



Script to add a node license

ONTAP Select

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You can use the following script to add a license for an ONTAP Select node.

```
1 #!/usr/bin/env python
2 ##-----
3 #
4 # File: add_license.py
5 #
6 # (C) Copyright 2019 NetApp, Inc.
7 #
8 # This sample code is provided AS IS, with no support or warranties of
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10 # or fitness of any kind, expressed or implied. Permission to use,
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15 # that the software application product is distributed pursuant to terms
16 # no less restrictive than those set forth herein.
17 #
18 ##-----
19
20 import argparse
21 import logging
22 import json
23
24 from deploy_requests import DeployRequests
25
26
27 def post_new_license(deploy, license_filename):
28     log_info('Posting a new license: {}'.format(license_filename))
29
30     # Stream the file as multipart/form-data
31     deploy.post('/licensing/licenses', data={},
32                files={'license_file': open(license_filename, 'rb')})
33
34     # Alternative if the NLF license data is converted to a string.
35     # with open(license_filename, 'rb') as f:
36     #     nlf_data = f.read()
37     #     r = deploy.post('/licensing/licenses', data={},
38     #                     files={'license_file': (license_filename, nlf_data)})
39
40
41 def put_license(deploy, serial_number, data, files):
42     log_info('Adding license for serial number: {}'.format(serial_number))
```

```

43
44     deploy.put('/licensing/licenses/{}'.format(serial_number), data=data, files=
files)
45
46
47 def put_used_license(deploy, serial_number, license_filename, ontap_username,
ontap_password):
48     ''' If the license is used by an 'online' cluster, a username/password must be
given. '''
49
50     data = {'ontap_username': ontap_username, 'ontap_password': ontap_password}
51     files = {'license_file': open(license_filename, 'rb')}
52
53     put_license(deploy, serial_number, data, files)
54
55
56 def put_free_license(deploy, serial_number, license_filename):
57     data = {}
58     files = {'license_file': open(license_filename, 'rb')}
59
60     put_license(deploy, serial_number, data, files)
61
62
63 def get_serial_number_from_license(license_filename):
64     ''' Read the NLF file to extract the serial number '''
65     with open(license_filename) as f:
66         data = json.load(f)
67
68         statusResp = data.get('statusResp', {})
69         serialNumber = statusResp.get('serialNumber')
70         if not serialNumber:
71             log_and_exit("The license file seems to be missing the serialNumber")
72
73         return serialNumber
74
75
76 def log_info(msg):
77     logging.getLogger('deploy').info(msg)
78
79
80 def log_and_exit(msg):
81     logging.getLogger('deploy').error(msg)
82     exit(1)
83
84
85 def configure_logging():
86     FORMAT = '%(asctime)-15s:%(levelname)s:%(name)s: %(message)s'
87     logging.basicConfig(level=logging.INFO, format=FORMAT)

```

```

88     logging.getLogger('requests.packages.urllib3.connectionpool').setLevel(logging
    .WARNING)
89
90
91 def main(args):
92     configure_logging()
93     serial_number = get_serial_number_from_license(args.license)
94
95     deploy = DeployRequests(args.deploy, args.password)
96
97     # First check if there is already a license resource for this serial-number
98     if deploy.find_resource('/licensing/licenses', 'id', serial_number):
99
100         # If the license already exists in the Deploy server, determine if its used
101         if deploy.find_resource('/clusters', 'nodes.serial_number', serial_number):
102
103             # In this case, requires ONTAP creds to push the license to the node
104             if args.ontap_username and args.ontap_password:
105                 put_used_license(deploy, serial_number, args.license,
106                                args.ontap_username, args.ontap_password)
107             else:
108                 print "ERROR: The serial number for this license is in use. Please
provide ONTAP credentials."
109             else:
110                 # License exists, but its not used
111                 put_free_license(deploy, serial_number, args.license)
112         else:
113             # No license exists, so register a new one as an available license for later
use
114             post_new_license(deploy, args.license)
115
116
117 def parseArgs():
118     parser = argparse.ArgumentParser(description='Uses the ONTAP Select Deploy API to
add or update a new or used NLF license file.')
119     parser.add_argument('-d', '--deploy', required=True, type=str, help='Hostname or
IP address of ONTAP Select Deploy')
120     parser.add_argument('-p', '--password', required=True, type=str, help='Admin
password of Deploy server')
121     parser.add_argument('-l', '--license', required=True, type=str, help='Filename of
the NLF license data')
122     parser.add_argument('-u', '--ontap_username', type=str,
123                        help='ONTAP Select username with privelege to add the
license. Only provide if the license is used by a Node.')
124     parser.add_argument('-o', '--ontap_password', type=str,
125                        help='ONTAP Select password for the ontap_username. Required
only if ontap_username is given.')
126     return parser.parse_args()

```

```
127
128 if __name__ == '__main__':
129     args = parseArgs()
130     main(args)
```

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