Automated Wireless Asset Tracking for Underground Mines

Version 1.0

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 10/16/14 | 1.0 | Completed full description. | Philip Kurowski |
| 10/15/14 | 1.0 | Added heading. | Philip Kurowski |
|  |  |  |  |
|  |  |  |  |

Table of Contents

1. Brief Description 1

2. Participating actor 1

2.1 Coordinator 1

3. Entry conditions 1

3.1 Coordinator is connected 1

4. Flow of Events 1

4.1 Coordinator sends message 1

4.2 TMS server receives message 1

4.3 Parse message 1

5. Exit Conditions 1

5.1 Database updated 1

6. Quality requirements 1

6.1 <Quality requirement one> 1

# Brief Description

The TMS server is constantly awaiting communication from the network coordinator.

# Participating actor

## Coordinator

The central node of the ZigBee network. The coordinator contains all information of routers in the mine and is able to return their location and end device connections.

# Entry conditions

## Coordinator is connected

There is an active connection between the TMS server and the coordinator.

# Flow of Events

## Coordinator sends message

* The coordinator sends a formatted message to the TMS including the end device and the router IDs.

## TMS server receives message

* The message is received at the server’s socket.

## Parse message

* The message type is parsed and its content is stored appropriately in the TMS database.

# Exit Conditions

## Database updated

The message protocol is analyzed and its appropriate information is saved to the TMS database.

# Quality requirements

## <Quality requirement one>