

SMI Microservice

Dell Update Service

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1. Overview

DUSE Microservice updates firmware on Dell PowerEdge server using industry standard WS-Management - WSMAN Protocol

1.1. Version information

Version : 1.0 dev

1.2. License information

License : Dell SMI License Version 1.0

License URL : www.dell.com/smi

Terms of service : <http://www.dell.com/smi/server/firmwareupdate>

1.3. URI scheme

Host : 10.62.59.155:46010

BasePath : /

1.4. Tags

- firmware-update-controller : Firmware Update Controller

2. Resources

2.1. Firmware-update-controller

Firmware Update Controller

2.1.1. /api/1.0/server/firmware/comparer

```
POST /api/1.0/server/firmware/comparer
```

Description

This WebMethod returns all applicable updates for a requested server system, this operation will determine if a component needs firmware update or not, each component is marked with respective criticality if update is required

Parameters

Type	Name	Description	Schema
Body	request <i>required</i>	request	ApplicableUpdateRequest

Responses

HTTP Code	Description	Schema
200	OK	< ApplicableUpdate > array
201	Created	No Content
401	Unauthorized	No Content
403	Forbidden	No Content
404	Not Found	No Content

Consumes

- `application/json`

Produces

- `application/json`

Example HTTP request

Request path

```
/api/1.0/server/firmware/comparer
```

Request body

```
{
  "address" : "string",
  "catalogPath" : "string",
  "password" : "string",
  "serverAddress" : "string",
  "type" : "string",
  "updateableComponentInventory" : "string",
  "userName" : "string"
}
```

Example HTTP response

Response 200

```
[ {
  "deviceId" : "string",
  "updates" : [ {
    "category" : "string",
    "criticality" : "string",
    "name" : "string",
    "packageInformationPath" : "string",
    "path" : "string",
    "sourceName" : "string",
    "targetIdentifier" : "string",
    "uniqueIdentifier" : "string",
    "updateAction" : "string",
    "version" : "string"
  } ]
} ]
```

2.1.2. /api/1.0/server/firmware/comparer/catalog

POST /api/1.0/server/firmware/comparer/catalog

Description

This WebMethod compare two firmware catalogs, user is expected to provide two accessible firmware catalog files, microservice will compare them and result is returned after comparison

Parameters

Type	Name	Description	Schema
Body	request <i>required</i>	request	CompareCatalogRequest

Responses

HTTP Code	Description	Schema
200	OK	CatalogComparison
201	Created	No Content
401	Unauthorized	No Content
403	Forbidden	No Content
404	Not Found	No Content

Consumes

- `application/json`

Produces

- `application/json`

Example HTTP request

Request path

```
/api/1.0/server/firmware/comparer/catalog
```

Request body

```
{
  "sourceCatalog" : "string",
  "targetCatalog" : "string"
}
```

Example HTTP response

Response 200

```
{
  "status" : "string"
}
```

2.1.3. /api/1.0/server/firmware/comparer/custom

```
POST /api/1.0/server/firmware/comparer/custom
```

Description

This WebMethod creates a custom catalog & repository for firmware images, user pass in a list of all applicable updates in the request body, empty list in request will result a firmware repo with no image, micro service contacts ftp.dell.com and downloads DUPs to a network share to update server components by firmware job

Parameters

Type	Name	Description	Schema
Body	request <i>required</i>	request	CustomRepoRequest

Responses

HTTP Code	Description	Schema
200	OK	Response
201	Created	No Content
401	Unauthorized	No Content
403	Forbidden	No Content
404	Not Found	No Content

Consumes

- `application/json`

Produces

- `application/json`

Example HTTP request

Request path

```
/api/1.0/server/firmware/comparer/custom
```

Request body

```
{
  "catalogFilePath" : "string",
  "targetFilePath" : "string",
  "updates" : [ {
    "category" : "string",
    "criticality" : "string",
    "name" : "string",
    "packageInformationPath" : "string",
    "path" : "string",
    "sourceName" : "string",
    "targetIdentifier" : "string",
    "uniqueIdentifier" : "string",
    "updateAction" : "string",
    "version" : "string"
  } ]
}
```

