

Generative Al, Security, and DevOps: Meet GitHub

Innovate at scale with the world's leading Al-powered developer platform



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DevOps success in the era of Al and security

Organizations require excellence across several domains to remain competitive and relevant. Improving developer satisfaction and talent retention, accelerating software delivery, achieving secure collaboration, enabling cross-team visibility and communication, and embracing Alreadiness, have all become essential for organizations to be seen as an employer of choice among developers.

In today's dynamic business landscape, standing up a strong DevOps practice can help engineering teams collaborate, stay in flow, remove obstacles, stay secure and compliant, and become AI-ready. With emerging technologies on the horizon poised to empower developers to innovate in lockstep with the speed of the market, staying on top of—and ideally ahead of software development trends is one of the more difficult challenges to tackle.

Digital security—dealing with not only applications but the platforms they run on—has been an increasingly visible and complex issue for every organization, regardless of size. Regulatory requirements for securing user data, complying with national and international standards for personal data, and safeguarding personal health and payment card information are just some areas organizations struggle with. Finding ways to ensure all regulatory requirements are met, cybersecurity standards and controls are implemented, and applications are secured can at times be a battle of wills. This is because the need to innovate fast can be met with slowdowns on the security front. By integrating these concerns around development, operations, security, and lines of business into a comprehensive lifecycle, the DevOps of today relies on the participation of various interested parties from the outset. Security is expected to be enabled and embedded in the software development lifecycle at all levels. Using Al-based technologies across all functional areas enables organizations to identify and fix issues fast, while delivering a wealth of innovative tools and content to users with varying technical backgrounds.

Working with legacy systems and software remains a challenge. As expertise in aging programming languages declines, maintaining these older systems becomes a burden—let alone modernizing them. Fragmented toolsets and convoluted means of collaboration add more friction and compound these issues. With more developers than ever building software in complex environments, clearing obstacles and optimizing the developer experience has never been more important. A <u>September 2023</u> article in Forbes magazine regarding the financial software system used by Wall Street saw GitHub CEO Thomas Dohmke speak about the state of aging legacy codebases:

"Currently, many Wall Street institutions are still operating on vulnerable code written as early as the Eisenhower era over half a century ago."

Thomas Dohmke // CEO of GitHub

A better developer experience with innersource

The adoption of the community model for enterprise use cases is called <u>innersource</u>. Innersource is a powerful catalyst for encouraging and driving positive change across various internally visible projects. The notion of many teams contributing to a commonly used codebase has been in practice for decades. With innersource, this practice is amplified to accelerate innovation through visibility and collaboration. GitHub offers businesses the chance to unify the experience of their developers with a self-hosted platform that can be hosted on their own infrastructure or in the cloud, creating a secure-by-design collaboration platform.

Across GitHub, projects big and small, benefit from two key advantages that are inherently available on the platform: public visibility and public contributions. Anyone can copy or fork an existing repository, make changes, and open a <u>pull request</u> to the owner of the repository, requesting changes to be merged. Repositories are the core of GitHub, as they store the source code for a particular project. Pull requests streamline how developers request that the owner of a repository review the proposed changes made to a code. This collaborative workflow enables developers from across the community to contribute to projects they want to improve or be a part of.



More and more organizations recognize the potential for InnerSource to break down silos, enable code reuse, and accelerate innovation."

State of InnerSource 2021 InnerSource Commons

GitHub Enterprise: The value of a centralized development platform

GitHub Enterprise is an Al-powered developer platform, empowering organizations to build, secure, and ship software faster to unlock innovation at scale. At its core, GitHub is based on Git—an open source version control system that allows multiple developers to collaborate on the same project without risking conflicts or loss of data. The core of GitHub allows for this feeling of community. Additionally, with GitHub Enterprise, innersource becomes a reality-boosting productivity and closing knowledge gaps across development teams. Businesses use a suite of products from GitHub Enterprise to support their entire software development lifecycle, increasing development velocity and improving code quality. Features such as GitHub Advanced Security, GitHub Copilot, and GitHub Actions help position GitHub Enterprise as a single, integrated, enterprise-ready platform.

