# Avoid network disruption

Use automation to identify, troubleshoot, and remediate issues

Proactive observability, troubleshooting, and remediation

BlueCat Infrastructure Assurance provides deep visibility and automation to prevent network disruption. It is a proactive observability, troubleshooting, and remediation solution for your network and security infrastructure. Infrastructure Assurance continuously measures security, performance, and configuration metrics, cross-referenced with benchmark data. When it finds an issue, it conducts auto-triage and root-level diagnosis without human intervention. And it serves up recommended remediation steps for IT operations teams to use based on known best practices and a knowledge base curated by a global community of experts.

The solution: BlueCat Infrastructure Assurance

Infrastructure Assurance uses SSH, HTTPS, and SNMP protocols to connect and run collection scripts on network and network security devices using API calls, CLI commands, SNMP MIB, logs, or configuration files. These scripts run continually and undergo continuous analysis. Infrastructure Assurance notifies IT operations teams of potential issues, identifies the potential cause of the problem without human intervention, and provides diagnostic results along with actionable remediation steps. IT operations teams can then fix issues before they cause disruption.
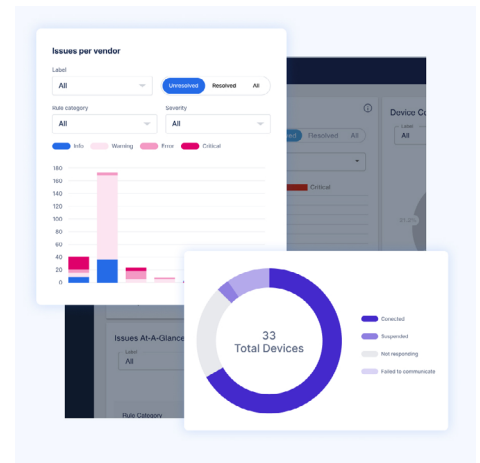
Key capabilities

✓ **Auto-detection**
Infrastructure Assurance continuously analyzes device metrics to track device health posture, proactively notify users before problems occur (e.g., connection counts approaching the device limit), and avoid outages. Use cases include:

- **High availability verifications:** Ensure consistent configuration across clusters and that redundant links and paths are both operational and correctly configured.

- **External services:** Monitor critical services for log service, identity awareness, authentication and authorization service, dynamic policies, or dynamic content updates with the latest threat intelligence.

- **Best practices:** Get recommendations for vendor-specific best practices and gold standard configuration conformance to avoid outages.

- **Security risks:** Enforce compliance with a defined set of internal or external policies and identify device vulnerabilities that matter.

✓ **Auto-triage**
Upon Infrastructure Assurance's detection of an issue, you can autonomously or manually run CLI commands and API queries according to best practices. Infrastructure Assurance analyzes data to determine the cause of the problem, without any human intervention. Analysis results are presented visually in workflow diagrams, along with recommended resolution steps.

Validate change requests

Validating changes and identifying signs of an unsuccessful change can be a time-consuming and manual process. With Manifest, Infrastructure Assurance automates the process of validating that services have resumed following change requests. Using automation, Manifest conducts comprehensive snapshot comparisons and generates a record of changes made during an upgrade, patch, or configuration change. It gives IT operations teams peace of mind that critical infrastructure is back to its normal state after applying updates.

Automated configuration backup

With Infrastructure Assurance, you can schedule daily, weekly, or monthly device backup to prepare for cases of device failure. This capability is supported for F5 load balancers and select Check Point, Palo Alto Networks, Fortinet, Juniper Networks, and Broadcom Symantec (formerly Blue Coat) firewalls. Check with your sales representative for details.

Anomaly detection

Infrastructure Assurance uses machine learning models to identify outliers and unusual behaviors. Awareness of anomalies helps identify early symptoms of emerging issues, allowing you to address them before they become bigger problems.

