

## Next Generation Cloud

### Overview

Continent 8's Next Generation Cloud platform is engineered for cloud-native workloads. The platform builds on the support for traditional VM management by adding a new suite of platform capabilities such as container management, OpenStack orchestration, integrated Kubernetes cluster management, software-defined storage with S3-compatible objects, advanced load balancing, and multi-layer backups.

Designed for **performance, resilience, cost efficiency, and operational simplicity**, Continent 8's cloud empowers organisations to run diverse workloads with confidence.

### Hyperconverged infrastructure



A **high-performance, multi-tenant platform** that integrates compute, storage, and networking into a unified architecture for effective scaling and cluster resource performance. Removing the complexity of managing multiple stacks like separate servers, arrays, and/or hypervisors the Continent 8 public cloud aggregates these into a shared resource pool managing by the software-defined platform.

### Simplified management & monitoring



Simple operations for your cloud resources and application management.

#### Capabilities

- Single management console for compute, storage, and networking
- Built-in analytics, monitoring, and alerting
- Enterprise-grade dashboards powered by Prometheus and Grafana
- Full OpenStack API coverage for integrations and automation

### Compute & virtualisation



A modernised KVM-based virtualisation layer providing high performance and enterprise-grade support.

#### Features

- Support for VMs and containers
- Hot-plug capabilities for vCPU, memory, and storage resources
- High availability and resilient compute operations
- Integrated load balancing and distributed virtual routing

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### Advanced networking



Advanced cloud-based networking with enterprise class security and policy-based tenant isolation. Full routing and BGP-VPN capabilities. Advanced load balancing for application traffic flows.

#### Network capabilities

- VXLAN overlay networks
- Distributed virtual routers
- Built-in Load Balancers (LBaaS)
- Security Groups and firewall policies
- VPN-as-a-Service for secure hybrid connectivity

### Software-defined storage



Software optimised and High-performance, scalable storage with support for block, files, and S3/ object workloads. At the infrastructure layer the Continent 8 public cloud deploys extensive high performance NVME based storage disks, mixed with SSD and spinning-disk media options for lower tier friendly workloads.

#### Highlights

- Block storage (VM volumes, iSCSI)
- File storage (NFS)
- S3-compatible object storage with self-service portal
- Data redundancy across hardware failure domains
- High-performance block storage with RDMA support
- Erasure coding for cost-efficient cold data storage
- Scale-in/small-increment storage expansion

### Integrated Kubernetes platform



A full CNCF-certified Kubernetes platform with integrated components and automation delivered and a managed control plane by the Continent 8 team.

#### Platform features

- Automated Kubernetes cluster deployment and upgrades
- Highly available Control Plane
- Integrated Auto scaler for automatic horizontal scaling
- Pre-integrated persistent storage and load balancing
- Monitoring via Prometheus and Grafana
- Support for multiple CNI options, including Cilium
- Compatible with DR/backup tools

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### Opinionated & pre-installed Kubernetes components

- CNI plugin (Weave) for overlay networking
- Traefik ingress controller
- Helm package manager
- CoreDNS
- Dynamic PV provisioning
- Metrics Server
- Built-in SSL
- Kubernetes Web UI

### Cloud databases



A cloud optimised for database workloads with both SQL and NoSQL support. Support for structured and unstructured data.

#### Operational benefits

- Continent 8 manages maintenance, updates, and security patches
- Automated provisioning and lifecycle management
- Simplified migration via UI or API
- Vertical and horizontal scaling for cost-efficiency
- High availability through pre-configured clustering
- Multi-region replication options

### Automated clustering

Continent 8 provides fully pre-configured database clusters for high-load and high-availability applications, eliminating the complexity of manual setup.

## Why Continent 8 Next Generation Cloud?

- **Unified platform** for virtual machines, containers, storage, and databases
- **Enterprise resilience** with built-in redundancy and HA
- **Operational simplicity** with a single management plane
- **Scalable and cost-efficient** for diverse workloads
- **Open ecosystem** powered by OpenStack, Kubernetes, and open APIs