

# When Cloud and Container Risk Meets Code!

Fixing Attack Paths at the  
Source





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# Challenges in Cloud Risk Prioritization



## Cloud ROC Team

- ✓ Remediated Cloud Risks are resurfacing
- ✓ **Increased attack surface** generates more findings
- ✓ Managing risks in **ephemeral environments** is always challenging.



## Compliance Team

- ✓ Always **get exception** requests with no concrete plans to remediate
- ✓ Unaddressed compliance issues persist for a long duration
- ✓ Security Policies are evolving at a later stage

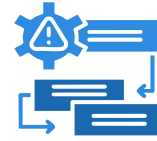


## Developers

- ✓ **Many security issues** with no context for prioritization.
- ✓ Releases are rejected at a very late stage, delaying product rollouts.
- ✓ Security concerns are addressed too late in the development process.

# Operationalize

The Risk Operations Center (ROC)



**Unified Asset  
Inventory**

**Risk Factors  
Aggregation**

**Threat  
Intelligence**

**Business  
Context**

**Risk  
Prioritization**

**Risk Response  
Orchestration**

**Compliance  
& Executive  
Reporting**

How will you be

**ROC Ready from Day 1**  
**For Your Cloud Deployments**

# Qualys TotalCloud for Multi-Cloud Environments

## The Risk-Minded CNAPP

### Kubernetes and Container Security (KCS)

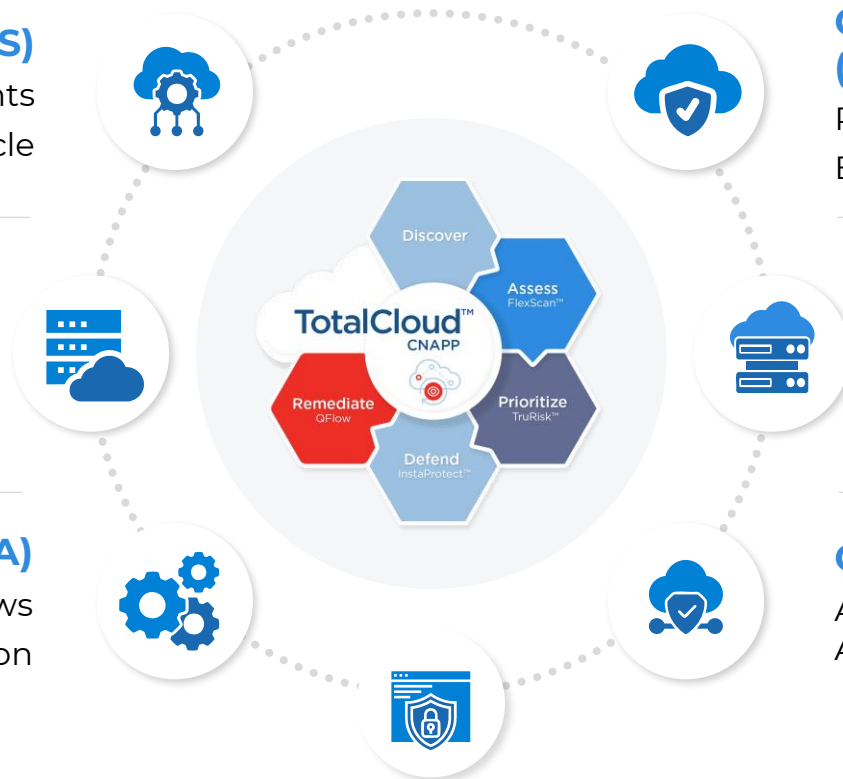
Prioritize Risks In Container Environments  
Manage Risk Across The Dev Lifecycle

### Cloud Detection & Response (CDR)

Detect Malicious Threats and Malware In Runtime  
Integrated Threat Hunting & Anomaly Detection

### Cloud Workflow Automation (CWA)

Implement Custom Remediation Workflows  
Leverage 200+ Playbooks for Remediation



### Cloud Security Posture Management (CSPM)

Prioritize Risk With Attack Path Context  
Enforce Compliance From Code To Cloud (IaC)

### Cloud Infrastructure and Entitlement Management (CIEM)

Manage Excessive Permissions and Identities  
Enforce Least Privilege At Scale

### Cloud Workload Protection (CWP)

Achieve Full Vulnerability Coverage With Agent, Agentless, Network, and API Scanning

### Application Security (ASPM)

Secure Your Web Apps, APIs, and LLMs



# Comprehensive Posture Assessment (CSPM)



## Inventory

- ✓ Comprehensive, 230+ resource types
- ✓ Including cloud native: serverless, storage databases, and more
- ✓ Multi-cloud: AWS, Azure, GCP, and OCI



## Code to Cloud

- ✓ Scan templates like CFT, Terraform, and ARM before deployment
- ✓ Run best practices checks
- ✓ Detect and prevent misconfigurations before deployment (Shift Left)



## Compliance

- ✓ 40+ mandates
- ✓ Across Industries
- ✓ Across geographies
- ✓ CIS, PCI, NIST, and more
- ✓ Cloud-native frameworks such as AWS FSBP, Azure Policy



## Assess, Prioritize, and Monitor

- ✓ Determine riskiest misconfigurations
- ✓ Best Practices Benchmarks and Compliance frameworks
- ✓ Prioritize and generate alerts



