

# お断り

本資料に掲載されている情報は2024年10月時点の公開されているロードマップやリリース予定情報などになります。

今後のリリース予定が予告なく変更される場合があることをご了承ください。



# GitHub

# ロードマップ

## ウェビナー #2



藤原 淳子

スタッフサービスデリバリーエンジニア

GitHub



鈴木 順子

シニアサポートエンジニア

GitHub

## Agenda

ロードマップの歩き方

新機能の振り返り

The Platform for collaboration at scale

Accelerate with AI

Secure at every steps



# ロードマップの歩き方

何を、どこを見るか



GitHubロードマップは  
👉こちら



🔍 github roadmap

<https://gh.io/roadmap>



## GitHub public roadmap

Board Table Generally available Cloud (github.com) Server (GHES) GitHub Advanced Sec GitHub Issues GitHub Actions

is:open -status:"Q4 2022 - Oct-Dec",Q2 2023 - Apr-Jun",Q3 2023 - Jul-Sep",Q4 2023 - Oct-Dec"

### Q1 2024 - Jan-Mar 1

roadmap #948

GitHub Advanced Security ships organization 'security configurations'

beta GHES 3.15 github advanced security shipped

### Q2 2024 - Apr-Jun 15

roadmap #791

Security manager improvements and custom organization security roles (beta)

beta cloud code scanning dependabot github advanced security secret scanning security overview server

roadmap #915

Sunset Subversion support in GitHub Enterprise Server

all ga GHES 3.13 Platform server

roadmap #921

Expanding access to historical log data via audit log exports [Beta]

audit logs beta cloud enterprise administration github enterprise

roadmap #922

Creating audit log events for code searches targeting Enterprise's private assets [Beta]

audit logs beta cloud enterprise administration github enterprise

roadmap #924

Streaming Enterprise audit logs to multiple endpoints [Beta]

audit logs beta cloud

### Q3 2024 - Jul-Sep 19

roadmap #781

Code security transaction report in PDF

beta cloud code scanning dependabot github advanced security secret scanning security overview server

roadmap #796

One-click enablement for Maven transitive dependency detection

all cloud ga GHES 3.15 shipped

roadmap #826

Actions: Custom VM Images for GitHub-hosted runners (Beta)

actions beta github enterprise github team runners

roadmap #837

Issues: Issue Types

all beta cloud issues

roadmap #848

Code scanning: security campaigns and autofixes for historical CodeQL alerts (outside the PR experience)

beta cloud code scanning codeql github advanced security

### Q4 2024 - Oct-Dec 3

roadmap #930

GitHub Actions: Artifacts v4 available in GitHub Enterprise Server

actions ga github enterprise server

roadmap #985

Actions: M2 Pro powered macOS runners (Public Beta)

actions all beta runners

roadmap #986

Actions: macOS 15 is now available for GitHub-hosted runners (GA)

actions all ga runners

### Q1 2025 - Jan-Mar 2

roadmap #963

Enterprise Apps and installation automation (Public Beta)

all beta cloud enterprise administration GitHub Apps github enterprise

roadmap #994

Assign organization roles to users across multiple organizations at once

beta enterprise administration github enterprise

### Future 46

roadmap #217

Updated billing overview page

all billing ga

roadmap #281

Create custom automation flows

all beta cloud projects

roadmap #277

Issue level custom metadata

all beta cloud issues

roadmap #276

Cross repository milestones and labels

all beta cloud repositories

roadmap #274

Ability to add a project to a project

all beta cloud projects

roadmap #360

Azure AD (AAD) Service Principal Support for GHEC EMUs (Beta)

beta cloud github enterprise identity

roadmap #355



# Changelog

Subscribe to all Changelog posts via [RSS](#) or follow GitHub Changelog on [Twitter](#) to stay updated on everything we ship.

```
→ ~ cd github-changelog
→ ~/github-changelog|main git log main
showing all changes successfully
```

