**Objective1**: **Orchestrator Deployment Architecture**

I have been actively engaged in the Orchestrator project since its Proof of Concept (POC) phase.

Camunda serves as the central component of the Orchestrator project, representing the most critical and intricate element within the entire project stack.

I hold responsibility for devising the deployment strategy for both Camunda and Orchestrator.

Taking the initiative, I conducted comprehensive research to gain a deep understanding of Camunda deployment within a self-managed environment.

During the initial phase, I successfully deployed Camunda onto Apaas and the local developer system. However, upon further exploration of Camunda and Orchestrator requirements, it became evident that Apaas was less suitable for stateful applications like Camunda. Subsequently, I collaborated with the SIK team to facilitate its deployment on SIK.

I ensured the complete automation of Camunda and other Orchestrator component deployments through Jenkins and Helm charts. All configurations and scripts are incorporated into the source code, thereby enabling effortless deployment and management of infrastructure updates, as well as the seamless establishment of new environments.

Acquiring a third-party Camunda image posed a significant challenge, necessitating multiple approvals and the surmounting of various obstacles. Collaboration with the CSO, CTO, and Nexus team played a crucial role in eventually gaining access to the official Camunda docker repository.

Taking a proactive approach, I proposed to the Camunda team the upload of all essential supporting images, such as Elasticsearch, PostgreSQL, and Kibana, to the official Camunda docker repository . Subsequently, the team implemented this suggestion, enabling convenient access to all Camunda and its supporting dependencies from the official Camunda docker repository.

**Objective 2: Orchestrator Security and resiliency**

I have undertaken the responsibility of addressing the security and resiliency aspects of Orchestrator. I have meticulously documented the security and resiliency architecture for Orchestrator and secured approval from the CSO, RTB, and Resiliency teams. These comprehensive documents and subsequent approvals were imperative for the deployment of Orchestrator into production. Furthermore, this documentation serves as a critical resource for disaster recovery purposes.

To establish robust authentication and authorization, I have seamlessly integrated all Camunda components with Barclays LDAP and Barclay's strategic secure safe, CSM. This integration ensures the secure storage of all passwords and certificates.

To fortify the resilience of Camunda components, a strategy has been implemented where all Camunda components, including Elasticsearch, PostgreSQL, etc., are deployed in a highly available manner.

**Objective3: Orchestrator Disaster recovery**

I have formulated a comprehensive strategy for the backup and disaster recovery of Camunda. The backup and recovery procedures for Camunda are intricate, comprising 10 steps for backup and 8 steps for recovery. I have successfully automated all the backup and disaster recovery steps and additionally conceived and developed the Backup service to automate the process in accordance with Rescat 1 requirements.

**Objective3: Orchestrator Monitoring**

I have established a comprehensive set of tools for monitoring Orchestrator, encompassing two levels of monitoring: infrastructure and business-related. We have deployed the Prometheus, Grafana, and Camunda console dashboard on SIK, facilitating the monitoring and alerting of the Orchestrator stack. The

SIK infrastructure, Apaas Infrastructure, and all business-related monitoring, including Camunda Backup and Optimize reports, are seamlessly integrated with the ITRS Geneos tool to enable RTB monitoring.

**Objective4: Orchestrator Target State Architecture**

Currently, the Orchestrator is performing optimally in the Production environment with no reported issues. My primary focus is on enhancing the overall Camunda Architecture. I am actively involved in implementing an active-active Camunda deployment, which is our envisioned state. This deployment is expected to significantly improve the resilience and robustness of the environment.

**Objective5: Leading Orchestrator Team**

In my role, I have been pivotal in the identification and recruitment of new talent within PTSS. I have successfully onboarded contractors in Glasgow, Pune, and Whippany, thereby enriching the talent pool across multiple locations. As a team lead, I provide mentorship, management, and oversight for the Glasgow team and Pune MSP, ensuring the seamless execution of day-to-day tasks. I am the designated point of contact for addressing any technical challenges encountered by the team.

Moreover, beyond our immediate team, I have been commended for my role as a senior buddy to new graduates entering the Post Trade domain. I have been instrumental in facilitating their onboarding process, aiding in their integration into the team, and offering guidance to navigate any obstacles they may face.

**Objective 6: Setting up Non-Prod Env**

I have taken the initiative to establish several non-production environments alongside the production environment to cater to different stages of the software development lifecycle. These non-production environments include System Integration Testing (SIT), User Acceptance Testing (UAT), Development (Dev), Dev2, and a parallel production environment for parallel testing. Each of these environments has been standardized into three different sizes: Small, Medium, and Large, allowing for flexibility and scalability based on the specific requirements of each stage.

This strategic approach has allowed for the optimal utilization of available environment quotas, ensuring that the resources are efficiently allocated. Furthermore, it has provided dedicated environments for various crucial activities such as end-to-end testing, regression testing, development, and pre-production release testing. This meticulous planning and standardization have contributed to a streamlined and efficient software development and testing process.

What:

Drive Simplicity:

I have automated the deployment and upgrade processes for Camunda through the utilization of helm charts, Jenkins, and scripting. Furthermore, I have implemented an automated backup service to facilitate seamless backup and restore operations for Camunda.

