

MotionWorks Enterprise

RFID Reader Management



ZEBRA

API Guide

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About this Guide

This guide documents the REST API interface exposed by MWE RFID Reader Management, which can be used to interact with and manage devices via MWE RFID Reader Management.

Features

MotionWorks Enterprise RFID API enables you to:

- Manage and control RFID reader via REST calls.
- Manage users and groups on MWE RFID.
- Manage and maintain reader configurations such as operating mode, data endpoint, etc.
- Perform operation on a device (start, stop, config, mode).

Login

Login

Log into system.

Example POST

POST: `https://<hostname>/trifecta/v1/login`

BODY:

```
{
  "userName": "user1",
  "password": "password1"
}
```

Example Response

```
{
  "access_token": "eyJ...10"
}
```

access_token should be used for all subsequent API calls in the Authorization header as a bearer token

Change Password

Change the user password.

Example POST

POST: `https://<hostname>/trifecta/v1/changePassword`

BODY:

```
{
  "userName": "user1",
  "oldPassword": "password1",
  "newPassword": "password2",
  "confirmPassword": "password2"
}
```

Example Response

No response body.

Version

This section provides examples of version commands.

Query Version

Get system version information.

Example GET

GET: `https://<hostname>/trifecta/v1/versions`

Example Response

`access_token` should be used for all subsequent API calls in the Authorization header as a bearer token.

```
{
  "deviceregistryversion": "0.1.0-fdff02b",
  "messagebridgeversion": "0.0.3-5608d75",
  "siteregversion": "0.0.1-5f457dc",
  "dmsvcversion": "0.0.1-1f4936a",
  "nginxversion": "1.21.6-31ff10e",
  "mqttversion": "4.2.3-1de3bbb",
  "kafkaversion": "7.0.1-7090bb5",
  "zookeeperversion": "7.0.1-7090bb5",
  "apigwversion": "2.1-4592521",
  "apigwinitversion": "2.1-4592521",
  "authsvcversion": "1.0.0-fe8f953",
  "usersvcversion": "1.0.0-e798813",
  "sitesvcversion": "2.0.0-862945f",
  "alertsvcversion": "2.0.0-17fdfc1",
  "tileserverversion": "v2.2.0-efea3cb",
  "fileserverversion": "0.1.0-f71d618",
  "taskmgrversion": "0.1.0-505c8b6",
  "devicepromproxyversion": "0.1.0-7ec0ef1",
  "certsigningsvcversion": "1.0.0-f525d5e",
  "alertingsidecarversion": "0.0.1-4e9c03f",
  "deviceinitializerversion": "0.0.4-a3d03a1",
  "uisvcversion": "0.0.1-528e17a"
}
```

Format for Status Response

This section describes formats for status responses.

Format for Status Response

Status response format.

Table 1 Status Response Object

Name	Value	Required/ Optional	Description
apiName	string	Required	Name of the API requested
version	string	Required	Version of the API
error	string	Required	More detailed description of error if any
code	integer	Required	HTTP Code (for example, 200)
message	string	Required	HTTP message (for example, OK)
count	integer	Required	Number of requests to the API
pagination	object	Optional	See Pagination Object

Table 2 Pagination Object

Name		Value	Required/ Optional	Description
links		string		
	first	string	Required	URL to the first page
	last	string	Required	URL to the last page
	prev	string	Required	URL to the prev page
	next	string	Required	URL to the next page
page		object		
	size	integer	Required	Number of elements on the current page
	totalElements	integer	Required	Total number of elements

Table 2 Pagination Object (Continued)

Name		Value	Required/ Optional	Description
	totalPages	integer	Required	Total number of pages
	number	integer	Required	Current page number

Users

This section provides examples of user commands.

Create User

Add user.