With more than 100 million users and 330 million repositories, GitHub has become the world's largest host of source code. GitHub is also the developer platform of choice for more than four million organizations and 90 percent of Fortune 100 companies to build, scale, and deliver secure software.¹ More information about organizations' success stories can be found on the <u>GitHub Customer Stories</u> page, along with the <u>GitHub Enterprise</u> site. Beyond being a source code management and version control tool, GitHub also boasts features that enable code review, project and team management, integration with other tools, and streamlined documentation.

A <u>2022 Total Economic Impact[™] study</u> <u>conducted by Forrester Consulting</u> and commissioned by GitHub revealed that businesses that adopted GitHub Enterprise Cloud and GitHub Advanced Security drove up to 433% ROI, reduced onboarding training time by 80%, and improved developer productivity gains from 12% in year one to 22% in year three.² GitHub Enterprise offers businesses the chance to unify the experience of their developers by simplifying the tech stack, increasing efficiency with a unified toolkit, promoting collaboration by breaking down internal silos, and speeding up development with the power of AI.

"GitHub is the enabler that opens the door for the open source world. And we hope that this connection to the open source world will also help us to attract new talent."³

Wolfgang Gehrig // FOSS Ambassador // Mercedes-Benz Tech Innovation

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^{1:} https://github.com/about

^{2:} https://resources.github.com/forrester/

^{3:} https://github.com/customer-stories/mercedes-benz

Build, secure, and ship software faster

GitHub Enterprise is, in essence, GitHub.com packaged and designed to meet the requirements of organizations and teams looking for enterprise-grade collaboration, security, and administration.

GitHub Enterprise enables organizations with the ability to promote innersource among its teams, maintain completely private repositories, use integrations for code scanning, secret scanning, and dependency management, streamline development environments, and use AI-powered assistance, all through a single pane of glass. Pulling from the vast experience of the open source community, along with best-in-class features and integration points, GitHub Enterprise allows organizations to maximize productivity while maintaining a strong focus on quality and security.

Increase developer productivity and happiness

Over the past several years, it has become apparent that DevOps is much more than a buzzword or a set of tools to help build and release software quickly. The entire application lifecycle depends on efficiencies gained by adopting changes related to people, processes, and technology. Having examined core needs across all three areas, GitHub Enterprise offers real solutions to maximize efficiency and realize ROI.

Unified developer experience

Developers often have a fragmented toolkit, relying on different tools for different jobs. Each tool a developer must use in their work is another license that needs to be purchased, another set of training that must be undertaken, and another failure point stitched into their workflow. GitHub Enterprise smoothens this out with a single unified toolkit. With GitHub Enterprise, organizations can increase developer productivity and reduce maintenance and overheads. GitHub Enterprise enables developers to customize their own workspaces, empowering them to work how they want while retaining connectivity and collaboration with other developers using the same tools.



Figure 1: Benefits of a unified developer experience

Effective team collaboration for enhanced productivity

With fewer tools to pick up and train, and a unified toolkit for every developer, GitHub Enterprise breaks down the silos that often form among technical teams, enabling them to work together effectively. Provisioning new developers is greatly simplified with the establishment of a central location for all the integrated tools and resources a developer needs. This includes build and deployment workflows, secret scanning, vulnerability scanning, portable development workspaces, and an Al-infused assistant. With <u>GitHub</u> <u>Marketplace</u>, developers have access to thousands of different resources, from tasks to simplify Cl and CD pipelines to entire workflows automating important parts of the software lifecycle. GitHub Enterprise helps organizations reduce developer onboarding time by 80% and seamlessly connects teams through innersource practices. By ensuring developers are working with their preferred tools, and with the same tools across teams, developers can work together flexibly and at pace.



