



IVOXY & Lakeside

Sample User Experience Summary

SysTrack gives you visibility and automation to reduce IT costs and support business productivity



IMPROVE IT VISIBILITY

Access 10,000+ data points on IT performance and usage from every single endpoint



BOOST PRODUCTIVITY

Quantify end-user experience and provide optimal end-user computing performance



REDUCE COSTS

Identify overprovisioning, reduce volume of IT incidents and optimize IT operations



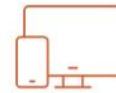
MONITOR VIA ONE CONSOLE

Get visibility into your entire environment for root cause analysis, performance benchmarking, right-sizing tech and more!



BE NON-INTRUSIVE TO USERS

Taking only 1% CPU, SysTrack will not bother your users and administrators love us for it



IDENTIFY USER REQUIREMENTS

Continuously segment users into personas based on usage patterns to accommodate for workstyles and requirements

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Overview

The data in this document represents assessments that were compiled from a few different Lakeside customers to provide a more comprehensive view of what SysTrack can provide. While the information is accurate, the customer names are confidential.

Managing digital workplaces can be one of your most challenging tasks because it is difficult to have clear visibility into your user's environment. For instance, you are often faced with addressing the problem of an employee having a "slow computer" – you need to figure out the root cause of the issue and how to fix it. But without the right data, this is very tough to resolve. So, what if you had a way to improve your visibility and deliver a great end-user experience with a resource already in your environment? You can – by using your endpoints!

IVOXY recommends that our customers monitor their usage and performance with SysTrack. Utilizing your existing digital workplace, SysTrack gathers data on EVERYTHING that may affect users and their productivity such as CPU, RAM, Memory, and over 10,000 other data points. SysTrack then analyzes this data and leveraged by your IT team to provide a positive impact on business efficiency and end-user satisfaction.

Please see below the scope overview and usage summary before we get started:

Category	Value
Accounts with Admin Access	36
Total Packages	516
Total Users	66
Laptops (Unused/Total)	0/98
Virtual (Unused/Total)	0/2
Total Devices	100
Systems Running AntiSpyware Software	98
Systems Running AntiVirus Software	98
Systems with Firewall Enabled	5

User Experience Summary

The first thing to check (and the most important overall aspect of any environment) is just how well it functions and supports your users. SysTrack can help you to quantify your users' experience and allows you to articulate the health of your environment in a manner that can be quite valuable to understanding the best way to achieve ideal productivity.

The table below shows a percentage summary of the current systems in your environment that fall into each of the user experience categories (Excellent, Good, Fair, and Poor). The % represent the time unaffected by IT related issues.

In the table below:

Excellent = 97%+

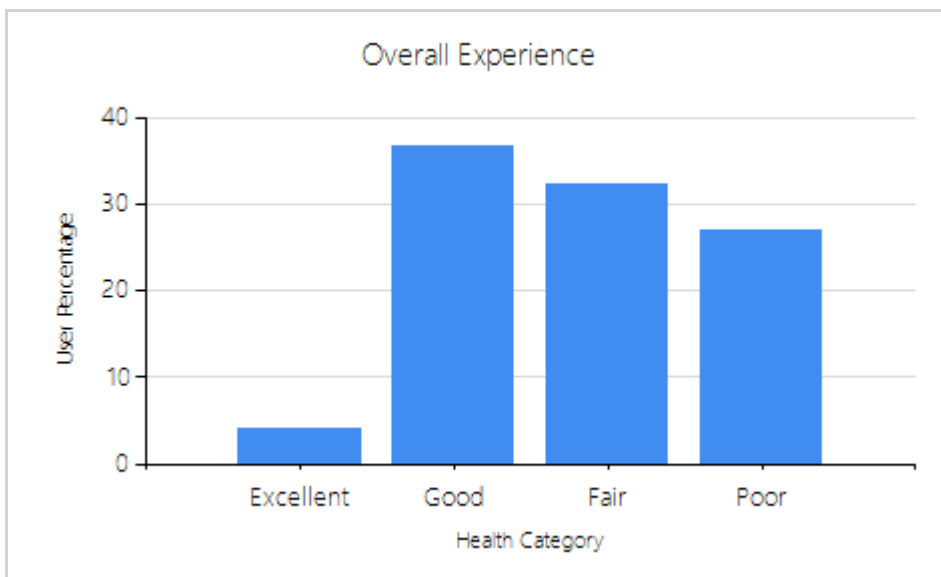
Good = 90 to 97%

Fair = 80 to 90%

Poor = 80% below

Your overall experience score is 86.52%, which means **13.48%** of your users' productivity time is impacted. Over the last 30 days, the average user in this case lost **1120 minutes** of productivity due to resource constraints – so when you do the math, that means that each employee was affected negatively up to a half hour every day..

