



CIRCL
Computer Incident
Response Center
Luxembourg

When Data Talks, We Let AI Listen

BSides Luxembourg

 <https://www.vulnerability-lookup.org>

Léa Ulsan

2025/06/19

CIRCL

1. Origin and Challenges we aim to address

1. Closing

Who is behind Vulnerability Lookup?



Vulnerability-Lookup¹ is an Open Source project led by **CIRCL**.

It is co-funded by **CIRCL** and the **European Union**².

Used by many organisations including CSIRTs and ENISA (EUVD).



¹<https://www.vulnerability-lookup.org>

²<https://github.com/ngsoti>

Origin and Challenges we aim to address

Origin:

- `cve-search`³ is an open-source tool initially developed in late 2012, focusing on maintaining a **local** CVE database.
- `cve-search` is widely used as an **internal** tool.

Challenges:

- The design and scalability of `cve-search` are limited. Our operational public instance at <https://cve.circl.lu> is reaching a hard limit of 20,000 queries per second.
- Vulnerability sources have **diversified**, and the **NVD CVE is no longer the sole source of vulnerability information**.

³<https://github.com/cve-search/cve-search>

Improving threat intelligence

- **Bundles:** Allow to combine similar vulnerabilities.
- **Comments:** Provide additional context (PoC, remediations, etc.).
- **Tags:** Attach tags to comments from the MISP vuln taxonomy⁴.

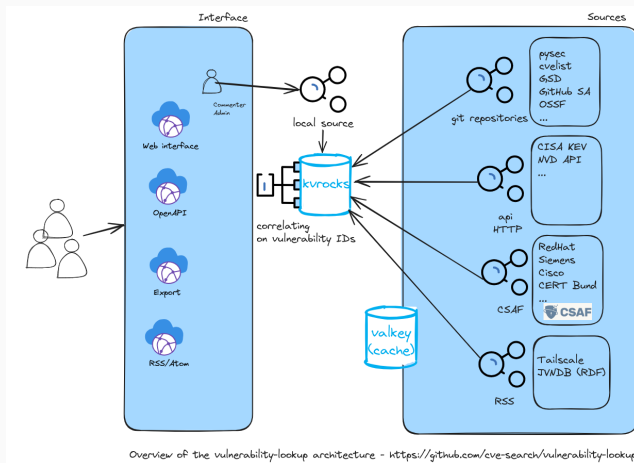
```
vulnerability:information=remediation
```

- **Sightings:** Provide observations on vulnerabilities.

```
{  
  "uuid": "99c0bf75-48c6-41ac-a26f-572752dffd27",  
  "vulnerability_lookup_origin": "1a89b78e-f703-45f3-bb86-59eb712668bd",  
  "author": "8dfa6142-8c6d-4072-953e-71c85404aefb",  
  "vulnerability": "CVE-2023-39328",  
  "type": "exploited",  
  "creation_timestamp": "2024-10-22T16:27:23.729320Z"  
}
```

⁴https://www.misp-project.org/taxonomies.html#_vulnerability_3

Vulnerability Lookup high level architecture




Closing

- Conclusion



As the project is still in its early stages and evolving rapidly, we are eager to receive feedback and feature suggestions.

References

 <https://vulnerability.circl.lu>

 <https://github.com/vulnerability-lookup/vulnerability-lookup>

 <https://www.vulnerability-lookup.org>

 <https://social.circl.lu/@circl>

Thank you for your attention

- Issues, new sources or ideas:
`https://github.com/vulnerability-lookup/vulnerability-lookup`
- For support and questions, contact: `info@circl.lu`