

API-CMDB Integration

This document is presented as a general guide to integration with Aranda CMDB. Operations are presented in detail including request data, parameters, responses, and error.

General

General

Below are the generalities that must be taken into account for the correct functioning of the Aranda CMDB API.

- Aranda CMDB Web 9.2.1 console compatible version and version of Database 9.5.16.
- Microsoft .NET Framework version 4.7.2 or higher.
- Operations on the API must be performed with users who have the roles assigned from the Aranda administration console SERVICE MANAGEMENT SUITE ASMS.
- Using the API requires available licenses, which will behave the same as if a specialist were logged in on your console. To use the API in integrations, generate a token for a user with a named license assigned. This user must be unique to the integration.
- CI creation using the API follows the same rules as licenses for available CI's, as if they were created from the console.
- The CI's registered through the integration will be created in the project in which it is configured in the "Integrations" section of CMDB".
- The project must have the correspondences between category and type of CI in the Aranda CMDB WEB console.
- Configured categories must have associated states and their respective flow.
- Querying, editing, and creating can be done by the CI ID.
- To make the request to any API, it is necessary to use the integration token generated from the website. For more information, see the [Configuring integration tokens](#)
- In multitenant environments, consuming some endpoints can result in the "TenantNotFound" error. In these cases, the header must be sent x-aranda-tenant-alias with the value of the tenant on which the endpoint is to be consumed.

Description of operations

Description of operations

This section details the consumption of the services corresponding to each method. Details such as URI, type of operation, parameters (required and optional) and their types, responses, codes, and error messages.

IC Management

IC Management

This section describes the operations related to handling CI (creating, editing, querying, and deleting).

CI Creation

Creation

Details of the request:

- Base URL: {host}/ASMSAPI/
- URI: api/v9/ci
- Type: POST
- Required headings:
- Content-Type: application/json
- X-Authorization: Bearer {token}

URL Description

- {host}: It represents the domain of the environment in which the API is located.
- ASMSAPI/: Fixed API prefix.
- URI: Specific endpoint for the request.

▸ EXAMPLE URL:

https://{host}/ASMSAPI/api/v9/ci

Parameters:**

Name	Data type	Obligatory	Description
consoleType	String	Yes	Console ID - Specialist= 1 - Client = Administrator= 3
TemplItemId	Int	Yes	Temporary CI ID
Name	String	Yes	IC Name
categoryId	Int	Yes	IC Category

categoryId	Int	Yes	IC Category
responsibleId	Int	Yes	Head of the CI
stateId	Int	Yes	State of the IC
projectId	Array	Yes	List with Project Identifiers
assetTag	String	No	CI Inventory Tag ID
acceptDate	Long	No	Date of company acceptance, Unix time in milliseconds
authorId	Int	No	Author or CI record identifier
barCode	String	No	Barcode
brandId	Int	No	CI Brand Identifier in Database/Catalog
checkinDate	Long	No	Registration day unix format
checkOutDate	Long	No	Date Company CI Was Deleted/Terminated
costCenterId	Int	No	IC Cost Center
depreciationMethod	Int	No	Depreciation method 1. Indicates that depreciation will be calculated using the straight-line method 2. Indicates that depreciation will be calculated using the method of the sum of the digits of the years
Description	String	No	Description
impactId	Int	No	Identification number of the impact of CI on the organization
installationDate	Long	No	CI Installation Date
manufacturerId	Int	No	IC Manufacturer Identifier in Database/Catalog
modelId	Int	No	IC Model ID Number
Price	Int	No	Price
providerId	Int	No	CI Provider Identifier in Database/Catalog
RFID	String	No	Radio frequency identifier for IC
reasonId	Int	No	Identifier of the reason why it is in the current state
reponsibleDate	Long	No	Date on which users became responsible for the CI Unix format
residualValue	Decimal	No	CI value to save from original price
riskId	Int	No	Risk Level, NoData = 0, Low = 1, Medium = 2, High = 3
serial	String	No	CI Serial Identifier
size	Int	No	IQ size value, for example: 17
type	Int	No	CI type identifier in an enumeration: - 21: Configuration Item - 48: Package
unit	Int	No	Unit of IQ measurements.
listAdditionalField	Array	Yes	List of additional fields
boolValue	Bool	No	Value if checkbox type
catalogId	Int	No	Catalog ID (if it's a catalog type field)
dateValue	Long	No	Value if DateTime
Description	String	No	Descriptive Text of the Field
enable	Bool	No	True if the field is enabled for the current state (false otherwise)
fieldId	Int	No	Unique identifier in the data source
fieldType	Int	No	Describe the field type - None = 0, - ShortText = 1, - Datetime = 2, - List = 3, - LongText = 4, - CheckBox = 5, - Numeric = 6, - Recursive = 7, - List2 = 8, - Decimal = 9, - File = 10, - CatalogList = 11, - CatalogTree = 12, - Date = 13, - Time = 14, - Currency = 15, - Link = 16, - Position = 17, - MultiSelect 18
floatValue	Decimal	No	Value if it is of decimal type
identifier	String	No	Identifier

