Unwrapping SBOMs for knowing, Managing & Reducing Risk of Software Supply Chain

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Attack Surface Management

Open-Source Software Vulnerabilities

The Toll on Cybersecurity Teams

79%

Of software running on servers is open-source

96%

Of first-party (homegrown) software contains open-source components

40+%

Contain high-risk factors such as exploitable vulnerabilities

52%

Of enterprises spent more than a month remediating Log4Shell

Qualys.

Remediation Gaps

In Software Supply Chain Risk

52%

Of teams took more than one month to remediate Log4Shell.

Why?

- **No catalog** of all software components
- Limited SBOMs from **third-party apps**
- Difficult to ingest & correlate SBOMs from **first-party apps**
- **Limited risk assessment** at runtime
- Manual remediation without **business context**

Qualys.

Typical Remediation Timeline

For an Open-Source Component Vulnerability such as Log4Shell

Day 0

- Assessment starts.
- Align resources, create scripts and start scoping vulnerability scans

Day 7

- News from security community alerting of a new file
- Fine-tuning scripts and re-scan
- Monitoring list of impacted software and manually connecting to assets

Day 14

- Begin detecting vulnerabilities and building datasets
- Begin prioritizing based on asset critically (if it's available)
- Manual analysis of components to software – triage begins.

Day 21

- Manually trace application owners and triage remediation process
- Prioritize and start remediation.

Day 31

- **Average remediation time: 17 days**
- Initially detected vulnerabilities are starting to be patched

40+ Days

- **30% of vulnerabilities still unpatched (Qualys research)**

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Supply Chain Risk Management Must Be Proactive and Continuous

Qualys.

Existing Solutions

DevSecOps (CI/CD)

Repository Assessment

aqua, JFrog, sonar, Rezilion, REVERSINGLABS, snyk, mend.io, SYNOPSYS Black Duck, LINEAJE Tenable Ventures, FOSSA, SECURESTACK, ENDOR LABS

Runtime Security

Production Environment

adolus, TANIUM, Balbix, Qualys

Software Builders (DevSecOps)

- Internal Developers
- Software Publishers

Software Consumers & Operators

- Corporate IT, Security, Risk & IT Ops
- Vulnerability Management Teams

Gaps in Software Supply Chain Risk Management

With Available Solutions

DevSecOps (CI/CD)

Repository Assessment

- ✓ Covers internally developed apps
- ✗ Difficult to track production drift – blind spots in production environment

Runtime Security

Production Environment

- ✓ Covers major technologies in production to confirm vulns
- ✗ Lack of correlation with SBOMs / Apps.
  No business context (App Name, Owner...)

Lack of integration between DevSecOps and Runtime Security

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Why Focus on SBOM?

How Does It Help?

"SBOMs provide increased transparency, provenance, and speed at which **vulnerabilities can be identified and remediated**."

- National Institute of Standards and Technology (NIST)

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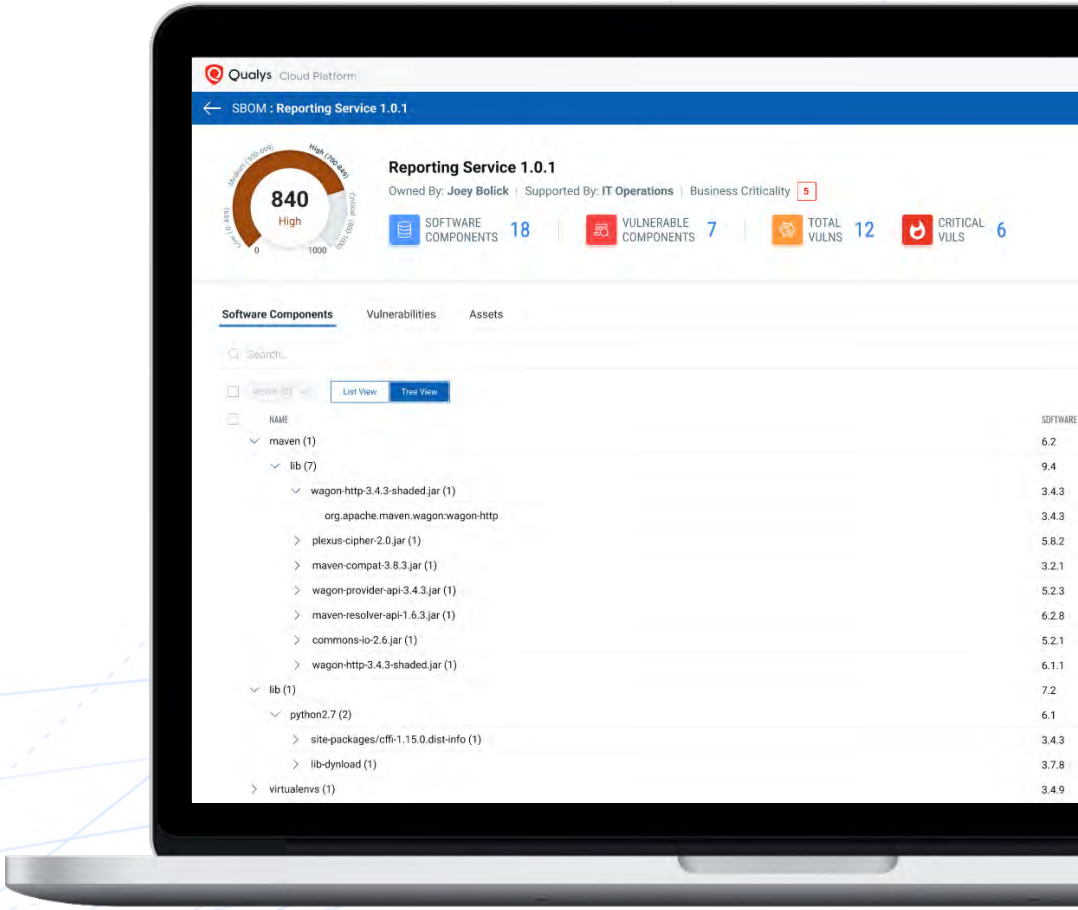
Qualys SBOM Risk Analysis

Track all SBOMs in a single place, analyze software component vulnerabilities and measure impact to your production environment

01 Single SBOM repository for third-party software & first-party apps

02 Continuous visibility of all software components Vulns in production

03 Centrally prioritize TruRisk of your entire Software Supply Chain, with Business & Asset Context



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Demo

Measure, Communicate & Reduce Risk of Your Software Supply Chain

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Reduce the Software Supply Chain Risk

Respond immediately to zero-day vulnerabilities

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Detection time
14 Days

1 Day

Triage & Prioritization time
17 Days

Hours or Couple of Days

End-to-end Response
31+ Days

3-7 Days

Qualys CyberSecurity Asset Management (CSAM)

With External Attack Surface Management

Inventory your full IT ecosystem

Automatically identify all IT assets, whether on-perm, mobile, clouds, containers, OT and IoT for a complete, categorized inventory

Detect inventory security gaps

Know when unknown devices connect to the network, unauthorized software is detected, or required security software is missing; and detect end of life for software and hardware

Report and respond to risks

Create asset security health reports for PCI-DSS and FedRAMP, get automated, pre-defined alerts and take response actions like uninstalling unauthorized software

Scale effortlessly with VMDR

Execute scripts at scale across the enterprise and orchestrate scans, through one-click automated workflow with Qualys VMDR

Sign up for a free 30-day trail

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