## Reporting and Remediation

- ✓ Service NOW integration
- ✓ Jira integration
- ✓ Reports and dashboards
- ✓ 1 click remediation for many issues
- ✓ Automated remediation workflows

# Visibility is a Key Part of Risk Management

Comprehensive inventory is crucial for the cloud



## All environments

Across all clouds, containers, hybrid workloads



## Comprehensive Inventory Including AI Services

Across all inventory and resource types



## Accelerated Deployments

Simplified and quick onboarding driving visibility within minutes



**TotalCloud CSPM covers ~ 230 services across 4 major cloud providers**



# TotalCloud CIEM Secures Cloud Identities

Inventory, Hygiene and Risk Assessment



Complete **inventory** of identities and entitlements, including users, groups, roles, and policies



**Risky identities** determined based on analysis. Examples include Administrative privileges, IAM role creation



Risky Identities incorporated into **TruRisk Insights** to further help prioritize risk

## TruRisk Insights with CIEM

### TruRisk Insights with Identity Issues

CID	INSIGHT TITLE	AFFECTED RESO...
5028	IAM User with privilege escalation or administrative privilege have console acce...	42
5025	Public VM with privilege to create IAM artifacts (User, Group, Role)	41
5031	Public VM allows access to decrypt secrets in secrets manager	41
5026	Security group tampering risk on public and vulnerable VM with 'write' permissio...	40
5029	Public VM with data destructive permissions	40
5030	Public VM with elastic IP hijacking permissions	40



# Scale Vulnerability Management with TotalCloud CWP - FlexScan

Continuously monitor cloud workloads, including newly deployed ones

## Cost-Effective Agentless Snapshot-Based Assessment

Efficiently capture snapshots and perform vulnerability assessments. Keeps cloud native costs lower.



## Shortest Scan Time API Based Assessment

CSP-provided APIs collect software inventory for results in 10 min

## Scans Entire Network Network Scanning

Quickly and accurately assess for network-related vulnerabilities



## Comprehensive Scan Qualys Agent Scanning

Real-time comprehensive vulnerability, configuration and security assessments

**Qualys TotalCloud secures 44 Million cloud workloads across a variety of organizations.**

# Kubernetes and Container Security

Securing 6.5M Containers and over 800+ Customers

## Build

Scan Your Dev Builds



CI/CD Scanning

Shift-Left Policy Controls

Context-Driven Shift-Left Security

## Release

Scan Your Repositories



CONTAINER REGISTRY



Registry Scanning

Continuous Assessment of In-Use Images

## Deploy

Scan Your Production Environments

Cluster



Host



Serverless



Contextual Risk Analysis w/TruRisk & Attack Path

Configuration/Compliance Validation

eBPF Runtime Protection & Threat Detection

Behavioral Monitoring & Drift Analysis


Code to Cloud Risk Management – Vulnerabilities, Secrets, Polymorphic Malware

Remediate with


servicenow Jira

# Comprehensive Controls for a Changing World


Enforce Secure Gates From Code to Cloud




Block **deployment** of risky images.



Fail **build** of risky images.



Block **commit** of risky code.



Block **access** to file, network, and process.

**Protect Your Baseline — From Build to Runtime**

### Rule

Rule Type \* ⓘ  
Image Security

Rule Sub-Type \*  
Limit Vulnerability using Severity

Rule Name \*  
Limit Vulnerability using Severity

Limit Vulnerability using Severity

Severity Level  
Severity 1

Condition  
Greater Than

ⓘ Rule fails if image has greater than 1 vulnerabilities with 'level 1'.

Status  
☒ Enabled ☐ Disabled

Cancel Save and Add another Add Rule

Cancel Save and Add another Add Rule

# Kubernetes Security Posture Management

Continuous Audit-Readiness for Kubernetes Clusters



Secure configuration for  
Kubernetes **control plane**.



Support for **cloud managed** and **on-prem**  
Kubernetes.