inputStream	Stream	No	
intValue	Int	No	Value if it is integer type
itemId	Int	No	Parent Item ID.
mandatory	Bool	No	True if the field is required for the current state (false otherwise)
Name	String	No	Friendly name of the field
order	Int	No	Position in the field list
stringValue	String	No	Value if it is of the chain type
type	Int	No	Parent Type
visible	Bool	No	True if the field is visible for the current state (false otherwise)

Body of the petition:

```
{

  "templateId" :-1,

  "consoleType":"Specialist",

  "assetTag": "promando IMagen 3",

  "authorId": 6919,

  "barCode": "promando IMagen",

  "brandId": 1050,

  "categoryId": 282,

  "checkinDate": 1620331200000,

  "costCenterId": 7,

  "depreciationMethod": 1,

  "description": "promando IMagen 3",  "impactId": 1,

  "licenseNumber": "1",

  "manufacturerId": 193,

  "modelId": **null**,

  "name": "promando IMagen 3",

  "price": 0,

  "projects":[

    {

      "id":25

    }

  ],

  "providerId": 193,

  "rfid": "RFID MABC02152018 - 1020R",  "reponsibleDate": 1620331200000,

  "residualValue": **null**,

  "responsibleId": 6919,

  "serial": "MABC02152018 - 1020R",

  "size": "120",

  "statId": 17,

  "type": 21,

  "unit": 5004,

  "checkOutDate": 1620331200000,

  "reasonId":**null**,

  "riskId": **null**,

  "acceptDate": 1620331200000,

  "listAdditionalField":

  [

    {

      "boolValue": **null**,

      "catalogId": 27,

      "dateValue": **null**,

      "description": "Department",

      "enable": **true**,

      "fieldId": 8273,

      "fieldType": 11,

      "floatValue": **null**,

      "identifier": "Department",

      "inputStream": **null**,

      "intValue": 7314,
```

```
        "itemId": **null**,

        "mandatory": **false**,

        "name": "Department",

        "order": 1,

        "projectId": 25,

        "stringValue": "Departamento 1",        "type": 21,

        "visible": **true**

    }

}

}
```

Answer:

As a response, a unique identifier of the CI created is obtained.

```
{

    "id": 3199,

    "result": true }
```

Error messages:

