NGINX
Part of F5

SOLUTION BRIEF

ZERO TRUST SECURITY FOR KUBERNETES APPS

Holistic App Protection from Edge to Cloud

WHY USE NGINX FOR ZERO TRUST IN KUBERNETES?

Actionable Insights
Detect and mitigate cybersecurity threats before they cause damage to your organization and customers

Deployment Flexibility
Unleash developer productivity by automating repetitive tasks

Protection at Scale
Improve customer experiences under peak workloads without compromising security

Secure Distributed Apps and Microservices at Scale Without Adding Complexity and Overhead

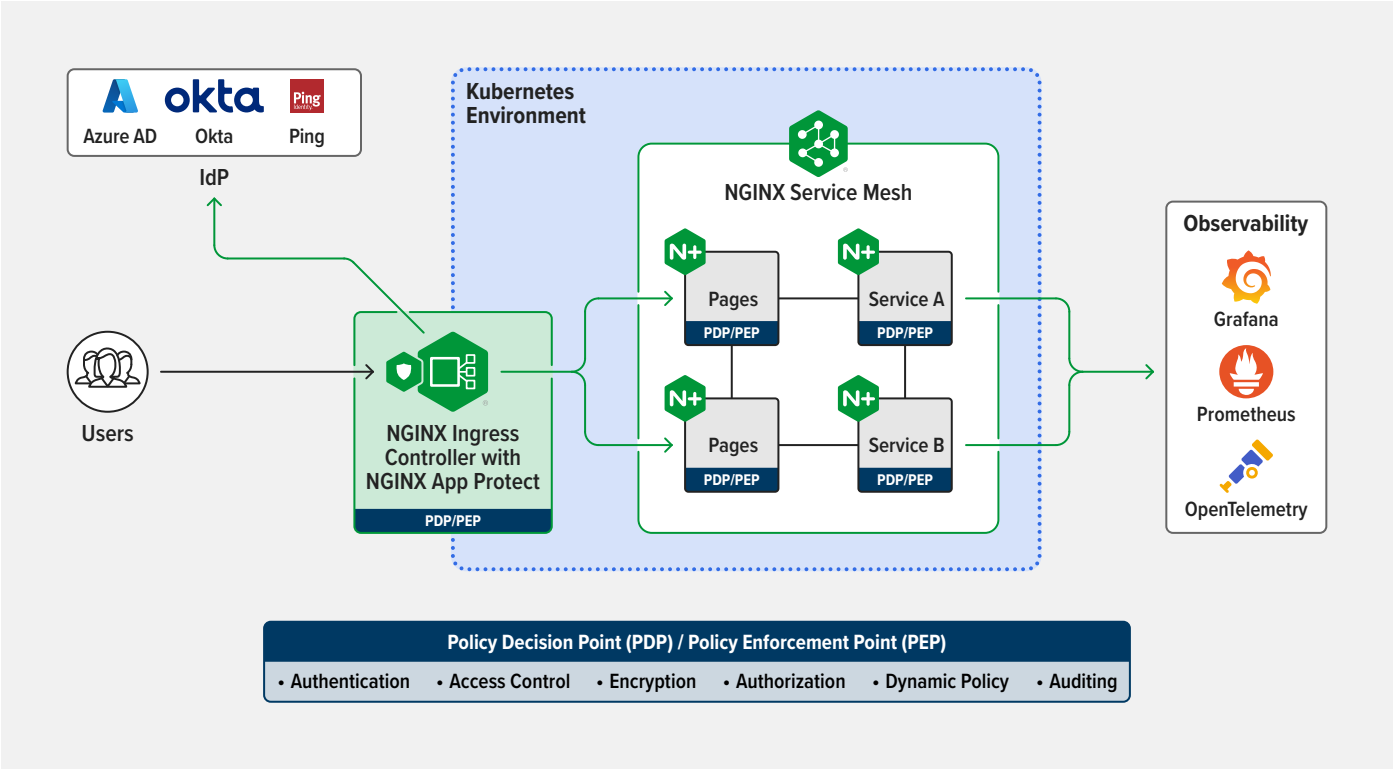
The ever-increasing number of cybersecurity attacks on web apps creates significant risk of exposure to both external and internal threats in on-premises, hybrid, and multi-cloud Kubernetes environments.

Organizations face security challenges because:

- The number and sophistication of cyberattacks is growing exponentially and consequences of a security breach can be irreparable
- Complex environments with disaggregated technologies and tool sprawl are harder to secure, operate, manage, and troubleshoot
- Failure to comply with governmental and industry regulations for protection of sensitive data can be very costly
- Strict security controls are seen by developers as a barrier to agility

F5 NGINX helps protect Kubernetes apps from edge to cloud without adding complexity and overhead:

- Prevent unauthorized activity through constant authentication, identity validation, and detection of behavioral anomalies
- Minimize the attack surface through least-privilege policies, fine-grained access control, and end-to-end encryption
- Simplify delivery of apps securely from code to customer with an integrated WAF and app-level DoS defense
- Streamline self-service app releases across multi-tenant development teams without compromising security



Benefits of Zero Trust Security for Kubernetes Apps

Using Kubernetes-native technologies, including Ingress controller and service mesh, NGINX helps your organization implement comprehensive Zero Trust security for your Kubernetes apps.

Authentication and Authorization

Manage user, app, and service identities and authorize them to perform actions across the Kubernetes cluster with HTTP Basic authentication, JSON Web Tokens (JWTs), and OpenID Connect through integrations with identity providers (IdPs) such as Okta and Azure Active Directory (AD).

Access Control and Access Policy

Easily align with your organization's security needs and enable self-service and governance across multi-tenant teams through role-based access control (RBAC) and custom resource definitions (CRDs).

Data Encryption and Integrity

Secure communications regardless of location with authentication and encryption to ensure validity, confidentiality, and integrity of data through TLS passthrough, SSL/TLS termination, and mTLS.

Monitoring and Observability

Gain actionable insights into the security posture of your apps, APIs, and infrastructure through prebuilt integrations with your favorite tools, including OpenTelemetry, Grafana, Prometheus, and Jaeger.

WAF and DoS Protection

Protect apps from the OWASP Top 10 and Layer 7 DoS attacks without slowing down release velocity and performance.

To learn more, visit nginx.com/zt

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