

SOLUTION BRIEF:

COORDINATED, MULTI-SITE VISIBILITY
WITH PROFISHARK & EZ-TRACE

WIRESHARK HEROES SERIES



TOM
"THE GURU"
TOSH



TOM TOSH

SENIOR PARTNER, CHI METRIX

A fellow network technologist and entrepreneur, Tom founded CHI Metrix ("keymetrics") in 2007. Initially a network performance consulting practice, Tom and his team set to work building a tool that would help to enable clients to achieve more effective visibility, faster and easier, than any existing tools! (And to address urgent demands by Clients who need top-level consulting skills.) That tool is EZ-Trace® -- currently running on hundreds of endpoints on four continents -- with version 2.6 ready to be released -- achieving visibility into Cloud-based applications.

EXPERTISE:

- Diagnose application performance issues to a fault boundary (or to root cause), including process recording and performance on workstations and servers.
- Application Key Metrics Reports – a dynamic profile of an application's 20 ~ 40 key performance metrics.
- Provide rapid visibility deployment for vastly improved situational awareness of the application environment.
- Implement a Day Zero (proactive) response strategy for client networks.

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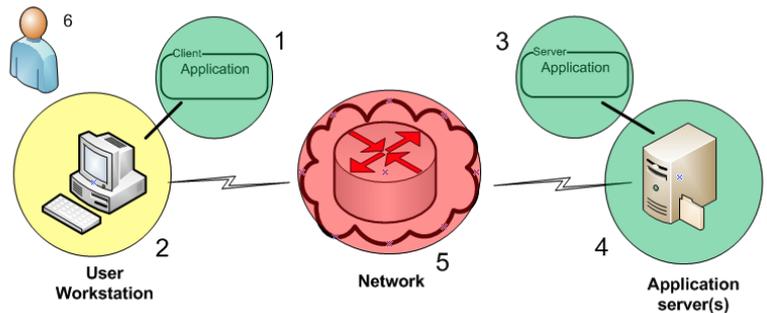
THE CHI METRIX PROCESS

From basic to the most complex multi-site application environments, getting the right visibility in the right places has always been a challenge. CHI Metrix ("key metrics") offers a revolutionary approach to tackle this challenge simply and effectively. Combined with ProfiShark®, end-to-end visibility is now easily attained.

The ten minutes you spend reviewing this white paper could shift your entire approach to visibility and analysis.

THE APPLICATION ENVIRONMENT

Our diagram (on the last page) illustrates a complex, multi-site, multi-tier application environment. We consider the performance of the application to be dependent upon dozens of variables in five separate domains: 1) the application at the User's workstation; 2) The Users' workstation resources (CPU, RAM, disk, etc.); 3) the application "piece" at each of the Servers; 4) Server(s)' resources; and, finally 5) the network.



One point of visibility is nowhere near enough, and rare is the site that has the right visibility in all the right places.

Once we have visibility properly deployed, we can come far closer to attaining the key metrics of application performance. (In our experience, there are anywhere from 25 to 50 of these critical variables for the average multi-site or multi-tier application.)

THE IDEAL

To effectively baseline and analyze performance of the application, it is ideal to have recording visibility at all critical points – and recording of both network traffic and systems processes – the critical variables.

Prior to EZ-Trace®, obtaining such visibility was costly, disruptive, uncoordinated, inefficient, and often unsecure.

With EZ-Trace and ProfiShark, complex application environments like the one in our illustration (last page) can be taken from “zero-visibility” to complete end-to-end visibility in a fraction of the time and cost of current methods.

The CHI Metrix process radically reduces the time starting from the moment a User experiences a problem to when the cause of the problem is identified.

Case example:

One of our clients runs an application that serves hundreds of users via a remote/terminal services setup, where a User could be routed to connect to any one of 35 servers. With EZ-Trace, they deployed necessary visibility into their entire multi-server environment in a matter of a few hours.

EZ-TRACE

EZ-Trace is a User-Initiated tool.

Once EZ-Trace is deployed on all points and set to record, the next step is for a User to encounter a performance issue and report it (via the EZT icon on their station). From the User’s perspective, we can consider this the event at time zero.

