



DPG's Secure Platform as a Service (SPaaS)

Introduction

As businesses navigate the demands of digital transformation, the need for secure, scalable, and cost-effective infrastructure becomes paramount. Developers and general users alike require robust platforms that not only support modern applications but also enhance operational efficiency. DPG's Secure Platform as a Service (SPaaS) is an innovative on-premise private cloud solution designed to meet these needs.

DPG's SPaaS modernizes legacy infrastructure with a secure, scalable hyper-converged infrastructure (HCI) and operates seamlessly in air-gapped environments. Powered by Harvester, an open-source HCI platform, and Rancher Kubernetes Engine version 2 (RKE2), the solution bridges traditional virtualized systems with modern containerized ecosystems, enabling seamless operations across core and edge environments.

Secondarily, DPG's SPaaS offers a fully portable, tactical-ready platform that brings enterprise-grade infrastructure to the edge, no data center required. Engineered for rapid deployment in air-gapped and field environments, SPaaS delivers powerful hyper-converged infrastructure (HCI) capabilities on compact hardware. With minimal compute, memory, and storage requirements, and built-in support for VLANs and high-speed networking, it empowers teams to run virtual machines and containerized workloads seamlessly using Harvester and RKE2. Whether at the core or in the most remote locations, SPaaS ensures mission-critical performance anywhere.

Key Features

Modernized Infrastructure

It is an open-source alternative designed for operators seeking a cloud-native HCI solution. Harvester runs on bare metal servers and provides integrated virtualization and distributed storage capabilities. In addition to traditional virtual machines (VMs), Harvester supports containerized environments automatically through integration with Rancher.

At the heart of DPG's SPaaS lies Harvester, an open-source HCI solution, which integrates traditional and containerized systems to create a unified infrastructure. This modernization facilitates efficient resource allocation, high-speed network storage, and support for secure Virtual Desktop Infrastructure (VDI).

Comprehensive Kubernetes Management

SPaaS integrates Rancher for enterprise-grade Kubernetes management, ensuring deployments are efficient and adaptable. Rancher supports Kubernetes clusters across diverse environments, including bare-metal, private clouds, public clouds, and vSphere.

Zero Trust Security

NeuVector enhances container security through Zero Trust protection, including continuous scanning, real-time threat detection, and compliance enforcement. This ensures alignment with stringent standards like STIG and Risk Management Framework (RMF), safeguarding operations from evolving threats.

Centralized Management Systems

The solution incorporates a centralized enterprise management systems for streamlined access control, user authentication, DNS management, certificate provisioning, and Kubernetes management. This centralization reduces administrative overhead and enhances organizational visibility.

Key Benefits

- **Enhanced Efficiency:** Unified resource management through HCI and Kubernetes simplifies operations, optimizes resource utilization, and accelerates deployments.
- **Built-in Compliance:** NeuVector's Zero Trust security ensures real-time threat detection and compliance with STIG and ATO standards, mitigating risks.
- **Centralized Management:** Simplified administration through centralized systems offers consistent policy enforcement and improved user experience.
- **Seamless Scalability:** SPaaS's modular design supports multi-site operations and adapts to evolving demands without requiring costly overhauls.
- **Cost Savings:** Reduced maintenance and downtime lead to lower operational costs while maintaining high efficiency.
- **Improved Reliability:** By addressing latency and outdated system challenges, SPaaS ensures secure, high-performance operations for critical workloads.

Applications

High-Performance Processing

DPG's SPaaS supports resource-intensive workloads, enabling organizations to meet operational goals without compromising speed or security.

Secure Virtual Desktop Infrastructure (VDI)

The solution enhances remote workforce productivity through secure and efficient VDI, ensuring seamless access in air-gapped environments.

Adaptive Storage Solutions

High-speed network storage is tailored to the unique requirements of customers, offering flexibility and reliability for growing data needs.

Conclusion

DPG's Secure Platform as a Service (SPaaS) redefines infrastructure modernization by combining the best of hyper-converged infrastructure, Kubernetes management, and Zero Trust security. With its scalable, secure, and cost-efficient architecture, SPaaS is poised to empower organizations to achieve their digital transformation goals while meeting the highest standards of performance and compliance.