All Categories ▾

<https://github.blog/changelog/>



AI & ML ▾

Developer skills ▾

Engineering ▾

Enterprise software ▾

News & insights ▾

Open Source ▾

Security ▾

# Changelog

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showing all changes successfully
```

All Categories ▾

Containers

[Copilot](#)

Copilot-Business

Copilot-Chat

Copilot-Enterprise

Dark-Mode

Dependabot

Dependency-Graph

## GitHub Enterprise New GitHub Trust

Now you can find answers to commonly asked questions about GitHub Enterprise Cloud in the **GitHub Trust Center**, a comprehensive resource for understanding how GitHub meets security, privacy, and compliance standards. Designed with transparency in mind, this resource centralizes key information, empowering you to build on GitHub with complete confidence.

<https://github.blog/changelog/>



# 新機能振り返り

2024年4月～  
リリース





**The Platform for  
collaboration  
at scale**



**Accelerate  
with AI**



**Secure at  
every step**



# The Platform for collaboration at scale





The Platform for collaboration at scale

mobile

Face IDや生体  
認証でアプリロッ  
クが可能に



<https://github.blog/changelog/2024-08-06-app-lock-via-face-id-or-biometrics>



actions

mobile

# Actionsワークフロー の手動実行

- workflow\_dispatchイベント

動画デモ



actions

# GitHubホステッドランナーで Arm64が利用可能に

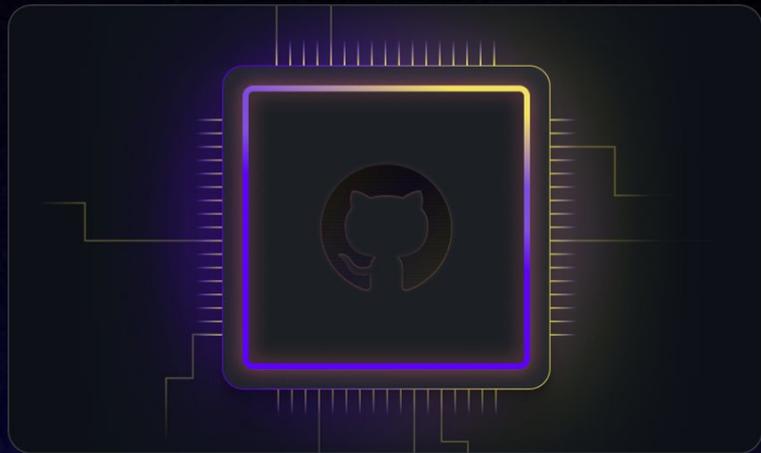
## 一般公開

Arm64ベースのランナーが使用可能に。

- Linux
- Windows

## 利点

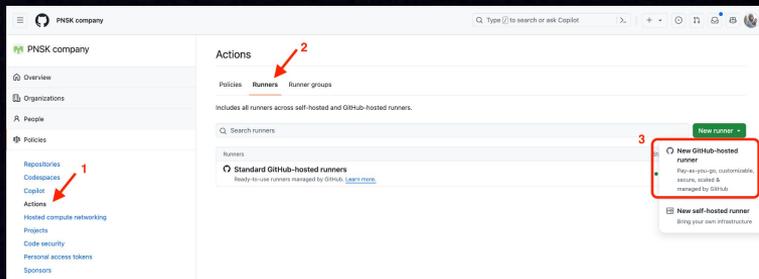
- ジョブのパフォーマンス向上
- 安価で使用可能に



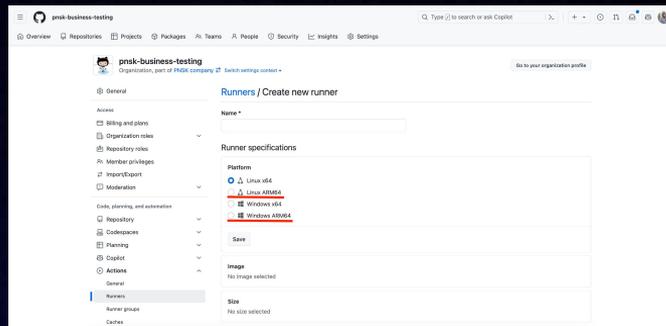
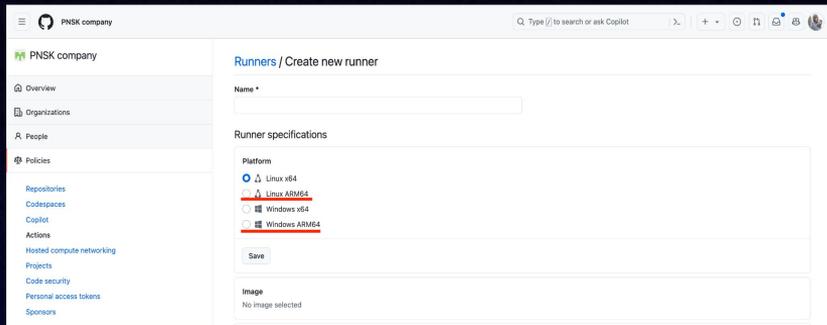
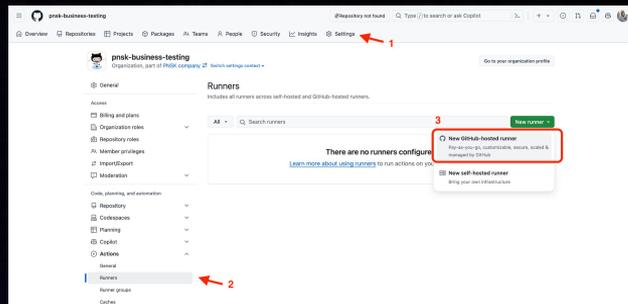
<https://github.blog/changelog/2024-09-03-github-actions-arm64-linux-and-windows-runners-are-now-generally-available/>



# Enterprise アカウント



# Organization



日本語ブログポスト “GitHub ActionsでArm64が利用可能に:より高速で効率的なビルドシステムを提供”  
<https://github.blog/jp/2024-06-07-arm64-on-github-actions-powering-faster-more-efficient-build-systems/>



actions

runners

# ランナーイメージの追加・廃止情報

- Ubuntu 20, 22 のArm64イメージの廃止 (9月3日以降)
- Ubuntu 24.04 イメージの追加
- ランナー内のNode16の廃止 (10月15日)
- ランナー内の.NETの廃止 (10月)
- macOS12のランナーイメージ廃止 (2024年12月3日)
- macOSの古くて使用されていないランナーイメージの廃止 (2024年12月3日)

<https://github.blog/changelog/2024-08-19-notice-of-upcoming-deprecations-and-breaking-changes-in-github-actions-runners/>