The reporting procedure is extremely simple, and alerting can be set up to notify the analysis team when a User reports.

As shown in the diagram, when the User reports, the EZ-Trace Control Point® immediately sends “triggering” signals to all associated server and ProfiShark Intra-link points. Each of these points take network and process “snapshots” of the problem event from their perspective.

And so, in a matter of seconds, we have comprehensive recorded data on all critical points – from a point in time 20 minutes or more prior to the User’s event – ready for harvesting and analysis.

DEPLOYMENT

With 20 minutes or more of recorded data instantaneously captured at the moment where a User experiences an issue, we are now better capable of constructing a more complete picture of everything happening at all the major points of the application environment.

In multi-site environments, the continuous recording mode of the ProfiShark intra-link points (via EZ-Trace) makes deployment of multiple taps extremely effective. (Profitap products enjoy an advantage over other taps in the CHI Metrix/EZ-Trace process of deploying visibility. See next section for details.)

Once analyzed, we know more about an application and its key metrics of performance than ever before. Future snapshot reports can be quickly compared to our baseline metrics readings to uncover what has changed in our five-area performance environment.

THE PROFISHARK ADVANTAGE

Because the ProfiShark-to-station connection relies on USB 3.0, the wired or wireless interface of the station can be dedicated to EZ-Trace Control Point communications. This makes the deployment of multiple, small form-factor "tap stations" extremely effective – with one central point of control, triggering and data access for all of them!

