

# Goal Report

## On

# Network and Service Automation



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(Deemed to be University)

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## 1. Problem Area/Domain:

The problems are exploratory that needs a lot of brain storming. We as a team are involved in solving these following problems for organization.

- i. **Overspending:** Organizations overprovision their resources, leading to a waste of resources and increased costs on cloud platform like GCP.
- ii. **Lack of Automation:** Manual resource management can be time-consuming and error-prone, making it difficult to optimize resources for better utilization. Although there is various automation needed i.e., Network automation, Service automation, Process automation, Test automation, Supply chain automation, Data automation, Security automation etc.
- iii. **Security and compliance:** Organizations need to ensure that resource utilization practices comply with security and compliance policies, which can limit their ability to optimize resource usage.

## 2. Tentative Problems (Objectives):

These are some tentative problems

- i. Using GCP as a service to reduce the burden and increase the performance in the telecom industry so organization can offer services in low budget to customers.
- ii. As aforementioned, there are a lot of automation needed but we are working specially on **Network automation** (management and optimization by reducing human errors and improving efficiency), **supply chain automation** (inventory management, order processing, delivery tracking etc.) and **Service automation** (Providing better tool and data to customer for monitoring and analysing key performance indicators).
- iii. Need to reduce TCO, Analysing CapEx and OpEx
- iv. Better utilization of available cloud resources i.e., computation, storage,
- v. To reduce data entry errors
- vi. Streamlining Approvals

## 3. Proposed Solutions/My Role:

- i. Collecting different kind of data from different network nodes ingesting these raw data to cloud (Google Big Query) with the help of automation.
- ii. My role is to design solution for automation that can reduce cost, time, efforts, and other resources. And can predict service degradation in advance.
- iii. Proof of concept for a lightweight data ingestion and aggregation pipeline.