<https://github.blog/changelog/2024-09-25-end-of-life-for-actions-node16/>

<https://github.blog/changelog/2024-09-25-actions-new-images-and-ubuntu-latest-changes/>



Repository not found

Type to search or ask Copilot



### GitHub public roadmap



Board

Table

Generally available

Cloud (github.com)

Server (GHES)

GitHub Advanced Sec

GitHub Issues

GitHub Actions

is:open -status:"Q4 2022 - Oct-Dec" "Q2 2023 - Apr-Jun" "Q3 2023 - Jul-Sep" "Q4 2023 - Oct-Dec" actions label:runners label:actions

13

Discard

Q1 2024 - Jan-Mar 0

Q2 2024 - Apr-Jun 2

Q3 2024 - Jul-Sep 3

Q4 2024 - Oct-Dec 2

Q1 2025 - Jan-Mar 0

roadmap #926

Actions: macOS 14 (Sonoma) is generally available and the latest macOS runner image

actions ga runners

roadmap #958

Actions: Ubuntu 24 on GitHub-hosted runners (Beta)

actions beta github enterprise github team runners

roadmap #826

Actions: Custom VM Images for GitHub-hosted runners (Beta)

actions beta github enterprise github team runners

roadmap #980

Actions: Ubuntu 24 on GitHub-hosted runners (GA)

actions all ga runners

roadmap #987

Actions: macOS 15 is now available for GitHub-hosted runners (Public Beta)

actions all beta runners

roadmap #985

Actions: M2 Pro powered macOS runners (Public Beta)

actions all beta runners

roadmap #986

Actions: macOS 15 is now available for GitHub-hosted runners (GA)

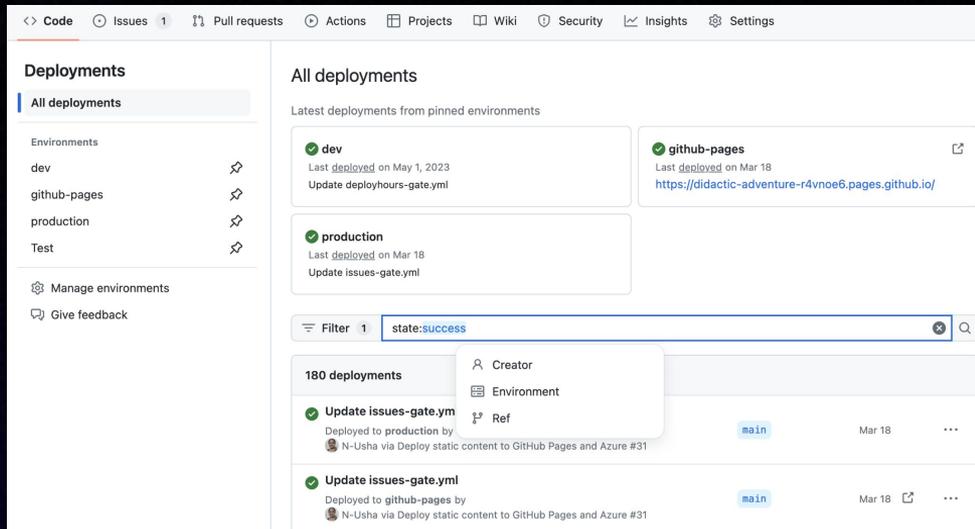
actions all ga runners



actions

# 環境をまたがった デプロイビューの提供

- 一般公開
- 最大10個の環境をピン留め
- ビューのフィルター充実
  - 作成者、環境、デプロイステータス

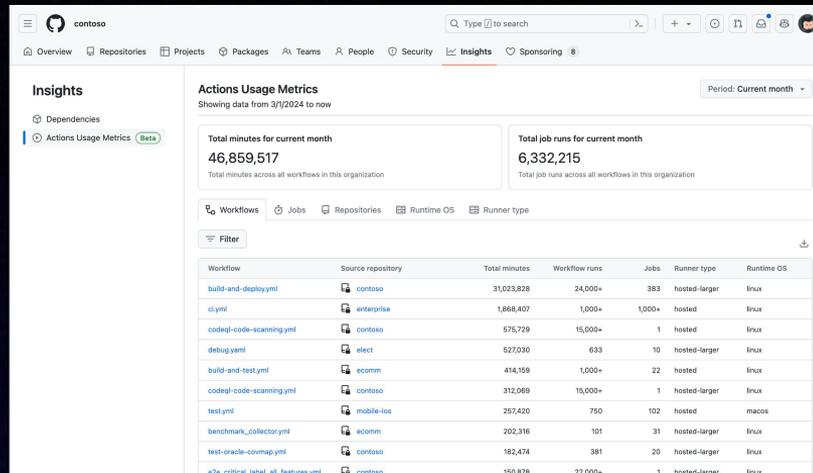




actions

# Usage Metrics公開

- 一般公開
- GitHub Enterprise Cloudのみで使用可能
- Organization単位でActionsの使用状況が確認できるように
- Organizationオーナーと、  
"View organization Actions usage metrics"ロールを持つメンバー



<https://github.blog/changelog/2024-07-25-actions-usage-metrics-is-generally-available/>



### pnsk-business-testing

Organization, part of PNSK company [Switch settings context](#)

[Go to your organization profile](#)



#### General

##### Access

- Billing and plans
- Organization roles
- Repository roles
- Member privileges
- Import/Export
- Moderation

##### Code, planning, and automation

- Repository
- Codespaces
- Planning
- Copilot
- Actions
- Webhooks
- Discussions
- Packages

## General

### Organization display name

### Email (will be public)

### Description

### URL

### Social accounts

- 