Example POST

POST: `https://<hostname>/trifecta/v1/user/`

BODY:

```
{
  "id": 12345,
  "username": "user1",
  "name": "my name",
  "description": "description of user",
  "email": "email@company.com",
  "groups": [{ "id": 12345, "name": "admin" }],
  "password": "password1",
  "confirmPassword": "password1"
}
```

Response Format

Table 3 Add/Update User Response Object

Name	Value	Required/ Optional	Description
status	Object	Required	See Status Response Object
results	Object	Required	See User Object

Table 4 User Object

Name	Value	Required/Optional	Description
id	integer	Required	Unique identifier for user
username	string	Required	
name	string	Required	
description	string	Required	
email	string	Required	
groups	array	Required	See Group Object

Remove User

Delete a user by user id

Example DELETE

DELETE: `https://<hostname>/trifecta/v1/user/{id}`

Response

No response body

Update User Information

Update User Information

Example PUT

PUT: `https://<hostname>/trifecta/v1/user/{id}`

BODY:

```
{
  "id": 12345,
  "username": "user1",
  "name": "my name",
  "description": "description of user",
  "email": "email2@company.com",
  "groups": [{"id": 12345, "name": "admin"}]
}
```

Example Response

See [Add/Update User Response Object](#)

Query User

Query user information by user id

Example GET

GET: `https://<hostname>/trifecta/v1/user/{id}`

Example Response

See [Add/Update User Response Object](#)

Query All Users

Query all users.



NOTE: NOTE: This may return a significant amount of data.

Example Query

GET: `https://<hostname>/trifecta/v1/users`

Response Format

Table 5 Multiple Users Response Object

Name	Value	Required/ Optional	Description
status	Object	Required	See Status Response Object
results	Array	Required	See User Object

Groups

This section provides examples of group commands.

Create Group

Add group.

Example POST

POST: `https://<hostname>/trifecta/v1/group/`

BODY:

```
{
  "id": 12345,
  "name": "my group name",
  "description": "description of group",
  "roles": [{"id": 12345, "name": "role1", "description": "my first
role"}]
}
```

Response Format**Table 6** Add/Update Group Response Object

Name	Value	Required/Optional	Description
status	Object	Required	See Status Response Object
results	Object	Required	See Group Object

Table 7 Group Object

Name	Value	Required/Optional	Description
id	integer	Required	Unique identifier for group
name	string	Required	
description	string	Required	
roles	array	Required	See Roles Object

Remove Group

Delete group by group id.

Example DELETE

DELETE: <https://<hostname>/trifecta/v1/group/{id}>

Response

No response body

Update Group Information

Update group information.

Example PUT

PUT: <https://<hostname>/trifecta/v1/group/{id}>

BODY:

```
{
  "id": 12345,
  "name": "my group name",
  "description": "description of group",
  "roles": [{"id": 23456, "name": "role2", "description": "my second
role"}]
}
```

Response Format

See [Add/Update Group Response Object](#)

Query Group by Group ID

Query a particular group's information.

Example GET

GET: `https://<hostname>/trifecta/v1/group/{id}`

Response Format

See [Add/Update Group Response Object](#)

Query All Groups

Query All Groups.



NOTE: This may return a significant amount of data.

Example Query

GET: `https://<hostname>/trifecta/v1/groups`

Response Format

Table 8 Multiple Users Response Object

Name	Value	Required/ Optional	Description
status	Object	Required	See Status Response Object
results	Array	Required	See Group Object

Roles

This section provides examples of role commands.

Query All Roles

Query all roles.



NOTE: This may return a significant amount of data.

Example Query

GET: `https://<hostname>/trifecta/v1/role`

Response Format

Table 9 Multiple Users Response Object

Name	Value	Required/Optional	Description
status	Object	Required	See Status Response Object
results	Array	Required	See Roles Object

Table 10 Roles Object

Name	Value	Required/Optional	Description
Id	Number	Required	Role Id
name	String	Required	Role Name
description	String	Required	Role Description
permissions	Array	Required	See Permission Object

Table 11 Permission Object

Name	Value	Required/Optional	Description
Id	Number	Required	Permission Id
name	String	Required	Permission Name
description	String	Required	Permission Description

Devices

This section provides examples of device commands.