Operations management

Infrastructure Assurance offers a variety of tools to bolster network operations management and accelerate troubleshooting, including:

- Visual tracking of critical metrics over time, allowing for correlating issues and timeframes for effective troubleshooting

- Custom report building and scheduling for devices that are not conforming to best practices, non-compliant, or harbor security risks

- System-defined reports for payment card industry (PCI) compliance and CVEs

- Role-based access control to restrict access and assign read-only access privileges for certain users

- Granular device permissions to allow segregation of information between users, restricting their view to their respective purview

- Audit log to look back at changes and user activities

Integration

With Infrastructure Assurance, you can improve the efficiency of IT operations teams through the integration of email, syslog, APIs, and SNMP traps. Furthermore, users can:

- Carry out commands using APIs to retrieve information from or post information to Infrastructure Assurance

- Centralize authentication with Active Directory via LDAP, RADIUS, or SAML 2.0

- Integrate with ticketing systems such as ServiceNow

- Integrate with monitoring solutions such as Solarwinds or BigPanda

- Integrate with data visualization tools such as Grafana or Tableau

Benchmark infrastructure

Infrastructure Assurance's cloud-based analytics service contains production data collected from its users to provide proactive customer support. The data includes issues identified in user environments, scripts executed, and metrics collected.
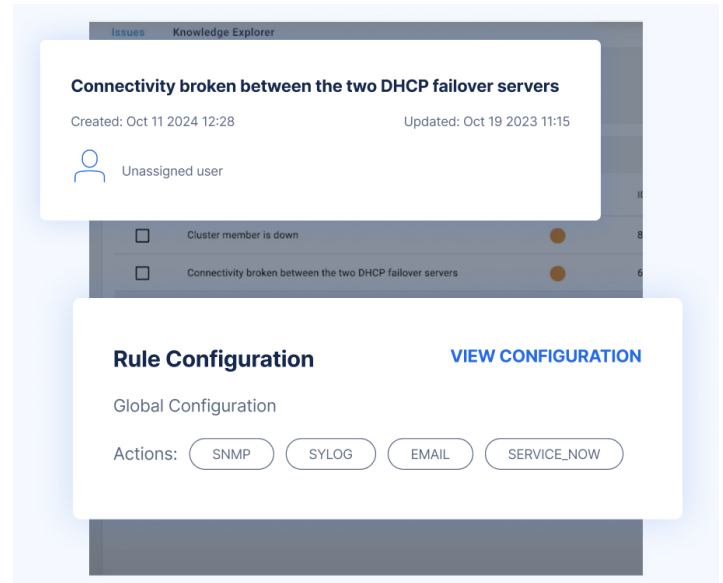
System requirements

The sizing of Infrastructure Assurance is critical to its overall stability and performance. Various sizes are available for different deployment scenarios. The requirements listed below are for up to 1,000 devices and are minimal recommendations. Please reach out to your sales representative with questions.

Device count	Server	Browser
1-30	• 8 vCPU Xeon or i7 • 8 GB RAM • 180 GB HD (3000 IOPS)	
31-100	• 16 vCPU Xeon or i7 • 16 GB RAM • 180 GB HD (3000 IOPS)	• Chrome, Edge, Firefox
101-300	• 32 vCPU Xeon or i7 • 64 GB RAM • 400 GB HD (6000 IOPS)	
301-1,000	• 64 vCPU Xeon or i7 • 96 GB RAM • 400 GB HD (8000 IOPS)	

Supported devices

BlueCat	**BlueCat Address Manager (BAM)** • BAM 1000/3000/5000/6000/7000 • Virtual appliances running VMware Hyper-V or KVM • Virtual cloud instances running in AWS, Azure, or Google Cloud • Running 9.4 or later
	BlueCat DNS/DHCP Server (BDDS) • BDDS 20/25/45/50/60/75/120 • XMB • Virtual appliances running VMware Hyper-V or KVM • Virtual cloud instances running in AWS, Azure, or Google Cloud • Running 9.4 or later
	BlueCat Edge Service Point • Service Point Version 4.7.0 or later • DNS Resolver Service activated • Virtual cloud instances running in AWS, Azure, or Google Cloud • XMB BAM 1000/3000/5000/6000,7000 BDDS 20/25/45/50/60/75/120/125 • Adonis, Proteus

