



**OPEN**  
Compute Project

# Telco Project Charter

Revision 0.6 dated Sept 4, 2020

## Revision History

Revision	Date	Name	Description
	21 Dec 2015	Amber Graner	Created Doc used Server Charter as place holders
	16 Mar 2016	Bill Carter	Draft of charter specific to the Telco WG
	18 Mar 2016	Craig White	Expanded overview, added management scope
	21 Mar 2016	Amber Graner	Updated terms, membership information and requirements
	21 Mar 2016	Bill Carter	Added revision release 0.5, 0.9, and 1.0 to this history table. Added sections 'in scope...' and 'out of scope...' and 'key focus areas...'
	5 Apr 2016	Craig White	Incorporate community review
	17 Jun 2016	Craig White	Incorporate feedback from mail list and meetup
0.5	20 Aug 2020	Marko Hokkanen, Nokia	Released to project members for comment, included updates from Marko, Bill Carter, Archna Haylock
0.6	4 Sept 2020	Team	feedback from IC review incorporated by the team. (Archna/Marko/Loren)
1.0	TBD	TBD	Approved by Incubation Committee

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## 2 Overview

The Telecom Industry would like to apply the Open Compute Project (OCP) model to create Telecom optimized hardware. Telecommunication Service providers are seeking more than simply datacenter solutions, they are looking for solutions that encompass the entire Telco service delivery from the Datacenter to the Network edge.

The OCP Telco Project will enable participants from telecom companies and carriers as well as subsystems, software, board and semiconductor suppliers to transition from existing proprietary solutions to OCP solutions which provide open systems free of proprietary, single supplier lock in.

As telecom services move to the cloud, handle more data, and bring connectivity to the world, it must be done in an efficient, economical, and sustainable way. The solution designs must be created in an open, transparent and collaborative environment to create an evolving set of commoditized products optimized to meet telecom environments, including edge specific deployment requirements.

In response to Telecommunications Service Providers and carriers needs, the global hardware and software suppliers are working together to create products and solutions that can provide innovations to meet new and challenging requirements.

## 3 Charter & Scope

The OCP Telco Project shall collaborate with the other chartered [OCP Projects](#) to ensure broad adoption of OCP products into the telecom market. Whenever possible, the Telco Project shall avoid duplication of efforts underway or chartered by the other OCP Projects and workgroups.

Whenever possible, the Telco Project shall utilize specifications that are published in the [OCP Contribution Database](#) and/or products that have achieved OCP Accepted™ and OCP Inspired™ recognition..

The Telco Project shall be a community for sharing “proven and new” designs from both the Telecom Service Providers and the suppliers, including uniform management software. In some respect, a “makers” community of cloud hardware and management software for telecom and carriers.

The scope also covers edge products, solutions and requirements which are included in the Edge Sub-Project Charter.

### 3.1 In Scope Activities

The project scope shall include:

- A. When OCP Accepted™ and OCP Inspired™ products are not sufficient nor deliver the technology needed by and for deployment into telecom and carrier data center or infrastructure, the Telco Project shall promote the creation of these products, specifications, and technologies.
- B. Firmware, software, and APIs for the remote management, service deployment, maintenance, monitoring, & telemetry of telecom hardware.

- C. Specs and designs that are interoperable with either the 19" EIA or OpenRack mechanical architecture unless targeted for deployment outside of the traditional Data Center or Central Office (e.g. Edge products).
- D. Creation of common architecture specifications which promote interoperability and a multi-vendor supply chain for telecom and Edge hardware.
- E. Creation of Telecom/carrier products derived from OCP products and approved specifications
- F. Creation of Telecom/carrier products which compliment OCP products and specifications by either referenced to other open source foundations (TIP, ONF, Linux Foundation etc) or in collaboration with these foundations.

### 3.2 Out of Scope Activities:

The project shall not cover nor address:

- A. Standards creation (such as those produced or administered by IEEE, PCI SIG, DTMF, etc.), unless such standard is supported by OCP Accepted™ and OCP Inspired™ products
- B. Products and/or items already covered in existing or emerging OCP Projects such as server, storage, networking and other projects.

### 3.3 Key Project Focus Areas

- A. Reliability, Security and Safety needs for the Telecom & Carrier Data Center
- B. Extended environmental needs for the Telecom & Carrier Data Center
- C. Low Latency, Multi-tenant Hardware to support Network Function Virtualization
- D. Access Layer and core router Hardware
- E. Mobile Network Edge Computing Hardware
- F. Consistent Hardware Management firmware, software and Redfish profiles across the entire Carrier network
- G. Computing and synchronization functionality for both wired and wireless networks
- H. Transportation and IOT based communications (e.g. high speed trains, airborne or shipborne equipment)
- I. Any type of computing that pushes data center functions into the Telco network that may evolve in the future, and that may not be part of today's network topologies

### 3.4 Environmental, Electrical, Mechanical, and Spatial Considerations

OCP recognizes that Telecom providers and carriers install IT equipment in a wide variety of buildings, geographies, climates, & seismic areas of which local & national authorities place unique requirements on that IT equipment. These requirements are potentially different and unique from that of the scale out cloud data center. For example, unique requirements have been documented in the Telcordia **NEBS** (Network Equipment-Building System) Documents. The NEBS standards and other international industry documents (ETSI), are the most common set of safety, spatial and environmental design guidelines applied to telecommunications equipment. These are industry requirements, but not a legal requirement.

The OCP Telco Project and its subprojects shall neither embrace nor discourage such requirements. Product contributions and corresponding specifications and collateral shall define these unique features or requirements. For example, a contributed product may support a subset of the NEBS requirements. Those requirements shall be solely determined by the contributor (design source) and the supplier partners. Further ruggedization/reliability requirements above and beyond what contributors have provided may be added to OCP Telco contributions by consumers who may use the modifications privately or choose to contribute back to the community for wider proliferation

To promote wide adoption of OCP products and specifications, the project may document desired features and/or requirements.

### 3.5 Manageability and Debug Considerations

Dealing at scale requires rock-solid management solutions. Telecommunication Service providers will require scalable and consistent tools to ensure service levels are maintained while consolidating operational silos and reducing “swivel chair” methods of operations. The OCP Telco Project and its subprojects shall promote the use of existing OCP management interfaces, protocols, commands and debug interfaces as appropriate. As experience is gained using these tools, contributions of modifications and improvements to these tools may be submitted to improve upon existing submissions.

## 4 Sub-Projects

### 4.1 Edge Sub-Project

The Edge project is a Sub-Project under the Telco Project and its charter can be found on the [Edge Sub-Project Page](#).