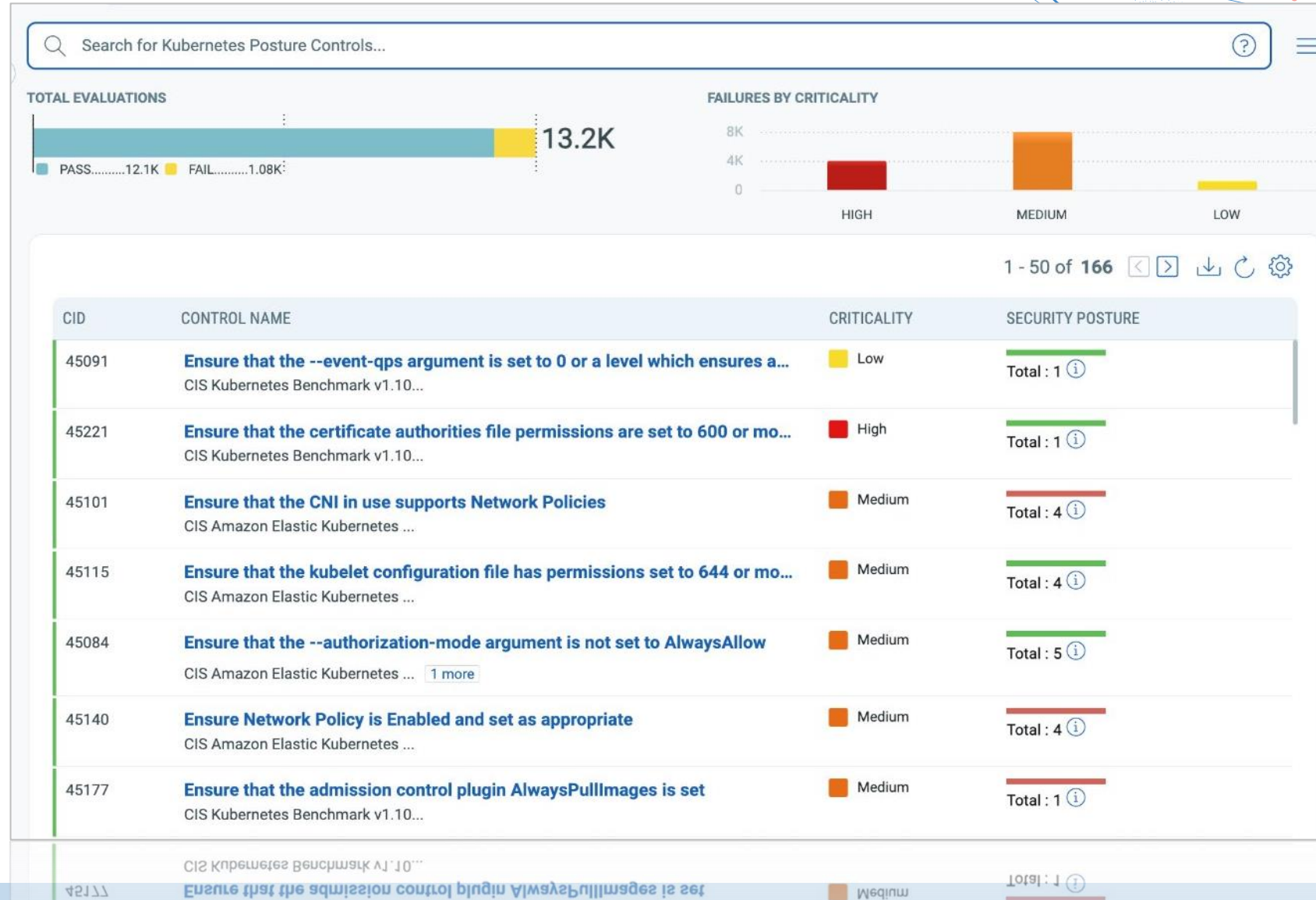


Continuous evaluation  
and **drift** management.



Protect baseline with  
**admission controller**.

**CIS Benchmark Coverage with 200+ Controls Across Cloud, Kubernetes, and OpenShift Environments**



# Risk-Minded Detection and Response

Combine Risk Context with Threat Detection



Findings grouped by **Assets**, ranked by Risk.