- 
- 
- 

### Location

### Profile picture



[Upload new picture](#)

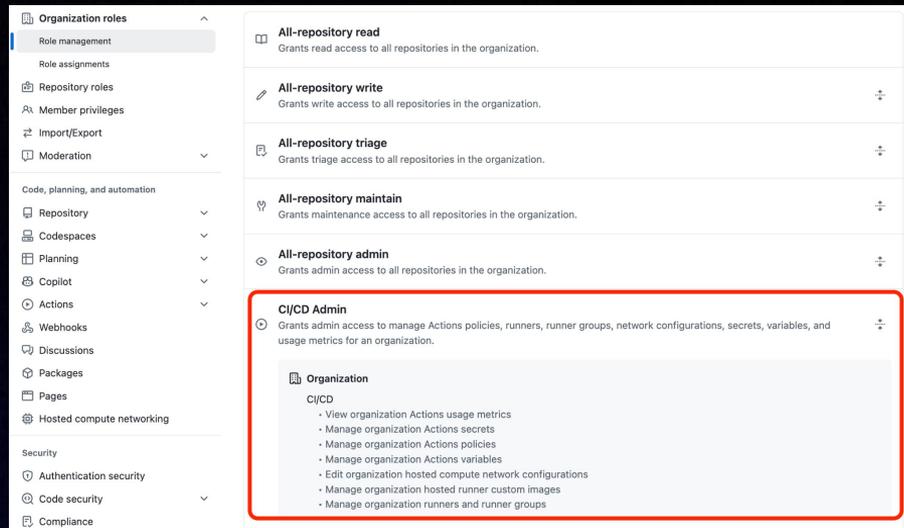
Note: To apply for a publisher verification your organization's profile picture should not be irrelevant, abusive or vulgar. It should not be a default image provided by GitHub.



actions

# CI/CD Adminロールの追加

- 一般公開
- Actionsに関わるロールを包括
- カスタムロールの上限 (10)を緩和



<https://github.blog/changelog/2024-09-25-introducing-ci-cd-admin-a-new-pre-defined-organization-role-for-github-actions/>



動画デモ



enterprise

repositories

security

# Enterprise Managed Users (EMU) リポジトリコラボレータが追加

- 外部コラボレータに同等
- ただし以下の違いがある
  - SSO認証をバイパスできない
  - 2FAを使用できない
  - エンタープライズのIP制限が適用されるが、OrganizationのIP制限は適用されない
  - IdPのアクセスポリシーに従う

<https://github.blog/changelog/2024-05-02-public-beta-repository-collaborators-for-enterprise-managed-users/>



authentication

enterprise

# Enterprise Managed Users (EMU)

## ゲストコラボレータが使用可能に

- 制限付きのアクセス制御が可能に
- IdPで"guest collaborator"ロールが割り当てが必要
- Enterprise配下のインターナルリポジトリにデフォルトではアクセスできない
- Organizationメンバーやリポジトリコラボレータとして追加可能
- ゲストコラボレータはチームに追加可能

<https://github.blog/changelog/2024-05-02-ga-guest-collaborators-for-enterprise-managed-users/>



enterprise

identity

# Enterprise Managed User(EMU) Email Verificationが必要に

- EMUアカウントでメールアドレスの検証 (Verification)が必要に
- セキュリティ強化
- EMUアカウントでメール検証後の注意点:
  - 同じメールアドレスを使用して、GitHub .com上の新規アカウントが作成できない
  - 同じメールアドレスを、GitHub .comのユーザで検証できない

<https://github.blog/changelog/2024-08-01-enterprise-managed-user-accounts-now-require-email-verification/>



admin

audit-log

enterprise

# 監査ログ ヘルスチェック機能の追加

- 一般公開
- 監査ログストリーミングが失敗していないかを 24 時間ごとに確認
- 失敗した場合はエンタープライズオーナーに通知



The audit log stream for the GitHub, Inc enterprise is experiencing ongoing errors.



## Audit log stream errors

You're receiving this email because you are an Enterprise Owner of the GitHub, Inc enterprise. It has come to our attention that the audit log stream for your enterprise is currently misconfigured.

GitHub conducts automated checks of audit log stream health every 24 hours, and a recent inspection has revealed that your stream is not properly configured. Consequently, audit log events are not being written to your designated endpoint. Streamed audit logs are stored for up to 7 days on [GitHub.com](#). To avoid any data loss from your audit log stream, you must follow our documentation for [setting up audit log streaming](#) to reconfigure your audit log stream within 6 days.