The Total Economic Impact[™] Of GitHub Enterprise Cloud And Advanced Security, a commissioned study conducted by Forrester Consulting, November 2022.

Figure 2: Productivity gains through collaboration⁴

^{4:} https://resources.github.com/forrester

Secure what matters

GitHub Enterprise doesn't view security as a box that can be checked later in the development process. Many organizations struggle to find a balance between ensuring security standards are met and limiting developer velocity. With an ever-changing landscape, cybersecurity threats come in many forms, from vulnerabilities found in libraries and sensitive information committed to source control and visible publicly, to malware, ransomware, and other intrusion attacks meant to exploit an organization's resources. Software developers have noticed an increased awareness, and need for security standards and controls, along with tooling that can help identify potential issues before code is even committed.

By giving developers the tools they need to take on security responsibly, such as GitHub Advanced Security, Codespaces, and native application security capabilities, GitHub Enterprise brings secure-by-design projects to completion faster and at a reduced cost compared to projects that follow a traditional approach of adding security near the end of a project. It also enables teams to <u>shift left</u> with security, incorporating security scanning, detection, and best practices during the development process, so potential exploits can be found before affected code is ever committed and pushed. With GitHub Enterprise, organizations can effortlessly scale code scanning across repositories by choosing the recommended security settings.

Why developers love GitHub

GitHub has become a staple in the open source and development communities as well as in the <u>enterprise</u> <u>community</u>. This inclusive approach and participation from different communities offers familiarity in using and contributing to open source projects. With over 100 million global users, GitHub is uniquely positioned to be an all-encompassing platform for all software development activities.

Why organizations choose GitHub

Ensuring the robust protection of intellectual property, well-defined maintenance options, and controlled operational expenses necessitates a flexible hosting model for any enterprise platform. GitHub Enterprise has two hosting models available—GitHub Enterprise Cloud and GitHub Enterprise Server—each with its own set of benefits for organizations.

With GitHub Enterprise Cloud, the platform is hosted by GitHub in the cloud, reducing the administrative burden of organizations to maintain their own infrastructure, including the security, compliance, and stability that organizations need. GitHub Enterprise Server allows organizations to use the power of their collaborative development tools while maintaining control over their data and infrastructure. GitHub Enterprise Cloud offers the ability to get started right away and leave the infrastructure to GitHub with a cloud-based approach. GitHub Enterprise Server gives an organization more control over where mission-critical code and data live by installing GitHub Enterprise onto their own servers.

Collaborative tools for developers

GitHub Enterprise is designed for any organization, from small and medium-sized businesses to large enterprises, government agencies, and organizations that require a flexible, highly secure, and customizable version control and collaboration platform. Regardless of the hosting model chosen with GitHub Enterprise, organizations can take advantage of features for developers such as the following:

- Secure and access-controlled repositories: GitHub Enterprise provides robust access controls and permissions, allowing organizations to manage who can access, view, and
- modify their code repositories. This is especially important for enterprises that need to comply with strict security and regulatory requirements.
- Collaboration tools: It offers tools for collaboration, such as code review, issue tracking, project management, and wikis. These features help teams work together efficiently and communicate effectively within the context of their software projects.
- High availability: GitHub Enterprise Cloud is designed for high availability and fault tolerance, ensuring that code repositories and development workflows remain accessible and reliable even in the face of hardware failures or other disruptions. High availability for GitHub Enterprise Server is dependent upon the infrastructure architecture an organization chooses to implement.
- Custom workflows: Organizations can customize their GitHub Enterprise instances to meet their specific needs. This includes integrating with third-party tools, creating custom workflows, and designing the user interface to align with their branding and requirements.

