JSON example - Donlon TOBT Setting service description

This is an example of Service Description for a fictitious service, with the intention to illustrate EUROCONTROL SWIM specifications and JSON Schema v0.0.3.

work on going

This example validates with SWIMRegistrySchema_v0.0.3f-Compliant.json (see Schema releases v0.0.3).

JSON service description


```
{
        "informationService": {
                "descriptionInformation": {
                        "serviceDescriptionIdentification": {
                                "serviceDescriptionTitle": "Donlon TOBT Setting Service Description",
                                "serviceDescriptionEdition": "0.93i",
                                "serviceDescriptionReferenceDate": "2020-07-20"
                        },
                        "abbreviations": [
                                {
                                        "name": "TOBT",
                                        "description": "Target Off-Block Time"
                                }
                        ]
                },
                "name": "TargetOffBlockTimeSetting",
                "version": "1.0.0",
                "serviceAbstract": "The TargetOffBlockTimeSetting service supports the Airport CDM concept
and its implementation by allowing A-CDM Partners, typically aircraft operators and ground handlers, with
the capability to set the Target Off-Block Time (TOBT) that indicates the target time for the aircraft to be
ready for Off-Block.It is part of a set of services supporting the Airport CDM concept and its
implementation by providing the A-CDM partners with Common Situation Awareness about flights at a CDM
airport.\r\nThis is an example of Service Description for a fictitious service, with the intention to
illustrate the Registry in development.",
                "serviceProvision": {
                        "provider": "Donlon Airport Operator",
                        "providerDescription": "Donlon Airport Operator is the organisation responsible for
all operations at Donlon airport.",
                        "providerType": [
                                "AIRPORT_OPERATOR"
                        ],
                        "dateInOperation": "2019-05-15",
                        "serviceSupport": "For Incidents on services in operation, contact the Service desk
[24/7]: +693 555 01 service-desk@donlon-airport.com",
                        "pointOfContact": [
                                {
                                        "name": "access request",
                                        "description": "to request access to the service, use folliwng link
http://www.donlon-airport.com/swim/service-request",
                                        "email": "",
                                        "phoneNumber": ""
                                },
                                {
                                        "name": "service support",
                                        "description": "For any issues relate to the operation of the Donlon
service",
                                        "email": "service-desk@donlon-airport.com",
                                        "phoneNumber": "+693 555 01"
                                }
                        ]
                },
                "serviceCategorisation": {
                        "serviceType": "SWIM_COMPLIANT",
                        "lifeCycleStage": "OPERATIONAL",
                        "businessActivityType": [
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                        "AERODROME_OPERATION"
                    ],
                    "intendedConsumer": [
                        "AIRSIDE_GROUND_HANDLER",
                        "CIVIL_AIRSPACE_USER",
                        "MILITARY_AIRSPACE_USER"
                    ],
                    "informationCategory": [
                        "FLIGHT_INFORMATION_EXCHANGE"
                    ],
                    "applicationMessageExchangePattern": [
                        "SYNCHRONOUS_REQUEST_REPLY"
                    ],
                    "geospatialCategorisation": {
                        "aerodromeICAOLocationIndicator": [
                            "EADD"
                        ]
                    }
                },
                "serviceGeneralDescription": {
                    "operationalNeed": [
                        {
                            "name": "Operational and Business context",
                            "description": "The context is the Airport Collaborative Decision
Making (A-CDM) concept as defined in Airport CDM Implementation Manual v4. In A-CDM it is important to allow
A-CDM Partners to set the value of some milestones when necessary. The classical example is to allow the
Aircraft Operator or the Ground Handler to set the Target Off-Block Time (TOBT) that indicates what is the
target time for the aircraft to be ready for off-block. Setting the TOBT value is possible at many stages
during the A-CDM process, as early as Milestone 2 (EOBT-2hr) up to and including Milestone 11 (Boarding
starts).\n\r The Business Logic may involve validations such as: not accepting values in the past; not
accepting a new value too close the existing one (there is a minimum change involved); Limiting the number
of changes after TSAT has been issued."
                        },
                        {
                            "name": "Information Exchange Requirements",
                            "description": "The service is defined to satisfy two IERs, which
were derived from the A-CDM Implementation Manual :\r\n[IER1] To allow the Aircraft Operator or Ground
Handler to set, update or delete the value of the Target Off-Block Time of a departing flight. This is done
in accordance with the operations involving Target Off-Block Time that take place between A-CDM Milestones 2
and 11 (derived from: Airport CDM Implementation Manual v4)\r\n[IER2] To allow the competent authority to
set the value of the Target Off-Block Time for a given aircraft in specific circumstances. In other words,
under adverse conditions or special circumstances this service allows the competent authorities to set the
Target Off-Block Time value of the flight. (derived from: Airport CDM Implementation Manual v4)."
