

Service Description for UPS Implementation

Issue 1.0
Date 2014-1-01



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1 Service Overview

As specified in the service product portfolio, the IP implementation service covers a series of IP equipments (Router, Switch, WLAN, and so on).

1.1 Service Architecture

Huawei has a solid track record in delivering high-quality UPS implementation service to customers. The following figure shows the architecture of the UPS implementation service.

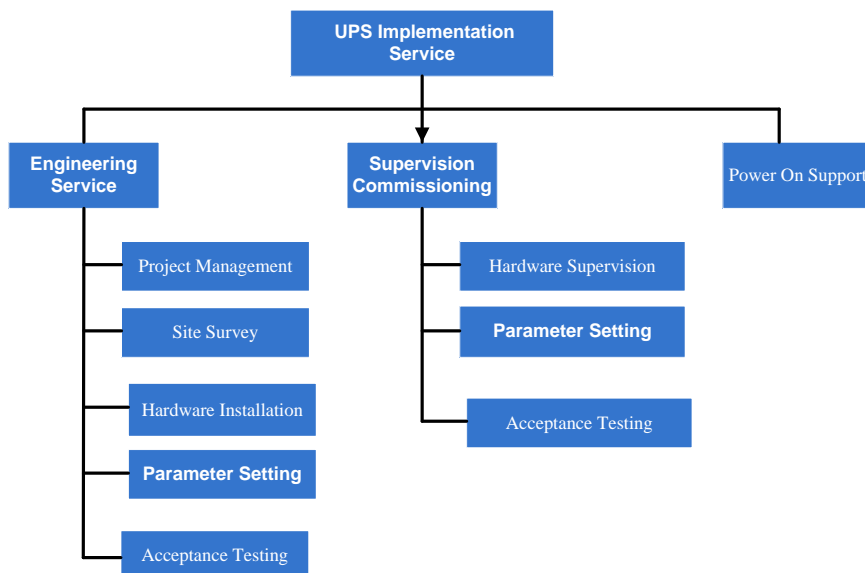


Figure 1-1: Architecture of the Implementation Service

2 Service Description

The ups implementation service primarily consists of three parts: engineering service, Supervision commissioning service, and power-on service

2.1 Engineering Service

Engineering service covers hardware installation, software commissioning, and project management. The engineering service is delivered quickly and securely by Huawei based on Huawei's corporate platforms and rich experience in engineering.

Specifically, the engineering service consists of seven parts: project management, site survey, hardware installation, parameter setting, and acceptance testing.

2.2 Supervision Commissioning Service

Supervision commissioning service provides technical guidance for hardware installation and parameter setting. It consists of four parts: hardware supervision, parameter setting, and acceptance testing. Huawei gives answers to product technology issues that may be raised during hardware installation, guides the installation personnel through hardware installation, verifies the installation, and helps the installation personnel correctly and quickly complete installation and commissioning tasks.

2.3 Power-on Service

Power-on Service provides engineering quality inspection and parameter settings. It consists of four parts: engineering quality inspection and parameter settings. When customer has finished the hardware installation, Huawei engineer or Huawei certification engineer will first check the environment and the engineering quality for UPS, and then power-on the UPS.

2.4 Service Details

2.4.1 Project Management

Definition

Project management is to monitor and manage all engineering implementation activities by following PMP and EPC processes and complying with general standards in order to ensure that projects are completed as planned and required by the customer, without compromising project quality.

Content

Service Product	Service Module	Description	
Project management	Quality management	Project engineering quality management	
	Progress management	Project timetable management	
	Communication management	Supplier management	Supplier management
		Subcontractor management	Subcontractor management
		Customer communication	Customer communication
	Cost management	Purchase cost	Purchase cost
		Labor cost	Labor cost
	Scope management	Scope management	
	Technology management	Technology management	
	Risk management	Risk management	
Customer satisfaction management	Project service satisfaction management		

- **Quality management:** Manages the project implementation quality to ensure that the project is controllable and is implemented efficiently.
- **Progress management:** Estimates the project period, prioritizes activities, produces a progress plan and updates it, and controls the implementation of the plan.
- **Communication management:** Manages suppliers and subcontractors, communicates with the customer about project implementation, and summarizes experience.
- **Cost management:** Properly estimates the purchase and labor costs and monitors the project cost accounting to ensure that the implementation service cost remains at an appropriate level.
- **Scope management:** Manages the project scope based on Huawei's rich experience in engineering.
- **Technology management:** Manages technologies used in projects based on Huawei's technology platform and through Huawei experts who provide remote support.

