**KPI and success metrics**

**Cost Performance Metrics**

* **KPI**: **Actual vs. Budgeted Costs**
  + **Description**: Measure actual costs against the planned budget to track cost efficiency.
  + **Tracking Method**: Use cloud provider billing dashboards, set up alerts for budget thresholds, and track usage patterns to monitor cost trends.
* **KPI**: **Cost Savings Over Time**
  + **Description**: Track reduction in operational and infrastructure costs post-migration.
  + **Tracking Method**: Compare monthly operating costs pre- and post-migration using cloud cost management tools.

**2. Uptime and Availability**

* **KPI**: **Service Uptime Percentage**
  + **Description**: Measure the percentage of time applications and services are available post-migration.
  + **Tracking Method**: Use monitoring tools (e.g., CloudWatch, Datadog) to log uptime and receive alerts on downtime incidents.
* **KPI**: **Mean Time to Recovery (MTTR)**
  + **Description**: The average time taken to restore services after downtime.
  + **Tracking Method**: Log each downtime event’s start and resolution time, calculate the MTTR over time, and use monitoring dashboards for incident tracking.

**3. Performance Metrics**

* **KPI**: **Application Response Time**
  + **Description**: Measure how quickly applications respond post-migration compared to baseline.
  + **Tracking Method**: Use performance monitoring tools (e.g., New Relic, CloudWatch) to capture and report real-time response times.
* **KPI**: **Page Load Times**
  + **Description**: Monitor front-end web performance for load times to ensure user experience isn’t compromised.
  + **Tracking Method**: Track average load times using web analytics tools (e.g., Google Analytics, Pingdom).

**4. Resource Utilization Metrics**

* **KPI**: **CPU, Memory, and Storage Utilization**
  + **Description**: Track the usage levels of CPU, memory, and storage to ensure resources are right-sized and optimized.
  + **Tracking Method**: Use cloud-native monitoring tools (e.g., AWS CloudWatch, Azure Monitor) to visualize utilization patterns and set alerts for resource limits.
* **KPI**: **Elasticity and Scalability**
  + **Description**: Measure the system’s ability to scale based on load, including automatic scaling effectiveness.
  + **Tracking Method**: Log scaling events and response times; analyze load-balancing distribution to optimize scaling configurations.

**5. Security and Compliance Metrics**

* **KPI**: **Incident Response Time**
  + **Description**: Measure the average time to detect and respond to security incidents.
  + **Tracking Method**: Track all security incidents in a logging and monitoring system (e.g., SIEM tools) and calculate response time averages.
* **KPI**: **Compliance Audit Success Rate**
  + **Description**: Track the compliance with regulatory standards by measuring audit pass rates.
  + **Tracking Method**: Regular audits and assessments against standards (e.g., ISO 27001, HIPAA) using internal compliance tools or managed services.

**6. User Experience Metrics**

* **KPI**: **End-User Satisfaction**
  + **Description**: Gauge user satisfaction with migrated applications through surveys or NPS scores.
  + **Tracking Method**: Conduct periodic surveys or feedback forms, especially post-migration, and calculate average satisfaction scores.
* **KPI**: **Error Rate or Issue Tickets**
  + **Description**: Measure the frequency of user-reported issues or error tickets in the migrated environment.
  + **Tracking Method**: Use ticketing systems (e.g., Jira, ServiceNow) to track incident frequency and monitor resolution trends.

**7. Project Execution Metrics**

* **KPI**: **Project Completion Rate vs. Timeline**
  + **Description**: Measure project progress against the planned timeline to identify delays or scope changes.
  + **Tracking Method**: Use project management tools (e.g., Jira, Asana) to track milestone completion, keeping an eye on estimated vs. actual timelines.
* **KPI**: **Number of Rollbacks or Reversions**
  + **Description**: Track the number of times services had to be reverted to the original state during migration.
  + **Tracking Method**: Log and analyze rollback events in deployment tracking tools (e.g., Jenkins, GitLab CI/CD).

**8. Business Outcome Metrics**

* **KPI**: **Time to Market for New Features**
  + **Description**: Measure the time taken to deploy new features post-migration, aiming for faster release cycles.
  + **Tracking Method**: Track deployment times before and after migration using version control and CI/CD metrics.
* **KPI**: **Customer Retention Rate**
  + **Description**: Track customer retention as an indicator of a successful migration with minimal impact on end-users.
  + **Tracking Method**: Use CRM or analytics platforms to monitor customer engagement and retention metrics before and after migration.

**Tracking Framework and Tools**

1. **Dashboards**: Set up custom dashboards (e.g., in AWS CloudWatch, Azure Monitor, Datadog) to provide real-time visibility into performance, availability, and cost metrics.
2. **Automated Alerts**: Configure alerts for any metric that goes beyond acceptable thresholds, particularly for cost, downtime, and security incidents.
3. **Regular Reviews**: Conduct weekly or monthly KPI reviews with stakeholders to assess progress, address issues, and adjust resources if necessary.
4. **Project Management Tool Integration**: Ensure all metrics are tracked alongside project tasks in tools like Jira, Asana, or Monday for a unified view of progress against KPIs.

Please refer to the KPI’s arranged in order of priority

<KPI.xlsx>