                        }
                    ],
                    "functionality": [
                        {
                            "name": "Set TOBT",
                            "description": "Allow the service consumer to set (i.e. define or
update) the TOBT value for a specific flight.",
                            "realWorldEffect": "The Target Off-Block Time (TOBT) value is
defined"
                        },
                        {
                            "name": "Delete TOBT",
                            "description": "Allow the service consumer to delete the TOBT value
for a specific flight.",
                            "realWorldEffect": "The Target Off-Block Time (TOBT) value is
undefined"
                        }
                    ],
                    "accessAndUseCondition": [
                        {
                            "type": "SECURITY_CONSTRAINT",
                            "name": "User id + password",
                            "description": "The access to the service is based on user id and
password."
                        },
                        {
                            "type": "SECURITY_CONSTRAINT",
                            "name": "SLA",
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                                        "description": "The access to the service is subject to the
signature of a Service Level Agreement with the Donlon Airport Operator."
                                }
                        ],
                        "qualityOfService": [
                                {
                                        "name": "Availability",
                                        "description": "99.95 % outside the planned outages. Schedule of
planned outages: http://www.donlon-airport.com/swim/planned-outages"
                                },
                                {
                                        "name": "Capacity",
                                        "description": "2000 service requests per hour"
                                },
                                {
                                        "name": "Response time",
                                        "description": "2s delay for 95% of messages"
                                }
                        ],
                        "validation": [
                                {
                                        "type": "SELF_VALIDATION",
                                        "description": "The service has not been validated yet."
                                }
                        ]
                },
                "serviceInformationDescription": {
                        "informationDefinition": [
                                {
                                        "name": "Service Information Definition",
                                        "description": "The information definition is described in a
separate document. This includes the semantic correspondence. See References.",
                                        "airmConformant": true,
                                        "airmVersion": "1.0.0"
                                }
                        ],
                        "exchangeSchema": [
                                {
                                        "name": "TOBT Setting Schema",
                                        "schemaLanguage": "XML",
                                        "reference": "This schema defines the data structures used to
exchange data with the service. See service documents"
                                }
                        ]
                },
                "serviceTechnicalDescription": {
                        "securityMechanism": [
                                {
                                        "name": "TLS 1.2",
                                        "description": "The service relies on TLS 1.2 to provide integrity
and confidentiality.",
                                        "type": [
                                                "AUTHENTICATION",
                                                "CONFIDENTIALITY",
                                                "INTEGRITY"
                                        ]
                                },
                                {
                                        "name": "Cypher Suites",
                                        "description": "The following cipher suites are allowed in
accordance with ECRYPT-CSA recommendations https://www.ecrypt.eu.org/csa/documents/D5.4-FinalAlgKeySizeProt.
pdf: TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256 , TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384",
                                        "type": [
                                                "AUTHENTICATION",
                                                "CONFIDENTIALITY",
                                                "INTEGRITY"
                                        ]
                                },
                                {
                                        "name": "X.509v3 Server Certificate",
                                        "description": "The service utilizes X.509v3 public certificate to
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authenticate the provider.",
                                        "type": [
                                                "AUTHENTICATION"
                                        ]
                                },
                                {
                                        "name": "X.509v3 Client Certificate",
                                        "description": "The service utilizes X.509v3 public certificate to
authenticate the consumer.",
                                        "type": [
                                                "AUTHENTICATION"
                                        ]
                                }
                        ],
                        "serviceMonitoring": {
                                "monitoringDescription": "The service is monitored, however there is no
monitoring interface provided to the consumers"
                        }
                },
                "serviceInterface": [
                        {
                                "name": "TOBTSettingReceiver",
                                "description": "The interface allows setting or deleting the TOBT of the
specified flight.",
                                "interfaceProvisionSide": "PROVIDER_SIDE_INTERFACE",
                                "tiPrimitiveMessageExchangePattern": "SYNCHRONOUS_REQUEST_RESPONSE",
                                "serviceInterfaceBinding": "SWIM_TI_YP_1_0_WS-N_SOAP",
                                "networkInterfaceBinding": "IPV4_UNICAST",
                                "interfaceBindingDescription": "XML requests and replies embedded into SOAP
messages, themselves embedded into HTTP requests and responses. Operation names are associated to SOAP
requests. The interface does not use compression or message transmission optimization mechanism (MTOM).",
                                "endPoint": [
                                        {
                                                "name": "Production Service Endpoint",
                                                "description": "The service is available for consumption for
operational usage at this endpoint",
                                                "address": "http://www.swim.donlon-airport.com/swim-ops
/gateway",
                                                "addressableResource": [
                                                        {
                                                                "name": "Request Handler",
                                                                "description": "At this endpoint a resource
is available to handle service requests",
                                                                "type": "SERVICE_REQUEST_LISTENER"
                                                        }
                                                ]
                                        },
                                        {
                                                "name": "pre-operational evaluation",
                                                "description": "",
                                                "address": "http://www.swim.donlon-airport.com/swim-pre-ops
/gateway"
                                        }
                                ],
                                "operation": [
