Network Automation SDON LAB

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- Run the SDON.py file

- Choose a network element, and click the 'Find ltp' button.

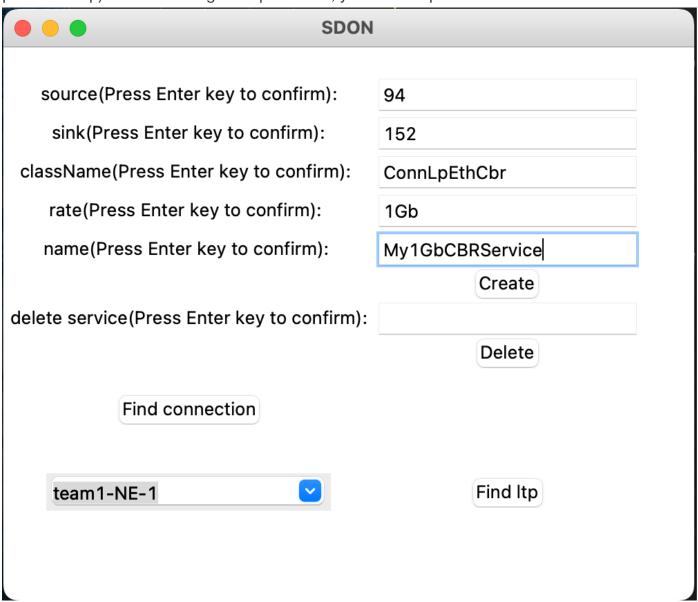57 ·····················"name": name,
58 ·····················"protection": False

SDON

source(Press Enter key to confirm):
sink(Press Enter key to confirm):
className(Press Enter key to confirm):
rate(Press Enter key to confirm):
name(Press Enter key to confirm):

Create

delete service(Press Enter key to confirm):

Delete

Find connection

team1-NE-1   ⌄   Find ltp

84 ····with ctx.cd('NA-projects'):

[zhang@zhangdeMacBook-Pro ~ % python3 /Users/zhang/SDON.py
/Library/Frameworks/Python.framework/Versions/3.7/Resources/Python.app/Contents/MacOS/Python: can't open file '/Users/zhan
g/SDON.py': [Errno 2] No such file or directory
zhang@zhangdeMacBook-Pro ~ % python3 /Users/zhang/network\ automation\ project/SDON.py
[% Total   % Received % Xferd Average Speed   Time   Time   Time Current
                                  Dload Upload   Total   Spent   Left Speed
100 17574   0 17574   0   0   151k   0 --:--:-- --:--:-- --:--:-- 151k
  % Total   % Received % Xferd Average Speed   Time   Time   Time Current
                                  Dload Upload   Total   Spent   Left Speed
100 5300   0   0 100 5300   0 98148 --:--:-- --:--:-- --:--:-- 98148
    0   0   0   0   0   0   0 --:--:-- --:--:-- --:--:--   0
100 66577 100 66577   0   0 94035   0 --:--:-- --:--:-- --:--:-- 32.5M
https://10.79.23.42/onc/ltp?ltpType==physical&ne.name==team1-NE-1&select(id,name)
  % Total   % Received % Xferd Average Speed   Time   Time   Time Current
                                  Dload Upload   Total   Spent   Left Speed
100 3517 100 3517   0   0   149k   0 --:--:-- --:--:-- --:--:-- 149k
[{"name":"OTU2x-1-1-4","className":"Ltp","id":70},{"name":"OPS-3-1-24-C22","className":"Ltp","id":30},{"name":"OPS-3-1-3-C
23","className":"Ltp","id":31},{"name":"OTU2x-1-2-1","className":"Ltp","id":71},{"name":"OPS-3-1-25-C24","className":"Ltp"
,"id":32},{"name":"OPS-3-1-4-C25","className":"Ltp","id":33},{"name":"OGBE10-1-2-7","className":"Ltp","id":72},{"name":"OP
S-3-1-26-C26","className":"Ltp","id":34},{"name":"OPS-3-1-5-C27","className":"Ltp","id":35},{"name":"OGBE1-1-2-11","classN
ame":"Ltp","id":73},{"name":"OPS-3-1-27-C28","className":"Ltp","id":36},{"name":"OPS-3-1-6-C29","className":"Ltp","id":37}
,{"name":"OGBE1-1-1-11","className":"Ltp","id":74},{"name":"OPS-3-1-28-C30","className":"Ltp","id":38},{"name":"OGBE10-1-1
-5","className":"Ltp","id":75},{"name":"OPS-3-1-7-C31","className":"Ltp","id":39},{"name":"OPS-3-1-29-C32","className":"Lt
p","id":40},{"name":"OGBE10-1-2-8","className":"Ltp","id":76},{"name":"OPS-3-1-8-C33","className":"Ltp","id":41},{"name":"
OGBE10-1-1-6","className":"Ltp","id":77},{"name":"OPS-3-1-30-C34","className":"Ltp","id":42},{"name":"OPS-3-1-9-C35","clas
sName":"Ltp","id":43},{"name":"OGBE1-1-2-9","className":"Ltp","id":78},{"name":"OPS-3-1-31-C36","className":"Ltp","id":44}
,{"name":"OGBE1-1-1-10","className":"Ltp","id":79},{"name":"OPS-3-1-10-C37","className":"Ltp","id":45},{"name":"OPS-3-1-2-
C21","className":"Ltp","id":29},{"name":"OPS-3-1-32-C38","className":"Ltp","id":46},{"name":"OPS-3-1-11-C39","className":"
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me":"OPS-3-1-34-C42","className":"Ltp","id":50},{"name":"OGBE1-1-2-14","className":"Ltp","id":80},{"name":"OPS-3-1-13-C43"
,"className":"Ltp","id":51},{"name":"OPS-3-1-35-C44","className":"Ltp","id":52},{"name":"OGBE1-1-2-10","className":"Ltp","
id":81},{"name":"OPS-3-1-14-C45","className":"Ltp","id":53},{"name":"OTU2x-1-2-2","className":"Ltp","id":82},{"name":"OPS-
3-1-36-C46","className":"Ltp","id":54},{"name":"OPS-3-1-15-C47","className":"Ltp","id":55},{"name":"OPS-3-1-42-C58","class
Name":"Ltp","id":66},{"name":"OTU2x-1-2-4","className":"Ltp","id":83},{"name":"OGBE1-1-2-13","className":"Ltp","id":84},{"

