

The Network Operations Field Guide

Practical ways to simplify, scale, and strengthen your network behind the scenes with Sonar.



Every network has its own challenges — whether it's growth, uptime, efficiency or experience. Sonar was built to handle those details quietly behind the scenes, so you can focus on keeping your network running strong, not chasing what's breaking next.

But do you know all the ways it does this?

This field guide shares practical ways to simplify your network operations, improve visibility, and automate the maintenance that keeps everything online. From planning new builds to managing IPs and monitoring performance, you'll see how Sonar connects it all.

And no matter how long you've been with Sonar, we bet you didn't know Sonar could do all this.



The craziest part? This guide doesn't even cover everything. If you're looking for more insights, check out our Knowledge Base:

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Network Planning & Buildouts



Did you know Sonar can map elevation profiles between any two points?

With the Elevation Tool, you can visualize the terrain between towers, POPs, or serviceable locations — right inside Sonar's map view. Plot a path, review line-of-sight, and identify obstacles before deployment — no external mapping software required.

The result: smarter site planning, faster link validation, and fewer surprises when it's time to build.

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Did you know Sonar can organize inventory for every stage of your fiber build?

With Segmentable Inventory, you can separate equipment and materials by region, project, or build phase — keeping everything from ONTs to splice enclosures easy to track. Assign segments to warehouses, crews, or job sites, and monitor what's deployed, reserved, or in transit — all from a single view.

It's a cleaner, faster way to manage your network buildouts — reducing mix-ups, speeding up installs, and giving your team full visibility from planning to go-live.

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Did you know Sonar automatically keeps your address and inventory data in sync?



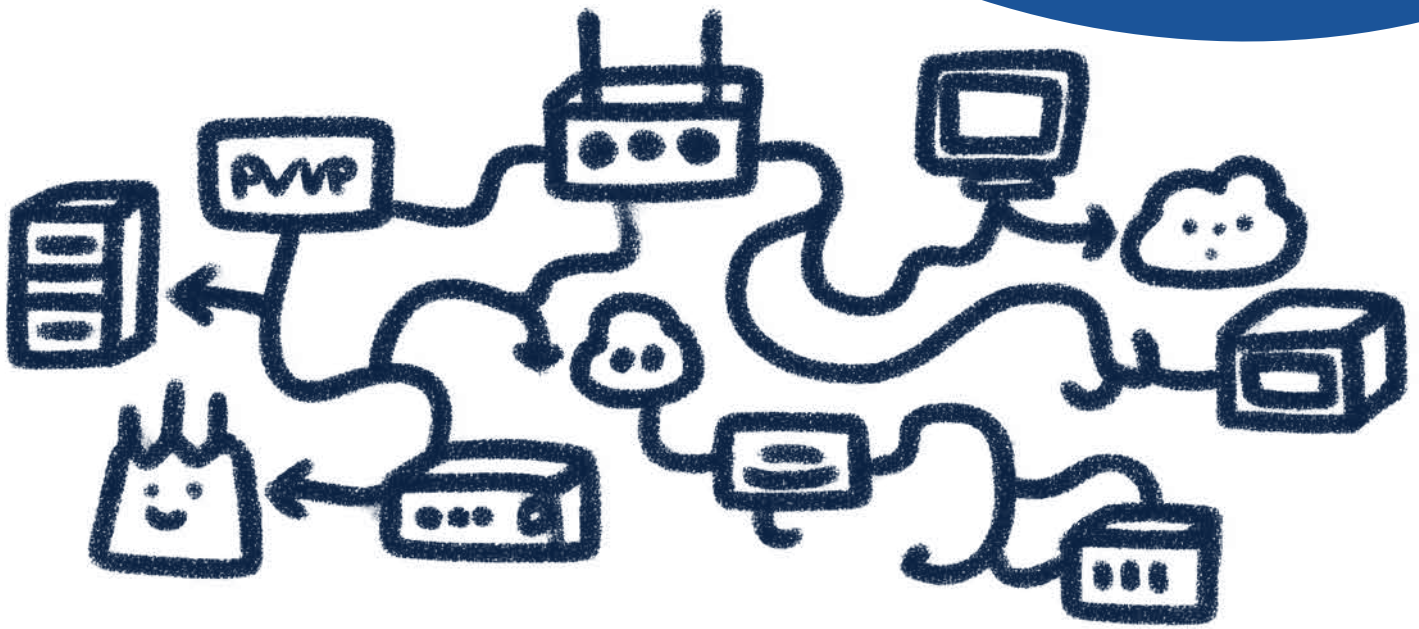
Serviceable Addresses are a permanent record of what exists at a location — independent of any customer account. Inventory, devices, and service relationships can live directly on a Serviceable Address, while accounts attach and detach as customers come and go.

