



NS1 Software-Defined Enterprise DDI Solution

Enterprise DNS, DHCP and IPAM Solution for the Cloud Era

Enterprises are developing and deploying applications faster and more efficiently than ever before. To realize this outcome, Network Engineers and DevOps teams need to accelerate delivery of underlying foundational network services and infrastructure as they adopt and integrate new cloud platforms, tools, and DevOps processes. Traditional DDI solutions are typically encumbered by centralized hardware centric DDI, poorly performing APIs, lack of automation and intelligent traffic steering.

Built on a modern, API-first architecture, NS1 Enterprise DDI for cloud era helps teams achieve agility, reduces costs, and improves IT efficiency.

NS1 DDI is an enterprise-scale software defined, cloud-native DDI solution that delivers modern DNS, DHCP and IPAM anywhere; from the edge to cloud to the the core. NS1 Enterprise DDI delivers best in class performance and resiliency for DDI. The built-in failover mechanism provides automated database failover, resulting in five-nines uptime. With the increasing complexity of multi-cloud, hybrid cloud adoption, distributed global workforces, cloud native, and software only environments, API-first solutions are a must to as they allow companies to scale up and down to meet the needs of the distributed network in a dynamic environment.

In addition, NS1 Enterprise DDI forms an integral part of Zero Trust Network by automating some of the manual error probe tasks and providing the single source of truth for all your network devices and configuration that can be used to create micro segmentation and policies for your network.

Flexible Deployment

NS1 DDI solution can be deployed flexibly across the entire infrastructure including distributed edges using containers, virtual machines (VMs), server appliances, and even on switches and routers.

Cloud Native and Automated Network Services

Comprehensive, automated network services that enable workflow efficiency and visibility across complex, hybrid infrastructure. Give your network and DevOps teams the power to deploy network services faster than ever before.

Smart Distributed Edge

NS1 Enterprise DDI cloud-native architecture allows you to provision as much capacity as you need at the edge while scaling horizontally up or down based on the distributed networks requirements. Cloud Native solution also enables local survivability with minimum dependence on core functionality

Advanced Traffic Management

Patented, code-free Filter Chain™ technology enables advanced traffic steering policies with a few clicks based on location, weights, availability, stickiness and load for improved performance, availability, and visibility.

The NS1 Enterprise DDI Platform

The software comprising NS1 Enterprise DDI is built on the same software platform that powers NS1 Managed DNS. The scale, performance, and reliability of this platform have been battle-tested by the most demanding customers and applications on the internet today.

- **Orchestrate for multi- and hybrid-cloud.** NS1's portfolio uniquely provides one centrally-managed DNS platform across multi-cloud VPCs and on prem locations. The portfolio enables DNS serving nodes in the cloud and on prem, with containerized web and API endpoints located wherever they are needed. Along with our SaaS-based Managed DNS solution, this makes NS1 the only vendor that can provide comprehensive services and optimize both external and internal applications.
- **Cloud Agility and Efficiency.** Accelerate delivery of network services by automating routine and cumbersome network administration tasks using powerful and comprehensive APIs and more than 100+ automation tools. Scale to meet the most demanding automation driven environments with our API-first platform.
- **Built for NetOps and DevOps.** Eliminate DNS change control bottlenecks that can delay deployments by days or even weeks. NS1 Enterprise DDI makes it easy to safely and securely give your NetOps and DevOps teams to integrate DDI services throughout their CI/CD pipeline.
- **Flexible and distributed autonomy.** Eliminate complexity and save costs by deploying a DDI solution from the same technology provider across multiple environments - public cloud, private cloud, containers, VMs, or bare-metal. Deliver network services closest to the edge/client - for example, NS1's DDI can be deployed on Cisco 9000 series Enterprise switches.
- **Built for internet scale.** Seamlessly scale to meet the growing and evolving demands of your network by eliminating constraints and complexity of hardware based solutions.
- **Boosts performance and reliability, reduces costs.** Manage traffic and workloads across your network with DNS Traffic Steering. Support canary releases, disaster recovery, geo-fencing, geo-targeting, internal content delivery and more.
- **Small foot print and local survivability.** NS1's lightweight, small footprint solution means that DNS and DHCP services can be integrated on appliances, servers, and even switches at branch locations without additional hardware overhead. Our solution can operate and be managed independently at the edge without any network downtime or interruption to network services in the event of WAN disruption.
- **Enterprise-grade security.** Strengthen zero-trust policy with pull-based connection mechanism initiated by the edge nodes to the controller cores eliminating unnecessary pin-holes on internal firewalls. Gain visibility and control over internal and external traffic DNS flows with **Cisco Umbrella Integration**. Prevent unauthorized access and ensure compliance with corporate security policies with robust access controls and logging.
- **Modern UI with intuitive workflows.** Leveraging Service Control Center (SCC), improve productivity and eliminate steep learning curves with our simple and consistent management UI across internal and external DNS.

Features

- DNS**
Deploy next-generation DNS servers to your network with comprehensive record type support including unknown types (RFC 3597).
- DHCP**
Create scopes, automate DNS updates, and manage leases. Support for DHCPv4/DHCPv6 standard options and custom DHCP options.
- IPAM**
View and manage the address space, including networks, subnets, and hosts. Manually and/or dynamically assign IPs.
- Advanced Traffic Management**
Ensure high levels of performance and maximize availability of your internal applications by traversing seamlessly across the corporate network with NS1's patented Filter Chain Technology.
- REST APIs, SDKs and Integrations**
Automate tasks and orchestrate using Infrastructure as Code (IaC) tools such as Ansible, Terraform, Mesos, Go, PHP, Python. Integrate with ServiceNow and Consul.
- Software Centric Solution**
True cloud-native DDI solution that delivers enterprise-scale DNS, DHCP and IPAM anywhere; from the edge to the core using containers, VM based solution hosted on appliance, servers, switches and routers. Hypervisors supported include Ubuntu KVM, ESX and Hyper-V.
- API Performance**
Import AD zones for effortless migration and implement granular, zone-level read/write permissions for Active Directory users and groups.
- High Availability**
Protect your single source of truth with automated failover of DDI database services.
- Enterprise-grade Security**
Effortlessly comply with corporate security policies using our zero-trust architecture, integration with Cisco Umbrella, role based access controls and activity logging.
- Subscription Licensing**
Avoid CapEx-heavy expenditures, hardware maintenance fees, and "rip and replace" every 3-5 years.