- Advanced security features: GitHub Advanced Security, an additional paid feature available to GitHub Enterprise, includes security scanning for code vulnerabilities, code scanning for security issues, and dependency tracking to help organizations identify and address security risks in their software.
- **Compliance and auditing:** GitHub Enterprise offers compliance tracking and auditing features, which are crucial for organizations operating in regulated industries. It provides the tools needed to demonstrate compliance with industry standards and regulations.
- **Support services:** GitHub Enterprise customers receive dedicated support from GitHub, including assistance with installation, configuration, and troubleshooting.
- Enterprise Managed Users (EMUs): GitHub Enterprise customers can use EMUs to keep their personal accounts and business accounts separate. EMUs allow organizations to control access to GitHub through their existing identity access management (IAM) provider, such as Okta or Microsoft Entra ID. This provides a single pane of glass for management and auditing of user access to GitHub Enterprise without having to create new user accounts.

The tools developers need to build what they want

As a single, integrated, enterprise-ready platform, GitHub Enterprise offers several features that can contribute to code security, prevent exfiltration of sensitive data, and empower developers to embrace Al-powered code assistance with ease.

Features such as GitHub Advanced Security and GitHub Copilot provide first-class support for software supply chain management, productivity gains, and improved code quality.

GitHub Advanced Security

<u>GitHub Advanced Security</u> provides application security testing natively embedded in developer workflows. It empowers DevSecOps teams, who are cybersecurity technicians focused on embedding security into the DevOps lifecycle, to prioritize innovation and enhance developer productivity without sacrificing security. Automated security checks are run with every pull request, surfacing issues in the context of the development workflow so vulnerabilities are fixed in real time.

With a developer-optimized approach, GitHub Advanced Security unlocks the ability to keep developer code, supply chains, and secrets secure before they're pushed to production. All this can be done even while giving security teams visibility into the cross-organizational security posture and supply chain, as well as unparalleled access to curated security intelligence from millions of developers and security researchers around the world. GitHub Advanced Security is composed of three core detection solutions.



By switching to secret scanning as part of GitHub Advanced Security, we were able to avoid having to maintain and manage that software ourselves and can insert the notifications directly into our developers' GitHub workflow. It's easier and faster to take action on an alert now, because there are fewer steps they need to take to view and fix an issue."⁵

Nikolay Elenkov

Director of Product Security, Mercari

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Code scanning with autofix

Code scanning empowers developers to find and prevent vulnerabilities while writing code. It offers a wide range of customizable security policies, integrations with popular CI/CD pipelines and open source tools, and surfaces results in the pull request for easy collaboration, prevention, and remediation. In addition, it provides clear and actionable feedback on vulnerabilities and remediation guidance. New AI-powered autofix capabilities provide secure code suggestions, allowing developers to view and triage issues directly in their code.

Code scanning can also integrate hundreds of commercial and open source tools to cover additional testing types in the same workflow as proprietary solutions offered by GitHub. This means that developers and security teams can seamlessly integrate the scanning process into their existing workflow, making it easier to stay in their flow state and remove context switching.

Secret scanning

Secret scanning is a solution designed to prevent and detect secret leaks in the development process, with pre-commit scanning as well as detection across code and text. It scans for more than 200 token types and is supported by a partner program of approximately 150 service providers to detect leaked secrets at scale. Developers can also define over 500 custom patterns across their organization for unique or proprietary secrets to ensure they are detected.

Dependency review

With dependency review, GitHub helps protect software supply chains from dependency-based vulnerabilities throughout the software development lifecycle. Powered by GitHub Advisory Database and Security Lab, GitHub reveals contextual details about direct and transitive dependencies, including release dates, popularity, vulnerabilities, and severity. Acting on these insights, Dependabot generates automatic pull requests with clear remediation steps so developers can resolve vulnerabilities and keep coding. As the #1 issuer of OSS CVEs, GitHub unites security researchers, language experts, and over 100 million contributors to secure the world's software supply chain.

