

Creating Manual Routes on the EXE/IPX from SDVN

There are a few cases where manually routing is necessary. These include, routing PCR, Syslog, NAT, etc. Routing should be done using the synergy protocol from your Magnum unit so that the index range (channel) can be controlled. Magnum will not override any index set over 1000. There are two ways you can manually route from SDVN; the first method is directly from the command line, the second is by writing the commands to a file and then running a command pointing to that file. If multiple routes are needed it is advised that they be written into a script so that it can be used to quickly recover routes when necessary.

Information needed before making the manual routes:

1. **Device IP:** This is the control IP address of either the EXE or the IPX.
2. **Device Port Number:** To locate this value open the Device general page in the Devices and Links app. Check the port number associated with either the EXE or the IPX.
3. **Input Port:** This is the port on the EXE/IPX where the multicast is entering into the core.
4. **Input Channel Number:** The Input channel can be any available value between 1000 and 1024 so that is not overwritten by Magnum. To find out which channels are available open the EXE/IPX app and look for input stream number.
5. **Destination IP:** This is the multicast that is to be routed.
6. **SSM_IP:** The Source Specific Multicast IP is the IP given to the data port the Multicast is coming from. This value is not used for video/audio multicast routing.
7. **Output Port:** This is the port on the EXE/IPX where the multicast will be routed to.
8. **Output Channel:** The Output channel can be any available value. To find out which channels are available open the EXE/IPX app and look for input stream number.

Putty into Magnum SDVN cluster:

1. Making the route from the Command Line Interface.

- a. Setting up the multicast

- i. For EXE route:

```
/opt/magnum-driver-service/bin/synergy_cli -i <device_ip> -p  
<device_port_number> "setSourceTableListEntries([(input_port,<br><input_chan>, '<destination_ip>', '<ssm_ip>', <bitrate>)])"
```

Example:

```
/opt/magnum-driver-service/bin/synergy_cli -i 192.168.0.70 -p 9672  
"setSourceTableListEntries([(1,1005, '239.239.239.2', '0.0.0.0',1000)])"
```

- ii. For IPX route (*NOTE: The IPX does not utilize bitrate information for manual routing*):

```
/opt/magnum-driver-service/bin/synergy_cli -i <device_ip> -p  
<device_port_number> "setSourceTableListEntries([(input_port,<br><input_chan>, '<destination_ip>', '<ssm_ip>')])"
```

Example:

```
/opt/magnum-driver-service/bin/synergy_cli -i 192.168.0.70 -p 9672  
"setSourceTableListEntries([(1,1005,'239.239.239.2','0.0.0.0')])"
```

b. Making the route

- i. The same command is used for making the route through the EXE or IPX

```
/opt/magnum-driver-service/bin/synergy_cli -i <device_ip> -p  
<device_port_number> "setRedundantCrosspoint([( <output_port>,  
<output_chan>, ( <input_port>, <input_chan>, 0, 0) )"
```

Example:

```
/opt/magnum-driver-service/bin/synergy_cli -i 192.168.0.70 -p 9672  
"setRedundantCrosspoint(5,100,1,1005,0,0) "
```

2. Making the routes using a file

- a. Use the following format when writing the commands to file, remember to omit bitrate information if routing to an IPX:

```
call('setSourceTableListEntries', [( <input_port>, <input_chan>,  
'<destination_ip>', '<ssm_ip>', <bitrate>)])  
call('setRedundantCrosspoint', <output_port>, <output_chan>,  
<input_port>, <input_chan>, 0, 0)
```

Example:

```
call('setSourceTableListEntries', [(1,1005,'239.239.239.3', '0.0.0.0')])  
call('setRedundantCrosspoint', 2, 1005, 1, 1006, 0, 0)
```

- b. Save file as a txt file
c. WinSCP file into Magnum SDVN
d. Run the following command to use the file to make the route

```
/opt/magnum-driver-service/bin/synergy_cli -i <device_IP> -p  
<device_port_number> -f <filename.txt>
```