**Confirm** whether a vulnerability is **exploited**.

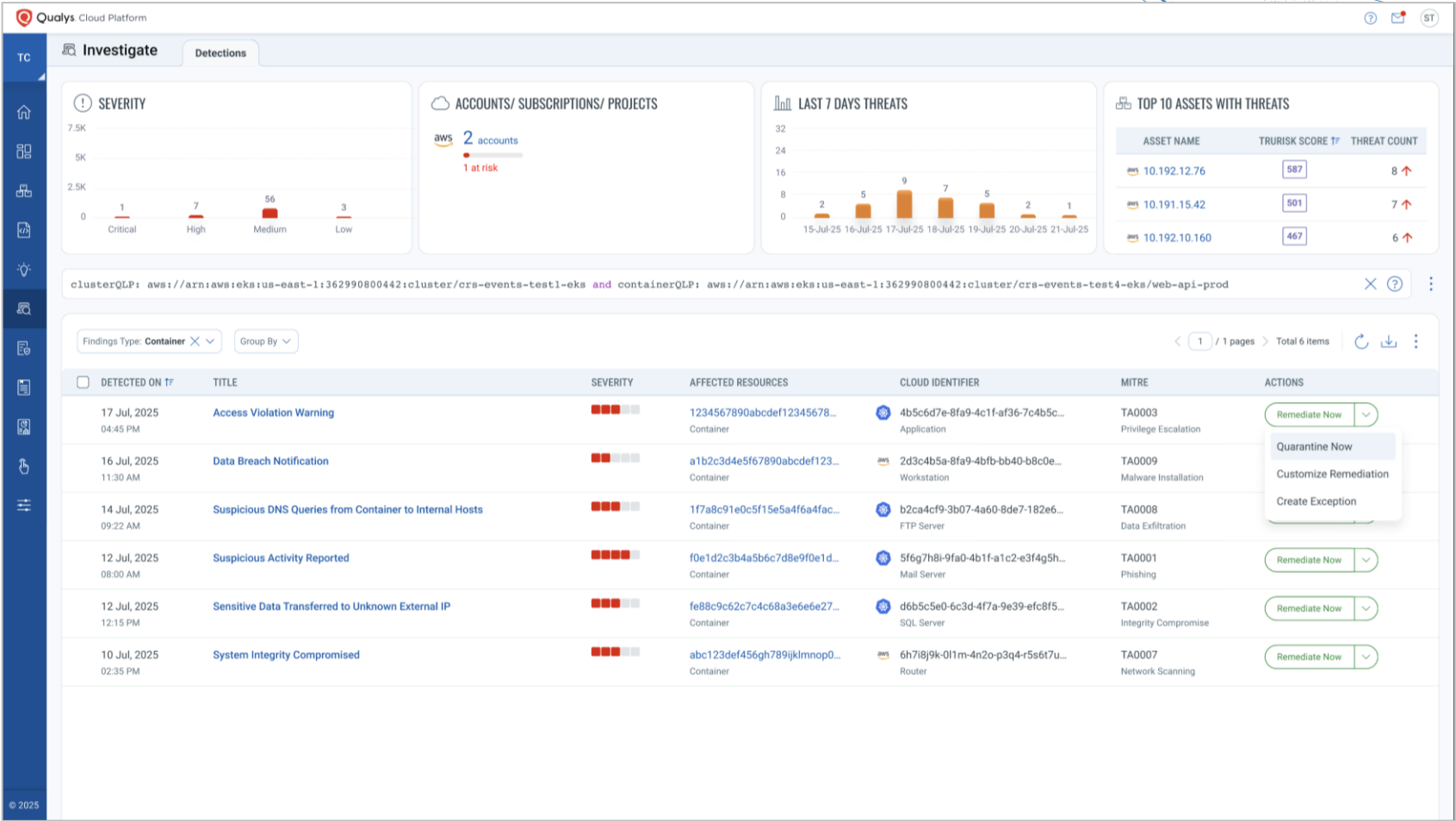


Noise cancelling response with **eBPF** policy.



