



Deliver Superior User Experiences with Zscaler Digital Experience (ZDX)

The IT Operations Teams Challenge With End-to-End Monitoring

 **Todd McKinnon** · CEO & Co-Founder at Okta
2mo · 🌐

Urgently needed: Please help!

When my zoom call is choppy, need utility that tells me where the problem is

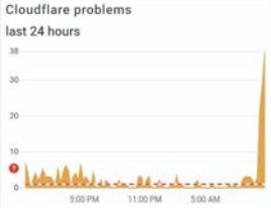
My computer?
My wi-fi?
My comcast?
internet?
Zoom server?
other person's internet?
Other person's wi-fi?
Other person's computer?

🗨️ 72 · 40 Comments

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#HugOps to the cloud! are folks. I was going crazy debugging my home network 😞

Cloudflare problems last 24 hours



5:00 PM 11:00 PM 5:00 AM

Learn Outage Map

Most reported problems

90% DNS 10% Website

 **Jim Angel** @JimonAngel
9:11am · 13 Aug 2020

@tellsdami @IBMcloud Not at all. Outages happen; #hugops is important! Blaming a total global outage on a "third party networking event" with no further details means nobody can trust / take you seriously. S3 apocalypse came with a full analysis of exactly what went wrong, by comparison.

 **HydroxyCoreyQuinn** @QuinnPig
12:21am · 12 Aug 2020

Twice this week I've had the lovely experience of SaaS application downtime where the status board remained green and support said "yeah we're experiencing" issues. So what's the point of the status board then?

 **Stephen Foskett** @SFoskett
11:56am · 18 Jun 2020

In a cloud-first and mobile world, IT monitoring teams are facing visibility gaps

Digital Transformation Efforts Create IT Visibility Gaps

IT operations teams are facing new monitoring challenges

The new reality

Cloud is the new destination

Internet is the new connectivity layer

Users are everywhere



Impact to IT teams

Cloud infrastructure is beyond IT control

Internet path is outside IT's control

Endpoint monitoring is a critical requirement

“

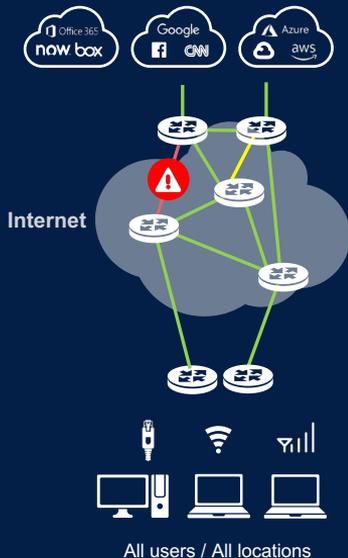
Gartner[®]

Existing **device-centric network monitoring** does not scale or provide the needed visibility for **cloud and digital-business-era applications.**”

Rethink Network Monitoring for the Cloud Era
Gartner, Inc.

Current IT Monitoring Approaches Create Visibility Blind Spots

In a work from anywhere world



SaaS/Cloud Provider Self-Reporting



Focus on service uptime and availability
Intended to prove their innocence



Network Performance Monitoring (NPM)

Focus on monitoring the health of the network

Limited insight while analyzing encrypted traffic



Infrastructure Monitoring (ITIM)

No visibility into SaaS vendor infrastructure

Lack context about endpoint issues

Results in alerts and metrics fatigue

Forces IT teams to manually correlate metrics

Creates blind spots and slows down investigations



“ By 2021, fewer than 15% of organizations will implement holistic monitoring, putting \$255 billions of investments in cloud-based solutions at risk. ”

- Gartner, 'How to React to the Impact of the Cloud on IT Operations Monitoring'

