Testing object: device-api

Let's check our endpoints.

We have the following resources for our service:

- /api/v1/devices
- /api/v1/devices/{deviceID}



According to the Swagger UI spec we have the following requests:

GET ListDevicesV1 - List of devices

This request returns list of each devices in given pages

Code 200 - A successful response

POST CreateDeviceV1 - Create a device

Input restriction

userld: [1:9223372036854775807]

Code 200 - A successful response

Code 400 - Bad Request

```
betkin@lws: ~
betkin@lws:~$ curl -v -X 'POST'
                                    'http://localhost:8080/api/v1/devices'
                            -H 'Content-Type: application/json'
ccept: application/json'
 "platform": "ChromeOS",
"userId": "34678"
Note: Unnecessary use of -X or --request, POST is already inferred.
  Trying 127.0.0.1:8080...
 TCP_NODELAY set
* Connected to localhost (127.0.0.1) port 8080 (#0)
> POST /api/v1/devices HTTP/1.1
> Host: localhost:8080
> User-Agent: curl/7.68.0
> accept: application/json
 Content-Type: application/json
> Content-Length: 49
* upload completely sent off: 49 out of 49 bytes
 Mark bundle as not supporting multiuse
 HTTP/1.1 200 OK
< Server: nginx/1.20.2</pre>
Context Sun, 24 Apr 2022 12:41:32 GMT
< Content-Type: application/json</pre>
< Content-Length: 17
 : Connection: keep-alive
Grpc-Metadata-Content-Type: application/grpc
* Connection #0 to host localhost left intact
betkin@lws:~$
```

```
betkin@lws: ~
betkin@lws:~$ curl -v -X 'POST'
cept: application/json' -H 'Co
                                  'http://localhost:8080/api/v1/devices'
                                                                               -H 'ac
                           -H 'Content-Type: application/json'
                                                                   -d '{
 "platform": "string",
"userId": ""
Note: Unnecessary use of -X or --request, POST is already inferred.
   Trying 127.0.0.1:8080...
 TCP_NODELAY set
 Connected to localhost (127.0.0.1) port 8080 (#0)
 POST /api/v1/devices HTTP/1.1
 Host: localhost:8080
 User-Agent: curl/7.68.0
 accept: application/json
 Content-Type: application/json
 Content-Length: 42
 upload completely sent off: 42 out of 42 bytes
 Mark bundle as not supporting multiuse
 HTTP/1.1 400 Bad Request
 Server: nginx/1.20.2
 Date: Sun, 24 Apr 2022 17:16:21 GMT
 Content-Type: application/json
 Content-Length: 91
 Connection: keep-alive
 Connection #0 to host localhost left intact
"code":3,"message":"proto: (line 3:13): invalid value for uint<math>64 type: "","d
petkin@lws:~$
```

GET DescribeDeviceV1 - Describe a device

This request returns information about device{id}

Input restriction id: [1:2147483647]

