

# Diamond IP products and services.

Flexible, modular, feature-rich IP address management.



## IPAM your way.

Let's face it. IP address management (IPAM) is very complex technology, but it serves as the requisite foundation of your IP network. Diamond IP offers the industry's most flexible, adaptable, and broadest IPAM portfolio to enable you to simplify your IPv4 and IPv6 address management tasks and to manage them on your own terms.

### Diamond IP portfolio summary.

Our IPAM products and services enable you to manage and automate critical IP addressing and naming services including IPAM, DHCP (dynamic host configuration protocol) and DNS (domain name system). Upon this IPAM foundation, we also provide solutions for cloud deployment and automation, DNS security, managed services, and more.

Our IPControl™ software provides sophisticated business logic to enable you to manage IPAM the way you want. Our rich web user interface and REST API enable flexible management and integration with automation systems. Our centralized management platform enables deployment of DHCP and DNS configurations to multiple vendor DHCP and DNS servers deployed throughout your networks.

Our Sapphire appliances offer hardware or virtualized platforms with our IPControl software or DHCP/DNS software pre-installed. Sapphire appliances offer pre-installed convenience with the added benefits of a secure, hardened operating system running on dedicated hardware or on a variety of virtual platforms.

Our Sapphire Cloud Automation Appliance (CAA) provides simple, scalable cloud IPAM automation to enable you to track cloud IP and DNS assignments with your overall address space holistically.

Our DNSSEC appliances automate complex initialization and maintenance of DNSSEC keys and signing processes. Our DNS Firewall Service protects your network from the inception of malware communications attempts. It enables you to block queries for known malware and other undesirable domains to prevent infected devices from obtaining malware or attack instructions.

We stand with our products with flexible implementation services to facilitate data migration and initialization. Our training services can help you make the best use of our rich and diverse feature sets. And our managed services provide proactive management of your Sapphire DHCP/DNS/IPAM (DDI) infrastructure, as well as support for IPAM moves, adds and changes.

Diamond IP from BT is the only major IPAM industry supplier that offers the most flexible and scalable solutions for today's complex IP networks. Our solutions help you reduce costs, enhance productivity and gain efficiencies while improving the management and security of multiple IP infrastructure devices and services. Our products adhere to open standards, providing maximum interoperability within your existing network, including cloud and hybrid networks.



# Diamond IP products and services.

## IPControl™ software

### Comprehensive IPAM.

IPControl™ is an advanced, centralized IPAM system that enables service providers and enterprises to take control of their IP address space and manage it according to their own policies and procedures. Using IPControl, organizations can achieve vast improvements in operational efficiency by simplifying and automating IPAM processes, reducing network downtime and creating a more stable and robust IP infrastructure to support the full breadth of IP services.

IPControl provides centralized, full lifecycle management of mission-critical IPAM functions, including IPv4 and IPv6 address space allocation/reallocation, assignment, pool monitoring and utilization tracking, inventory assurance with layers 2 and 3 discovery, address and subnet reclaim, and deployment of multi-vendor DNS and DHCP configurations.

IPControl integrates with your existing DNS and DHCP environment, providing support for native Internet Systems Consortium (ISC DHCP and BIND DNS), Microsoft, Cisco Network Registrar (CNR), and Sapphire appliances. In addition, IPControl's extensive REST API provides integration points between IPControl and external systems for advanced automation and workflow of IPAM tasks and processes.

IPControl's intuitive user interface, extensible templates and built-in validation features enable accurate configuration, consistent policy deployment and centralized management of IP address space and distributed DNS/DHCP servers even by non-expert users. In addition, granular access controls enable varying levels of responsibility to be delegated to multiple administrators across multiple dimensions.

### Key Features.

IPControl is a fully integrated software solution for the inventory, configuration and capacity management of IPv4 and IPv6 address space and multi-vendor DNS/DHCP servers. IPControl runs on a variety of platforms including Microsoft® Windows™, RedHat, CentOS and various virtual platforms.

