats. Discover how your network elements are connected with each other, explore services, service dependencies. Explore degraded services and initiate the investigation.

Each workflow comes with integrated

- **Session Analysis** – Session level intelligence helps IT teams understand per end user connection level KPIs.
- **Packet Trace** – Deep-dive session level packet evidence of the problem with Wireshark integration.

**Flexible UI architecture**

The Enterprise360 platform is designed to work with multiple UI architectures. The UI architecture provides full flexibility to customize all out of box workflows and also provides capability to build your own workflow visualizations. Customers can also decide to integrate Enterprise360 platform to visualize data in third party UI tools like PowerBI, Tableau etc.

**Seamless Data Integrations**

Enterprise360 UI architecture allows you seamlessly integrate ready to use telemetry data sets from various sources like Amazon cloud watch, Azure Monitor, Google Cloud Monitor etc, providing capabilities to correlate Enterprise360 workflow troubleshooting data sets with many other additional data sets to validate and complement the incident triage.

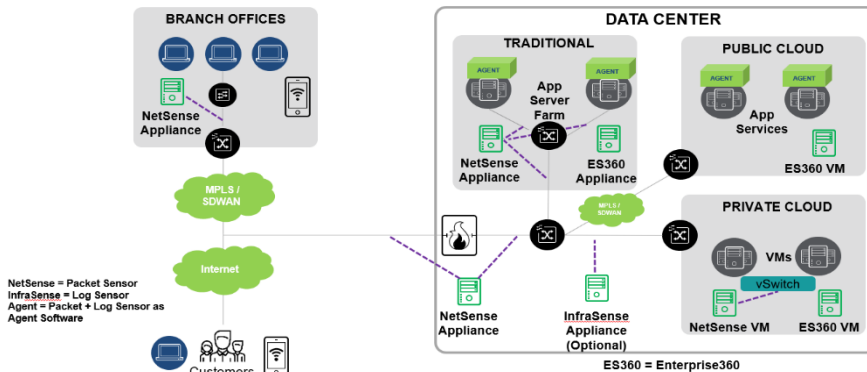


Figure 3: Enterprise360 provides unified and actionable observability across on premises, private, hybrid and public cloud environments

### Deploy anywhere for full end to end observability

The Enterprise360 platform, NetSense and InfraSense sensors can be deployed as software only, virtual appliance or bundled software on hardware appliance to get seam less end-to-end observability across on premises data centers to private cloud to hybrid and public cloud environments.

### Scale the Enterprise360 platform in your enterprise

The Enterprise360 platform is designed as a distributed multi node cluster architecture and provides seamless scalability as your enterprise network grows, just add new nodes into your existing Enterprise360 cluster to meet the demands of your ongoing data & network growth.

### Flexible SaaS based Software Licensing

The Enterprise360 unified observability platform is available as a SaaS based subscription at 1, 2, 3-year term subscription. All features and functionality of Enterprise360 are included in SaaS subscription. Cloud only customers may optionally choose for Enterprise360 Cloud where Enterprise360 is hosted in same cloud nearest to customers network and sensors are instrumented in customers network.

### Evaluate and troubleshoot true end user application experience with Enterprise360

- True end user application experience is a sum of performance degradation at each of following legs of application transaction between the user and application server
    - o **User/Client latency**  
Amount of time the application on the user side spends to initiate an application request or process an application response
    - o **Network latency**  
Network transit time for the user request to reach the server
    - o **Server latency**  
Amount of time spent by the server to process a client request and invoke the application or send the response from application to the end user
    - o **Application latency**  
Amount of time spent by the application to process a user request and respond with appropriate response
- Enterprise360 delivers true end user experience for IT teams to understand where the end user latency is getting degraded and focus on fixing the right problems to improve user experience.

### Benefits of Enterprise360 Solution

- **Proactive observability to ensure high-quality business service performance to users**  
Delivers end-to-end proactive observability into failing and degraded business services across wide-range of standard and custom-built applications environments, pin-pointing root cause of failures and poor performance.
- **Best of passive monitoring and active troubleshooting technology**  
Enterprise360 unified observability platform brings together the best value of passive Enterprise IT monitoring with active troubleshooting technology and removes the performance overhead of instrumentation on business-critical applications.
- **No more manual correlation of KPIs across multiple tools**  
Enterprise360 unified observability platform removes the need for manually correlating KPI data sets across multiple tools for network, application and infrastructure performance and cyber threat intelligence. Drastically reduces tool clutter, duplicate data sets, KPI data explosion, maintenance and training cost of tools.
- **Accelerates digital transformation**  
Enterprise360 unified observability platform helps IT teams to embrace and migrate their business services to cloud and newer technologies swiftly. Keep tab on application performance and user experience.
- **Fosters better IT team collaboration**  
Consistent set of integrated workflows in Enterprise360 platform enables seamless, contextual transitioning across multiple layers of analysis. These workflows allow the Enterprise360 platform to facilitate efficient and informed hand-off of incident response tasks across different IT groups which fosters IT team collaboration and quick turnaround time to respond to critical IT incidents

Try 3 month no obligation free trial of Enterprise360 today, Contact [info@thoughtdata.com](mailto:info@thoughtdata.com) for your trial license.

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