
AWS
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Assuring and securing AWS migrations with NETSCOUT visibility

Ray Krug

Director, Product Marketing
NETSCOUT

Josh Dean

Solutions Architect
AWS

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Assuring and securing AWS migrations with NETSCOUT visibility

AWS Migrations

Deep Traffic Inspection for Advanced Network and Application Troubleshooting and NDR

Visibility Without Borders

Enterprise-Wide Service Assurance and Cybersecurity

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Business Drivers for Migrating to the Cloud



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Migration Process



Assessment

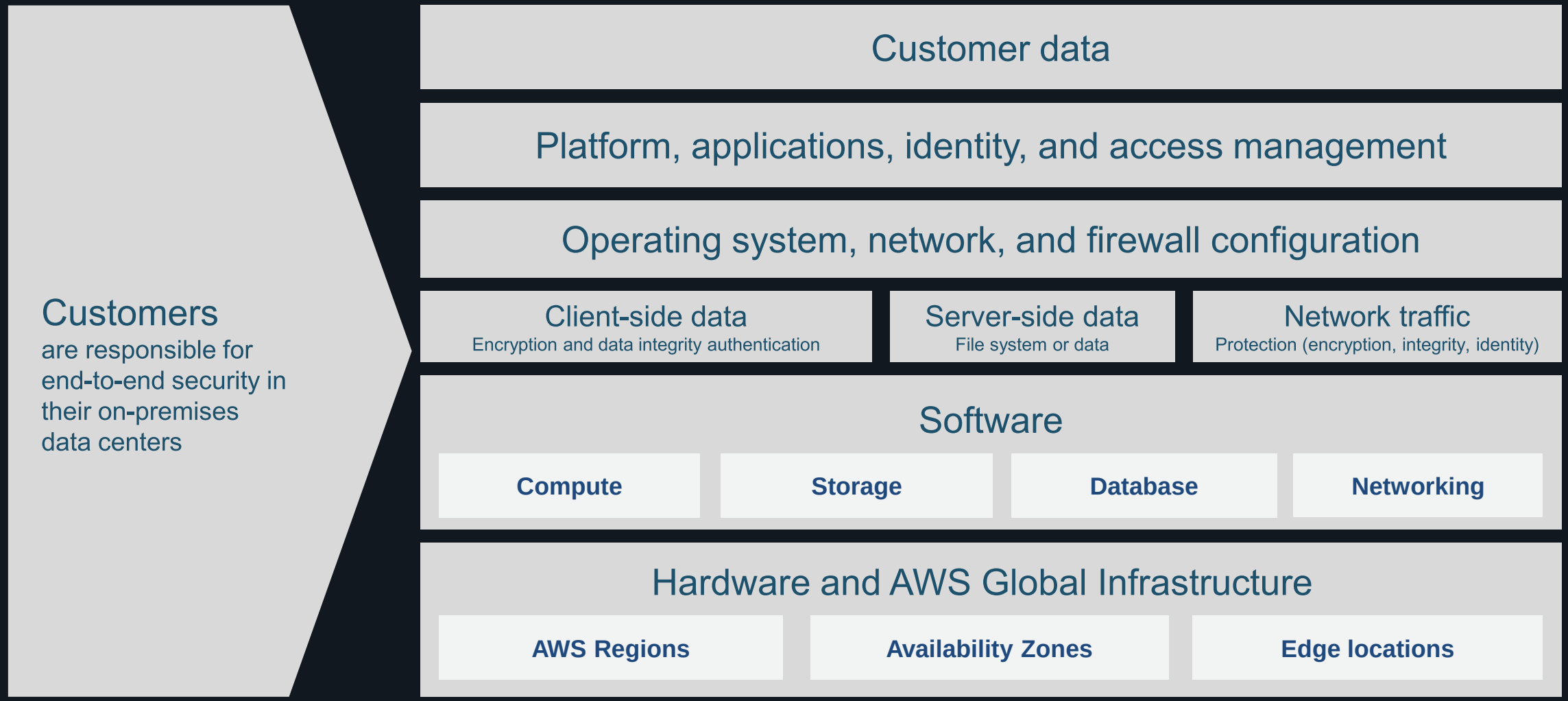
Readiness and planning

Migration

Operations and optimizations

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Traditional On-Premises Security Model



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AWS Shared Responsibility Model



Security IN the Cloud

Customer responsibility is determined by the AWS Cloud services that a customer selects.

Security OF the Cloud

AWS is responsible for protecting the infrastructure that runs all the services offered in the AWS Cloud.

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Hybrid Cloud Visibility Challenges



Many enterprises are dissatisfied with current hybrid cloud management strategies due to the lack of integration and inability to consistently address dynamic “Day 2” operational concerns.

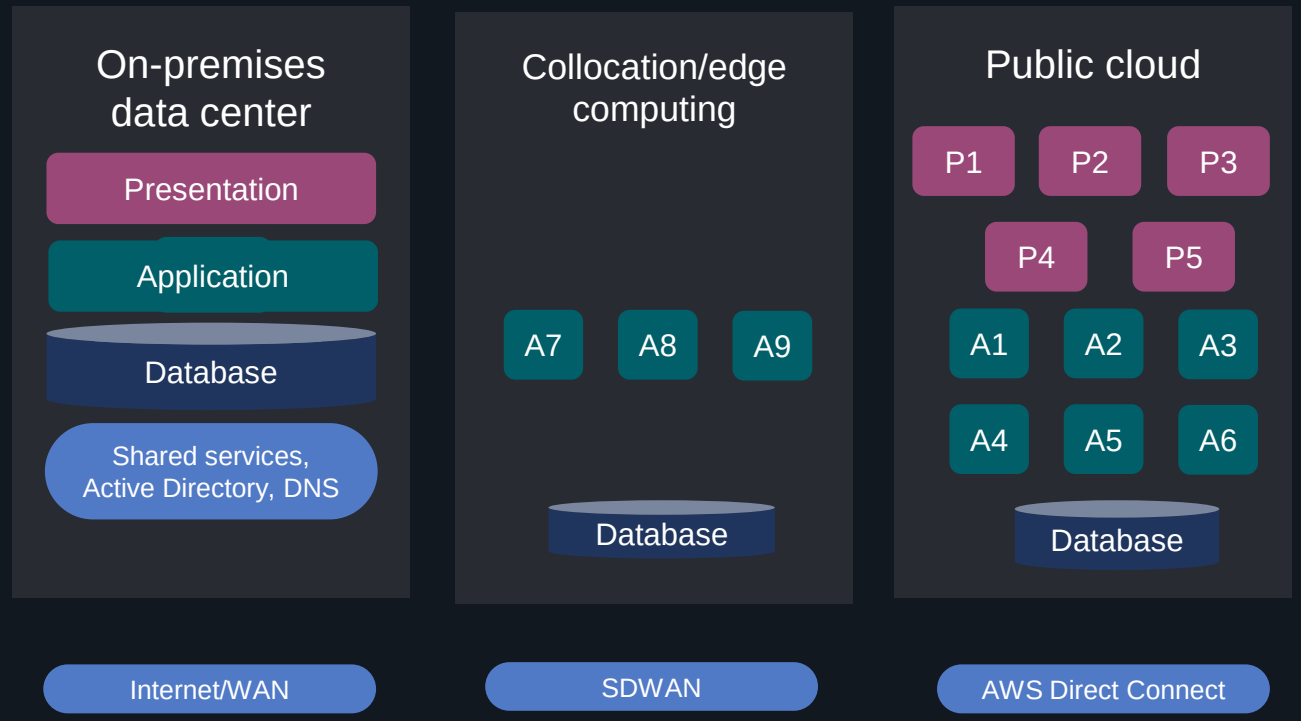
Source: IDC

Visibility Is Critical to Empower IT to Provide Service Performance and Cybersecurity

