Raw Configuration

Service Description

Service ID: *"rawconfig"*

Abstract
This document describes an abstract service that provides functions to fetch black-box configuration files for Arrowhead systems.

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1 Overview

This document describes an abstract Eclipse Arrowhead service that was designed to manage configuration and settings for Eclipse Arrowhead systems. The RawConfig service enables an Arrowhead system to fetch a black-box (raw) configuration file from a central repository, thus simplifying management of large scale installations.

The rest of this document is organized as follows. In the remainder of this section we consider significant prior work, describe how this service is meant to be used and comment on the status of this document. In Section 2, we describe the abstract interface, in terms of functions invoked by messages, provided by this service. Finally, in Section 3, we present the data types used by those functions.

1.1 Introduction

This Arrowhead [1] service proposal is a vital part for systems to be able to fetch configuration files. The RawConfig service allows an arrowhead-compliant system to download a new configration file in any format.

1.2 Status of this Document

This document represents the current version of the RawConfig service. Eclipse Arrowhead, being part of an academic and R&D community is constantly evolving to provide more features and increased performance and stability.

2 Service Interface

This section lists the *functions* that must be exposed by a RawConfig service. Each function represents one feature the RawConfig service can *perform*, e.g. list configurations, or store new ones and fetch data. In particular, each following subsection names an abstract function, an input type and an output type, in that order. The input type is named inside parentheses, while the output type is preceded by a colon. Input and output types are only denoted when accepted or returned, respectively, by the function in question.

All abstract data types named in this section are defined in Section 3.

2.1 function getRawConfig (systemName) : Configuration file

Fetches a black box configuration file of any type.

3 Information Model

Since the rawConfig service uses black-box (or raw) configuration files of any format or type, there is no specific data models in use. This rest of the page is intentially left blank.

3.1 Primitives

Types and structures mentioned throughout this document that are assumed to be available to implementations of this service. The concrete interpretations of each of these types and structures must be provided by any IDD document claiming to implement this service.

Type	Description
Id	Unique integer that represents a configuration.
Name	Unique String that points to a Producer or Subscriber.
Base64	Base64 encoded data
Address	String of a host, it contains the IP Address and can include also the port number.
Content-type	String of media data, examples are text/plain, application/json, etc.
Timestamp	ISO8601 based datetime object.

4 References

[1] J. Delsing, “IoT Automation : Arrowhead Framework,” 2017.

5 Revision History

5.1 Amendments

No.	Date	Version	Subject of Amendments	Author
1	2021-02-03	0.1	Initial	Jens Eliasson
2	2021-02-04	0.5	Updated datamodels	Jens Eliasson
3	2021-02-05	0.9	Updated primitives and functions	Jens Eliasson

5.2 Quality Assurance

No.	Date	Version	Approved by
1			