efficient iP® *for*

Hybrid Multicloud

As organizations evaluate cloud for new applications and to modernize legacy workloads, there is a real shift towards hybrid multicloud-first approach. But cloud adoption value is being hindered by siloed data and time-consuming error-prone processes.

To help ensure success of cloud projects, resources deployed in clouds should be integrated with a DDI (DNS-DHCP-IPAM) solution for maximum visibility, resiliency automation, control, and security. Investing in a multicloud-ready and unified DDI solution can help enterprises simplify, accelerate and de-risk their multicloud and strategic IT initiatives.

Solution Benefits

OPERATIONAL TIME SAVINGS	automation of workflows and processes
COST SAVINGS	uptime optimization of cloud resources
FASTER DEPLOYMENT OF APPS/SERVICES	orchestration of IP management
SIMPLIFIED NETWORK MANAGEMENT	enhanced visibility and single viewpoint control
STRENGTHENED SECURITY	policy enforcement across entire infrastructure
IMPROVED UX AND RESILIENCY	optimized application traffic routing

Business Challenges

As the foundation of digital transformation, cloud has changed how IT is architected, delivered and operated. However, enterprises are struggling with varied cloud APIs, data silos, millions of access points and skills shortages causing network configuration issues and loss of control. IDC discovered top three challenges to be: building a common control workflow (58%), lack of unified monitoring and management (55%), and inability to drive one security policy across different cloud providers (55%).

Infrastructure sprawling across on and off-premise creates limited visibility into virtual networks or IP addresses, and prevents IT teams having a unified view to manage IP resources effectively.

Heavier cloud workloads cause bandwidth, latency, and application performance/availability to immediately become hurdles if IP addresses and DNS names are not assigned and managed correctly (IP overlapping, routing issues...). This impacts internal UX on enterprise private cloud services and prevents reliable, timely delivery of applications and services worldwide. Network security also becomes an issue as soon as workloads in the cloud move beyond just website hosting.

Networks continuously evolve, so cloud orchestration becomes critical for operational efficiency. The IP network is foundational and critical in ensuring all components of software-defined infrastructures deploy, run and retire correctly. Excluding IPAM components while orchestrating IT services can make orchestration processes error-prone and time-consuming and ultimately limit the benefits of SDN, which are a springboard for cloud adoption. The IP management process should therefore occur at the foundational level of the application orchestration workflow.

Main Features of SOLIDserver DDI for Multicloud

DDI technologies have become a crucial element for organizations moving to a multicloud environment. Being a market leader, EfficientIP's DDI brings the following functionalities:

Accurate dynamic data repository for enhanced control

An information data lake is fundamental for cloud management. SOLIDserver IPAM offers the "IP source of truth", consolidating data on apps, devices and IP-related information from on-premise, private cloud and public clouds. This ensures consistency and integrity of IP address plan to prevent overlapping namespaces and limits overhead to the provisioning and deprovisioning process.

Single viewpoint management for improved efficiency

The solution provides cross-platform capability to manage millions of IP addresses and multi-vendor DNS/DHCP services in a unified and centralized managed platform, aiding resource planning and scalability challenges of dynamic infrastructures. Deployment velocity of apps and services is boosted.

One-click reversibility for cloud independence

Even containers need IP, and a centrally managed DDI allows enterprises to move to different DNS servers of different cloud providers through APIs without the heavy lifting of reformatting all the workflows. This helps overcome one of the major hurdles of cloud adoption - interoperability. A «one-click move to cloud» and «one-click reversibility» allows customers to test a workload in one platform and move it to another or bring it back on-premise, giving enterprises cloud independence and multi-cloud interoperability for their public and private zones with Amazon Route 53 and Azure DNS Cloud DNS services.

Policy enforcement and app access control for strengthening security

The unified DDI solution enables corporate policy enforcement across the entire infrastructure. In addition, EfficientIP DNS Security provides protection against data exfiltration, behavioral threat detection and improved application access control. Lastly, the solution is able to fuel the security ecosystem with centralized zoning information.

Optimal application traffic routing for improved UX and resilience

Multi-hosting implied by multicloud requires optimal traffic routing for improved user experience, efficiency and security. EfficientIP's Edge DNS GSLB feature dynamically steers application traffic to the most suitable datacenter based on app health, thus enhancing UX, app availability and disaster recovery.

Rich metadata offering powerful end-to-end automation

The centralized IP data repository, containing valuable metadata, is made available to ecosystem players, enabling end-to-end automation and zero touch network operations. The result is significant time savings and prevention of misconfigurations. IPAM with metadata can be used to plan future extensions off the network like new virtual cloud network or new remote user sites. Tools like SDN orchestrators can therefore plan, execute and test their operations by simply changing metadata values to reflect progress, and results reported in a BI-like dashboard.

Orchestration for fast deployment

SOLIDserver API-first DDI integrates seamlessly to leading orchestrators and configuration managers to bring deployment velocity of apps and services, leading to faster time to market. The solution is ready to be integrated to an automation abstraction layer in order to ease DevOps and Infrastructure as Code initiatives.

Key Takeaways

Managing hybrid multicloud infrastructures, maintaining regulatory compliance, protecting from newer network security threats, and controlling heterogeneous environments are very complex tasks. A cloud-agnostic DDI solution, offering easy integration and centralized management, allows enterprises to break from the silo approach and help overcome network complexity.

SOLIDserver DDI enables fast, consistent deployment of IP and DNS resources across all infrastructures, ultimately improving time to market and customer experience, which are key differentiators for making your business succeed.

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