- Enter the parameters for creating the service and click 'Create' (you can find the id of ltp in the previous step). When entering each parameter, you need to press Enter to confirm.

SDON

source(Press Enter key to confirm): 94

sink(Press Enter key to confirm): 152

className(Press Enter key to confirm): ConnLpEthCbr

rate(Press Enter key to confirm): 1Gb

name(Press Enter key to confirm): My1GbCBRService

Create

delete service(Press Enter key to confirm):

Delete

Find connection

team1-NE-1   ⌄   Find ltp

```
The input source is  94
The input sink is  152
class name is  ConnLpEthCbr
rate is  1Gb
name is  My1GbCBRService
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 17574     0 17574    0     0   147k      0 --:--:-- --:--:-- --:--:--  147k
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100  5300     0     0  100  5300     0   117k --:--:-- --:--:-- --:--:--  117k
  0     0     0     0    0     0     0     0 --:--:-- --:--:-- --:--:--     0
100 66577  100 66577    0     0  96628     0 --:--:-- --:--:-- --:--:-- 31.7M
parameters:  94 152 ConnLpEthCbr 1Gb My1GbCBRService
command: curl -k -b cookie.curl -XPOST -H "Content-Type: application/json" -d '{"className": "Connection", "connEndPoints"
: [{"className": "ConnEndPoint", "ltp": {"className": "Ltp", "id": "94"}, "endType": "source"}, {"className": "ConnEndPoin
t", "ltp": {"className": "Ltp", "id": "152"}, "endType": "sink"}], "routingCriteria": "byLength", "sncpInfo": {"holdOffTim
e": 0, "revertive": true, "sncpType": "sncp_i", "wtrTime": 300}, "connLps": [{"className": "ConnLpEthCbr", "rate": "1Gb"}]
, "configurationState": "implemented", "hierarchicalLevel": "service", "name": "My1GbCBRService", "protection": false}' "h
ttps://10.79.23.42/onc/connection"
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100  3380  100  2853  100   527   726    134  0:00:03  0:00:03 --:--:--   860
{"id":53,"adminSt":{"control":"unlock","state":"unlocked"},"administrativeCost":0,"alarmMode":"monitored","alarmSummary":{
"critical":0,"lastAlarmDate":null,"major":0,"minor":0,"status":"cleared","warning":0},"configurationState":"pendingimpleme
nt","connDomain":"internalTerminated","connGroup":null,"connLength":505,"creationType":"manual","customer":null,"extConnec
tionId":null,"extendedAlarmMode":"notMonitored","hierarchicalLevel":"service","hopCount":3,"mspProtectionRole":"notApplica
ble","name":"My1GbCBRService","operationalState":"disabled","otnGroup":null,"pm":{"cd15m":"disabled","cd24h":"disabled","c
d24hBid":"disabled"},"pmClient":{"cd15m":"disabled","cd24h":"disabled","cd24hBid":"disabled"},"pmode":{"current":null,"pro
visioned":"automatic"},"protection":false,"srgPolicy":null,"srgs":[],"tag":null,"teRule":null,"teRuleMatching":null,"topmo
stLayerRate":"ETH_CBR_1_GB","tti":"disabled","type":"connection","workingState":"normal","connAliasId":51,"connAlias":null
,"asapSelectionProfileId":1,"asapSelectionProfile":null,"tcaTranspProfile15Id":1,"tcaTranspProfile15":null,"tcaTranspProfi
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er":null,"neInternal":false,"planningType":null,"preferredSncpType":"sncp_n","routeSearch":null,"routingCriteria":"byLengt