Code	HTTP status	Error Message
400	BadRequest	InvalidTempltemId
400	BadRequest	InvalidTempltemId
400	BadRequest	InvalidStateld
400	BadRequest	ForIntegrationInterfaceldIsRequired
400	BadRequest	StateBetweenCategoryAndCiDoesNot Exist
400	BadRequest	AdditionalFieldIsRequired
400	BadRequest	InvalidAdditionalFieldValue
500	InternalServerError	FailureAddCi

```
{
    "exceptionMessage": "InvalidTempltemId",

    "message": "FailureAddCi",

    "operation": "AddCi",

    "serviceName": "Ci"
}

{
    "exceptionMessage": "InvalidCategoryld",

    "message": "FailureAddCi",

    "operation": "AddCi",

    "serviceName": "Ci"
}

{
    "exceptionMessage": "InvalidStateld",

    "message": "FailureAddCi",

    "operation": "AddCi",

    "serviceName": "Ci"
}

{
    "exceptionMessage": "InvalidAdditionalFieldValue",

    "message": "FailureAddCi",

    "operation": "AddCi",

    "serviceName": "Ci"
}

{
    "exceptionMessage": "ForIntegrationInterfaceldIsRequired",

    "message": "FailureAddCi",

    "operation": "AddCi",

    "serviceName": "Ci"
}

{
    "exceptionMessage": "StateBetweenCategoryAndCiDoesNotExist",

    "message": "FailureAddCi",
```

```
"operation": "AddCi",
  "serviceName": "CI"
}

{
  "exceptionMessage": "Is null\r\nNombre del parámetro: request",   "message": "FailureAddCi",

  "operation": "AddCi",

  "serviceName": "CI"
}
```

CI Consultation

Details of the request:

- Base URL: {host}/ASMSAPI/
- URI: api/v9/ci/?id={id}
- Type: GET
- Required headings:
- Content-Type: application/json
- X-Authorization: Bearer {token}

URL Description

- {host}: It represents the domain of the environment in which the API is located.
- ASMSAPI/: Fixed API prefix.
- URI: Specific endpoint for the request.

➤ EXAMPLE URL:

```
https://{host}/ASMSAPI/api/v9/ci/?id={id}
```

Parameters:

Name	Data type	Obligatory	Description
Id	Int	Yes	InvalidTempltemId

Answer:

```
{
  "acceptDate": 1620331200000,

  "additional": [ ],

  "assetTag": "MABC02152018 - 1020R",

  "authorId": 4834,

  "barCode": "Probando Postman 2 actualizando",   "brandId": 1050,

  "brandName": **null**,

  "categoryId": 31,

  "categoryImage": "<!DOCTYPE html> </html>",

  "categoryName": "[ES] RS Servicio Soporte",

  "checkOutDate": 1620331200000,

  "checkinDate": 1620331200000,

  "closedDate": **null**,

  "costCenterId": 7,

  "costCenterName": "hijo de pepito",

  "createdDate": 1623339419940,

  "depreciationMethod": 1,

  "description": "Descripción XXX Actualizando",   "fileId": 141,

  "hasReconciliation": **false**,

  "id": 278,

  "impactId": 1,

  "impactName": "[ES] BAJO",

  "installationDate": **null**,

  "interfaceId": **null**,

  "isClosed": **false**,

  "licenseNumber": "1",

  "locationId": **null**,

  "manufacturerId": 193,

  "manufacturerName": "GRUPO MUTUAL ALAJUELA DE AHORRO Y PRESTAMO S.A"modelId": 30,

  "modelName": "[ES] Reportes",

  "modifiedDate": 1630499442117,

  "modifierId": 4883,
```

```
{
  "name": "SOPORTE TECNICO 010101",
  "picture": **null**,
  "price": 0.00,
  "providerId": 193,
  "providerName": "GRUPO MUTUAL ALAJUELA DE AHORRO Y PRESTAMO S.A.",
  "reasonId": **null**,
  "reasonName": **null**,
  "reponsibleDate": 1620331200000,
  "residualValue": **null**,
  "responsibleId": 6919,
  "responsibleName": "Duvan Carmona",
  "rfid": "RFID MABC02152018 - 1020R",
  "riskId": **null**,
  "riskName": "",
  "serial": "MABC02152018 - 1020R",
  "stateld": 17,
  "stateName": "[ES] Activo",
  "stringValue": "141.244.112",
  "type": 21,
  "unitId": 5004,
  "unitName": **null**,
  "unitSize": "120",
  "usefulLife": **null**,
  "version": 4,
  "hasMoreInformation": **false**,
  "isVotingProcess": **false**,
  "pictureId": **null**,
  "projects": [
    {
      "id": 25,
      "name": "[ES]ASMS"
    }
  ]
}
```