The Right Approach Starts With Three Integrated Monitoring Capabilities

Internet / SaaS Apps Performance

SaaS / Cloud app performance, availability and uptime



Endpoint Performance

Endpoint device and connectivity health



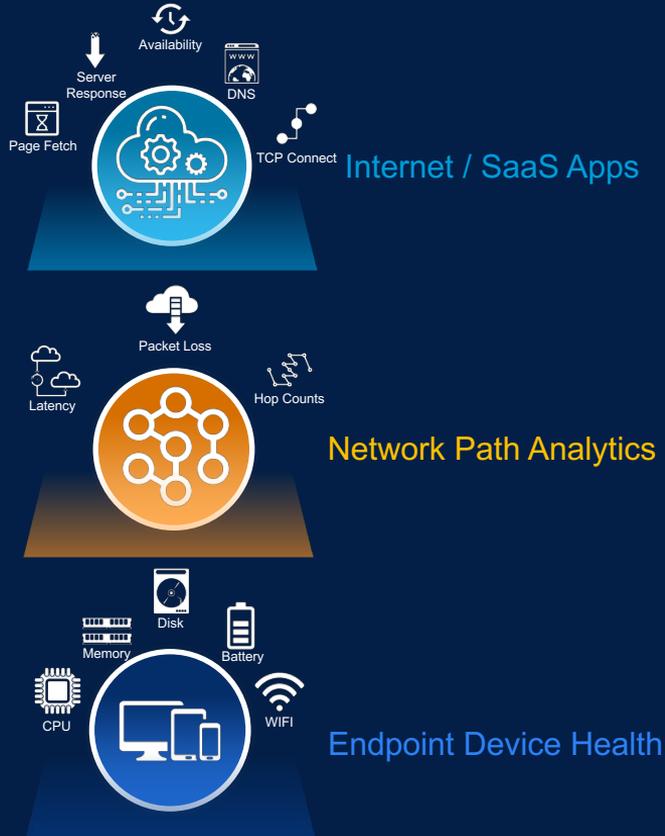
Network Analytics

Hop-by-hop network path performance



Performance intelligence, automatically collected, correlated and ready for actionable insights

Gain End-to-end Visibility From User To Business Application



End-user experience correlated and benchmarked as
Digital Experience Score

Zscaler Digital Experience (ZDX)

Always-on and delivering actionable digital experience monitoring



SaaS performance monitoring



- End-to-end SaaS app performance measurement
- Granular metrics, trend analysis and alerting

Network analytics



- Hop-by-hop network performance analysis
- Visibility within Zscaler cloud

Endpoint Monitoring



- Unified endpoint agent
- Device health metrics tracking

Troubleshooting IT incidents



- Isolate root cause of IT issues faster
- Reduce MTTR for end-user IT issues

Improve Engagement And Keep Your End Users Happy

with enhanced digital experience monitoring from Zscaler

- 1 Effective digital experience monitoring requires integrated approach to endpoint, network and cloud/SaaS apps monitoring
- 2 End-to-end visibility is only possible with continuous and always-on monitoring starting from the end-user perspective
- 3 Network path analytics from globally available, Zscaler cloud enables unique, actionable insight into end-user experience issues