h","serverChannel":"--","sncpInfo":{"holdOffTime":0,"revertive":true,"sncpType":"sncp_n","status":"noRequest","wtrTime":30
0},"usedForDcn":"no","nominalRouteId":null,"nominalRoute":null,"sourceYCableInfoId":null,"sourceYCableInfo":null,"sinkYCab
leInfoId":null,"sinkYCableInfo":null,"aggrClient":null,"serviceTree":null,"fCs":null,"ownedLinks":null,"connEndPoints":nul
l,"routeConstrSets":null,"ownedRoutes":null,"serviceSegments":null,"connectionInMeteringChains":null,"clientServiceEndPoin
ts":null,"periodRateCountersStatses":null,"dailyRateCountersStatses":null,"spureAConnections":null,"spureZConnections":nul
l,"topologies":null,"pktVsis":null,"xconns":null,"className":"Connection","log":{"creationTime":"2023-09-18T10:41:24.744+0
000","modificationTime":"2023-09-18T10:41:28.107+0000"},"connLpOtses":null,"connLpOches":null,"tdmChannelses":null,"connLp
Vcs":null,"pktChannelses":null,"connLpEths":null,"connLpEvcs":null,"connLpOtus":null,"connLpPdhs":null,"connLpMaus":null,"
connLpOdus":null,"connLpOpses":null,"connLpEties":null,"connLpLags":null,"fiberChannelses":null,"connLpFibers":null,"connL
pOmses":null,"connLpEthCbrs":null,"connLpRses":null,"connLpMses":null,"connLpGfps":null,"connLpEthTags":null,"connLpEpis":
null,"connLpFcs":null,"connLpMplsIfs":null,"connLpMplsTus":null,"connLpMplsPws":null,"connLpTeties":null,"transportTtiSdhs
":null,"transportTtiOtns":null,"channels":null}
```

- Click 'Find connection' to see existing services, and A service can be deleted by its id.

```
connLpOdus":null,"connLpOpses":null,"connLpEties":null,"connLpLags":null,"fiberChannelses":null,"co
pOmses":null,"connLpEthCbrs":null,"connLpRses":null,"connLpMses":null,"connLpGfps":null,"connLpEthT
null,"connLpFcs":null,"connLpMplsIfs":null,"connLpMplsTus":null,"connLpMplsPws":null,"connLpTeties"
":null,"transportTtiOtns":null,"channels":null}The id of the connection to be deleted is  56
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 17574     0 17574    0     0   490k      0 --:--:-- --:--:-- --:--:--  490k
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100  5300     0     0  100  5300     0   120k --:--:-- --:--:-- --:--:--  120k
  0     0     0     0    0     0     0     0 --:--:-- --:--:-- --:--:--     0
100 66577  100 66577    0     0  96209     0 --:--:-- --:--:-- --:--:--  132k
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
  0     0     0     0    0     0     0     0 --:--:--  0:00:02 --:--:--     0
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 17574     0 17574    0     0   490k      0 --:--:-- --:--:-- --:--:--  490k
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100  5300     0     0  100  5300     0   107k --:--:-- --:--:-- --:--:--  107k
  0     0     0     0    0     0     0     0 --:--:-- --:--:-- --:--:--     0
100 66577  100 66577    0     0  94974     0 --:--:-- --:--:-- --:--:-- 94974
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100     2  100     2    0     0    86      0 --:--:-- --:--:-- --:--:--    86
[][]
```