Powerful and Flexible Processing at the Edge

Challenges
Enterprises and organizations in the military, law enforcement, and national security arena want to leverage IoT approaches to gather data and make decisions in real time at the network edge – whether on the factory floor, in a ship traversing an ocean, or in a rural clinic. To innovate edge processing approaches, organizations must overcome the following challenges:

Unique Requirements
Edge-based and IoT devices often have limited footprint and very often must operate with low to intermittent bandwidth. As a result, they typically require a different architecture and applications than conventional IT devices.

Heterogeneous Environments
There are literally thousands of specialized environments for processing at the edge. Typically, each environment is tuned to support applications that must work reliably in demanding conditions.

Geographic and Numerical Scale
Thousands of edge sites scattered around the globe present a daunting management challenge. This is particularly challenging since these environments typically do not support high availability configurations and so overall reliability is crucial.

Architected for Processing at the Edge
D2IQ Kommander is purpose-built for demanding environments including processing at the edge. Leveraging a cloud-native, centralized control plane, Kommander can manage thousands of edge sites. Flexible environment support enables management to be unified across diverse environments. By leveraging declarative deployment, as applications or IoT devices fail then new instances are provisioned automatically.
Kommander enables organizations to innovate the best approach for their needs, including Kubernetes distributions from D2iQ, EKS, AKS, and more. A single approach is consistent across all environments yet supports each unique processing need and corresponding environment. High reliability is maintained automatically without the need for operator intervention.
Kubernetes Optimized for Processing at the Edge

D2iQ Konvoy represents more than just a Kubernetes distribution as it is a complete edge ecosystem designed to support edge implementations. Konvoy integrates the core functionality demanded for the edge including deployment, monitoring, and logging.

Konvoy’s baseline Kubernetes enables a consistent yet powerful foundation for edge and IoT deployments. This approach maximizes the organization’s ability to architect an optimal approach to each processing challenge. Further, with rich configuration options and swappable components, tuning for each environment is a matter of adjusting settings not coding.

Outcomes

D2iQ’s Kubernetes optimized for processing at the edge helps government agency and business IT teams create unparalleled successful outcomes.

- **Foundation for Innovation**
  Provides a strong foundation for innovation by enabling processing at the edge and at scale.

- **Global Flexibility**
  Enables the best edge environment to be selected from a broad range of options worldwide.

- **Management Efficiency**
  Flexible, powerful automation driven from the cloud provides very high management efficiency.

D2iQ delivers the leading independent platform for enterprise-grade Kubernetes. Starting with a comprehensive, enterprise-grade Kubernetes distribution built on pure upstream open-source, D2iQ provides management and ancillary platform applications that are tightly integrated, secured, and tested at scale. To learn more, go to www.D2iQ.com.