### Address Planning.

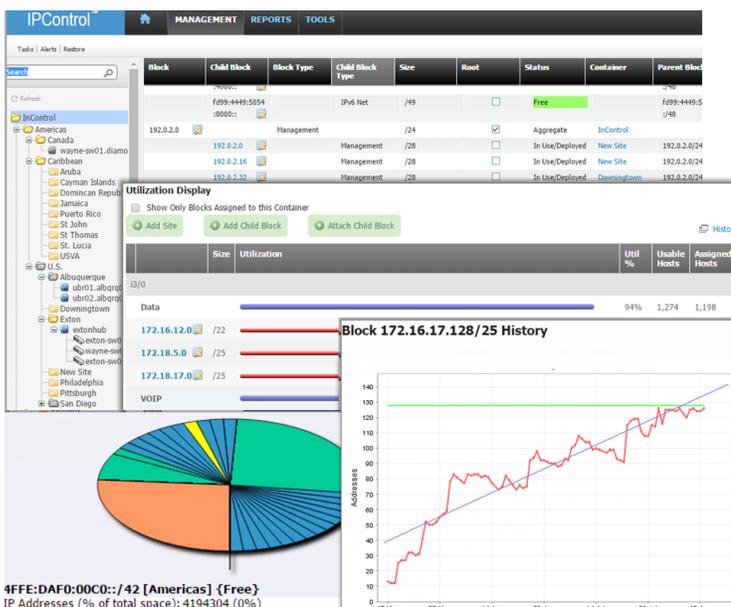
- One-click multi-allocations of IPv4 and IPv6 networks allocated to any CIDR size or prefix length with ability to configure individual IP addresses, ranges or address pools within networks automatically.
- Automated and manual IP address and subnet reclaim maximize address utilization efficiencies.
- User-defined policies determine which block and device types are permitted within the hierarchy and who can administer them.
- Address utilization trending and forecasting enables proactive address capacity management.
- Simplified address renumbering allows movement of address space to where it's needed.

### Multi-Vendor DNS/DHCP Server Configuration.

- Server templates streamline the server configuration process.
- Support for DHCP failover, multi-tiered addressing, multi homed hosts, DNS views, DHCP client classes, transaction signatures, MAC address processing, client ID, dynamic DNS, DNS firewall, DNSSEC and more.
- Advanced features configuration via the GUI for views, TSIG/GSS-TSIG, logging, address match lists, options and more.
- Integrated support for BT, ISC, CNR, and Microsoft DNS and DHCP servers.

### Accountability and Control.

- Patented container structure enables address management according to your topology, geography or other user-defined hierarchy.
- Layer 2 switch, Layer 3 router, ARP and IP discovery provides IPv4 and IPv6 inventory assurance.
- Advanced IPv6 address management enables automated block allocation, ip6.arpa domain creation, AAAA/PTR resource record automation.
- Audit reporting promotes accountability and history tracking for administrators, subnets, devices, IP addresses and containers.



# Diamond IP products and services.

## Sapphire hardware appliances

### Convenience with advanced security.

IP address management (IPAM) is critical for the operation of today's IP networks. Your end users rely on seamless IP assignment with DHCP and rapid name resolution with DNS to easily utilize IP network resources and applications.

### Purpose-built for security and reliability.

Sapphire appliances provide reliability and security with the convenience of pre-packaged DHCP/DNS/IPAM (DDI) appliances. Sapphire appliances are built from the ground up for security and robustness. Our appliances offer numerous security features including a hardened operating system (OS), network interface access control lists (ACLs), minimal open ports, uninterruptible boot process, jailed file system, and rate limiting to mitigate reflector and denial of service (DOS) attacks, to name a few.

### Simple deployment with centralized management.

All Sapphire models are simple to deploy and are shipped with IPControl IPAM, DHCP/DNS, DNSSEC or cloud automation services software pre-installed. Sapphire EX appliances provide centralized monitoring, services control, and patch management of distributed Sapphire appliances.

Deployed Sapphire appliances can be centrally monitored via the IPControl system dashboard and/or via a third-party SNMP manager which can be used to poll Sapphire MIBs and receive traps.

