DATACORE™

Single Node Swarm
For Edge & ROBO Environments

Optimizing Data Management in Decentralized IT Systems

Benefits

- **Simple Management:** Intuitive interface simplifies administration, reducing complexity

- **Operational Efficiency:** Facilitates immediate data access and analysis at the source, accelerating decision-making

- **Enhanced Protection:** Advanced security features protect against threats and ensure data integrity

- **Flexibility:** Adapts to changing business needs, offering hardware choice and ensuring future-proofing

- **Reduced TCO:** Lowers hardware footprint and operational costs, optimizing investment

DATACORE
Swarm
SINGLE NODE

DataCore's Single Node Swarm represents a groundbreaking advancement in edge computing, meeting the unique demands of decentralized IT environments. With the rise of data gravity, where data amasses and attracts additional data and applications to the periphery, the challenge intensifies, particularly in smaller edge and ROBO environments. Single Node Swarm addresses this by enabling the storage and processing of data right where it is generated and ensuring rapid, local decision-making and immediate actionable insights. This next-gen architectural design, based on a microservices-based framework, not only tackles data gravity head-on but revolutionizes how we think about data management at the edge.

The platform stands out by providing an unparalleled level of archival and protection at the point of data generation, ensuring that every byte of data is foundational in building a resilient, intelligent, and connected enterprise. With Single Node Swarm, businesses can unleash the full potential of their edge environments, driving innovation and excellence at every turn.

Single Node Swarm integrates smoothly with central storage systems, facilitating real-time data analysis at the edge while ensuring secure and efficient data replication to the core data center for long-term retention and compliance.

Key Use Cases Addressed by Single Node Swarm

On-site Data Processing

Enables processing and analysis of data directly at the source, allowing export of key results to central systems for further action.

Localized Decision-Making

Supports local, data-driven decisions while being in sync with central systems, maintaining organizational alignment.
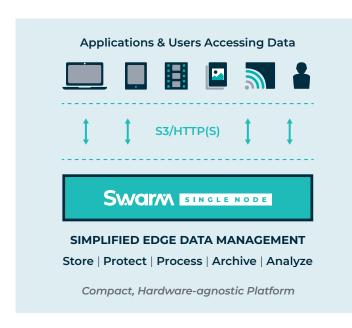
Active Archiving in Small IT Environments

Streamlines data protection and archiving in smaller IT setups, ensuring data safety and accessibility on-site.

Mobility of Content Archives

Simplifies transfer of edge content archives from the edge and ROBO sites to other locations, improving archive management.

Compact and Robust Architecture

The deployment architecture of Single Node Swarm features a cutting-edge microservices design, based on a Kubernetes-managed model that symbolizes the pinnacle of modern infrastructure innovation. Its compact structure maximizes efficiency, security, and performance in a reduced footprint. Designed for the demanding storage needs of contemporary edge and ROBO environments, Single Node Swarm extends core data center functionalities to the perimeter, redefining data handling paradigms.

- **Simple Installation:**
  Easy to deploy without complex setup processes

- **Compact and Efficient:**
  Ideal for edge and ROBO settings, enhancing efficiency
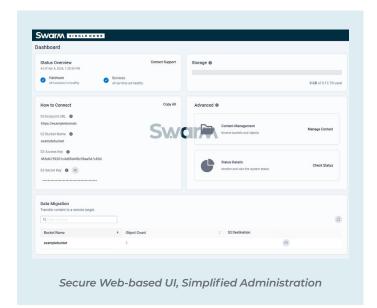
- **Customizable:**
  Meets specific business requirements, offering flexibility and control

- **Engineered for Next-Gen IT Services:**
  Promotes innovation and operational excellence at the edge

- **Standalone and Integrated:**
  Operates independently or in conjunction with other Swarm clusters in the data center

Applications & Users Accessing Data

S3/HTTP(S)

Swarm SINGLE NODE

SIMPLIFIED EDGE DATA MANAGEMENT

Store | Protect | Process | Archive | Analyze

Compact, Hardware-agnostic Platform

Swarm SINGLE NODE
Dashboard

Status Overview
As of Apr 5, 2024, 1:28:30 PM   Contact Support

Hardware   Services
All hardware is healthy   All services are healthy

Storage
0 GB of 0.13 TB used

How to Connect   Copy All
S3 Endpoint URL
https://exampledomain
S3 Bucket Name
examplebucket
S3 Access Key
465db759201c4d85b4f8c35ea5d7c83d
S3 Secret Key

Advanced
Content Management   Manage Content
Browse buckets and objects

Status Details   Check Status
Monitor and view the system status

Data Migration
Transfer content to a remote target.

Bucket Name	Object Count	S3 Destination
examplebucket	1	

Secure Web-based UI, Simplified Administration

Simplify Data Management at the Edge

Defend against cyber threats, enhancing digital safety

Safeguard data from tampering, maintaining its integrity

Secure and encrypted data at all times, in transit and at rest

Immediate, anytime access data, improving efficiency

Self-healing intelligence against bit rot and hardware failures