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WHITE PAPER

AI That Speaks IT

Better Data, Better Results

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AI That Speaks IT

AI is arguably the most important development in technology this decade. Nearly every aspect of business is being rethought in the context of AI's impact. Complementing advancements in machine learning, the rollout of generative AI models has raised the stakes even higher.

One burning question every company faces is: What happens when machines can do jobs you never considered they could – faster and perhaps better than humans? In the field of IT, for instance, there may come a day when gen-AI is as good at resolving IT issues as most systems engineers.

It will take time to build confidence that generative AI will serve up right, relevant answers to solid natural language prompts. Not all gen-AI models are trained on good data. But that is changing fast. As Lakeside Software CEO Dave Keil explains, "The breakthrough technology before us is not necessarily the foundational models built on complex neural networks. Instead, the real 'disruptive innovation' of generative AI is the data itself."

Why? Because when gen-AI is fed the right data , it can achieve greater and greater accuracy. With enough of the right data, it is possible to develop AI that speaks IT.

Having a lot of data is one thing, however; understanding context for what is right and wrong — to generate data insights — is another. That's why combining depth, breadth, and history of data (to feed the model for accuracy) and human expertise (to provide context) is crucial.

An important use case for AI that speaks IT is empowering IT to optimize the digital employee experience (DEX), or how employees interact with technology to do their jobs.

Not just any data will do, however, for AI integrations for IT. Breadth, depth, and history of data are imperative for IT teams to conduct root cause analysis of issues, in turn delivering a stellar digital experience for employees — regardless of if they are on-site, remote, or hybrid. With the right data, IT teams can gain complete visibility across the IT estate and conduct natural language queries for intelligent IT support in real time. But what is the "right" data for IT environments?

Gathering Robust Performance Data

The first step to gaining complete IT visibility is collecting data on how everything in your IT environment is performing. With so many aspects of enterprise End User Computing (EUC) being managed or hosted externally, end-user experience is one of the most important metrics in IT — yet it is one that historically has been overlooked. Data collection at the endpoint can lead to the most accurate and relevant data insights about the digital employee experience and the health of the IT estate, resulting in much greater data fidelity.

The Lakeside SysTrack platform collects data that provides insights into any potential impacts on end-user experience (such as, but not limited to, CPU, memory, latency, disk), in turn creating a health score.

The breadth, depth, and history of the endpoint data gathered by SysTrack gives IT teams complete visibility across the IT estate. With this holistic view, IT support technicians and analysts can better determine which users may be having a poor digital experience, ways to remediate IT issues, areas where the environment is underperforming, impacts of the latest IT rollout on users, and so much more. Ultimately, IT can pivot from reactive to proactive.

What does this "breadth, depth, and history" of data really mean? Let's take a closer look.

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Why the Breadth of Data Matters

IT often needs help managing large, complex environments filled with networks, servers, end-user devices, and all the connections in between that keep workplace technology and businesses running. Without visibility across these vast IT estates, though, strategies and decisions are put in place with incomplete or siloed understanding of the impacts on employees.

Breadth of DEX data refers to complete visibility across the digital workplace and ensuring every endpoint an employee uses in their day is collecting device performance data in real time. This breadth provides the actionable data insights for questions related to anything from the performance issues on an individual laptop to where to start a digital transformation project such as a Windows 11 migration. Having this breadth of data — broad estate-level overviews, insight into specific categories of users or technology, and visibility into individual devices — means your IT team will always have the information necessary to take action to improve the user experience.

Lakeside Software's breadth of data collection via the Lakeside SysTrack platform is possible because of where the lightweight agent is installed — that is, on endpoint devices such as desktops and laptops. In addition to device data, the SysTrack agent allows for data collection related to the IT infrastructure employees rely on most: networks, installed software, and SaaS applications.

Because data collection happens closest to the end-user experience itself, it provides the most accurate and relevant data for insights related to the individual's experience with their digital workplace tools. Coupled with sentiment data, endpoint data gives IT teams visibility into issues that not only could be affecting an end user's ability to do their work but also issues that are affecting their digital experience.

This data is based on the performance of one's device(s), applications, and networks, thereby enabling IT teams to build a picture of what's happening both with the endpoint and across the IT estate. Accordingly, IT teams can detect and curtail issues that potentially may have a direct impact on the employee or end-user experience, or on the successful rollout of an IT transformation project. In fact, early anomaly detection is possible with AI that speaks IT.

Breadth is just part of the bigger picture. Depth of data is just as important when it comes to shifting from a reactive approach to IT to a proactive one.

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Why the Depth of Data Matters

With SysTrack, the amount of data collected from each endpoint is unparalleled. More important, it's also critical to the success of a DEX program.