- **Risk management:** Manages risks in projects, for example, giving early warnings.
- **Customer satisfaction management:** Regularly communicates with the customer about various affairs during the project implementation process to improve customer satisfaction.

Deliverables

Service Activities	Deliverables
Project management	Project quality assessment report

Responsibility Matrix

R: Responsibility

I: Information

S: Support

Service Activities	Engineering Service		Supervision Commissioning Service		Power-on Service	
	Huawei	Customer	Huawei	Customer	Huawei	Customer
Project management						
Quality management	R	S	-	R	-	R
Progress management	R	S	-	R	-	R
Communication management	R	S	-	R	-	R
Cost management	R	S	-	R	-	R
Scope management	R	S	-	R	-	R
Technology management	R	S	-	R	-	R
Risk management	R	S	-	R	-	R
Customer satisfaction management	R	S	-	R	-	R

2.4.2 Site Survey

Definition

A site survey is to check the site conditions (including interior layout, power supply and cabling environments) based on the equipment configuration list.

Content

The site survey content varies with products.

Service Product	Service Module	Description
Site survey	Site survey	Survey of equipment layout
		Survey of the power supply to equipment
		Survey of the equipment monitoring system
		Survey of equipment transmission and cable connections

- Survey of equipment layout:** Makes a survey of the interior and exterior environments of the equipment room, the structure and dimensions of the equipment room, and existing equipment and auxiliary facilities (for example, whether the power supply, ground bar, air conditioner, cable tray, and elevated floor are available) to ensure that equipment can be successfully installed in the equipment room.
- Survey of the power supply to equipment:** Makes a survey of the power system in the equipment room to ensure that the power supply supports the equipment to be installed.
- Survey of the equipment monitoring system:** Makes a survey of the temperature sensor, humidity sensor, smoke sensor, door access system, water sensor, and mains cut-off protection system to ensure that the equipment to be installed can operate at a monitored environment.
- Survey of equipment transmission and cable connections:** Makes a survey of cable connections, trunk cable and interface types, cascading cables between irregularly deployed cabinets, and external network cables, as well as cable tray and DDF/ODF provided by Huawei.

Deliverables

Service Activities	Deliverables
Site survey	Site survey report

Responsibility Matrix

Service Activities	Engineering Service		Supervision Commissioning Service		Power-on Service	
	Huawei	Customer	Huawei	Customer	Huawei	Customer
Site survey						
Coordination for site survey	S	R	-	R	-	R
Preparations for site survey conditions and coordination for site entry	S	R	-	R	-	R
Confirmation on the installation environment	S	R	-	R	-	R
Collection of data about the installation environment	R	S	-	R	-	R
Site survey result and memorandum of understanding (MOU)	R	S	-	R	-	R

2.4.3 Hardware Installation

Definition

Hardware installation is to install the equipment and auxiliary materials and power on them. The equipment includes the main equipment and other equipment delivered with the main equipment.

Content

The following table lists details of the hardware installation service.

Service Product	Service Module	Description
Hardware installation	Equipment installation	Rack installation
	Cable installation	Cable installation

Service Product	Service Module	Description
		Cable adjustment
	Hardware self-check and power-on	Hardware self-check and power-on

- **Rack installation:** Installs the equipment based on Huawei's engineering installation regulations and the customer's requirements.
- **Cable installation:** Installs interconnection cables (only include the power cable, ground cable, not include the business cables).
- **Cable adjustment:** Adjusts cables that connect to the main equipment and auxiliary equipment. The cable adjustment service may be required in scenarios such as capacity expansion, network reconstruction, and network migration.
- **Hardware self-check and power-on:** Completes the quality check on the equipment against the quality checklist and modifies those unqualified items. After hardware installation is verified, powers on equipment and checks whether the indicators are functional.

Deliverables

Service Activities	Deliverables
Hardware installation	Packing list with the customer's signature
	Engineering quality inspection report

Responsibility Matrix

Service Activities	Engineering Service		Supervision Commissioning Service		Power-on Service	
	Huawei	Customer	Huawei	Customer	Huawei	Customer
Hardware installation						
Equipment supply	R	S	S	R	-	R
Supply cables	R	S	S	R	-	R
Unpacking inspection	R	R	R	R	-	R
Confirmation on the packing list with signature	R	R	R	R	-	R
Hardware installation	R	-	S	R	-	R
Cable installation	R	-	S	R	-	R

Service Activities	Engineering Service		Supervision Commissioning Service		Power-on Service	
	Huawei	Customer	Huawei	Customer	Huawei	Customer
Hardware self-check	R	-	S	R	-	R
Output of hardware-related documents	R	-	S	R	-	R

2.4.4 Parameter setting

Definition

Parameter setting is to set the parameter for UPS.