Introducing Zscaler Digital Experience



Zscaler Digital Experience: Visibility From The End-user To The App

Proactive visibility and diagnostics of end-user experience issues



End-to-end visibility

from user out to SaaS/web applications

Proactive monitoring

of performance anomalies on end-user device, network (local/WAN) and apps

Simplified monitoring workflow

with real-world performance benchmarking and scoring

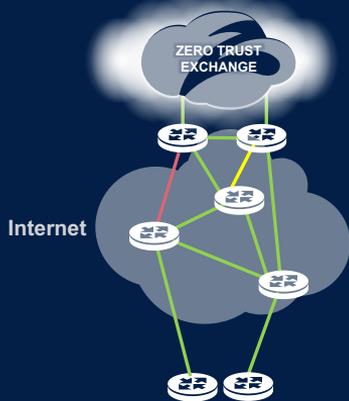
Isolate issues faster

eliminating IT delays and finger pointing

ZDX Score - Baseline User, App, and Regional Performance Issues



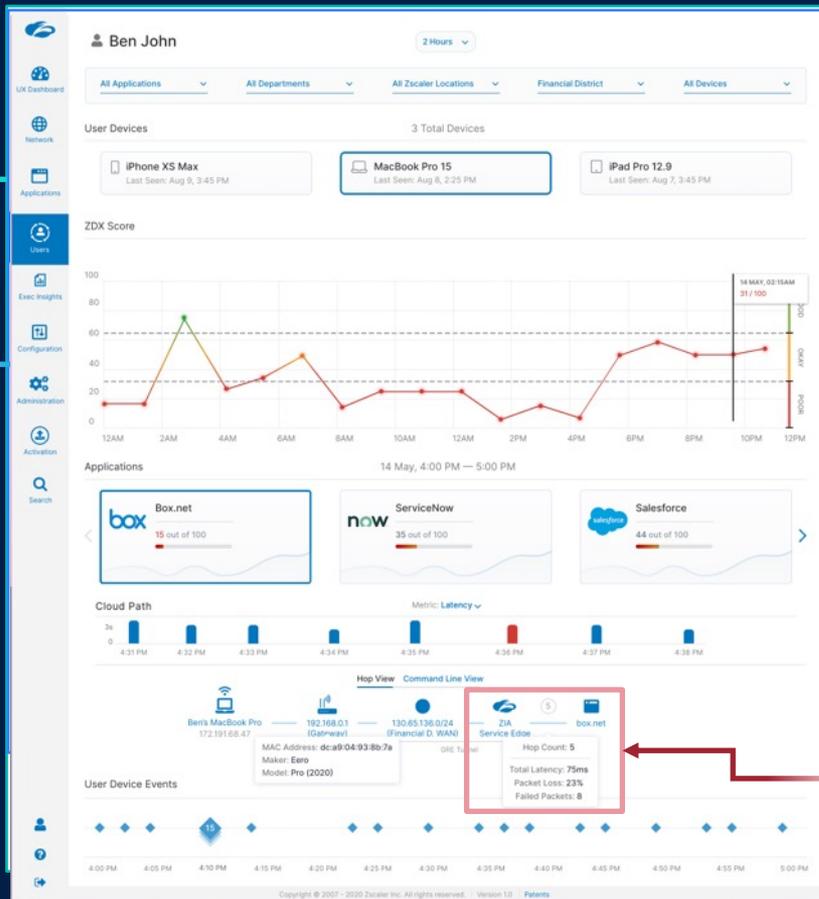
ZDX Score computed for Apps, Devices, Users and Locations



Ben is experiencing slowness, with Box service, but not others in NY



All users / All locations



ZDX score timeline for Box app

Latency and packet loss on Ben's sessions between ZIA and box service

Global view of overall user experience, network performance issues, and device health

Always-On End User Experience Monitoring

How it works....

- 1 Client Connector with ZDX enabled
- 2 Monitoring policy configured and applied
- 3 Always-on metrics sent and correlated