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Hybrid Cloud Visibility Challenges

Assuring User Experience and Maintaining Cybersecurity



Legacy or refactored applications

- Where's the problem?
- Who has ownership?
- How can you quickly resolve issues with this constant change?
- What's the improvement in performance?
- What does the attack surface look like?

Visibility is Critical to Empower IT to Execute their Migration Strategy Successfully

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NETSCOUT – Visibility Without Borders



Service Assurance and Cyber Protection for the Largest Organizations in the World

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NETSCOUT – Visibility Without Borders

Enterprise-Wide Visibility to Manage Performance, User Experience, and Risk



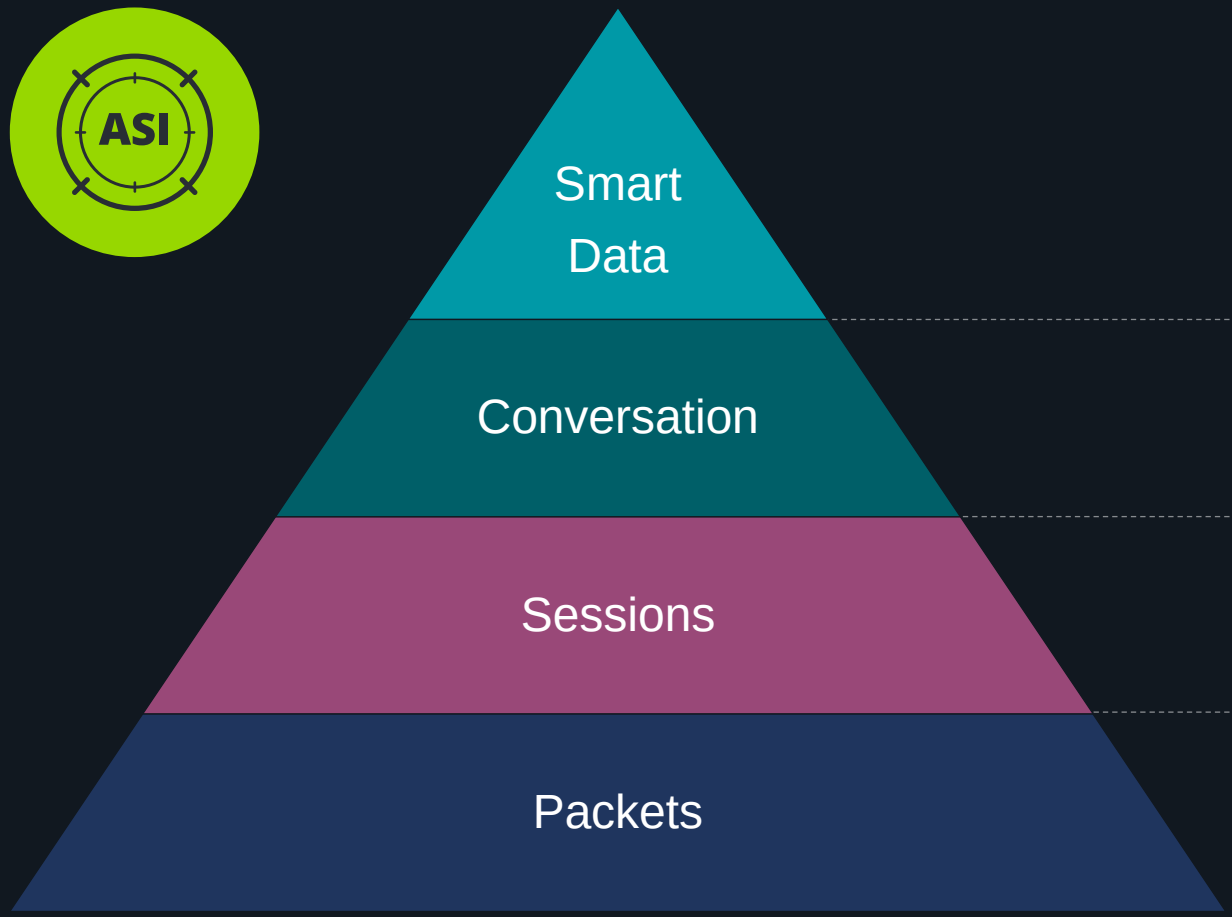
Adaptive Service Intelligence (ASI)

- Availability
- Reliability
- Responsiveness
- Quality
- Security

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Adaptive Service Intelligence (ASI) Technology

Patented Deep Packet Inspection at Scale to Deliver Smart Data



Server Behavior, IoC Matches, Traffic Volumes, Application Performance, and Errors

Who Is Talking to Whom, and on What Protocol

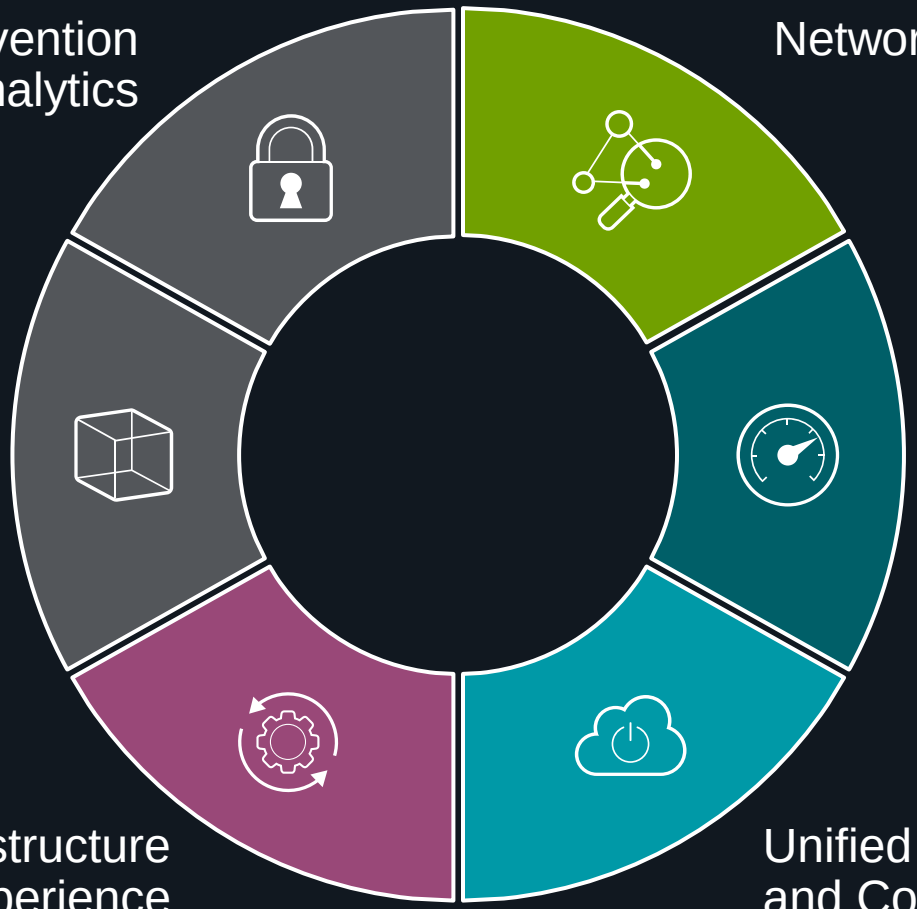
DNS Requests, Login Attempts, HTTP URLs, Brower-OS-Device, TLS/SSL Handshake and Certificate Tracking, LDAP, SMTP, TCP Statistics, etc.

