



SLSA



The taco dip for software supply chain security

recap

(SBOM meetup)

recap | SBOM Meetup



In our previous talk we looked into such things like

- the need for security in supply chains
- SBOM
- VEX

But we did not (yet) talk about

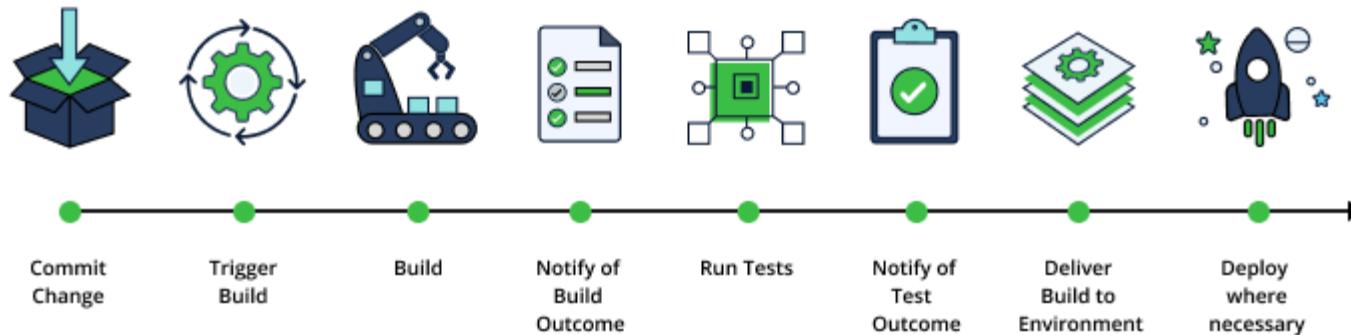
- how do we use that in production
- more usable approach that scales

Intro

Intro | The Supply Chain



CI/CD Pipeline



ref: <https://jfrog.com/de/learn/software-supply-chain/>

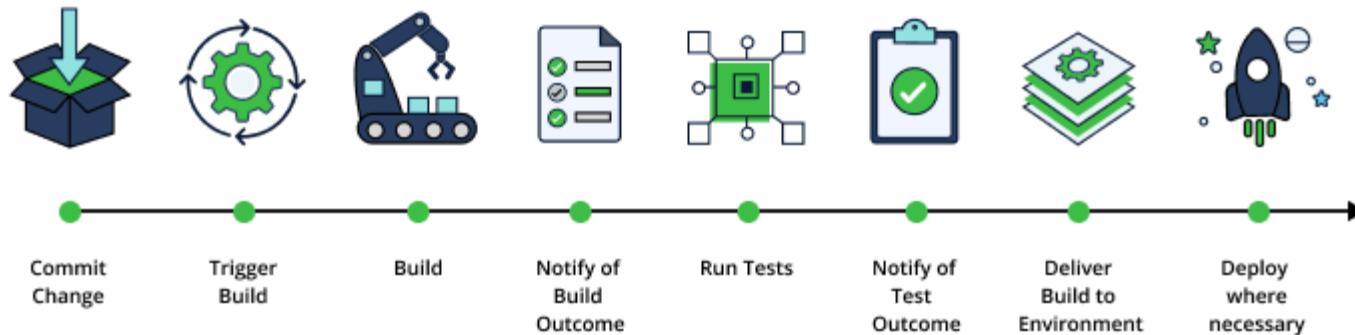
15.05.2025

WhizUs GmbH

Intro | The Security Issue



CI/CD Pipeline



where are the security problems here?

ref: <https://jfrog.com/de/learn/software-supply-chain/>

15.05.2025

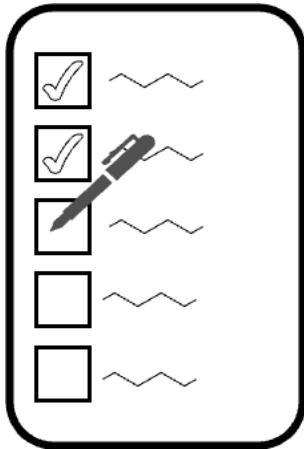
WhizUs GmbH

SLSA

SLSA | What is it?