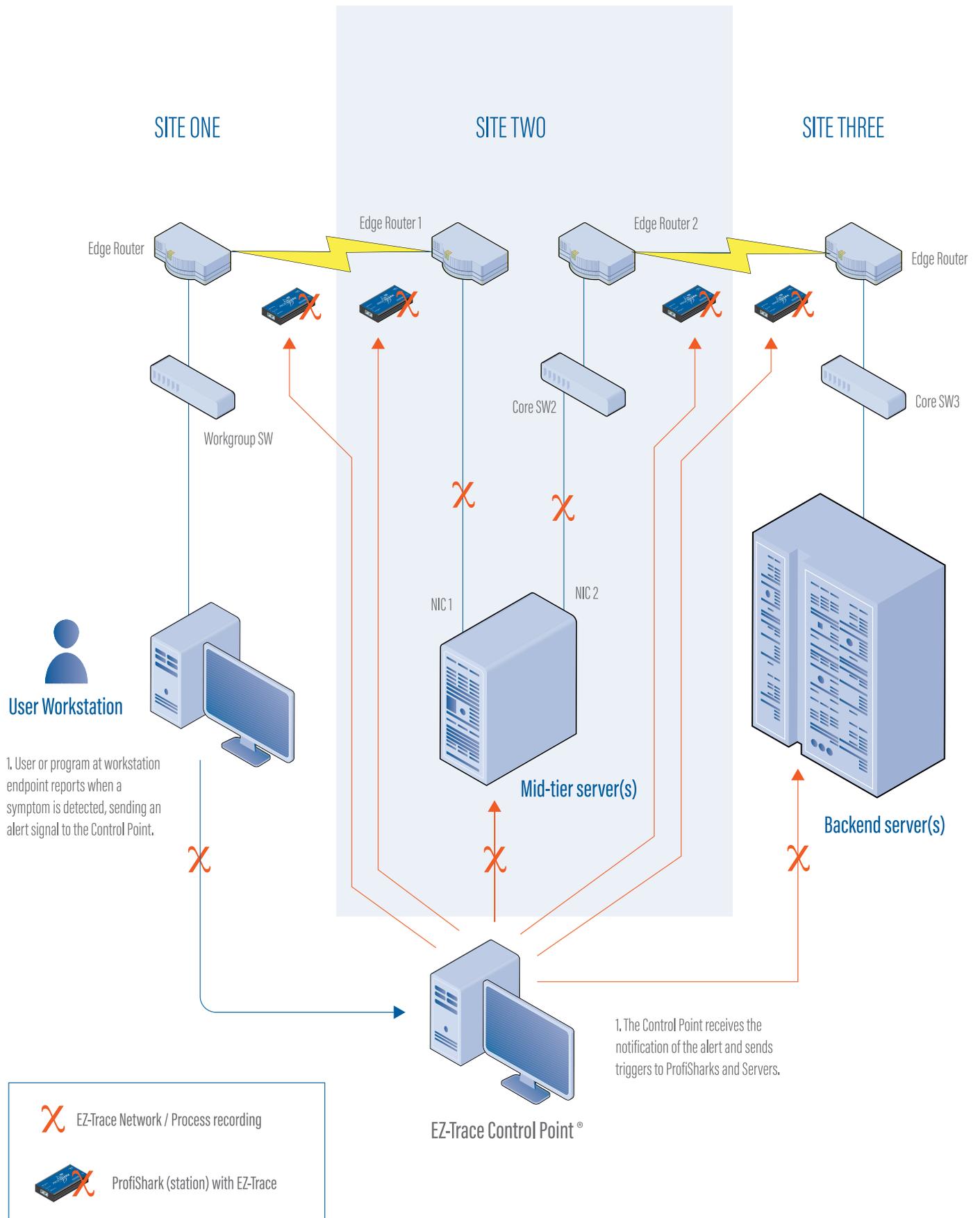
THE END RESULT

Performance problem data captured and ready for analysis in a fraction of the time, headache, and expense of current methods and processes. Analysis of the critical data from the five areas leads to a far better understanding – profound knowledge – of the application and the environment in which it performs.

Xmetrix®

EZ-TRACE[®] MULTISITE VISIBILITY

FEATURING PROFISHARK



PROFISHARK OVERVIEW



PROFISHARK 1G



PROFISHARK 10G

The ProfiShark 1G and 10G can capture any traffic, frames of any size and type, in-line or SPAN, for analysis and monitoring with Wireshark, or any major software analyzer. The included ProfiShark Manager software provides additional information, statistics, and configuration and capture options.



PROFISHARK 1G⁺



PROFISHARK 10G⁺

The ProfiShark 1G+ and 10G+'s GPS/GLONASS function can tag packets with accurate UTC timestamps. The ProfiShark 1G+ and 10G+ can also receive or generate a PPS signal, enabling accurate timestamp synchronization in various topologies.



PROFISHARK 100M

The ProfiShark 100M is designed for the capture of 10/100M Ethernet traffic. It is the perfect tool for troubleshooting Real-Time Industrial Ethernet protocols. As an all-in-one network TAP in a pocket-sized box, this portable traffic capture device gives you all the flexibility and ease of use you require for the monitoring of industrial networks.

PROFISHARK OVERVIEW

- USB powered, no adapter required
- Lightweight and portable
- Hardware aggregation
- SPAN and In-Line modes
- 8 ns hardware timestamping
- Capture any type of frames
- Low level error and bandwidth monitoring
- Hardware filtering, deep packet inspection
- CRC error capture
- Packet slicing
- Non-intrusive, fail-safe monitoring
- Real time statistics
- Direct capture to disk
- Very low CPU usage
- Quick setup and easy to use
- Invisible to the network

COMPATIBILITY

- Wireshark
- ClearSight
- OmniPeek
- Packetyzer
- OptiView
- NetSpector
- NetDecoder
- Ethertest

And many more...



PROFISHARK LONG-TERM TRAFFIC CAPTURE SETUP

Long-term Traffic Capture

ProfiShark long-term capture solution is designed with flexibility in mind. Combined with a NAS for storage tailored to your specific needs, the long-term capture feature makes it easy to catch intermittent problems in the act.

*IT ALL STARTS
WITH VISIBILITY*

PROFITAP

Profitap develops a wide range of state-of-the-art and user-friendly network monitoring tools for both SMEs and the enterprise sector. Our wide range of high-density network TAPs, field service troubleshooters and network packet brokers are extremely performant, providing complete visibility and access to your network, 24/7.

We've been creating monitoring solutions for network analysis and traffic acquisition for more than 33 years. Therefore, we are experts in our field and our award-winning ProfiShark® 1G stands to prove it. This lightweight, advanced and portable network TAP is one of the most innovative products on the market.

With more than 1,000 clients from 55 countries, PROFITAP has become a must-have solution for many important businesses, many of which are among Fortune 500 companies.

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