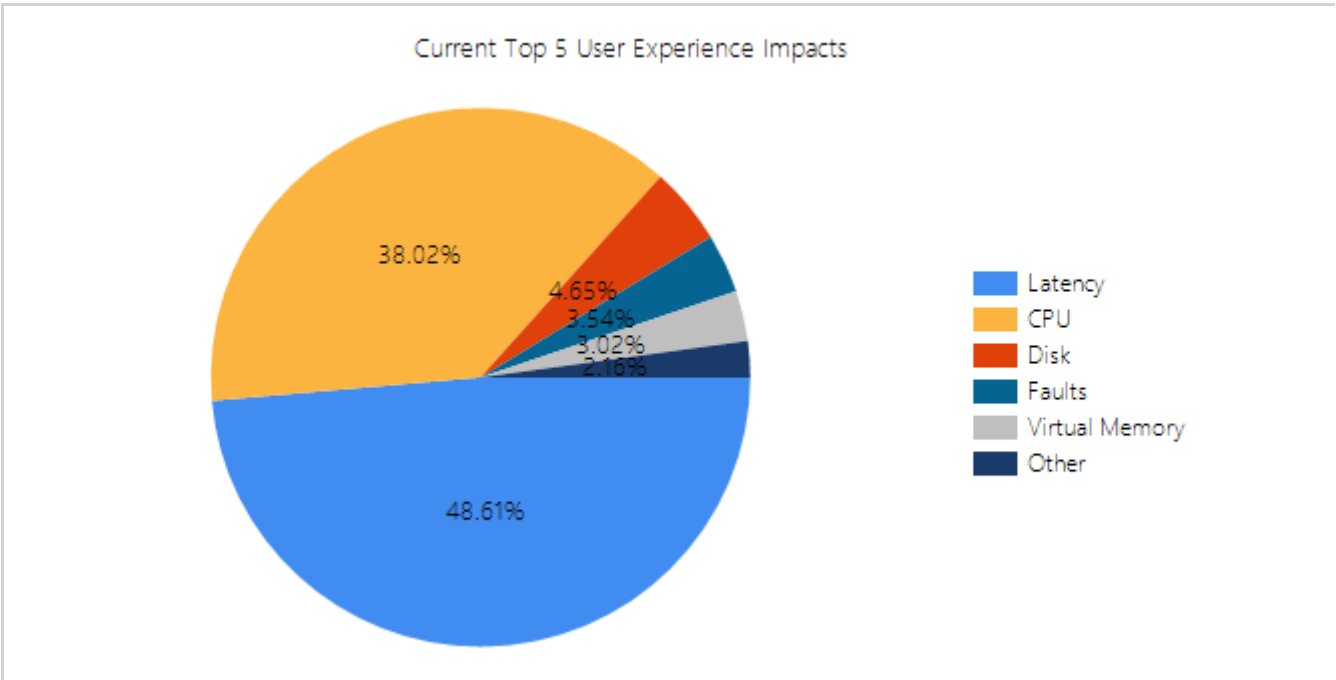
Category	User Percentage	Change	User Experience Score
Overall Experience		Decreasing	86.52
Excellent	4.04	Static	
Good	36.7	Static	
Fair	32.35	Static	
Poor	26.91	Static	



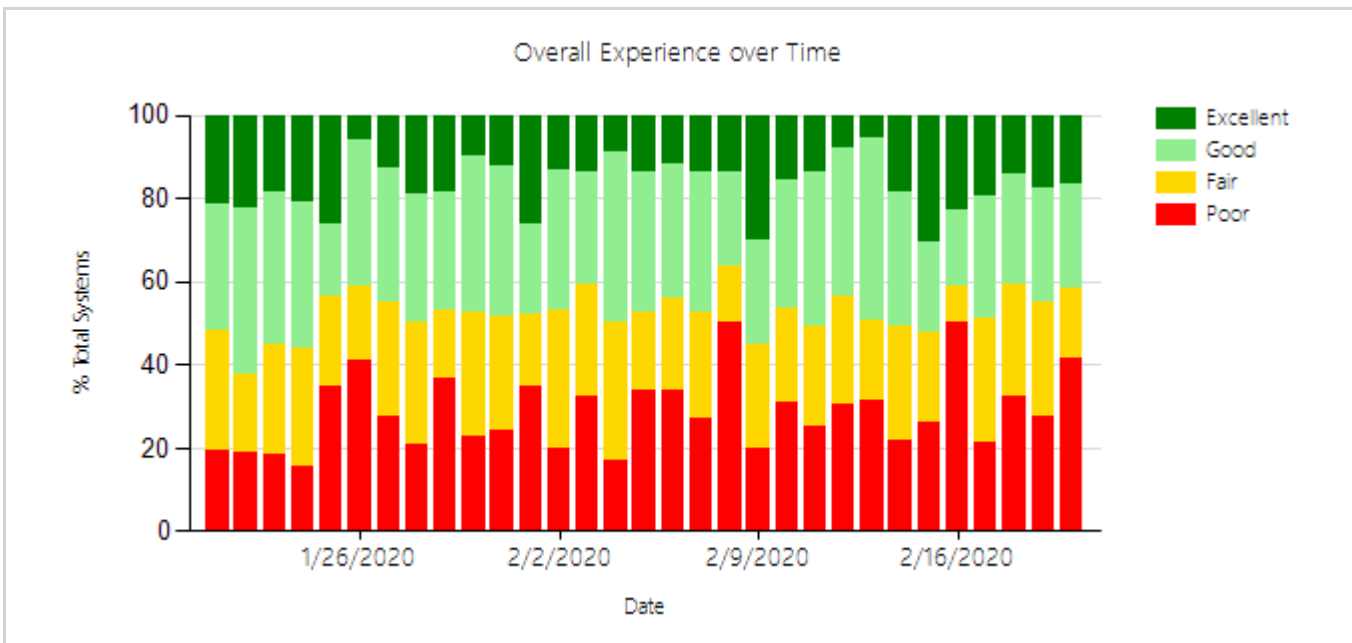
Top 5 User Experience Impacts

Once the health score is established, identifying where there are problems will enable you to proactively address your users' experience and productivity. After any issues are resolved, you can relate that back to your overall user experience and health score to ensure continuous improvement.