Packets Stored, Indexed, and Intelligently Compressed for Long-Term Storage

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NETSCOUT Enterprise-Wide Visibility

Visibility for Service Assurance and Cybersecurity



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What is Smart Data?

Packet Data is Ultra-HD, Universally Available, and Converted to Smart Data with ASI

Acquire Packet Data

Data center and collocation

- VMware ESX, NSX
- NSX-T service insertion
- Hyper-V, OpenShift, KVM, etc.
- Port mirroring/span/taps

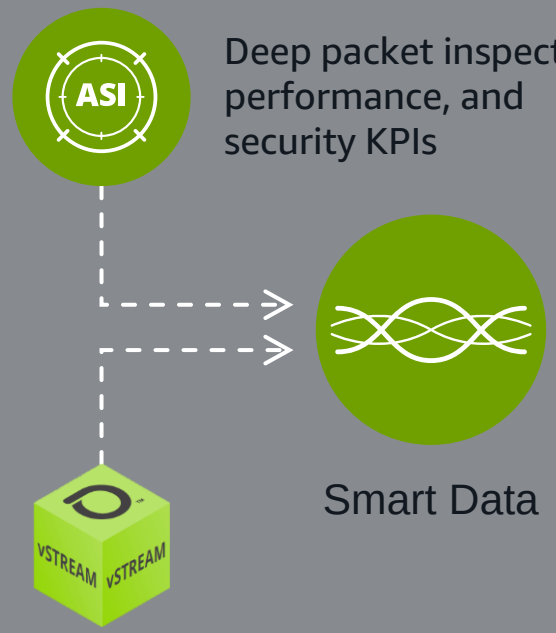
AWS

- Amazon VPC traffic mirroring
- VMware Cloud on AWS port mirroring

Flexible deployments

- VMs, containers, and pods

Convert to Smart Data



Advanced Network and Application Troubleshooting

nGeniusONE

Advanced NDR

Omnis Cyber Intelligence

Data Export

Omnis Data Streamer

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Visibility Throughout the Application Lifecycle

Hybrid Cloud Visibility with NETSCOUT Smart Data

Day 0: Pre-migration

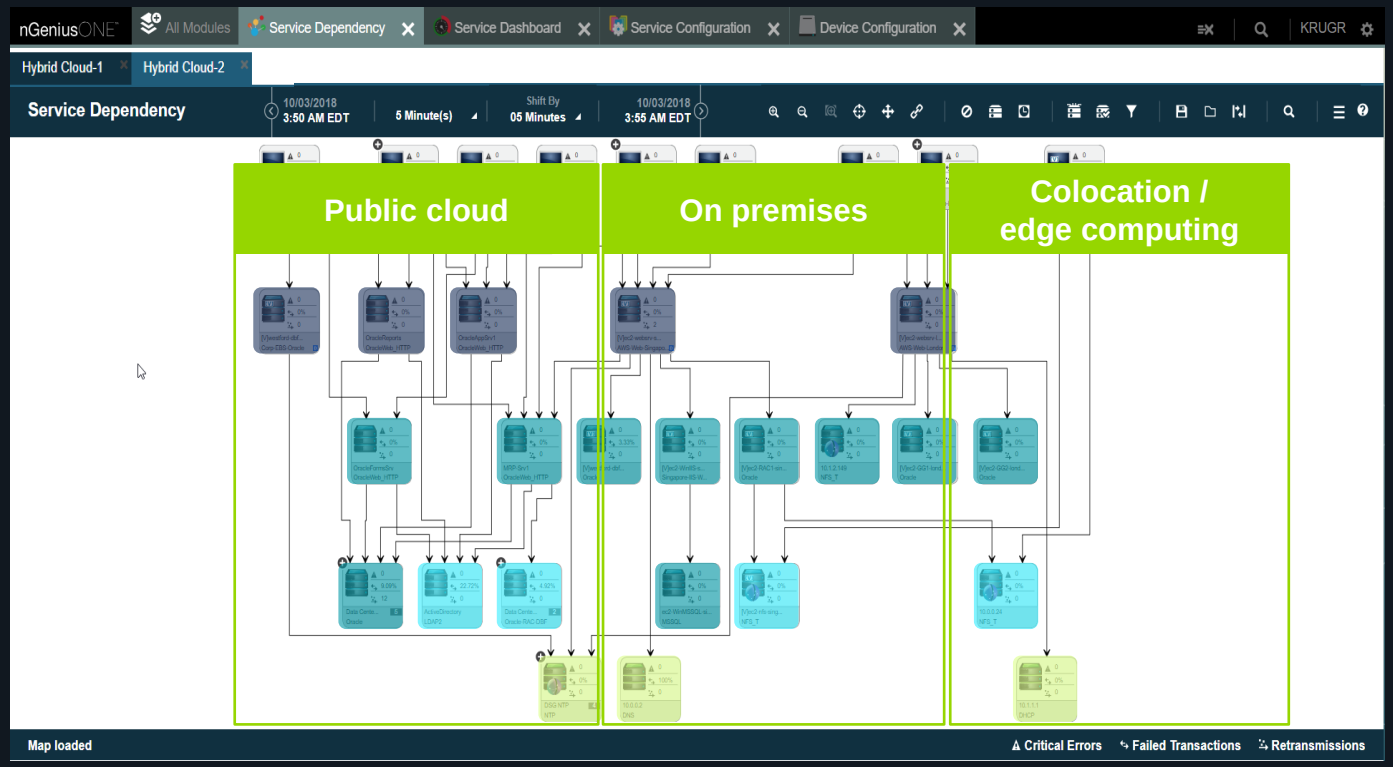
- Choose workloads to migrate
- Identify dependencies
- Establish performance baselines
- Develop migration strategy