**Prevent** exploit with virtual patching.

Turn Threat Detections into Risk-Informed Action



We are always on the  
**Expressway of Risk  
Prioritization and Elimination!**



# Risk Aggregation to Prioritization

With Qualys Enterprise TruRisk Management Platform

Asset Level Risk Score

Complete 360 Context  
with Threat Intel



**TruRisk  
Score**

Correlate signals  
from many source

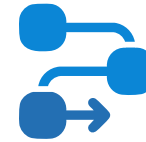
Toxic Combination



**TruRisk  
Insight**

Visualize Attack  
Path exposure

Blast Radius  
impact analysis



**Attack  
Path**



# Visualize Risks with Attack Path

## Multi-Dimensional Approach to Cloud Security



### Visualize critical resource exposure

Identify blast radius enabling proactive threat analysis



### Prioritize risk findings w/ security graph

Navigate to important findings on critical resources



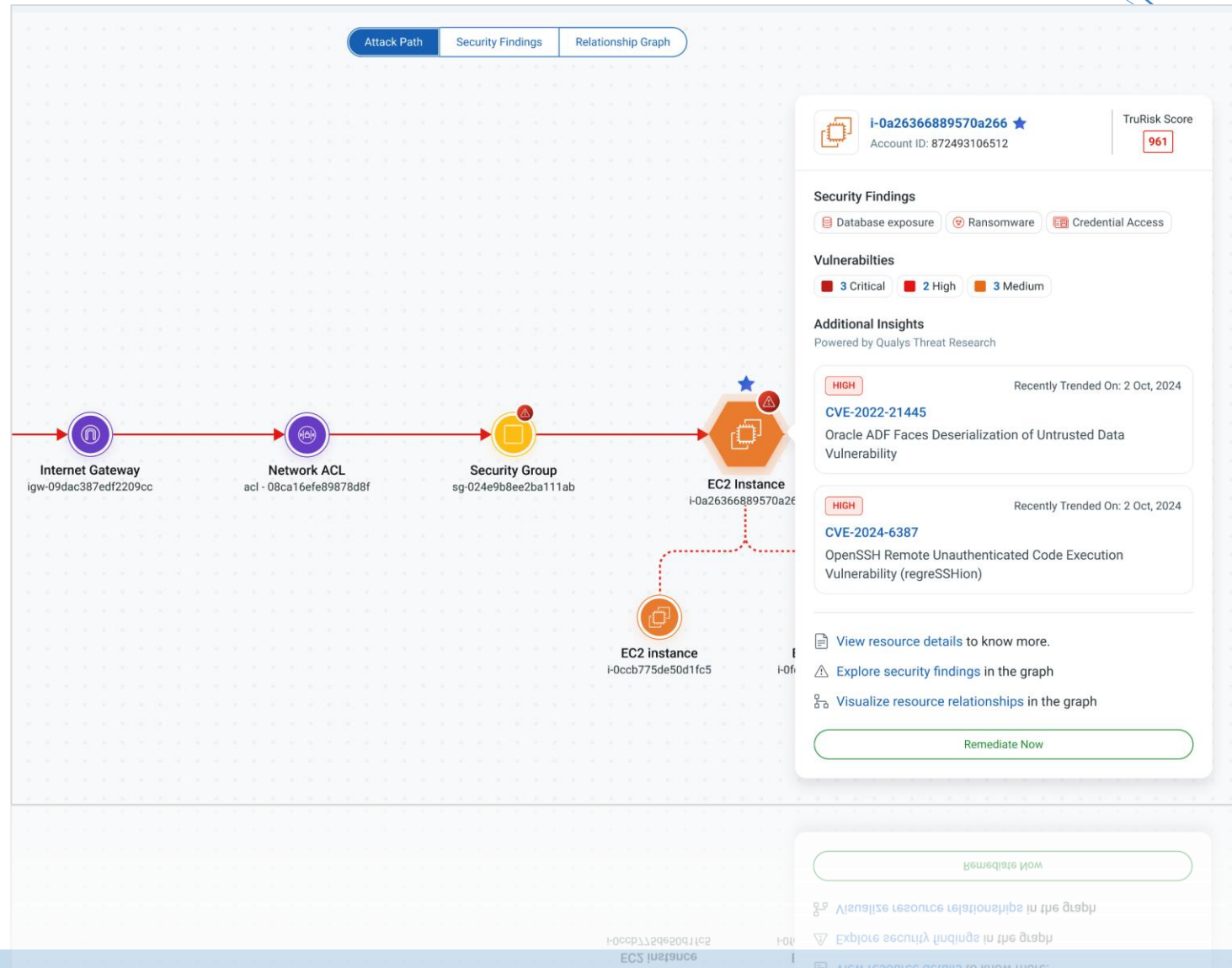
