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

**Primer**

**Cost Break Structure**

**(Draft)**

**Facebook NaaS Runbook**

*April, 2020*

# Cost Breakdown Structure

The Cost Breakdown Structure (CBS) is a breakdown of the costs of the various components of the Deployment project, including all equipment, labor, work or services done by the subcontractors. The CBS is used to forecast an estimation of cost during planning phase and continuously update the actual costs.

When Drawing up a CBS and setting a project budget, first step is to identify all the types of expenses that are likely to be incurred through the lifecycle.

Below a strategy that will help NaaS operator to elaborate a cost analysis within a Deployment Project:

* **Use a** **Subcategor**y to identify how the budget is being used in the Network Solution.
* **Identify the deployment phase** will help to identify when the budget is being used and clearly identify if the schedule will be affected.
* **Identify the concept of the expenses** of the purchased item. This will help to clearly detail any budget deviation that need corrective actions.

Once the List of expenses is available, the next step is to define the unit of each concept. The Unit is simply the minimum quantity of expense item. For instance, the unit for:

* **Network equipment, Power equipment and Supporting Infra:**
  + Is the unit provided by vendors, it may be cost per piece or package.
* **Services** 
  + Is agreed by contract with supplier, it may be Per Site, Per Km, Per Pole.
* **Labor**:
  + Unit is per hour supplied, in case of supplies and travel expenses the unit should be considered per period (commonly a month). A good practice is to register the detail of the Supplies and Travel allowance for each employee in other spreadsheet.

This Runbook provides a Customizable Cost Break Structure spreadsheet to reflect and analyze costs. Please note that the list of expenses and the entries are expected to vary during the Deployment development. The NaaS operator will need to update the list of expenses and entries according to its needs, strategies, cost per unit and quantities.

Below shows a sample of the Spreadsheet:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category** | **Subcategory** | **Phase** | **Concept** | **Unit** | **Quantity** | **Cost x Unit** | **Total** | **Comments** |
| Network Equipment | RAN | Installation & Commissioning | RAN RRUs | Piece |  |  |  |  |
| Network Equipment | Transport | Installation & Commissioning | VSAT Dish | Piece |  |  |  |  |
| Power Equipment | Grid | Installation & Commissioning | PSU | Piece |  |  |  |  |
| Power Equipment | Solar | Installation & Commissioning | Panels | Piece |  |  |  |  |
| Power Equipment | Solar | Installation & Commissioning | Batteries | Piece |  |  |  |  |
| Supporting Infra | Cabinets | Installation & Commissioning | Outdoor Cabinet for Vendor X | Piece |  |  |  |  |
| Supporting Infra | Ancillaries | Construction | ODF | Piece |  |  |  |  |
| Services | Macro Cell Site Construction | Construction | Tower Construction | Site |  |  |  |  |
| Services | Fiber Deployment | Construction | Pole Installation & Cabling | Pole |  |  |  |  |
| Services | Small Cell I&C | Installation & Commissioning | Installation & Commissioning Vendor y | Site |  |  |  |  |
| Labor | Engineering Resources | Network Design | Designer | Hours |  |  |  |  |
| Labor | Deployment Resources | Installation & Commissioning | Field Technician | Hours |  |  |  |  |
| Labor | Management Resources | Management | Deployment Manager | Hours |  |  |  |  |
| Labor | Travel Expenses | Installation & Commissioning | Travel Expenses Field Technician X | Month |  |  |  |  |
| Labor | Supplies | Installation & Commissioning | Supplies Field Technician X | Month |  |  |  |  |

Table 2 Deployment Cost Break Structure Spreadsheet Sample