Lakeside collects 10,000 data points every 15 seconds (that is, 40,000 data points every minute) and has >1,200 automated investigations constantly running to analyze and transform the raw data into consumable insights and power automations. This deep depth of data gives IT teams a comprehensive look at the endpoint and its dependencies, allowing them to identify any incipient problems proactively — without human interaction. That means that problems can be solved before there is a direct impact on an employee's digital experience or productivity.

With the agent having nominal impact on endpoint performance, it provides a way to collect an abundance of data straight from the endpoint in real-time (every 15 seconds!). This approach to data collection at the endpoint provides a unique inside-out point of view by showing IT teams how end users are truly experiencing and using their IT environment.

Because this depth of data collection all happens at the endpoint, if a system is offline, the data is stored locally and transferred up to the master database (in the cloud) as soon as it reconnects. In other words, nothing is lost. Despite the depth of the data, Lakeside retains privacy for employees; the SysTrack agent does not collect invasive details such as keystrokes, webpage contents, etc.

Even this data depth could lose its power, however, if it's not stored long enough to be usable. That's why the history of data is just as important as breadth and depth.

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Why the History of Data Matters

The history of data is key for Lakeside customers that are using their data for strategic decision making or are mature DEX users. For digital transformation projects such as a Windows 11 upgrade or the consolidation of hardware and software after a merger & acquisition, IT teams need historical data to perform comprehensive and accurate due diligence.

An enterprise's data in SysTrack is available at both the endpoint and estate-level for three years. By contrast, most other DEX systems store data for only 30 to 90 days.

With such a limited history of data, a quarter at most, you would be missing out on invaluable insights.

The insights business leaders need to make critical decisions

- Single source of truth to optimize employee productivity and reduce downtime
- Comprehensive IT health score of your organization
- Visibility of productivity hours impacted
- Faster time to value – days not months

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The Depth of DEX Data

SysTrack supports long-term projects and reporting. Only Lakeside provides customers with years of accessible and actionable history of their endpoint data for digital transformation and workplace modernization initiatives. Specifically, Lakeside's three-year data history would enable you to:

- Report on improvements to major initiatives such as digital employee experience or sustainability.
- Plan, execute, and track transformation or endpoint migration projects.
- Implement proactive IT operations with historical context.

At 10,000 data points every 15 seconds, Lakeside collects more telemetry and user data than anyone.

Collects performance, usage, system, and user data on each endpoint

Aggregates 10K data points to a local database on the endpoint

Sends sensor, health, and application data the master server

Delivers system summary to the master database

Stores records for up to 3 years

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The Intelligent Edge

Some may have concerns about whether local data collection at the endpoint drives up cost and/or affects the endpoint device. In the case of SysTrack, the data overhead cost is not an issue. All of SysTrack runs in user mode, and it's easy to see how much resource it consumes. There are no kernel mode components that hide resource consumption in the system metrics, where unaccountable filter drivers add to I/O path latency (and potentially crash). In the SysTrack case, you can see all the data, including data about SysTrack itself. The leftover, unused resources on endpoints are used to collect data and drive real-time analytics.

While SysTrack agents maintain a connection to the cloud, they store volumes of data locally and efficiently while sending some data to the cloud as designed and configured. When the cloud needs data, all data (including both the cloud content and the edge content) is available in real time. Because of this sophisticated engineering, Lakeside customers benefit today from the scale, cloud- and mobile-friendliness, and privacy advantages. We call this the Intelligent Edge.

It is Lakeside's edge + cloud architecture that makes this approach to data collection and analysis possible. The breadth, depth, and history of data collection using edge architecture are invaluable aspects of troubleshooting with offline data in the mix. The data tracks exactly to when a problem occurred (as well as right before and after) rather than being a reactive collection or requiring IT to attempt to recreate the issue.

Local storage does not affect device performance because storing data on the endpoint device uses less than 1 percent of one CPU core and only 30-60 MB of memory. This minimal impact applies even though Lakeside's SysTrack platform collects 10,000+ performance-relevant data points every 15 seconds on each endpoint. What's more, this data is analyzed without having to send it to a cloud-based database, so there is no time lost in that process. The lightweight agent can scale to 300,000+ endpoints for visibility across the IT estate.

SysTrack's endpoint agent treats every system resource (memory, disk, compute) as an extreme luxury, so it leaves as small a footprint as is technologically possible. Through creative use of demand-driven data collection and a patented distributed database approach to information management (edge + cloud architecture), the agent requires only 30-60 MB of memory.

