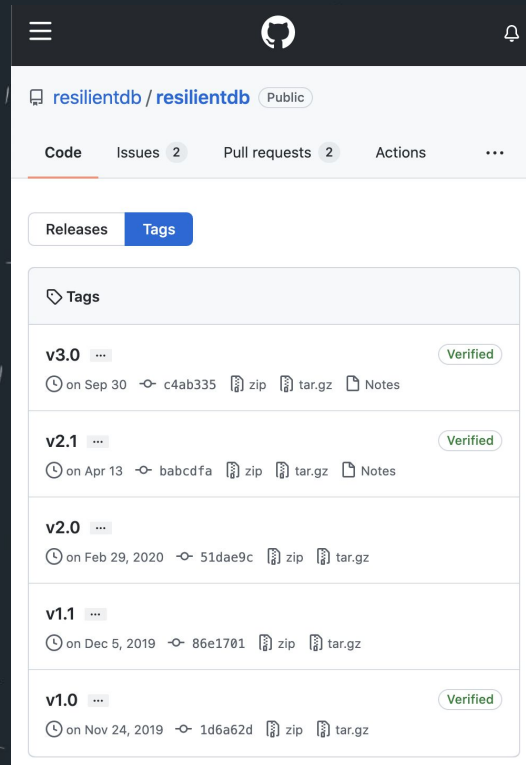


Tag Immutability

Guaranteeing immutability of version control system tags using blockchain

Group 4: Anusha Kulkarni, Ashwitha Kassetty, Parichaya Chatterji, Preethi Muruganandam, Vasudha Jha

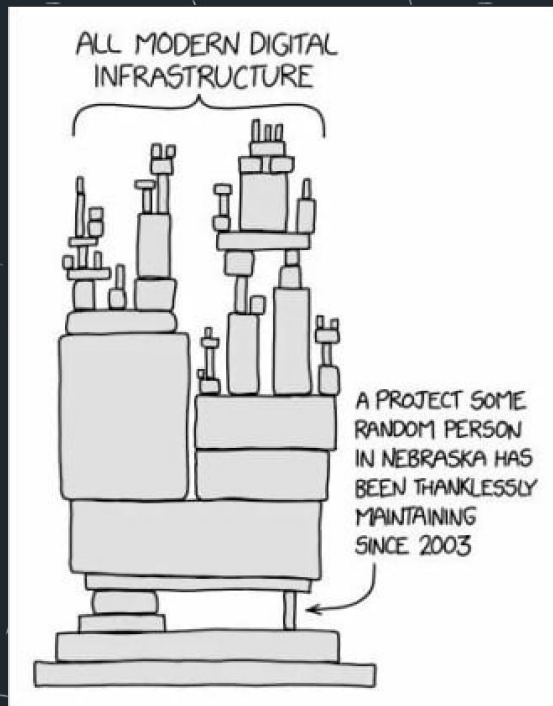
What are tags?



The screenshot shows the GitHub interface for the repository `resilientdb/resilientdb`. The repository is public. The navigation bar includes `Code`, `Issues 2`, `Pull requests 2`, and `Actions`. Below the navigation bar, there are tabs for `Releases` and `Tags`. The `Tags` tab is active, displaying a list of tags. Each tag entry includes the tag name, a `Verified` badge, the release date, a commit hash, and download links for `zip` and `tar.gz` files, along with a `Notes` link.

Tag	Verified	Date	Commit Hash	Downloads	Notes
v3.0	Yes	Sep 30	c4ab335	zip, tar.gz	Yes
v2.1	Yes	Apr 13	babcdfa	zip, tar.gz	Yes
v2.0	No	Feb 29, 2020	51dae9c	zip, tar.gz	No
v1.1	No	Dec 5, 2019	86e1701	zip, tar.gz	No
v1.0	Yes	Nov 24, 2019	1d6a62d	zip, tar.gz	No

Why make tags immutable?