Error messages:

Code	HTTP status	Error Message
400	BadRequest	NeedsSomeArgument
500	InternalServerError	FailureGetDetailCi

```
{
  "exceptionMessage": "NeedsSomeArgument",
  "message": "FailureGetDetail",
  "operation": "GetDetail",
  "serviceName": "CI"
}

{
  "exceptionMessage": "",
  "message": "FailureGetDetail",
  "operation": "GetDetail",
  "serviceName": "CI"
}
```

CI Edition

Details of the request:

- Base URL: {host}/ASMSAPI/
- URI: api/v9/ci/{id}
- Type: PUT
- Required headings:
- Content-Type: application/json
- X-Authorization: Bearer {token}

URL Description

- {host}: It represents the domain of the environment in which the API is located.
- ASMSAPI/: Fixed API prefix.
- URI: Specific endpoint for the request.

🔗 EXAMPLE URL:

https://{host}/ASMSAPI/api/v9/ci/{id}

URL parameters:

Code	Data type	Obligatory	Description
Id	Int	Yes	CI id to edit

Additionally, it is possible to send the values you want to edit as parameters in the body of the request. These values correspond to the same values available in the creation process.

Body Parameters:

Name	Data type	Obligatory	Description
Type	Int	Yes	Type · Ci = 21 · Packages = 48
consoleType	Int	Yes	Console Type: · Specialist = 1 · Client = 2, · Administrator = 3
Name	String	Yes	Name of the Ci
categoryId	Int	No	Category identifier, only required if the status is not sent
statId	Int	No	Status identifier, is only required if the category id is not sent.
responsibleId	Int	Yes	Category Manager
assetTag	String	No	CI Inventory Tag ID
acceptDate	Long	No	Date of company acceptance, Unix time in milliseconds
authorId	Int	No	Author or CI record identifier
barCode	String	No	Barcode
brandId	Int	No	CI Brand Identifier in Database/Catalog
checkinDate	Long	No	Registration day unix format
checkoutDate	Long	No	Date Company CI Was Deleted/Terminated
costCenterId	Int	No	CI Cost Center
licenseNumber	String	No	CI License Number
depreciationMethod	Int	No	Depreciation method 1. Indicates that depreciation will be calculated using the straight-line method 2. Indicates that depreciation will be calculated using the method of the sum of the digits of the years.
Description	String	No	Description
impactId	Int	No	Identification number of the impact of CI on the organization
installationDate	Long	No	CI Installation Date
manufacturerId	Int	No	IC Manufacturer Identifier in Database/Catalog
modelId	Int	No	IC Model ID Number
Price	Int	No	price
providerId	Int	No	CI Provider Identifier in Database/Catalog
RFID	String	No	Radio frequency identifier for IC
reasonId	Int	No	Identifier of the reason why it is in the current state
reponsibleDate	Long	No	Date on which users became responsible for the CI. Unix format
residualValue	Decimal	No	CI value to save from original price
riskId	Int	No	Risk Level NoData = 0 Low = 1 Medium = 2 High = 3