Broadcom Symantec (formerly Blue Coat)	**Hardware: ProxySG** • **Physical**: SG S200, SG S400, SG S500 (physical ProxySG appliance) • Virtual: SG-VA Alteon VA, Alteon VADC • **Software**: ProxySG SGOS 6.5 and later • **Content Analysis series**: CAS S200-A1, CAS S400-A1, CAS S400-A2, CAS S400-A3, CAS S400-A4, CAS S500-A1 • Running CAS 2.3.5.1
Check Point	**Hardware:** • **Quantum security gateway appliances**: 700, 900, 1200R, 1550, 1590, 2200, 3100, 3200, 3600, 4200, 4400, 4600, 4800, 5100, 5200, 5400, 5600, 5800, 5900, 6200, 6500, 6600, 6800, 6900, 12200, 12400, 12600, 13500, 13800, 15400, 15600, 16000, 21400, 21600, 21700, 21800, 23500, 23800, 23900, 26000, 41000, 44000, 61000, 64000 • **Quantum Lightspeed appliances**: QLS250, QLS450, QLS650, QLS800 • **IPSO (Nokia) appliances**: IP150, IP290, IP390, IP560, IP690, IP1280, IP1220, IP2255 • **Quantum Smart-1 security management appliances**: 405, 410, 625, 5050, 5150 **Software:** • **Gaia** R80 → R81.20 • **Scalable Platform**: R76.40SP → R81.10SP • **IPSO**: R70 and later • **Embedded Gaia**: R75.20 and later • **CloudGuard Network Security**: R80 → R81.20 • **Maestro** R80.20SP → R81.10SP • **Multi-Domain Security Management** (Provider-1) R80 → R81.20
Cisco	• **ASA 5500 Series:** 5505, 5510, 5512, 5515, 5520, 5525, 5540, 5545, 5550, 5555 • **ASA 5500-X Series**: 5506-X, 5506W-X, 5506H-X, 5508-X, 5516-X, 5512-X, 5515-X, 5525-X, 5545-X, 5555-X, 5585-X • **ASAv**: Running ASA 9.x

F5	• **BIG-IP**: 5200v, 5250v, i5800, 7200v, 7250v/7255v, i7800, 10200v-F/10350v-N/10350v, i10800, i2250v
	• **VIPRION**: 2200/D114, 2400/F100, 4400/J100, 4480/J102, 4800/S100
	• **BIG-IP Virtual Edition (VE)**:
	  • Running TMOS 11.6 or later;
	  • Software modules supported: Load Traffic Manager (LTM)

Fireye	• **NX series**: NX-VM, NX-900, NX-1400, NX-1500, NX-2400, NX-2500, NX-2550, NX-3500, NX-4420, NX-4500, NX-5500, NX-6500, NX-7400, NX-7420, NX-7550, NX-9450, NX-10450, NX-10000 • Running wMPS 8.2.0
Fortinet	• **FortiGate**: 100E, 200E, 300D, 300E, 500D, 500E, 600D, 800D, 1000D, 1200D, 1500D, 2000E, 2500E, 3000D, 3100D, 3200D, 3700D, 3960E, 3980E • **FortiGate-VM and FortiOS** (minimum 4GB RAM) • Running 6.4.x and 7.0.x

Gigamon	• **GigaVUE visibility appliances (TA Series and HC series)**: GigaVUE-TA10, GigaVUE-TA40, GigaVUE-TA100, GigaVUE-TA200, GigaVUE-HC1, GigaVUE-HC2, GigaVUE-HC3 • Running GigaVUE-OS 4.7.01
Juniper Networks	• **SRX Series**: SRX100, SRX110, SRX210, SRX220, SRX240, SRX300, SRX320, SRX340, SRX345, SRX650, SRX1400, SRX1500, SRX3400, SRX3600, SRX4100, SRX4200, SRX5400, SRX5600, SRX5800, vSRX • **Software**: Junos 12.1X46 and later
Palo Alto Networks	**Hardware** • **Next-Generation Firewalls**: PA-200, PA-220, PA-500, PA-800, PA-820, PA-2000, PA-3000, PA-3200, PA-4000, PA-5000, PA-5200, PA-7000 • **VM-Series Virtual Next-Generation Firewalls**: VM-50, VM-100, VM-200, VM-300, VM-500, VM-700, VM-1000HV • **Panorama**: M100 and M-500 **Software**: PAN-OS <= 11.0 Hardware (support includes open server deployments)
Radware	**Hardware: Radware Alteon** • **Physical**: Alteon 5K, 6K, 8K series (both in Standalone and VX Mode) • **Virtual**: Alteon VA, Alteon VADC **Software**: Alteon OS 29.0 and later
Zscaler	**Zscaler App Connector** Running on RedHat 7.x or 8.x

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Next steps

Discover how Infrastructure Assurance can proactively alert you to issues to help avoid network outages.

Request a live demo