This separation keeps billing and payment history distinct from physical network history, so you can see what was installed, when, and by whom — without digging through old accounts. It also means faster troubleshooting, fewer truck rolls, and less time spent tracking down equipment details.

Serviceable Addresses also include serviceability statuses, letting you define whether an address is active, part of a planned expansion, or simply being tracked for interest.

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Network & Billing Automation



Did you know Sonar can manage your IP assignments automatically?

With inline devices and address lists, Sonar handles IP management and routing updates behind the scenes. When a new service is activated or disconnected, IPs and device assignments update automatically — keeping your network clean, your IP addresses accurate (in use, not in use or reserved), and your provisioning consistent across routers.

It's built for both IPv4 and IPv6. Sonar can automatically create IPv6 subnets within any defined supernet at the time of assignment, making deployments in the field faster and simpler for technicians. No manual subnet creation — just plug in, assign, and go.

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Did you know you can automate service changes in real time?

With Sonar, speed and access control can happen automatically the moment an account changes. Whether you're using RADIUS with Change of Authorization (CoA), a direct Calix SMx integration, or a MikroTik inline device setup, Sonar can apply speed upgrades, suspensions, and reinstatements in real time.

That means when a customer upgrades their plan, falls behind on payment, or gets reconnected, the right speed and access level are applied automatically. You can even link services in Sonar to predefined speed profiles in SMx, Preseem, or MikroTik — so billing, performance, and access always stay in sync.

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Network Performance Analysis

Did you know Sonar can analyze live traffic directly from your network edge?

With the On-Prem NetFlow Receiver, Sonar can collect real traffic data from your network — giving you per-device and per-site visibility into bandwidth usage, top talkers, and unusual activity. This usage data doesn't just live in a report — it can feed directly into Sonar's data billing system, where service caps and overages are automatically tracked and enforced.

That means accurate usage billing, less manual tracking, and a clear view of who's using what — all powered by real network data.

