

InfraOps Analysis Report

Generated: December 6, 2025 17:30:00 EST | Analysis Period: Last 2 hours vs. 26-24 hours ago | Events: 120,883

QUERY PROMPT

"Analyze all infrastructure events from the last 2 hours compared to the same 2-hour window yesterday. Correlate storage failures, power supply events, RAID degradation, and capacity exhaustion across all systems. Predict potential outages and provide remediation commands."

| Executive Summary

CRITICAL INFRASTRUCTURE EMERGENCY

The infrastructure is experiencing a **cascading failure** across multiple layers with **120,883 critical events** in the last 2 hours compared to **ZERO events** in the same window yesterday.

Severity Breakdown

Severity	Count	Percentage
ALERT (Severity 1)	1,876	2.5%
CRITICAL (Severity 2)	6,742	9.1%
ERROR (Severity 3)	37,914	51.1%
WARNING (Severity 4)	27,775	37.4%

| Critical Findings

1. Storage Subsystem Failure

Buffer I/O Errors: 100+ events across multiple hosts

- jump-srv-01.company.com
- web-srv-01.company.com
- app-srv-01.company.com
- db-srv-01.company.com

RAID Array Degradation: 100+ events - Multiple disk failures (6-100 drives) across RAID arrays with vSAN disk groups being removed from clusters.

2. Database Layer Collapse

Error Code	Description	Impact
Error 2002	Connection/communication failures	Critical
Error 1045	Access denied	High
Error 1213	Deadlock conditions	Critical
Error 1205	Lock wait timeouts	High

3. Power Supply Failures

Network Infrastructure: 100+ events

- nexus-core-01 (187 events)
- nexus-core-02 (221 events)
- nexus-dist-01 (187 events)
- nexus-access-01 (213 events)

4. VMware Infrastructure Instability

vMotion Failures: 100+ events - Failed VM migrations correlate with storage controller battery degradation and RAID array degradation.

5. Capacity Exhaustion

Memory at 95%+ usage:

- order-processor (99%), search-api (99%)
 - inventory-svc (99%), payment-api (96%)
 - user-auth (96%), notification-svc (97%)
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| Risk Assessment Matrix

Component	Risk Level	Failure Probability	MTTR Estimate
Storage Subsystem	CRITICAL	Imminent (hours)	4-8 hours
Database Layer	CRITICAL	In Progress	2-4 hours
Power Infrastructure	CRITICAL	Imminent (hours)	1-2 hours
VMware Platform	HIGH	In Progress	2-4 hours
Network Core	HIGH	Imminent (hours)	1-2 hours

| Predicted Outages (Next 4 Hours)

Imminent (0-1 hour)

1. **Complete database service failure** - Storage full conditions will cause database crashes
2. **Network core failure** - Power supply failures will cause switch failures
3. **ESXi host crashes** - Power supply and storage failures will cause hypervisor failures

Likely (1-2 hours)

4. **Complete VM infrastructure collapse** - ESXi failures will cascade to all VMs
 5. **Storage array failure** - RAID degradation will progress to complete failure
 6. **Firewall failover exhaustion** - HA synchronization failures will cause security gaps
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| Remediation Commands

PRIORITY 1: IMMEDIATE (Execute Now)

1.1 Free Database Disk Space

```
# On each database server
ssh root@db-master-01.company.com

# Emergency cleanup - remove old binary logs
mysql -e "PURGE BINARY LOGS BEFORE DATE_SUB(NOW(), INTERVAL 1 DAY);"

# Clear old slow query logs
> /var/lib/mysql/slow-query.log

# Check space
df -h /var/lib/mysql
```

1.2 Restart Critical Database Services

```
# Restart in order to clear locks and connections
ssh root@db-master-01.company.com
systemctl restart mysql

ssh root@postgres-01.company.com
systemctl restart postgresql

ssh root@redis-01.company.com
systemctl restart redis
```

PRIORITY 2: URGENT (Within 15 minutes)

2.1 Investigate Power Supplies

```
# Check power supply status on critical servers
for host in esxi-01 esxi-02 app-srv-01 db-srv-01 storage-01; do
    echo "=== ${host} ==="
    ssh root@${host}.company.com "ipmitool sensor list | grep -i 'PS\|Power'"
done

# For Cisco Nexus switches
```

```
ssh admin@nexus-core-01 "show environment power"
ssh admin@nexus-core-02 "show environment power"
```

2.2 Stabilize RAID Arrays

```
# Check RAID status on all affected hosts
for host in backup-srv-01 db-srv-01 nas-01 san-01 file-srv-01; do
    echo "=== ${host} ==="
    ssh root@${host}.company.com "cat /proc/mdstat"
    ssh root@${host}.company.com "mdadm --detail /dev/md0"
done

# If drives are marked as failed but physically OK
ssh root@db-srv-01.company.com
mdadm --manage /dev/md0 --re-add /dev/sda1

# Monitor rebuild progress
watch -n 5 'cat /proc/mdstat'
```

| Root Cause Analysis

Primary Root Cause: Power supply failures across network and server infrastructure are triggering a cascading failure:

- 1. **Power failures** → Storage controller battery degradation
- 2. **Battery degradation** → RAID write cache disabled → I/O performance degradation
- 3. **I/O degradation** → Disk queue saturation → Buffer I/O errors
- 4. **I/O errors** → Database disk full → Storage engine failures
- 5. **Storage failures** → Application connection failures → Service outages
- 6. **ESXi storage issues** → vMotion failures → VM instability

IMMEDIATE ACTION REQUIRED: This infrastructure is in a critical state and requires immediate intervention. Begin executing Priority 1 remediation steps NOW to prevent complete infrastructure failure.

Report Generated: 2025-12-06 17:30:00 EST

Analysis Period: Last 2 hours (15:30-17:30 EST)

Total Events Analyzed: 120,883