

pull-systems

Service Description

Abstract

This document provides service description for the **pull-systems** service.

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1 Overview

This document describes the **pull-systems** service, which enables the systems to get system details for each system registered in Service Registry. Examples of this interaction is a dedicated core system that needs these informations.

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



ARROWHEAD

Document title
pull-systems
Date
2022-10-25

Version
4.6.0
Status
RELEASE
Page
4 (9)

1.1 How This Service Is Meant to Be Used

The given core system is required to submit the input parameters.

1.2 Important Delimitations

Direction input parameter could be only `ASC` or `DESC` .

1.3 Access policy

Available only for the following core systems: *Plant Description Engine*

2 Service Interface

This section describes the interfaces to the service. The **pull-systems** service is used to get system details for each system registered in the Local Cloud. In the following, each subsection names an interface, 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 interface in question. All abstract data types named in this section are defined in Section 3.

The following interfaces are available.

2.1 interface **HTTP/TLS/JSON (QueryParams) : SystemListResponse**

| Profile type | Type | Version |
|-------------------|------|--------------|
| Transfer protocol | HTTP | 1.1 |
| Data encryption | TLS | 1.3 |
| Encoding | JSON | RFC 8259 [1] |
| Compression | N/A | - |

Table 1: HTTP/TLS/JSON communication details.

3 Information Model

Here, all data objects that can be part of the **pull-system** service provides to the hosting System are listed in alphabetic order. Note that each subsection, which describes one type of object, begins with the *struct* keyword, which is used to denote a collection of named fields, each with its own data type. As a complement to the explicitly defined types in this section, there is also a list of implicit primitive types in Section 3.3, which are used to represent things like hashes and identifiers.

3.1 struct **QueryParams**

| Field | Type | Mandatory | Description |
|-----------|-----------|-----------|--|
| direction | Direction | no | Sorting direction. |
| page | Number | no | Pagination page number. |
| size | Number | no | Pagination page size. |
| sortField | String | no | Field name used as the basis of the sorting. |

3.2 struct **SystemListResponse**

| Field | Type | Description |
|-------|---------------|---------------------------|
| data | Array<Object> | List of service instances |
| count | Number | Size of the result list. |

3.2.1 struct **data**

| Field | Type | Description |
|--------------------|------------|---|
| address | String | Network address. |
| authenticationInfo | String | Public key of the client certificate. |
| createdAt | DateTime | System instance record was created at this UTC times-tamp. |
| id | Number | Identifier of the system instance |
| metadata | Metadata | Metadata |
| port | PortNumber | Port of the system. |
| systemName | Name | Name of the system. |
| updatedAt | DateTime | System instance record was modified at this UTC times-tamp. |

3.2.2 struct **Metadata**

A JSON Object which maps String key-value pairs.

3.3 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 |
|-----------|---|
| Address | A string representation of the address |
| DateTime | Pinpoints a specific moment in time. |
| Direction | String representing the sorting direction. |
| Object | Set of primitives and possible further objects. |
| Name | A string identifier that is intended to be both human and machine-readable. |
| Number | Decimal number |

4 References

- [1] T. Bray, "The JavaScript Object Notation (JSON) Data Interchange Format," RFC 8259, Dec. 2017. [Online]. Available: <https://rfc-editor.org/rfc/rfc8259.txt>



ARROWHEAD

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9 (9)

5 Revision History

5.1 Amendments

| No. | Date | Version | Subject of Amendments | Author |
|-----|------------|---------|-----------------------|---------|
| 1 | YYYY-MM-DD | 4.6.0 | | Xxx Yyy |

5.2 Quality Assurance

| No. | Date | Version | Approved by |
|-----|------------|---------|-------------|
| 1 | YYYY-MM-DD | 4.6.0 | |