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The bridge to possible

The Network Diary in Detective Hands

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BRKOPS-2547

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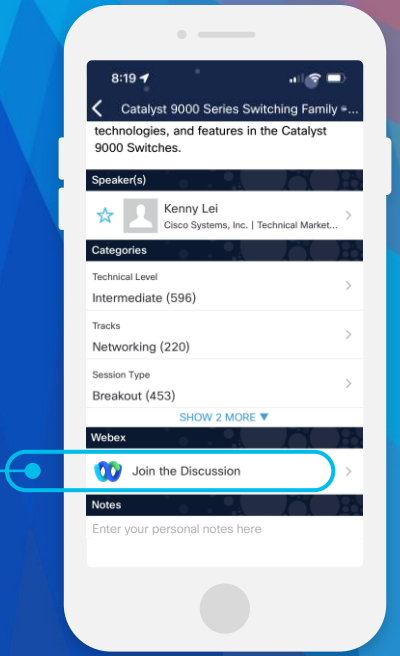

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Agenda

- Detectives: The Origin
- Detective Diary
- Paradigm shift

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Detectives: The Origin

- Detectives have a rich and intriguing history
- In Ancient Rome, the "frumentarii" acted as intelligence agents, investigating crimes and gathering information
- The first modern detective force was established in France in 1812 by Eugène François Vidocq, a former criminal turned private investigator
- Vidocq's innovative methods, such as undercover work and crime scene analysis, laid the foundation for modern detective work

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Detective diary contents

1. Case information
2. Observations
3. Notes
4. Clues and evidence
5. Follow-ups
6. Analysis and insights
7. Progress tracking
8. Actions
9. Case closure

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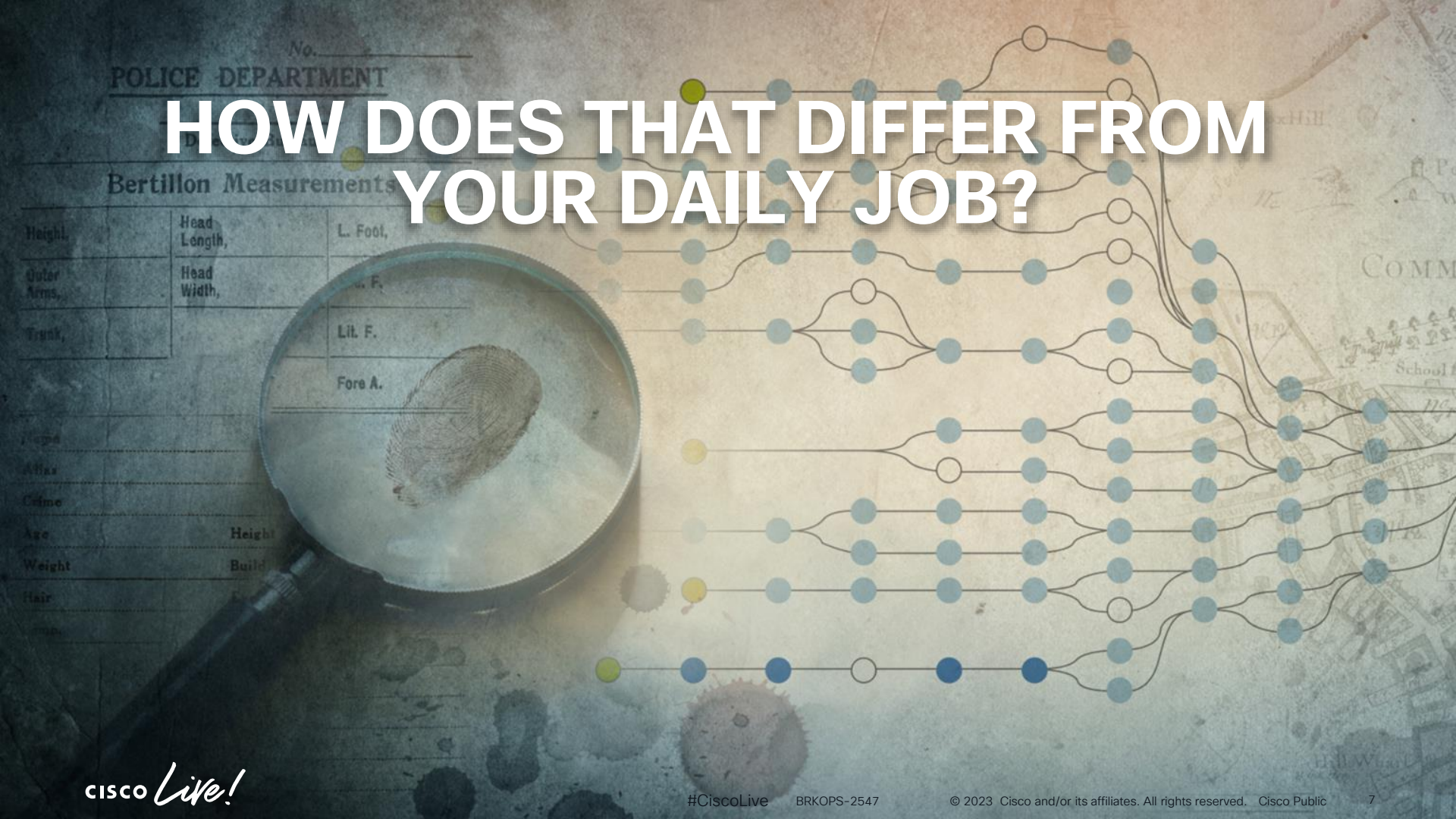
HOW DOES THAT DIFFER FROM YOUR DAILY JOB?



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Paradigm shift

Cloud is the new datacenter

SaaS is the new application stack

Home is the new office!

