

# Secure Software Delivery with OpsMx



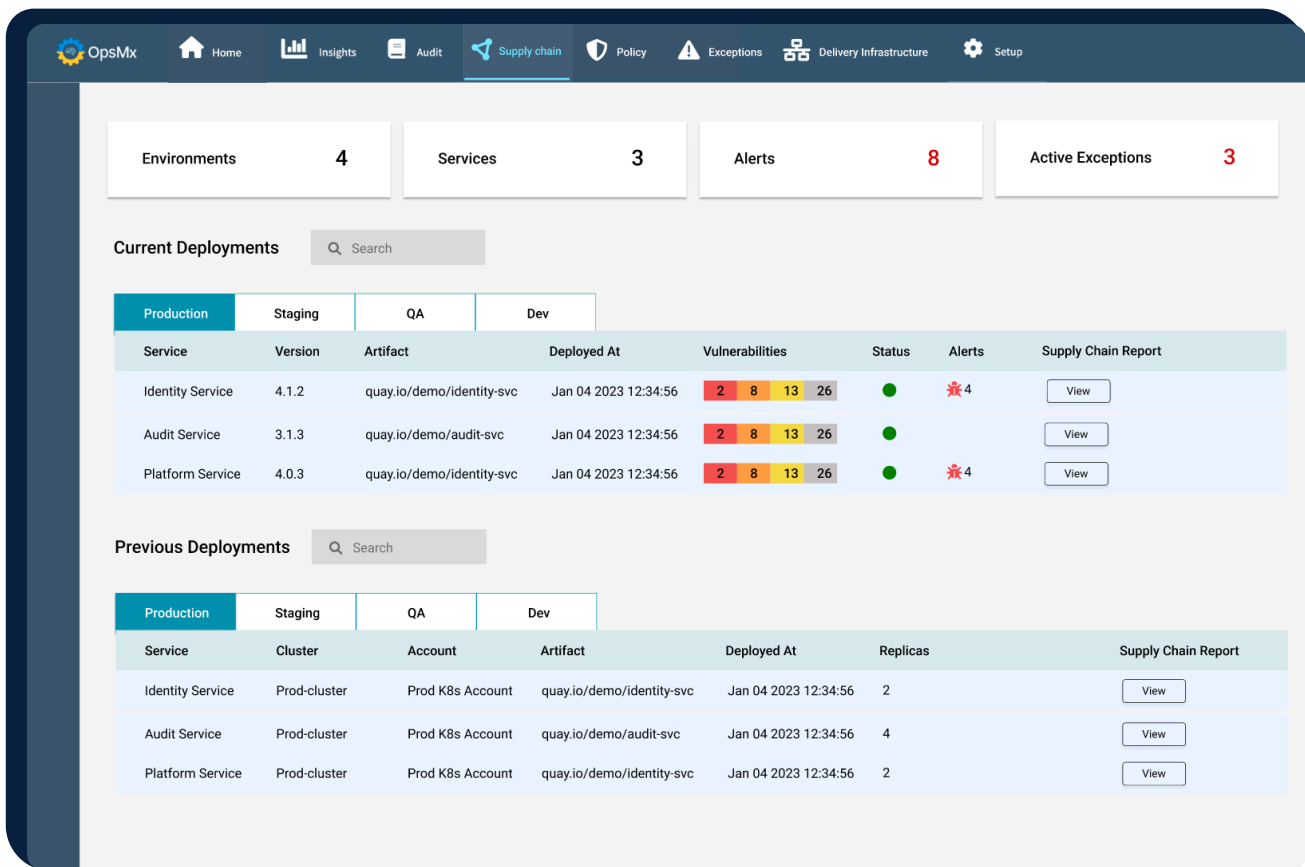
## Introduction

The challenges of modern software delivery are numerous and complex. Enterprises must navigate a landscape that involves countless tools, teams, open-source code, and cloud platforms. Ensuring security and compliance in such an environment is a formidable task. Organizations are vulnerable to security breaches, compliance violations, and other risks because every step, point, and interaction in the software delivery process is a potential attack vector. The complexity of modern application delivery makes it a prime target for attackers, and even software that is secure today may become vulnerable tomorrow due to new threats or vulnerabilities.