[Check your audit log stream](#)

You're receiving this email because the audit log stream for the GitHub, Inc enterprise is experiencing ongoing errors.



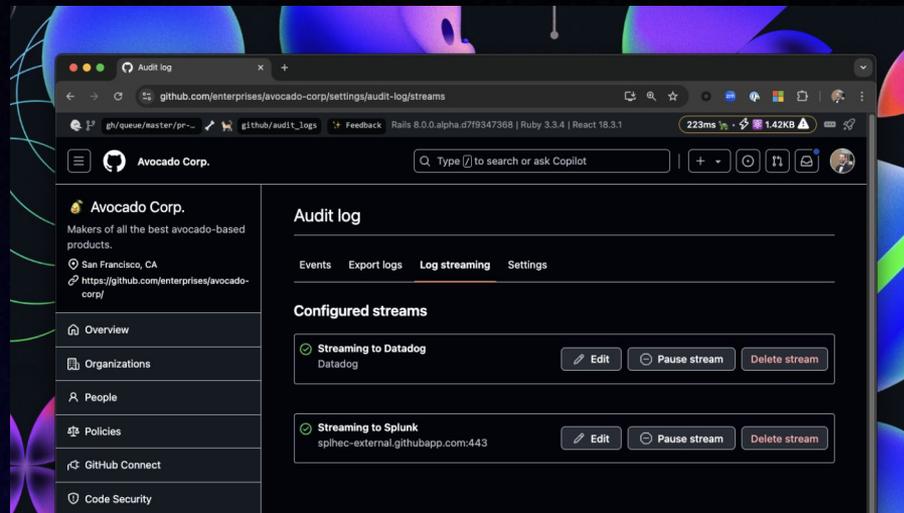
admin

audit-log

enterprise

# 監査ログ ストリーミング場所を 2箇所指定可能に

- プライベートベータ
- ログの保存場所と、任意のツールを使用した分析用とに使い分けられるように



<https://github.blog/changelog/2024-09-03-enterprise-audit-logs-can-be-streamed-to-two-endpoints-private-beta/>

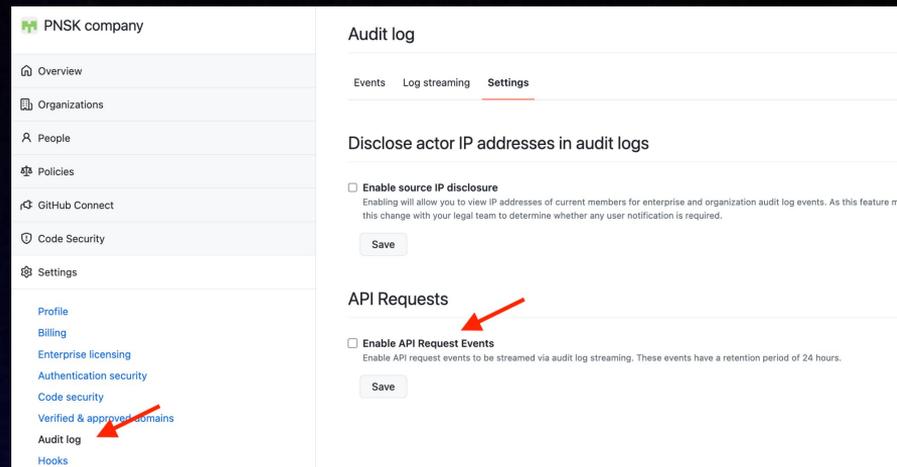


audit-log

enterprise

# 監査ログストリーミング REST APIで設定可能に

- パブリックベータ
- REST API経由で設定の作成、更新、削除、参照が可能に
- 監査ログストリーミング構成の自動化に貢献
- Enterpriseアカウントの設定から有効化が必要



<https://github.blog/changelog/2024-07-15-audit-log-streaming-can-now-be-configured-via-githubs-rest-api-private-beta/>



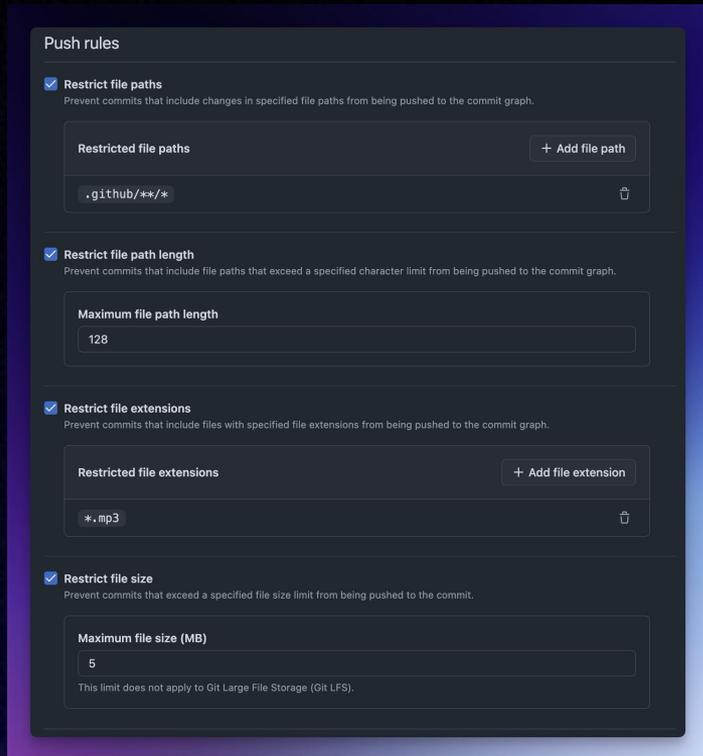
compliance

repositories

rules

# Push Rulesが追加

- 一般公開
- ファイルパスやパスの長さ、拡張子、ファイルサイズでプッシュを制御可能に



<https://github.blog/changelog/2024-09-10-push-rules-are-now-generally-available-and-updates-to-custom-properties/>



deprecation

projects

# Projects(クラシック)の提供停止

- GitHub .com上ではすでに提供停止
- GitHub Enterprise Server
  - 3.14以降、非推奨
  - 3.16でサポート停止予定 (2025年3月)
- GitHub Enterprise Importer によるデータの移行も提供停止

<https://github.blog/changelog/2024-05-23-sunset-notice-projects-classic/>



# Accelerate with AI



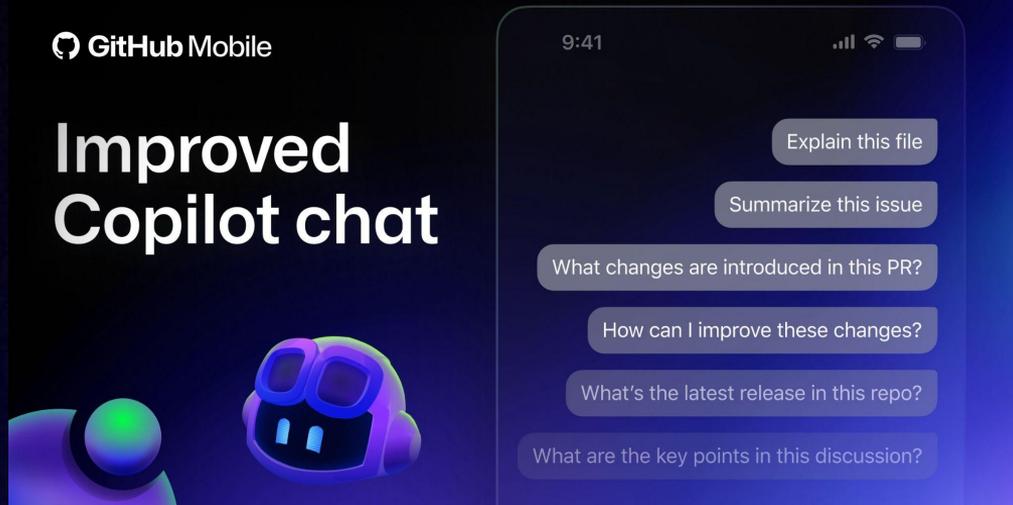


copilot

mobile

# Copilot Chat in GitHub Mobile の改善

- 一般公開
- 特定リポジトリやファイルに関する質問に対応
- Copilot Enterprise:
  - Issueやプルリクエスト、ディスカッションに関する情報もサポート



<https://github.blog/changelog/2024-07-30-ask-sophisticated-questions-about-diverse-github-primitives-on-github-mobile/>



copilot

copilot-chat

copilot-enterprise

enterprise

mobile

# GitHub Copilot Chatとプルリクエスト サマリーが GPT-4o に対応

- 一般公開
- より高速なレスポンスタイム – 最大55%の短縮
- より正確で信頼性の高い Copilot Chatの応答 – ユーザー満足度が60%向上(当社調査)

対応IDE

VSCode: GitHub Copilot Chat 0.17+

Visual Studio 17.8+

JetBrains IDEs: GitHub Copilot 1.5.14+

動画デモ



copilot

# JetBrainsでInline Chatが可能に

- 一般公開
- JetBrainsのGitHub Copilot用Inline Chat機能
- 現在のアクティブコードファイル内で直接Copilotとやりとり可能に

動画デモ



copilot

copilot-enterprise

# GitHub.com の Copilot Chat で GitHub 全体を検索可能に

- 一般公開
- 自然言語を利用し GitHub 全体を検索