### Understand resource relationships

Capture communication flows of attached resources

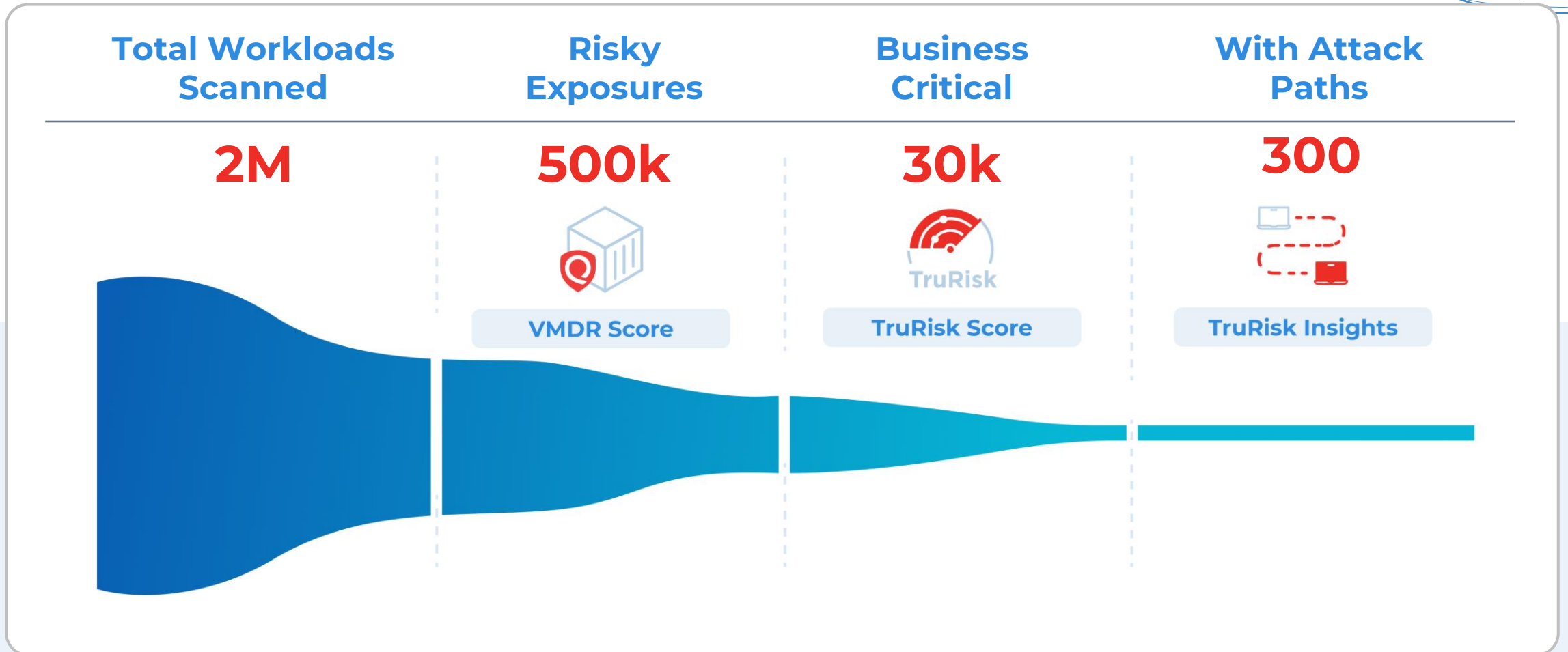


### Scale with rapid remediation of risk

Drive accelerated risk-based prioritized threat remediation



# Real-Life Scenario from a Large Financial Customer



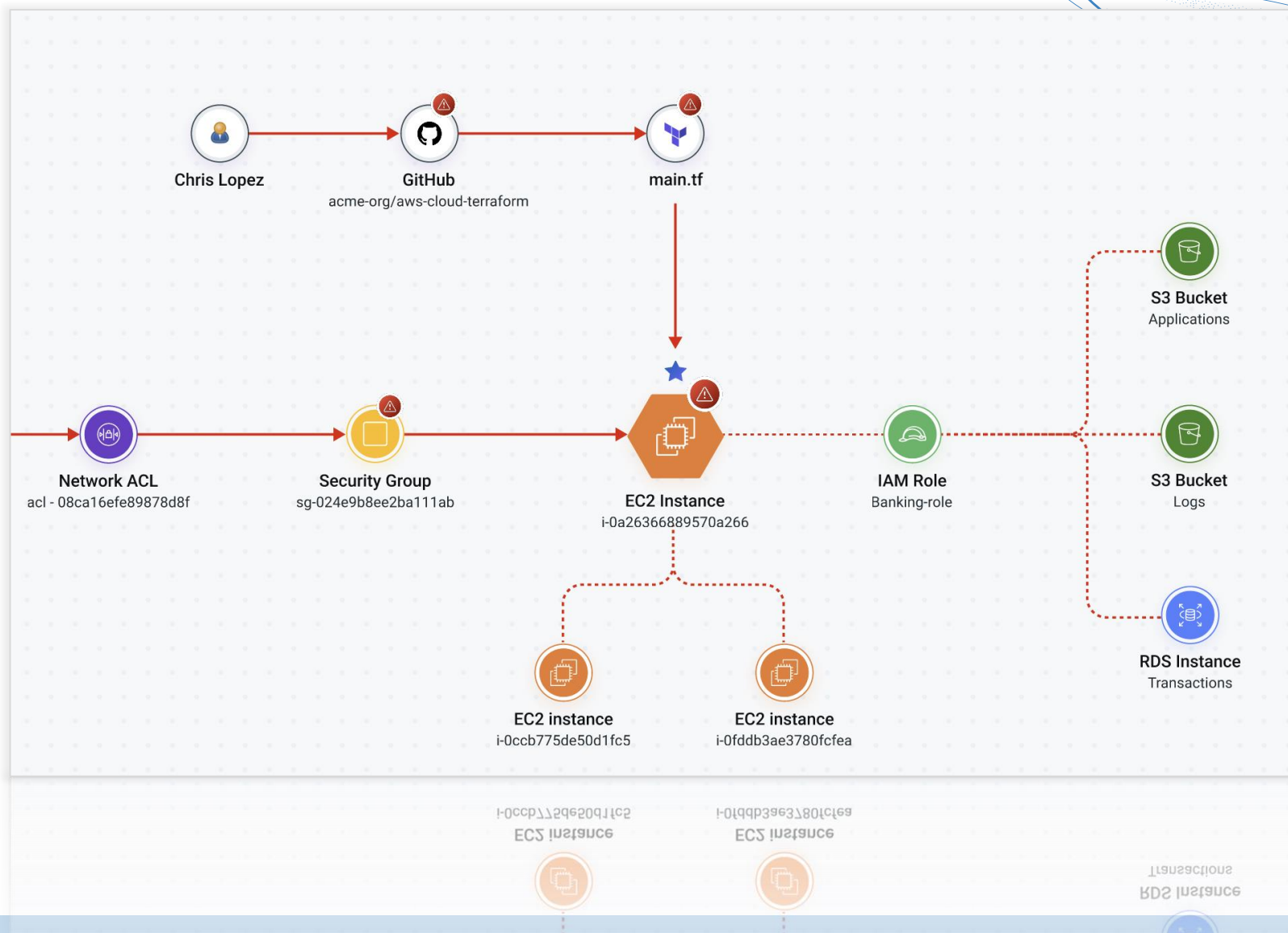
# Provide Runtime Risk Context to Code

Turbocharge the risk prioritization with **Code to Cloud Shift Left and Fix Left**



Developers receive **prioritized findings and context** to address critical issues **first**.

- ✓ **Empower developers** with proactive, in-workflow security
- ✓ **Correlate runtime risks** to vulnerable code
- ✓ **Enable scalable**, automated security remediation.
- ✓ **Prioritize and resolve cloud risks** using actionable insights.
- ✓ **Strengthen security posture** through informed, effective risk management strategies.