Code 200 - A successful response

Code 400 - Bad Request Code 404 - Not Found

Code 500 - Internal server error

```
betkin@lws: ~
                                                            Q
betkin@lws:~$ curl -v -X 'GET'
                                 'http://localhost:8080/api/v1/devices/5'
accept: application/json'
                         ; echo
Note: Unnecessary use of -X or --request, GET is already inferred.
   Trying 127.0.0.1:8080...
 TCP NODELAY set
 Connected to localhost (127.0.0.1) port 8080 (#0)
> GET /api/v1/devices/5 HTTP/1.1
 Host: localhost:8080
 User-Agent: curl/7.68.0
 accept: application/json
* Mark bundle as not supporting multiuse
< HTTP/1.1 200 OK
< Server: nginx/1.20.2
< Date: Sun, 24 Apr 2022 17:40:26 GMT
< Content-Type: application/json
< Content-Length: 100
< Connection: keep-alive
< Grpc-Metadata-Content-Type: application/grpc
 Connection #0 to host localhost left intact
{"value":{"id":"5","platform":"Windows","userId":"52352","enteredAt":"2021-11-09
T13:53:07.152502Z"}}
betkin@lws:~$
```

```
Q
                            betkin@lws: ~
betkin@lws:~$ curl -v -X 'GET'
                           'http://localhost:8080/api/v1/devices/55555555
-H 'accept: application/json'; echo
Note: Unnecessary use of -X or --request, GET is already inferred.
   Trying 127.0.0.1:8080...
 TCP NODELAY set
 Connected to localhost (127.0.0.1) port 8080 (#0)
 Host: localhost:8080
 User-Agent: curl/7.68.0
> accept: application/json

    Mark bundle as not supporting multiuse

< HTTP/1.1 400 Bad Request
< Server: nginx/1.20.2
< Date: Sun, 24 Apr 2022 17:42:31 GMT
< Content-Type: application/json
< Content-Length: 171
< Connection: keep-alive
* Connection #0 to host localhost left intact
{"code":3,"message":"type mismatch, parameter: device_id, error: strconv.ParseUi
etails":[]}
betkin@lws:~$
```

```
betkin@lws: ~
                                                            Q
betkin@lws:~$ curl -v -X 'GET'
                                 'http://localhost:8080/api/v1/devices/33'
                                                                               -H
'accept: application/json'; echo
Note: Unnecessary use of -X or --request, GET is already inferred.
   Trying 127.0.0.1:8080...
 TCP_NODELAY set
 Connected to localhost (127.0.0.1) port 8080 (#0)
> GET /api/v1/devices/33 HTTP/1.1
> Host: localhost:8080
User-Agent: curl/7.68.0
> accept: application/json
* Mark bundle as not supporting multiuse
< HTTP/1.1 404 Not Found
< Server: nginx/1.20.2
< Date: Sun, 24 Apr 2022 18:32:50 GMT
< Content-Type: application/json
< Content-Length: 52
< Connection: keep-alive
* Connection #0 to host localhost left intact
{"code":5,"message":"device not found","details":[]}
betkin@lws:~$
```

```
Q
                                      betkin@lws: ~
                                                                                 Connection #0 to host localhost left intact
 "code":5,"message":"device not found","details":[]}
etkin@lws:~$ curl -v -X 'GET' 'http://localhost:8
                                    'http://localhost:8080/api/v1/devices/214748364
     -H 'accept: application/json'; echo
Note: Unnecessary use of -X or --request, GET is already inferred.
   Trying 127.0.0.1:8080...
  TCP NODELAY set
 Connected to localhost (127.0.0.1) port 8080 (#0)
 GET /api/v1/devices/2147483648 HTTP/1.1
 Host: localhost:8080
> User-Agent: curl/7.68.0
> accept: application/json
 Mark bundle as not supporting multiuse
HTTP/1.1 500 Internal Server Error
< Server: nginx/1.20.2
< Date: Sun, 24 Apr 2022 17:50:03 GMT
< Content-Type: application/json
< Content-Length: 86
  Connection: keep-alive
  Connection #0 to host localhost left intact
 code":13,"message":"2147483648 is greater than maximum value for Int4","detail"
  :[]}
  tkin@lws:~$
```

DELETE RemoveDeviceV1 - Remove a device

This request removes device{id}

Input restriction id: [1:2147483647]

Code 200 - A successful response (if we have ""found": true" in response' body!!!)
Code 400 - Bad Request