Add Device

Add a new device to the system.

Body Format

See [Table 19 Device Object](#) on page 24

Example POST

POST: `https://<hostname>/trifecta/v1/devices`

BODY:

```
{
  "hostname": "FX9600ABCDEF"
}
```

Response Format

Table 12 Add/Update Device Response Object

Name	Value	Required/ Optional	Description
status	Object	Required	See Status Response Object
results	Object	Required	
URL	String	Required	URL to get device information

Initialize Device

Initialize a device.

Body Format

Table 13 Initialize Device Body

Name	Value	Required/Optional	Description
username	String	Required	Username set on selected device
password	String	Required	Password set on selected device

Example Query

POST: `https://<hostname>/trifecta/v1/devices/<deviceId>/initialize`

BODY:

```
{
  "username": "sampleUsername"
  "password": "samplePassword"
}
```

Response Format

Table 14 Initialize Device Response Object

Name	Value	Required/Optional	Description
status	Object	Required	See Table 1 Status Response Object on page 10

Get Initialize Device Status

Get the status of an initialize task on a device.

Body Format

No Body.

Example Query

GET: `https://<hostname>/trifecta/v1/devices/<deviceId>/initialize`

Response Format**Table 15** Initialize Device Response Object

Name	Value	Required/Optional	Description
Id	Number	Required	Initialization task Id
deviceId	Object	Required	Device Id
status	String	Required	Initialization task status
statusDescription	String	Required	Initialization task status description

Delete Initialize Task

Cancels the initialization task on a device.

Body Format

No Body.

Example Query

DELETE: `https://<hostname>/trifecta/v1/devices/<deviceId>/initialize`

Response Format**Table 16** Initialize Device Response Object

Name	Value	Required/Optional	Description
status	Object	Required	See Table 1 Status Response Object on page 10

Remove Device

Remove a device from the system.

Example Delete

DELETE: `https://<hostname>/trifecta/v1/devices/123456789`

Response Format**Table 17** Remove Device/Configuration/Task/File Response Object

Name	Value	Required/Optional	Description
status	Object	Required	See Status Response Object
results	Object	Required	null

Update Device Information

Change information regarding a device in the system.

Example Patch

PATCH: `https://<hostname>/trifecta/v1/devices/123456789`

BODY:

```
{
  "position": {
    "x": 0,
    "y": 0,
    "z": 0
  }
}
```

Body Format

See [Device Object](#)

Response Format

See [Add/Update Device Response Object](#)

Query Device by Device ID

Query the information regarding a single device using the device ID.

Example Query

GET: <https://<hostname>/trifecta/v1/devices/1234567890>

Response Format

Table 18 Device Response Object

Name	Value	Required/ Optional	Description
status	Object	Required	See Status Response Object
status	Object	Required	See Device Object

Table 19 Device Object

Name		Value	Required/ Optional	Description
deviceId		string	Required	Unique identifier for device (not available when creating or updating a device)
deviceModel		string	Optional	Device Mode type (ATR7000, FX9600, FX7500, SNAP)
serialNumber		string	Optional	Serial Number of the device
siteId		string	Optional	Unique Identifier for the site of the device
name		string	Optional	User-supplied name for the device
network		object	Optional	See Table 20 Network Object on page 25
position		object	Optional	Position of the device in relation to its site x
	x	number		
	y	number		
	z	number		
antennas		array	Optional	Array of antenna objects. See Table 21 Antennas Object on page 25
lastSeen		string	Optional	Timestamp of the last time the system was in contact with the device (not available when creating or updating a device)
lastStatus		object	Optional	See Table 22 Last Status Object on page 26 (not available when creating or updating a device)
state		object	Optional	State of the device (added, initialized, running, stopped, updating, rebooting, failure) (not available when creating or updating a device)
configId		string	Optional	Unique Identifier for the device configuration
version		object	Optional	See Table 27 Version Object on page 31
region		object	Optional	See Table 28 Region Object on page 31
orientation		object	Optional	Orientation of the device in relation to its site
	roll	number		In degrees
	pitch	number		In degrees
	yaw	number		In degrees
hostName		string	Required	Default Device Hostname (required when creating a device)
gpioStatus		object	Optional	Array of GPIO Status objects. See Table 29 GPIO Status Object on page 32