Example HTTP response

Response 200

```
{
  "description" : "string",
  "id" : "string",
  "name" : "string",
  "status" : "string"
}
```

2.1.4. /api/1.0/server/firmware/downloader

GET /api/1.0/server/firmware/downloader

Description

This Webmethod connects to provided remote location and download requested file e.g. connect ftp.dell.com and download catalog file for firmware update, the catalog file is downloaded to a location mentioned in URI as query Parameters, all parameters are required for operation

Parameters

Type	Name	Description	Schema
Query	fileName <i>optional</i>	file name to be downloaded	string
Query	fileUrl <i>optional</i>	File remote URL	string
Query	targetLocation <i>optional</i>	save downloaded file to location	string

Responses

HTTP Code	Description	Schema
200	OK	Response
401	Unauthorized	No Content
403	Forbidden	No Content
404	Not Found	No Content

Consumes

- `application/json`

Produces

- `application/json`

Example HTTP request

Request path

```
/api/1.0/server/firmware/downloader
```

Request query

```
{
  "fileName" : "string",
  "fileUrl" : "string",
  "targetLocation" : "string"
}
```

Example HTTP response

Response 200

```
{
  "description" : "string",
  "id" : "string",
  "name" : "string",
  "status" : "string"
}
```

2.1.5. /api/1.0/server/firmware/uci

```
POST /api/1.0/server/firmware/uci
```

Description

This Webmethod returns all updateable components of a server system, webservice can update firmware version for all returned components,for successful return at least one valid parameter is required

Parameters

Type	Name	Description	Schema
Body	request <i>required</i>	request	ObmRequestBase

Responses

HTTP Code	Description	Schema
200	OK	< ComputerSystem > array
201	Created	No Content
401	Unauthorized	No Content
403	Forbidden	No Content
404	Not Found	No Content

Consumes

- `application/json`

Produces

- `application/json`

Example HTTP request

Request path

```
/api/1.0/server/firmware/uci
```

Request body

```
{
  "password" : "string",
  "serverAddress" : "string",
  "userName" : "string"
}
```

Example HTTP response

Response 200

```
[ {
  "collectionTime" : "string",
  "deviceId" : "string",
  "model" : "string",
  "updateableComponent" : [ {
    "componentType" : "string",
    "name" : "string",
    "targetIdentifier" : "string"
  } ]
} ]
```

2.1.6. /api/1.0/server/firmware/uci/si

POST /api/1.0/server/firmware/uci/si

Description

This Webmethod returns installed firmware version for all possible components of a selected server, for successful return at least one input parameter is required

Parameters

Type	Name	Description	Schema
Body	request <i>required</i>	request	ObmRequestBase

Responses

HTTP Code	Description	Schema
200	OK	Version
201	Created	No Content
401	Unauthorized	No Content
403	Forbidden	No Content
404	Not Found	No Content

Consumes

- `application/json`

Produces

- `application/json`

Example HTTP request

Request path

/api/1.0/server/firmware/uci/si

Request body

```
{
  "password" : "string",
  "serverAddress" : "string",
  "userName" : "string"
}
```

Example HTTP response

Response 200

```
{
  "description" : "string",
  "name" : "string",
  "version" : "string"
}
```

2.1.7. /api/1.0/server/firmware/updater

POST /api/1.0/server/firmware/updater

Description

This Webmethod kickoff firmware update job on server provided in the request body, micro service will determine and find the firmware images needed for each component required firmware update, method returns list of jobs created for each component after iDRAC server initiate LC jobs.