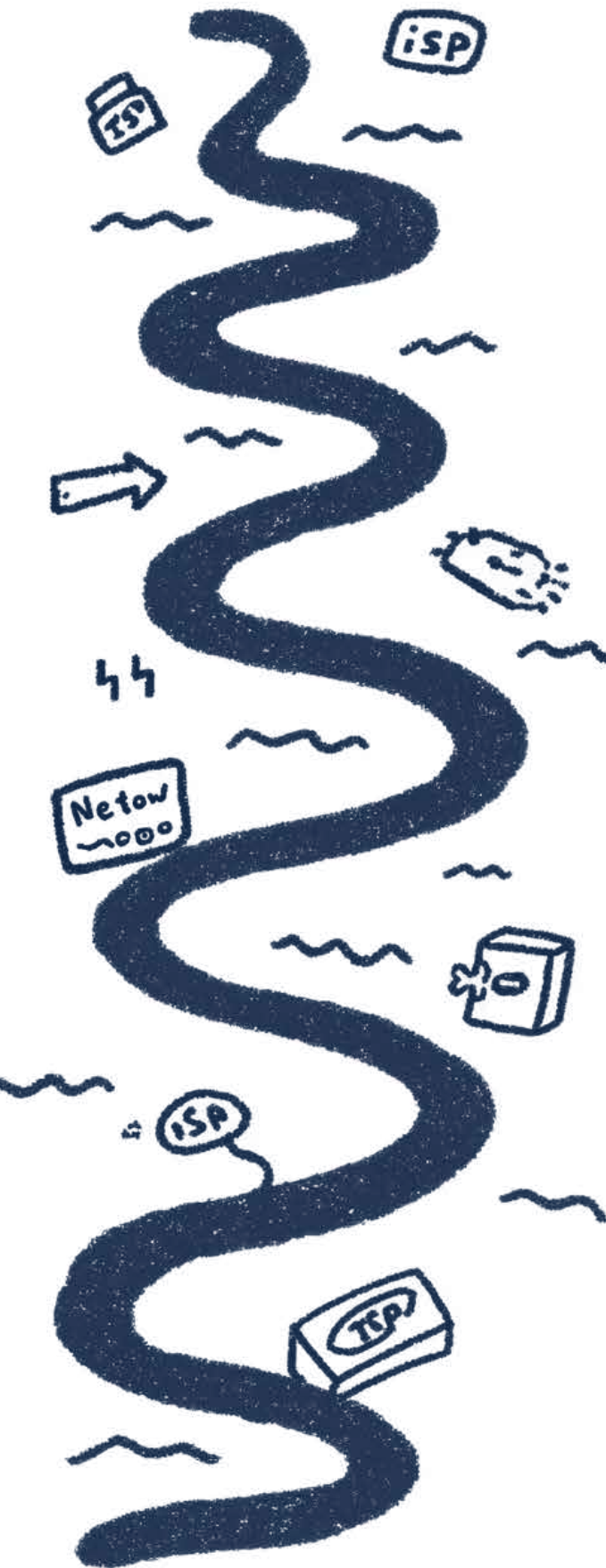
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Did you know you can customize how each device is monitored?

Use Monitoring Templates to fine-tune exactly what Sonar tracks — and how often. From SNMP interface stats to ICMP latency and packet loss, every device type can be dialed in for just the right level of visibility.

For example, you could give your backbone routers faster check-ins and let your CPEs breathe with lighter polling — balancing performance and precision to keep your network both sharp and efficient.

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Did you know you can control who gets network alerts — and when?

With Alerting Rotations, you can build on-call schedules that automatically notify the right people when devices hit Warning, Down, or Flapping states. Configure rotation intervals, start dates, user groups, and even add a grace period before the first alert.

It's structured, automated coverage that keeps your team in the loop without burning them out.



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Did you know you can monitor your entire network's health from one dashboard?

Use the Network Dashboard to monitor all sites, devices, and alerts in one central command view. Each site tile shows live device counts, active alerts, and connectivity health.

Drill into a Network Site to see topology, device performance, and alert history — without jumping between tools.



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Did you know you can visualize your network, accounts, inventory locations, field techs, and tickets — all in one place?

The Map Interface gives you a live view of what's happening across your network. You can see which areas have open tickets, filter by device or service type, and draw custom zones to plan new builds or check coverage. It's an easy way to spot patterns, catch issues early, and keep your operational view aligned with what's actually in the field. You can also upload your own KML files to display custom data as points, lines, or polygons.

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Did you know Sonar brings real-world QoE and performance data into one view?

Sonar connects directly with performance platforms like Preseem, Calix Cloud, and Adtran MCP, pulling real-world throughput, latency, and device health data straight into your Sonar instance. You can see how your network actually feels to customers — from service quality trends to site-level performance — all tied to your accounts and devices.

This visibility makes it easier to spot emerging issues, prioritize maintenance, and track the impact of upgrades before they become support calls.

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