

Supply chain vulnerabilities

What to know after the curl and libcurl hype



Why are software supply chain vulnerabilities a risk?

Defending against software supply chain vulnerabilities is of utmost importance when it comes to safeguarding the integrity and security of software systems. In light of recent events, such as the disclosure of two vulnerabilities in the widely used command line tool and library, curl, it has become evident that vulnerabilities in the software supply chain pose a significant risk. These vulnerabilities, categorized as high and low severities by most vendors, have the potential to impact a wide range of applications due to their inclusion in the SBOMs (Software Bill of Materials) of popular software programs.

Software supply chain vulnerabilities refer to the weaknesses or risks associated with a software product, particularly those that arise from the utilization of third-party libraries and components. For instance, if a widely used open-source library like “curl” and “libcurl” is found to have a vulnerability, it can render multiple dependent applications susceptible to attacks. This becomes even more concerning when considering that over 90% of commercial codebases incorporate open-source software (OSS) components, such as “curl” and “libcurl,” which are often critical to the functioning of various applications and parts of an organization’s IT ecosystem.

The escalating prevalence of software supply chain attacks, with a staggering 742% increase year over year since 2019, as reported in the “State of the Software Supply Chain,” highlights the urgent need for organizations to proactively monitor and update their software components, including open-source libraries, in order to mitigate these vulnerabilities. By implementing robust security practices, such as conducting regular vulnerability assessments and efficient patch management, organizations can minimize the potential impact of supply chain vulnerabilities on their IT ecosystem.

How Tanium can help

As a solution, Tanium offers a comprehensive range of measures to help organizations defend against future vulnerabilities in the software supply chain. From proactive monitoring and identification of vulnerable components to timely patching and updates, Tanium provides the necessary tools and expertise to ensure the security and integrity of software systems.

Ecommerce-prod-cluster Create Runtime Enforcement Policy

Summary

Version	Project	Enforced Policies	Nodes	Running Pods	Pods with Rogue Images
1.1	Digital Services	4	4	4	3

Nodes 4 of 4 Items

IP Address	Name	Endpoint Name	Labels	Pods
33.145.22.16	cache-node	cache-machine-01	type: cache role: caching	2
22.31.122.8	database-node	database-machine-01	type: database role: backend	4
33.12.44.6	loadbalancer-node	loadbalancer-machine-01	type: loadbalancer role: balancer	2
22.120.32.14	webserver-node	webserver-machine-01	type: webserver role: front-end	4

Running Pods 4 of 4 Items

Namespace	Pod Name	Labels	Containers Running Rogue Images
cache-namespace	cache-pod1	type: cache role: caching	2
database-namespace	database-pod1	type: database role: backend	4
loadbalancer-namespace	loadbalancer-pod1	type: loadbalancer role: balancer	1

Eliminate blind spots:

OSS and libraries such as “curl” and “libcurl” are source code that software vendors need to compile into their codebase to provide specialized functions. Initially, they are statically integrated into the program, but once implemented and deployed, they become dynamically linked resources. Traditional vulnerability scanners struggle to detect these compiled libraries, making them difficult or even impossible to find. Therefore, a solution like Tanium is needed to scan and identify OSS components/ libraries during runtime. Tanium allows you to easily identify all runtime libraries, open-source freeware, and software packages with just a click of a button.

Findings Save As

Compliance Vulnerability

Filters Computer Group: Select Severity: All Show excepted findings Target: All

Standard Filter Builder

Check ID	CVE Year	Score (CVSS 3)	Endpoint
Select...	Select...	Select...	Select...

Scan Method	Operating System Generation	Operating System	Title
Select...	Select...	Text contains	Text contains...

IP Address	CPEs	Affected Products	Affected Platforms
Single IP address, range or CID...	Text contains...	Text contains...	Select...

Container Image Name	Container Image Hash	Container Registry	CISA Known Exploited Vulnerabilities (KEV)
Select...	Select...	Select...	Select...

Check ID Endpoints Container Images Operating System Severity All Findings

Top Findings by Container

Container	Critical	High	Medium	Low	Unscored
analytics-container	40	0	0	0	0
backend-container	30	0	0	0	0
payment-container	20	0	0	0	0
inventory-container	20	0	0	0	0
catalog-container	10	0	0	0	0
loan-container	10	0	0	0	0
order-container	10	0	0	0	0
shipment-container	10	0	0	0	0
recommendation-container	5	0	0	0	0
frontend-container	5	0	0	0	0

4 of 4 Items Show Visualization: Download as CSV Filter Items

Image Hash	Image Name	Registry	Version	Findings	Severity (CVSS v3)
111803dfgdfgdf...dfgdfdf235hg3...	frontend-service	Docker Hub - Prod	1.1	150	50 25 25 0 25 25
222803dfgdfgdf...dfgdfdf235hg...	backend-service	Docker Hub - Prod	1.1	120	20 0 40 20 20 20
333803dfgdfgdf...dfgdfdf235hg3...	payment-service	Docker Hub - Prod	1.1	90	15 15 0 30 15 15
444803dfgdfgdf...dfgdfdf235hg1...	order-service	Docker Hub - Prod	1.1	60	10 10 10 10 10 10

Prioritize:

Certain systems and endpoints are more crucial to business operations and may require immediate attention if found to be vulnerable. This is particularly important if the vulnerability is highly likely to be exploited, considering factors such as the presence of public exploits, ongoing campaigns by threat actors, or the system's high value or internet-facing position. With the visibility provided by Tanium, you can prioritize which applications, systems, and endpoints to address first.