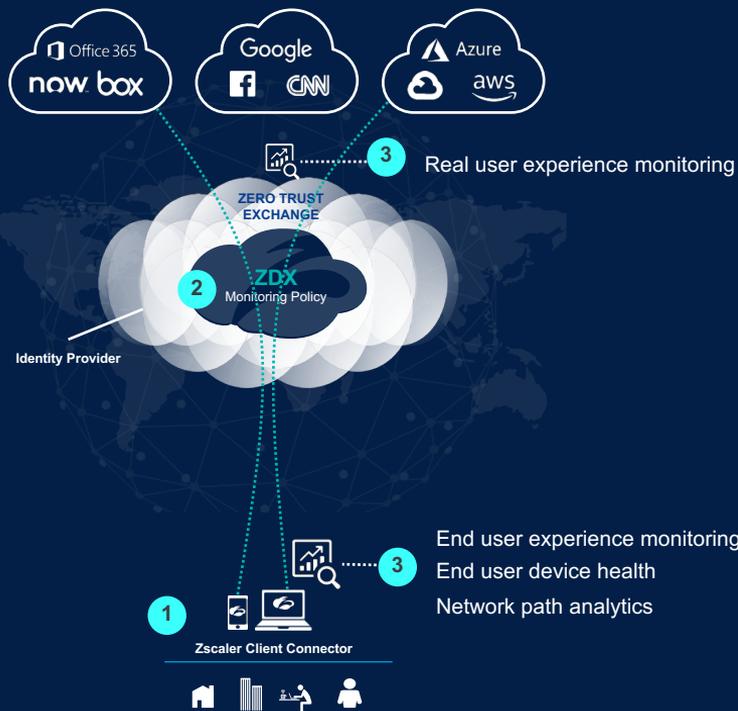
How it's being used

End-to-End Visibility

SaaS/Web Application monitoring

Troubleshooting End-User Issues

End-user device performance



Why it's unique

No operational burden of installing monitoring probes

Simplified monitoring workflows configurable in the cloud portal

Globally available cloud architecture that can ingest and analyze data from millions of endpoints

The Zscaler Digital Experience Difference



Built on a **highly scalable SASE cloud-based** ingestion and analytics engine



Deep understanding of end user identity provides useful context for monitoring workflows



Monitoring metrics aligned with network and security teams needs



Unified endpoint agent for monitoring, advanced security and Zero Trust network access