### Sapphire appliance hardware models:

- Sapphire 20 series, available as a centralized management (EX20), DNS/DHCP (x20), DNSSEC (Sx20), or cloud automation appliance (CAA) offers hot-swappable dual power and RAID5 solid state hard drives.
- Sapphire 10D series, also available as a centralized management (EX10), DHCP/DNS (x10), or DNSSEC (Sx10D) appliance offers mid-range price/performance with dual power supplies for a wide variety of deployments.
- Sapphire 10 series offers a lower cost single power supply platform within the Sapphire 10 family.
- Sapphire 5 series, available only for DHCP/DNS network services, offers a remote office solution with exceptional price/performance.

### Key Features.

Sapphire appliances reduce your IPAM costs by automating and simplifying DDI management, monitoring and control.

### Powerful, reliable platforms.

A variety of Sapphire hardware platforms enable mix-and-match deployments for optimal price/performance:

- Standard IPMI interface provides lights out operation on all Sapphire hardware platforms.
- Sapphire 20 and 10D platforms feature hot-swappable power supplies, while the Sapphire 20 platform also provides hot-swappable solid state hard drives.
- Sapphire x-series TwinMirror hardware pairs support auto-synchronization and hardware redundancy.
- OS, kernel and services upgrades can be deployed from the centralized IPControl interface.
- Centralized appliance monitoring via IPControl and via third party SNMP polling and syslog forwarding.

### Flexible deployment.

- Simplified procurement and deployment with one-stop integrated software and hardware or VMware installation.
- Flexible deployment options: server-based, appliance-based, virtual, and mixed.
- Configuration save and restore.

### Scalable, resilient architecture.

- TwinMirror hardware cluster pairs for DHCP/DNS.
- Replication among Sapphire EX hardware pairs offer redundant IPAM deployments.
- DNS anycast improves security and performance.
- Operate DHCP, DHCPv6, DNS, NTP, FTP/TFTP on a single robust appliance platform.

### Streamlined manageability.

- Centralized monitoring and control via EX or IPControl appliance dashboard.
- SNMP MIBs and traps facilitate performance reporting and management integration.
- VLAN and VXLAN tagging support.
- Network interface port bonding.

### Unsurpassed lifecycle support.

- No three-year support expiration unlike competitive appliance offerings.
- Attractive refresh and sparing pricing available.



# Diamond IP products and services.

## Sapphire virtual appliances

### Private and public cloud elasticity.

The power of today's cloud networking enables flexibility and scale with elastic allocation of virtualized resources. Whether for enterprise cloud or network function virtualization (NFV), virtual Sapphire appliances enable on-demand allocation of DNS, DHCP, and IPAM (DDI) services/functions.

### Simple, on-demand deployment.

IP address management (IPAM) services are critical for the operation of today's IP networks. Your end users count on seamless IP address assignment via REST or DHCP and rapid name resolution with DNS in support of your private and public cloud network initiatives. Reliability, rapidity, flexibility and security are paramount for continuous operations.

The convenience of a virtual appliance enables rapid deployments and ease of management. Virtual Sapphire appliances offer reliability and security with the convenience of pre-packaged DNS/DHCP/IPAM appliances in hardware and virtual machine format. And Sapphire appliances are built from the ground up for security and robustness in either form.

### Centralized monitoring and administration.

Deployed Sapphire virtual and hardware appliances can be centrally monitored via the IPControl system dashboard and/or via a third-part SNMP manager which can be used to poll Sapphire MIBs and receive traps. The appliance dashboard provides a summary view as well as the ability to drill down to a particular appliance to perform diagnostics or administrative tasks.

### Maximize network services flexibility.

Sapphire virtual appliances offer another deployment option for customers desiring to maximize the return on network investments. Customers can leverage the benefits of virtualization, including elasticity, lower power consumption and physical footprint as well as reduced shipping and installation costs, while retaining the power of Diamond IP IPAM solutions from BT.

You can select the virtual appliance type that best meets your services capacity requirements and your budget. Virtual appliances can be deployed and destroyed on demand. Both hardware and virtual appliances are managed and monitored via the centralized IPControl™ IPAM solution.

