

# Thermostat

## System Description

### Abstract

This document provides system description for the **Thermostat**.

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# 1 Overview

This document describes the Thermostat application system with the purpose of fetching and providing data (temperature) and publishing on a topic ("notification").

## 1.1 Important Delimitations

The Thermostat currently only reads data from a csv and can not connect to a device.

# 2 Services produced

## 2.1 service temperature

The purpose of this service is to get the current temperature. The service is offered for application.

# 3 Security

The security of Eclipse Arrowhead - and therefore the security of Thermostat - is relying on X.509 certificate trust chains. The Arrowhead trust chain consists of three level:

- Master certificate: `arrowhead.eu`
- Cloud certificate: `my-cloud.my-company.arrowhead.eu`
- Client certificate: `my-client.my-cloud.my-company.arrowhead.eu`
- Example: `thermostatpublisher.arrowhead.ltu.arrowhead.eu`

The system sets up a filter that is responsible for validating whether the received HTTPS requests are coming from one of the local cloud's clients based on its certificate.