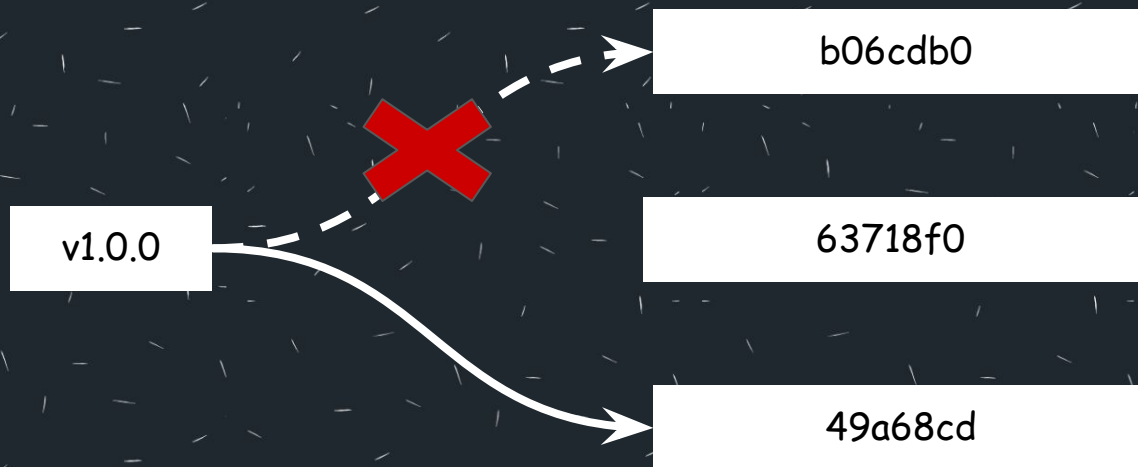


<https://xkcd.com/2347>

Why make tags immutable?



Why make tags immutable?



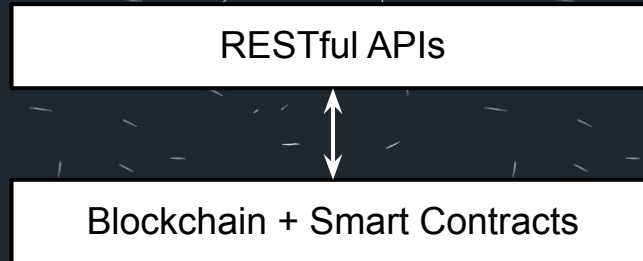
Bugs!
Incompatibilities!
Vulnerabilities!

Our Solution

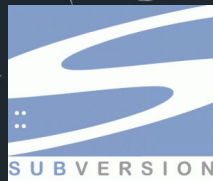
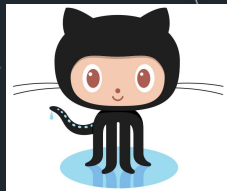
Our Solution

Blockchain + Smart Contracts

Our Solution



Our Solution

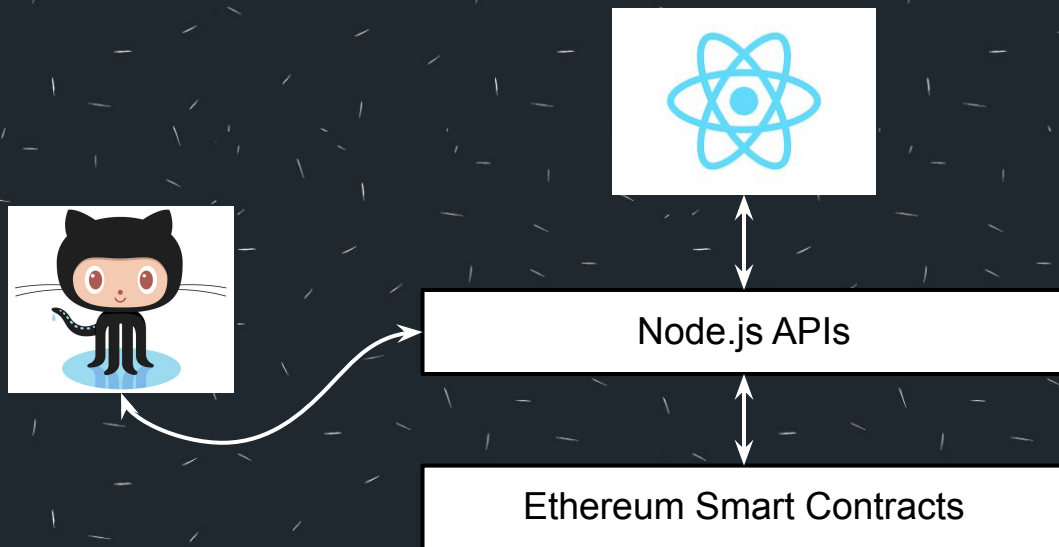


RESTful APIs



Blockchain + Smart Contracts

Our Solution



Demo

Q&A

Links

- Documentation: <https://github.com/Immutable-Tag/docs>
- Get the code: <https://github.com/Immutable-Tag>
- This presentation:

https://github.com/Immutable-Tag/docs/blob/main/Tag_Immutability.pdf

Thank You!