During your assessment, it was determined that the top 5 user experience impacts were:



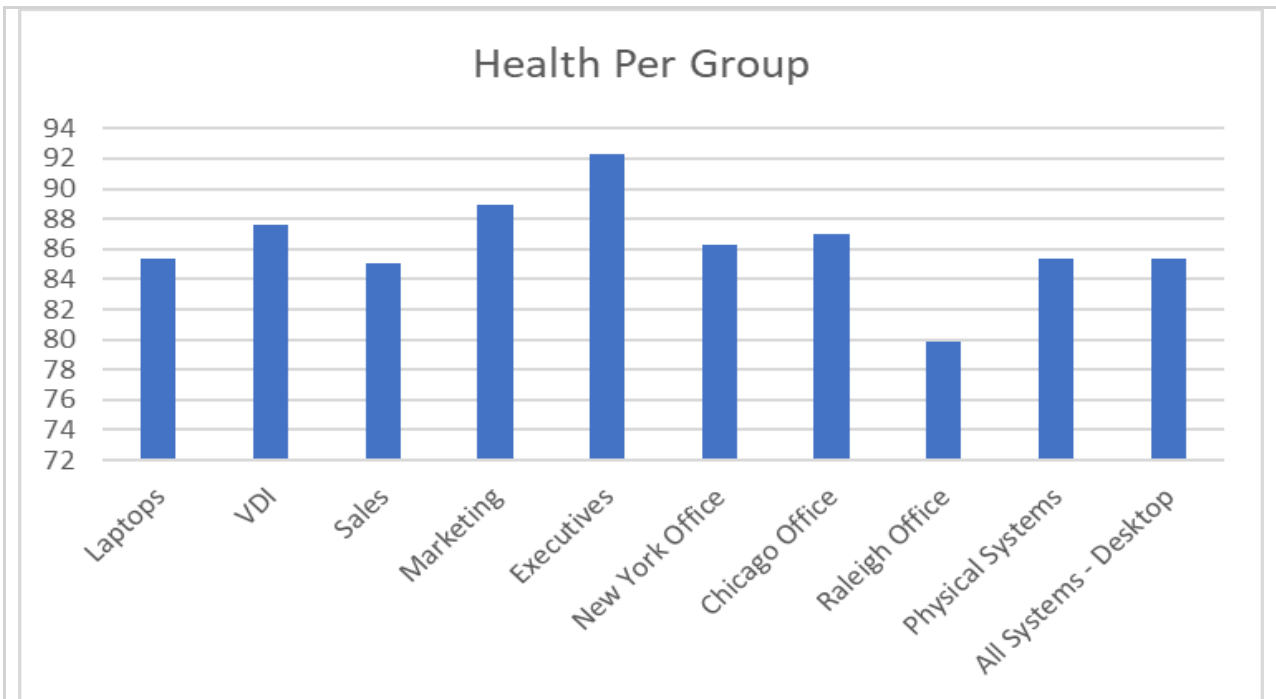
This is significant because your users' expectations regarding the devices and resources they require to do their jobs effectively are on the rise. Your IT team is tasked with meeting those needs to keep users happy – and, most importantly – productive. With reliable monitoring and analytical capabilities, you can use SysTrack for spotting and resolving IT issues before they happen. With this ability to be proactive, technology roadblocks are handled quickly so that your users are satisfied, and your support team can provide assistance more efficiently.