Code 500 - Internal Server Error

```
betkin@lws: ~
                                                                           {"found":false}betkin@lws:~$ curl -v -X 'DELETE' 'http://localhost:8080/api/v1/d
                     -H 'accept: application/json'; echo
evices/2147483647'
    Trying 127.0.0.1:8080...
 TCP_NODELAY set
 Connected to localhost (127.0.0.1) port 8080 (#0)
 DELETE /api/v1/devices/2147483647 HTTP/1.1
> Host: localhost:8080
> User-Agent: curl/7.68.0
> accept: application/json

    Mark bundle as not supporting multiuse

< HTTP/1.1 200 OK
< Server: nginx/1.20.2
< Date: Sun, 24 Apr 2022 18:40:45 GMT
 Content-Type: application/json
< Content-Length: 15
< Connection: keep-alive
< Grpc-Metadata-Content-Type: application/grpc
* Connection #0 to host localhost left intact
{"found":false}
petkin@lws:~$
```

```
betkin@lws: ~
                                                           Q
betkin@lws:~$ curl -v -X 'DELETE' 'http://localhost:8080/api/v1/devices/21474836
  -H 'accept: application/json'; echo
   Trying 127.0.0.1:8080...
 TCP_NODELAY set
 Connected to localhost (127.0.0.1) port 8080 (#0)
 DELETE /api/v1/devices/2147483647 HTTP/1.1
 Host: localhost:8080
 User-Agent: curl/7.68.0
 accept: application/json
 Mark bundle as not supporting multiuse
 HTTP/1.1 200 OK
 Server: nginx/1.20.2
 Date: Sun, 24 Apr 2022 18:49:56 GMT
< Content-Type: application/json
< Content-Length: 15
< Connection: keep-alive
< Grpc-Metadata-Content-Type: application/grpc
* Connection #0 to host localhost left intact
{"found":false}
 etkin@lws:~$
```

```
Ħ
                               betkin@lws: ~
                                                     Q
betkin@lws:~$ curl -v -X 'DELETE' 'http://localhost:8080/api/v1/devices/21474836
-H 'accept: application/json'; echo
   Trying 127.0.0.1:8080...
 TCP NODELAY set
 Connected to localhost (127.0.0.1) port 8080 (#0)
 Host: localhost:8080
 User-Agent: curl/7.68.0
 accept: application/json
 Mark bundle as not supporting multiuse
 HTTP/1.1 400 Bad Request
 Server: nginx/1.20.2
< Date: Sun, 24 Apr 2022 18:52:03 GMT
< Content-Type: application/json
 Content-Length: 162
 Connection: keep-alive
* Connection #0 to host localhost left intact
{"code":3,"message":"type mismatch, parameter: device_id, error: strconv.ParseUi
nt: parsing \"2147483647999999999999999999\": value out of range","details":[
]}
betkin@lws:~$
```

```
betkin@lws: ~
etkin@lws:~$ curl -v -X 'DELETE' 'http://localhost:8080/api/v1/devices/21474836
     -H 'accept: application/json'
   Trying 127.0.0.1:8080...
 TCP_NODELAY set
 Connected to localhost (127.0.0.1) port 8080 (#0)
 DELETE /api/v1/devices/2147483648 HTTP/1.1
Host: localhost:8080
> User-Agent: curl/7.68.0
accept: application/json
* Mark bundle as not supporting multiuse
< HTTP/1.1 500 Internal Server Error
Server: nginx/1.20.2
Conte: Sun, 24 Apr 2022 18:48:44 GMT
Content-Type: application/json
 Content-Length: 86
< Connection: keep-alive
 Connection #0 to host localhost left intact
code":13,"me<u>s</u>sage":"2147483648 is greater than maximum value for Int4","detail"
petkin@lws:~$
```

PUT UpdateDeviceV1 - Update a device

This request update device{id}

```
Input restriction id: [1:2147483647]
```

Code 200 - A successful response (if we have ""found": true" in response' body!!!)

