From Policy to Pipeline: How OSPOs Can Power Regulatory Readiness and Upstream Impact

Agenda

- About us
- Policy and Regulations:
  - India: SEBI CSCRF, CERT-In SBOM and CS Audit Guidelines
  - EU CRA, US executive order, other guidelines
- How OSPOs can help
  - Interpret and implement region-specific regulatory requirements
  - Collaboration between different teams in an organization
  - Participate and foster open standards and communities
  - Contribute and engage upstream for ecosystem wide readiness
- AboutCode: Live Demo
- Questions?

About Arun

- Head of Secure Development Lifecycle: Corporate Cybersecurity Technology at Siemens Healthineers
- Leading teams for Open Source Software License and Security Compliance for Medical Devices
- Links:
  - LinkedIn: https://www.linkedin.com/in/arunazhakesan

About Ayan and AboutCode

- Core maintainer of ScanCode (scancode-toolkit and scancode.io)
- Working on license detection, package identification, binary scanning, devel/deployed mapping, SBOMs and data summarization
- AboutCode's FOSS-first mission: FOSS for FOSS
    - Open source tools and open data (AboutCode stack)
    - Simple and practical standards (Package-URL)
    - Applications for Legal Business users (DejaCode, also FOSS)
- Links:
    - asmahapatra@aboutcode.org
    - GitHub: https://github.com/AyanSinhaMahapatra/
    - LinkedIn: https://www.linkedin.com/in/ayansinhaju/

Regulations readiness

- India
  - Cyber Security and Cyber Resilience Framework for SEBI Regulated Entities
    - Vulnerability disclosure, SBOMs
  - CERT-In guidelines:
    - Technical guidelines on SBOMs
    - Cyber Security Audit Policy Guidelines
- EU’s Cyber Resilience Act (CRA)
- US Executive order 14028
- Global trend: regulators expecting detailed visibility into their software supply chains — and to prove it

OSPOs: Policy to Pipeline

- Requirements:
  - Generate and produce SBOMs
  - Vulnerability Disclosure
  - Secure development lifecycle
  - License Attribution
- MNCs: regulatory requirements are region specific
- Enable automation and policies

OSPOs: Policy to Pipeline

- Organizations have many stakeholders in FOSS
  - Product security
  - Legal and Compliance
  - Engineering teams
  - Business functions
- OSPOs can facilitate collaboration
- embed compliance into the development lifecycle

OSPOs: Policy to Pipeline

- Participation in open standards
  - Openchain
  - SBOM standards: SPDX, CycloneDx
- Cross-organisation collaboration
  - Tools and automation
  - Open data

OSPOs: Policy to Pipeline

- Contribute upstream!
  - Identify projects with risk/need for help
  - Help with development, maintenance, funds
- Cost-effective solutions: supporting FOSS vs buying products

