



eMutation 2nd Gen Infrastructure: Discrepancies in Resources, Licenses, and Network Security Services

Executive Summary

This report outlines the key discrepancies between the requested and received resources, licenses, and network security services for the eMutation 2nd Gen Infrastructure project. These discrepancies have the potential to affect the project’s performance, security, and scalability. Immediate action is recommended to address these gaps and ensure that the infrastructure is fully aligned with the project’s objectives.

Key Discrepancies on Requested and Recived Resources:

- **Kubernetes Worker Nodes:** Received only 9 worker nodes, even though 16 were requested. Additionally, 4 of the received nodes had less memory (24 GB vRAM, 12 vCPU) compared to the requested 32 GB vRAM, 16 vCPU.
- **ArcGIS Enterprise:** The requested 6 servers were not received.
- **MySQL DB Cluster:** Only 4 nodes were received for Cluster-1 and Cluster-2, instead of the requested 6 nodes.
- **Oracle Database:** The Oracle databases for Central-DB and NoteSheet logs were partially fulfilled, with only 2 received instead of the requested 1 for Central-DB, and none for the NoteSheet database.
- **ML Server:** The requested ML server with high specifications (128 GB vRAM, 32 vCPU, 48 GB GPU) was not received.
- **PostgreSQL Server for GIS:** The requested 3 servers were not delivered.

Key Discrepancies in Licenses:

- **Oracle Database:** The requested Oracle 19c/21c licenses have not been received, which are essential for the deployment of Oracle databases.
- **Matomo:** The on-premise license for Matomo has not been received, preventing the implementation of the web analytics platform.
- **NGINX Plus:** The required license for NGINX Plus with Web Application Firewall (WAF) has not been received, leaving the infrastructure vulnerable to security threats.
- **Mirantis:** The license for Mirantis Kubernetes, necessary for supporting the Kubernetes platform, has not been received.
- **ArcGIS:** The ArcGIS Enterprise license has not been received, which is critical for managing geospatial data and mapping functionalities.
- **Elasticsearch:** The Elasticsearch Enterprise license, required for advanced search and analytics features, has not been received.
- **Minio:** The Enterprise license for Minio, necessary for scalable object storage, has not been received.

Key Discrepancies in Network Security Services:

- **SOC (Security Operations Center):** The requested SOC service has not been received, which is critical for monitoring and managing security threats and incidents.
- **NOC (Network Operations Center):** The requested NOC service has not been received, which is necessary for ensuring the availability and performance of the network infrastructure.
- **SEIM (Security Information and Event Management):** The SEIM service, which is essential for real-time monitoring and analysis of security events, has not been received.
- **XDR (Extended Detection and Response):** The XDR service, needed for detecting and responding to advanced threats across the network, has not been received.
- **NDR (Network Detection and Response):** The NDR service, which helps in identifying and responding to network-based threats, has not been received.
- **WAF (Web Application Firewall):** The WAF service, essential for protecting web applications from security vulnerabilities and attacks, has not been received.