The explosion of Al adoption in business

The onset and steady adoption of Al across businesses has been nothing short of impressive. The rise of interfaces such as ChatGPT and the refinement of large language models has yielded substantial gains in learning, productivity, and innovation. In an <u>April 2023</u> article, Forbes Advisor found that leaders across several industry verticals noted:

- Over half of business owners use artificial intelligence for cybersecurity and fraud management.
- One in four business owners are concerned about AI affecting website traffic.
- Almost all (97%) business owners believe ChatGPT will help their business. One in three businesses plan to use ChatGPT to write website content, while 44% plan to use ChatGPT to write content in other languages.
- Nearly half (46%) of business owners use AI to craft internal communications.
- Over 40% are concerned about an over-dependence on technology due to Al use.
- Nearly two-thirds (64%) of business owners believe AI will improve customer relationships.

Software development is no stranger to seemingly limitless possibilities using AI in daily life. In a June 2023 survey, GitHub polled 500 developers from US-based enterprise organizations regarding the impact of AI on the industry. Some key findings taken away from this survey were:

- Al is here and it's being used at scale. 92% of US-based developers are already using Al coding tools both in and outside of work.
- Waiting on builds and tests is still a problem. Despite industry-wide investments in DevOps, developers still say the most time-consuming thing they're doing at work besides writing code is waiting on builds and tests.
- Developers want more collaboration. Developers in enterprise settings work with an average of 21 other engineers on projects—and want collaboration to be a top metric in performance reviews.
- And they think Al will help. More than 4 out of 5 developers expect Al coding tools will make their team more collaborative.
- Developers also see big benefits to Al. 70% say Al coding tools will offer them an advantage at work and cite better code quality, completion time, and resolving incidents as some of the top anticipated benefits.

Responsible use of generative Al

With any new tooling, utility, plugin, or methodology, there is a technical learning curve and a knowledge gap concerning security and safety. Sometimes, it can seem difficult to locate exact guidance on how these additions to the DevOps lifecycle can be properly integrated while keeping user and company data private. With GitHub Copilot, a comprehensive guide to staying secure and compliant while using generative AI can be found at the <u>GitHub Copilot Trust Center</u>. The Trust Center covers five key areas important to organizations:

- Security: This provides information regarding contributions made by GitHub Copilot to secure software development and its integration with other security features of GitHub Enterprise.
- **Privacy**: Regulations around the collection of personal data can vary widely according to industry and geopolitical area of the world. This section addresses what information is captured when using GitHub Copilot, how long it is stored, and what it is used for.
- **IP and open source:** Exfiltration of intellectual property is a very real and critical concern for all businesses. The same holds true for the consumption of certaintypes of open source

codebases. This section details the controls available to help filter open source results as well as protect proprietary source code.

- Accessibility: This area outlines the accessibility standards GitHub uses when designing its own products.
- Labor market: Productivity gains are one of several benefits of generative AI during the development lifecycle. This section provides market research about increased developer productivity as well as instances where the barrier to entry for developers is being lessened with the use of GitHub Copilot.

For further information on the GitHub Copilot Trust Center, visit <u>How to responsibly</u> <u>adopt GitHub Copilot with the GitHub</u> <u>Copilot Trust Center - The GitHub Blog</u>.

As discussed earlier, the rapid adoption of Al-powered tools across various parts of the enterprise, including developers, has helped many organizations reach the market quicker with their solutions and helped improve overall productivity. And as security threats continue to evolve, having the ability to leverage Al to help prevent and detect maligned users and traffic provides a more comprehensive solution to keep organizations safe. Companies that do not adopt AI in its various forms will certainly be at a disadvantage in the marketplace. That's where having an integrated AI assistant seamlessly available to developers comes into play.

GitHub Copilot: The world's most widely adopted developer tool

GitHub Copilot installs directly into integrated development environments, including Visual Studio, Visual Studio Code, the JetBrains suite of IDEs, and Neovim, allowing developers to stay in the flow and focus on the task at hand instead of having to search online for solutions to problems or lines of pre-existing code or use other tools that take them outside of the editor. Additionally, GitHub Copilot uses the context of the code and files open in the editor to generate more relevant and more likely-to-be-useful coding suggestions. Developers should still review and understand the code generated by GitHub Copilot to ensure its correctness and adherence to project requirements.

