NetBrain

Agentic AI-Powered Automation:
From Faster Network Diagnosis to Automated Remediation

NetBrain R12.3 advances agentic AI integration with our leading network automation platform, evolving it from a diagnostic assistant into an agentic subject matter expert. This release transforms troubleshooting by introducing AI that can autonomously investigate complex network issues and intelligently guide automation workflows more independently.

By combining independent problem-solving with actionable recommendations, it turns diagnosis and repair into a streamlined, intelligent process—slashing resolution time, automating validation, and making network changes safer across hybrid and cloud environments.

Network observability brings mapping and automation support for hyperscaler cloud services and Kubernetes. It extends the golden assessment library with simplified automated network validation and troubleshooting checks across multiple devices in minutes allowing faster diagnosis of issues, automated post-mortem analysis, and safer change remediation.

Key Innovations

1. AI as a Digital Engineer

- **AI Runbook Companion (White Box AI):** Lets users analyze and refine runbook results earlier by reading node contents, summarizing results, & responding to queries.
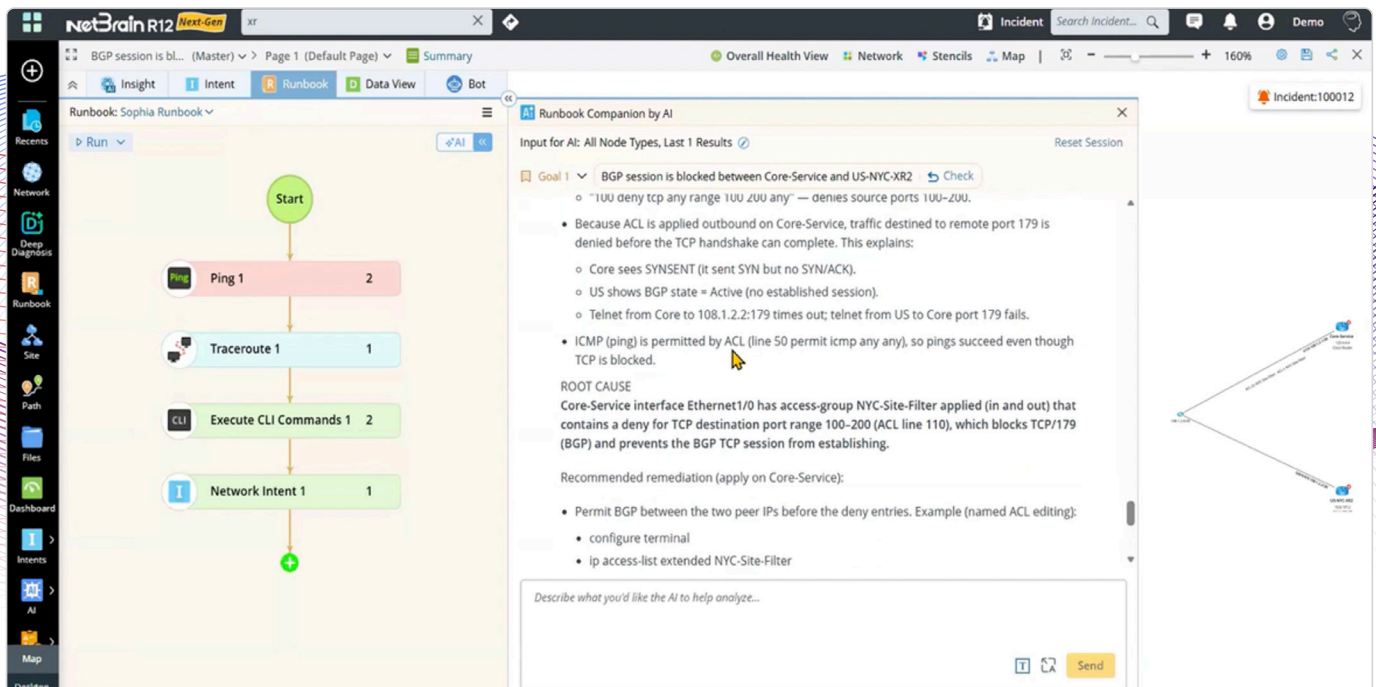
- **AI Deep Diagnosis (Black Box AI):** Uses NetBrain Automations and iterative analysis to diagnose network issues, delivering transparent reasoning & visualized root causes.

