ondat™

Datasheet

Ondat and EKS: Better Together

Amazon Elastic Kubernetes Service (EKS) is a managed container service used to run and scale Kubernetes applications in the cloud or on-premise with the EKS Anywhere offering. Many AWS customers rely on EKS to reduce the complexity of managing and running Kubernetes workloads.

When running stateful workloads in EKS, Ondat provides a unique set of features that enhances the capabilities of the AWS storage services. Ondat provides additional features, performance and cost-benefits whilst using the underlying AWS storage service work in a true kube-native fashion.

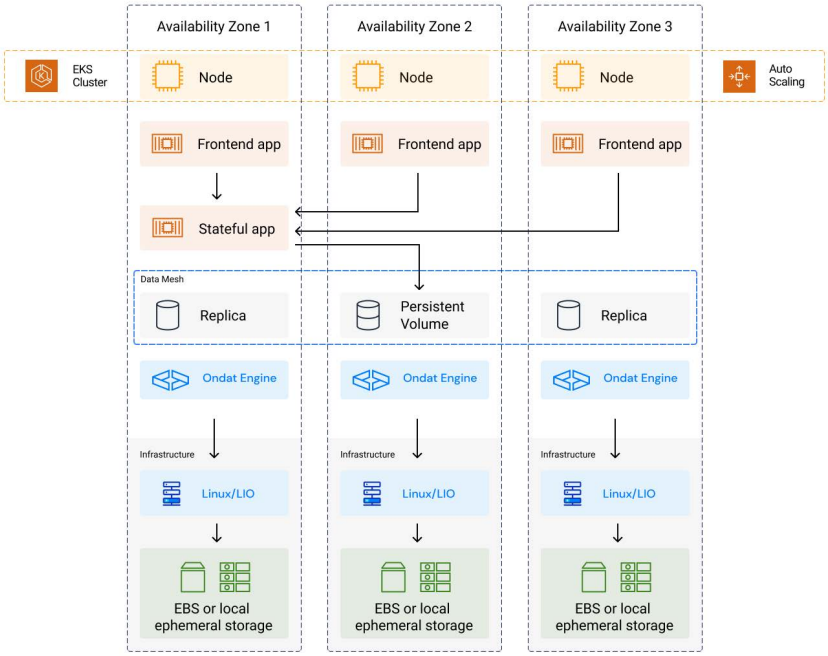
These critical features include advanced scheduling for scaling, resilience, failover and workload optimization. Allowing this to run within the EKS cluster optimizes network usage, which improves performance and consistency of service.

Ondat provides a truly kube-native data mesh that optimizes existing storage services and resources. EKS users gain functionality and flexibility that is vital for running business-critical, stateful workloads on Kubernetes. Ondat builds on existing AWS storage services to provide dramatic improvements in performance and reliability, alongside significant cost savings to the end user.

Companies are moving data-driven applications onto EKS. These stateful applications often form the heart of broader business-critical solutions and their performance is vital for scaling the overall solution and meeting the needs of the end customer. Kubernetes is designed to scale stateless workloads quickly and easily. However, once stateful applications are introduced, storage architecture becomes critical. Get it wrong and your solution will never scale.

Existing AWS storage services are not kube-native out of the box. They are designed to support a broad range of use-cases rather than some of the very Kubernetes-specific storage functionalities.

Ondat is an AWS Trusted Technology Partner that enables EKS users to develop, run and manage stateful applications at scale within Kubernetes. Our powerful kube-native data mesh lets platform engineers and operations teams optimize AWS storage resources to deliver simultaneous cost savings, enhanced application performance, and dramatic improvements in resilience and recovery times.



Ondat Solution

Ondat delivers a secure, unified, and consistent management platform for persistent data and stateful development across your EKS clusters and global estate. Configure, automate and deliver stateful applications as a global developer-self-service solution integrated into EKS.

Deploy

Ondat is quick and easy to deploy on EKS in AWS, or EKSA on-premises.

Built as a truly kube-native application, our Helm Charts ensure that the Ondat magic all begins with just a single container install. Once running, Ondat provides a universal data mesh, allowing you to deploy any type of data services - document stores, CI/CD, synthetic, distributed, event-drive, NoSQL, in-memory databases.

Optimize

AWS storage and data services such as EBS, EFS, EC2 i3 instances and other local ephemeral storage options, offer a range of building blocks for stateful applications.

Ondat enables platform experts to build on these basic resources to create high-value-add DBaaS and other data services. Data can be delivered at scale, on-node, cross-cluster and through different AWS Availability Zones.

Our kube-native data layer can simultaneously reduce costs, increase performance, and improve reliability and security.

Cost

- Remove dependency on EFS, RDS and DBaaS solutions
- Enjoy dramatic improvements in resource utilization (across storage, compute and memory)
- Improve workload density with no restrictions on Persistent Volumes
- Safely leverage low cost local ephemeral storage
- Increase development velocity and improve efficiency

Security

- Add encryption by default
- Encrypt data in transit and at rest
- Retain control of your encryption keys

High availability

- Delivering resilient software-defined data replication
- Replicate application data across multiple AWS Availability Zones
- Cut RTO and failover times by orders of magnitude

Performance

- Remove network storage constraints from storage services such as EFS, EBS and RDS
- Deliver persistent storage “on-the-node”
- Parallelize connected storage for increased performance
- Leverage local storage and faster storage fabrics
- Deliver deterministic performance for application development, testing and SLA assurance

Automate

To capture the full velocity of stateful Cloud Native development in EKS, developers need databases, popular stateful applications and persistent volumes to be instantly available. Ondat combines the freedom and flexibility to create differentiated, enterprise-grade DBaaS and data services, together with the power to automate and provide these through a simple developer-self-service marketplace.

Developers can get straight into the build, with enterprise-grade persistent volumes and ready-rolled container images for popular databases, stateful frameworks and applications. Details of storage configuration are abstracted from development teams, while platform and operations teams can consistently manage cost, performance, resilience, and data security across their full global estate of EKS clusters.