## OpsMx ISD: A Solution for Secure Software Delivery

OpsMx Intelligent Software Delivery (ISD) offers enterprises a secure, automated, and scalable continuous delivery solution. With OpsMx, organizations can prevent the introduction of security issues, discover and more quickly resolve vulnerabilities in production environments, and capture a deployment bill of materials (DBOM). OpsMx ISD can be a complete CD solution, or a security addon to leading CI/CD platforms such as Jenkins, Spinnaker, Argo, and GitHub Actions.

Benefit	Description
<b>Reduced risk exposure</b>	Prevent security breaches and compliance violations by implementing robust controls and vulnerability management
<b>Greater visibility and control</b>	End-to-end traceability and auditing capabilities give organizations better visibility and control over their software supply chain
<b>Faster remediation</b>	Vulnerability tracking and alerts enable enterprises to address security issues, reducing potential impact on production swiftly
<b>Seamless security integration</b>	Integrating security processes, teams, and tools within the software delivery environment creates a more comprehensive and cohesive approach to security and compliance
<b>Scalable security and compliance</b>	Ensure continuous security and compliance monitoring even as the organization grows, adapting to changing requirements and new threats while maintaining a robust security posture



A unified security dashboard provides a single view of your software deployments.

## Prevent: Proactive Security Controls for Software Delivery

The OpsMx Secure Software Delivery solution emphasizes prevention as a key component of a comprehensive security strategy. By implementing proactive security controls, organizations can minimize the risk of vulnerabilities and security breaches throughout the software delivery process.



### Release Impact Analysis

Our solution enables you to assess the differences between new and old releases, setting policies on the count and severity of vulnerabilities. This includes changes to library locations, giving you a clear understanding of potential risks and allowing you to take appropriate action.



### Alert on Library Changes

OpsMx's Secure Software Delivery solution alerts you to changes in the content or location of third-party libraries between releases. By flagging these changes for review, your organization can intercept potential typo attacks and maintain a secure application environment.



### Admission Control

OpsMx validates admission control to ensure that the target environment meets requirements during deployment, such as having no writable directories or root users. This validation occurs before a new version is run, further enhancing the security of your software delivery process.



