

LogZilla for Data Centers

Unified Visibility Across Compute, Storage, Network, and Virtualization

Unified

Infrastructure View

Predictive

Failure Detection

Multi-Tenant

RBAC Isolation

AI

Copilot Included

The Data Center Challenge

Infrastructure Complexity:

- **Siloed visibility:** Separate tools for compute, storage, network
- **Uptime pressure:** 99.999% SLA requirements
- **Scale:** Thousands of devices, millions of events
- **Root cause:** Hours to correlate across systems
- **Capacity planning:** Reactive vs. predictive

The AI Advantage

Data Center Intelligence:

- **Cross-domain correlation:** Compute + storage + network
- **Predictive alerts:** Disk, memory, hardware failures
- **Capacity trending:** Resource exhaustion forecasting
- **Vendor CLI commands:** Ready-to-execute remediation
- **Multi-tenant:** Colo customer isolation via RBAC

AI-Powered Infrastructure Analysis

Prompt: "Generate infrastructure health report for last 24 hours with capacity trending and remediation commands."

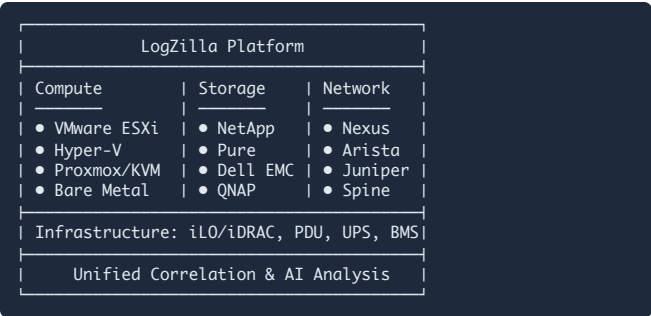
INFRASTRUCTURE HEALTH REPORT
Period: Last 24 Hours | Hosts: 152 | Events: 12.4M

HEALTH SUMMARY:
Physical Servers: 142 ✓ | 8 ⚠️ | 2 🔴
Virtual Machines: 1,247 ✓ | 34 ⚠️ | 5 🔴
Storage Arrays: 12 ✓ | 1 ⚠️
Network Devices: 847 ✓ | 3 ⚠️

🔴 CRITICAL ISSUES:
1. db-prod-03: Disk /var/lib/mysql at 95%
2. esxi-host-07: Memory overcommit 142%

⚠️ CAPACITY TRENDING:
CPU (cluster): 67% → 78% (7-day trend)
Storage (SAN): 71% → 82% (30-day trend)
Action: Provision additional capacity

Data Center Architecture



Single Pane of Glass: Correlate events across hypervisors, storage arrays, network fabric, and physical infrastructure in one platform.

AI Use Cases for Data Centers

| Use Case | Traditional | With AI |
|-----------------------------|----------------|------------|
| Root cause analysis | Hours | Minutes |
| Capacity forecasting | Manual | Automated |
| Hardware failure prediction | Reactive | Predictive |
| Compliance evidence | Weeks | Minutes |
| Outage correlation | Multiple tools | Unified |

Log Sources

- **Virtualization:** VMware, Hyper-V, Proxmox, KVM
- **Storage:** Any array with syslog/SNMP
- **Network:** Switches, routers, load balancers
- **Infrastructure:** IPMI, PDU, UPS, DCIM, BMS

AI-Powered Root Cause Analysis

Prompt: "Analyze the network outage at 14:23 and identify root cause with remediation steps."

OUTAGE ANALYSIS: Network Segment B
Incident: Dec 3, 2024 14:23-15:47 (84 min)
Impact: 847 VMs lost connectivity

ROOT CAUSE: Switch SW-CORE-07 failure

TIMELINE:

- 14:21:03 - SW-CORE-07: CPU 98% (warning)
- 14:22:47 - SW-CORE-07: Memory exhausted
- 14:23:01 - Switch failure - segment isolated
- 14:23:15 - 847 VMs lost network
- 15:12:00 - Failover to backup switch
- 15:47:00 - Full connectivity restored

CONTRIBUTING FACTORS:

- Switch firmware outdated (2019)
- No redundant path configured
- Monitoring gap (switch not in alerts)

REMEDIATION PLAYBOOK: Switch Recovery
Priority: CRITICAL | Affected: 847 VMs

IMMEDIATE (Cisco NX-OS):

```
show system resources
show logging last 100 | include ERRICRIT
show spanning-tree root
show vpc brief
```

FAILOVER VERIFICATION:

```
show hsrp brief
show vpc consistency-parameters global
show port-channel summary
```

POST-RECOVERY VALIDATION:

```
show interface status | include connected
show ip route summary
ping 10.1.1.1 vrf management count 5
```

PREVENTIVE (Schedule maintenance):

```
copy running-config bootflash:backup.cfg
install all nxos bootflash:nxos.9.3.10.bin
```

Weekly Operations Review

Prompt: "Generate weekly review covering infrastructure health, security events, and cost optimization."

