

IxProbe – Inline/Synthetic QoS Monitoring for Service Providers and Enterprises

Network SLAs Fall Apart in the Last Mile

Whether you're a service provider who delivers SLAs or an enterprise who depends on them, monitoring the branch sites is critically important. However, without access to the infrastructure that supplies last-mile connectivity, this is exceedingly difficult. For example, service providers often sub-contract to deliver outside of their service area, leaving them blind to a host of potential problems, including:

- erratic SLA delivery
- slower troubleshooting and MTTR
- additional truck rolls (and potential false alarms)
- low customer satisfaction

Take Control of the Last Mile with IxProbe

Tailor-made to monitor your last-mile infrastructure, IxProbe is a compact, high performance inline probe featuring:

- real-time link status and traffic statistics reporting
- heartbeats
- synthetic/active network monitoring with **Hawkeye**



Solutions

- Verify SLAs with synthetic QoS testing.
- Monitor branch site uptime with heartbeats and SNMP polling.
- Troubleshoot faster with Hawkeye active monitoring.
- Deploy at scale with fast, simple installation.
- Avoid adding extra ports and management interfaces with purely inline design.
- Prevent disruptions with inbuilt fail-to-wire.
- Improve operational efficiency with single-plane-of-glass management.

Designed to sit between a service provider's copper/fiber termination point (a cable modem or NTU) and a customer's firewall or router, IxProbe is equipped with a host of features that make it ideal for deployment at enterprise scale:

- Flexible addressing, including static IP, DHCP, and our patent-pending IP address self-discovery technology.
- Simplified installation that can be completed in as little as two minutes by non-technical personnel.
- Easy OSS provisioning with fast, simple dispatch and deployment, no costly truck rolls required.

With IxProbe, last-mile blind spots are a thing of the past. Whether you're monitoring quality of service or network connectivity, you'll be the first to know when something goes awry.

Key Features

Inline real traffic monitoring

- **IP address self-assignment:** In Inline Management Mode (IMM), IxProbe will discover the IP address of the client router and adopt it as its own IP address. Traffic to and from the client site router/firewall continues to flow transparently, with only traffic from Trusted IP addresses (up to 16 can be defined in advance by SI/SP) acted upon by IxProbe.
- **Fail to wire:** Each IxProbe has internal relays that switch in the event of power failure. This means that a failure of the power supply feeding IxProbe or the failure of an internal power supply does not impact client connectivity and hence reduce system reliability.
- **Link fault detect (LFD):** An option to mirror the status of network links across the device. The status of the SP link (Network Port A) is mirrored to Port B. This allows the customer site router/firewall to be aware of a network device failure.
- **Real time link status reporting:** IxProbe issues pre-configurable heartbeats via central management and/or SNMP which can be used to determine client connectivity status.
- **Status changes via SNMP traps:** SNMP V2 and V3 supported for the notification of status changes.
- **Traffic statistics:** Full range of traffic statistics are available on Hawkeye central management system, IxProbe GUI, or using SNMP GET commands.

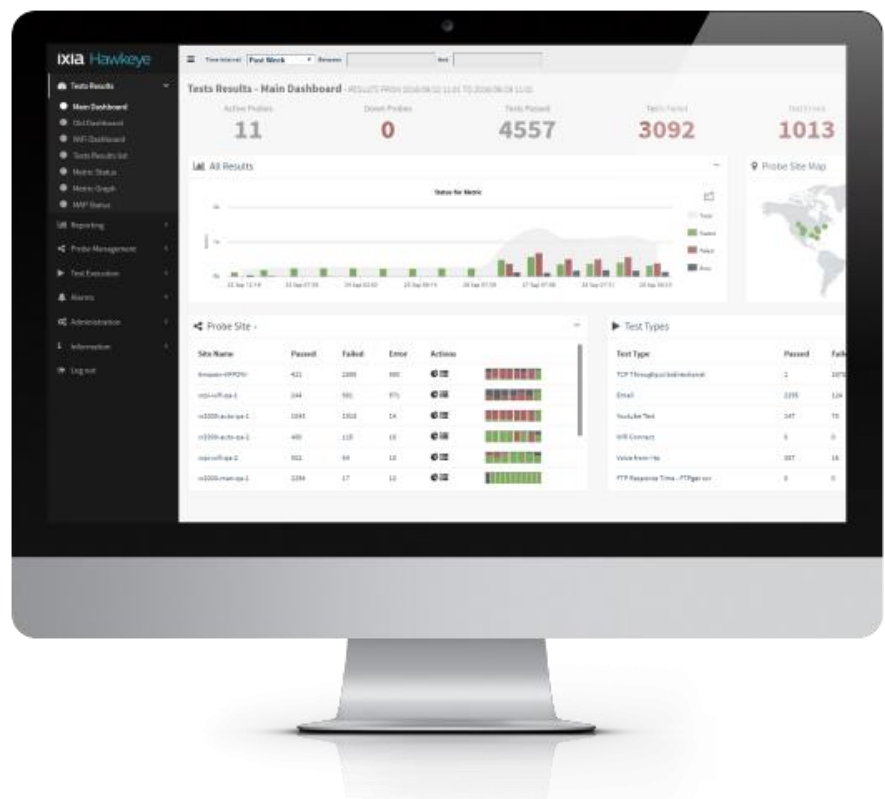
Hawkeye active traffic simulation and monitoring