User Experience per Group

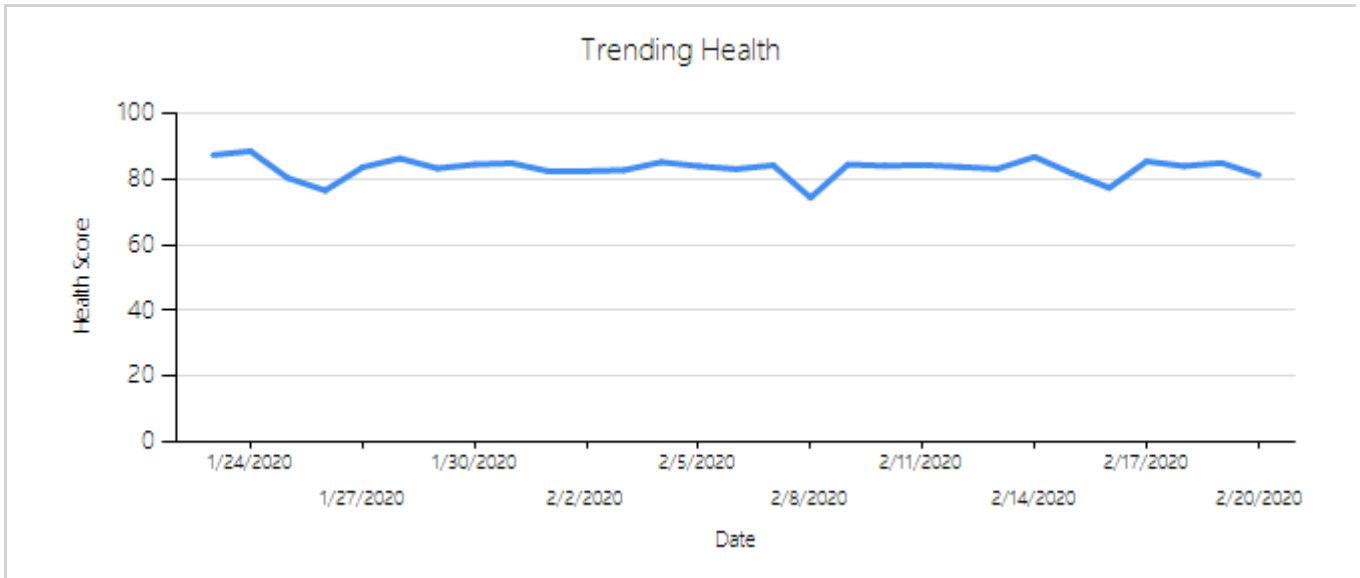
Just as one solution does not fit all, resource constraints and limitations will not apply uniformly in your environment. You can take advantage of the powerful dynamic grouping abilities of SysTrack to divide your machines and users into logical groups. This can be done by way of departments, machine types, installed applications or any of the many data points available in SysTrack. Now you can tailor a specific approach to improving the experience and productivity of your users based on the unique impacts they are experiencing.

Group	Health Score	Top 5 Impacts
Laptops	85.40	Latency, CPU, Disk, Faults, Virtual Memory
VDI	87.60	Latency, CPU, Disk, Faults, Virtual Memory
Sales	85.10	Latency, CPU, Disk, Faults, Virtual Memory
Marketing	88.90	Latency, CPU, Disk, Faults, Virtual Memory
Executives	92.30	Latency, CPU, Disk, Faults, Virtual Memory
New York Office	86.32	Latency, CPU, Disk, Faults, Virtual Memory
Chicago Office	87.0	Latency, CPU, Disk, Faults, Virtual Memory
Raleigh Office	79.90	Latency, CPU, Disk, Faults, Virtual Memory
Physical Systems	85.40	Latency, CPU, Disk, Faults, Virtual Memory
All Systems - Desktop	85.40	Latency, CPU, Disk, Faults, Virtual Memory



Your User Experience Score Trend over the Time of the Assessment

After identifying your current health score and top impact points, SysTrack can determine if your impact is a new problem or an existing problem. Trending health provides valuable insight related to your starting point or if, on a particular day, your health score dropped. This gives you a point in time to start investigation based on changes in your environment.



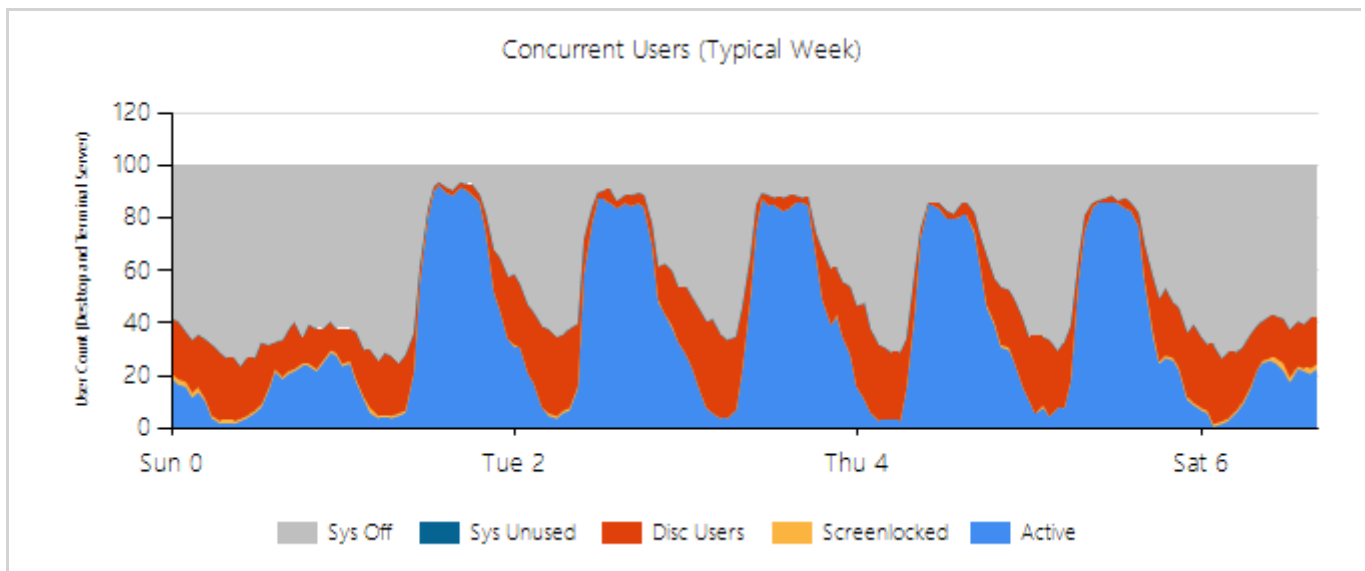
Resource Utilization

When assessing the health of your environment, it is crucial to understand how your users currently interact with their desktops and applications.