Parameters

Type	Name	Description	Schema
Body	request <i>required</i>	request	UpdateRequest

Responses

HTTP Code	Description	Schema
200	OK	< JobStatus > array
201	Created	No Content
401	Unauthorized	No Content
403	Forbidden	No Content
404	Not Found	No Content

Consumes

- `application/json`

Produces

- `application/json`

Example HTTP request

Request path

```
/api/1.0/server/firmware/updater
```

Request body

```
{
  "applyUpdate" : 0,
  "callback" : {
    "callbackGraph" : "string",
    "callbackUri" : "string",
    "type" : "string"
  },
  "catalogFileName" : "string",
  "mountPoint" : "string",
  "password" : "string",
  "rebootNeeded" : "string",
  "serverAddress" : "string",
  "shareAddress" : "string",
  "shareName" : "string",
  "sharePassword" : "string",
  "shareType" : 0,
  "shareUserName" : "string",
  "userName" : "string"
}
```

Example HTTP response

Response 200

```
[ {
  "description" : "string",
  "jobId" : "string",
  "message" : "string",
  "serverAddress" : "string",
  "status" : "string"
} ]
```

2.1.8. /api/1.0/server/firmware/updater/dup

POST /api/1.0/server/firmware/updater/dup

Description

This Webmethod kickoff Single DUP firmware update job on server provided in the request body, micro service will determine and find the firmware images needed for the component required firmware update, method returns list of jobs created for each component after iDRAC server initiate LC jobs.

Parameters

Type	Name	Description	Schema
Body	request <i>required</i>	request	DupRequest

Responses

HTTP Code	Description	Schema
200	OK	< JobStatus > array
201	Created	No Content
401	Unauthorized	No Content
403	Forbidden	No Content
404	Not Found	No Content

Consumes

- [application/json](#)

Produces

- [application/json](#)

Example HTTP request

Request path

/api/1.0/server/firmware/updater/dup

Request body

```
{
  "componentId" : "string",
  "fileName" : "string",
  "path" : "string",
  "serverAddress" : "string"
}
```

Example HTTP response

Response 200

```
[ {
  "description" : "string",
  "jobId" : "string",
  "message" : "string",
  "serverAddress" : "string",
  "status" : "string"
} ]
```

2.1.9. /api/1.0/server/firmware/updater/status

POST /api/1.0/server/firmware/updater/status

Description

This WebMethod retrieves recent firmware update job status for all JobIDs in request body, micro service will determine and find firmware job status on hardware device. This method returns list of jobs created on iDRAC server.

Parameters

Type	Name	Description	Schema
Body	request <i>required</i>	request	JobStatusRequest

Responses

HTTP Code	Description	Schema
200	OK	< JobStatus > array
201	Created	No Content
401	Unauthorized	No Content
403	Forbidden	No Content
404	Not Found	No Content

Consumes

- `application/json`

Produces

- `application/json`

Example HTTP request

Request path

```
/api/1.0/server/firmware/updater/status
```

Request body

```
{  
  "jobs" : [ "string" ],  
  "password" : "string",  
  "serverAddress" : "string",  
  "userName" : "string"  
}
```

Example HTTP response

Response 200

```
[ {  
  "description" : "string",  
  "jobId" : "string",  
  "message" : "string",  
  "serverAddress" : "string",  
  "status" : "string"  
} ]
```

2.1.10. `/api/1.0/server/firmware/comparer/custom`

```
POST /api/1.0/server/firmware/updater/testCallback
```

Description

This is test WebMethod, verify the callback API is valid and reachable from micro service

Parameters

Type	Name	Description	Schema
Body	request <i>required</i>	request	CallbackResponse

Responses

HTTP Code	Description	Schema
200	OK	Response
201	Created	No Content
401	Unauthorized	No Content
403	Forbidden	No Content
404	Not Found	No Content

Consumes

- `application/json`

Produces

- `/`

Example HTTP request

Request path

```
/api/1.0/server/firmware/updater/testCallback
```

Request body

```
{
  "data" : "string",
  "description" : "string",
  "id" : "string",
  "name" : "string"
}
```