serial	String	No	CI Serial Identifier
unitSize	String	No	IQ size value, for example: 17
type	Int	No	CI Type Identifier in an Enumeration: 21: Configuration Item 48: Package
unit	Int	No	Unit of IQ measurements.
listAdditionalField	Array	Yes	List of additional fields
· boolValue	Bool	No	Value if checkbox type
· catalogId	Int	No	Catalog ID (if it's a catalog type field)
· dateValue	Long	No	Value if DateTime
· Description	String	No	Descriptive Text of the Field
· enable	Bool	No	True if the field is enabled for the current state (false otherwise)
· fieldId	Int	No	Unique identifier in the data source
· fieldType	Int	No	Describe the field type None = 0, ShortText = 1, Datetime = 2, List = 3, LongText = 4, CheckBox = 5, Numeric = 6, Recursive = 7, List2 = 8, Decimal = 9, File = 10, CatalogList = 11, CatalogTree = 12, Date = 13, Time = 14, Currency = 15, Link = 16, Position = 17, MultiSelect = 18
· floatValue	Decimal	No	Value if it is of decimal type
· identifier	String	No	Identifier
· inputStream	Stream	No	
· intValue	Int	No	Value if it is integer type
· itemId	Int	No	Parent Item ID.
· mandatory	Bool	No	True if the field is required for the current state (false otherwise)
· Name	String	No	Friendly name of the field
· order	Int	No	Position in the field list
· stringValue	String	No	Value if it is of the chain type
· type	Int	No	Parent Type
· visible	Bool	No	True if the field is visible for the current state (false otherwise)
projects	Array	Yes	List of identifiers of projects related to the IC's

Body of the petition:

```
{
  "acceptDate": 1631250000000,  "assetTag": "45",

  "barCode": "",

  "brandId": 7326,

  "categoryId": 53,

  "checkinDate": 1632546000000,  "checkoutDate": 1631509200000,  "consoleType": 1,

  "description": "",

  "installationDate": 1632027600000,  "licenseNumber": "",

  "modelId": 7395,

  "name": "Computador HP Des93522",  "price": **null**,

  "projects": [

    {

      "id": 19

    }

  ],

  "reasonId": 4829,

  "reponsibleDate": 1631422800000,  "responsibleId": 4883,

  "rfid": "",

  "serial": "13213216513165",

  "statId": 6505,

  "type": 21,

  "unitSize": "",
```

```
"listAdditionalField": [
  ']]
```

Answer:

Value booleano indicating the result of the operation.

```
{
  ``"result": True
}
```

Error messages:

Code	HTTP status	Error Message
400	BadRequest	ForIntegrationInterfaceIdsRequired
400	BadRequest	CategoryIdsEmpty
400	BadRequest	StateIdsEmpty
400	BadRequest	InvalidItemType
400	BadRequest	AdditionalFieldsRequired
400	BadRequest	InvalidAdditionalFieldValue
400	BadRequest	InvalidSubcategoryId
500	InternalServerError	InvalidAdditionalFieldValue

```
{
  "exceptionMessage": "ForIntegrationInterfaceIdsRequired",
  "message": "FailureAddCi",
  "operation": "AddCi",
  "serviceName": "CI"
}

{
  "exceptionMessage": "CategoryIdsEmpty",
  "message": "FailureUpdateCi",
  "operation": "UpdateCi",
  "serviceName": "CI"
}

{
  "exceptionMessage": "StateIdsEmpty",
  "message": "FailureUpdateCi",
  "operation": "UpdateCi",
  "serviceName": "CI"
}

{
  "exceptionMessage": "InvalidItemType",
  "message": "FailureUpdateCi",
  "operation": "UpdateCi",
  "serviceName": "CI"
}

{
  "exceptionMessage": "InvalidAdditionalFieldValue",
  "message": "FailureAddCi",
  "operation": "AddCi",
  "serviceName": "CI"
}

{
  "exceptionMessage": "Is null\r\nNombre del parámetro: request",  "message": "FailureAddCi",
  "operation": "AddCi",
  "serviceName": "CI"
}
```

Add Relationships

Petition Details

- Base URL: {host}/ASMSAPI/
- Uri: /api/v9/ci/{id}/relation
- Type: POST
- Required headings:
- content-type: application/json
- X-Authorization: Bearer {token}

URL Description

- {host}: It represents the domain of the environment in which the API is located.
- ASMSAPI/: Fixed API prefix.
- URI: Specific endpoint for the request.

