SystemRegistry system description (SysD)

**Abstract**

The System Registry System is a component that handles resolution of system names to identities and addresses in an Arrowhead local cloud.

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1. Overview

# Significant prior art

TBD

# How this system is meant to be used

The System Registry is used as a storage of translation information for system names to identities and addresses. The system concept in Arrowhead defines a piece of hardware and software that executes a functionality. These systems can be operating without any services, their services might not be known at system startup or they might not produce any services but rather only consume services.

In order to be able to bootstrap a system into an Arrowhead cloud a system needs to be linked to an identifier that can be used in the Information Assurance domain, for example a certificate.

The System Registry is meant to be used when a new system is entering an Arrowhead cloud to provide information connecting a system name to an unique identity and an address in the cloud.

# System functionalities and properties

The system should be configurable whether it should use “Time to Live”-settings for services or if the responsibility of cleaning up “dead” services relies on any system out of bounds of the System Registry.

The System Registry services should be registered via the Service Discovery service and looked up by the system that will be registered.

# Important delimitations

None defined.

1. Services

The System Registry should produce services for System Discovery and System Registry Administration.

# Produced services

The System Registry produces the following services:

|  |  |
| --- | --- |
| Service name | SD |
| System Discovery | SD System Discovery |
| System Registry Administration | SD System Registry Administration |

# Consumed services

|  |  |
| --- | --- |
| Service name | SD |
| Service Discovery | SD Service Discovery |

1. Security

# Security Model

The system registry services can be controlled via Authorisation. Typically, all systems should be allowed to register themselves and lookup other systems.

1. Revision history

# Amendments

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Date | Version | Subject of Amendments | Author |
| 1 | 2022-06-23 | 0.1 | First version for AH 5.0. | Per Olofsson |
| 2 |  |  |  |  |

# Quality Assurance

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Date | Version | Approved by |
| 1 |  |  |  |
| 2 |  |  |  |