

Diamond IP Cloud DDI.

Automated Cloud DHCP/DNS/IPAM (DDI) solutions.



Streamline cloud provisioning.

Reap the benefits of rapid network, computing and services provisioning with flexibility, efficiency and elasticity with core network services automation.

These benefits are realized primarily through the cloud's characteristic use of virtualization technologies, which enable them to rapidly instantiate additional capacity for a required service element within minutes. If capacity demands fluctuate over time, capacity can just as quickly be withdrawn or allocated elsewhere. This elasticity affords organizations agility and cost efficiencies in offering network, computing and services resources dynamically sized to dynamic capacity needs over time.

Core cloud network services.

Core network services are so named in that they are *network services*, servicing network and computing elements in initializing their respective IP configurations to enable communications on the IP network and *core* in the sense that without which, such IP communications would be impossible.

Customers require a mix of environments to address their operational and commercial requirements. This is where the Cloud of Clouds strategy, Cloud DDI, and our role as the Cloud Services Integrator of choice come into play.

Cloud network initialization.

Virtual 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 network services are critical for virtual environments. Certainly each VNF/VM requiring network connectivity will require assignment of an IP address, perhaps multiple IP addresses.

In most cases, the VM will be assigned a hostname such that it can be referenced by name instead of its IP address. This name reference is necessary not only to simplify navigation by humans, being able to connect to a VM using its name, but also potentially by other VMs.

Elastic DDI in step with your cloud.

As particular network function capacity demands fluctuate, you can reliably instantiate and destroy VNF/VMs to grow and shrink network capacity accordingly. Along the way, Diamond IP DDI solutions enable you to automate the address and DNS assignment tasks during instantiation, as well as freeing up addresses and DNS entries with the destruction process. This integrated process streamlines the provisioning and de-provisioning process for your cloud while accurately tracking your IP address and DNS assignments within a centralized consistent database.



Diamond IP Cloud DDI.

Diamond IP Cloud DDI Automation

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

- Virtual Sapphire DHCP/DNS appliances serve as core network services VNF/VMs.
- Cloud orchestrator plug-in modules automate IP address and DNS assignment for all VNF/VMs created and destroyed via your orchestrator.
- Centrally manage your IP address space for all VNF/VMs and all enterprise devices alike with IPControl software from Diamond IP.

Virtual DHCP/DNS appliances.

Dynamically instantiate DHCP and DNS services with BT's Sapphire virtual appliances to attain the following benefits:

- Instantly provision virtual DNS and DHCP appliances on-demand.
- Elastically scale your DNS and DHCP capacity.
- Seamlessly manage DHCP and DNS VNF/VMs.
- Configure DHCP pools, options, policies, alerts from the centralized IPControl web interface or REST API.
- Configure DNS zones, parameters and resource records from the centralized IPControl web interface or REST API.
- Reduce energy consumption, rack space requirements, shipping costs and import charges.
- Deploy virtual appliances with redundancy with DNS anycast and DHCP failover.
- Virtual Sapphire appliances support IPv4 and IPv6 as well as DHCP/DHCPv6 and DNS for IPv4 and IPv6.

Cloud orchestrator plug-ins.

Automate requisite IP initialization functions directly within orchestrator VNF/VM instantiation. While you create and destroy VNF/VMs via your orchestrator, our plug-in automatically calls IPControl's REST API to assign or de-assign IP addresses and DNS records.

- Install our plug-in software with your orchestrator to integrate DDI functions with your VNF/VM provisioning processes.
- Leverage provided blueprints as native workflows or incorporate into broader workflows that you design.
- Eliminate the IP address spreadsheet and manual updates with automated assignment with IPControl.
- Keep your IP address plan of record updated with rapidly fluctuating VNF/VM instantiation and decommissioning.
- Plug-ins available for VMware vRealize and OpenStack orchestrator with AWS support coming soon.

Centralized IP management.

Easily create and destroy virtual Sapphire DHCP and DNS VNF/VMs and manage their respective configurations and status through BT Diamond IP's comprehensive DDI solution, IPControl™.

- IPControl provides centralized monitoring of virtual Sapphire services status as well as DNS and DHCP alerts and performance statistics.
- Supplement monitoring requirements with logging and SNMP.
- Upgrade your virtual Sapphire systems centrally from IPControl.
- Discovery features enable verification of IP address and DNS assignments to assure plan accuracy.

Offices worldwide

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