

# Qualys TotalCloud (CNAPP)

Unified Vulnerability, Threat and Posture Management  
From Development to Runtime Across Multi-cloud



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Vice President, Product Management

# What we see as key Market Trends

Looking Ahead

Posture (CSPM), Workload Protection (CWPP), Threat Detection (CDR), Container Security (CS)

Can we extend Cloud security with enterprise security function?

## Convergence of Cloud Security



## Get More Security

End-to-end Security through integrated "mesh" of use cases, intelligence & automation  
**How can I get integrated actionable view**

Many reports but **CIO & Board** need a view on **Cyber Risk Status?**

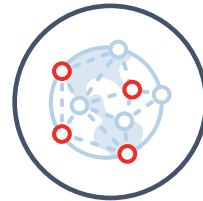
## Board Level Risk Communication

## Risk based Prioritization

Too many vulnerabilities, misconfigurations, patches, and alerts.  
**What is my real risk?**

## ROI Driven Consolidation

Too many agents and tools, manual cost  
**How can I get better ROI from current investments**



Qualys

Get More Security

Key Market Trends

# What we see as key Market Trends

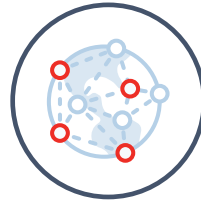
Looking Ahead

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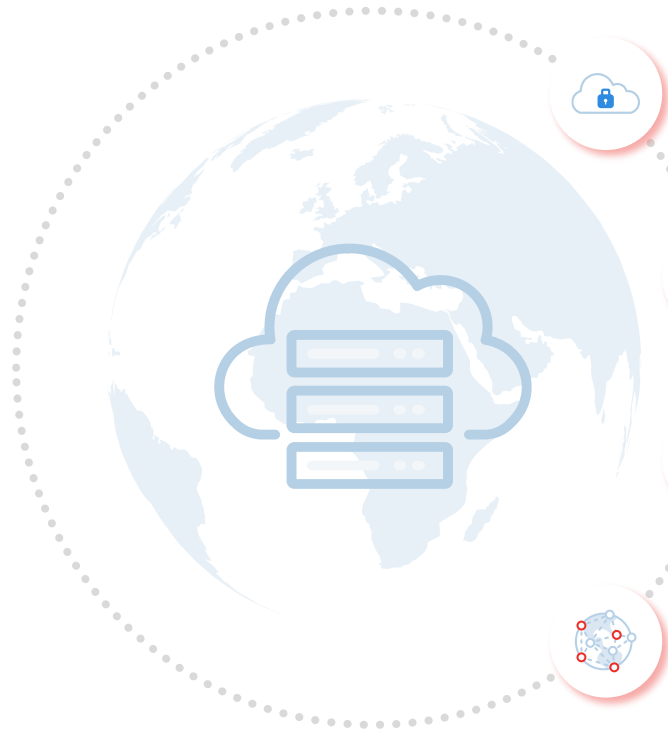
Can we extend Cloud security with enterprise security function?