In a <u>2023 study</u>, GitHub measured the developer experience with GitHub Copilot Chat enabled. Even though none of the developers had used the feature before, GitHub discovered that:

- 85% of developers felt more confident in their code quality when authoring code with GitHub Copilot and GitHub Copilot Chat.
- Code reviews were more actionable and completed 15% faster with GitHub Copilot Chat.

 88% of developers reported maintaining flow state with GitHub Copilot Chat because they felt more focused, less frustrated, and enjoyed coding more.

"The code was so clean, I could just look at the code, know what was going on, and bring it over fairly easily to my codebase. So, I felt the code quality was very clean and easy to understand. When I was doing the pull request review using Copilot, I saw how good it was at generating proper error handling code."

Senior Software Engineer // Fortune 500 company (study participant)

In addition to enabling developers to become more productive, GitHub Copilot also increases developer happiness and satisfaction. The same 2023 study found that developers who use GitHub Copilot feel more productive, can focus on more satisfying work, and spend more time in the flow and less time searching for solutions. When developers are engaged, uninterrupted, keeping with the flow, and feeling confident, measurable gains in velocity and innovation are seen.



Figure 3: Survey responses measuring developer productivity when using GitHub Copilot

Having the latest toolsets is helpful; however, implementing those toolsets and empowering developers to use them to their fullest puts those organizations in the top tier. When organizations have a great set of developer tools, but context-switching happens multiple times a day, developer productivity is lowered significantly. Context-switching can be more than just interruptions via email or Slack; it can be switching between several different tools to accomplish scanning and committing code. A single integrated solution removes the need to switch between many interfaces and keeps developers focused.

GitHub Copilot Business

GitHub Copilot Business provides additional features for administrative controls, making it easier for organizations to manage access to the tool and determine how to deal with code suggestions that match existing code in the public domain. GitHub Copilot Business also supports VPN proxies via self-signed certificates for organizations with more advanced network topologies and, of critical importance, ensures that a customer's private code is never used to train GitHub Copilot.

Maximize developer velocity with GitHub Copilot

GitHub Copilot aims to enhance developer velocity and reduce the time spent on routine coding tasks, making it easier to focus on the creative aspects of software development. However, it's important to remember that GitHub Copilot is a tool that assists developers and doesn't replace the need for understanding and writing code independently.

Key features of GitHub Copilot include:

- Code autocompletion: GitHub Copilot can generate code snippets and completions based on the context of the code and comments. It understands programming languages and can provide relevant code suggestions, variable names, and function signatures in real-time as the user inputs their code.
- **Code comments:** GitHub Copilot can interpret and generate code comments, helping developers document their code as they write it. It can generate explanations for code blocks, functions, and classes, improving code readability and maintainability.

- Code exploration: GitHub Copilot can offer explanations and examples for various programming concepts, libraries, and frameworks, making it a valuable learning tool for both beginners and experienced developers.
- Code context understanding: It understands the context of the code and can suggest code patterns, error fixes, and best practices based on the specific programming language, framework, and libraries employed by the developer.
- Support for multiple languages: GitHub Copilot supports multiple programming languages and frameworks, including Python, JavaScript, TypeScript, Ruby, Go, and more. It adapts its suggestions to the language the developer is working in.
- **Custom code snippets**: Developers can teach GitHub Copilot their project-specific patterns and coding conventions by providing custom code snippets. This helps it generate more contextually relevant suggestions.
- Integration with IDEs: GitHub Copilot is tightly integrated with Visual Studio Code (VS Code). To use GitHub Copilot, the GitHub Copilot extension in VS Code needs to be installed.
- **Collaborative coding:** GitHub Copilot can help developers work together more efficiently. It suggests code based on the context of the project and can reduce the time spent on code reviews and collaboration.
- License and cost: GitHub Copilot is not a free service. It requires a paid subscription, and the cost may vary depending on the usage and GitHub plan.
- **Privacy and data usage:** GitHub provides options to control data usage and privacy settings.

