

Site**FORGE**

SITE

COMMISSIONING

MAINTAINING OVERALL NETWORK  
PERFORMANCE

USE CASE

# DOCUMENT INFORMATION

## ABSTRACT

This document details a use case on Site Commissioning. This document details the processes involved with Site Commissioning.

## REVISION HISTORY

Revision 1.0	Initial document creation	2016-09-01
Revision 1.1	Added steps in basic flow content	2016-11-11
Revision 1.2	Updated Use Case Diagram	2016-11-22



## BRIEF DESCRIPTION

STREAMLINED PROCESS WITH MORE CONTROL, HIGHER QUALITY AND FEWER PROBLEMS THROUGH SITE COMMISSIONING – WITH SITEFORGE.

It is uttermost important that the site functions properly without leading to any delays and malfunctioning. Site Commissioning is an essential aspect because it assures that all the components and systems of the site are planned, installed, tested and functioned as per the operational requirements of the operator or customer. It is a systematic process of assuring through verification and documentation that from the design phase till installation phase, all the procedures are functioning in accord with the operational needs.

A formal inspection is conducted to check the devices are within the required tolerances, functioning of the devices is according to the requirement aspects, and every device installed is accordingly.

## ACTORS

- ▶ Field Engineer
- ▶ Project Manager
- ▶ LSMR Engineer

# TRIGGERS

- ▶ Possibility of data manipulation while carrying out field test cases
- ▶ Wrong parameter approval because of error in judgment
- ▶ Estimated completion time is close to one day
- ▶ Manual intervention as the parameters checked are done manually
- ▶ Test cases performed and the results to check compliance are carried out manually

# PRECONDITIONS

## PLANNING

Field Engineer has identified the most suitable site for cell installation and planning is essential as it is an initial step which further facilitates the acquisition and installation of the site. Further, deploying the most beneficial techniques to install the site.

## ACQUISITION

The Network Planning Manager has created a site proposal and drawn a framework; thereafter Network Planning Manager seeks approval from government authorities to acquire the site. It basically assists to meet the customer network coverage and program schedule objectives.

## MATERIAL FORECASTING

A Field Engineer conducts an investigation for site installation. All supporting documents are uploaded. Based on that, a radio frequency survey is conducted on the site to check network adaptability. The Project Manager forecast the materials needed to install a network infrastructure uploads Bill of Material. After identification of all assets, all related projects and tasks are assigned to the dedicated workgroup.

## OSP CONSTRUCTION

The materials consumption details are managed in the Inventory System by the OSP Vendor. The Field Engineer checks for backhaul connectivity if required.