During our assessment, a typical week of concurrent users is shown below. Why is this important?

Concurrency helps us to understand your user behavior. This shows the demand for resources within your environment so you can ensure resources are available.

Concurrency (Weekly)



Applications

As users interact with data and applications to be productive, being aware of how applications are being consumed is critical. Having this information allows you to answer the essential question: "Does our technology fit our business needs?"

If unapproved applications are consuming significant resources, this could reflect negatively on the health impact. Visibility is key to being able to manage your resources.

Top 10 Most Used Software Packages

Software Package	Recent Users	Recent Sys Used	CPU Avg (%)	Memory Avg (MB)	IOPS Avg (%)
Settings	96	88	0.00	2.5	0.00
Microsoft Office 365 ProPlus - en-us	68	73	0.15	77.7	30.14
Microsoft Intune Management Extension	62	74	0.00	15.0	0.17
GlobalProtect	54	81	0.00	4.1	0.38
Google Chrome	53	54	0.04	31.6	95.09
Microsoft Azure Information Protection	52	57	0.08	0.3	5.83
ConnectWise Manage Client	51	52	0.05	27.2	2.79
Adobe Acrobat Reader DC	35	35	0.00	9.2	0.33
Windows UI PrintDialog	34	37	0.97	45.7	5.27
Intel(R) Rapid Storage Technology	28	25	0.00	9.0	0.01

Top 20 Installed Software Packages

Software Package	Num Installed	Recent Users	Recent Sys Used
Settings	97	96	88
Windows UI PrintDialog	97	34	37
Microsoft Office 365 ProPlus - en-us	93	68	73
ConnectWise Manage Client	89	51	52
Teams Machine-Wide Installer	89	3	3
GlobalProtect	87	54	81
Microsoft Intune Management Extension	83	62	74
Google Chrome	78	53	54
Local Administrator Password Solution	78	0	0
Microsoft Azure Information Protection	67	52	57
Microsoft ASP.NET MVC 2	61	0	0
Intel(R) Processor Graphics	45	0	0
Cisco Webex Meetings	44	0	0
Adobe Acrobat Reader DC	40	35	35
Intel(R) Management Engine Components	29	5	21
Realtek High Definition Audio Driver	29	25	23
Dell Touchpad	28	23	22
DisplayLink Graphics Driver	27	27	22
Intel(R) Rapid Storage Technology	27	28	25
Realtek Audio COM Components	25	0	0

Top 20 Unused Software Packages

It is just as meaningful to understand the applications that are NOT being used. There are substantial financial and legal incentives for tracking application license utilization including cost reduction initiatives and software audits. SysTrack enables you to manage your application licensing with data collected directly from the endpoint, which provides you the clearest possible picture of your licensing landscape, usage, and requirements.

Software Package	Num Installed	Recent Users	Recent Sys Used
Local Administrator Password Solution	78	0	0
Microsoft ASP.NET MVC 2	61	0	0
Intel(R) Processor Graphics	45	0	0
Cisco Webex Meetings	44	0	0
Realtek Audio COM Components	25	0	0
Intel(R) Dynamic Platform and Thermal Framework	24	0	0
Mozilla Maintenance Service	24	0	12
Intel(R) Chipset Device Software	22	0	0
windows immersivecontrolpanel	22	0	0
ST Microelectronics 3 Axis Digital Accelerometer Solution	21	0	0
Intel® Optane™ Pinning Explorer Extensions	19	0	0
NVIDIA Display Container	19	0	16
ScreenConnect Client (6cc9b2b60c58f604)	19	0	14
Asmedia USB Host Controller Driver	17	0	0
Goodix Fingerprint Driver	17	0	0
Qualcomm Atheros Bluetooth Installer (64)	15	0	1
Realtek USB Audio	14	0	0
Vulkan Run Time Libraries 1.0.54.1	14	0	0
Killer Performance Driver Suite UWD	13	0	0
Microsoft SQL Server 2016 LocalDB	13	0	12

Top 20 Visited Websites

As the application landscape changes, SysTrack also helps you to understand how your users are accessing browsers, what web applications are being utilized, and how those sites are performing. You get more comprehensive insight into the types of applications that your users find to be of value.