- コミット、Issue、プルリクエスト、リポジトリ、トピックを検索可能に





copilot

copilot-enterprise

# Copilot Enterpriseで Actionsの修正が可能に

- パブリックベータ
- GitHub.comのCopilot ChatでActionsのジョブの失敗に関する質問が可能に
- 質問に対する回答や修正案を提示します

動画デモ

<https://github.blog/changelog/2024-08-15-copilot-enterprise-now-helps-you-fix-failed-actions-jobs-plus-oth-er-august-updates-public-beta/>



copilot

# Copilot コンテンツの除外

- パブリックベータ
- コンテンツの除外をしようすると特定のファイルが無視するよう Copilotを構成します
- Gitファイルに加えてGit以外のファイルも除外できるようになりました

対象IDE: VS Code および JetBrains Copilot 拡張機能の最新バージョンに適用

<https://github.blog/changelog/2024-08-19-content-exclusion-beta-now-supports-non-git-files/>



copilot

copilot-business

copilot-enterprise

metrics

# GitHub Copilot メトリクスAPI

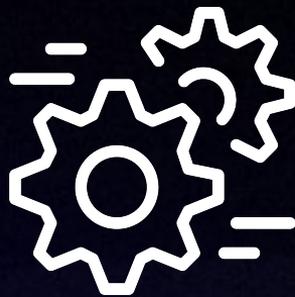
- パブリックベータ
- 過去28日分の使用履歴データを提供
- データは毎日更新
- 日付範囲とページネーションが利用可能に

## コード補完メトリクス:

- 提案されたコードライン数
- 採用されたコードライン数
- 提案回数
- 採用回数
- アクティブユーザー数(言語、IDEのスライス付き)

## GitHub Copilot チャットメトリクス:

- チャット数
- ターン数
- アクティブユーザー数(言語、IDEのスライスは付きません)



<https://github.blog/changelog/2024-04-23-github-copilot-metrics-api-now-available-in-public-beta/>



copilot

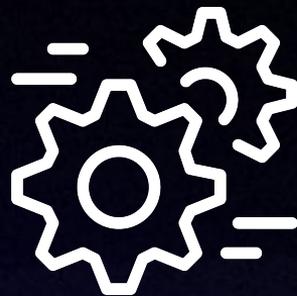
copilot-business

copilot-enterprise

metrics

# メトリクスAPI Organization/Enterprise Team Metrics

- パブリックベータ
- Enterprise Teamの集計が可能に
- Organization Teamの集計が可能に(5人以上のCopilotライセンス保持者が必要)



<https://github.blog/changelog/2024-08-09-copilot-metrics-api-organization-team-metrics/>

<https://github.blog/changelog/2024-08-08-enterprise-team-metrics-now-available-on-the-copilot-metrics-api/>

# GitHub Copilot Roadmap

In progress

Planned



Ubiquitous

- Copilot in Xcode
- Copilot in Windows Terminal
- Extensions support in JetBrains IDEs



AI-native

- Code Review agent for submitters
- Inline summaries for discussions & issues
- Copilot Workspace
- Vision support in Chat
- Code Review agent for reviewers



Customizable

- Custom models
- Copilot Extensions
- Custom instructions



Enterprise-grade

- SOC 2, Type 2
- Copilot Metrics API
- Enterprise mixed licensing
- Copilot impact metrics





**Secure at  
every step**



advanced-security

code-scanning

codeql

security

security-and-compliance

# CodeQL Code Scanningが ビルドを必要とせずJavaとC#の コードベースを分析可能に

- 一般公開
- JavaとC#のコード分析がビルドなしで可能に
- Advanced Security構成でリポジトリを有効化する場合に多数のセキュリティ分析を展開しやすくなります
- 旧式の分析メカニズムも引き続き利用可能