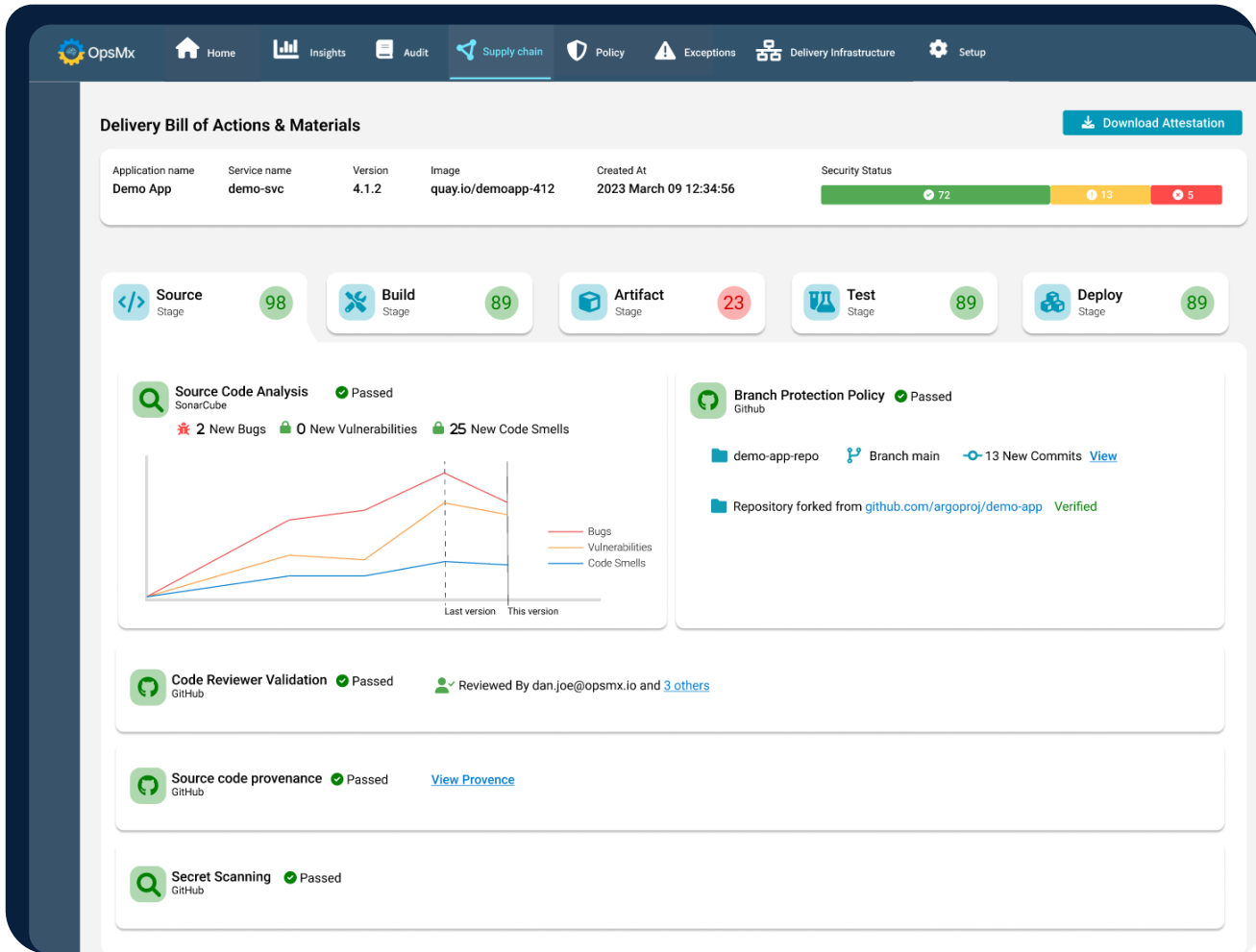
### Secure Pipelines

OpsMx enables you to establish access and change controls on your delivery pipelines, ensuring only authorized personnel can make changes in specific environments. This reduces the risk of unauthorized access or modifications that may compromise the security of your applications.



## Secure Approvals

Our AI/ML-assisted, security review feature streamlines the approval process, making it scalable and efficient. With secure approvals in place, you can maintain a high level of security throughout your software delivery lifecycle.



Prevent – Proactive security view minimizing the risk of vulnerabilities and security breaches.



## Deployment Policy Enforcement

OpsMx's deployment policy enforcement feature allows you to establish environment, application, or pipeline-specific security checks during the delivery and deployment. You can define rules based on vulnerability data and track whether these checks have been performed in the past or in specific pipeline runs.



## Vulnerability Management

The OpsMx solution helps you reduce the risk of attacks by ensuring branch protection, conducting proper security assessments, and addressing vulnerable dependencies based on company-specific policies. This proactive approach minimizes the chance of security breaches caused by known vulnerabilities.



## Image Integrity

OpsMx ensures the integrity of your built images by validating their signatures and verifying their source provenance data. This feature, included in version 2.0, provides an additional layer of security for your software delivery process.

In summary, the "Prevent" aspect of OpsMx's Secure Software Delivery solution empowers organizations to proactively safeguard their software delivery process, minimizing the risk of vulnerabilities and security breaches by implementing robust security controls at every stage.

# Resolve: Rapid Vulnerability Detection and Mitigation

In today's complex and ever-evolving application landscape, organizations must have a reliable system for rapidly detecting and mitigating vulnerabilities. OpsMx's Secure Software Delivery solution focuses on providing you with the necessary tools and insights to resolve vulnerabilities efficiently.



