

Automating your network infrastructure

DDI Automation



Automated Private/ Public Cloud DDI

Automate DHCP/DNS/IPAM (DDI) functions for managing private and public cloud virtualized network functions to reap the benefits of rapid, accurate network, computing and services provisioning.

Leverage the Cygna Automation Appliance (CAA) to automate the IP address and name assignment using your Cygna DDI systems, including VitalQIP and IPControl. Virtualized network functions (VNFs) require provisioning of basic IP network information upon instantiation as would any network device upon deployment on the network. As such, core DDI network services are critical for virtual and non-virtual environments alike.

Each device or VNF requiring network connectivity requires assignment of an IP address, perhaps multiple IP addresses. DNS naming is also needed not only for end user access but for elastic services scaling. As new VNFs are provisioned along the path of a service, capacity can easily be expanded and contracted with common DNS naming policies

With over 90% of organizations adopting virtualization and cloud technologies, maximizing the automation and tracking of IP address space across cloud and non-cloud estates becomes paramount.

Holistic DDI for your entire IP network

The Cygna Cloud Automation Appliance (CAA) used in conjunction with automation systems such as ServiceNow, Cisco DNA Center, Terraform, and others, provides simple, scalable DDI automation. Such systems can be configured to issue REST API calls to the CAA as part of your enterprise orchestration workflows to integrate and automate IP address and name assignment.

Our DDI solutions enable you to integrate the address and DNS assignment tasks during instantiation, as well as freeing up addresses and DNS entries with the destruction process to optimally utilize your IP address space. This harmonized process streamlines the provisioning and de-provisioning flows for your network while accurately tracking your IP and DNS assignments within a centralized holistic database.

The Cygna Automation Appliance provides security and high availability services with simple setup. The CAA supports TLS authentication and encryption of incoming orchestrator plug-in DDI calls. The CAA's graphical workflow creation interface enables easy editing of canned workflows plus creation of your own flows to interconnect and automate among your IT and cloud systems including Cygna DDI systems. Drag and drop pre-defined nodes corresponding to Cygna DDI APIs simplify DDI workflow creation and maintenance.

Maximize Cloud DDI Automation

CAA helps you automate your cloud management tasks in key ways:

- Create and manage subnets and IP address assignments within your enterprise network across LAN/WAN, SDWAN, SASE, private and public clouds.
- The CAA automates IP address and DNS assignment for VNFs/VMs created and destroyed via your orchestrator or configuration management system.
- Centrally track and manage your IP address space for all VNFs/VMs and all enterprise devices alike with Cygna DDI solutions.
- Automate IP address inventory assurance with a variety of network and cloud discovery and reconciliation features.
- Deploy DNS configurations to public cloud services including Route53, Azure DNS and Google DNS.

CAA Benefits

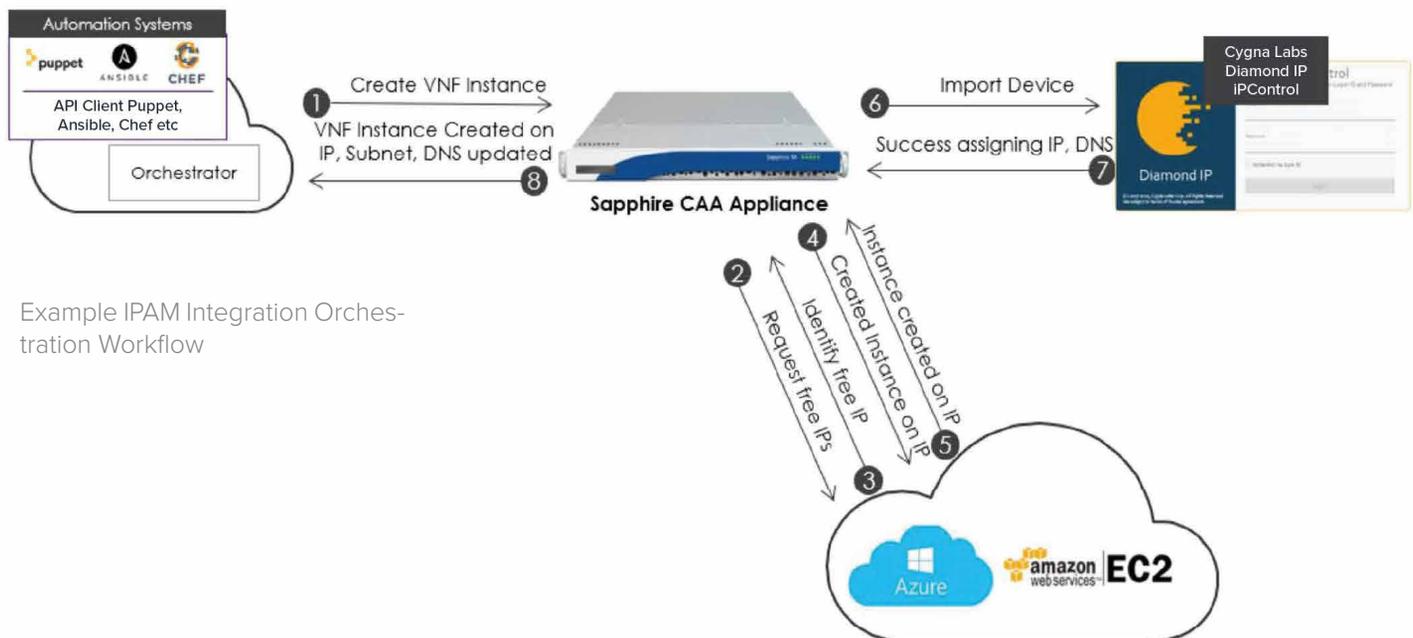
Seamlessly integrate DDI into your VM/VNF workflows:

- Plug-in DDI automation with ServiceNow, Terraform, Ansible, and Cisco DNA Center integrations
- Faster provisioning through automation
- Improved accuracy with integrated provisioning flows
- Reduced manual effort with DDI automation
- Manage multi-cloud DDI and cloud DNS services centrally through a single pane of glass
- High availability with CAA and Cygna DDI redundancy
- Simpler workflow creation and maintenance with our graphical drag-and-drop user interface
- Adaptability through customizable workflows based on canned flows or those you create
- Segmented administrator authority to delegate with empowerment via your IT portal

Key Features

Drop-in deployment and easy setup of Cygna Labs Diamond IP's Sapphire CAA appliances helps you leverage the following key features:

- Security: encrypted connections from automation system to CAA and CAA to Cygna DDI systems, IPControl and VitalQIP.
- Flexibility: hardware and virtualized Cygna cloud automation appliances.
- Adaptability: configurable workflows to match your processes for subnet and IP assignment and discovery.
- Responsiveness: instantly provision VNF/VMs in step with automated IP and DNS assignments.
- Elasticity - dynamically scale your networked VM/VNF capacity.
- Reliability: deploy multiple CAAs with redundant Cygna DDI systems for scalability, redundancy and high availability.



Example IPAM Integration Orchestration Workflow

About Cygna Labs

Cygna Labs is a software developer and one of the top three global DDI vendors. Many Fortune 100 customers rely on Cygna Labs' DDI products and services, in addition to its industry-leading security and compliance solutions to detect and proactively mitigate data security threats, affordably pass compliance audits, and increase the productivity of their IT departments.

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