Snyk maintains the leading database in the industry

Dedicated security experts

Snyk operates a dedicated subject matter expert security research team built of security veterans

Comprehensive coverage

Coverage goes far and beyond CVEs and includes many additional non-CVE vulnerabilities

Curated, enriched & actionable content

The content regarding each vulnerability is enriched to support analysis and triaging

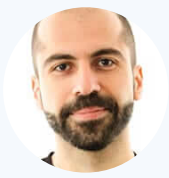
Powering the ecosystem

Snyk database was validated by industry leaders as their preferred security solution

Team of security experts

Snyk's security database is managed by a team of experts researchers and analysts ensuring the database maintains a high level of accuracy with a low false-positive rate.

- All items in the database are analyzed and tested.
- CVSS score and vector assigned to 100% of vulnerabilities
- Hand curated content and summaries, including code snippets where applicable
- The team also invests in proprietary research to discover new vulnerabilities.



The team is headed by Snyk's co-founder, Danny Grander, a veteran security researcher. Previously, Danny built cyber solutions for government agencies, led vulnerabilities research and managed research and development teams. Danny is a competitor and frequent winner of CTF at DefCon, CCC CTF, Google CTF.

Member of the Node Foundation's Security Working Group

Contributing member of OWASP

Snyk is a CVE numbering authority (CNA)

Comprehensive security coverage

Beyond CVE/NVD - Snyk's database goes far beyond CVE vulnerabilities (which consist only 60% of the database) and includes many additional non-CVE vulnerabilities that are derived from several sources

Best coverage in the market - Snyk regularly wins head to head comparisons to other vendors and finds many more vulnerabilities not detected by others

First to know & publish - Snyk exposes many vulnerabilities before they are added to public databases. On Average, Snyk publishes vulnerabilities 92 days sooner than NPM Audit

40%
of Snyk's database is proprietary

280%
better database coverage compared to other vendors[1]

72%
of the vulns in NPM Audit were already found in Snyk's database

Database resources

1. **Enriched data from over 10 vulnerability databases** such as CVE, NVD and more. Data derived from these resources is analysed, tested and enriched, before being included in Snyk's database.

2. **Dedicated proprietary research for new vulnerabilities:** Snyk's dedicated security team is focused on uncovering severe vulnerabilities in key components. A recent disclosure by our team is Zip-Slip[2] , see more examples in the footnote below.[3]

3. **Threat Intelligence systems:** listens for vulnerabilities mentioned in release notes, commits, JIRA issues and forums, but not reported to vulnerability DBs or CVE. Previously surfaced vulnerabilities from this source include Apache Airflow and marked.

4. **Community relationship:** Snyk collaborates with the community and operates bug bounties for new disclosures. This activity results in hundreds of community disclosures, such as f2e-server.

5. **Collaboration with Academia:** The team partners with PhD academia labs such as Berkeley, Virginia Tech[4] and Waterloo, to exchange tools, methods and data. Findings are then exclusively disclosed by Snyk.

500
vulnerabilities were discovered by proprietary research during 2018

360
vulnerabilities disclosed by academia labs

Curated, enriched and actionable content

Hand curated content and enriched metadata:

The team enriches the data describing each vulnerability with hand-curated content and summaries, including code snippets were applicable. All items in the database are analyzed and tested for their accuracy (version ranges, vulnerable method, etc). CVSS score and vector assigned to 100% of vulnerabilities.

Remediation with Precision Patches

In 20% of vulnerability instances, upgrading a vulnerable package is too disruptive or is not possible in the application context (i.e. for some transitive dependencies). In many such cases, Snyk uniquely extends the remediation coverage by offering its precision patches. These patches are developed and rigorously tested in collaboration with the package owner, by **backporting the original fix to all applicable historical versions, including the minimal changes required in order to fix** the vulnerability without introducing breaking changes.

20%
of vulnerabilities instances can't be fixed by an upgrade

500K
Snyk precision patches are applied each month

Triage support:

Vulnerable functions called in runtime

For issue prioritization, Snyk is able to alert when a vulnerable function is actually being called during the runtime of the application. Out of all the functions in a vulnerable open source package, Snyk identifies the specific functions within the package that are truly vulnerable. Snyk analyses the application behavior during runtime and indicates for each vulnerability whether the exploitable function is actually being used

Exploitability

When a vulnerability becomes public, sometimes a proof of concept of how the vulnerability can be exploited is published as well. Published exploit code serves as a good indicator of exploitability because it enables attackers to easily weaponize a vulnerability. The availability of a remedy also influences the exploitability metric. This information is analyzed and calculated into the CVSS score (temporal score) of each vulnerability, as well as displayed in the vulnerability content.

Powering security across the ecosystem

"We didn't trust the security coverage provided by the previous solution was comprehensive enough, which later comparing to Snyk was indeed clear"

Leif Dreizler
Segment, Security Engineering

Tech giants and security industry leaders are choosing to adopt Snyk's database to enhance their existing scanning capabilities:

Powering Google Chrome

Powering Microsoft Sonar

Powering NodeSource N|Solid and Certified Modules

Powering Anchore Enterprise

Top-tier players are choosing to be protected by Snyk, validating the quality of the coverage Snyk provides

salesforce, Google, Microsoft, orange, asos discover fashion online, Klarna, PRUDENTIAL

ocado, skyscanner, Auth0, The Guardian, mongoDB, New Relic

1. Based on comparison of scan results of Snyk versus Whitesource and NPM Audit. The scanned projects are: NodeGoat, Spring-boot, thimble.mozilla.org, angular, generator-jhipster

2. Zip Slip is a widespread critical archive extraction vulnerability, typically resulting in remote command execution. It was discovered and responsibly disclosed by the Snyk Security team. It affects thousands of OSS projects, and vendors, including ones from HP, Amazon, Apache, Pivotal, Microsoft, Hive, Hadoop, Pivotal Spring, LinkedIn, Twitter, Alibaba, Eclipse, Jenkins, OWASP, SonarQube, and many more.

3. CVEs detected by Snyk's research team: Apache Storm (CVE-2018-8008), Apache Hadoop (CVE-2018-8009), Apache Ant (CVE-2018-10886), Pivotal Spring (CVE-2018-1261), OWASP Dependency Check (CVE-2018-12036), Microsoft PowerShell RCE (CVE-2018-8256), NET Core Tampering (CVE-2018-8416)

4. See here Virginia Tech study with Snyk.