Table 20 Network Object

Name	Value	Required/Optional	Description
macAddress	string	Required	MAC address of the device
dhcp	bool	Required	
dnsAddress	string	Required	DNS address of the device
subnetMask	string	Required	Subnet mask of the device
gatewayAddress	string	Required	Gateway address of the device
ipAddress	string		IP Address of the device

Table 21 Antennas Object

Name	Value	Required/Optional	Description
name	string	Required	User-supplied name for the antenna
gain	number	Optional	Gain of the antenna (in db)
port	integer	Optional	Reader port that the antenna is connected to
position	object	Optional	Position of the antenna in relation to its site
	x	number	
	y	number	
	z	number	
state	string	Optional	Indicates if the antenna is connected to or disconnected from the port
orientation		Optional	Orientation of the antenna in relation to its site
	raw	number	In degrees
	pitch	number	In degrees
	yaw	number	In degrees
type	string	Required	Type of antenna
cableLoss	number	Optional	Loss (in db) of the cable connecting the antenna to the port

Table 22 Last Status Object

Name		Value	Required/ Optional	Description
radioControl		object	Required	
	status	string	Required	Status of Radio Control (running or stopped)
	cpu	number	Required	Radio Control % CPU utilization
	ram	number	Required	Radio Control % RAM utilization
	uptime	string	Required	Radio Control uptime
	radioActivity	string	Required	Radio activity status (running or stopped)
	radioConnection	string	Required	Radio connection status (connected or disconnected)
readerGateway		object	Required	See Table 23 Reader Gateway Status Object on page 27
system		object	Required	See Table 24 System Status Object on page 28
userApps			Optional	See Table 26 User Application Object on page 30

Table 23 Reader Gateway Status Object

Name	Value	Required/ Optional	Description
cpu	number	Optional	Reader Gateway % CPU utilization
ram	number	Optional	Reader Gateway % RAM utilization
uptime	string	Optional	Reader Gateway uptime
numDataMessagesRxed	number	Optional	Number of data messages received by Reader Gateway
numDataMessagesTxed	number	Optional	Number of data messages transmitted by Reader Gateway
numDataMessagesRetained	number	Optional	Number of data messages currently retained by Reader Gateway
numDataMessagesDropped	number	Optional	Number of data messages dropped by Reader Gateway
numManagementEventsTxed	number	Optional	Number of management events transmitted by Reader Gateway

Table 24 System Status Object

Name			Value	Required/ Optional	Description
cpu			object	Optional	
	system		integer	Required	% of system CPU
	user		integer	Required	% of user CPU
ram			object	Optional	
	used		integer	Required	Number of bytes used in RAM
	free		integer	Required	Number of bytes free in RAM
	total		integer	Required	Total number of bytes in RAM
flash			object	Optional	
	platform		object	Required	
		used	integer	Required	Number of bytes used in partition flash partition
		free	integer	Required	Number of bytes free in partition flash partition
		total	integer	Required	Total number of bytes in partition flash partition
	readerConfig		object	Required	
		used	integer	Required	Number of bytes used in reader config flash partition
		free	integer	Required	Number of bytes free in reader config flash partition
		total	integer	Required	Total number of bytes in reader config flash partition
	readerData		object	Required	
		used	integer	Required	Number of bytes used in reader data flash partition
		free	integer	Required	Number of bytes free in reader data flash partition
		total	integer	Required	Total number of bytes in reader data flash partition
	rootFileSystem		object	Required	
		used	integer	Required	Number of bytes used in root file system flash partition
		free	integer	Required	Number of bytes free in root file system flash partition
		total	integer	Required	Total number of bytes in root file system flash partition

