GleSYS

Falkenberg 2024-05-24

INCIDENT REPORT REGARDING PARTIAL KVM OUTAGE IN FALKENBERG

GleSYS has released the following Reason for Outage (RFO) report. This document outlines the background and remediation actions in response to the partial KVM outage in Falkenberg on May 21st, 2024.

GleSYS AB
Box 134, 311 22 Falkenberg
Sweden

Phone. +46 (0) 346 738800
Mail: info@glesys.se
Web https://glesys.com

Org.nr. 556647-9241
VAT No. SE556647924101
BIC NDEASESS
IBAN 300000003052170377

BACKGROUND

Redundancy is crucial in designing our data centers, where we produce our services, including the KVM platform. We strive to deliver redundancy across all levels to ensure the platform is stable and resilient for our customers.

Our KVM hypervisors are intricately connected to redundant power feeds, A and B. This meticulous setup ensures that there is no single point of failure, allowing us to perform service on power without any disruption to our customers. In normal operation, servers draw 50% of their power from feed A and 50% from feed B, maintaining a balanced power distribution.

RFO

As part of our preparations for a power upgrade, which will involve taking one of the power feeds offline, we have strategically relocated several hypervisors to a new rack. This redistribution of power load is aimed at minimizing the risk of fuse tripping when servers operate at full capacity on a single feed, ensuring a smooth transition during the upgrade.

Unfortunately, this new rack had the wrong fuse size for power feed A (10 A instead of 32 A). When we tested to shut down power on feed B and transferred the full load to feed A, the load was larger than the 10 A, and the fuse tripped.

This situation caused the servers in that rack to lose power. However, we resolved the outage by bringing Feed B back online.

SEQUENCE OF EVENTS (CET)

2024-05-21

20:00 The planned maintenance window begins to perform routine tests to break power feed B rack by rack to test redundancy.

20:23 We lost power on both feeds in the affected rack.

20:24 The first alarm was triggered, indicating an issue with one of the racks.

20:27 We restored the power.

20:32 The team on site reported that they restored power and double-checked that hypervisors booted correctly and were back online.

2024-05-22

We started an investigation to pinpoint the possible reason for the outage. During that investigation, we discovered that one fuse out of 60 in the power distribution cabinet was the wrong sort (10 A instead of 32 A).

CONCLUSIONS

The fuse problem has existed since the Power distribution cabinet was put online in 2020 and is a construction error. We have reported the error and will, in the coming weeks, double-check all our installations with the same setup in all our data centers to make sure this exact error can't happen again.

The error should not be possible since the vendor should have this check before handing it over to us, but we will in the future include this in our quality control protocol to double-check before putting new installations online.

Sincerely,

Glenn Johansson
CEO & Head of Datacenter Operations
GleSYS

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