The bigger the network, the harder it fails. Unlike traditional real-user monitoring solutions, **Hawkeye**, synthetic/active network monitoring platform, helps you get ahead of the curve. By sending synthetic traffic to hardware- and software-based endpoints across your network, you can prevent outages while getting a detailed look at quality of service (QoS) in real time.

With an integrated Hawkeye endpoint in each device, IxProbe enables you to detect, diagnose, and fix performance problems at client sites before they cause downtime.

Key capabilities include:

- speed testing from site to site with advanced configuration on traffic profiling
- TCP-based testing for bandwidth availability or verification
- IP network SLA verification (one-way delay, jitter, loss)
- unified communications tests (Skype for Business) – Office365 Certified
- VOIP calls (G711, G729...) with MOS scores
- class of service (COS) implementation validation with oversubscription scenarios
- IP network SLA verification (one-way delay, jitter, loss) with COS verification
- real-time streaming verification mean opinion score (MOS) for voice
 - mean opinion score (MOS) for voice
 - media delivery index (MDI) for video streaming
- server response time for transactional applications emulating user profile
- real-time traffic reporting and correlation against historical data and key performance indicators (KPIs)



	Specifications
Operating	<p>Operating:</p> <ul style="list-style-type: none"> • Operating temperature: 0 °C to 40 °C • Relative humidity: 10% min, 95% max, non-condensing <p>Non-operating:</p> <ul style="list-style-type: none"> • Non-operating storage temperature: -10 °C to 70 °C • Relative humidity: 10% min, 95% max, non-condensing
Mechanical	<ul style="list-style-type: none"> • Dimensions: 0.9" high x 5.8" deep x 3.25" wide • Weight: 0.73 lbs (0.33 kg)
Connectors	<ul style="list-style-type: none"> • Network ports: (2) RJ45, 8-pin connectors • Management port (1): RJ45, 8-pin connectors • Console port (1): 1 micro USB connector • ACCS port (1): 1 USB3.0 type A connector
Power supply	<ul style="list-style-type: none"> • AC power input: 100 to 240 VAC, 50 to 60 Hz, 0.5A Max • DC output: USB-C 5V @ 3A • Power dissipation less than 34 BTU/Hr 10W
Certifications	<p>Safety, EMC, and environmental: IEC 60950- 1/62368-1, UL 60950-1/62368-1, CSA C22.2 No.60950-1/62368-1, CE (LVD, EMC, RoHS, WEEE), EN/IEC 55032, EN/IEC 55024, CFR 47, FCC Part 15B, ICES-003, CISPR 32/24</p>
Hawkeye controller key capabilities	<ul style="list-style-type: none"> • Remote centralized administration • Multi-tenants support • Inline metrics dashboards and reports • Synthetic monitoring management • Synthetic monitoring dashboards and reports • Alerts via SNMP and emails <ul style="list-style-type: none"> - OSS integration via SNMP and API

Hardware

IXPR-CU3

IxProbe Inline Probe, 10/100/1000 Mbps

Software Licenses

Hawkeye

Activation of Hawkeye Endpoint requires appropriate Hawkeye license. See [Hawkeye datasheet](#) for more information.

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