Table 25 System Status Object (continued)

Name		Value	Required/ Optional	Description
uptime		string	Optional	System uptime
ntp		object	Optional	
	reach	number	Required	NTP Reach value (octal value 0 – 377)
	offset	number	Required	Clock offset in milliseconds
temperature		object	Optional	
	pa	number	Required	Radio Power Amplifier temperature (in degrees Celsius)
	ambient	number	Required	Radio Ambient temperature (in degrees Celsius)
systemTime		string	Optional	Current system time on the device
powerSource		string	Optional	Power source of system (DC, POE, POE+)
powerNegotiation		string	Optional	Power Negotiation of the system (DISABLE, IN_PROGRESS, SUCCESS, FAILURE, NOT_APPLICABLE)

Table 26 User Application Object

Name	Value	Required/ Optional	Description
appname	string	Required	Application name
status	string	Required	Status of application (running or stopped)
cpu	number	Optional	Application % CPU utilization
ram	number	Optional	Application % RAM utilization
uptime	string	Optional	Application uptime
numDataMessagesRxed	number	Optional	Number of data messages received by application
numDataMessagesTxed	number	Optional	Number of data messages transmitted by application
incomingDataBuffer PercentageRemaining	number	Optional	% input data buffer remaining for application
outgoingDataBuffer PercentageRemaining	number	Optional	% output data buffer remaining for application

Table 27 Version Object

Name	Value	Required/ Optional	Description
readerApplication	string	Required	Version of the reader application
radioAPI	string	Required	Version of the radio API
radioFirmware	string	Required	Version of the radio firmware
radioControlApplication	string	Required	Version of the Radio Control Application
readerOS	string	Optional	Version of the reader Operating System
readerHardware	string	Required	Version of the reader hardware
readerBootLoader	string	Required	Version of the reader bootloader
readerFileSystem	string	Required	Version of the reader filesystem
cloudAgentApplication	string	Optional	Version of the Cloud Agent Application

Table 28 Region Object

Name	Value	Required/ Optional	Description
region	string	Required	Region the Device is being used (for example, United States)
regulatoryStandard	string	Optional	Regulatory Standard (for example, FCC)
lbtEnabled	bool	Required	Listen Before Talk (LBT) enabled or disabled
channelData	Array of numbers	Optional	List of Channel Frequencies
maxTransmitPower	number	Optional	Maximum Conducted Transmit power (dbm)

Table 29 GPIO Status Object

Name	Value	Required/Optional	Description
port	integer	Optional	GPIO Port
state	bool	Optional	Indicates the state of the GPIO port (False means low and True means high)
direction	string	Optional	Input or Output

Query Devices by Site

Query for the information of all devices in a site.

Example Query

GET: `https://<hostname>/trifecta/v1/devices?$siteId=1234567890`

Response Format

Table 30 Multiple Devices Response Object

Name	Value	Required/Optional	Description
status	Object	Required	See Status Response Object
results	Array	Required	See Device Object

Query Devices by Device Model

Query for the information of all devices matching a device model.

Example Query

GET: `https://<hostname>/trifecta/v1/devices?$deviceModel=FX9600`

Response Format

See [Multiple Devices Response Object](#)

Query Devices by Device State

Query for all devices that are in a particular state.

Example Query

GET: `https://<hostname>/trifecta/v1/devices?$deviceState=running`

Response Format

See [Multiple Devices Response Object](#)

Query Devices by Device Model and Site

Query by device model for a specific site.

Example Query

```
GET: https://<hostname>/trifecta/v1/devices?  
$deviceMode=FX9600&siteId=1234567890
```

Response Format

See [Multiple Devices Response Object](#)

Query All Devices

Query All Devices



NOTE: This may return a significant amount of data.