Convergence of Cloud Security



# Cloud Security Is Challenging



## Large & Dynamic Attack Surface

Cloud is a transient environment with ephemeral workloads across multi-cloud

## Lack of Visibility

Difficult to get a complete view of the cloud environment

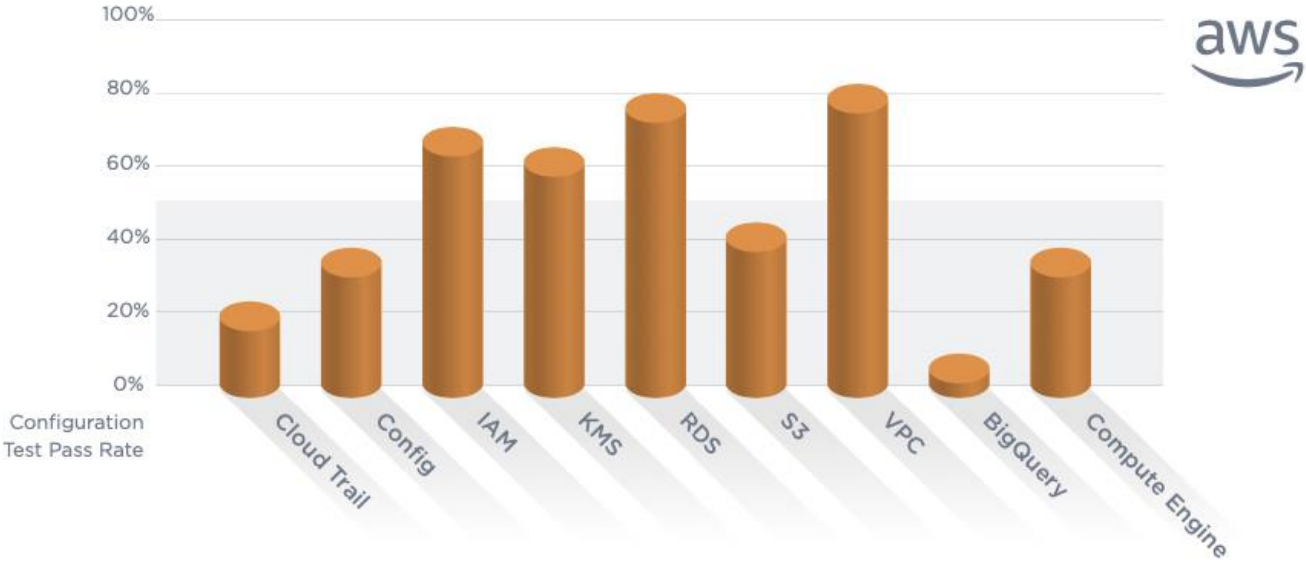
## New Compliance/Benchmarks

New threats and vulnerabilities are constantly emerging in the cloud, requiring organizations to stay up-to-date

## Tedious Remediation Process

No context around whether vulnerabilities are critical, and a ton of time is spent digging into multiple dashboards

# Cloud Misconfigurations



# Misconfigurations Leading to Ransomware



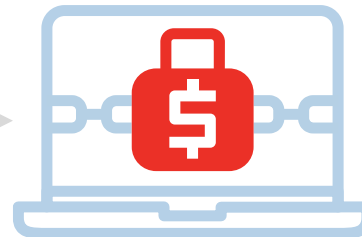
Falling Controls

- ### Top Cloud Techniques
- 1 T1210: Exploitation of Remote Services
  - 2 T1485: Data Destruction
  - 3 T1530: Data from Cloud Storage Object



Falling Controls

- ### Top On Premise Techniques
- 1 T1110: Brute Force
  - 2 T1021.001: Remote Desktop Protocol
  - 3 T1548: Abuse Elevation Control Mechanism



# Qualys TotalCloud

A Comprehensive  
CNAPP Solution

Unified Vulnerability,  
Threat and Posture  
Management from  
development to runtime



## TotalCloud

Cloud-Native Application  
Protection Platform  
(CNAPP)



### Cloud Security Posture Management (CSPM)

Inventory of public cloud resources. Detection and remediation of misconfigurations and non-standard deployments.



### Infrastructure as Code (IaC) Security

Protects infrastructure by scanning IaC code for misconfigurations and non-standard deployments before it is deployed.



### Cloud Workload Protection (CWP)

Scanning for vulnerabilities in the cloud environment  
(VMDR with FlexScan).



### Cloud Detection and Response (CDR)

Continuous real-time protection of the multi-cloud environment against active exploitation, malware, and unknown threats.



### Container Security

Discover, track, and continuously secure containers – from build to runtime.



# Qualys TotalCloud Differentiator

Fast Time to Value



## Flexibility of Scanning

Choose the scanning method (**Snapshot, API, Agent, Network**) to get best coverage and continuous assessments

## Highest Level of Accuracy

**Six sigma Accuracy** based on the Qualys custom DB and research and risk prioritization

## Low TCO and Higer ROI

**Flexibility to deploy - what you want, when you want it**

## Instant Protection

**Detect unknown** and known threats quickly **at runtime time using AI**



# TotalCloud Differentiator: Flexibility of Scanning

## Agentless and Agent-based scanning

### Agent-based

Real-time comprehensive vulnerability, configuration and security assessment

Detect runtime threats but the challenge is to get access to all workloads to run agents

### Network-based Assessment

Assess for network-related vulnerability

Continuous, no need to stop the workload to inspect it but at times, getting access to the workload could be challenging



### API-based Assessment

Use CSP-provided APIs to collect software inventory and perform assessments

Fastest setup and assessment but lack of OSS coverage

### Snapshot-based Assessment

Take snapshot of the workload and perform vulnerability assessment on it

Fast and easy setup without access to the workload but scanning is 24 hrs. due to resource limitations

# Highest Level of Accuracy



Low false positives so you are not wasting time, effort, and resources addressing non-existent or low priority vulnerabilities

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Low false negative reducing the risk of leaving systems vulnerable to exploitation by attackers

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Unmatched accuracy of detection **powered by same backend**