Internet is the new network

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Cloud is the new datacenter

Key findings from the Cloud Report 2022 edition

- Cloud providers are not immune to performance issues
- Cloud providers prioritize and make network decisions based on their interests
- There is no steady state in the cloud

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Before you deploy to the cloud...

- Test performance to and between different regions
- Cloud requires you to take a “data-driven leap of faith”
  - You need additional confidence and visibility because you can’t rollback on cloud
- Once you’re deployed within a region, it’s hard to uproot
  - Leverage an always-on monitoring/alerting strategy to maintain and audit performance
- Understand where the data is travelling within a provider and what paths it takes
  - Compliance and data sovereignty are important to consider

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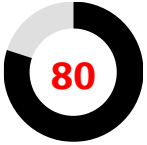
SaaS is the new app stack

The New Application Reality



- **Hybrid Cloud:** 80% are combining the use of public and private clouds

- **Architectures:** 45% of applications in 2021 use microservices

- **Delivery:** 43.6M live websites in 2022 use CDN

- **Experience:** 22% of retail sales will come from e-commerce by 2023

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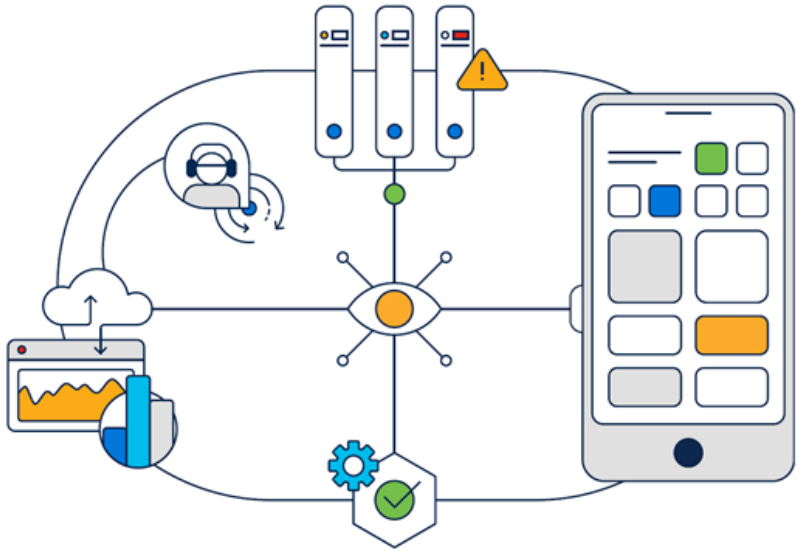
Full Stack Observability

Full stack observability is an approach to monitoring and troubleshooting that provides a holistic view of the entire application stack, from the infrastructure to the application layer. It combines metrics, logs, and tracing data from all stack layers, along with machine learning and analytics tools, to provide real-time visibility into the health and performance of the entire system.



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Home is the new office

Work has changed forever

"In the hybrid work world, app experience is critical to work experience"

–Hybrid Work Index (Cisco)

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Internet is the new network

The New Reality

- **40%** of all enterprise locations are going to internet access as their only WAN transport

- **60%** of IT spending on application spending will be directed toward cloud technologies by 2024

- **65%** of enterprises will have implemented SD-WAN by 2025

- **SSE Adoption:** driven by increased flexibility to secure the hybrid workforce and branch locations

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To remind ourselves...

Cloud is the new datacenter

SaaS is the new application stack

Home is the new office!

Internet is the new network

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ThousandEyes as your network diary

Case information: Timeline provides all the details you might need, such as data stamps.

Observations: Timeline provides information on the metric affected (availability, packet loss, latency, etc.)

Notes: Overview pages can and do serve as additional notes, including information about affected agents, affected values and so on

Clues and evidence: Path Visualization and multi-layer metrics provide all the evidence you might need to figure out what happened and who is responsible.

Follow ups: Share links and snapshots can be used to expedite communication and fixes with your providers

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ThousandEyes as your network diary

Analysis and insights: Control plane (BGP Route Visualization) correlation with Data plane insights (Route Visualization) along with application health provide deep insights and potentially make a difference between significant outages going for hours vs mins.

Progress tracking: Timeline details metrics before/during/after the issue. Timeline, along with path visualization, can and does make a huge difference in your investigations

Actions: Break down the silos between networking/security/application/SRE teams by clearly indicating where the issue is and who should focus on resolution. Speak to providers who might not even be aware that they are affected

Case closure: Use ThousandEyes as an aid for your RCA

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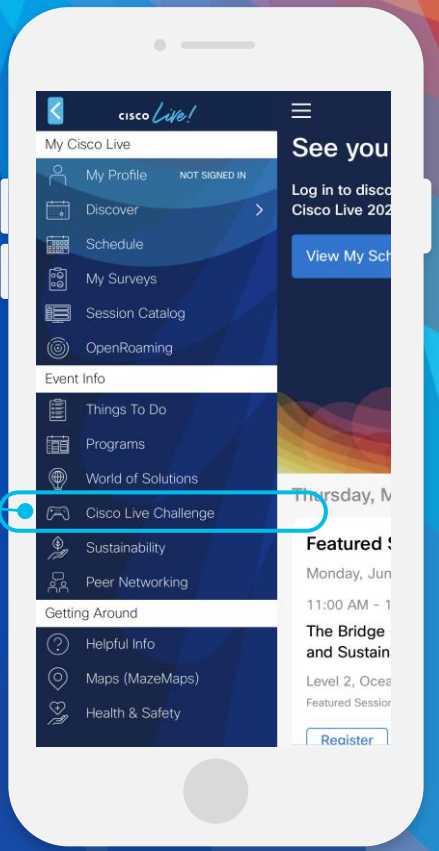

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