## Vulnerability Tracing

OpsMx's vulnerability tracing feature immediately and automatically identifies where vulnerable code is currently deployed within your environment. By pinpointing the precise location of vulnerable code, your security teams can address potential risks more quickly, improving your overall security posture.



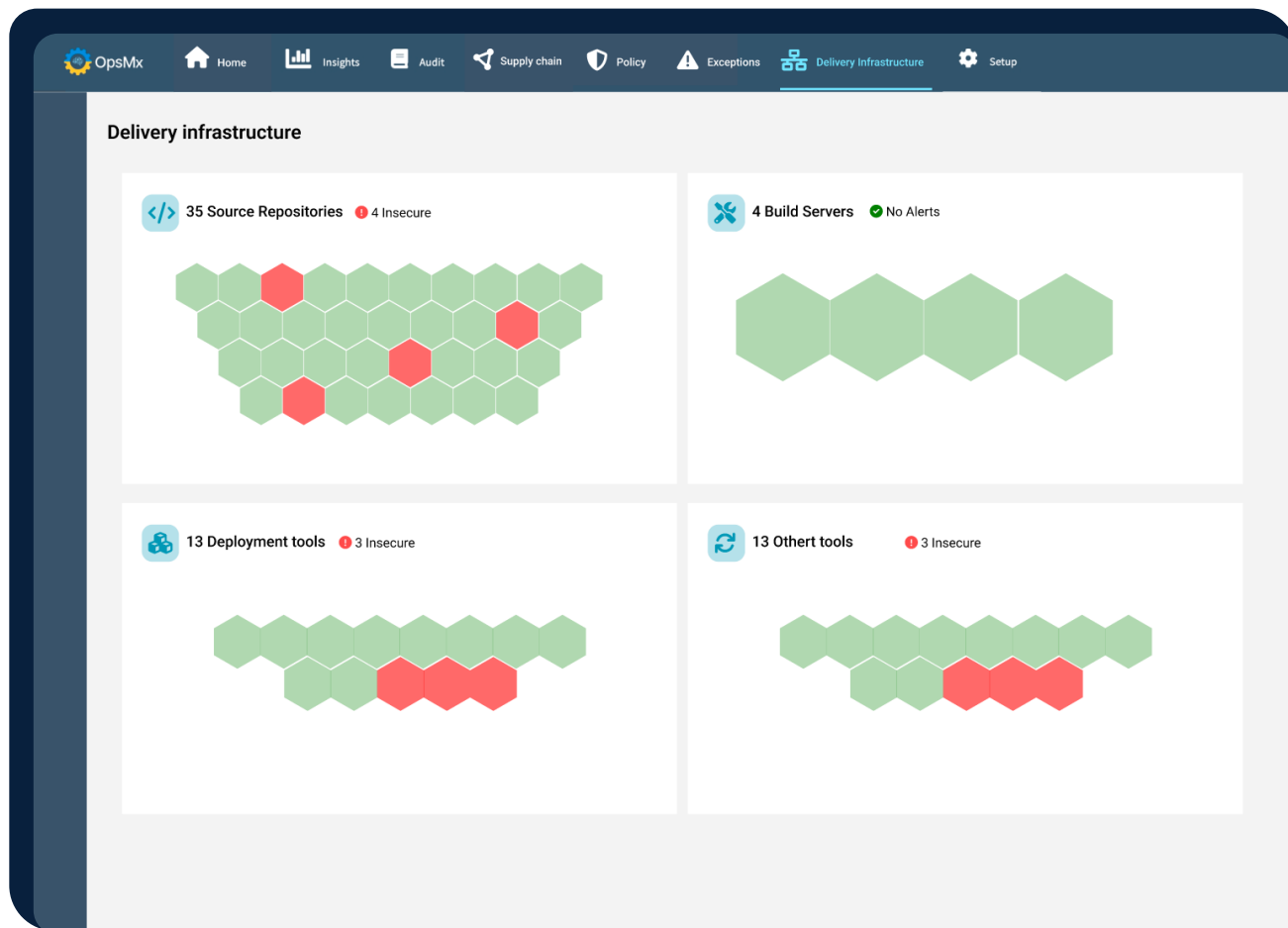
## Code Vulnerability Alerts

OpsMx's Secure Software Delivery solution informs you about potential risks with code vulnerability alerts. These alerts notify you of newly discovered vulnerabilities in deployed code, changes to your Software Bill of Materials (SBOM), and dependencies. With this real-time information, your organization can swiftly address vulnerabilities and maintain a strong security stance.



## CIS Vulnerabilities Detection and Resolution

Infrastructure vulnerabilities can occur due to changes in the infrastructure post-deployment. OpsMx's solution helps detect and resolve these vulnerabilities, adhering to the Center for Internet Security (CIS) standards. This ensures that your infrastructure remains secure and compliant at all times.