Website	Num Users	Num Systems	Num Accesses	Load Time (sec)	Page Time (hrs)	Focus Time (hrs)
www.wesite.com (secure)	66	66	28468	1.1	29097.5	235.7
www.wesite.com (secure)	64	68	11133	0.5	663.0	6.4
www.wesite.com (secure)	59	60	816	1.3	1563.9	11.4
www.wesite.com (secure)	55	58	4003	1.7	450.2	3.9
www.wesite.com (secure)	53	55	9497	6.9	21050.8	158.1
www.wesite.com (secure)	52	54	2018	1.2	972.7	21.8
www.wesite.com (secure)	52	54	6141	6.6	2391.3	73.9
www.wesite.com (secure)	50	52	4446	1.2	18423.4	120.4
www.wesite.com (secure)	47	48	8092	2.5	5651.3	84.0
www.wesite.com (secure)	46	46	1334	3.0	4117.1	182.1
www.wesite.com (secure)	45	46	1858	1.3	242.8	24.7
www.wesite.com (secure)	44	46	2392	4.0	13506.3	172.9
www.wesite.com (secure)	41	42	666	2.5	3.8	1.3
www.wesite.com (secure)	41	43	6361	0.4	21605.2	475.1
www.wesite.com (secure)	41	42	903	0.8	1611.5	4.7
www.wesite.com (secure)	40	42	351	0.9	61.1	1.0
www.wesite.com (secure)	40	42	452	1.1	432.6	34.2
www.wesite.com (secure)	40	40	500	2.3	1242.9	8.0
www.wesite.com (secure)	40	41	594	66.0	3126.8	16.7
www.wesite.com (secure)	39	41	3135	3.2	21261.6	224.0

Areas of Concern

When applications work correctly, your users are happy and productive. The SysTrack application fault dataset provides you an assessment of how application problems may impact your users. Faults, such as crashes or hangs, can seriously affect user productivity and satisfaction. SysTrack can categorize each fault by type and the underlying cause (such as the environment, resource constraint or programming errors) to assist in identifying and resolving those issues.

Top 10 Faulting Applications - Based on Number of Faults

Application Name	Num Faults	Affected Systems
64bitProxy.exe	1350	4
rundll32.exe_hpmsn150.dll	1152	2
ptSrv.exe	689	1
svchost.exe_DoSvc	339	59
AUDIODG.EXE	320	30
GfxDownloadWrapper.exe	231	14
RuntimeBroker.exe	171	48
dwm.exe	170	19
OUTLOOK.EXE	128	36
IntelAudioService.exe	123	31

Top 10 Faulting Applications - Based on Affected Systems

Application Name	Num Faults	Affected Systems
svchost.exe_DoSvc	339	59
RuntimeBroker.exe	171	48
OUTLOOK.EXE	128	36
Teams.exe	65	36
IntelAudioService.exe	123	31
AUDIODG.EXE	320	30
Explorer.EXE	63	29
lync.exe	48	24
LsiAgent.exe	54	23
SearchUI.exe	38	22

Top 10 Occurring Sensors

Sensors are a vital component of SysTrack that monitors the environment in real-time and take action on their observations. Specifically, they outline conditions and key performance indicators to watch. For instance, "simple" sensors can be monitoring the environment for virtual endpoints whose CPU utilization is above a certain threshold. More complex, or "bundled," sensors can be watching for broader sets of circumstances such as the number of times an application has launched and how that compares against its usual rate. Key functionality in enabling self-healing capabilities, sensors can trigger actions once the monitored conditions are met.

Through this assessment, the top 10 sensors are shown below, for more information regarding sensors, we would be happy to review the data with you more closely.

Category	Sensor	Num Systems Affected	First Trigger	Last Trigger
Memory	High Page Faults	76	1/23/2020	2/21/2020
Applications	Application Error	68	1/23/2020	2/21/2020
Network	Network Pipeline Saturation	62	1/23/2020	2/21/2020
Memory	Non-Paged Pool Leak Detected	60	1/23/2020	2/21/2020
System	Suggested System Restart	57	1/23/2020	2/21/2020
System	System Pending Reboot	57	1/23/2020	2/21/2020
Memory	Paged Pool Leak Detected	51	1/23/2020	2/21/2020
Memory	Memory Leak Detected	49	1/23/2020	2/21/2020
Disk	Low Mapped Drive Space	49	1/23/2020	2/21/2020
CPU	High CPU Use	47	1/23/2020	2/21/2020

Personas

Personas are abstract groups of people segmented by their work role, behavior patterns, and IT tools that are used. Because SysTrack continuously monitors thousands of end-user data points per second, then compiles and analyzes all of that data – you get a clear understanding of how your users interact with your systems and applications. These metrics result in the accurate creation of personas based on actual user needs and represented by Gartner-defined categories.

Personas	Num Critical Applications	Num Persona Users
Deskbound - Knowledge	3	2
Deskbound - Power	7	8
Non-Deskbound - Knowledge	5	5
Non-Deskbound - Power	6	65

Group Resource Consumption / Rightsizing

When investment decisions are made for your end-users, their usage patterns and resources need to be clearly understood. This is not only important when planning a hardware refresh, but also to allow for rightsizing VDI to ensure that each user is given the exact resources they need.