### Key Features.

Virtual Sapphire appliances help reduce your network costs through automation and simplification of DNS/DHCP/IPAM services management, monitoring and control.

### Multi-platform, multi-scale

- Virtual Sapphire appliances are supported for VMware, Oracle VM, Xen, Microsoft® Hyper-V, Amazon Web Services (AWS) and Microsoft® Azure.
- Virtual Sapphire DHCP/DNS appliances are available in sizes comparable to their hardware counterparts:
  - V5 – 2 CPU cores and 4 GB memory
  - V10 – 4 CPU cores and 8 GB memory
  - V20 – 8 CPU cores and 16 GB memory
- Virtual Executive (EX) models are available in V10 and V20 sizes and offer cloud benefits for centralized IPAM.
- The Virtual Sapphire Cloud Automation Appliance (CAA) enables IP address assignment and reconciliation with BT's IPControl software.

### Virtual appliance benefits.

- Rapid deployment of DNS/DHCP/IPAM/CAA functions.
- Reduce energy consumption.
- Server consolidation.
- Reduce rack space requirements.
- Leverage current virtualization architecture.
- Eliminate shipping and import charges.
- Support DNS/DHCP functions in NFV or cloud deployments.

### Streamlined manageability.

- Centralized monitoring and control via Sapphire EX or IPControl appliance dashboard.
- SNMP MIBs and traps facilitate performance reporting and management integration.
- Sapphire OS, kernel and services upgrades can be deployed from the centralized IPControl interface.



# Diamond IP products and services.

## Cloud automation

### 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. Whether in your public or private cloud platform, 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*, initializing network and computing elements with 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.

### Cloud network initialization.

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 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 IPAM 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, leveraging private and public cloud services. Along the way, Diamond IP 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.

### Key Features.

#### Cloud DDI Automation.

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

- The Sapphire Cloud Automation Appliance (CAA) streamlines cloud orchestration by automating DHCP/DNS/IPAM (DDI) assignments required for new VNF/VMs.
- Cloud orchestrator plug-in modules automate IP address and DNS assignment for all VNF/VMs created and destroyed via your orchestrator, e.g., vRealize or OpenStack.
- Virtual Sapphire DHCP/DNS appliances serve as core network services VNF/VMs.

#### Sapphire Cloud Automation.

The Sapphire Cloud Automation Appliance (CAA) in conjunction with system orchestration plug-ins enables simple, scalable cloud automation. Build automation flows to call the CAA appliance within your cloud orchestration workflows to electronically automate IP address and name assignment.

- Eliminate the IP address spreadsheet and manual updates with automated assignment.
- Keep your IP address plan of record updated with rapidly fluctuating VNF/VM instantiation and decommissioning.
- Instantiate on demand on AWS, Azure, BT Cloud Compute, VMware or Oracle VM platforms.

#### Adaptable cloud workflows.

The Sapphire CAA ships with pre-built workflows for managing subnets, IP addresses and DNS names as well as discovery and reconciliation functions to keep your IPControl IPAM database in step with your public/private/hybrid cloud IP address assignments.

Leverage provided workflows as native workflows, modify flows to your liking, or incorporate into broader workflows that you design.

#### Centralized cloud/hybrid IPAM

- Centrally manage your IP address space for all VNF/VMs and all enterprise devices alike with IPControl software from Diamond IP.
- Upgrade your virtual Sapphire systems centrally from IPControl.



# Diamond IP products and services.

## DNS security: DNS Firewall

### It all starts...and ends...with DNS.

Stop malware communications before they start. DNS is used by over 90% of malware according to Cisco. Our DNS firewall can help you shut down the initiation of malware communications.

Malware-infected devices typically rely on the domain name system (DNS) for communications. DNS helps malware locate the Internet address of its command center and can be used to exfiltrate sensitive information from your organization.

### DNS ubiquity's double-edged sword.

Most enterprise networks freely permit DNS traffic through firewalls because DNS is the essential first step in Internet communications for every device, malware-infected or otherwise. Infected devices use DNS to lookup the IP address of the malware controller's command center, typically a file or webserver used to communicate instructions or software to distributed malware. The malware then serves as a remote "bot" implanted within your enterprise network to execute commands from the attacker's command center.

