

### **Introduction**

The Requirements Management Plan is a necessary tool for establishing how requirements will be analyzed and managed.

The purpose of the BrightStar Requirements Management Plan is to establish a common understanding of the requirements management process.

Requirements will be divided into two categories: project requirements and product requirements. Project requirements are those that are specific to the project, while product requirements are those that are common to all products.

The inputs for the requirements management plan include the BrightStar Project Charter and Stakeholder Requirements.

### **Requirements Management Approach**

The requirements management approach is the methodology the project team will use to identify, analyze, and manage requirements.

The approach we will use for requirements management for the BrightStar project will be broken down into four main phases: Requirements Identification, Requirements Analysis, Requirements Documentation, and Ongoing Requirements Management.

**Requirements Identification:** The BrightStar project team will facilitate various methods to collect requirements from stakeholders.

**Requirements Analysis:** The BrightStar project team will analyze requirements to determine if they fall in line with the project goals and objectives.

**Requirements Documentation:** Once requirements have been identified and analyzed, they will be documented in the Requirements Management Plan.

**Ongoing Requirements Management:** Throughout the project lifecycle, the project manager will ensure that requirements are being managed and controlled.

### **Configuration Management**

In order to effectively manage a project, communication must be managed and controlled. Additionally, configuration management is a key component of requirements management.

For the BrightStar Project, the Requirements Management Plan will utilize the configuration management

Documentation and Version Control: All project documentation will be loaded into the Configuration Man

Change Control: Any proposed changes in project requirements must be carefully considered before ap

### Requirements Prioritization Process

Prioritizing requirements is an important part of requirements management. Developers or service provi

The BrightStar project manager will facilitate stakeholder meetings in order to establish priorities for all p

#### Priority Level

#### Definition

#### High

These requirements are mission critical. They are required for project/product success or for progression

#### Medium

These requirements support product/process operations but can be completed under the next product re

Low

These requirements are quality and/or functional process enhancements and are desirable if time and re

### Product Metrics

Product metrics are an important part of determining a project's success. There must be some quantitative characteristics to measure against in order to gauge the progress and success of the project. Product metrics are usually technical in nature though not always. Such metrics may consist of performance, quality, or cost specifications. Metrics may also be based on the product requirements identified for a given project.

Product metrics for the BrightStar project will be based on cost, quality, and performance requirements as outlined in the project charter. In order to achieve project success, the BrightStar product must meet or exceed all established metrics.

Cost:

- BrightStar cable product must cost less than \$6,000 per linear kilometer for fiber counts of 12-72 fibers; less than \$8,000 per linear kilometer for fiber counts of 84-180 fibers; less than \$10,000 per linear kilometer for fiber counts of 192-288 fibers.

Quality:

- BrightStar cable product must achieve less than 10% attenuation in temperature cycle testing
- BrightStar cable product must achieve a minimum bending radius of less than 10 feet
- BrightStar cable product must weigh less than 1.0 lb per linear foot for fiber counts of 12-180 fibers and less than 2.0 lbs for fiber counts greater than 180

Performance:

- BrightStar cable must achieve an average attenuation of less than 0.1% per linear kilometer at 1550nm
- BrightStar cable must achieve an average attenuation of less than 0.5% per linear kilometer at 1610nm
- BrightStar cable must have a diameter of less than 1.0” for 12-72 fiber cables; less than 1.5” for 84-180 fiber cables; and less than 2.0” for 192-288 fiber cables

## Requirements Traceability Matrix

The Requirements Management Plan should include a requirements traceability matrix. The requirements traceability matrix is a tool to ensure that deliverables meet the requirements of the project. The matrix provides a thread from the established and agreed upon project requirements, through the project's various phases, and through to completion/implementation. This ensures that the product specifications and features satisfy the requirements on which they were based. Any interim project tasks associated with the requirements should be included. An example of this are test cases which will utilize metrics, based on the product requirements, which are linked to the project charter and design document. This allows a team member or stakeholder to follow a requirement through all tasks required for its completion.

Below is the requirements traceability matrix for the BrightStar project. The purpose of the requirements traceability matrix is to ensure all product requirements are completed in accordance with the project charter. This matrix provides a thread from all product requirements through design, testing, and user acceptance. Design document and charter references are contained in the BrightStar Project Configuration Management Plan. Any approved changes in project scope or requirements will result in changes to the traceability matrix below. Based on impacts of the approved changes, the Project Manager will make the necessary changes to the matrix and communicate those changes to all project stakeholders.

**Project Name**

Bright Star Fiber Optic Cable

**Business Area**

Research and Development

**Project Manager**

J. Doe

**Business Analyst Lead**

B. White

**QA Lead**

F. Black

**Target Implementation Date**

06/01/20 xx

**Req. #**

Requirement Description

Design Docu Reference

Charter Ref

Test Case Reference

User Acceptance Validation

Comments

1

Reduce cable building cost per linear foot by 15%

DD001

3.2.4

TS001

2

Improve attenuation in temperature testing by 10%

DD002

2.1.1

TS002

3

Improve fiber cable bending radius by 10%

DD003

1.4.3

TS003

4

Reduce fiber cable weight by 10%

DD004

2.5.4

TS004



5

Improve performance (attenuation) by 10%

DD005

1.6.5

TS005

6

Reduce cable diameter by 5%

DD006

1.3.2

TS006

Source: [projectmanagementdocs.com](http://projectmanagementdocs.com)