Group	CPU Avg (%)	Memory Avg (MB)	IOPS Avg	Network Avg (Mb/s)
Laptops	21.83	2282.00	8.08	0.06
VDI	10.79	7707.00	41.61	1.02
Sales	8.79	2437.00	50.61	2.6
Marketing	10.79	7707.00	41.61	1.02
Executives	6.79	4568.00	60.61	2.02
New York Office	11.79	7862.00	41.61	1.02
Chicago Office	11.50	7027.00	41.61	1.62
Raleigh Office	22.79	8025.00	59.35	1.02
Physical Systems	21.83	2282.00	8.08	0.06
All Systems - Desktop	10.91	7599.00	40.94	1.00

Potential Projects

Office 365

Office 365 offers flexible licensing models so you can better meet your end-users' needs, but how can you determine the best licensing options? Because of their close partnership with Microsoft, we use Lakeside Software's SysTrack product to assist with your existing office 365 rollout and/or migration.

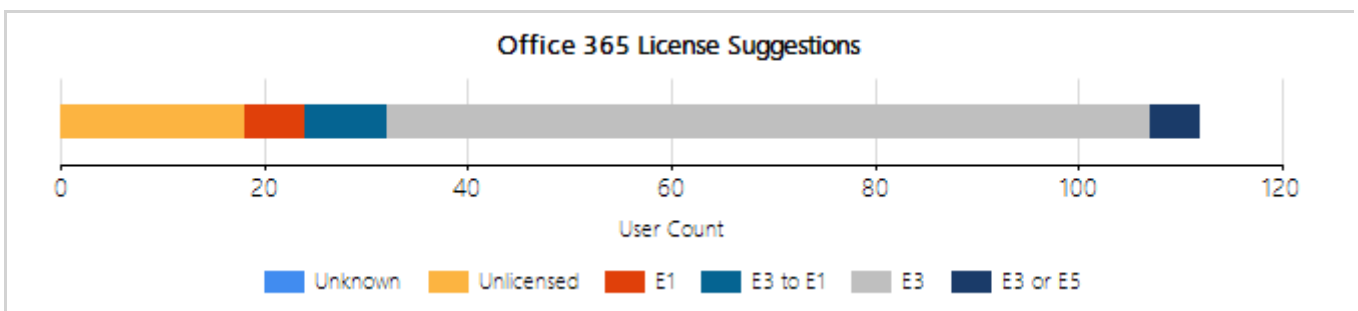
With SysTrack's ability to support needs-based procurement, it can show how your users interact with applications on every physical and virtual device. Since Office 365 offers three basic licenses (E1, E3, and E5) you'll be able to determine which license you need for each user more efficiently.

The chart below displays each suggested license type and how they're defined with the categories of applications. For example, E1 offers applications in File Share and Group Chat and the online versions for Email, Word Process, and Spreadsheet.

Application	Categories	Unlicensed	E1	E3 to E1	E3	E3 or E5
No Applications		X				
OneDrive	File Share		X	X	X	X
Teams	Group Chat		X	X	X	X
Outlook	Email		Web Based	X	X	X
Word	Word Process		Web Based	X	X	X
Excel	Spreadsheet		Web Based	X	X	X
PowerPoint	Presentation				X	X
OneNote	Document Sharing				X	X
Skype	Meeting				X	X
Access	Database					X
Publisher	Publishing					X

We have included our suggestions to optimize licenses for each user to provide the lowest license fit possible while still fulfilling appropriate job role requirements. These categories allow your administrators to make the call on determining the best licenses for edge users.

For more details, we can set up a meeting to discuss your options.

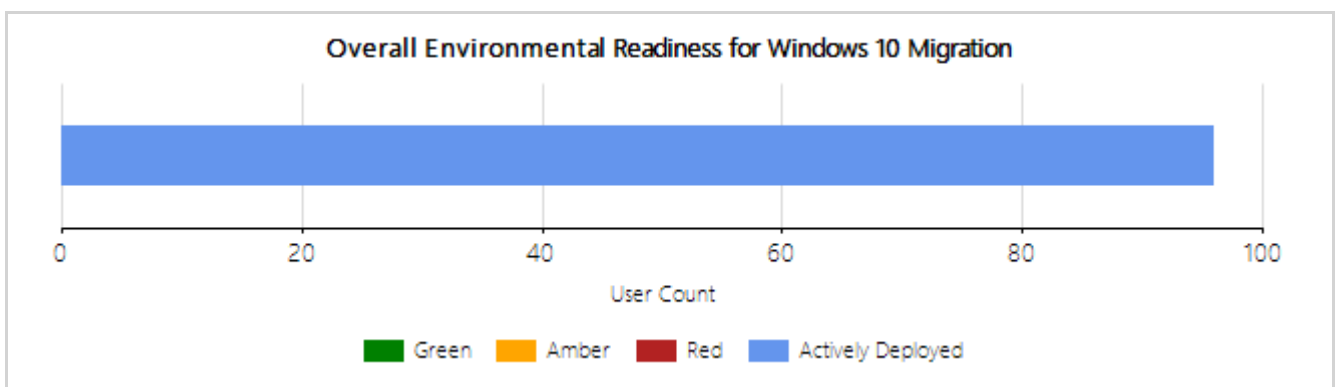


Windows 10 Migration

Migrating an enterprise to a new operating system is no easy task. Careful consideration of the benefits and potential risks needs to be taken beforehand. Windows 10 offers a lot of advantages in security, mobility and user experience. Making the switch to Windows 10 can modernize the workforce while increasing productivity and simplifying management.