### Advanced Persistent Threats.

DNS services are crucial to the simple navigation of the web in translating www addresses into IP addresses. But DNS is also useful for website administrators in that they can change their servers' IP addresses and simply update DNS to reflect the new name-to-address mapping.

Malware operators exploit these and other DNS capabilities to freely issue DNS queries to locate command centers, to exfiltrate information, and to change or "flux" their IP addresses to avoid shutdown through IP address filtering should they be detected. This and other evasive techniques enable malware to persist within networks and stealthily execute attacks on behalf of the attacker.

### Actionable intelligence.

The BT DNS Firewall protects your network from the inception of malware communications attempts. It enables you to block or redirect queries for known malware and other undesirable domains to prevent infected devices from obtaining software or attack instructions. BT provides a continually updated firewall feed for your recursive DNS servers to enable you to protect your network and to identify and mitigate infected devices.

### Multi-faceted filters.

BT DNS firewall enables you to not only protect your users from access to known malware domains and those of ill-repute. You can also customize rules to filter DNS responses for queries to other undesirable sites such as those known to contain adult, political or radical content. You have control for network protection and acceptable use policy governance.

### Firewall policies.

Diamond IP provides a variety of triggers based on known bad actor domains and IP addresses from which you can enable or disable policies. You can select firewall policies to apply for each category you enable including:

- Drop the response to the client
- Respond with "not found" (NXDOMAIN)
- Respond with "no data received" (NODATA)
- Redirect to a given IP address, e.g., a captive portal
- Respond with the "truncated" header bit to trigger TCP
- Pass-through ("whitelist")

### Actionable Reporting.

Should a device querying your DNS server request a domain for which a policy exists, logging alerts notify you of the querier IP address. This enables you to track down the offending device to investigate malware infestation and to apply remediation tactics. Logging to our centralized facility also enables history reporting and tracking.

### Key DNS firewall benefits.

The BT DNS Firewall includes a simple subscription service with frequent updates supporting the following benefits:

- Enhance your overall network security implementation. DNS is the first step in communications and serves as a prime opportunity to inhibit malicious communications.
- Timely firewall updates. Attackers move quickly to devise new attack vectors. Our firewall feed provides updates several times daily to keep your policies fresh.
- Prevent malware callbacks. With over 91% of malware using DNS in some manner, controlling access at the DNS layer can inhibit the effectiveness of such malware.
- Identify infected devices. With policy logging and reporting you can quickly identify devices issuing queries for which firewall policies apply for rapid remediation.



# Diamond IP products and services.

## DNS security: DNSSEC

### Secure your DNS namespace.

DNS Security Extensions (DNSSEC) technology enables organizations to digitally sign DNS data so resolvers can be assured of the validity of the publisher of the data and of the integrity of the DNS data itself.

#### Automation with control.

DNSSEC is the only definitive solution identified for dangerous cache poisoning attacks. Unfortunately, DNSSEC configuration and operation requires strong technical expertise not only for initial configuration but for ongoing monitoring and maintenance of signed zone data. Among these tasks are creation of key signing and zone signing keys, signing zone information and rolling keys.

The Sapphire Sx20 and Sx10D appliances from Diamond IP are secure DNSSEC appliances that provide automated key generation, zone signing, and key rollover based on user-defined policies. The Sx models provide “set and forget” policy operation to automate the setup and ongoing management tasks associated with signed zones.

#### Multi-master redundancy.

The Sapphire Sx20 and Sx10D appliances can be deployed as standalone authoritative DNS appliances or in a multi-master pair. This intra- or inter-site redundancy enables seamless transitioning of signed zone integrity in the event of a failure of an Sx appliance or its corresponding site. Our unique dual corroboration technology facilitates reliable failover while minimizing flapping and flash-cut key rollovers.

#### Seamless IPAM integration.

DNSSEC policies can be defined using a dedicated secure Sapphire DNSSEC administrator account. The IPControl system enables comprehensive management of your IPv4 and IPv6 address space, your DNS domain space, which zones to sign and your DNS and DHCP server configurations.

