

# Compute Project

# Enterprise Connectivity Solutions (ECS) Charter

### **Overview:**

The Enterprise Connectivity Solutions Sub-Project (under the Open Compute Network Project) focuses specifically on driving end-to-end solutions for connectivity in the enterprise market. This subproject brings solutions that span both large campus/corporate area networks, and scales down to smaller deployments such as branch office connectivity. This brings diverse connectivity types to consider: wired or wireless, from remote offices, warehouse/distribution facilities, retail locations, remote/home user, and this sub-project enables contribution in these areas.

The goal of the Enterprise Connectivity Solutions (ECS) is to enable collaboration across the entire ecosystem to support development, deployment, and promote wide adoption of OCP products and designs for the enterprise. The lifecycle of enterprise network designs requires reliability, flexibility, and scalability, while maintaining interoperability across a variety of hardware and software choices. Our mission is to develop best practice solutions in connectivity that drive open innovation in software and hardware disaggregation, ultimately bringing the adoption of end-to-end OCP connectivity solutions to the enterprise.

#### In Scope Activities:

- Building a healthy ecosystem of partners (system integrators), suppliers (ODMs/OEMs) + independent software vendors (ISVs), and adopters (enterprise)
- Supporting the contributions of Hardware Design Specifications and design packages to Open Compute within the target market/technology areas
- Supporting the contributions of Whitepapers, Case Studies, and other relevant collateral to Open Compute within the target market/technology areas
- Fully disaggregated software and hardware:
  - o Define products and solutions where the underlying open hardware and operational software are disaggregated from each other
  - o Identification of a mechanism to allow for the selection and installation of the desired NOS via a secure method, with the ability to repeat the operation of NOS selection via the same mechanism, and also guaranteeing compliance (e.g. wireless certifications).
- The project will solicit input work jointly with other open community projects/committees to produce solution offerings, see appendix list[0]
- It is the express intention of the project not to duplicate the work of any other body, but to leverage existing work where appropriate and applying them to meet the needs of enterprise connectivity.
- Proposals for OCP SKUs as necessary.
  - o Gathering requirements and features to establish an OCP-ECS checklist
  - o Propose testing and certification process that the designs and products meet the needs for OCP-ECS
- Software components where required to enable types of devices in scope.
- Creation of integrated complete solutions available with flexible deployment options
- Solution including reference designs for physical and logical architecture of network design

#### **Target Technology Areas:**

The target technology areas of the ECS sub-project include but not limited to:

- Ethernet switches used in the target networks and use cases (including Long Reach IP over COAX POE with GB ports)
- Ethernet switches with Power over Ethernet (PoE) capabilities in order to provide network and power connectivity to remote devices in the target networks and use cases
- Wireless solutions based upon IEEE-defined Wi-FI standards which may be used in the target networks in the target networks and use cases (including BLE related use cases).
- Wireless solutions based upon private cellular technologies which may be used in the target networks in the target networks and use cases

• Network demarcation devices used in remote office locations and/or user home locations for connection to the target networks and use cases

## **Out of Scope Activities:**

In general, all areas not specified as in-scope should be considered out-of-scope.

Products and/or items already covered in existing or emerging OCP Projects such as server, storage, edge and data center networking and other projects.

#### Appendix:

[0] Working with other open source communities to produce solution offerings

- DENT Interaction for Enterprise NOS
- OpenBMC Possible interaction for hardware management purposes
- TIP Possible interaction for Wireless solutions, especially with the TIP WiFi project for AP software, controller software, and APIs
- ONF Possible interaction for private cellular solutions
- OpenWRT Possible interaction for Wi-Fi usage
- TBD as required/desired