Example Query

```
GET: https://<hostname>/trifecta/v1/devices
```

Response Format

See [Multiple Devices Response Object](#)

Device Configuration

This section provides examples of device configuration commands.

Add Device Configuration

Add new device configuration to the system.

Example POST

POST: `https://<hostname>/trifecta/v1/configurations`

BODY Format: See [Configuration Object](#)

Example Response

Table 31 Add/Update Device Configuration Response Object

Name	Value	Required/Optional	Description
status	Object	Required	See Status Response Object
results	Object	Required	
URL	String	Required	URL to get configuration information

Remove Device Configuration

Remove a device configuration from the system.

Example Delete

DELETE: `https://<hostname>/trifecta/v1/configurations/1234567`

Response Format

See [Remove Device/Configuration/Task/File Response Object](#)

Update Device Configuration

Change device configuration.

Example Patch

PATCH: `https:///trifecta/v1/devices/configurations/1234567`

BODY FormatSee [Configuration Object](#)**Response Format**See [Add/Update Device Configuration Response Object](#)

Query Device Configurations by Configuration ID

Query for information about a particular configuration.


Example Query

```
https://<hostname>/trifecta/v1/devices/configurations/1234567890
```

Response Format**Table 32** Configuration Response Object

Name	Value	Required/ Optional	Description
status	Object	Required	See Status Response Object
results	Object	Required	See Configuration Object

Table 33 Configuration Object

Name	Value	Required/Optional	Description
configId	string	Required in Responses	Unique identifier for the configuration.
xml	string	Optional	<p>Exported XML configuration from the reader. Details on exporting the reader's XML configuration can be found in the FX Series RFID Fixed Reader Integration Guide.</p> <p>This format is internal to the reader and subject to change. It is recommended XML is used only for replicating settings from one reader to one or more other readers.</p> <p> NOTE: XML field should not be included in cases where the deployment uses unique settings on each reader such as static IP, unique name/location, unique passwords etc.</p>
mode	object	Optional	Operation mode configuration (see https://zebradevs.github.io/rfid-ziotc-docs/schemas/operating_modes/index.html)
gpioLed	object	Optional	
events	object	Optional	Configuration of Asynchronous Management Events (see https://zebradevs.github.io/rfid-ziotc-docs/schemas/cloud_config/index.html#)
batching	object	Optional	Data message batching configuration (see https://zebradevs.github.io/rfid-ziotc-docs/best_practices/tag_data/index.html#tag-data-batching)
retention	object	Optional	Data message retention configuration (see https://zebradevs.github.io/rfid-ziotc-docs/best_practices/tag_data/index.html#tag-data-retention)
userApps	array	Optional	An array of strings listing the user apps used for this device configuration
name	string	Optional	User-supplied name for the configuration.
certificates	array	Optional	Configuration of certificates to be used for data endpoints (see https://zebradevs.github.io/rfid-ziotc-docs/schemas/endpoint_config/index.html#)
dataEndpoints	object	Optional	Configuration of data endpoints (see https://zebradevs.github.io/rfid-ziotc-docs/schemas/endpoint_config/index.html#)

Query Device Configurations by Site

Query for configurations applicable at a site.

Example Query

```
https://<hostname>/trifecta/v1/devices/configurations?$siteId=1234567
```

Response**Table 34** Multiple Configurations Response Object

Name	Value	Required/Optional	Description
status	Object	Required	See Status Response Object
results	Array	Required	See Configuration Object

Query Device Configurations by Device Model

Query for configurations applicable to a device model.

Example Query

```
https://<hostname>/trifecta/v1/devices/configurations/?
$deviceModel=FX9600
```

Response Format

See [Multiple Configurations Response Object](#)

Query Device Configurations by Device State

Query for configurations for devices that are in a particular state.

Example Query

```
https://<hostname>/trifecta/v1/devices/configurations?
$deviceState=running
```

Response Format

See [Multiple Configurations Response Object](#)

Query Device Configurations by Device Model and Site

Query for configurations by device model for a specific site.

