

# **Investigating an incident with Unomaly**

# Background

**Crash of large VMware ESX** cluster (10 members) in the middle of the night.

Operators **gets notified by traditional alerts** indicating that virtual hosts are unavailable.

**They don't know what happened, why it happened and what to fix. So what do they do?**

8 group(s)

1677 EPM  
ACTIVITY

100%  
NORMALITY

91.5%  
HOMOGENEITY

REALTIME

[All groups/](#)

Hint. There are 1310 ungrouped systems.

+ ADD GROUP

View as

GROUPS

SYSTEMS



**I want to understand what Vmware is doing differently**

**Click.**

Vmware

1078 SITUATIONS

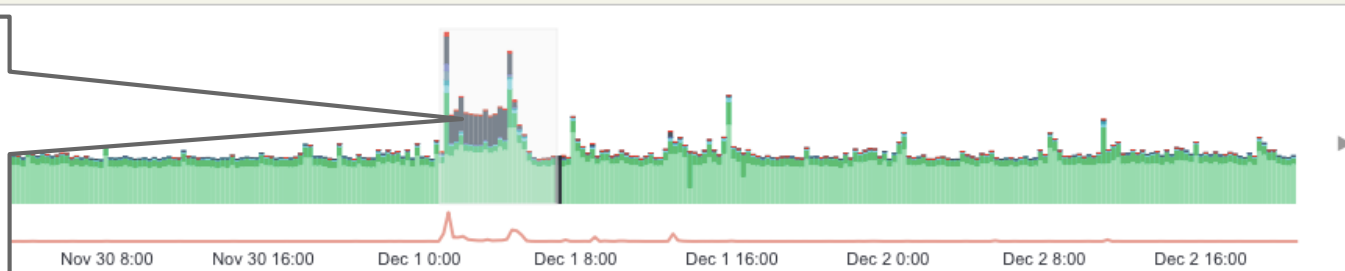
RANGE

2014-11-29 11:27:30 to 2014-12-02 21:07:54



ZOOM SELECTED

This is extremely anomalous! Drag-select to get the details.



This is root cause. Click.

Other systems are impacted. Click.

- ESXi11
5
vmkernel cpu1:37066
... Polling (Gbl status=0x0): Restart IP: invalid, Error IP:
- ESXi10
8
Fdm [250C2B70 info 'Message'] WriteComplete: Error
- ESXi08
4
Fdm [23DF0B70 warning 'Cluster' opID=SWI-56f32f43]
... rce temporarily
- ESXi10
4
Fdm [23D6EB70 error 'Election' opID=SWI-6058ed8] [ClusterElection::SendAll] sendto 172.16.128.111 failed: Host



ESXi11

5

vmkernel cpu1:37066)MCE: 1118: cpu1: MCA error detected via Polling (Gbl status=0x0): Restart IP: invalid, Error IP:



3:20 | vmkernel cpu1:37066)MCE: 1118: cpu1: MCA error detected via Polling (Gbl status=0x0): Restart IP: invalid, Error IP: invalid, MCE in progress: no.

3:20 | vmkernel cpu1:37066)MCE: 222: cpu1: bank7: status=0xcc00010000010093: (VAL=1, OVFLW=1, UC=0, EN=0, PCC=0, S=0, AR=0), ECC=no, Addr:0x140381c86 (valid), Misc:0xafbbd3b680 (valid)

3:20 | vmkernel cpu1:37066)MCE: 231: cpu1: bank7: MCA recoverable error (CE): "Memory Controller Read Error on Channel 3."

3:20 | vobd [cpuCorrelator] 4600015359915us: [vob.cpu.mce.log] MCE bank 7: status=0xcc00010000010093 misc:0x140381c86 addr:0xafbbd3b680

3:20 | vmkernel cpu1:4070392)MCE: 1118: cpu1: MCA error detected via Polling (Gbl status=0x0): Restart IP: invalid, Error IP: invalid, MCE in progress: no.

3:20 | vobd [cpuCorrelator] 4600015609918us: [vob.cpu.mce.log] MCE bank 7: status=0xcc00030000010093 misc:0x140381800 addr:0xafbbd3b680

**What was the root cause?**  
= memory error

Mon 1 Dec 1:23



ESXi10

8

Fdm [250C2B70 info 'Message'] WriteComplete: Error



1:23:36 | Fdm [23D6EB70 info 'Election' opID=SWI-6058ed8] Slave timed out

1:23:36 | Fdm [23D6EB70 info 'Election' opID=SWI-6058ed8] [ClusterElection::ChangeState] Slave => Startup : Lost master

1:23:36 | Fdm [250C2B70 info 'Message'] WriteComplete: Error N7Vmacore17CanceledExceptionE(Operation was canceled) - pending writes dropped

1:23:36 | Fdm [23DF0B70 error 'Message' opID=SWI-56f32f43] AsyncWrite: Error sending asynch message: N7Vmacore23NotInitializedExceptionE(Stream is not open/connected)

Mon Dec 1 1:23:36 | Fdm [23DF0B70 warning 'Cluster' opID=SWI-56f32f43] [ClusterDatastore::SendDatastoreReleasedMsg] Exception sending to host-66887: N7Vmacore23NotInitializedExceptionE(Stream is not open/connected)

Mon Dec 1 1:23:36 | Fdm [23DF0B70 info 'Message' opID=SWI-56f32f43] Destroying connection

**What did it cause?**  
= cluster failed

Convert the root cause to save the information + make sure it is detected again

Information, tied to the data itself.

### Knowledgebase

Selected parts to match

vmkernel cpul:37066)MCE : 1118 : cpul : MCA error detected via Polling ( Gbl status=0x0 ): Restart IP :  
invalid , Error IP : invalid , MCE in progress : no .

Classification

- Critical
- Warning
- Notice
- Informational
- Ignored

Tags

vmware

Display name

vmkernel MCA error detected

Meaning

What does this mean?

Reason

Caused vmware crash last time

Solution

How do we solve this?

DELETE CANCEL SAVE

Mon 1 Dec 1:23 ESXi11 vmkernel MCA error dete... vmkernel cpu1:37066)MCE: 1118: cpu1: MCA error detected via Polling (Gb)

Mon 1 Dec 1:23 ESXi10 pending writes dropped Fdm [250C2B70 info 'Message'] WriteComplete: Error