

# unregister-system HTTP/TLS/URL

## Interface Design Description

### Abstract

This document describes a HTTP protocol with TLS payload security and URL encoding variant of the **unregister-system** service.

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# 1 Overview

This document describes the **unregister-system** service interface, which enables autonomous system unregistration. It's implemented using protocol, encoding as stated in the following table:

Profile type	Type	Version
Transfer protocol	HTTP	1.1
Data encryption	TLS	1.3
Encoding	URL	-
Compression	N/A	-

Table 1: Communication and semantics details used for the **unregister-system** service interface

This document provides the Interface Design Description IDD to the *unregister-system – Service Description* document. For further details about how this service is meant to be used, please consult that document.

The rest of this document describes how to realize the **unregister-system** service HTTP/TLS/URL interface in details.

## 2 Interface Description

The service responses with the status code 200 Ok if called successfully. The error codes are, 400 Bad Request if request is malformed, 401 Unauthorized if improper client side certificate is provided, 500 Internal Server Error if Service Registry is unavailable.

```
1 DELETE /serviceregistry/unregister-system?system_name={systemName}&address={address}&port={port} }  
   HTTP/1.1
```

Listing 1: An [unregister-system](#) invocation.

## 3 Data Models

Here, all data objects that can be part of the service calls associated with this service are listed in alphabetic order. Note that each subsection, which describes one type of object, begins with the *struct* keyword, which is meant to denote an Object that must contain certain fields, or names, with values conforming to explicitly named types. As a complement to the primary types defined in this section, there is also a list of secondary types in Section 3.2, which are used to represent things like hashes, identifiers and texts.

### 3.1 struct **QueryParams**

This structure is used to unregister a system from Service Registry.

Field	Type	Mandatory	Description
systemName	Name	yes	Identifier of the system.
address	Address	no	Network address.
port	PortNumber	yes	Port of the system.

### 3.2 Primitives

Type	Description
String	An arbitrary UTF-8 string.
Number	Any IEEE 754 binary64 floating point number [1], except for <i>+Inf</i> , <i>-Inf</i> and <i>NaN</i> .

With these primitives now available, we proceed to define all the types specified in the **unregister-system** SD primitives either as *aliases* or *structs*. An *alias* is a renaming of an existing type, but with some further details about how it is intended to be used. Structs are described in the beginning of the parent section. The types are listed by name in alphabetical order.

#### 3.2.1 alias **Address** = String

A string representation of a network address. An address can be a version 4 IP address (RFC 791), a version 6 IP address (RFC 2460) or a DNS name (RFC 1034).

#### 3.2.2 alias **Name** = String

A String identifier that is intended to be both human and machine-readable.

#### 3.2.3 alias **PortNumber** = Number

Decimal Number in the range of 0-65535.



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## 4 References

- [1] M. Cowlishaw, "IEEE Standard for Floating-Point Arithmetic," *IEEE Std 754-2019 (Revision of IEEE 754-2008)*, July 2019. [Online]. Available: <https://doi.org/10.1109/IEEESTD.2019.8766229>

## 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
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