- Agentless or agent, highly accurate because of our backend infrastructure
- 



Cloud environment is dynamic, but our research moves even faster

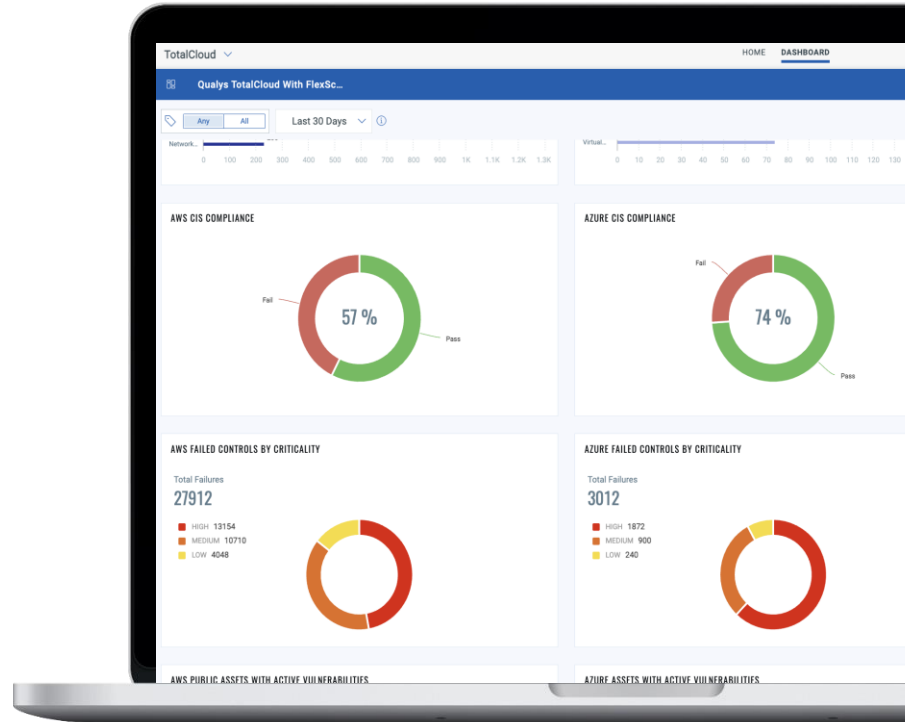
- Dedicated Inhouse research, not open-source threat intel
- Over 100 dedicated security researchers with 2 decades experience



# Cloud Security Posture Management

Comprehensive inventory of your public cloud workloads and infrastructure

- ✓ Identify and remediate misconfiguration across 100% of your cloud assets
- ✓ 1000+ out of box controls including Qualys best practices and CIS standards
- ✓ Supports 30+ compliance mandates such as PCI DSS, and HIPAA and complete coverage of CIS benchmarks
- ✓ Automatically alert, ticket, or remediate misconfigurations
- ✓ One click remediation for many high visibility controls



# Demo 1

- Virtual Machine with a public IP
- Vulnerabilities detected by FlexScan
- CSPM checks also revealed that it has failed CIS Benchmark
- Finally, a remediation step is taken



# More Zero-Day Exploits

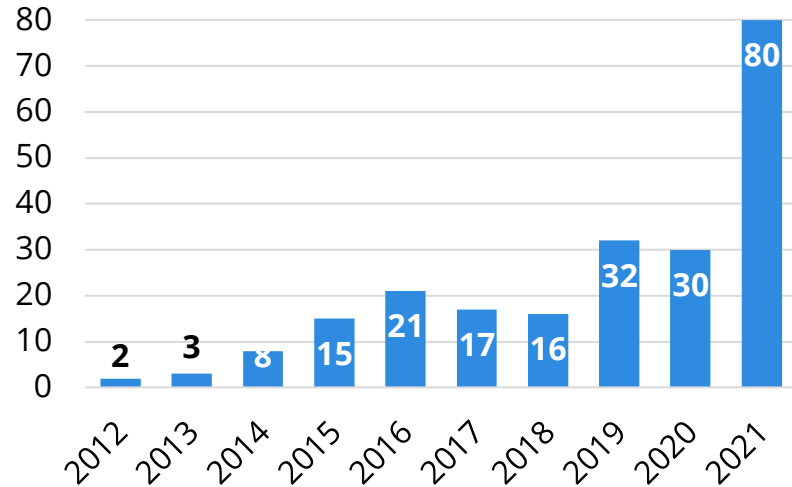


**250%**

Zero-Day Exploitation  
more than doubled  
from 2020 to 2021

Sources: NVD and [Mandiant Threat Intelligence](#)