Example HTTP response

Response 200

```
{
  "description" : "string",
  "id" : "string",
  "name" : "string",
  "status" : "string"
}
```

2.1.11. /api/1.0/server/firmware/version

GET /api/1.0/server/firmware/version

Description

This Webmethod returns the deployed Firmware Update microservice version

Responses

HTTP Code	Description	Schema
200	OK	Version
401	Unauthorized	No Content
403	Forbidden	No Content
404	Not Found	No Content

Consumes

- `application/json`

Produces

- `application/json`

Example HTTP request

Request path

/api/1.0/server/firmware/version

Example HTTP response

Response 200

```
{
  "description" : "string",
  "name" : "string",
  "version" : "string"
}
```

3. Definitions

3.1. ApplicableUpdate

Name	Description	Schema
deviceId <i>optional</i>	Example : "string"	string
updates <i>optional</i>	Example : ["/api/1.0/server/firmware/updater"]	< Update > array

3.2. ApplicableUpdateRequest

Name	Description	Schema
address <i>optional</i>	Example : "string"	string
catalogPath <i>optional</i>	Example : "string"	string
password <i>optional</i>	Example : "string"	string
serverAddress <i>optional</i>	Example : "string"	string
type <i>optional</i>	Example : "string"	string
updateableComponentInventory <i>optional</i>	Example : "string"	string
userName <i>optional</i>	Example : "string"	string

3.3. CallbackRequest

Name	Description	Schema
callbackGraph <i>optional</i>	Example : "string"	string

Name	Description	Schema
callbackUri <i>optional</i>	Example : "string"	string
type <i>optional</i>	Example : "string"	string

3.4. CallbackResponse

Name	Description	Schema
data <i>optional</i>	Example : "string"	string
description <i>optional</i>	Example : "string"	string
id <i>optional</i>	Example : "string"	string
name <i>optional</i>	Example : "string"	string

3.5. CatalogComparison

Name	Description	Schema
status <i>optional</i>	Example : "string"	string

3.6. CompareCatalogRequest

Name	Description	Schema
sourceCatalog <i>optional</i>	Example : "string"	string
targetCatalog <i>optional</i>	Example : "string"	string

3.7. ComputerSystem

Name	Description	Schema
collectionTime <i>optional</i>	Example : "string"	string
deviceId <i>optional</i>	Example : "string"	string
model <i>optional</i>	Example : "string"	string

Name	Description	Schema
updateableComponent <i>optional</i>	Example : ["UpdateableComponent"]	< UpdateableComponent > array

3.8. CustomRepoRequest

Name	Description	Schema
catalogFilePath <i>optional</i>	Example : "string"	string
targetFilePath <i>optional</i>	Example : "string"	string
updates <i>optional</i>	Example : ["/api/1.0/server/firmware/updater"]	< Update > array

3.9. DupRequest

Name	Description	Schema
componentId <i>optional</i>	Example : "string"	string
fileName <i>optional</i>	Example : "string"	string
path <i>optional</i>	Example : "string"	string
serverAddress <i>optional</i>	Example : "string"	string

3.10. JobStatus

Name	Description	Schema
description <i>optional</i>	Example : "string"	string
jobId <i>optional</i>	Example : "string"	string
message <i>optional</i>	Example : "string"	string
serverAddress <i>optional</i>	Example : "string"	string
status <i>optional</i>	Example : "string"	string

3.11. JobStatusRequest

Name	Description	Schema
jobs <i>optional</i>	Example : ["string"]	< string > array
password <i>optional</i>	Example : "string"	string
serverAddress <i>optional</i>	Example : "string"	string
userName <i>optional</i>	Example : "string"	string

3.12. ObmRequestBase

Name	Description	Schema
password <i>optional</i>	Example : "string"	string
serverAddress <i>optional</i>	Example : "string"	string
userName <i>optional</i>	Example : "string"	string