Supply-chain Levels for Software Artifacts, or SLSA ("salsa"). It's a security framework, a checklist of standards and controls to prevent tampering, improve integrity, and secure packages and infrastructure.



ref: <https://slsa.dev/> <https://www.activestate.com/resources/quick-reads/software-supply-chain-security/>

SLSA | levels



| | | Required at | | | |
|-------------|-----------------------|-------------|--------|--------|--------|
| Requirement | | SLSA 1 | SLSA 2 | SLSA 3 | SLSA 4 |
| Source | Version Controlled | ✓ | ✓ | ✓ | ✓ |
| | Verified History | | | ✓ | ✓ |
| | Retained Indefinitely | | | 18 mo. | ✓ |
| | Two-Person Reviewed | | | | ✓ |
| | Scripted | ✓ | ✓ | ✓ | ✓ |

SLSA | Why do we need it?



SLSA | specification

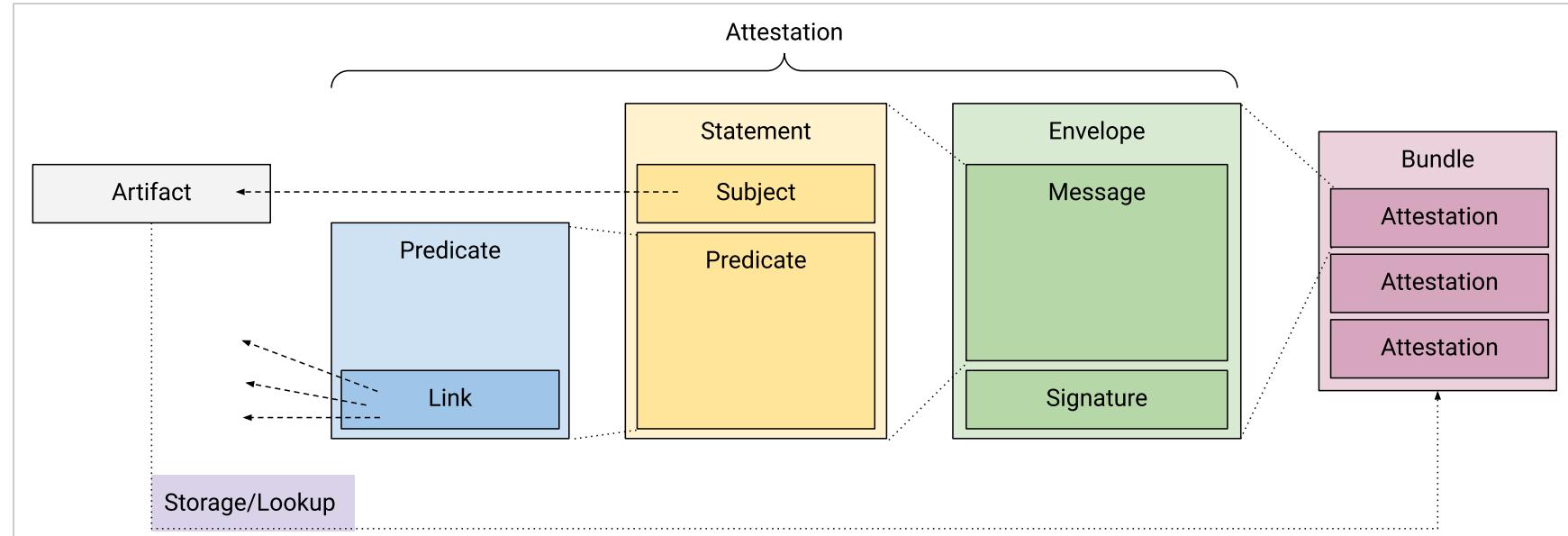


| Aspect | SLSA v1.0 | SLSA v1.1 |
|---------------------------|-----------------------------------|---|
| Release Type | Initial stable release | Incremental update |
| Definitions & Terminology | Baseline definitions | Clarified and refined terminology |
| Provenance Requirements | Basic provenance guidance | Expanded, more detailed provenance requirements |
| Build Model Support | Focused on common build scenarios | Better support for ephemeral/distributed builds |
| Security Requirements | Initial requirements | Strengthened and more precise requirements |

SLSA | specification (attestations)



- authenticated statement about a software artifact
- in reality it's all about artifact/code signing



DEMO

Thank You



References

- <https://www.cisa.gov/sbom>
- https://www.cisa.gov/sites/default/files/2023-01/VEX_Use_Cases_April2022.pdf
- <https://slsa.dev/>
- <https://www.meetup.com/security-meetup-by-sba-research/events/304127699/>
- <https://chainloop.dev/>