IPControl™ software from Diamond IP provides comprehensive DNS management for your signed and unsigned zones with support of all BIND option parameters, views, all resource record types and much more. Zones can be deployed to the Sapphire Sx20 and Sx10D appliances for automated signature maintenance. IPControl also enables configuration of DNSSEC validation parameters for your stock BIND servers or Sapphire appliances serving as validating resolvers on behalf of your clients.

### Key Features.

The Sapphire Sx20 is a highly redundant, highly scalable DNSSEC appliance while the Sx10D supports mid-tier deployments. Both models provide substantial cost savings by automating and simplifying your DNSSEC implementation. These savings can be realized through the following critical automation features.

#### Simple DNSSEC configuration.

- Automate DNSSEC management with policies for:
  - Number of keys per zone.
  - Key algorithms and sizes per type.
  - Key generation and lifetimes.
  - Key rollover cycles per key type.
  - Signature expiration intervals.
- Automated zone signing, key generation and rollovers.
- NSEC and NSEC3 support.
- Automated DS record generation and publication for managed zones or notification to contact parent zone administrators.
- Use existing BIND servers or use Sapphire appliances as secure zone slaves.

#### Extensive security.

- Support of PKCS#11 API for optional secure private key storage on an external hardware security module (HSM).
- Secure purpose-built hardened Sapphire operating system.
- Configure additional security-oriented options such as BIND and port ACLs, rate limiting, views, update-policy and TSIG keys.

#### Flexible redundancy and manageability.

- Multi-master authoritative server deployments.
- Direct as well as IPControl corroboration of master peer status for reliable failovers.
- Dual hot-swappable power supplies.
- RAID-5 hard disk redundancy on the Sx20.
- IPMI lights-out interface.
- OS, kernel, and services upgrades can be deployed from the centralized IPControl interface.
- Signed and unsigned DNS zone management via IPControl.
- Static and dynamic zones support.
- Centralized monitoring and control via EX or IPControl appliance dashboard.



# Diamond IP products and services.

## Managed IPAM services

### Streamline your IPAM tasks.

IP address management (IPAM) is a critical necessity for today's IP networks in support of network initiatives such as cloud, security, IPv6 deployment, VoIP, and more. Whether your business serves customers, employees, partners or suppliers, your end users rely on seamless IP address assignment and rapid name resolution to utilize IP network resources.

### Leverage our expertise.

Diamond IP offers IPControl, an advanced, centralized IPAM system that enables customers to manage their IP address space and associated DHCP and DNS servers. Despite powerful system capabilities, many customers prefer to leverage a managed service to perform IPAM functions. A managed service approach enables customers to retain focus on network initiatives while relying upon the skills and expertise of BT managed services to support their foundational IPAM functions.

### ISO standards certified.

The Diamond IP managed IPAM services from BT are ISO-27001 and ISO-9001 certified. These certifications acclaim Diamond IP as a model managed services organization and lends credible independent validation on the quality, security and management practices of the Diamond IP managed services.

### Two-tiered managed services.

The foundation of BT's managed IPAM services is the Sapphire Infrastructure Management (SIM) Service, which provides management of backups, upgrades, monitoring and administration of deployed IPControl Sapphire appliances. The SIM service provides for the system administration of deployed Sapphire appliances, including 24 x 7 x 365 monitoring, proactive trouble reporting and resolution, and upgrading of the secure Sapphire operating system, kernel, and DHCP and DNS services for security fixes or new feature sets.

The managed IPAM service encompasses and embellishes the SIM service to provide support for IPAM moves, adds, and changes. The IPAM managed service offers a complete IPAM services option, providing all of the system administration, monitoring and upgrades for deployed Sapphire DHCP/DNS appliances plus the day-to-day updates to IP address blocks, subnets, IP address assignments, address pools, DNS domains and resource records. IPAM functions are performed by the experts within the Diamond IP Managed Services Center to provide rapid and accurate IPAM services.

### Key Features.

Managed IPAM services allow customers to focus on network and business initiatives while Diamond IP supports the core IPAM infrastructure.

