

**write a synopsis for HRS Cloud. from problem statement, migration strategy, state of on prem HRS, 7Rs for cloud migraion, development skills, incremental approach, MVP strategy.**

**HRS Cloud Synopsis**

**Problem Statement**  
On-premises HRS (Camunda 7) automatically remediates production alerts but suffers from fixed hardware limits, high maintenance overhead, and limited disaster-recovery reach. Business-continuity plans require a platform that (1) scales instantly during major incidents, (2) survives data-center loss, and (3) supports multi-cloud assets.

**Current On-Prem State**

* Workflow engine: **Camunda 7.0**, embedded in a Java EE stack, servicing only on-shore infrastructure.
* Alert intake: Custom rules engine; no native integration with AWS/Azure/GCP events.
* Constraints: Single data-center, manual scaling, aging hardware refresh due next fiscal year.

**Migration Strategy (7 R’s Framework)**

1. **Retain** – Keep Camunda 7 for legacy on-prem workflows that rely on local middleware.
2. **Rehost** – Lift core workflow engine to AWS (EKS) running **Camunda 8/Zeebe** for immediate capacity gains.
3. **Replatform** – Move stateless remediation tasks to **AWS Step Functions** (serverless), replacing VM-bound shell scripts.
4. **Refactor** – Redesign long-running playbooks (BCP failover, multi-day maintenance) into BPMN on Camunda 8.
5. **Repurchase** – Adopt managed SaaS equivalents where viable (PagerDuty Events API, Amazon SNS for paging queues).
6. **Relocate** – Use S3 & Aurora Global Database for cross-Region data replication; decommission on-prem PostgreSQL replicas.
7. **Retire** – Phase out unused JMX-based alert handlers and obsolete Perl remediation scripts.

**Incremental Approach & MVP**  
Phase 1 (MVP – 90 days)

* Deploy core HRS Cloud stack (Camunda 8 on EKS + Step Functions for AWS-only playbooks).
* Integrate with PagerDuty; automate three high-volume AWS incident runbooks (EC2 reboot, ASG resize, RDS failover).
* Bi-directional VPN/Direct Connect allows cloud engine to trigger on-prem Camunda 7 workflows if needed.

Phase 2 (Hybrid, 6 months)

* Add Action Gateway to abstract provider APIs; onboard one Azure subscription and one GCP project.
* Migrate 30% of on-prem alerts to cloud workflows; implement cross-cloud DR drill playbook.

Phase 3 (Full Adoption, 12 months)

* Decommission legacy on-prem remediation scripts; keep Camunda 7 only for compliance-bound processes.
* Achieve >80% automated resolution across AWS, Azure, GCP, and on-prem assets.

**Required Development Skills**

* **Cloud orchestration** – Step Functions ASL, Camunda 8 BPMN/Zeebe.
* **Programming** – Java/Go for Zeebe workers; Python/TypeScript for Lambda glue.
* **IaC & DevOps** – Terraform/CloudFormation, Docker/Kubernetes, CI/CD pipelines.
* **SRE practices** – Observability (CloudWatch, Prometheus), incident management (PagerDuty).
* **Security & Networking** – IAM least-privilege, Secrets Manager, Direct Connect/VPN design.

This staged, 7 R-aligned plan delivers a minimally viable, cloud-native HRS in three months, preserves critical on-prem capabilities, and creates a clear runway to multi-cloud, self-healing operations.