Day 1: During migration

- Assure performance

Day 2: Post-migration

- Optimize performance as you elastically scale
- Compare to baselines
- Monitor service availability
- Monitor vulnerabilities and security threats



Smart Visibility with NETSCOUT Smart Data

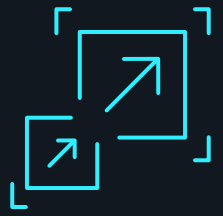
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Deployment Architecture

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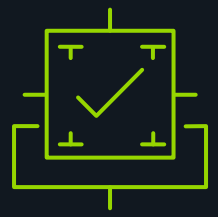
AWS and NETSCOUT: Key Areas of Collaboration

- Public Sector
- Networking Competency
- Migration & Modernization Competency



Technology alignment

- Amazon VPC traffic mirroring
- Amazon VPC ingress routing
- Gateway Load Balancer
- AWS Security Hub integration



AWS Marketplace offerings

- Commercial
- AWS GovCloud



APN Customer Engagements (ACE)

- Co-sell program



AWS Partner designations

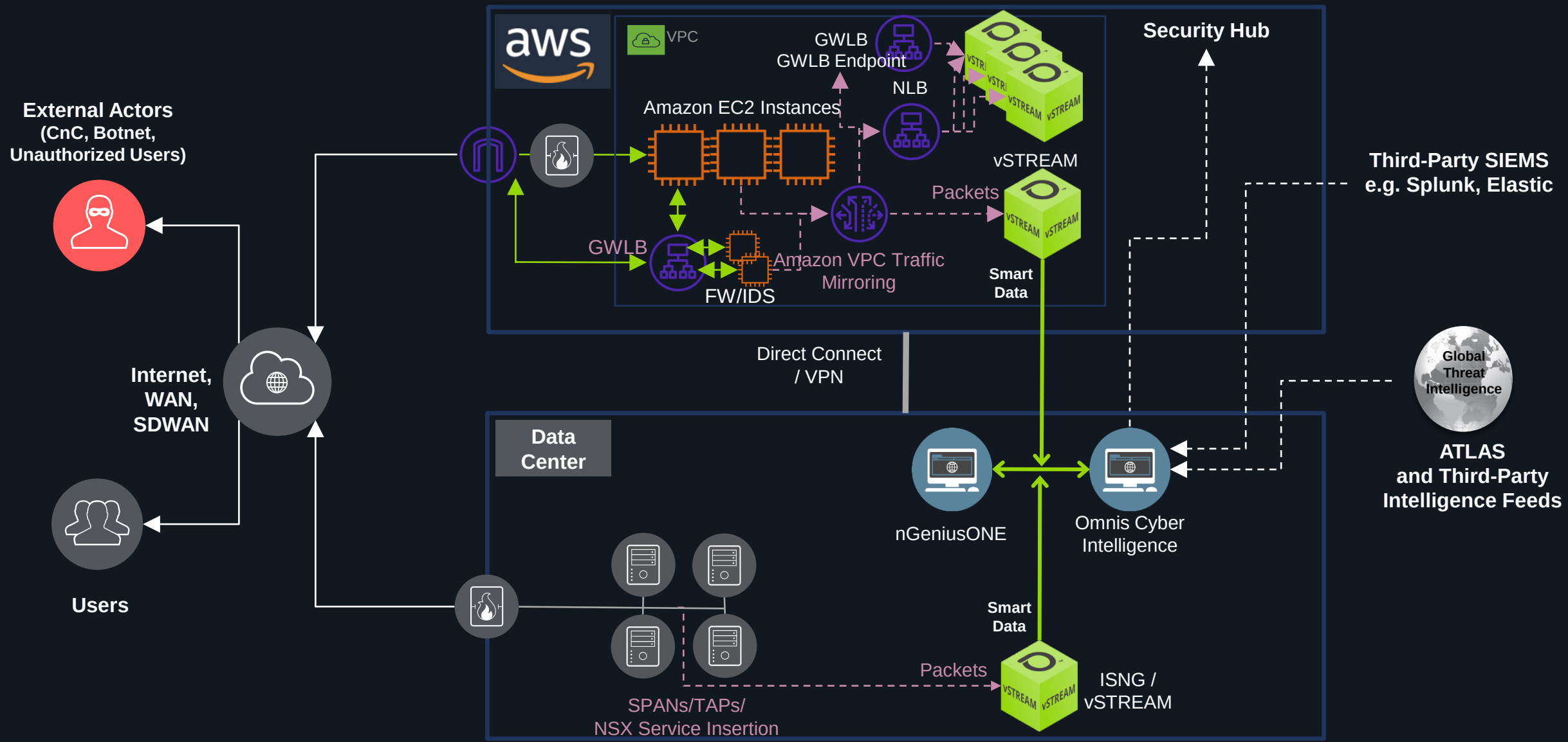
- AWS Networking Competency
- AWS Migration & Modernization Competency

In progress:

- AWS Outposts Ready
- AWS Wavelength Ready

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Hybrid Cloud Performance and Security Visibility



Advanced Network and Application Troubleshooting with NETSCOUT nGeniusONE

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nGeniusONE

Advanced Network and Application Troubleshooting

Smart Data



Driven by Patented ASI Technology

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Enhancing Your Visibility Posture

Combining Current Tools with Smart Data

Current Tools

+



NETSCOUT Smart Data

=

Advanced Application Troubleshooting and Advanced NDR

- Infrastructure-specific metrics
- Logs
- NetFlow (Volume data)
- Code injection
- Synthetics

- Universal visibility
- Independent dataset
- Real-time analytics
- Packet-level detail



Performance



Security

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Advanced NDR with Omnis Cyber Intelligence

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Omnis Cyber Intelligence

Modern-Day Cybersecurity with Advanced NDR

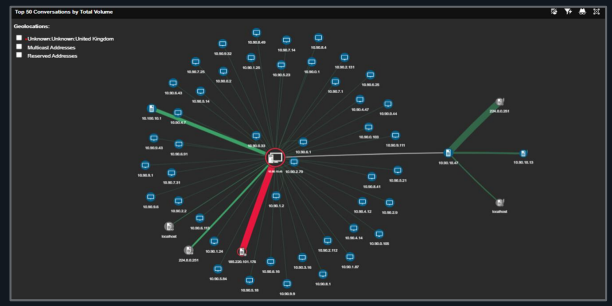
Advanced Early Warning

Continuous Attack Surface Monitoring

Contact Tracing

Back in Time Investigation



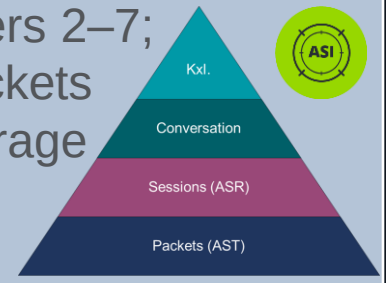


Driven by Patented ASI Technology

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The Smart Data Difference

Modern-Day Cybersecurity with Advanced NDR

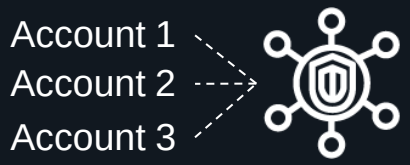
Characteristic	NDR	Advanced NDR
Source of Data	Netflow, with limited packet capture	All packets, including encrypted and hybrid cloud.
Packet Capture Performance	Triggered only after alert, not full line rate, packet slicing	Continuous, (before, during, and after attack) line rate and full packet capture, with intelligent compression
Metadata Extraction, Storage, and Analytics	Limited extraction of metadata, so raw packets remain as data source. Massive amounts of storage and cumbersome analytics, especially back in time.	Real-time analysis of layers 2–7; metadata stored, and packets indexed for long-term storage and responsive analytics 