### Managed services benefits:

- ISO/IEC 27001 certified.
- ISO-9001 certified.
- Effortless lifecycle management of Sapphire IPAM, DHCP, DNS appliances.
- 24 x 7 x 365 monitoring of your Sapphire infrastructure.
- Streamline trouble reporting and resolution times.
- Encompasses Sapphire system administration functions.
- No need to train personnel on Sapphire system administration, monitoring and troubleshooting.
- Flexible deployment of Sapphire at customer sites, BT sites or both.
- Proactive notification of alerts affecting your IPAM infrastructure with resolution status and results.
- Scheduled feature upgrades included providing continual usability and functionality benefits.
- IPAM moves/adds/changes.
- Reduced IPAM lifecycle costs.
- IP blocks, subnets, addresses, DHCP and DNS server configurations.
- Reduced IPAM training and support requirements.

### The BT Difference.

Diamond IP's hallmark is flexibility. The IPControl product line is among the most flexible on the market. But Diamond IP offers an additional dimension of flexibility, encompassing your choice of all or part of the IPAM services stack.

The SIM service, comprising the lower layers of the IPAM services stack, enables you to leverage BT's managed IPAM services for monitoring and administration of your deployed Sapphire DHCP/DNS appliances while you retain all IPAM move/add/change (M/A/C) functionality with IPControl.

The IPAM managed service builds on and tops off the managed services stack, providing the benefits of the SIM service with the added ability to outsource M/A/C for your IPAM infrastructure including address blocks, subnets, IP addresses, address pools, DNS domains, resource records and other DHCP/DNS configuration parameters. IPAM M/A/Cs can be made on regularly scheduled intervals and upon request using the BT managed services request portal or your BT single point of contact.



# Diamond IP products and services.

## Implementation, support and training services

### Diamond IP implementation services.

Diamond IP products offer the industry's most flexible deployment options. Whether you are seeking to centrally manage an existing infrastructure of BT, ISC, CNR and/or Microsoft servers, migrate to an all-appliance deployment, or somewhere in between, Diamond IP professionals are available to help you plan your best practices based deployment of IPControl to help you meet your performance, high availability, scalability, and budget requirements.

### Diamond IP product support services.

Diamond IP offers three customer support program tiers to choose from. If you need more hands-on day-to-day support, we also offer managed IPAM services. Our support program options include:

- Standard support - provides for phone and email access to our Technical Assistance Center during the hours of 9 am to 8 pm Eastern Time U.S. Monday through Friday except U.S. holidays.
- Gold support - provides for phone and email access to our Technical Assistance Center 24 hours a day, seven days a week.
- Platinum support - provides for phone and email access to our Technical Assistance Center 24 hours a day, seven days a week plus remote assistance on-request via VPN, a dedicated support lead and a quarterly review meeting.

Diamond IP support is staffed around the clock. Our customers can initiate a service request via phone, email or by accessing our support site. Customers are also able to access our extensive knowledgebase on our support website for electronic help and how-to articles.

### Product and technology training.

As a thought leader in the IPAM industry, Diamond IP offers numerous educational resources enabling you to learn about IPAM technologies, including IPv6, DNSSEC, IDNA and related technologies within the IPAM discipline. In fact, website learning page offers multi-media training libraries for these respective technologies.

Extensive product training is available to educate you and your team on the rich feature set available to you with our IPControl and Sapphire products. Standard week-long classroom training is provided bi-monthly, with hands-on lab exercises.

Ad hoc scheduled training at your facility is also available on a variety of IP address management topics. We also offer classroom or web-based technology training on such topics as DHCP, DNS, DNSSEC, IPv4/IPv6 etc. as well as customer-specific training upon request.

### Leverage the power of experience.

Members of our team were among those who founded the IPAM industry nearly twenty years ago. We have worked with ever evolving DHCP, DNS and IPv6 technologies over the years. We have also authored books on IPAM and IPv6 topics and have contributed to Internet standards as well.



**Offices worldwide**

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Registered office: 81 Newgate Street, London EC1A 7AJ. Registered in England No: 1800000.

