VMware Global Network Identities

Overview

VMware Global Network Identities™ is a multi-cloud network services platform that provides unified visibility, control and governance of network identities. It offers connectors to orchestrate DNS, DHCP, and IP address management (IPAM) functions across enterprise, public cloud and managed solutions.

FIGURE 1: The VMware Global Network Identities platform.

Global network identities unlock cloud service provider functionality for the enterprise

Too many disparate naming and addressing tools, manual processes, and spreadsheets become a bottleneck to automation. Organic sprawl of multi-vender or multi-environment DNS, DHCP and IPAM (DDI) solutions have evolved over many years in silos. This is getting worse as lines of business go around core IT teams by using public cloud or modern app-specific tooling.

As a result of lack of consistency and a single source of truth, resource identification and control become impractical. These solutions are also disjointed from governance, change impact, and policy/design processes. Resource allocations by too many systems or implementations without unified visibility create overlapping network identities and, as a result, enforcing policy becomes a challenge.
Traditional systems lack the multitenant foundation needed for cloud service teams to act like service providers. Multitenancy, permissions, business workflows, and a flexible resource system aligned to support multiple businesses, clouds and organizations is either missing from these traditional systems or unattainable due to too many different tools, requiring cloud service teams to build unmaintainable homegrown amalgamated systems. Everyone has a custom-built admin tool, and no one likes it.

Features and functionality

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<th>VMWARE GLOBAL NETWORK IDENTITIES PLATFORM</th>
<th>FEATURE</th>
<th>BENEFIT</th>
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| Resource manager                         | • Utilize a customizable resource management system with flexible structures, fields, permissions and workflow integration—all driven by API.  
• Create a global source of truth for network identifiers, from virtual machines to cloud to branches, all in one place.  
• Implement enterprise-wide Zero Trust security via a common resource framework. |
| Global permissions structure             | • Create custom groups and set user accounts with the hierarchical permissions structure.  
• Gain the flexibility to set permissions at any level of the hierarchy, all the way down to each object in the resource system. |
| Cloud services IPAM                      | • Handle everything from subnet allocation management to host-level assignments to devices with complete IPv4/IPv6 support; comes with import tools to get up and running quickly.  
• Enable support for advanced field validation and features, such as IPv6 sparse allocation, virtual routing and forwarding (VRF), and multi-domain VLANs. |
| Global DNS controller                    | • Integrate out of the box with a variety of DNS providers and platforms, giving you the flexibility to work with your current infrastructure as is and ease DNS migration(s) in the future, as needed.  
• Easily support duplicate zones and even the most complicated DNS environments with DNS groups.  
• Utilize built-in support for role-based permissions and approval workflows at the DNS group, DNS zone, and DNS record levels. |
| DHCP controller                          | • One-stop configuration management for DHCP scopes  
• All available via API or UI for easy integration and use by provisioning teams |
| REST API                                 | • An API-first approach means simple integration into current environments without sacrificing support for future environments.  
• No more having to question if a feature in the UI has an API. |
Use cases

Multi-cloud automation
By automating the identity creation process across private and public cloud environments, VMware Global Network Identities delivers consistency across heterogeneous sites to streamline multi-cloud operations. Built-in multitenancy allows streamlined handling of overlapping identities.

SD-WAN transformation
Gain visibility into existing usage of address space, DHCP, DNS and circuits. Create a common operational model with remote sites by consolidating disparate DDI solutions. VMware Global Network Identities connects into existing infrastructure, helping create migration plans while setting up future control through automated workflows.

Zero Trust security
VMware Global Network Identities helps make Zero Trust security attainable through a foundation of a common resource model, allowing a standardized global network identity framework. As metadata starts to overwhelm the actual network identifiers themselves, VMware Global Network Identities delivers a customizable enterprise resource model that puts applications, assets and infrastructure as top-level entities that can be used to automate naming and addressing.