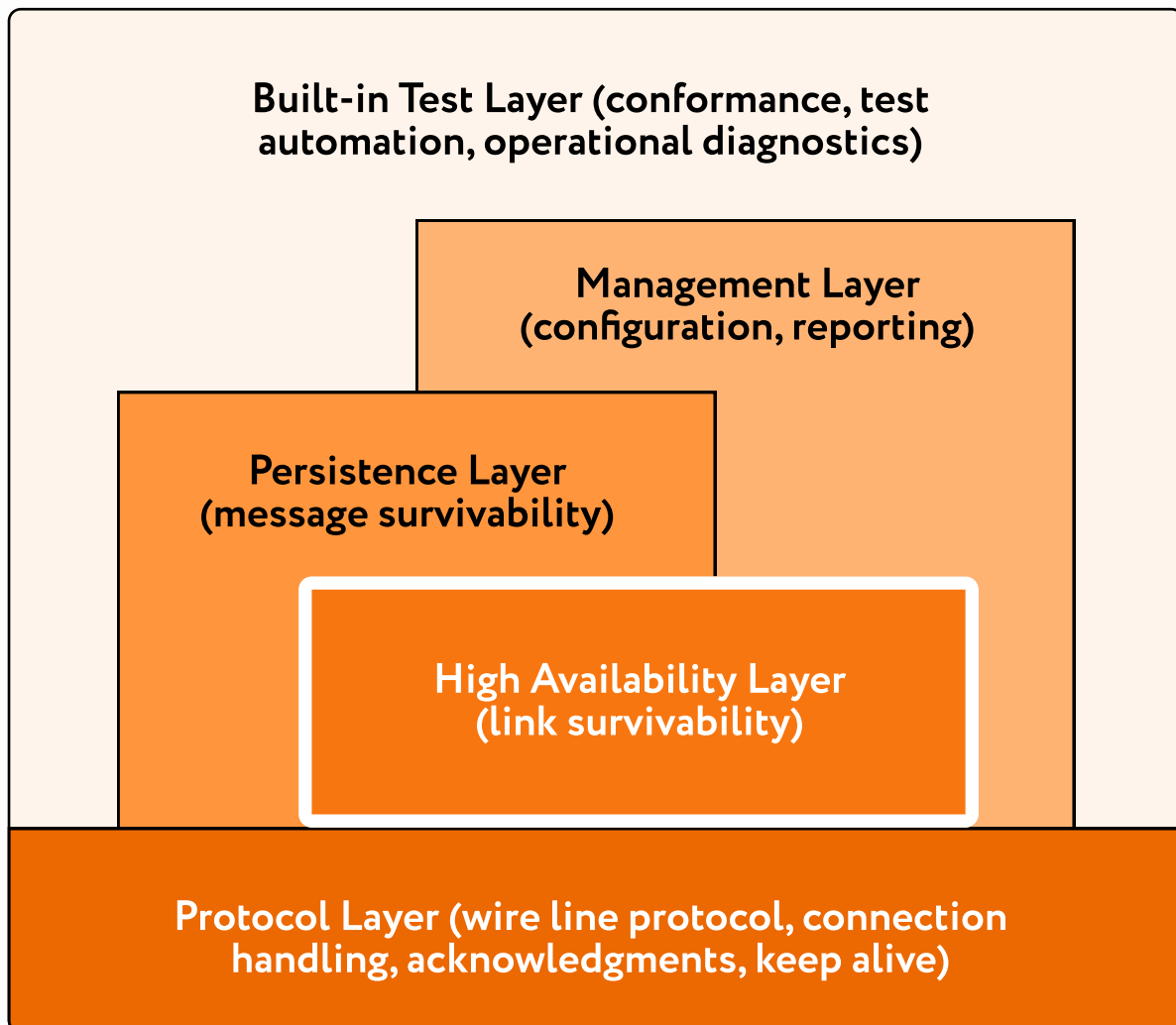


# HIGH AVAILABILITY FOR MISSION-CRITICAL CONNECTION

Datasheet

# Project objective

Add support of the Class D High Availability (HA) layer to the MLK PTC class D connection. It would allow for simultaneously holding multiple links and immediate switching between them in case of loss of connection on the currently used link. This contributes to higher reliability and security of connection providing transfer of mission-critical PTC data.



# Result

The extended functionality of the system, web component, and application builder covers the usage of alternate addresses and ports to recover from a link or node failure. New rules for Class D nodes' behavior are set in compliance with all requirements of the protocol layer.

## Scope of work

- ❖ System updates. New configuration parameters in Linux, ITCSM and SMSHELL; new HA functionality in Class D protocol; displaying the currently used IP
- ❖ Web interface implementation. Updates for web page and parameters validation business logic; new fields in Class D Web page; adding validation for fields on Web page; handling of the new HA parameters in CGI files; functionality of displaying the current IP
- ❖ Application builder updates. New HA parameters in GUI, WIU app compiler, and railroad-related specific parameters

## Activities

- ❖ Requirements clarification
- ❖ Implementation activities
- ❖ UI Updates
- ❖ Functional testing
- ❖ Engineering testing

# About the project

## Technologies

- ❖ C/C++
- ❖ Eclipse
- ❖ TCP/IP
- ❖ bash
- ❖ gcc
- ❖ make
- ❖ SVN
- ❖ JavaScript
- ❖ HTML
- ❖ Altera Quartus II
- ❖ Serial communication interface



## Project size

- ❖ 1 person

## Duration



## Platforms

- ❖ Linux
- ❖ Embedded Linux (uCLinux)
- ❖ Web