SysTrack's Intelligent Edge platform includes all-in-one service, such as the broadest device support, the most comprehensive OS support, and the ability to collect data even when the device has no internet connection (e.g., during network outages, working from temporary locations, etc.).

This offline data collection works like an airplane's black box recorder combined with its air-to-ground telemetry system. You use both. Why? Because it's much more efficient to store volumes of data at the edge and send only critical data to the cloud. Data stored at the edge is always accessible via the network; you can access all that data at any time you need it, and you can do so instantly.

While powerful enough to capture 10 times more data than the nearest competitor solution, Lakeside's Intelligent Edge architecture is designed to self-heal and automatically store and forward data in case of network issues. The SysTrack agent ensures that all relevant data will be kept in detail and, where needed, summarized correctly. The agent can also help IT engage users directly with self-help instructions, announcements, and other prompts, such as automations or documentation.

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Capabilities Enabled by Breadth, Depth, and History of Data

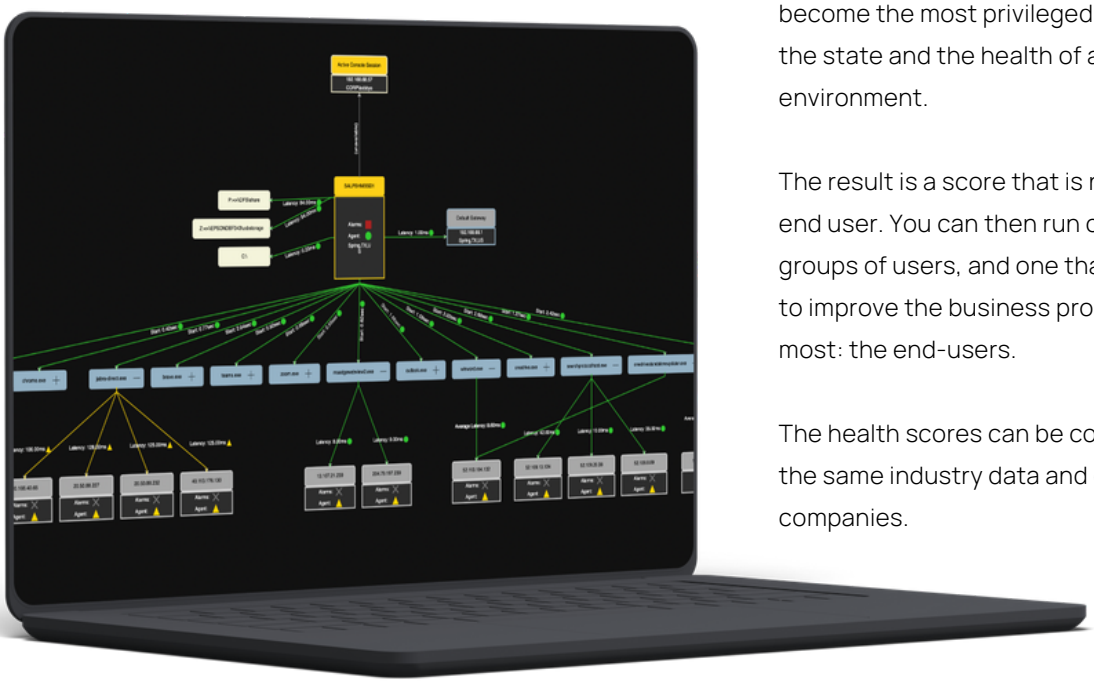
The quality and quantity of data the Lakeside SysTrack platform delivers enables IT teams to:

- Understand root causes of issues and take immediate action.
- Proactively monitor IT health.
- View issues from across the enterprise.
- Optimize your IT spend.

Root Cause Analysis

Effective root cause investigation starts with full visibility into the entire IT estate. By capturing a broad amount of data in real-time for continuous monitoring of digital environments, from endpoint devices and users to SaaS and cloud infrastructure, IT teams can identify nascent problems. With such breadth and depth of data, Lakeside SysTrack:

- Alerts IT when specified thresholds are reached, pointing the events to a root cause.
- Indicates potential fixes before users notice or the issue escalates.



This proactive approach to IT can help drastically reduce the number of help desk tickets IT receives, and it also enables incident resolution at the lowest level of support level. But equally important is having historical data and trends available in order to correlate events, find patterns, and predict future incidents.

IT Health Monitoring

SysTrack's health score calculation works by analyzing and managing all the factors that could affect a user's productivity using our agent right where they conduct most if not all their work: the endpoint.

Why the endpoint? Because these devices are an employee's gateway to the tools they need to do their job. Therefore, an employee's workspace, the endpoint, has become the most privileged point of view IT can have into the state and the health of an increasingly scattered IT environment.