```
41
42 strategy:
43   fail-fast: false
44 matrix:
45   include:
46     - language: java-kotlin
47       build-mode: none # This mode only analyzes Java
48 # CodeQL supports the following values keywords
49 # Use 'c-cpp' to analyze code written in C, C++
50 # Use 'java-kotlin' to analyze code written in
51 # Use 'javascript-typescript' to analyze code written in
52 # To learn more about changing the languages that
53 # see https://docs.github.com/en/code-security/code-scanning/automatically-scanning-code-with-codeql-code-scanning
54 # If you are analyzing a compiled language, you
55 # your codebase is analyzed, see https://docs.github.com/en/code-security/code-scanning/automatically-scanning-code-with-codeql-code-scanning
56 steps:
57 - name: Checkout repository
58   uses: actions/checkout@v4
59
60 # Initializes the CodeQL tools for scanning.
61 - name: Initialize CodeQL
62   uses: github/codeql-action/init@v3
```

<https://github.blog/changelog/2024-08-28-codeql-code-scanning-can-analyze-java-and-c-codebases-without-needing-a-build-ga/>



Secure at every step

advanced-security

secret-scanning

security-and-compliance

# Secret ScanningがGitHub機能コンテンツも 検出可能に

- 一般公開
- GitHub 機能コンテンツ
  - Issue(説明、コメント、履歴含む)
  - Pull Requests(タイトル、説明、コメント)
  - Discussion(タイトル、説明、コメント)
  - Wiki



<https://github.blog/changelog/2024-08-16-secret-scanning-for-non-code-github-surfaces-is-now-generally-available/>



advanced-security

secret-scanning

security-and-compliance

# Secret Scanningがプロバイダー以外のパターンも検出可能に

- パブリックベータ
- プロバイダー以外も検出可能
  - HTTP認証ヘッダー
  - 接続文字列
  - プライベートキー

トークン

http\_basic\_authentication\_header

http\_bearer\_authentication\_header

mongodb\_connection\_string

mysql\_connection\_string

openssh\_private\_key

pgp\_private\_key

postgres\_connection\_string

rsa\_private\_key

<https://github.blog/changelog/2024-08-23-secret-scanning-non-provider-patterns-inclusion-in-recommended-security-configuration/>



Secure at every step

advanced-security

code-scanning

copilot

copilot-enterprise

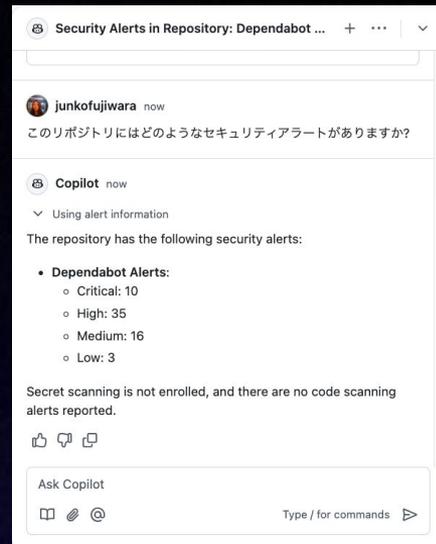
dependabot

secret-scanning

security-and-compliance

# Copilot ChatがGitHub Advanced Securityアラートのコンテキストを認識

- 一般公開
- GitHub.comのCopilot Chatを利用し、より詳しく調査することが可能
  - Code Scanning
  - Secret Scanning
  - Dependabot



<https://github.blog/changelog/2024-09-05-copilot-chat-in-github-com-is-now-contextually-aware-of-github-advanced-security-alerts/>



Secure at every step

advanced-security

code-scanning

codeql

copilot

security-and-compliance

# CodeQL Code Scanning Alert用のCopilot Autofixを一般提供開始

- 一般公開
- GitHubのCode ScanningにおけるCodeQLアラートに対するCopilotの自動修正機能
- プリクエストへの統合
- 開発プロセスにおける早期の段階で脆弱性を修正

<https://github.blog/changelog/2024-08-14-copilot-autofix-for-code-ql-code-scanning-alerts-is-now-generally-available/>

github-advanced-security bot found potential problems on May 7 View reviewed changes