Resolve – Vulnerability tracing pinpoints where vulnerable code is deployed in your environment.



## Streamlined Vulnerability Management

OpsMx's Secure Software Delivery solution simplifies vulnerability management by providing clear visibility into the source of binaries in each environment, the vulnerabilities present in each binary, and the source GIT for each binary. Furthermore, the solution builds a chain of custody from Git to the artifact and highlights gaps in context, ensuring a robust and comprehensive approach to managing vulnerabilities.



## GUAC Integration

OpsMx's solution integrates with Git User Activity Control (GUAC) to identify vulnerabilities within your SBOM. By combining deployment and build information from OpsMx and GUAC, your organization gains an extensive understanding of its security landscape, enabling rapid response to potential threats.

In summary, the "Resolve" aspect of OpsMx's Secure Software Delivery solution empowers your organization to address vulnerabilities quickly and effectively, safeguarding your software delivery process against potential security risks.

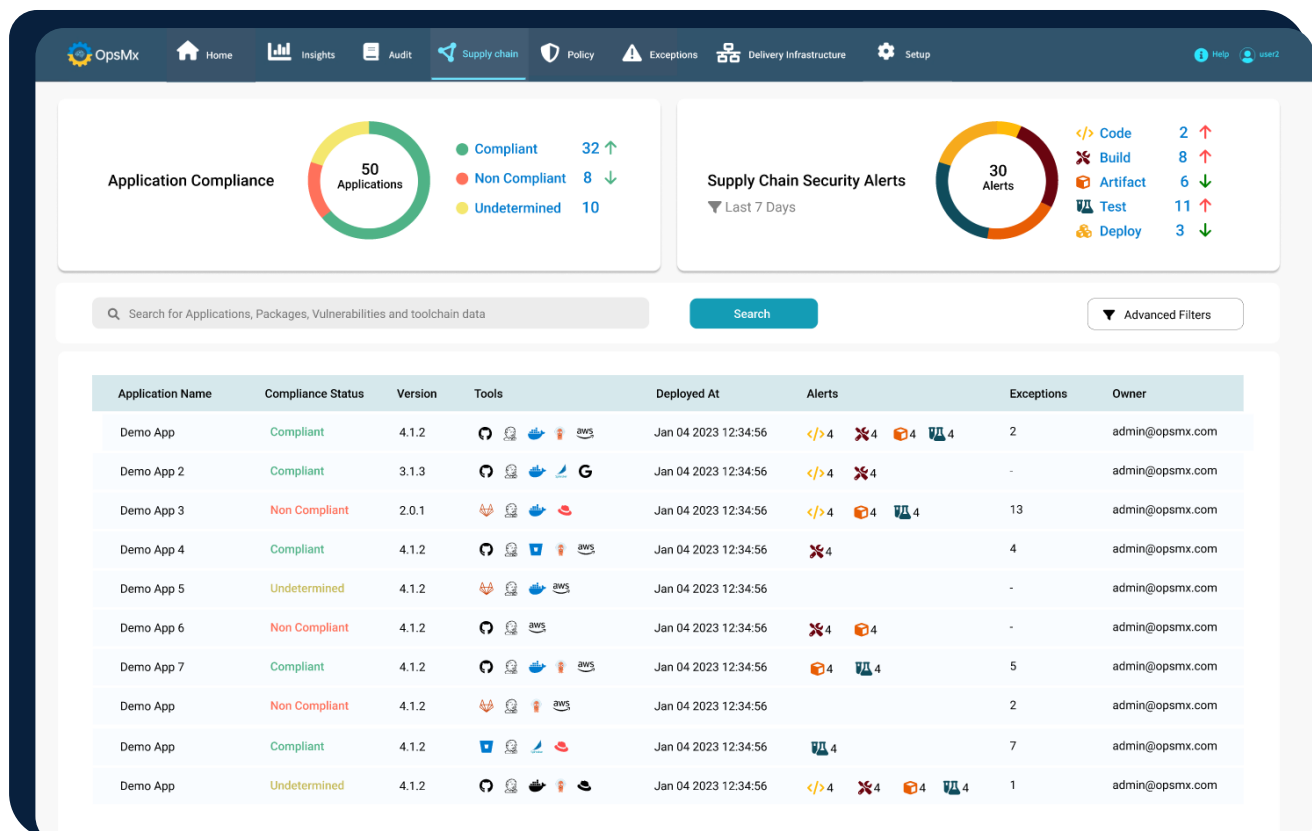
## Secure: Ensuring Traceability, Auditing, and Exception Management