Example Query

```
https://<hostname>/trifecta/v1/devices/configurations?
$deviceModel=FX9600&siteId=1234567890
```

Response Format

See [Multiple Configurations Response Object](#)

Query All Device Configurations



NOTE: This may return a significant amount of data.

Example Query

```
https://<hostname>/trifecta/v1/devices/configurations
```

Response Format

See [Multiple Configurations Response Object](#)

Device Tasks

This section provides examples of device task commands.

Add Device Task

Add new device task to the system.

Example POST

POST: `https://<hostname>/trifecta/v1/devices/tasks`

BODY Format: See [Table 37 Task Object](#) on page 40

Response Format

Table 35 Add/Update Device Task Response Object

Name		Value	Required/ Optional	Description
status		Object	Required	See Status Response Object
results		Object	Required	
	URL	String	Required	URL to get task information

Remove Device Task

Remove a device task from the system.

Example Delete

DELETE: `https://<hostname>/trifecta/v1/devices/tasks/123456789`

Response Format

See [Remove Device/Configuration/Task/File Response Object](#)

Update Device Task

Change device task.

Example Patch

PATCH: `https:///trifecta/v1/devices/task/123456789`

BODY Format

See [Task Object](#)

Response Format

See [Add/Update Device Task Response Object](#)

Query Device Tasks by Task ID

Query for information about a task by task ID.

Example Query

GET: `https://<hostname>/trifecta/v1/devices/tasks/1234567890`

Response Format

Table 36 Task Response Object

Name	Value	Required/ Optional	Description
status	Object	Required	See Status Response Object
results	Object	Required	See Device Object

Table 37 Task Object

Name		Value	Required/ Optional	Description
id		string	Required in Response	Unique identifier for the task
description		string	Optional	Description of task
devices		array	Optional	Array of device ids to perform the task
startDateTime		string	Optional	ISO 8601 format of local server time to begin the task. If not provided, the task begins immediately
fileId		string	Optional	File Identifier of the file to use when using update or install action
action		string	Required	Action to take (update, reboot, install, start, stop, set-led)
status		string	Required	Status of task (In progress, Complete, Pending)
enabled		bool	Required	Indicates if the task is currently enabled
siteId		string	Optional	Site Identifier of the site to apply to task all devices
deviceModel		string	Optional	Device Model upon which to perform the task (ATR7000, FX9600, FX7500)
params		object	Optional	
	color	string	Optional	Used when action is set-led to set the LED color
	flash	bool	Optional	Used when action is set-led to set enable/disable flashing LED
	seconds	integer	Optional	Used when action is set-led to indicate the duration of the set-led action

Query Device Task History by Task ID

Query for the history of a particular task.

Example Query

```
https://<hostname>/trifecta/v1/devices/tasks/1234567890/history
```


Response Format**Table 38** Multiple Tasks Response Object

Name	Value	Required/ Optional	Description
status	Object	Required	See Status Response Object
results	Array	Required	See Device Object

Query Device Tasks by Device

Query for tasks applicable to a particular device.

Example Query

```
https://<hostname>/trifecta/v1/devices/tasks?$deviceId=1234567890
```

Response Format

See [Multiple Tasks Response Object](#)

Query Device Tasks by Site

Query for tasks applicable at a site.

Example Query

```
https://<hostname>/trifecta/v1/devices/tasks?$siteId=1234567890
```

Response Format

See [Multiple Tasks Response Object](#)

Query Device Tasks by Device Model

Query for tasks applicable to a device model.

Example Query

```
https://<hostname>/trifecta/v1/devices/tasks/?$deviceModel=FX9600
```

Response Format

See [Multiple Tasks Response Object](#)

Query Device Tasks by Status

Query for tasks that are in a particular state.

Example Query

```
https://<hostname>/trifecta/v1/devices/tasks?$taskStatus=completed
```

Response Format

See [Multiple Tasks Response Object](#)

Query Device Tasks by Action

Query for tasks with a particular action.

