TM Forum Specification

Service Test Management Conformance Profile

TMF653B

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NOTICE

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INTRODUCTION - API DESCRIPTION

The Service Test API provides a standardized mechanism for placing a service test with all of the necessary test parameters. The API consists of a simple set of operations that interact with CRM/Service Management systems in a consistent manner. A service test is a procedure intended to check the quality, performance, or reliability of a service.

RESOURCE MODEL CONFORMANCE

API MANDATORY RESOURCES

The following table indicates the mandatory resources for this API.

Resource Name	Comment
ServiceTest	
ServiceTestSpecification	

General Notes on Resource Attribute Conformance

There are three situations that could occur for an attribute:

- Mandatory attribute,
- Mandatory attribute if the optional parent attribute is present,
- Non-mandatory/Optional attribute. Those are all the other attributes not mentioned in the following subsections. Please refer to the corresponding API REST Specification for more details.

- The tables in the subsections below indicate which attributes are mandatory including mandatory when an optional parent is present.
- Where a resource is an input into an API (e.g. POST, PATCH), Mandatory means that the attribute value must be supplied by the API consumer in the input (and must not be blank or null).
- Where a resource is an output from an API (e.g. GET, POST), Mandatory means that the attribute value must be supplied by the API provider in the output (and must not be blank or null).
- For a sub-resource that is not an array, Mandatory (cardinality 1..1) means that the sub-resource must be present, while Optional (cardinality 0..1) means that the sub-resource may be absent. Mandatory and Optional on the sub-resource attributes apply to the sub-resource if present.
- For a sub-resource that is an array, Mandatory (cardinality 1..*) means that at least one sub-resource must be present in the array, while Optional (cardinality 0..*) means that the array may be absent. Mandatory and Optional on the sub-resource attributes apply to each of the sub-resources if present.

In this table are listed all mandatory attributes. A mandatory attribute MUST be retrieved in resource representation when no attribute selection is used (e.g. GET /../{id}) without any attribute selection

When an attribute is listed with an indentation (in second column) it means this attribute is mandatory if root (parent) attribute is present.

ServiceTest Resource Mandatory Attributes

Mandatory attribute when parent is present	Rule
href	M (in response messages) O (otherwise)
id	M (in response messages) O (otherwise)
name	M
relatedService	M
id	M
testSpecification	M
id	M
characteristic (if present)	Array of Characteristic
name	M
value	M
relatedParty (if present)	Array of RelatedParty
@referredType	M
id	M
testMeasure (if present)	Array of TestMeasure
metricHref	M
metricName	M
testMeasure.value (if present)	See conditions for Characteristic at characteristic
testMeasure.ruleViolation (if present)	Array of MeasureThresholdRuleViolation
conformanceComparatorLower	M O Must be either one or both Upper and Lower Theshold may be defined without the condition that you define both Upper and Lower one of them is sufficient.
conformanceComparatorUpper	M O Must be either one or both Upper and Lower Theshold may be defined without the condition

Mandatory attribute when parent is present		Rule
		that you define both Upper and Lower one of them is sufficient.
	conformanceTargetLower	M O Must be either one or both Upper and Lower Theshold may be defined without the condition that you define both Upper and Lower one of them is sufficient.
	conformanceTargetUpper	M O Must be either one or both Upper and Lower Theshold may be defined without the condition that you define both Upper and Lower one of them is sufficient.

ServiceTestSpecification Resource Mandatory Attributes

Mandatory attribute when parent is present		Rule
href		M (in response messages) O (otherwise)
id		M (in response messages) O (otherwise)
name		M
relatedServiceSpecification		M Array of ServiceSpecificationRef
	id	M
constraint (if present)		Array of ConstraintRef
	id	M
serviceTestSpecRelationship (if present)		Array of ServiceTestSpecRelationship
	relationshipType	M
entitySpecRelationship (if present)		Array of EntitySpecificationRelationship
	relationshipType	M
entitySpecRelationship.associationSpec (if present)		
	id	M