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Advanced NDR in Security Hub

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Introduction to Security Hub



Enable Security Hub for all your accounts.



Continuously aggregate and prioritize findings.



Conduct automated compliance scans and checks.



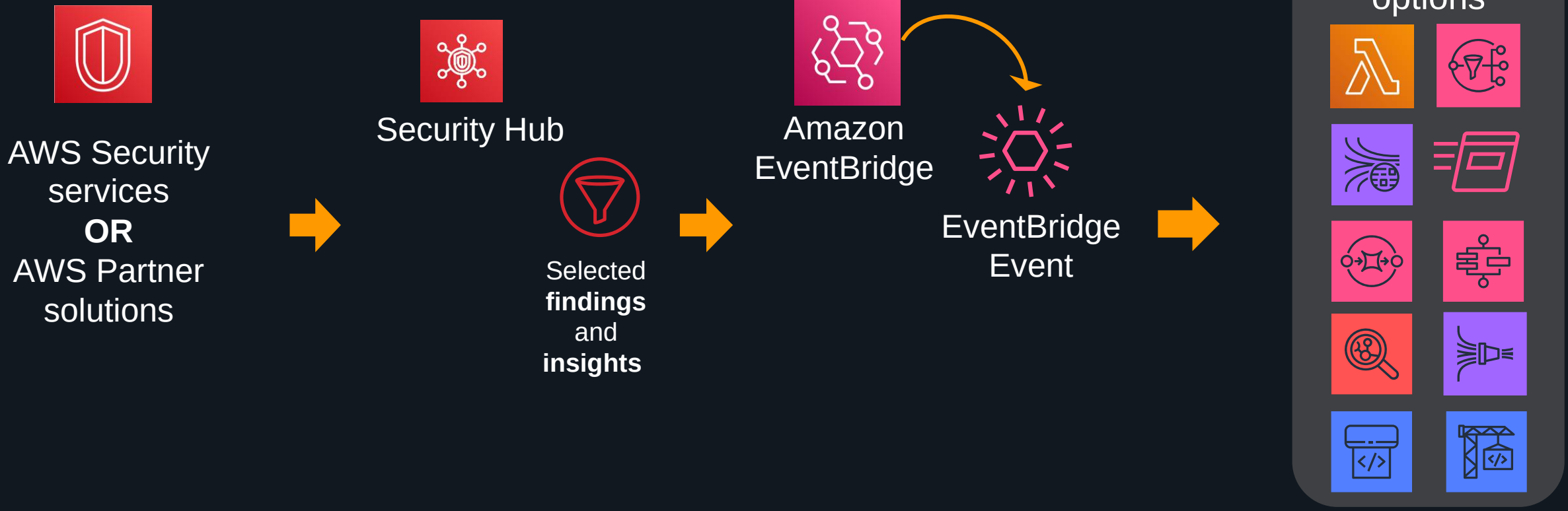
Take action based on findings.

Better visibility into **security issues**. Easier to stay in **compliance**.

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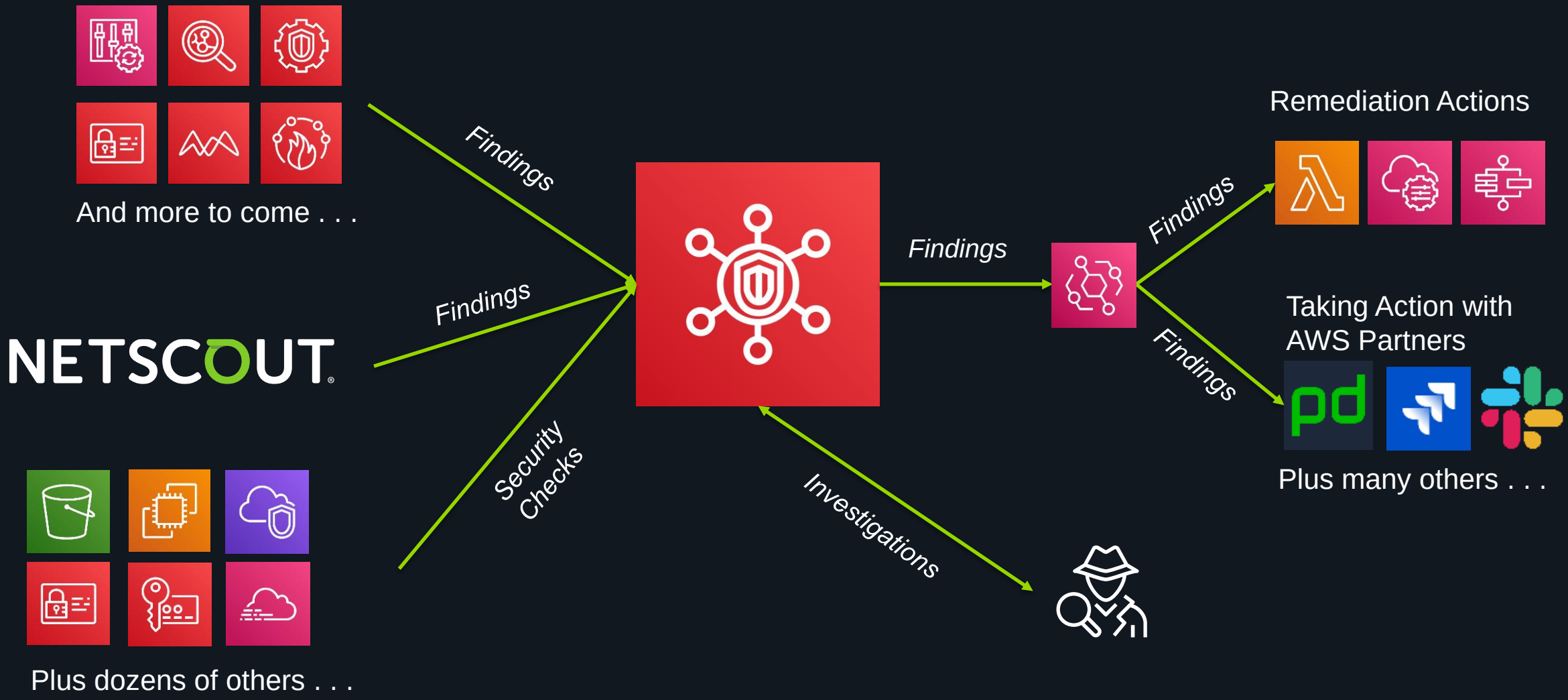
Introduction to Security Hub

