

Service Description (SD) Onboarding

25 september 2019

1	Service Description Overview	2
2	Abstract Interfaces	2
2.1	Onboarding Interface	2
2.1.1	Functions	2
	certificate	2
	sharedKey	2
2.1.2	Sequence Diagrams	2
	Sequence Diagram for Function 1	2
	Sequence Diagram for Function 2	3
3	Abstract Information Model	4
4	Non-functional Requirements	4
5	Revision history	5
5.1	Amendments	5

Document title	Document type
SD Onboarding	v1.0
Date	Version
September 25, 2019	1.0
Author	Status
Silia Maksuti	Draft
Contact	Page
silia.maksuti@fh-burgenland.at	2(5)

1 Service Description Overview

This document describes the Arrowhead Onboarding service, including its interfaces, functions and information model.

2 Abstract Interfaces

2.1 Onboarding Interface

The Onboarding service provides the following functionalities.

2.1.1 Functions

certificate Onboarding with certificate request

sharedKey Onboarding with sharedKey.

2.1.2 Sequence Diagrams

Sequence Diagram for Function 1 Figure 1 shows the sequence diagram for the certificate method of the Onboarding service.

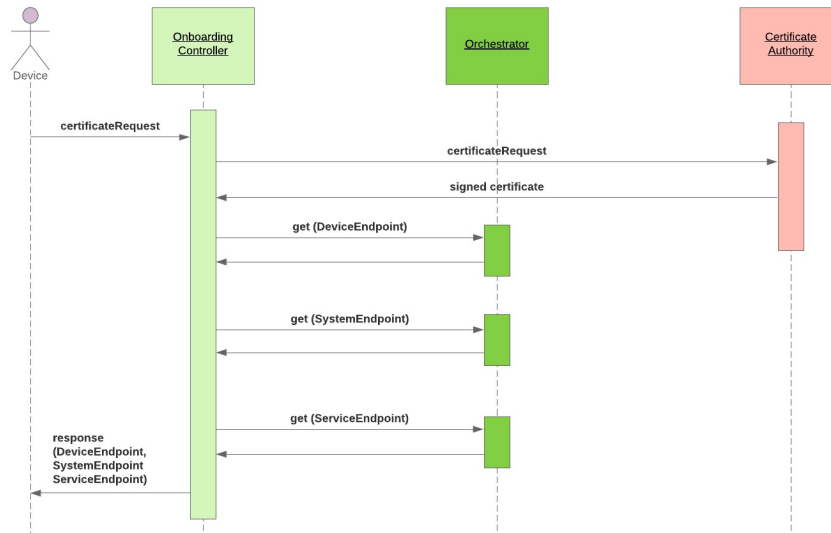


Figure 1: Sequence Diagram for the certificate method of the Onboarding service

Document title	Document type
SD Onboarding	v1.0
Date	Version
September 25, 2019	1.0
Author	Status
Silia Maksuti	Draft
Contact	Page
silia.maksuti@fh-burgenland.at	3(5)

Sequence Diagram for Function 2 Figure 2 shows the sequence diagram for the sharedKey method of the Onboarding service.

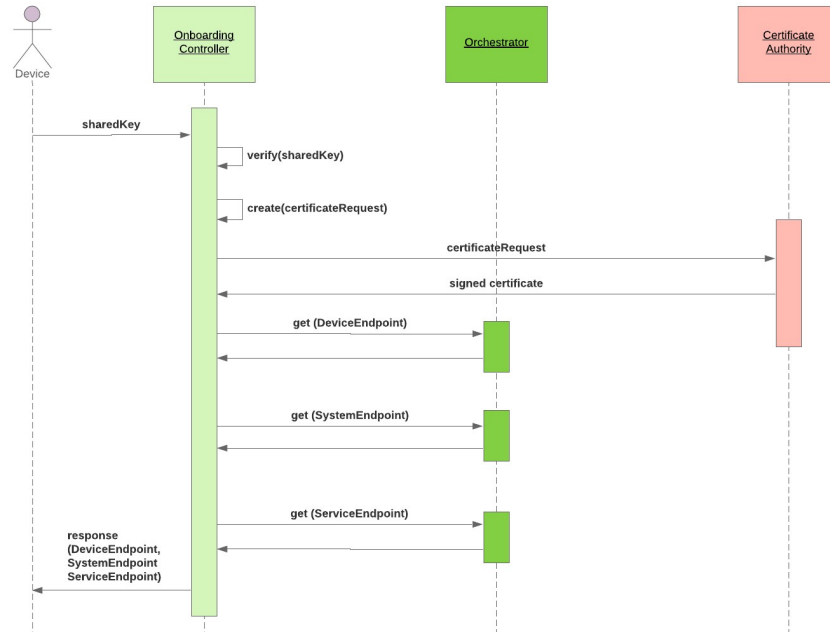


Figure 2: Sequence Diagram for the sharedKey method of the Onboarding service

Document title	Document type
SD Onboarding	v1.0
Date	Version
September 25, 2019	1.0
Author	Status
Silia Maksuti	Draft
Contact	Page
silia.maksuti@fh-burgenland.at	4(5)

3 Abstract Information Model

Table 1: OnboardingWithCertificate

Field	Description
certificateRequest: String	Base64 encoded Certificate Signing Request, as required by Certificate Authority.

Table 2: OnboardingWithSharedKey

Field	Description
name: String	The common name that will be in the certificate.
shareKey: String	A secret shared key (e.g. password).

Table 3: Onboarding Response

Field	Description
success: Boolean	Indication if the operation is successful.
services: Array of ServiceEndpoint	The endpoints of device, system and service registries.
uri: String	The URI of the endpoints.
service: String	Enumeration identifying the endpoint type.
onboardingCertificate: String	Base64 encoded signed Certificate, as returned by Certificate Authority.
intermediateCertificate: String	Base64 encoded Certificate of the local cloud, as returned by Certificate Authority.
rootCertificate: String	Base64 encoded Arrowhead root Certificate, as returned by Certificate Authority.
keyAlgorithm: String	The algorithm of the key, e.g. RSA.
keyFormat: String	The format of the key, e.g. X.509
privateKey: String	Base64 encoded private key.
publicKey: String	Base64 encoded public key.

4 Non-functional Requirements

Not specified yet.



Document title	Document type
SD Onboarding	v1.0
Date	Version
September 25, 2019	1.0
Author	Status
Silia Maksuti	Draft
Contact	Page
silia.maksuti@fh-burgenland.at	5(5)

5 Revision history

5.1 Amendments

No.	Date	Version	Subject of Amendments	Author
1	2019-09-23	1.0	Initial Version	Silia Maksuti, Mario Zsilak