# Remediate Risks with Cloud Workflow Automation

No Code / Low Code QFlows



**Simplify** workflow creation with drag and drop visual nodes and no code



**Customize** security control workflows and scale inventory discovery

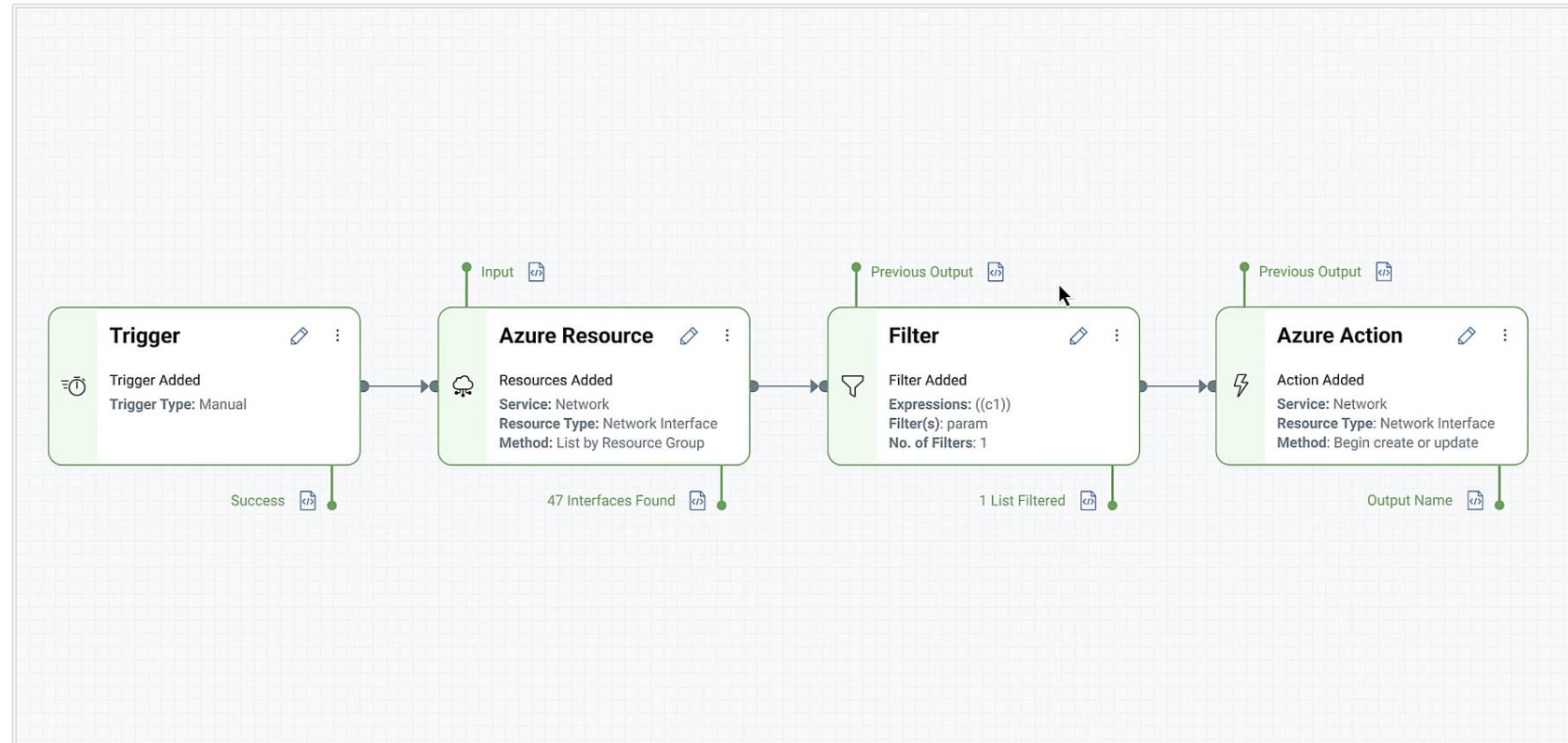


**Enrich** the security teams by automating efforts to manage security efficiently



**Orchestrate** remediation workflows and integrate with DevOps and ITSM tools

**Over 300 out-of-the-box remediation playbooks**



# Integrates with ServiceNow

Vulnerability/Misconfiguration Assignment and Remediation

## Meet Your Response SLAs



### Comprehensive Tracking and Action:

Enable IT team to efficiently track and take timely action.



### Automated Vulnerability Assignment:

Assign vulnerability fixes to developers based on asset ownership seamlessly.