Content

Service Product	Service Module	Description
Parameter setting	Parameter setting	Parameter setting

- **Parameter setting:** Set the parameter, mainly including the following activities:
 - Time.
 - Voltage.
 - Frequency.
 - Battery

Deliverables

Service Activities	Deliverables
Software commissioning	Power-on report

Responsibility Matrix

Service Activities	Engineering Service		Supervision Commissioning Service		Power-on Service	
	Huawei	Customer	Huawei	Customer	Huawei	Customer

Service Activities	Engineering Service		Supervision Commissioning Service		Power-on Service	
	Huawei	Customer	Huawei	Customer	Huawei	Customer
Software commissioning						
Preparations for equipment commissioning and system commissioning data	-	R	-	R	-	R
Parameter setting	R	S	R	S	R	S

2.4.5 Acceptance Testing

Definition

Acceptance testing is to perform a function test and an acceptance test of equipment hardware and software to ensure that the equipment:

- Meets the customer's most basic requirements for equipment running and maintenance. Is able to carry the customer's services.
- Runs stably for a long time at the customer's live network.

The acceptance testing service covers:

- Basic acceptance of hardware functions
- Basic acceptance of software functions
- Basic acceptance of services

Description

Service Product	Service Module	Description
Acceptance testing	Basic acceptance of hardware functions	Acceptance of basic hardware functions and redundancy design

- **Basic acceptance of hardware functions:** Performs an acceptance test of the basic hardware functions based on the test cases agreed with the customer or the customer's designated third party to ensure the following:
 - The quantity and type of the equipment hardware are the same as those stipulated in the contract.
 - The equipment hardware is functional.
 - The protection and redundancy functions of the equipment hardware are functional, and the equipment can operate stably for a long time at the customer's live network.

Deliverables

Service Activities	Deliverables
Acceptance test	Power-on report

Responsibility Matrix

Service Activities	Engineering Service		Supervision Commissioning Service		Power-on Service	
	Huawei	Customer	Huawei	Customer	Huawei	Customer
Acceptance testing						
Preparation for tools	R	S	R	S	R	S
Power-on report application	R	-	R	-	R	-
Defining of acceptance criteria, test items, and fault classification	R	R	R	R	R	R
Acceptance test based on the acceptance criteria agreed on by both parties	S	R	S	R	S	R
Confirmation on the acceptance result with signature	R	R	R	R	R	R
Output of Power-on report	R	-	R	-	R	-

2.4.6 Hardware Supervision

Definition

Hardware supervision is to provide technical guidance during equipment installation. Huawei gives answers to product technology issues that may be raised during hardware installation, guides the installation personnel through hardware installation, and helps them correctly and quickly complete installation tasks.

Description

Service Product	Service Module	Description
Hardware supervision	Unpacking inspection	Providing guidance on unpacking the goods
		Confirming with the unpacking inspection result
	Technical guidance on hardware installation	Delivering necessary hardware installation skills training, and specifying and transferring knowledge of installation modes in various scenarios
		Constructing exemplary sites
	Guidance on resolving hardware installation issues	Providing necessary technical support to the hardware personnel and responding to their technical inquiries
		Reporting and resolving shipment and goods issues
		Helping resolve goods damage issues during installation
	Guidance on verifying the quality of hardware installation	Helping resolve other technical issues related to hardware installation
		Providing guidance on verifying the quality of hardware installation and offering quality criteria

- **Unpacking inspection:** Provides guidance to the hardware installation personnel to unpack and inspect the goods, confirms with the customer about the unpacking inspection result, and resolves goods issues.
- **Technical guidance on hardware installation:** Gives answers to technology issues that may be raised during hardware installation through telephone or onsite support. The mode to be used, telephone or onsite support, is determined based on project conditions and the customer's requirements.
- **Guidance on resolving hardware installation issues:** Provides guidance on resolving goods issues, for example, poor quality, during hardware installation and gives answers accordingly.
- **Guidance on verifying the quality of hardware installation:** Provides guidance on verifying the quality of hardware installation to ensure that the quality meets the customer's requirements.



NOTE

1. The hardware supervision service only provides technical support and does not cover detailed hardware installation operations and activities.



2. The hardware supervision service and the hardware installation service must not be provided simultaneously.
3. The engineering service does not contain any supervision service. The Supervision commissioning service only provides the hardware supervision service.