Responding to Findings/Insights: **Remediation**



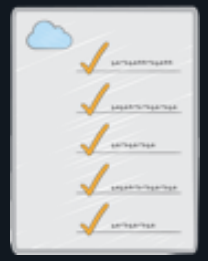
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Security Hub Information Flows



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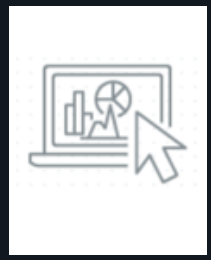
Security Hub Benefits



Compliance standards



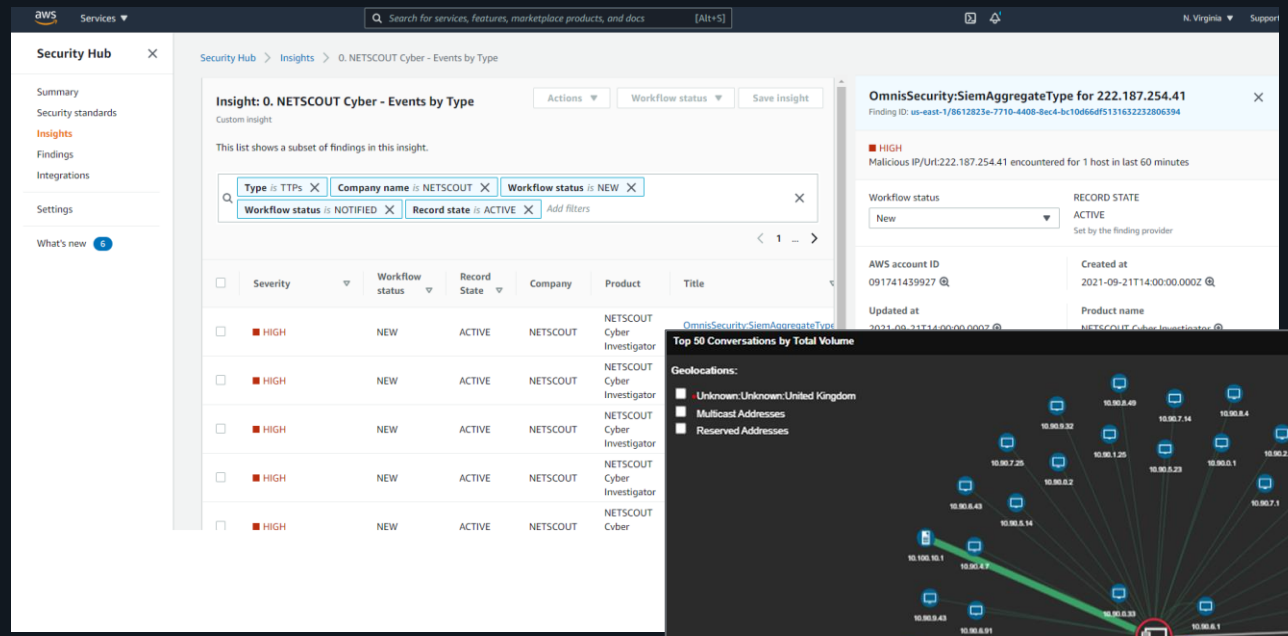
Aggregated findings



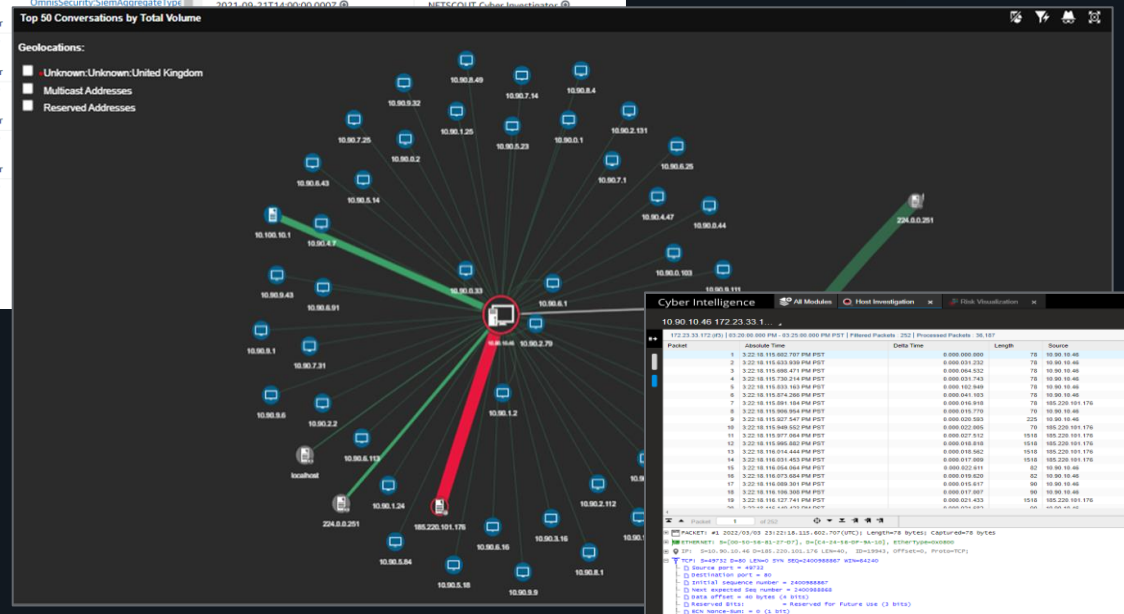
Take action

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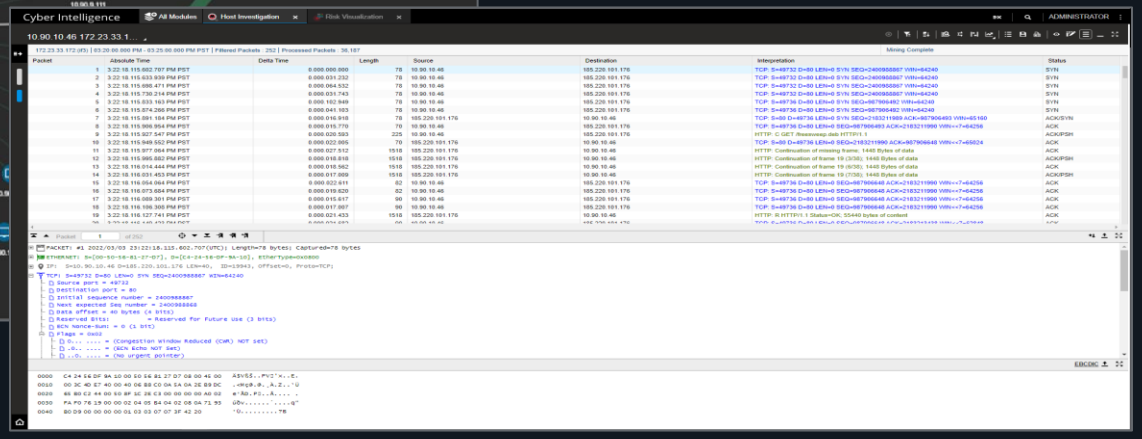
Security Hub: Contextual Drilldown to OCI



Dashboard



Visualization using metadata



Packets, the ultimate source of truth

Go from alert to metadata to packets **in seconds** . . .