Ready to get started?

Organizations can choose to migrate to GitHub Enterprise Cloud or GitHub Enterprise Server, depending on the hosting model that's most convenient and meets their requirements.

Migrating to GitHub Enterprise involves many activities, such as transitioning code repositories and development workflows from GitHub.com or another version control system to a GitHub Enterprise instance. This process requires careful planning and execution to ensure a smooth migration. The migration of not only code but user and project data has historically been a pain point for organizations wanting to move to a new platform. There is help, however.

The self-service <u>Migration Center</u> is an asset maintained by GitHub and made available to anyone wanting to move to GitHub Enterprise. Much more information about planning and executing your migration can be found in the Migration Center. In addition, the <u>GitHub Enterprise</u> <u>Importer</u> can be used to facilitate the migration to GitHub Enterprise from the following systems, with little to no friction:

- Azure DevOps (ADO) Cloud
- Bitbucket Server and Bitbucket Data Center 5.14+
- GitHub.com
- GitHub Enterprise Server (GHES) 3.4.1+

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Best practices to ensure a successful migration

Once the migration process is completed, GitHub recommends following these best practices to ensure that a successful migration continues to succeed in streamlining workflows and improving business processes:

- **Test your setup:** Thoroughly test your migrated repositories and workflows in GitHub Enterprise to ensure that everything functions as expected.
- Train your team: If your team is new to GitHub Enterprise, provide training and documentation to ensure everyone understands how to use the platform effectively.
- Gradual rollout: Consider a phased approach to rolling out GitHub Enterprise to your organization, starting with a smaller group or subset of repositories before migrating all projects.
- Monitor and maintain: Regularly monitor the performance and health of your GitHub Enterprise instance. Implement backup and disaster recovery procedures to safeguard your data.

- **Communicate changes:** Keep your team informed about the migration progress and communicate any changes in workflows or tools resulting from the migration.
- Address issues: Be prepared to address any issues or challenges during and after the migration. GitHub Enterprise support and documentation can be valuable resources.
- Document best practices: Document best practices and guidelines for using GitHub Enterprise within your organization to ensure consistent and efficient development practices.

Migrating to GitHub Enterprise is a nontrivial undertaking, but with planning and a solid execution plan, organizations can minimize disruptions to development processes. In cases where migration involves complex workflows, organizations may want to engage with GitHub Enterprise support or <u>consulting services</u> for additional assistance.

Developers love GitHub

This strong connection is fostered by its vibrant community, its array of developer-centric features, and the substantial investment Microsoft has made in AI and the platform, all contributing to GitHub's unwavering dedication to developer satisfaction.

Having access to best-in-class software development tools, fast and secure environments, and an Al-powered assistant all in one place makes development a more enjoyable experience.

Staying in the flow and not needing to switch between several interfaces means more time to focus on writing code to solve business problems. Being exposed to cutting-edge technologies helps developers update their skills and enhance their development experience, leading to happier and more fulfilled developers. GitHub Enterprise is the platform of choice for small and big companies in a wide range of industries and helps them not only secure data but also exposes them to the latest technology and innovation.

With a comprehensive suite of tools and unparalleled flexibility, GitHub Enterprise empowers teams to collaborate seamlessly, accelerate their workflows, and deliver exceptional results. By harnessing the potential of GitHub Enterprise, organizations can unlock the true potential of their development teams and drive innovation at an unprecedented pace.



Next steps

- Learn more about <u>GitHub Enterprise</u>
- Request your <u>GitHub Enterprise demo</u>
- Take <u>GitHub Copilot</u> on a test flight
- Set up your <u>GitHub Enterprise Cloud trial</u>

