

# Diamond IP Cloud Automation.

## Cloud automation appliance.



### 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 BT Diamond IP's DDI expertise to automate the IP address and name assignment using our flagship IPControl™ DDI system. Virtualized network functions (VNFs) or generically, virtual machines (VMs), 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 environments.

Each VNF/VM 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/VMs 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 Sapphire Cloud Automation Appliance (CAA) used in conjunction with deployment management systems such as Ansible, Chef, etc., provides simple, scalable cloud DDI automation. Such systems can be configured to issue REST API calls to the CAA appliance as part of your VNF/VM 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 cloud while accurately tracking your IP and DNS assignments within a centralized holistic database.

The Sapphire CAA provides security and high availability services with simple setup. The CAA provides TLS authentication and encryption of orchestrator plug-in DDI calls. The Sapphire CAA efficiently marshals REST API calls to your centralized IPControl™ database which serves as your IP addressing, DHCP and DNS repository for virtualized and non-virtualized based infrastructure. IPControl enables segregation of orchestrator driven domains to effectively manage VNF/VM address space within the scope of your entire enterprise IP address space.



# Diamond IP Cloud Automation Appliance.

## Maximize Cloud DDI Automation.

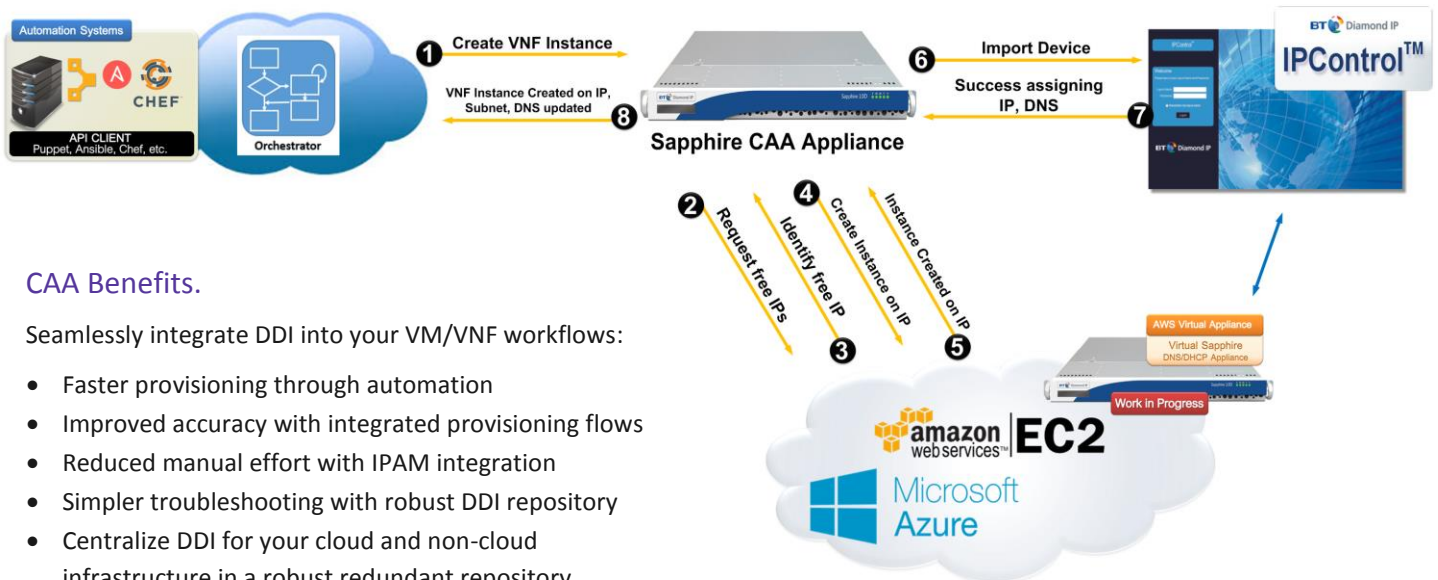
BT Diamond IP helps you automate your cloud management tasks in key ways:

- Create and manage subnets and IP address assignments within your private and public clouds.
- The Sapphire CAA automates IP address and DNS assignment for VNF/VMs created and destroyed via your orchestrator or configuration management system.
- Centrally track and manage your IP address space for all VNF/VMs and all enterprise devices alike with IPControl software from Diamond IP.
- Automate IP address inventory assurance with a variety of network and cloud discovery and reconciliation features.
- Virtual Sapphire appliances enable elastic instantiation of DHCP/DNS, IPAM, and CAA appliances to serve your dynamic capacity requirements.

## Key Features.

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

- Security: encrypted connections from Configuration system to CAA and CAA to IPControl database.
- Flexibility: hardware and virtual appliances.
- Adaptability: Configurable CAA workflows to match your processes for subnet and IP assignment and discovery.
- Responsive: Instantly provision VNF/VMs in step with automated IP and DNS assignments.
- Elasticity - Dynamically scale your VM/VNF capacity.
- Reliability: Deploy multiple CAAs with redundant IPControl Executives for scalability, redundancy and high availability.



## CAA Benefits.

Seamlessly integrate DDI into your VM/VNF workflows:

- Faster provisioning through automation
- Improved accuracy with integrated provisioning flows
- Reduced manual effort with IPAM integration
- Simpler troubleshooting with robust DDI repository
- Centralize DDI for your cloud and non-cloud infrastructure in a robust redundant repository
- High availability with CAA and IPControl redundancy
- Adaptability through customizable workflows
- Segment administrator authority to delegate with empowerment

Example IPAM Integration Orchestration Workflow

## Offices worldwide

The services described in this publication are subject to availability and may be modified from time to time. Services and equipment are provided subject to British Telecommunications plc's respective standard conditions of contract. Nothing in this publication forms any part of any contract. © 2017 British Telecommunications plc 2016. Registered office: 81 Newgate Street, London EC1A 7AJ. Registered in England No: 1800000

Find out more at:

+1 610 321 9000

[www.diamondipam.com](http://www.diamondipam.com)