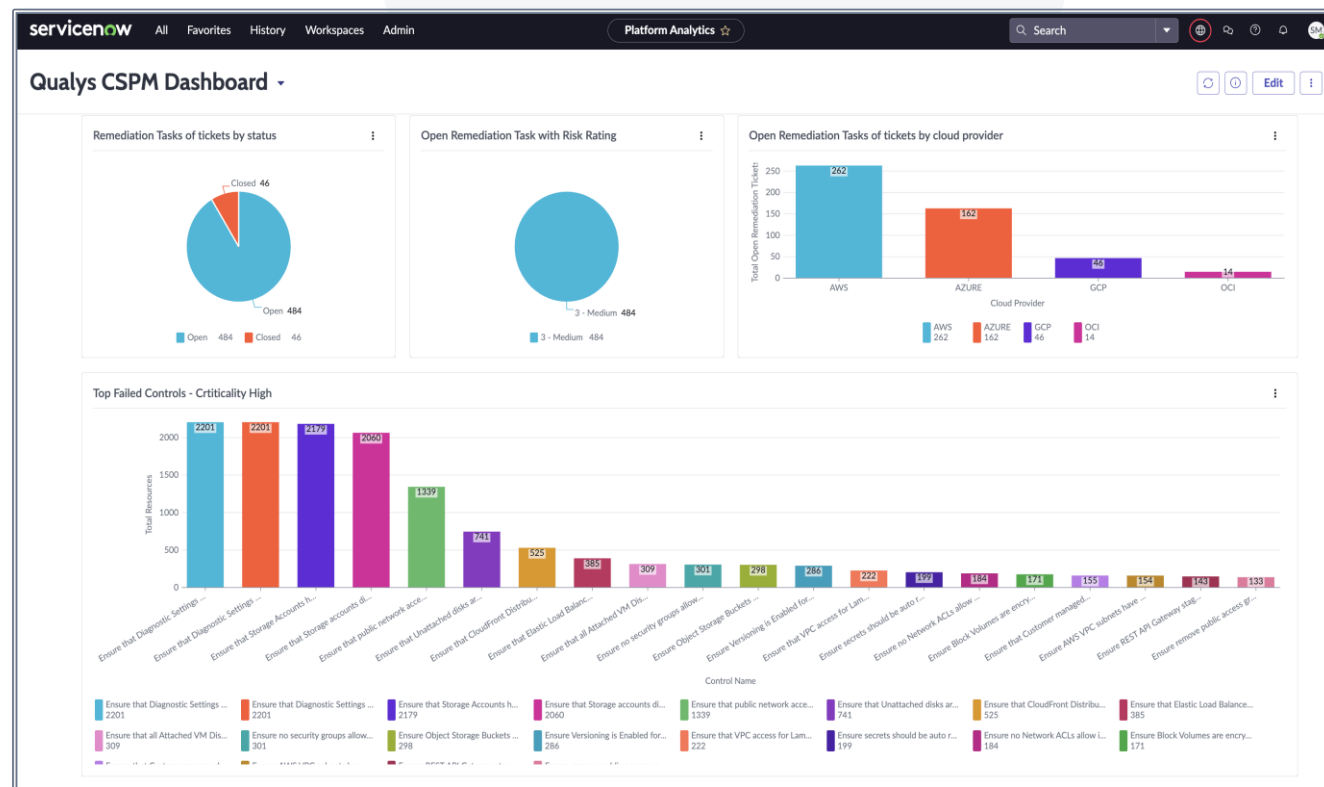


### Wide Adoption of Key Capabilities:

Enhanced vulnerability and misconfiguration management.

## ServiceNow Modules

**Vulnerability Response**  
**Container Vulnerability Response**  
**Configuration Compliance**





# Agent Vikram for TotalCloud

[← Blog Home](#)

## How Agentic AI Helps with Adaptive Cloud Risk Assessment with Agent Vikram



Kunal Modasiya, Senior Vice President, Product Management, GTM and Growth  
August 19, 2025 - 4 min read



In fast-moving cloud environments like AWS, security teams face an uncomfortable truth: not every EC2 instance is being scanned, existing tools don't work across a diverse environment that includes long-lived and ephemeral assets, and visibility is never complete. [Qualys research](#) found that over 30% of virtual machines have high or critical vulnerabilities, and with blind spots in your scanning, you may miss these critical risks.

### Cloud Blind Spots Are Everywhere

The reason not all instances are being scanned is workloads:

- Are missing agents
- Lack SSM integration
- Have encrypted volumes
- Are so ephemeral that they spin up and disappear before traditional tools can catch them



Reliable

Agent Vikram 5

### Adaptive Cloud Risk Assessment

Discovers unknown and unmanaged (for cyber risk) cloud workloads and resources and assesses their risk with FlexScan strategies of agent & agentless scanning in cloud, making sure you never have a cloud asset without visibility into its risk

#### Core Skills

CWPP

CNAPP

Cloud Security

#### Projected Agent Impact

**100%**

Visibility into Cloud  
Assets

**6 Mins**

To Define Flexible Scan  
Strategies in Cloud

**22%**

Less Cyber Risk  
in Cloud

Employ

# When Cloud Security Meets App Security?



## Cloud Security

### TotalCloud

Discover and scan all cloud resources, including Compute, Storage, Network, Databases, Web Applications, API gateways, across multi-cloud environments



## Application Security

### TotalAppSec

Instantly detect and scan APIs and Web Applications for vulnerabilities, malware, and advanced threats using deep learning

List of Web Apps and APIs in the cloud

Location of Applications (regions, servers, PAAS)

Exposure and metadata such as ports, protocols, owners



Application OWASP Top10 Vulnerabilities

Application Owners and Business Use

Application Source Code Location



# TotalCloud Analyst Recognition

Established Leadership and Trust In All Leading Categories



**2024 Voice of The Customer  
Strong Performer**



**CNAPP Marketspace 2025  
Top 5 in Capabilities  
Recognized as Major Player**



**Best Cloud Security (TotalCloud)  
Best Vuln Management 3x in a row  
(VMDR)**



**Product and Market Leadership in Cloud  
Security, CTEM, and  
Hybrid Cloud Ecosystem**



**2025 Leader and Outperformer in  
CNAPP, Workload and Container  
Security**

# Customer Success Story



# A Decade of Innovation and Protection with Qualys!



## Cloud Agents for VAPT Automation

- **Over 95% deployment success** across multi-cloud platforms
- **One agent, one platform**, simplifies cloud security operations



## Proactive Alerts for Public Exposures

- **Instant notification** of externally exposed assets
- **Reduced escalations** significantly, improved security posture



## Risk Prioritization with TruRisk

- **Six Sigma-accurate** findings
- **Powered by Threat Feeds** from authorized sources

# Cloud Security Posture Elevated



## Reduced Blind Spots

- **100% infrastructure is auto-onboarded** to Qualys using Cloud Connectors
- **Auto-scan continuously** with no manual intervention



## Audit Ready Reports

- Always prepared for **evolving auditor** and central governance requirements
- Significantly **reduced hours spent** on manual monitoring



## Remediation Ready Play

- **Faster and easier** remediation of vulnerabilities
- **Eliminated misconfigs significantly**, improving security posture

# What Next?

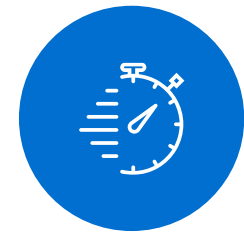
When extending a cloud security strategy, review all capabilities and deploy the TotalCloud solution



**Leverage Qualys Agents for API Discovery** – Easy onboarding for AppSec team



**Expand the footprints to container security** to secure unknowns



**Attack Paths to Assess the impact** beyond the internet exposure – know blast radius and act

# **Demo - Code to Cloud Recipe to Fix Attack Paths at the Source**