BlueCat Security and Advanced Configuration

Introduction to BlueCat Security and Advanced Configuration

- Overview of BlueCat Networks: Evolution and core products overview
- Importance of Security in DDI (DNS/DHCP/IPAM) Solutions
- Industry Applications: Use cases for advanced configuration and security features

Advanced DNS Concepts

- DNS Security Extensions (DNSSEC): Implementation and key management
- DNS Anycast: Benefits, deployment considerations, and configuration
- DNS Forwarding and Caching: Optimizing DNS resolution performance

Advanced DHCP Configuration

- DHCP Options and Customization: Advanced DHCP configuration parameters
- DHCP Failover and Load Balancing: Ensuring high availability and scalability
- DHCPv6: Configuration and deployment considerations for IPv6 networks

IP Address Management (IPAM) Best Practices

- IP Address Planning: Subnetting strategies and efficient IP allocation
- IP Address Reclamation: Managing and reclaiming unused IP addresses
- Custom Attributes and IPAM Integration: Extending IPAM functionality

BlueCat Threat Protection and Security Features

- Threat Intelligence Integration: Using threat feeds and DNS reputation services
- DNS Firewall Configuration: Implementing DNS firewall rules and policies
- Advanced DNS Filtering: URL categorization, DNS sinkholing, and blacklisting

BlueCat Gateway and DNS Security

- DNS Over HTTPS (DoH) and DNS over TLS (DoT): Configuration and benefits
- DNS Views and ACLs (Access Control Lists): Implementing granular access controls
- Configuring DNS Security Policies: Mitigating DNS-based attacks and vulnerabilities

Advanced BlueCat DNS/DHCP Server (Adonis)

- Advanced Configuration of DNS Zones and Records: Dynamic updates, zone transfers
- High Availability and Disaster Recovery Strategies: Implementing failover and redundancy
- Performance Optimization: DNS server tuning and caching strategies

API and Automation for Advanced Configuration

- BlueCat APIs Overview: RESTful APIs for automation and integration
- Scripting and Automation Tools: Using BlueCat Gateway and third-party tools
- Orchestration and Workflow Automation: Streamlining configuration and management tasks

BlueCat DNS Integrity and Advanced Monitoring

- DNS Traffic Analysis: Monitoring DNS queries, traffic patterns, and anomalies
- Integrating with SIEM (Security Information and Event Management) Systems
- DNS Performance Metrics: Analyzing and optimizing DNS server performance

Compliance and Governance

- Regulatory Compliance: GDPR, HIPAA, and other data protection regulations
- Auditing and Reporting: Generating compliance reports and audit trails
- Role-based Access Control (RBAC): Implementing and managing access policies

Hands-on Labs and Practical Exercises

- Configuring advanced security features in BlueCat DDI solutions
- Implementing DNSSEC, DNS filtering rules, and DHCP failover scenarios
- Troubleshooting and Resolving Complex Network Issues