Mandatory attribute when parent is present	Rule
relatedParty (if present)	Array of RelatedParty
@referredType	M
id	M
targetEntitySchema (if present)	
@schemaLocation	M
@type	M
testMeasureDefinition (if present)	Array of TestMeasureDefinition
metricHref	M
metricName	M
name	M
testMeasureDefinition.thresholdRule (if present)	Array of MetricDefMeasureThresholdRule
conformanceComparatorLower	M O Must be either one or both Upper and Lower Theshold may be defined without the condition that you define both Upper and Lower one of them is sufficient.
conformanceComparatorUpper	M O Must be either one or both Upper and Lower Theshold may be defined without the condition that you define both Upper and Lower one of them is sufficient.
conformanceTargetLower	M O Must be either one or both Upper and Lower Theshold may be defined without the condition that you define both Upper and Lower one of them is sufficient.
conformanceTargetUpper	M O Must be either one or both Upper and Lower Theshold may be defined without the condition that you define both Upper and Lower one of them is sufficient.

API OPERATIONS CONFORMANCE

For every single resource the following tables includes mandatory operations.

ServiceTest Mandatory Operations

The following table indicates which ones are mandatory for the ServiceTest resource:

Uniform API Operation
GET
POST

ServiceTestSpecification Mandatory Operations

The following table indicates which ones are mandatory for the ServiceTestSpecification resource:

Uniform API Operation
GET
POST

API GET OPERATION CONFORMANCE

All the GET operations in this API share the same status code pattern.

GET	Mandatory/Optional
Response Status Code 200 if successful	M
Response Status Code 404 if not found	M

Definitions for Filter

The following definitions apply to all the GET operations:

- Filtered Search: A filtered search can be applied using query parameters to obtain only the resources that meet the criteria defined by the filtering parameters included in the query request. Several elements can be applied to the filtered search. In that case logic, a logical AND is applied to combine the criteria (e.g.:?severity=<value>&status=<value>).
- Attribute selection (Limiting Response Data): In order to limit which attributes are included in the response, the GET request can include the ?fields= query parameter. Only those attributes whose names are supplied in this parameter will be returned. Attribute selection capabilities are the same for collections retrieval and individual resource queries.
- Level: The filtering and attribute selection can apply to the top level properties (attributes) and subproperties. The tables below show which attributes need to be supported in top-level or contained resources.

GET /serviceTest?fields=...&{filtering}

This operation list or find ServiceTest entities

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

GET /serviceTest/{id}?fields=...&{filtering}

This operation retrieves a ServiceTest entity. Attribute selection is enabled for all first level attributes.

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

GET /serviceTestSpecification?fields=...&{filtering}

This operation list or find ServiceTestSpecification entities

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

GET /serviceTestSpecification/{id}?fields=...&{filtering}

This operation retrieves a ServiceTestSpecification entity. Attribute selection is enabled for all first level attributes.

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

API POST OPERATION CONFORMANCE

All the POST operations in this API share the same status code pattern.

POST	Mandatory/Optional
Status Code 201 if resource created	M

POST /serviceTest

This operation creates a ServiceTest entity.

The following table provides the list of mandatory attributes when creating an instance of the ServiceTest resource, including any possible rule, conditions and applicable default values.

Mandatory Attributes	Rule
name	
relatedService	
relatedService.id	
testSpecification	
testSpecification.id	

POST /serviceTestSpecification

This operation creates a ServiceTestSpecification entity.

The following table provides the list of mandatory attributes when creating an instance of the ServiceTestSpecification resource, including any possible rule, conditions and applicable default values.

Mandatory Attributes	Rule
name	
relatedServiceSpecification	
relatedServiceSpecification.id	

ADMINISTRATIVE APPENDIX

Document History

Release History

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Pre-production	02-Oct-2020	Johanne Mayer Ernest Bayha Abdul Majid Hussain Varun Nair	2020 Sprint 5

Version History

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4.0.0	02-Oct-2020	Alan Pope	Final edits prior to publication