Leveraging Zscaler Cloud Platform – Simple, Fast and Reliable

150

Data centers on six continents

135B+

Requests processed/day

100M+

Threats blocked/day¹

120K+

Unique security updates/day

Peering at internet exchanges

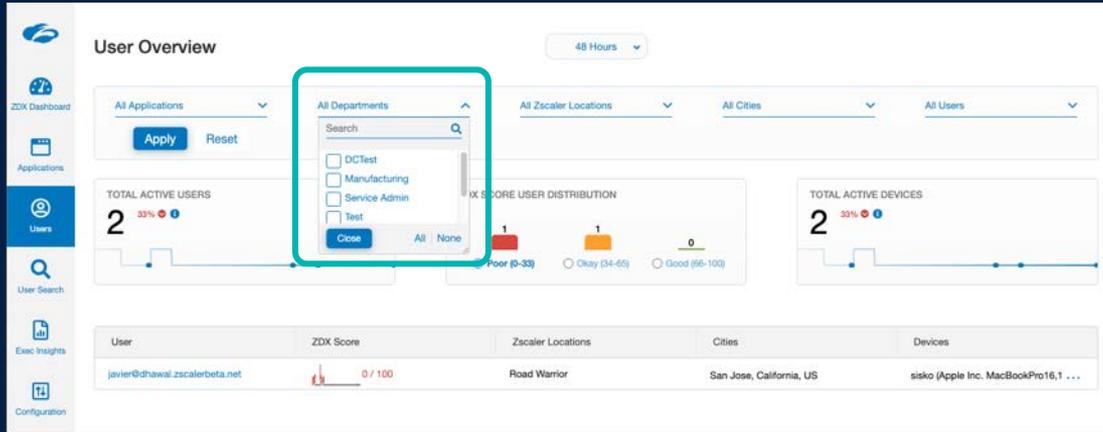


Office 365 Data Center Peering

Peering: <https://www.peeringdb.com>

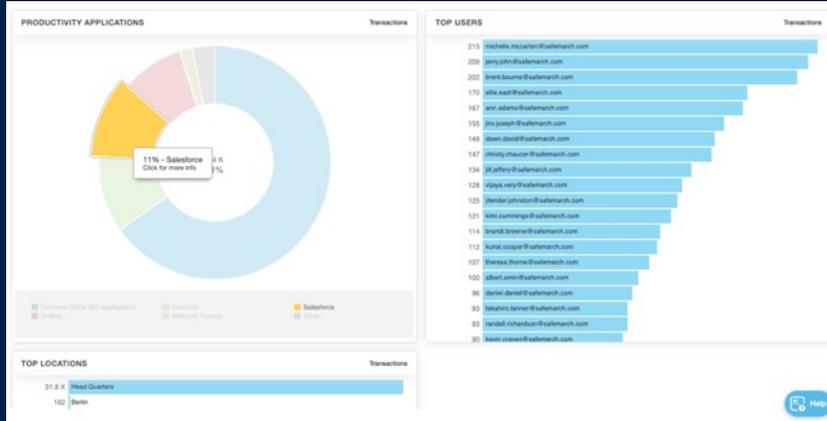


Enabling Identity Context Within Monitoring Workflows



- Integration with identity providers such as Okta, Ping, Azure AD
- Correlation of user identity, department and geo-location of end-user with their performance issues
- Compare digital experience score distribution across users, departments and locations

Real User Monitoring From The Zscaler Cloud



Event Time	User	URL	Protocol	Server Trans. Time (ms)...	Client Trans. Time (...)	Response Code...	Received By...	Sent Bytes...
Monday, April 20, 2020 12:46:07 AM	michelle.mccarten@salesforce.com	www.salesforce.com/	HTTPS	374	205	200 - OK	155,346	317
Monday, April 20, 2020 12:49:35 AM	michelle.mccarten@salesforce.com	login.salesforce.com/	HTTPS	187	108	200 - OK	11,819	372
Monday, April 20, 2020 12:49:36 AM	michelle.mccarten@salesforce.com	login.salesforce.com/img/logo214.svg	HTTPS	149	109	200 - OK	7,525	439

URL
www.salesforce.com/
login.salesforce.com/
login.salesforce.com/img/logo214.svg

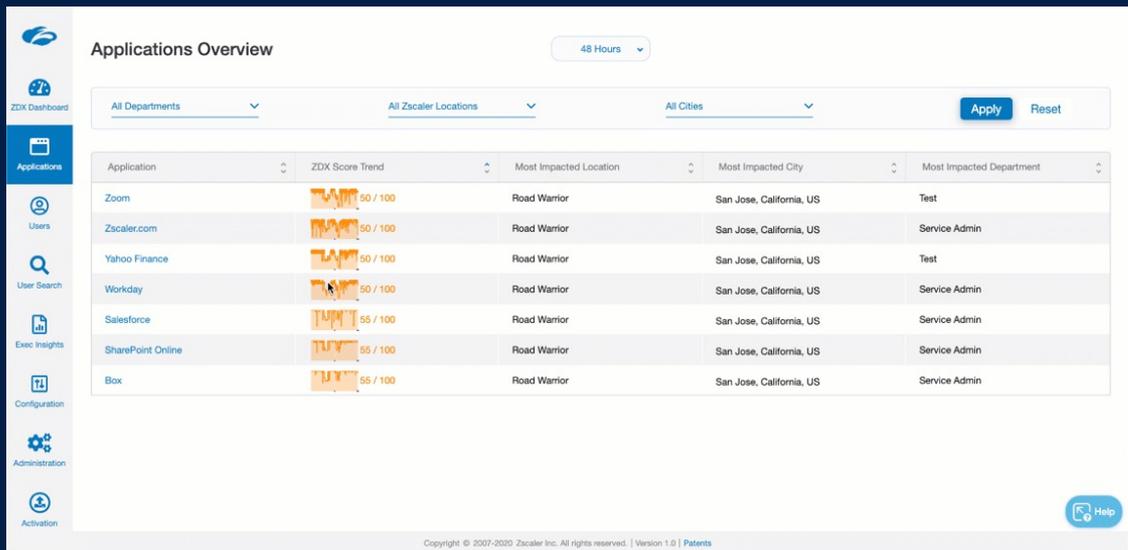
Server Trans. Time (ms)...
374
187
149

- Zscaler Internet Access (ZIA) log analytics provide real user data
- See application usage by user and location
- Drill into web transaction records with end user response times