                                        {
                                                "name": "setTOBT",
                                                "description": "The setTOBT Service Operation receives the
Target Off-Block Time for a specific flight. The operation returns a confirmation of the validity of the
provided Target Off-Block Time&amp;nbsp;taking into account the processing considerations.",
                                                "idempotency": "IDEMPOTENT",
                                                "synchronicity": "SYNCHRONOUS",
                                                "precondition": "No preconditions identified",
                                                "tiProtocolMethod": [
                                                        "HTTP POST"
                                                ],
                                                "processingConsideration": [
                                                        {
                                                                "name": "Historic values constraint",
                                                                "description": "The operation does not
accept values in the past"
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                                                },
                                                {
                                                        "name": "New Value Difference Constraint",
                                                        "description": "Not accepting a new value
too close to the existing one (there is a minimum change involved)"
                                                },
                                                {
                                                        "name": "TSAT issued constraint",
                                                        "description": "Limiting the number of
changes after TSAT has been issued"
                                                }
                                        ],
                                        "operationMessage": [
                                                {
                                                        "direction": "IN",
                                                        "name": "TOBTSettingRequest",
                                                        "description": "Message which provides the
Target Off-Block Time value of a specific flight.",
                                                        "isFault": false,
                                                        "headers": "application\/XML",
                                                        "body": ""
                                                },
                                                {
                                                        "direction": "OUT",
                                                        "name": "TOBTSettingResponse",
                                                        "description": "Message which responds the
validity of a previously sent TOBTSettingRequest message",
                                                        "isFault": false,
                                                        "headers": "application/XML",
                                                        "body": "none"
                                                }
                                        ]
                                },
                                {
                                        "name": "deleteTOBT",
                                        "description": "The deleteTOBT Service Operation receives a
request for deleting the Target Off-Block Time for a specific flight. The operation returns a confirmation
of the validity of such request taking into account this business rule: Not accepting request affecting a
flight with no Target Off-Block Time set yet.",
                                        "idempotency": "IDEMPOTENT",
                                        "synchronicity": "SYNCHRONOUS",
                                        "precondition": "",
                                        "tiProtocolMethod": [
                                                "HTTP POST"
                                        ],
                                        "operationMessage": [
                                                {
                                                        "direction": "IN",
                                                        "name": "TOBTDeleteRequest",
                                                        "description": "Message which requests
deleting the last TOBT value of the specified flight.",
                                                        "isFault": false,
                                                        "headers": "",
                                                        "body": ""
                                                },
                                                {
                                                        "direction": "OUT",
                                                        "name": "TOBTDeleteResponse",
                                                        "description": "Message which responds the
validity of a previously sent TOBTDeleteRequest message",
                                                        "isFault": false,
                                                        "headers": "",
                                                        "body": ""
                                                }
                                        ]
                                }
                        ],
                        "behaviour": [
                                {
                                        "name": "nominal behaviour",
                                        "description": "Each operation of the interface can be
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called independently.\r\nThe following diagram illustrates the interaction between the service consumer and
the service"
                                        }
                                ]
                        }
                ],
                "serviceDescriptionReferences": {
                        "implementedStandard": [
                                {
                                        "standardType": "SERVICE_STANDARD",
                                        "isConformant": false
                                }
                        ],
                        "serviceDocument": [
                                {
                                        "documentType": "INFORMATION_DEFINITION",
                                        "title": "TOBT Setting Information Definition",
                                        "version": "1.0",
                                        "description": "Information Definition for the DONLON TOBT Setting
service. Includes Semantic correspondence with traces to the AIRM",
                                        "reference": "public:/2019-09/TraceToAIRM.txt"
                                },
                                {
                                        "documentType": "MACHINE_READABLE_SERVICE_DESCRIPTION",
                                        "title": "TOBT Setting Schema",
                                        "version": "1.0",
                                        "description": "JSON Schema describing the structure of information",
                                        "reference": "public:/2019-09/TOBTSetting_JSON.txt"
                                },
                                {
                                        "documentType": "MACHINE_READABLE_SERVICE_DESCRIPTION",
                                        "title": "Interface WSDL",
                                        "version": "1.0",
                                        "description": "Machine processable description of the service
interface",
                                        "reference": "public:/2019-09/TOBT_Interface.wsdl"
                                },
                                {
                                        "documentType": "CODE_EXAMPLE",
                                        "title": "Example of messages",
                                        "description": "A set of message examples",
                                        "version": "1.0",
                                        "reference": "public:/2019-09/MessageExamples.txt"
                                }
                        ]
                }
        }
}
```