3.13. Response

Name	Description	Schema
description <i>optional</i>	Example : "string"	string
id <i>optional</i>	Example : "string"	string
name <i>optional</i>	Example : "string"	string
status <i>optional</i>	Example : "string"	string

3.14. SoftwareIdentity

Name	Description	Schema
buildNumber <i>optional</i>	Example : "string"	string
classifications <i>optional</i>	Example : "string"	string
componentID <i>optional</i>	Example : "string"	string

Name	Description	Schema
componentType <i>optional</i>	Example : "string"	string
description <i>optional</i>	Example : "string"	string
detailedStatus <i>optional</i>	Example : "string"	string
deviceId <i>optional</i>	Example : "string"	string
elementName <i>optional</i>	Example : "string"	string
id <i>optional</i>	Example : 0	integer (int64)
identityInfoValue <i>optional</i>	Example : "string"	string
installDate <i>optional</i>	Example : "string"	string
installationDate <i>optional</i>	Example : "string"	string
instanceID <i>optional</i>	Example : "string"	string
isEntity <i>optional</i>	Example : "string"	string
jobIdIfScheduled <i>optional</i>	Example : "string"	string
majorVersion <i>optional</i>	Example : "string"	string
manufacturer <i>optional</i>	Example : "string"	string
minorVersion <i>optional</i>	Example : "string"	string
nextVersion <i>optional</i>	Example : "string"	string
releaseDate <i>optional</i>	Example : "string"	string
revisionNumber <i>optional</i>	Example : "string"	string
revisionString <i>optional</i>	Example : "string"	string

Name	Description	Schema
serialNumber <i>optional</i>	Example : "string"	string
status <i>optional</i>	Example : "string"	string
subDeviceID <i>optional</i>	Example : "string"	string
subVendorID <i>optional</i>	Example : "string"	string
targetOSTypes <i>optional</i>	Example : "string"	string
targetOperatingSystems <i>optional</i>	Example : "string"	string
updateable <i>optional</i>	Example : true	boolean
vendorID <i>optional</i>	Example : "string"	string
versionString <i>optional</i>	Example : "string"	string

3.15. Update

Name	Description	Schema
category <i>optional</i>	Example : "string"	string
criticality <i>optional</i>	Example : "string"	string
name <i>optional</i>	Example : "string"	string
packageInformationPath <i>optional</i>	Example : "string"	string
path <i>optional</i>	Example : "string"	string
sourceName <i>optional</i>	Example : "string"	string
targetIdentifier <i>optional</i>	Example : "string"	string
uniqueIdentifier <i>optional</i>	Example : "string"	string

Name	Description	Schema
updateAction <i>optional</i>	Example : "string"	string
version <i>optional</i>	Example : "string"	string

3.16. UpdateRequest

Name	Description	Schema
applyUpdate <i>optional</i>	Example : 0	integer (int32)
callback <i>optional</i>	Example : "CallbackRequest"	CallbackRequest
catalogFileName <i>optional</i>	Example : "string"	string
mountPoint <i>optional</i>	Example : "string"	string
password <i>optional</i>	Example : "string"	string
rebootNeeded <i>optional</i>	Example : "string"	string
serverAddress <i>optional</i>	Example : "string"	string
shareAddress <i>optional</i>	Example : "string"	string
shareName <i>optional</i>	Example : "string"	string
sharePassword <i>optional</i>	Example : "string"	string
shareType <i>optional</i>	Example : 0	integer (int32)
shareUserName <i>optional</i>	Example : "string"	string
userName <i>optional</i>	Example : "string"	string

3.17. UpdateableComponent

Name	Description	Schema
componentType <i>optional</i>	Example : "string"	string
name <i>optional</i>	Example : "string"	string
targetIdentifier <i>optional</i>	Example : "string"	string

3.18. Version

Name	Description	Schema
description <i>optional</i>	Example : "string"	string
name <i>optional</i>	Example : "string"	string
version <i>optional</i>	Example : "string"	string