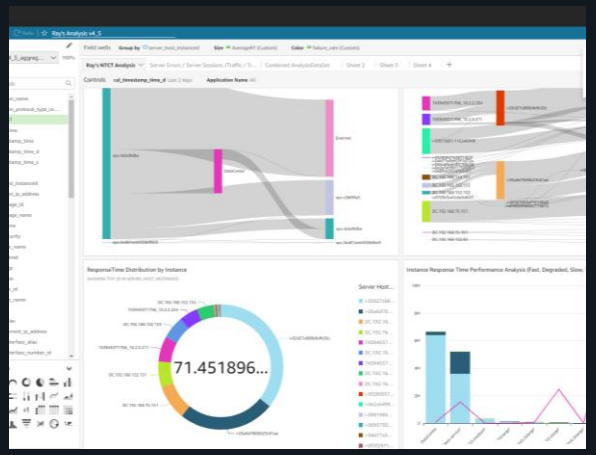
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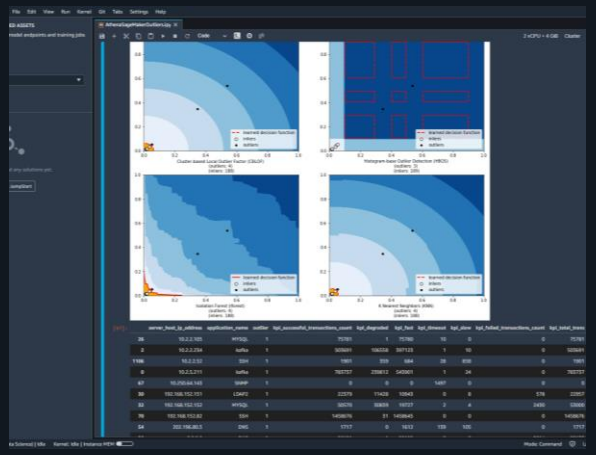
Data Export with NETSCOUT Omnis Data Streamer

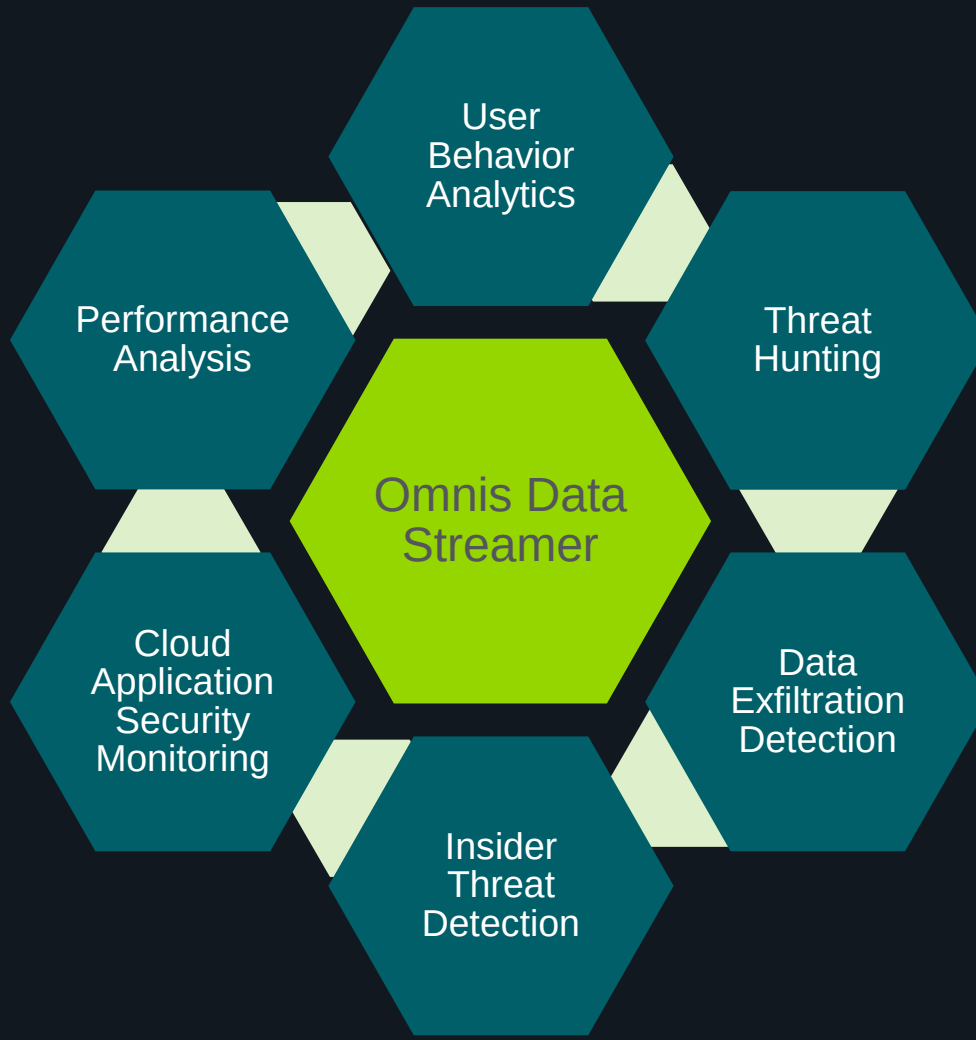
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Omnis Data Streamer

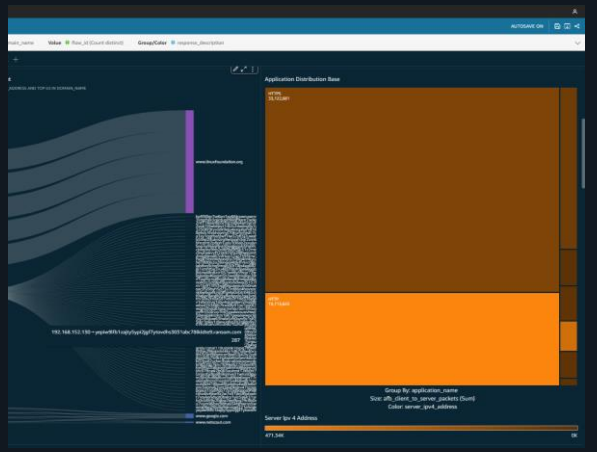
Enrich ASI data stream with customer-specific dimensions to solve unique problems





