# Table of Contents

**Network-as-a-Service Runbook**

***Capacity Management Plan Template***

**<NaaS Operator’s Name>**

**

*September 2020*

[Table of Contents 1](#_Toc53092814)

[1 Document Control 3](#_Toc53092815)

[2 About Design Template 4](#_Toc53092816)

[2.1 Document Purpose 4](#_Toc53092817)

[3 Executive Summary 4](#_Toc53092818)

[4 Introduction 5](#_Toc53092819)

[5 Capacity Analysis 5](#_Toc53092820)

[5.1 Radio Access Network (RAN) CMOs 5](#_Toc53092821)

[5.1.1 CMO Summary 5](#_Toc53092822)

[5.1.2 RAN CMO analysis discussion 6](#_Toc53092823)

[5.2 Transport Network CMOs 6](#_Toc53092824)

[5.2.1 Transport Network CMOs 6](#_Toc53092825)

[5.2.2 Transport Network CMO analysis discussion 6](#_Toc53092826)

[5.3 Core Network CMOs 6](#_Toc53092827)

[5.3.1 Core Network CMOs 6](#_Toc53092828)

[5.3.2 Core Network CMOs analysis discussion 7](#_Toc53092829)

[6 Conclusion. 7](#_Toc53092830)

# Document Control

- Revision Control sheet allows to maintain a record of changes made on the document.

|  |  |  |  |
| --- | --- | --- | --- |
| Version N° | Issue Date | Status | Reasons for Change |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Table 1. Revision History

# About Design Template

## Document Purpose

*High-Level description of the document’s purpose*

The purpose of this document is to summarize capacity planning analysis results for the radio access network (RAN), transport network and core network, displaying capacity actions to be taken and final capacity values for each CMO.

The document is split into following the following sections:

* Introduction
* Capacity Analysis: RAN, Transport Network and Core Network
* Conclusion

*Note: The above sections may change depending on the customer’s needs*

# Executive Summary

*Brief summary of document content highlighting main considerations and assumptions that were taken.*

# Introduction

Capacity planning is an important part of infrastructure and deployment planning.

Capacity plan allow to an optimum cost-effective provisioning of network resources by matching them to users demand and natural network growth.

The capacity plan helps identify and reduce inefficiencies associated with either under-utilized resources or unmet customer demand and to provide satisfactory service levels in a cost-efficient manner.

Finally, the plan helps ensure that all network elements can perform all required functions and that will perform as efficiently as possible, accommodating user and traffic growth without being wasteful.

# Capacity Analysis

This section summarized the analysis made for each network capacity managed objects (CMOs) for each part of the network (RAN, transport and core).

## Radio Access Network (RAN) CMOs

### CMO Summary

Table 2 summarizes the results obtained from the capacity analysis for the RAN CMOs.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CMO | Current Value | CMO threshold | Augment horizon | Capacity Augment | Final Capacity |
| Sector Resource Blocks |  |  |  |  |  |
| Connected Users per Carrier |  |  |  |  |  |
| Connected Users per Site |  |  |  |  |  |
| Downlink / Uplink Throughput |  |  |  |  |  |
| BBU’s processing boards capacity |  |  |  |  |  |
| Ethernet port capacity load |  |  |  |  |  |

Table 2. Capacity Analysis Summary for RAN CMOs.

### RAN CMO analysis discussion

*Discussion of Table 2: Impacts on the current network, overall costs, etc.*

## Transport Network CMOs

### Transport Network CMOs

Table 3 summarizes the results obtained from the capacity analysis for the transport network.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CMO | Current Value | CMO threshold | Augment horizon | Capacity Augment | Final Capacity |
| Tx Link Capacity |  |  |  |  |  |
| Number of FO Strands |  |  |  |  |  |
| Tx Interface Capacity |  |  |  |  |  |
| Number of Tx Interfaces |  |  |  |  |  |
| Tx Equipment Capacity |  |  |  |  |  |

Table 3. Capacity Analysis Summary for transport network CMOs.

### Transport Network CMO analysis discussion

*Discussion of Table 3: Impacts on the current network, overall costs, etc.*

## Core Network CMOs

### Core Network CMOs

Table 4 summarizes the results obtained from the capacity analysis for the core network.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CMO | Current Value | CMO threshold | Augment horizon | Capacity Augment | Final Capacity |
| Control Plane VNFs |  |  |  |  |  |
| User Plane VNFs |  |  |  |  |  |
| Database Plane VNFs |  |  |  |  |  |
| R&S Equipment |  |  |  |  |  |
| NFV Infrastructure |  |  |  |  |  |

Table 4. Capacity Analysis Summary for core network CMOs.

### Core Network CMOs analysis discussion

*Discussion of Table 4: Impacts on the current network, overall costs, etc.*

# Conclusion.

*Summary of the main considerations and actions to be taken based on the capacity analysis results.*