EdgeX DevOps Working Group

Cost Analysis & Comparison of Code Coverage Tools
Codecov.io / SonarQube

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There was some confusion on the pricing model but the cost is for private repos only.

EdgeX doesn’t have any private repos but would occur costs if we created some.
  - 78 public repos in edgexfoundry
  - 35 public repos in edgexfoundry-holding

The LF has GitHub accounts associated with EdgeX that can be used

The LF would have to set up the repos in Codecov.io using these github accounts

Additional work for managing secrets on the repos. The LF infrastructure team would need to solve storing a separate secret for each repo that can be inserted at build time.

Additional work needed to scope out converting existing tests into codecov.io format to view
SonarQube

Choose your plan

**Community Edition**
- SonarQube & 60+ plugins
- SonarLint
- 15 languages

Free & Open Source

**Developer Edition**
- Community Edition plus:
  - Branch Analysis
  - Pull Request analysis
  - Detection of injection flaws
  - SonarLint notifications
- 21 languages

Starts at $50

**Enterprise Edition**
- Developer Edition plus:
  - Portfolio management
  - Executive reporting
  - Project transfer
  - 26 languages

Starts at $20,000

**Data Center Edition**
- Enterprise Edition plus:
  - Component redundancy
  - Data integrity

Starts at $130,000

- 21 languages

Java, JavaScript, C#, TypeScript, Kotlin, Ruby, Go, Scala, Flex, Python, PHP, HTML, CSS, XML, VB.NET, C/C++, Objective-C, PL/SQL, ABAP, TSQI, & Swift

Free & Open Source
High Level Comparison of Code Coverage Tools

<table>
<thead>
<tr>
<th>Tool</th>
<th>Projects</th>
<th>Jobs</th>
<th>Videos</th>
</tr>
</thead>
<tbody>
<tr>
<td>SonarQube</td>
<td>225</td>
<td>51</td>
<td>10</td>
</tr>
<tr>
<td>Codecov</td>
<td>158</td>
<td>5</td>
<td>63</td>
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**Hacker News, Reddit, Stack Overflow Stats**
- SonarQube: 94, 8.96K
- Codecov: 2, 14, 26

**GitHub Stats**
- SonarQube: 3.34K, 981
- Codecov: No public GitHub repository stats available

**What is SonarQube?**
SonarQube provides an overview of the overall health of your source code and even more importantly, it highlights issues found on new code. With a Quality Gate set on your project, you will simply fix the Leak and start mechanically improving.

**What is Codecov?**
Our patrons rave about our elegant coverage reports, integrated pull request comments, interactive commit graphs, our Chrome plugin and security.

**What are some alternatives to SonarQube and Codecov?**
- ESLint - The fully pluggable JavaScript code quality tool
- Code Climate - Automated Ruby Code Review
- Codacy - Automated Code Review
- RuboCop - A Ruby static code analyzer, based on the community Ruby style guide
Why do developers choose...?

<table>
<thead>
<tr>
<th>Why do developers choose SonarQube?</th>
<th>Why do developers choose Codecov?</th>
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<tbody>
<tr>
<td>Tracks code complexity and smell trends</td>
<td>More stable than coveralls</td>
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<tr>
<td>IDE Integration</td>
<td>Easy setup</td>
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<tr>
<td>Why do you like SonarQube?</td>
<td>They reply their users</td>
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<tr>
<td></td>
<td>GitHub integration</td>
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<td>Easy setup, great UI</td>
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<td>Cool diagrams</td>
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<td>Golang support</td>
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<td>Easily see per-commit coverage in GitHub</td>
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<td>Steve is the man</td>
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<td>Free for public repositories</td>
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Why do you like Codecov?

What are the cons of using SonarQube?

<table>
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<tr>
<th>Cons of SonarQube?</th>
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<td>Downsides of SonarQube?</td>
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| What don't you like about Codecov? |
Integrations

**SonarQube**
- Jenkins: An extendable open source continuous integration service.
- Travis CI: A hosted continuous integration service for.
- Apache Maven: Apache build manager for Java projects.
- Appveyor: Continuous Integration and Deployment service.
- TeamCity: TeamCity is an ultimate Continuous Integration.
- Apache Ant: Java based build tool.
- Gradle: A powerful build system for the JVM.
- Bamboo: The automated builds, tests, and releases.

**Codecov**
- GitHub: Powerful collaboration, reviews, and code.
- GitLab: Open source self-hosted Git management software.
- HipChat: Supercharge team collaboration with group.
- Jenkins: An extendable open source continuous integration service.
- Bitbucket: One place to plan projects, collaborate on code, test.
- Heroku: Build, deliver, monitor and scale web apps and APIs.
- CircleCI: CircleCI’s continuous integration and delivery.
Next Steps