```

index.js
...   ...   @@ -4,7 +4,8 @@
4     4     const site = await Bun.file("./index.html").text();
5     5     app.get("/", async (req, res) => {
6     6     -   res.send(site);
7     7     +   let greet = site.replace("%USER_NAME%", req.query.name);
8     8     +   res.send(greet);

```

✖ Check failure

🔗 Code scanning / CodeQL

**Reflected cross-site scripting** (High)

Cross-site scripting vulnerability due to a user-provided value.  
Show more details

Show paths Dismiss alert

🤖 Copilot Autofix AI 3 months ago

The problem with the code is that it directly uses user input (in this case, `req.query.name`) in the response without sanitizing it first. This can lead to a cross-site scripting (XSS) vulnerability, where an attacker can inject malicious scripts into the web page, which are then executed by the browser.

To fix this issue, we need to sanitize the user input before using it in the response. One way to do this is by using the `escape-html` library, which can escape any potentially harmful characters in the user input.

Here are the steps to fix the problem:

1. Install the `escape-html` library.
2. Import the `escape-html` library in the `index.js` file.
3. Use the `escape` function from the `escape-html` library to sanitize `req.query.name` before using it in the `site.replace` function.

Suggested fixes for CodeQL alerts, powered by Copilot Autofix, may produce inaccurate results. Review carefully before use.

```

index.js
...   ...   @@ -1,2 +1,3 @@
1     1     const express = require("express");
2     2     + const escape = require("escape-html");
3     3     const app = express();
...   ...   @@ -6,3 +7,3 @@
6     6     app.get("/", async (req, res) => {
7     7     -   let greet = site.replace("%USER_NAME%", req.query.name);
8     8     +   let greet = site.replace("%USER_NAME%", escape(req.query.name));
9     9     res.send(greet);

```

```

package.json
...   ...   @@ -2,3 +2,4 @@
2     2     "dependencies": {
3     3     -   "express": "~4.18.2"
4     4     +   "express": "~4.18.2",
5     5     +   "escape-html": "~1.0.3"

```

🔗 This fix introduces these dependencies

| Package           | Version | Security advisories |
|-------------------|---------|---------------------|
| escape-html (npm) | 1.0.3   | None                |

Dismiss Edit Commit fix

Reply...



**Thank you**