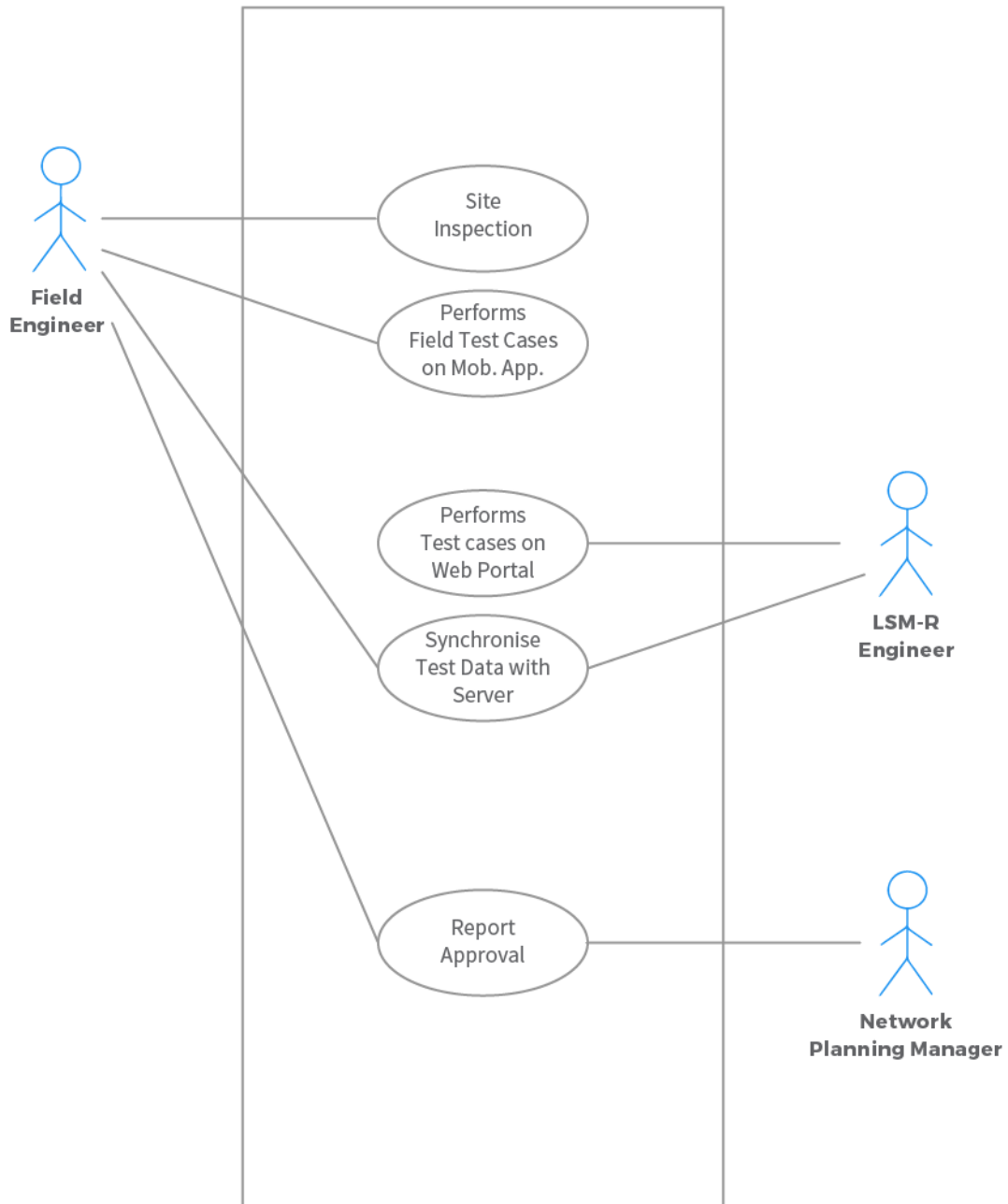
## ISP INSTALLATION

The Field Engineer performs the installation of necessary equipments.

## REGULATORY COMPLIANCE

With respect to government authorities, it is made sure that there is radiation compliance and other related parameters are checked from the regulatory perspective.

# USE CASE DIAGRAM



# BASIC FLOW

## Site Commissioning

Site Commissioning has earned a very strong reputation because it is a significant aspect. It is a streamlined process which improves quality and there is a great control of construction costs. **Operational problems are reduced** verifying that the process from designing and construction till site installation is fully compliant and functioning properly. With the deployment of various network equipment's major challenges is experienced and in order to address the challenges, Site Commissioning is performed to fully inspect and optimize the site according to the legislation, rules and regulatory.

### STEP 1

The process conducts the **inspection of the installation** according to the approved design and that all quality materials are used during installation.

### STEP 2

LSMR Engineer performs test cases on a web portal to get automated result and field engineer uses the mobile application of SiteFORGE to perform field test cases and synchronize it with a central server.

### STEP 3

The Project Manager receives the report with system generated compliance results.

### STEP 4

Through Site Commissioning, **automatic data compliance check** takes place to perform test cases leading to zero error. There is **no data manipulation** as SiteForge locks the field test cases work order to the Cell ID. There is **no manual intervention** as capturing data compliance check is fully automated taking minimal time.

# CONCLUSION

## SITEFORGE ENSURES SITE COMMISSIONING:

Site Commissioning is the procedure of examining the entire process from planning to installation of the site to make it certain that all the functions are operating properly and efficiently. Preventing or reducing the chances of major downtime is the greatest value that Site Commissioning can perform. All mission-critical devices are inspected beforehand to prevent any major destruction in the future. The entire monitoring process is automated, which results in data accuracy and takes lesser time to examine the site.

Automated data capture and upload, which eliminates the possibility of data manipulation at the point of entry. There is automated report generation which displays validation of result values against the optimal values for LSM-R test and easy data storage, management and retrieval process from the common server.

When done properly, Site Commissioning reduces the life cycle cost, thus increases opportunities to identify potential threats of downtime and device-related problems. Such problems are pinpointed earlier before suffering from noted components failure. Its extensive automated data helps in doing optimal maintenance and take future decisions. The use case showcases how Site Audit has ultimately widened the scope of greater safety, reduced downtime, and operational costs, and enhanced network performance throughout the lifecycle.



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