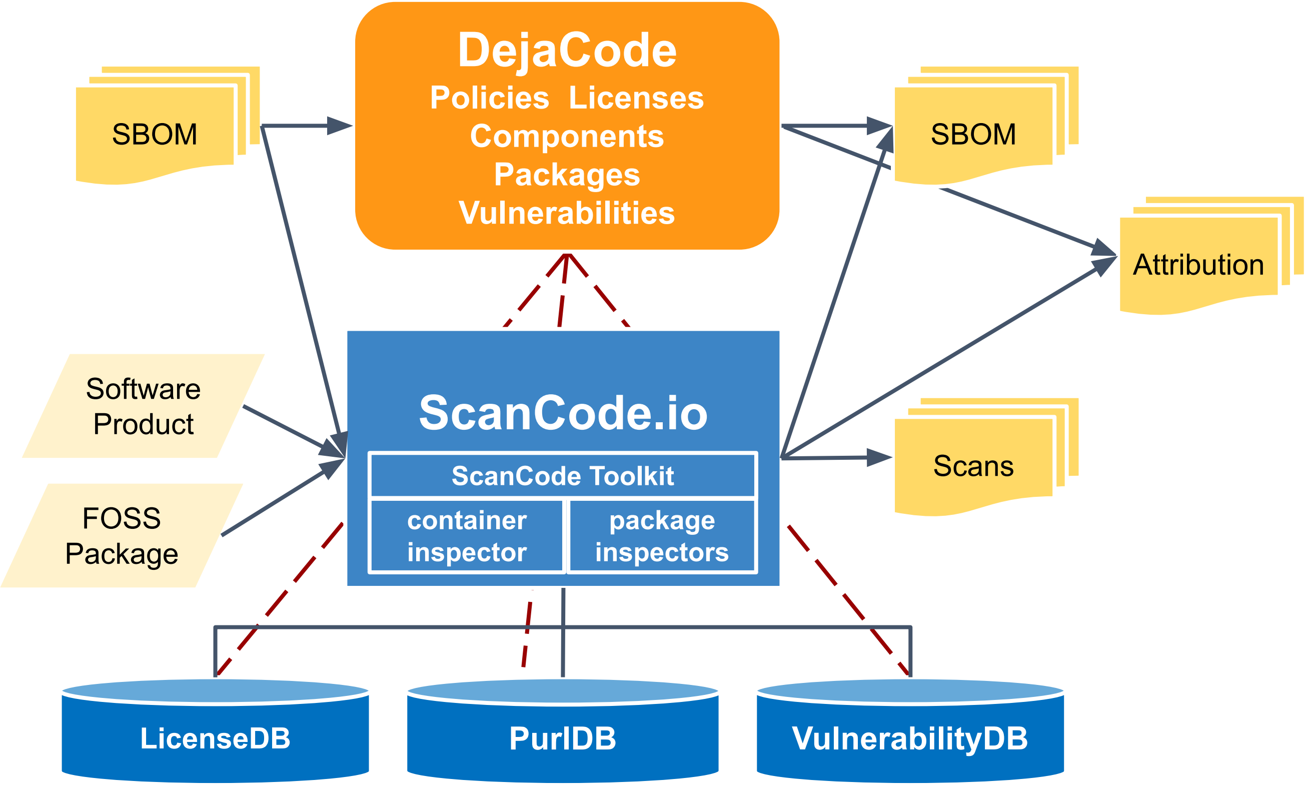
OSPOs: Policy to Pipeline

- The Three Fs of Open Source Puppy Care: Michael Winser
  - relationships with dependencies are important!
- Complete dependency graph
- Fix
  - Engage with maintainers, open Issues/PRs
- Fork
  - Maintain your version, apply patches
- Forget
  - Use something else!
- Fund!

Tools to empower OSPOs

- Enable automation and verification
- Embed into development lifecycle
  - (CIs) Continuous Integration
  - Flag licensing and security compliance issues
  - Risk analysis for all dependencies
  - Empower reusing FOSS safely
- Help with curation and oversight
- Help meet regulatory requirements
  - Generate SBOMs, Vulnerability Disclosure, License Attribution
- Map outputs to compliance artifacts required by regulators across regions

The AboutCode stack:

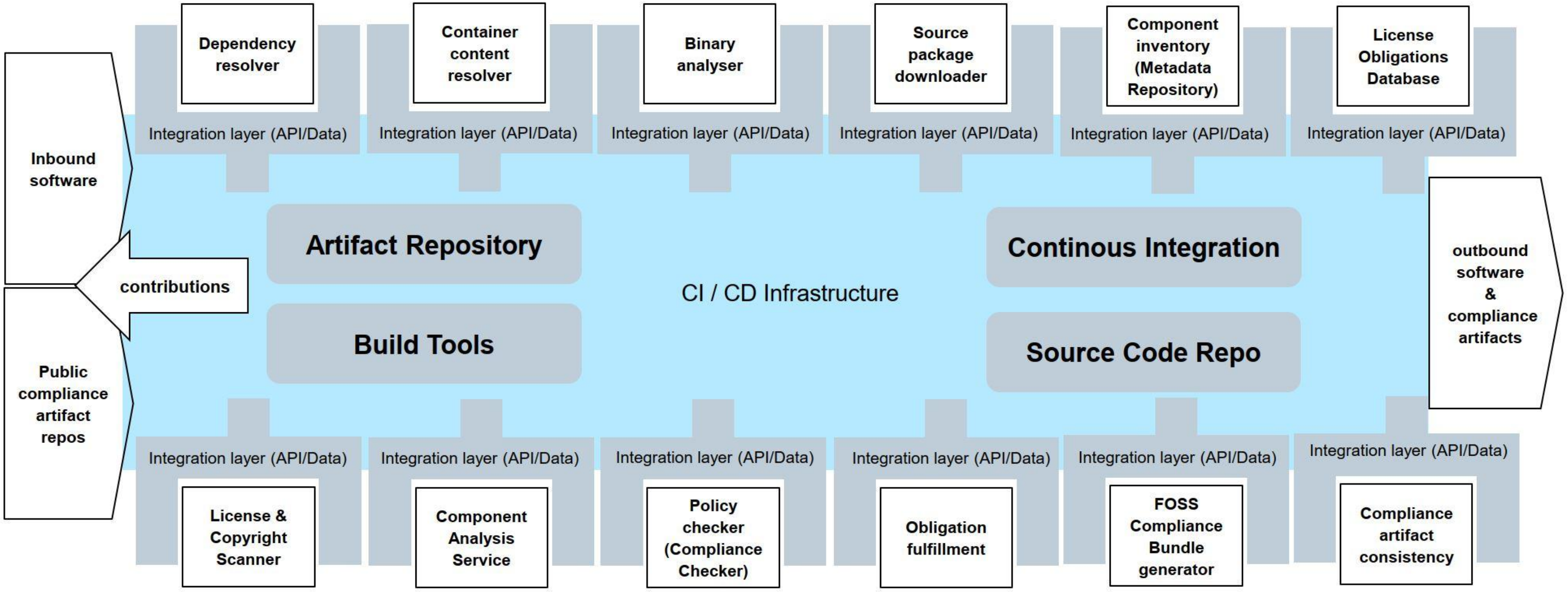


Why AboutCode?

- Non-profit, fully open source and open data
- options: CLI tool, Github action, web app, scans: containers, source/binary etc
- supports and working with package ecosystems
    - to build better metadata, more transparency
    - solve ecosystem wide problems at once
- Open data
    - Curated and open data on Licensing, Vulnerabilities, reuse scan results
- Large community
    - working with FOSS orgs to improve standards, data and transparency
    - OSPOs, Security, Lawyers, Specifications, Developers

Live Demo!

Big Picture – Integrated Compliance Toolchain

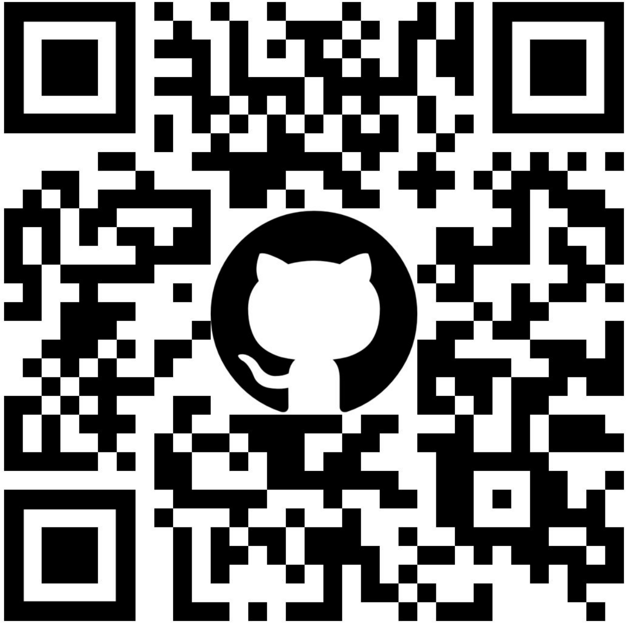

Dependency resolver
Container content resolver
Binary analyser
Source package downloader
Component inventory (Metadata Repository)
License Obligations Database
Integration layer (API/Data)
Integration layer (API/Data)
Integration layer (API/Data)
Integration layer (API/Data)
Integration layer (API/Data)
Integration layer (API/Data)
Inbound software
contributions
Public compliance artifact repos
Artifact Repository
Build Tools
CI / CD Infrastructure
Continous Integration
Source Code Repo
outbound software & compliance artifacts
Integration layer (API/Data)
Integration layer (API/Data)
Integration layer (API/Data)
Integration layer (API/Data)
Integration layer (API/Data)
Integration layer (API/Data)
License & Copyright Scanner
Component Analysis Service
Policy checker (Compliance Checker)
Obligation fulfillment
FOSS Compliance Bundle generator
Compliance artifact consistency

Other FOSS SCA tools and projects

- ORT: OSS Review Toolkit (Uses ScanCode)
- FOSSology (Uses ScanCode)
- SW360
- TERN (Uses ScanCode)
- ClearlyDefined (Uses scancode)
- OSSelot
- OWASP DependencyTrack
- OWASP DepScan
- AppThreat projects: atom, chen, vdb
- CycloneDx cdxgen
- Anchore: syft, grype
- Aquasec trivy

Questions?

Link to slides



github/aboutcode-org

Credits

Special thanks to all the people who made and released these excellent free resources:

- All the open source software authors that make AboutCode possible
- xkcd comics under cc-by-nc-2.5
- Presentation template by SlidesCarnival