Code 400 - Bad Request

Code 500 - Internal Server Error

```
betkin@lws: ~
                                                             Q
betkin@lws:~$ curl -v -X 'PUT'
                                  'http://localhost:8080/api/v1/devices/24'
                                                                               -H
'accept: application/json' -H 'Content-Type: application/json' -d '{
 "platform": "NewDigitalOS", "userId": "35"
}'; echo
   Trying 127.0.0.1:8080...
* TCP NODELAY set
* Connected to localhost (127.0.0.1) port 8080 (#0)
> PUT /api/v1/devices/24 HTTP/1.1
> Host: localhost:8080
> User-Agent: curl/7.68.0
> accept: application/json
> Content-Type: application/json
> Content-Length: 50
* upload completely sent off: 50 out of 50 bytes
* Mark bundle as not supporting multiuse
< HTTP/1.1 200 OK
< Server: nginx/1.20.2
< Date: Sun, 24 Apr 2022 19:08:01 GMT
< Content-Type: application/json
< Content-Length: 16
< Connection: keep-alive
< Grpc-Metadata-Content-Type: application/grpc
* Connection #0 to host localhost left intact
{"success":true}
betkin@lws:~$
```

```
betkin@lws: ~
                                                                   Q
  tkin@lws:~$ curl -v -X 'PUT' 'http://localhost:8080/api/v1/devices/214748364;
-H 'accept: application/json' -H 'Content-Type: application/json' -d '{
betkin@lws:~$ curl -v -X 'PUT'
  "platform": "NewDigitalOS",
  "userId": "35"
}'; echo
   Trying 127.0.0.1:8080...
* TCP_NODELAY set
 Connected to localhost (127.0.0.1) port 8080 (#0)
> PUT /api/v1/devices/2147483647 HTTP/1.1
> Host: localhost:8080
> User-Agent: curl/7.68.0
> accept: application/json
> Content-Type: application/json
> Content-Length: 50
* upload completely sent off: 50 out of 50 bytes
* Mark bundle as not supporting multiuse
< HTTP/1.1 200 OK
< Server: nginx/1.20.2
< Date: Sun, 24 Apr 2022 19:11:30 GMT
< Content-Type: application/json
< Content-Length: 17
< Connection: keep-alive
< Grpc-Metadata-Content-Type: application/grpc
* Connection #0 to host localhost left intact
{"success":false}
 etkin@lws:~$
```

```
betkin@lws: ~
                                                                  Q
                                    'http://localhost:8080/api/v1/devices/214748364
' -H 'Content-Type: application/json' -d '{
betkin@lws:~$ curl -v -X 'PUT'
    -H 'accept: application/json'
  "platform": "NewDigitalOS",
  "userId": "35"
}'; echo
    Trying 127.0.0.1:8080...
* TCP_NODELAY set
* Connected to localhost (127.0.0.1) port 8080 (#0)
> PUT /api/v1/devices/2147483648 HTTP/1.1
> Host: localhost:8080
> User-Agent: curl/7.68.0
> accept: application/json
> Content-Type: application/json
> Content-Length: 50
* upload completely sent off: 50 out of 50 bytes
* Mark bundle as not supporting multiuse
< HTTP/1.1 500 Internal Server Error
< Server: nginx/1.20.2
< Date: Sun, 24 Apr 2022 19:12:43 GMT
< Content-Type: application/json
< Content-Length: 86
< Connection: keep-alive
* Connection #0 to host localhost left intact
["code":13,"message":"2147483648 is greater than maximum value for Int4","detail
s":[]}
etkin@lws:~$
```

```
betkin@lws: ~
                                    'http://localhost:8080/api/v1/devices/24'
oetkin@lws:~$ curl -v -X 'PUT'
-H 'accept: application/json'
                                   -H 'Content-Type: application/json'
  "platform": "NewDigitalOS",
"userId": "9223372036854775808"
}'; echo
    Trying 127.0.0.1:8080...
* TCP_NODELAY set
* Connected to localhost (127.0.0.1) port 8080 (#0)
> PUT /api/v1/devices/24 HTTP/1.1
> Host: localhost:8080
> User-Agent: curl/7.68.0
> accept: application/json
Content-Type: application/json
Content-Length: 67
* upload completely sent off: 67 out of 67 bytes
* Mark bundle as not supporting multiuse
< HTTP/1.1 500 Internal Server Error
< Server: nginx/1.20.2
< Date: Sun, 24 Apr 2022 19:23:07 GMT
Content-Type: application/json
< Content-Length: 95
< Connection: keep-alive
* Connection #0 to host localhost left intact
{"code":13,"message":"9223372036854775808 is greater than maximum value for I nt8","details":[]}
betkin@lws:~$
```

```
Q
                                   betkin@lws: ~
{"success":true}
betkin@lws:~$ curl -v -X 'PUT'
                                  'http://localhost:8080/api/v1/devices/24'
-H 'accept: application/json'
                                 -H 'Content-Type: application/json'
 "platform": "NewDigitalOS", "userId": ""
}'; echo
   Trying 127.0.0.1:8080...
 TCP_NODELAY set
 Connected to localhost (127.0.0.1) port 8080 (#0)
 PUT /api/v1/devices/24 HTTP/1.1
> Host: localhost:8080
> User-Agent: curl/7.68.0
 accept: application/json
 Content-Type: application/json
 Content-Length: 48
* upload completely sent off: 48 out of 48 bytes
* Mark bundle as not supporting multiuse
< HTTP/1.1 400 Bad Request
< Server: nginx/1.20.2
< Date: Sun, 24 Apr 2022 19:32:56 GMT
< Content-Type: application/json
< Content-Length: 91
< Connection: keep-alive
* Connection #0 to host localhost left intact
{"code":3,"message":"proto: (line 3:13): invalid value for uint64 type: \"\"","details":[]}_
 etkin@lws:~$
```

Results of the research tour

We have tested the basic functionality of the service. No critical or blocker bugs found.

There is a mismatch between the actual and declared data types for the **id** field. The range of valid values for this field is from 1 to 2147483647.