**Zero Days Exploited 2012-2021**



**MANDIANT**

# Qualys Cloud Detection and Response (CDR)



**Our solution** monitors cloud network and cloud activity logs which provide visibility and Qualys deep learning algorithms provides threat detection



AWS



GCP



Azure

**Deep Learning AI detection  
are fast and accurate**

- ✓ Malware
- ✓ Suspicious Communications
- ✓ Beaconing
- ✓ Unauthorized Activity

# Cloud Threat Stages

Qualys Cloud Platform

Asset Details: I-0d3582452d1864153

Security Threats from CDR

Malware (4) Command & Control (3) Cryptojacking (1) Unauthorized Activity (5) Suspicious Communications (10)

BACKDOOR (1) TROJAN (2) RANSOMWARE (1)

| TIMESTAMP                  | SEVERITY                                      | THREAT FAMILY | THREAT CATEGORY | SOURCE IP     | DESTINATION IP | FILE TYPE | HASH  | SOURCE | ACTION                       |
|----------------------------|---|---------------|-----------------|---------------|----------------|-----------|---|--------|------------------------------|
| Jan 4, 2023<br>10:06:00 PM | Confirmed - Sev. 4<br>(Qualys standard level) | Mimikatz      | Trojan          | 52.13.184.228 | 10.192.20.205  | EXE       | fb55414840281f004858ce<br>188c3dc659d129e283bd6...  | HTTP   | Sent to AWS<br>SNSSent to... |
| Jan 3, 2023<br>02:15:32 AM | Confirmed - Sev. 5<br>(Qualys standard level) | Unknown       | Trojan          | 52.13.184.228 | 10.192.20.205  | EXE       | a66d1021e54269963e9a54<br>892869d569ffa1c74d9fb1... | HTTP   | Sent to AWS<br>SNSSent to... |



Stage 1

Recon/  
Incursion



Stage 2

C&C



Stage 3

Installation



Stage 4

Lateral  
movement



Stage 5

Action on  
objectives

Threat  
stage

TTPs

Exploits,  
Scanners

Encrypted and  
unencrypted  
channels

Malware,  
Cryptominer,  
ELF binaries

Bruteforcing  
→ SSH, RDP,  
Port scan

Cryptomining,  
Data exfiltration,  
Ransomware



# Demo 2

- CDR turned on
- Active exploitation detection
- In addition to CWP, and CSPM findings



# Shift-left Security Across the DevOps Pipeline



- ✔ Support for all cloud service provider build tools, registries, and Kubernetes implementations

# Innovative Packing and Licensing for **Frictionless Cloud Adoption**

- ✔ You can transfer current VMDR licenses TotalCloud – 1:1

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- ✔ With a TotalCloud SKU can select different features (CSPM, CWP, CS, CDR) without re-licensing

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- ✔ Combined volume pricing based on both VMDR licenses and cloud licenses

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- ✔ Flexibility of reallocation of units based on your needs



# QLU Mapping

01

CWP:

- VMDR Cloud Agent = 1 QLU
- VMDR FlexScan = 4 QLU

02

CSPM = 8 QLU

03

CDR = 8 QLU

04

Container Security  
for virtual machines = 30 QLU

05

Container Security for  
Registries = 8 QUL

06

Serverless Container Security  
= 30 QLU



## What is QLU

Conversion unit within  
TotalCloud to interchangeably  
use different cloud assets

# Pacific Dental Services

Enhanced protection for mission-critical cloud services

## Company

- Founded: 1994
- HQ: California, US
- Employees: 10,000+
- Operations: 900 supported offices in 25 states

## Challenges

- Current solutions did not catch the threats quickly.
- Multiple point solution increased investigation time
- Lacked insights on prioritization and recommendations of what to fix first.
- Meeting stringent regulatory requirements due to evolving threat landscape

## RESULTS

4 hrs

**Detect threats faster than existing tools**

60%

**Reduction in investigation time per incident**



**Clear, accurate insights on prioritization and recommendations for resolving them**



**Helped meet the audit requirements of regulators by strengthening security**



We are **extremely impressed with the speed and accuracy** of Qualys. In fact, we have such trust in the data we're getting from TotalCloud that we now **feed data from Qualys into our other security solutions**—enriching our data and helping analysts to make better-informed decisions.



