

## Demonstration #3: IR Communications

### Introduction

The CVIS IR showcase demonstrates the communication behavior of CALM Infrared by using a dynamic speed limit application. The showcase is designed as a stationary demonstration to give as much observers as possible an impression of the developments in CVIS.

The Infrared roadside transceiver is mounted on a gantry and is justified to cover the parking slots beside the DLR test track. The Infrared vehicle transceiver is mounted behind the windscreen of the demonstration vehicle. Both Infrared transceivers are controlled by the CVIS router and communicate by means of CALM IR.

### Dynamic Speed Limit Application



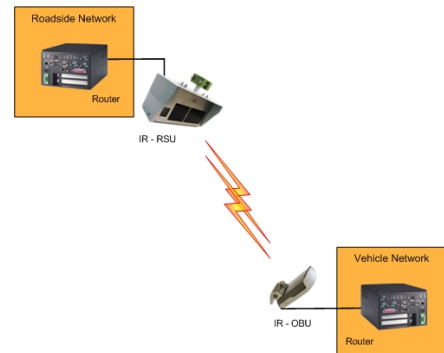
The Dynamic Speed Limit Application was developed by VOLVO. Within this application, speed limit information is transmitted from the roadside unit to the vehicle and the on-board unit displays the received speed information to the driver.

The application used the CALM Fast network protocol. The roadside unit announces the availability of the speed limit service. The vehicle appoints the announced service and receives the actual speed information.

In order to set the speed limit value to be broadcasted by the roadside system, the RSU exposes a WebService interface with a function call to set the speed limit.

### Architecture

The CVIS architecture for this showcase comprises an interesting modification of the reference execution platform. CVIS host and CVIS router are merged within a common hardware platform. The combined Host/Router platform is controlling the IR communication module, hosts the CVIS middleware and the dynamic speed limit application. This architecture shows the flexible usage of the CVIS reference execution platform.



### Contact

If you have any questions, please get in contact with the following persons:

- Mario BOSS – EFKON: [m.boss@efkon.com](mailto:m.boss@efkon.com)
- Dr. Hannes STRATIL – EFKON: [h.stratil@efkon.com](mailto:h.stratil@efkon.com)

### Partners involved



**VOLVO**