The OpsMx Secure Software Delivery solution emphasizes securing your software delivery process by providing comprehensive traceability, auditing, and exception management features. These capabilities ensure you have complete visibility into your software delivery pipeline and maintain a robust, compliant, and secure environment.



## Delivery Bill of Materials (DBOM)

OpsMx records what, how, and where an application was deployed to create a deployment bill of materials (DBOM), the operations equivalent to the development team's software bill of materials (SBOM).





## End-to-End Traceability

OpsMx's solution lets you obtain complete visibility into image provenance, including build details, dependency differences, and vulnerability tracking between image versions. This end-to-end traceability simplifies managing and securing your software delivery pipeline.



## Approval Traceability

Our solution documents and tracks approval processes, including Git commits, test approvals, and stage promotion approvals, providing a clear audit trail for images running in production environments. This level of transparency ensures that your organization maintains a high security and compliance standard.



## Vulnerability Exception Management

OpsMx's Secure Software Delivery solution includes a vulnerability exception management feature, allowing you to track when a known vulnerability can be deployed. This feature contains a record of who authorized the exception and the duration for which it is valid. With vulnerability exception management, you can maintain control over your software delivery process and ensure exceptions are properly managed and tracked.

In summary, the "Secure" aspect of OpsMx's Secure Software Delivery solution provides organizations with the tools and capabilities necessary to maintain a secure, compliant, and traceable software delivery process. By implementing these features, you can effectively manage and mitigate risks in your software delivery pipeline, ensuring the resilience and integrity of your applications.

## Conclusion

The OpsMx Secure Software Delivery solution is a comprehensive approach to ensuring a secure and compliant software delivery process for enterprises. Organizations can confidently deploy software that adheres to the highest security and compliance standards by preventing security issues and resolving vulnerabilities and risks in real-time.



## About OpsMx

Founded with the vision of "delivering software without human intervention", OpsMx enables customers to transform, secure, and automate their software delivery processes. OpsMx helps DevOps teams and thousands of developers at some of the world's largest enterprises SHIP BETTER SOFTWARE FASTER.

### FOR MORE INFORMATION, CONTACT US:

OPSMX, INC | 350 OAKMEAD PKWY, SUNNYVALE, CA 94085  
INFO@OPSMX.COM | WWW.OPSMX.COM



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