- **AI Ticket Analysis:** Analyzes historical tickets to classify & categorize past network problems.

- **Parser Assistant by AI:** Simplifies parser rule creation—turning CLI output into automated action in minutes.

Why it matters:

- Enables faster root-cause identification and trains AI to solve problems proactively.

- Improves the depth and accuracy of analysis across hybrid and cloud environments,

- Reduces MTTR through better insight—not guesswork.

- Puts engineers above the loop as approvers to deliver precision at speed, accelerating diagnosis and remediation.

2. Workflow-Embedded, Real-Time Assessments

- **Quick Assessment:** Automates network validation and troubleshooting checks across multiple devices in minutes. Define what to check once and apply it everywhere automatically.

Why it matters:

- Bridges the gap between having automation capabilities and actually using them daily.

- Makes NetBrain's GAL automation library accessible in automated workflows—turning hours of manual verification into minutes of automated assessment.

- A "one-click" validation engine for ensuring network health, change safety, and faster troubleshooting.

3. Unified Cloud & Kubernetes as a First-Class Operational Domain

- **Expanded support for 200+ cloud services** across AWS, Azure, and GCP—including DNS, databases, and AI services.

- **Full Kubernetes Support:** with a new Kubernetes automation library in GAL.

- **API Authenticator:** Centrally manages and secures authentication for communication with external systems

NetBrain 12.3: Agentic AI-Powered Automation

Why it matters:

- Eliminates cloud and Kubernetes management as "side systems" and, instead, treats them as core, automatable environments—not bolt-ons.

- Directly supports hybrid and modern infrastructure realities with full-stack observability and end-to-end automation.

4. Enhanced Change Management Workflow

- **Auto-remediation for TAF (Triggered Alert Framework) & Golden Assessments:** Automatically generates change tasks from triggered alerts and scheduled checks.

- **Dual Approval Flows:** Supports both manual approval for governance and pre-approved tasks for speed.

- **Centralized Remediation Management:** Single pane to view, manage, and categorize all automated fixes.

- **API Support:** Enables programmatic creation, execution, and management of change tasks.

Why it matters:

- Accelerates resolution by reducing manual steps from alert to fix.

- Enforces compliance & safety by ensuring changes are reviewed and approved per policy before execution.

- Improves operational efficiency through automated task creation and clear audit trails.

- Increases visibility & control with a centralized, filtered view of all changes & their status.

- Centralizes integration with external systems via API.

Additional Enhancements

- **Map & UX Improvements:** Granular file access control, new topology link types, simplified menus, and Word export templates.

- **API Authenticator:** Centralized, secure authentication (OAuth 2.0, API Key, Basic Auth) for all third-party integrations.

- **Logic Node Support:** Monitor cloud services and applications alongside traditional devices in unified dashboards.

What Makes NetBrain's AI Truly Agentic?

NetBrain's Agentic AI uniquely interprets your hybrid network—no matter how complex—into a structured digital twin. It aligns with three practical modes enabling autonomous troubleshooting, change execution, and optimization while maintaining engineer oversight:

- **In-the-loop:** AI assists with real-time diagnostics and recommendations.

- **On-the-loop:** AI performs tasks under human supervision.

- **Out-of-the-loop:** AI operates independently within safe, pre-defined boundaries.

Why Upgrade to R12.3?

- **Faster MTTR** through AI-driven diagnosis and automated remediation.

- **Safer Changes** with automated validation, dual approval, and AI impact analysis.

- **Unified Operations** across on-prem, cloud, and Kubernetes from a single platform.

- **Simplified Daily Ops** with enhanced security, granular access controls, and a streamlined UX.

Conclusion

NetBrain R12.3 is the next step toward autonomous network operations. By combining agentic AI with scalable automation and unified cloud support, it redefines the economics of NetOps, enabling teams to operate faster, safer, and smarter.

About NetBrain

A pioneer since 2004, NetBrain is democratizing network automation through GenAI. With its intuitive no-code automation platform, NetBrain empowers network architects, operators and engineers to harness the power of AI and automation, transforming complex operational processes into efficient workflows. By automating network troubleshooting, change, and assessment workflows, NetBrain helps organizations boost operational efficiency, reduce MTTR and mitigate risk. Unifying GenAI and human intelligence, NetBrain provides comprehensive hybrid network observability through continuous network assessment automation and visualization technology, enabling IT organizations to be proactive, make informed decisions and drive innovation.

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