Example Query

```
https://<hostname>/trifecta/v1/devices/taks?$taskAction=update
```

Response Format

See [Multiple Tasks Response Object](#)

Query Device Tasks by Device Model and Site

Query for configurations by device model for a specific site.

Example Query

```
https://<hostname>/trifecta/v1/devices/taks?
$deviceModel=FX9600&siteId=1234567890
```

Response Format

See [Multiple Tasks Response Object](#)

Query All Device Tasks

Query all device tasks.



NOTE: This may return a significant amount of data.

Example Query

```
https://<hostname>/trifecta/v1/devices/tasks
```

Response Format

See [Multiple Tasks Response Object](#)

Files

This section provides examples of file commands.

Add File

Add a new file to the system.

EXAMPLE POST

POST: `https://<hostname>/trifecta/v1/files`

BODY: `form-data`

Table 39 File Post Object

Key	Type	Value
file	File	File to upload
fileName	Text	Name of file
fileVersion	Text	Version of file
deviceModel	Text	Device Model file is appropriate for (ATR7000, FX9600, FX7500)
description	Text	Description of the file
fileType	Text	Type of file (firmware, app, certificate, generic)

Response Format

Table 40 Add/Update File Response Object

Name	Value	Required/ Optional	Description
status	Object	Required	See Status Response Object
results	Object	Required	
URL	String	Required	URL to get File information

Remove File

Remove a file from the system.

Example Delete

DELETE: <https://<hostname>/trifecta/v1/files/123456789>

Response Format

See [Remove Device/Configuration/Task/File Response Object](#)

Update File Properties

Change file properties.

Example Patch

PATCH: <https://<hostname>/trifecta/v1/files//123456789/properties>

```
BODY:
{
  "fileName": "myNewFileName",
  "fileVersion": "0.1.2",
  "deviceModel": "FX9600",
  "fileType": "firmware",
  "description": "my new file",
}
```

Response Format

See [Add/Update File Response Object](#)

Query File Properties by File ID

Query file properties using a File ID.

Example Get

GET: <https://<hostname>/trifecta/v1/files//123456789/properties>

See [Table 43 Get Multiple Files Properties Response Object](#) on page 45

Response Format

Table 41 Get File Properties Response Object

Name	Value	Required/Optional	Description
status	Object	Required	See Status Response Object
results	Object	Required	See Table 42 File Properties Object on page 45

Table 42 File Properties Object

Name	Value	Required/Optional	Description
fileId	Object	Required	Unique identifier for the file
deviceModel	Object	Required	Device Model file is appropriate for (ATR7000, FX9600, FX7500)
fileName	string	Optional	Name of file
fileVersion	string	Optional	Version of file
fileType	string	Required	Type of file (firmware, app, certificate, generic)
uploadedAt	string	Required	ISO 8601 format of time when file was uploaded
description	string	Optional	User provided description of file
fileSize	integer	Required	Size of file in bytes

Query File Properties by Device Model

Query for files by device model and file type.

Example Query

GET: `https://<hostname>/trifecta/v1/files?$deviceMode=FX9600`

Response Format

Table 43 Get Multiple Files Properties Response Object

Name	Value	Required/Optional	Description
status	Object	Required	See Status Response Object
results	Array	Required	See File Properties Object

Query File Properties by Device Model and File Type

Query for files by device model and file type.

Example Query

GET: `https://<hostname>/trifecta/v1/files?$deviceMode=FX9600&fileType=firmware`

Response Format

See [Get Multiple Files Properties Response Object](#)

Get File by file ID

Get binary file.

Example Query

GET: `https://<hostname>/trifecta/v1/files/123456789`

Response Format

File in binary format.

Query All File Properties

Query all file properties.



NOTE: This may return a significant amount of data.

Example Query

`https://<hostname>/trifecta/v1/files`

Response Format

See [Get Multiple Files Properties Response Object](#)