**Nemi George, MBCS, CCISO, ITIL, CISA, CISM, CDPSE**

Vice President, Information Security Officer | Service Operations



**PACIFIC**  
DENTAL SERVICES®



# Centrica

## Fast Tracking Cybersecurity Compliance

### Company

- Founded: 1997 (200 years legacy)
- HQ: London, UK
- Employees: 25,000+
- Industry: Energy and services company

### Challenges

- Lack of comprehensive security posture against advanced threats in a multi-cloud environment.
- Accurately identifying threats
- No real-time visibility
- Complex infrastructure with multiple point products

### RESULTS



Protected entire multi-cloud infrastructure with a **single unified cloud hardening and real-time security**

>99%

Detected **known** and **unknown** threats with the **highest accuracy**

1 sec

**Real-time** detection of threats at **sub-second** speed



Seamless integration with existing tools enhanced productivity and provided higher ROI



We selected Qualys TotalCloud because of its forward-looking approach to securing multi-cloud environments with unparalleled threat detection capabilities based on advanced deep-learning AI technology.

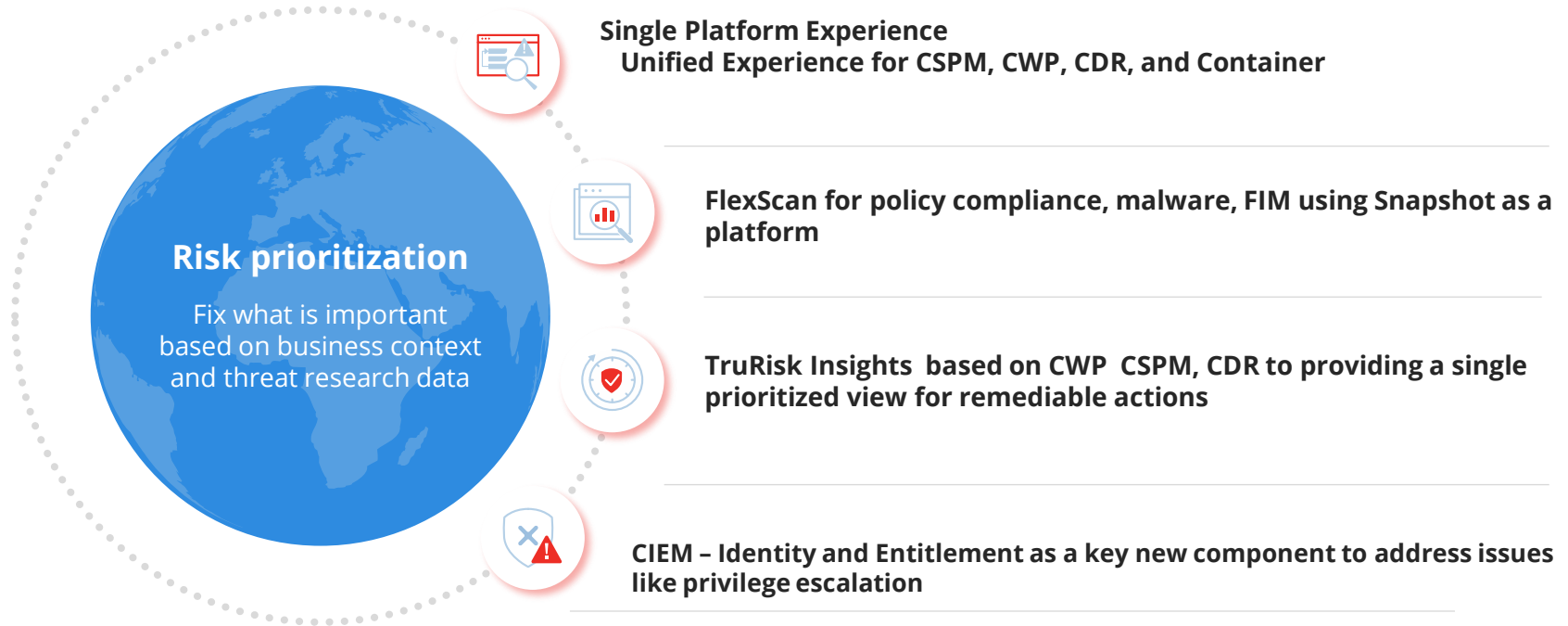


**Mark Wootton**

Head of Threat and Vulnerability Management

# TotalCloud Strategic Initiatives

Customer focused innovation





**Thank you!**

# Container Security

Security across the entire development-deployment lifecycle

- ✓ Discover vulnerabilities across the full lifecycle of your container images and running containers
- ✓ Detect malicious or unauthorized activity in running containers
- ✓ Works both on-premises and in public clouds
- ✓ Broadest support for CI/CD tools, registries, and Kubernetes environments

