

LogZilla for Telecom and ISPs

AI-Powered NOC Operations for Carrier-Scale Networks

10TB+

Daily Ingestion

80-95%

Data Reduction

Seconds

MTTR Improvement

AI

Copilot Included

The Telecom Challenge

Carrier-Scale Complexity:

- **Massive event volume:** Billions of events daily
- **Subscriber impact:** Outages affect thousands
- **NOC alert fatigue:** Critical signals lost in noise
- **Multi-vendor networks:** Cisco, Juniper, Nokia, Ericsson
- **5G/LTE complexity:** New protocols, new problems

The AI Advantage

Carrier-Grade Intelligence:

- **Root cause in seconds:** AI correlates across domains
- **Subscriber impact analysis:** Affected customer counts
- **Predictive maintenance:** Identify failures before outages
- **Vendor CLI commands:** Remediation included
- **BGP/MPLS visibility:** Peering and routing analysis

AI-Powered Subscriber Troubleshooting

NOC Analyst prompt: "Customer 555-0142 reports intermittent connectivity. Analyze all related events for the last 24 hours."

SUBSCRIBER ANALYSIS: 555-0142
Account: Acme Corp | Service: Business Fiber 1Gbps

ROOT CAUSE IDENTIFIED: Optical degradation

Timeline:

- 02:14 - OLT-WEST-47: Rx power -28.4dBm (threshold -27dBm)
- 02:15 - First packet loss detected (0.3%)
- 06:42 - Rx power -29.1dBm, loss increased (1.2%)
- 14:23 - Customer ticket opened

CORRELATION:

- 3 other ONTs on same PON port showing degradation
- Splitter SC-WEST-47-S2 suspected

RECOMMENDED ACTION:

- Dispatch fiber tech to splice point SP-4721
- Priority: High (4 business customers affected)

NOC Operations Dashboard

NETWORK OPERATIONS CENTER - REAL-TIME STATUS				
Region	Devices	Events/hr	Alerts	Health
Northeast	2,847	12.4M	3	99.2%
Southeast	3,102	14.1M	1	99.8%
Midwest	2,456	11.2M	0	99.9%
West	4,231	18.7M	5	98.7%

ACTIVE INCIDENTS: 2 | MTTR Today: 4.2 min

Supported Platforms

- **Core/Edge:** Cisco IOS-XR, Juniper Junos, Nokia SR OS
- **Mobile:** Ericsson, Nokia, Samsung 5G/LTE
- **Access:** DOCSIS, PON, DSL, Fixed Wireless
- **Transport:** DWDM, OTN, MPLS, Segment Routing

AI Use Cases for Telecom

Use Case	Traditional	With AI
Subscriber troubleshooting	30-60 min	2 min
Outage root cause	Hours	Seconds
BGP anomaly detection	Manual review	Real-time
Capacity planning report	1 week	5 min
Vendor escalation prep	2-4 hours	10 min

Data Reduction Impact

- **Interface flaps:** 10,000 events → 1 with count
- **BGP updates:** Deduplicated by prefix/peer
- **SNMP traps:** Correlated to single incident
- **Syslog storms:** Filtered at ingestion

Network Incident Correlation

NOC Analyst prompt: "Show all network incidents in the West region for the last hour with subscriber impact."

WEST REGION INCIDENT SUMMARY

Time: Last Hour | Events: 18.7M | Incidents: 5

INCIDENT #1: CRITICAL - Core Router Failover

Device: CR-WEST-01 (Cisco ASR9K)
Event: %PLATFORM-3-ELEMENT_WARNING
Impact: 12,847 subscribers (47 sec traffic loss)
Status: Recovered - standby took over

INCIDENT #2: HIGH - BGP Peer Flap

Device: PE-WEST-14 (Juniper MX480)
Peer: AS7922 (Comcast)
Flaps: 3 in 15 minutes
Impact: Increased latency to East Coast

REMEDIATION COMMANDS:

! Cisco - Check redundancy status
show redundancy
show platform

! Juniper - BGP peer analysis
show bgp neighbor 198.32.xxx.xxx

CDR/Flow Analysis

TRAFFIC ANALYSIS: Top Bandwidth Consumers
Period: Last 24 Hours | Total: 847 PB

Rank	Customer	Traffic	% Total
1	Streaming Corp	124 PB	14.6%
2	Cloud Provider A	98 PB	11.6%
3	Gaming Network	67 PB	7.9%
4	Enterprise Bundle	45 PB	5.3%
5	Residential Aggr	513 PB	60.6%

ANOMALY DETECTED:

Gaming Network +340% vs 7-day average
Cause: New game release (verified)

Peering Analytics

Peer	Traffic In	Traffic Out	Ratio
AS7922 Comcast	45 TB	12 TB	3.75:1
AS3356 Lumen	32 TB	28 TB	1.14:1
AS6939 HE	18 TB	22 TB	0.82:1
AS13335 Cloudflare	67 TB	2 TB	33.5:1

Deployment Options

On-Premises

- Single server: 10 TB/day
- Kubernetes: 10B+ events/day
- Your data center
- Full data sovereignty

Hybrid

- Regional collectors
- Central correlation
- Encrypted transport
- Flexible retention

Cloud

- Customer-managed
- Instant provisioning
- No infrastructure
- Scalable architecture

Integration Ecosystem

Ticketing & OSS

- ServiceNow
- BMC Remedy
- Jira Service Management
- Custom OSS/BSS

Monitoring

- SolarWinds
- PRTG
- Nagios/Icinga
- Prometheus/Grafana

Data Export

- Splunk HEC
- Syslog forwarding
- REST API
- Webhook automation

Why Telecom/ISPs Choose LogZilla

Metric	Improvement
Mean Time to Repair	85% faster
NOC ticket volume	60% reduction
SIEM/storage costs	70-90% savings
Subscriber complaints	40% reduction

Carrier-Grade Benefits:

- Scale:** Billions of events, single pane
- Speed:** Sub-second search across petabytes
- AI:** Natural language troubleshooting
- Cost:** Reduce downstream SIEM licensing

Carrier-grade log intelligence for modern networks.

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