2- Focus on business where we can excel

We have strategically decided to decommission the GBS mainframe system and transition to a cloud-based Microservices architecture for Cash settlement. To

facilitate this transition, we have adopted an orchestration-based approach, wherein a singular orchestrator oversees the interaction between services. This orchestration provides a centralized point for monitoring and control, offering a comprehensive view of the entire system, which is crucial for managing the intricate processes inherent in the trade process. The centralized nature of orchestration also simplifies troubleshooting. We have leveraged Camunda to implement the Orchestrator design pattern, ensuring the availability of this crucial software in our private cloud environment. Furthermore, for the trade settlement process, we have taken measures to guarantee the high availability and resilience of the orchestrator/Camunda system.

3- Control and risk management

In order to establish strong authentication and authorization processes, I have successfully integrated all Camunda components with Barclays LDAP (Lightweight Directory Access Protocol) and Barclays' strategic secure safe, CSM (Centralized Secrets Management). This integration guarantees the safe storage and management of all passwords and certificates, ensuring that sensitive information is well-protected and accessible only to authorized users within the Barclays network

4- Provide world-class service to clients.

We are fully committed to enhancing our client services by phasing out the GBS and introducing a state-of-the-art orchestrator-based settlement system. This transition aims to minimize settlement failures and streamline the settlement process through automation. I am deeply engaged in overseeing this decommissioning process, which is expected to significantly elevate the quality of services we deliver to our clients.

5- Promote diversity

Within my team, there is a diverse combination of fresh graduates, mid-level, and senior developers. I am committed to offering them equal opportunities to engage in a variety of tasks. I consistently challenge and support my team members, ensuring that they are content, motivated, and actively involved in achieving their objectives

What Summary

1.

I have been deeply involved in the Orchestrator project, overseeing the deployment strategy for Camunda and Orchestrator.

I successfully automated Camunda and Orchestrator component deployments, collaborated to gain access to the official Camunda docker repository, and proposed uploading essential supporting images to the repository.

I have developed a comprehensive strategy for the backup and disaster recovery of Camunda and am currently focused on implementing an active-active Camunda deployment for a more resilient environment.

I have also played a pivotal role in identifying and recruiting new talent within PTSS and have been commended for my mentorship and guidance to new graduates. Additionally, I have established several non-production environments and standardized the environment sizes to facilitate optimal utilization for testing and development.

2.

I am responsible for ensuring the security and resiliency of Orchestrator. I documented the architecture and obtained approval for deployment.

I integrated Camunda components with Barclays LDAP and CSM for secure storage. I implemented a highly available deployment for resilience and automated backup and disaster recovery processes. We use Prometheus, Grafana, and Camunda console for monitoring on

SIK and integrated business-related monitoring with ITRS Geneos for RTB monitoring

**How summary**

In the GBS decommission process, I played a key role in streamlining the trade settlement process by implementing critical third-party software on our private cloud. I am accountable for devising the deployment strategy and ensuring the resiliency, stability, and availability of the Orchestrator. By furnishing a comprehensive set of monitoring and alerting tools for the Orchestrator, I have effectively mitigated operational risk.

My ongoing focus revolves around achieving top-tier automated deployment and active-active deployment, and I am fully committed to driving innovation in the Orchestrator architecture. Additionally,

I assume responsibility for all Camunda, backup service, and monitoring-related releases and updates.

I have expressed interest in integrating Gen AI with Camunda and was acknowledged for this initiative during a recent town hall, particularly by Austin. Furthermore,

I actively support teams outside my vertical in their Camunda Orchestration journey and have received recognition from these teams for my contributions.

In my capacity as a team lead, I provide mentorship, management, and oversight for the Glasgow team and Pune MSP, ensuring the seamless execution of their daily tasks. My team comprises a diverse mix of fresh graduates, mid-level, and senior developers, and I am dedicated to providing them with equal opportunities to engage in a range of tasks. I consistently challenge and support my team members, ensuring their satisfaction, motivation, and active involvement in achieving their objectives. Additionally,

I have received accolades for assisting graduates in their onboarding process, facilitating their integration into the team, and providing guidance to navigate any obstacles they encounter.

**Closing Summary**:

Throughout this year, I have been privileged to contribute to the Orchestrator Project, an endeavor that has been both challenging and rewarding. From the initial proof of concept to the final production deployment, I have been fully committed to supporting the journey of the Orchestrator project.

Assuming ownership of the Orchestrator deployment architecture, I have diligently ensured the high availability and resilience of the production environment. This involved the complete automation of Camunda and other Orchestrator component deployments through Jenkins and Helm charts.

In addition, I have taken on the responsibility of addressing the security and resiliency aspects of the Orchestrator. This included meticulously documenting the security and resiliency architecture and obtaining approval from the CSO, RTB, and Resiliency teams.

To establish robust authentication and authorization, I seamlessly integrated all Camunda components with Barclays LDAP and Barclay's strategic secure safe, CSM. Furthermore, I formulated a comprehensive strategy for the backup and disaster recovery of Camunda, successfully automating all associated steps and developing the Backup service.

Notably, I established a comprehensive monitoring framework for Orchestrator, covering both infrastructure and business-related aspects, ensuring seamless operation in the production environment.

My dedication extends to enhancing the overall Camunda Architecture, with ongoing engagement in the implementation of an active-active Camunda deployment to achieve a more robust and resilient environment.

Moreover, I have established various non-production environments, standardizing the environment sizes as Small, Medium, and Large to optimize resource utilization.

In the upcoming year, I am eagerly anticipating the opportunity to expand the local Glasgow team and assume responsibility for both the significant business functions and the technical aspects of the operation.