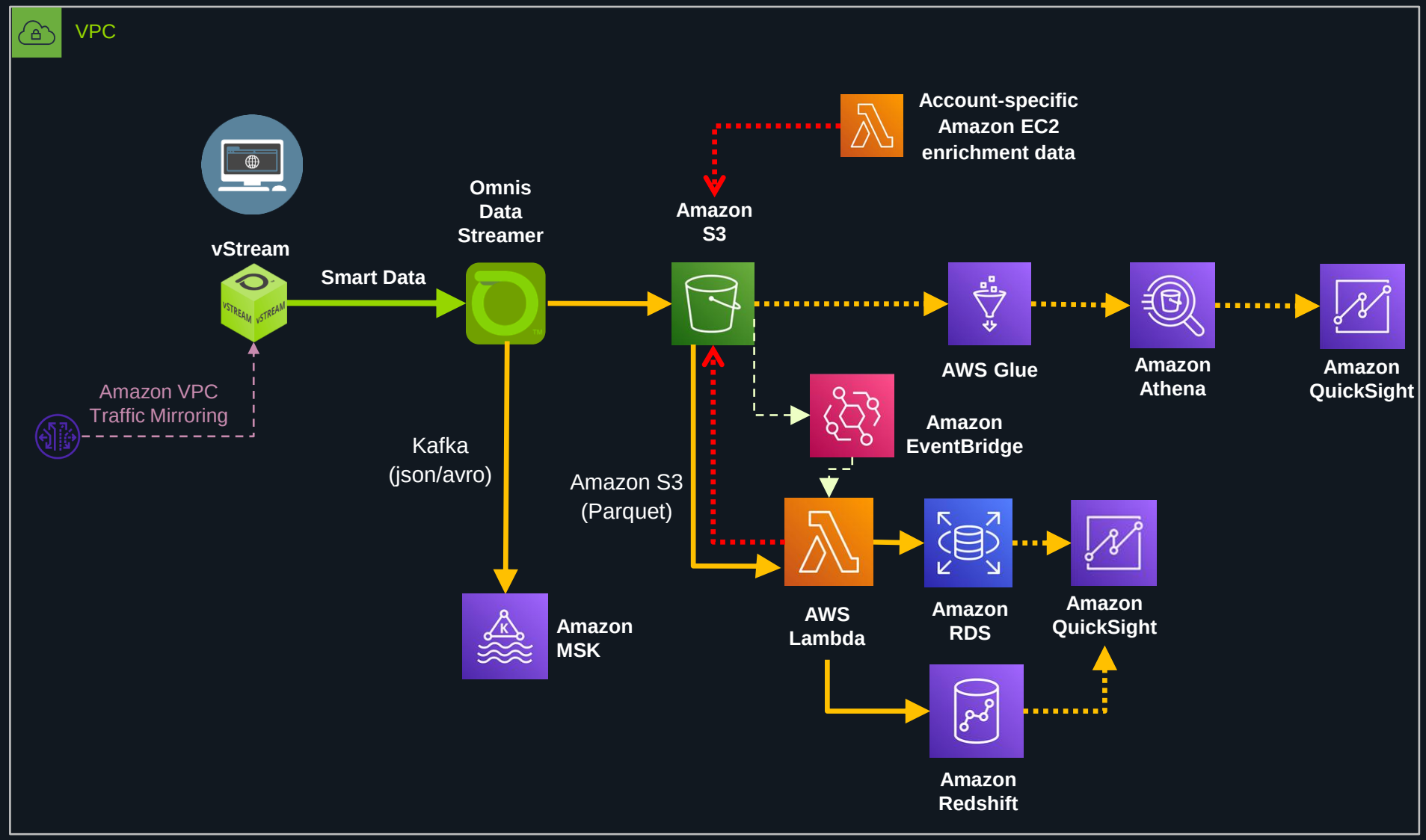






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Data Export and Data Enrichment Example Architectures



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AWS and NETSCOUT



Technology integration

Gateway Load Balancer and Amazon VPC ingress routing and traffic mirroring allow NETSCOUT to seamlessly extend its **technology** on AWS



Accelerated migration

NETSCOUT **accelerates workload and data migration** to AWS by providing effective monitoring and assurance in hybrid environments before, during, and after migration

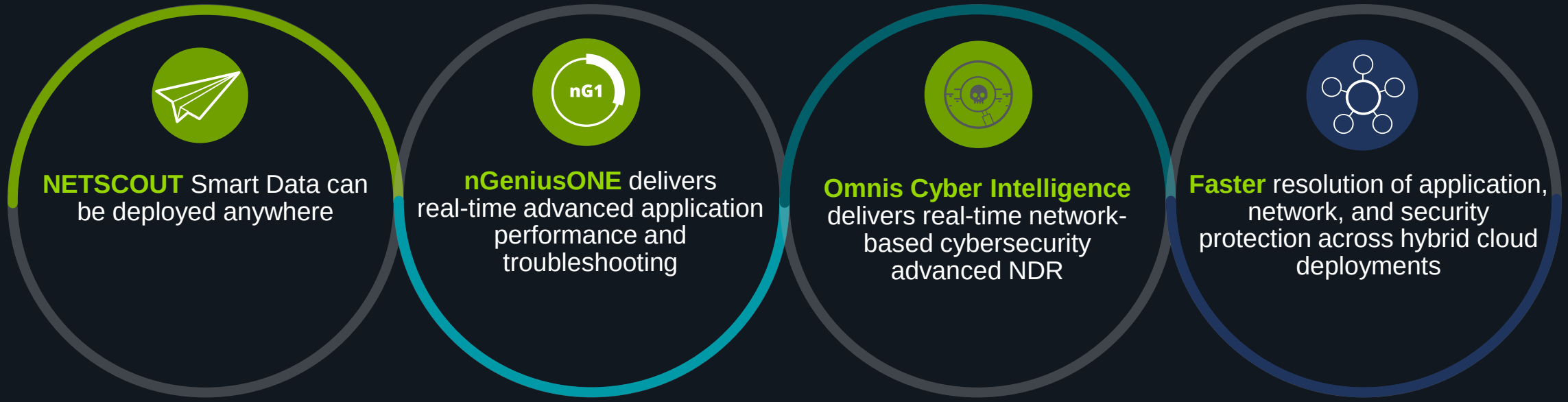


Satisfied customers

NETSCOUT enables IT to use AWS services with confidence by **improving user experience** of applications and services running on AWS or hybrid environments

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Assuring and securing AWS migrations with NETSCOUT visibility



NETSCOUT Smart Data can be deployed anywhere

nGeniusONE delivers real-time advanced application performance and troubleshooting

Omnis Cyber Intelligence delivers real-time network-based cybersecurity advanced NDR

Faster resolution of application, network, and security protection across hybrid cloud deployments

Cloud Migration with Confidence

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