sensorData Service

Service Description

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1 Overview

This document describes the *sendData* service, which enables the *Sensor System* to communicate data (light level and motion presence) to the *Light Controller System* within the local cloud. This service is event-driven and sends data when the motion status changes.

The rest of this document is organized as follows. In Section 2, we describe the abstract message operations provided by the service. In Section 3, we end the document by presenting the data types used by the mentioned operations.

1.1 How This Service Is Meant to Be Used

This service is produced by the *Sensor System* and consumed by the *Light Controller System*. When a change in the motion level is detected, the sensor sends a data payload to the *Light Controller System*. The payload contains the sensor ID, the timestamp of the reading, the motion reading and the ambient light level reading.

Using this information, the *Light Controller* decides whether to turn the lights on or off, according to defined threshold.

1.2 Important Delimitations and Dependencies

- This service only sends data and does not perform any decisions.

2 Service Interface

This section describes the interfaces to the *sensorData* service.

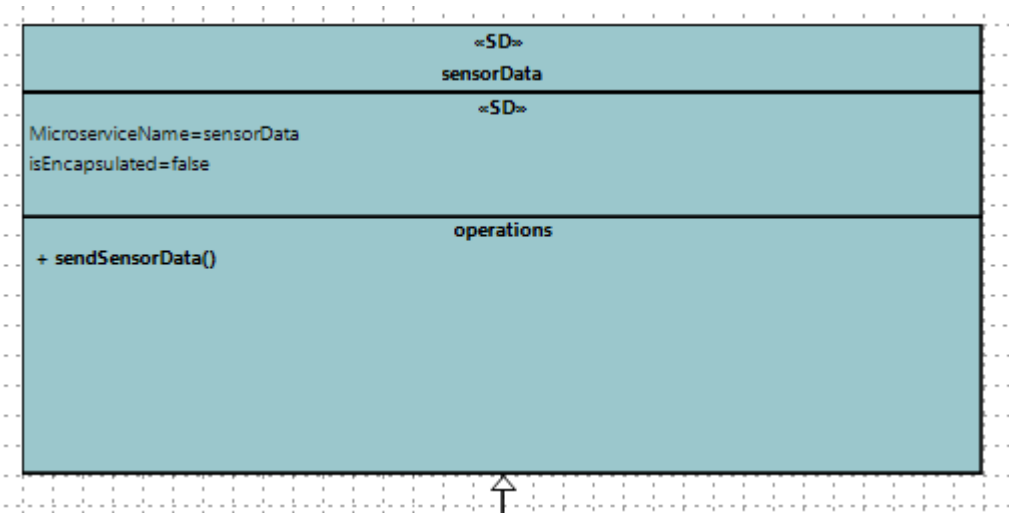

Figure 1 - Block diagram of the sensorData service (using Papyrus)

The following interface operations are available.

2.1 operation sendSensorData (sensorData) :

The sendData operation is used to send a data payload when a motion event occurs. The *Light Controller System* consumes this message.

3 Information Model

3.1 struct sendSensorData

Field	Type	Description
sensorID	int	Identifier of the sensor
timestamp	DateTime	Timestamp of the reading
motionStatut	boolean	True = presence of motion False = no presence
lightLevel	float	Ambient light intensity (lux)