Use Cases

SaaS/Web application performance monitoring

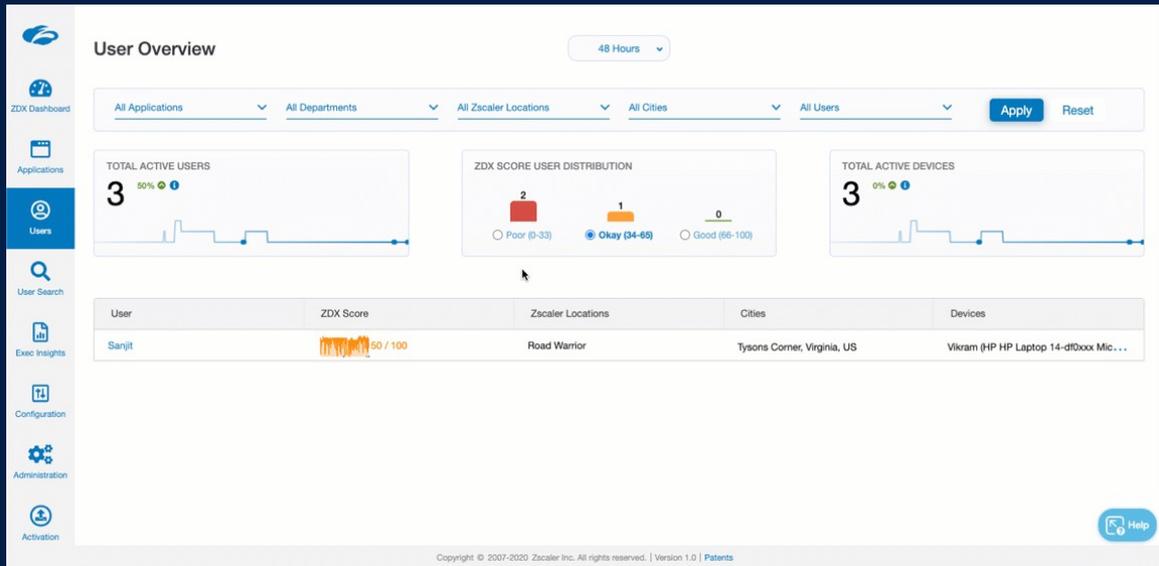
Proactive monitoring and diagnostics into application performance issues



- Isolate issues with the application/network provider
- Trend application performance over time
- Create alerts with granular filter options and subscribe to them via email and webhooks
- Baseline normal application performance to proactively identify degradations