The result is a score that is normalized and supports the end user. You can then run comparisons across teams and groups of users, and one that the IT teams can work with to improve the business productivity of those who matter most: the end-users.

The health scores can be combined and compared to the same industry data and other geographically local companies.

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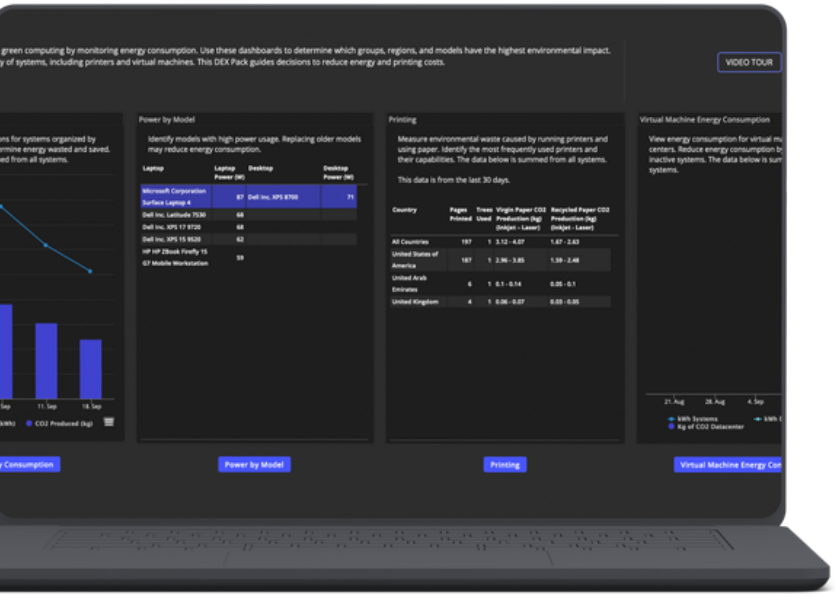
Real-time Dashboard Reporting

SysTrack's Intelligent Edge dashboard provides customized views of real-time data, allowing insights into SysTrack data. Dashboards can display this data in various formats, including a grid, charts, gauges, and other visualizations.



The user can interact with the dashboard by providing input on selections, modifying filter criteria, and customizing information displayed in the charts. Dashboards additionally allow extra graphical functionality showing new ways to see the data SysTrack, without upgrading to a more recent version of SysTrack. This feature is beneficial when the business has new requirements or use cases for the tool.

Cost Optimization

Using endpoint performance and usage data, IT teams can adopt a need-based procurement strategy based on hardware optimization and software rationalization. Specifically, they can make the most efficient use of resources by identifying underutilized resources and potentially delaying hardware purchases by extending the asset life based on performance metrics. In addition, IT teams can help curtail software spending by identifying software bloat and "shelfware," in turn course-correcting software allocation based on actual usage and need. This visibility can lead to significant cost savings.

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Making IT's Life Easier

SysTrack provides the right data and complete endpoint visibility so IT can optimize all aspects of the end-user computing environment, including digital employee experience. With its breadth, depth, and history of data, IT teams have the data they need to fuel AI that is purpose-built for specific use cases. And better data means better results. As a workspace analytics platform, the Lakeside SysTrack platform enables IT to improve how people use technology to carry out the business processes that encompass their jobs. This complete visibility facilitates a shift from reactive to proactive IT.

Given the data collected at the endpoint, SysTrack provides an easy way to capture accurate and relevant insights to answer questions such as:

- "How are my end users doing after migrating to Windows 11?"
- "Are my users really using all the applications I provide them?"
- "Is x issue impacting one user or a larger group?"
- "Why is my end user's experience decreasing?"
- "Does this new technology make sense for my environment?"
- "How can I right-size my next deployment?"

Not only does Lakeside SysTrack enable end-user productivity, but it also eases IT headaches by providing a clear way to understand how end users interact with their digital workplace environment and what you can do to improve their end-user experience.

About Lakeside

Lakeside Software is how organizations with large, complex IT environments can finally get visibility across their entire digital estate and see how to do more with less. For far too long, IT teams have struggled to see what's going on in their dark estate — where costly inefficiencies, poor employee experiences, and unresolved problems hide. Only Lakeside lets you give everyone a better view, so they can see the hidden issues, see the smartest fixes, and see the biggest savings. That's why so many of the world's leading global brands rely on Lakeside. And it's how our customers see an average ROI of more than 250%.
Lakeside. Give everyone a better view.™

Want to learn more about the Lakeside SysTrack method and our breadth, depth, and history of data?

Request a demo today!