WEEKLY OPERATIONS REVIEW
Period: Last 7 Days | Events: 87.2M | Hosts: 152

INFRASTRUCTURE: 99.97% uptime
Planned maintenance: 2 windows
Unplanned incidents: 1 (resolved)

SECURITY SUMMARY:

- 🔴 Critical: 12 events (patched)
- 🟡 High: 247 events (firewall blocks)
- ✅ Blocked: 45,892 intrusion attempts

COST OPTIMIZATION:

- Events deduplicated: 67.2M (77%)
- Storage saved: 4.2 TB
- Engineer time saved: ~40 hrs/week
- Alert noise reduction: 94%

TOP ISSUES THIS WEEK:

- Certificate renewal failures (fixed)
- Storage latency spike (resolved)
- VM sprawl detected (47 idle VMs)

Predictive Hardware Alerts

HARDWARE PREDICTION REPORT

⚠️ DISK FAILURES PREDICTED (SMART):
esxi-host-12: /dev/sda - 847 reallocated sectors
Prediction: Failure within 14 days
Action: Schedule replacement

⚠️ MEMORY ERRORS DETECTED:
db-prod-05: DIMM Slot 3 - ECC errors
Count: 47 correctable errors (24h)
Action: Replace DIMM at next maintenance

- ✓ PSU HEALTH: All redundant
- ✓ FAN HEALTH: All operational
- ✓ TEMPERATURE: Within thresholds

Capacity Trending

| Resource | Current | 30-Day | Action |
|---------------|----------|--------|----------------|
| CPU (cluster) | 67% | ↑ 78% | Monitor |
| Memory | 72% | ↑ 81% | Plan expansion |
| Storage (SAN) | 71% | ↑ 85% | Add capacity |
| Network I/O | 2.4 Gbps | Stable | Normal |

Compliance Frameworks

| Framework | Coverage |
|---------------|---------------------------|
| SOC 2 Type II | Supports |
| ISO 27001 | Audit Trails |
| PCI-DSS | Req 10 |
| HIPAA | Supports |
| GDPR | Data Logs |

Multi-Tenant Capabilities

- Colocation Provider Features:
- **RBAC isolation:** Customer-specific views
 - **Tenant dashboards:** Self-service portals
 - **SLA reporting:** Uptime and incident metrics
 - **Chargeback data:** Resource utilization

Sample AI Prompts

- "Show all hardware alerts for rack B-12"
- "Analyze storage latency for the last hour"
- "Which VMs are consuming the most resources?"
- "Generate SOC 2 evidence for access logs"

AI-Powered Storage Analysis

Prompt: "Analyze storage performance across all arrays and identify latency issues with remediation."

STORAGE PERFORMANCE ANALYSIS
Period: Last 4 Hours | Arrays: 12 | Volumes: 2,847

LATENCY SUMMARY:
NetApp-01: 0.8ms avg ✓
Pure-FlashArray: 0.3ms avg ✓
EMC-Unity-02: 12.4ms avg ⚠️ ELEVATED

🔴 ISSUE DETECTED: EMC-Unity-02
Latency spike: 12.4ms (baseline: 1.2ms)
Affected LUNs: 47 (VMware datastores)
Impact: 234 VMs experiencing slow I/O

ROOT CAUSE ANALYSIS:
- Disk rebuild in progress (RAID group 3)
- Hot spare activated 02:14 AM
- Rebuild ETA: 6 hours remaining

AFFECTED WORKLOADS:
sql-prod-cluster: Query timeouts
exchange-dag: Mailbox latency
vdi-pool-03: Login delays

Storage Best Practices

- **Proactive monitoring:** Alert on latency > 5ms
- **Capacity planning:** Trigger at 80% utilization
- **RAID rebuild:** Reduce I/O during rebuilds

STORAGE REMEDIATION PLAYBOOK
Priority: HIGH | Impact: 234 VMs

IMMEDIATE ACTIONS:

EMC Unity CLI:
uemcli /stor/config/pool show
uemcli /metrics/value/rt -path sp*.cpu.utilization
uemcli /event/alert show -severity critical

WORKLOAD MIGRATION (VMware):
Identify affected VMs
esxcli storage vmfs extent list
Storage vMotion critical VMs
Get-VM -Datastore "EMC-DS-*" |
Move-VM -Datastore "Pure-DS-01"

COMMUNICATION:
- Notify affected app owners
- Update incident ticket INC0012847
- Schedule post-rebuild validation

MONITORING:
- Set 15-min latency check alerts
- Track rebuild progress hourly

Storage Health Matrix

| Array | Capacity | Latency | Status |
|-----------------|----------|---------|----------|
| NetApp-01 | 72% | 0.8ms | Healthy |
| Pure-FlashArray | 58% | 0.3ms | Healthy |
| EMC-Unity-02 | 81% | 12.4ms | Degraded |
| QNAP-Backup | 67% | 2.1ms | Healthy |

Deployment Options

On-Premises

- Your data center
- Air-gap capable
- Full data control
- No cloud dependency

Multi-Site

- Central correlation
- Site-level collectors
- Encrypted transport
- Global visibility

Hybrid

- On-prem + cloud
- Flexible architecture
- DR/backup sites
- Unified analytics

Why Data Centers Choose LogZilla

| Metric | Improvement |
|----------------------|---------------|
| Root cause analysis | 85% faster |
| Uptime visibility | 100% coverage |
| Alert noise | 94% reduction |
| Compliance reporting | Automated |

Data Center Benefits:

- **Unified view:** All infrastructure in one platform
- **Predictive:** Catch failures before impact
- **Scalable:** Billions of events per day
- **AI-powered:** Natural language queries

Maximize uptime, unify visibility, predict failures.
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