End-user device health performance monitoring

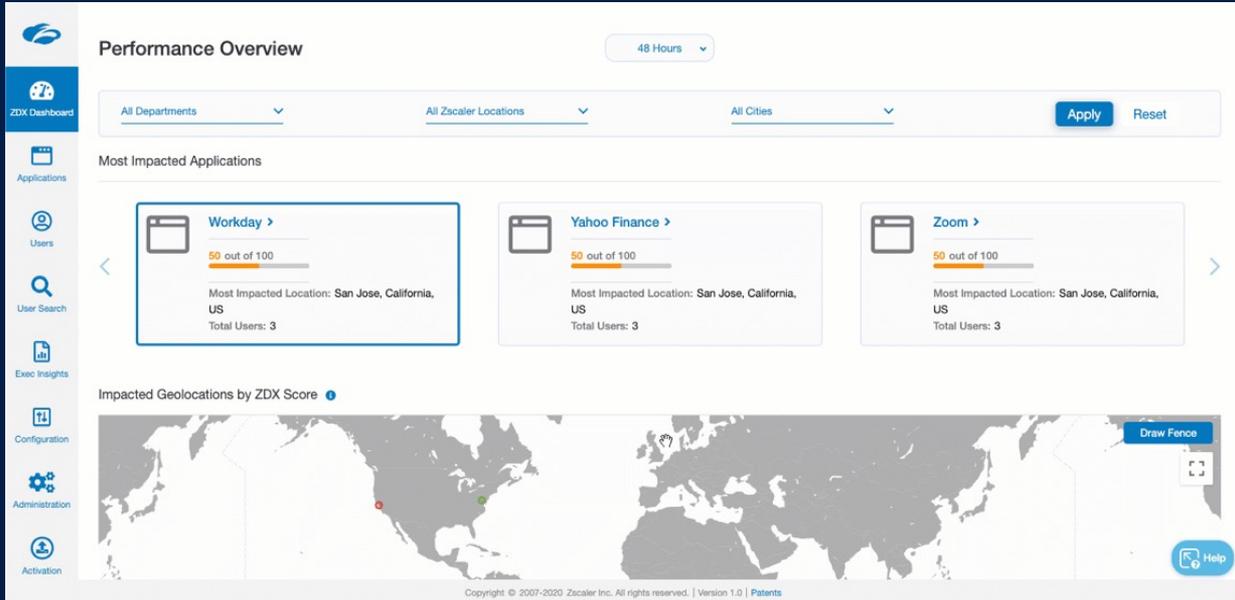
Reactive troubleshooting of end user performance issues



- Identify and alert user endpoint issues
- Troubleshoot network connectivity issues
- Enable live troubleshooting on endpoints and run packet captures
- Baseline user performance to compare against their regional or office peers

Regional and office performance monitoring

Proactive visibility and diagnostics into performance issues in an office or a region



- Isolate global versus regional versus individual issues
- Diagnose issues caused by WIFI, WAN, application provider or user endpoint
- Baseline normal location-based performance to proactively identify degradations

Business and Monitoring Value

Business value



Reduce Operational Burden

Ops teams can do more with less. No monitoring probes to deploy and single unified endpoint agent is all that's needed

Increased Ops Productivity



Increase operational insights

Ops teams can start with ZDX dashboard and get end-to-end visibility into user experience issues

Proactive resolution of end-user performance issues



Fast and Safe Adoption of Cloud Applications

Proactive monitoring and diagnosis of end-user experiences with new cloud applications will accelerate their adoption

Increase agility and innovation

Monitoring value



Centralized Monitoring
for End-to-end Visibility

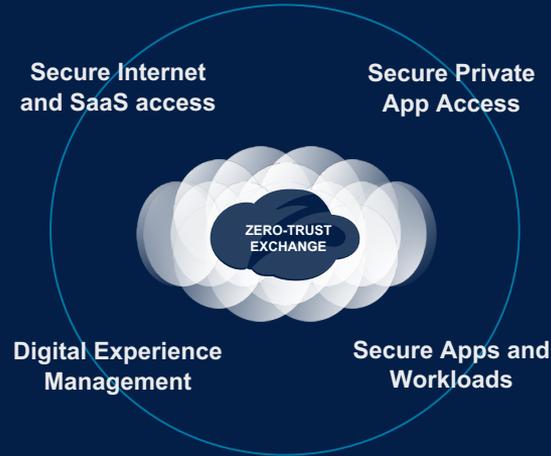


Catch & Prevent End-
User Issues Faster



Quantify And Baseline
User/Regional Digital Experiences

Next steps



Schedule a solution deep dive of ZDX
<https://www.zscaler.com/custom-product-demo>

A person in a patterned shirt is seen from the side, gesturing with their hand towards a blurred audience in a conference room. The scene is overlaid with a dark blue tint.

Thank you