Because they are a Windows 10 launch partner with Microsoft, we use Lakeside Software's SysTrack product to assist with minimizing risk and reducing the complexity of your migration project. SysTrack can provide intelligence and insights necessary to make smart business decisions that are based on actual data from your environment.

For more details, we can set up a meeting to discuss your options.



Candidates for Replacement/Refresh

Keeping on top of assets in your infrastructure can be a challenge. Aging systems can often result in a lower quality of service for your users. These systems have been called out as they appear to be more than 5 years old and might need be replaced or repurposed.

SysTrack monitors all your inventory, so for more information and visibility into the health of your existing environment. We would be happy to set up a meeting to discuss your overall upgrade strategy.

System	OS Install Date	BIOS Date
System name	6/21/2014	11/12/2013
System name	1/15/2020	3/12/2013
System name	5/12/2014	12/7/2018
System name	2/3/2020	8/27/2013

Under Provisioned Machines

IT teams face a balancing act between over and under-provisioning hardware. Neither option is ideal - on one hand, you can stretch the capital expenditure, but the other hand can result in productivity loss from under-performing machines. SysTrack provides deep insight into desktops and servers, which gives a clear understanding of usage patterns and resource utilization. By analyzing the data, we can help alleviate the guesswork. After a review of your data, we identified that the best candidates for an upgrade/refresh are as follows:

System	User	Persona	% Time User Experience Impacted by CPU	% Time User Experience Impacted by Disk	% Avg Memory Utilization	Consider Upgrading
System name	CUSTOMER\name	Deskbound - Power	32.35			CPU
System name	CUSTOMER\name	Non-Deskbound - Power			82.64	Memory
System name	CUSTOMER\name	Non-Deskbound - Power	26.22			CPU
System name	CUSTOMER\name	Deskbound - Power	30.82			CPU
System name	CUSTOMER\name	Non-Deskbound - Power			64.00	Memory
System name	CUSTOMER\name	Non-Deskbound - Power	29.84			CPU

Ways to Improve Users' Digital Experience with SysTrack

Desktop Transformation – Whether it is a migration to the latest OS version, the adoption of VDI or application virtualization, or simply a PC refresh, SysTrack can help organizations accurately size and scale the future environment based on actual user needs and requirements. After migration, SysTrack enables continuous right-sizing and steady-state monitoring, helping IT stay on top of changes like Windows 10 updates.

Personas – Mobility and workstyle affect what technology users need to do their jobs. SysTrack continuously segments users by persona, allowing IT to easily onboard new employees and tailor resource provisioning.

Budget Rationalization – When looking to right-size and then assess investment in hardware, software and services, more often than not, IT is faced with a finger in the wind approach. SysTrack aggregates years of performance and usage data so IT can assess the health and viability of investments based on monitored employee need and adjust projects accordingly.

Collective Intelligence Benchmarking – Collective intelligence benchmarking is a data analysis method that allows organizations to make performance comparisons analyzing data from many user groups. IT teams can implement this practice with SysTrack to strategically improve the performance of their environment according to a given baseline.

Ways to Optimize Assets with SysTrack

Need-Based Procurement – SysTrack's usage data helps IT understand what users truly need to get work done. Digital experience monitoring data allows IT to right-size and procure resources based on their actual value to the organization.

Application License Utilization Management – Knowing which software packages are actively being used and being able to correlate usage with license entitlement systems helps CIOs make the most out of their software licenses and enterprise license agreements.

Application/Hardware Performance Management – SysTrack monitors real-time and historical application and hardware performance and dependencies and simplifies management with alarms, custom dashboards and reports, and more.

SLA Transparency – IT can use the end-user experience score calculated by SysTrack as an objective indicator of service equality and proof of project success. Additionally, SysTrack allows IT to see beyond SaaS "uptime" SLAs to pinpoint whether an issue originated on the provider's side.

Ways to Accelerate IT Support with SysTrack

Proactive Support – By continuously monitoring users' digital experience, IT can remediate issues before end users notice them. Specifically, SysTrack monitors the environment using AI-driven sensors, provides information on system changes/events (such as a Windows patch), triggers alarms, and displays historical system data for easy event correlation.

ITSM Optimization – SysTrack integrates with popular ITSM tools, such as ServiceNow, and enables further ITSM improvements, including faster triaging of incidents and click-to-ticket functionality.

Root Cause Analysis – Root cause analysis boosts IT efficiency and improves the performance of business-critical technologies by treating the root cause of issues rather than symptoms. SysTrack's continuous data record and analysis tools provide the necessary visibility to perform full root cause analysis.

Level 0 – Level 0 is a new level of support that uses self-healing and self-service to deflect issues away from (primarily Level 1) support, and closer to automation and the end user. SysTrack's Level 0 features include predictive analytics and automation with AIOps, experience feedback surveys, a self-service app, and more. These features help reduce costs incurred by the service desk and reduce the number of incidents, all while improving overall quality of service.