🔗 EXAMPLE URL:

https://[host]/ASMSAPI/api/v9/ci/{id}/relation

Parameters:

Name	Data type	Obligatory	Description
Id	Number	Yes	Identifier of the CI.
itemType	Text	Yes	Type of item.
relatedItemType	Text	Yes	Type of item to be related (Incidents, Problem, Change, Release, ServiceCall, Task, Maintenance, Ci, Packages, Contract, Invoice, OtherDocument, Article.)
relatedItemId	Number	Yes	Identifier of the item to be related.
relationTypeId	Number	Yes	Identifier of the type of relationship.
typelsReverse	Bool	Yes	Identifier to determine if the main IC with whom the relationship is established is a parent or a child.

Body of the petition

```
Ejemplo de relación de **CI** con **CI**.
```

```
{
  "id": 147,
  "itemType": "ci",
  "relatedItemId": 1035,
  "relatedItemType": "ci",
  "relationTypeId": 139,
  "typelsReverse": true
}
```

```
Ejemplo de cuerpo de la relación de ***CI*** con ***Article***:
```

```
{
  "id": 147,
  "itemType": "ci",
  "relatedItemId": 58,
  "relatedItemType": "article",
  "relationTypeId": 137,
  "typelsReverse": true
}
```

```
*Respuesta*
```

```
{
  "result": true
}
```

Response Parameters

Name	Data type	Description
result	Boolean	Indicates whether the operation was successful

Error messages

Code	HTTP status	Error Message
400	BadRequest	\r\nParameter Name: Id
400	BadRequest	InvalidItemType
400	BadRequest	InvalidRelatedItemId
400	BadRequest	InvalidRelatedItemType
400	BadRequest	InvalidRelationTypeId
400	BadRequest	InvalidProjectId
400	BadRequest	RequestNeedsSomeArguments
403	Forbidden	DoNotHavePermissionForThisAction
500	InternalServerError	FailureAddRelatedItem

Delete Relationships

Petition Details

- Base URL: {host}/ASMSAPI/
- Uri: api/v9/ci/{id}/{relatedItemType}/{relatedItemId}/relation?isReverse={isReverse}&relationTypeId={relationTypeId}
- Type: DELETE
- Required headings:
- Content-Type: application/json
- X-Authorization: Bearer {token}

URL Description

- {host}: It represents the domain of the environment in which the API is located.
- ASMSAPI/: Fixed API prefix.
- URI: Specific endpoint for the request.

📄 EXAMPLE URL:

```
https://{host}/ASMSAPI/api/v9/ci/{id}/{relatedItemType}/{relatedItemId}/relation?isReverse={isReverse}&relationTypeId={relationTypeId}
```

Parameters:

Name	Data type	Obligatory	Description
Id	Number	Yes	Identifier of the CI.
itemType	Text	Yes	Type of item.
relatedItemType	Text	Yes	Type of item to be related (Incidents, Problem, Change, Release, ServiceCall, Task, Maintenance, Ci, Packages, Contract, Invoice, OtherDocument, Article.)
relatedItemId	Number	Yes	Identifier of the item to be related.
relationTypeId	Number	Yes	Identifier of the type of relationship.
typesIsReverse	Bool	Yes	Identifier to determine if the main IC with whom the relationship is established is a parent or a child.

Examples of uri

Delete CI relationships with:

- Cis
- api/v9/ci/147/ci/1035/relation?isReverse=true&relationTypeId=139
- Articles
- api/v9/ci/147/article/58/relation?isReverse=true&relationTypeId=137

Body of the petition

N/A

Answer

The service returns a Json with the following information:

{ “result”: true }

Response Parameters:

Name	Data type	Description
result	Boolean	Indicates whether the operation was successful

Error messages

Code	HTTP status	Error Message
400	BadRequest	\r\nParameter Name: Id
400	BadRequest	\r\nParameter Name: ItemType
400	BadRequest	\r\nParameter Name: RelatedItemId
400	BadRequest	\r\nParameter Name: RelatedItemtype
400	BadRequest	RequestNeedsSomeArguments
403	Forbidden	DoNotHavePermissionForThisAction
500	InternalServerError	FailureDeleteRelatedItem