Infra-Test Mapping to Use-Cases

- Infra-Test #1: Dept-to-Dept/Campus Core
  - File Xfer, DSCR Cloud Bursting, User Bursting into DSCR
  - Control Case
- Infra-Test #2: Dept-to-Dept/Expressway Links
  - File Xfer, DSCR Cloud Bursting, User Bursting into DSCR, Data Expressways
  - #2B: Multiple Expressway "Hops"
- Infra-Test #3: Dept-to-External/Campus Core
  - Science DMZ
- Infra-Test #4: Dept-to-External/ Expressway Links
  - Science DMZ
- Infra-Test #5: Dept-to-Dept/Campus Core/ OF "Overload"
  - As with #1, but what if OF controller sends too many requests per sec
- Infra-Test #6: Dept-to-Dept/Expressway Links/OF "Intervention"
  - As with #2, but what if OF controller needs to see every packet

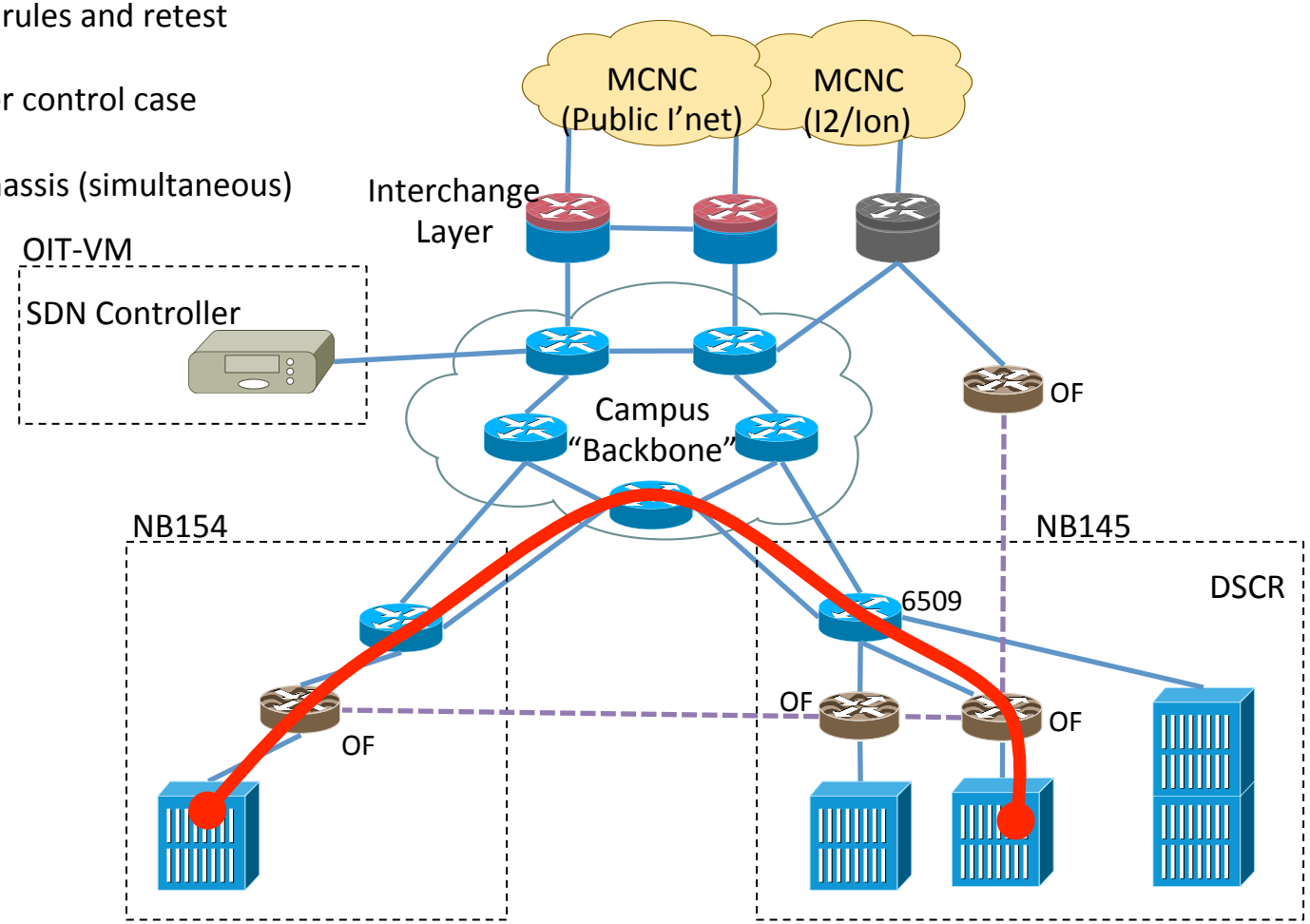
Infra-Test 1: Dept-to-Dept/Campus Core

Data goes thru OF switch onto campus-core
Off campus-core into next OF switch

File xfer and TCP tests
Increase number of OF rules and retest

Disable OF on switch for control case

Can expand test to 3 chassis (simultaneous)

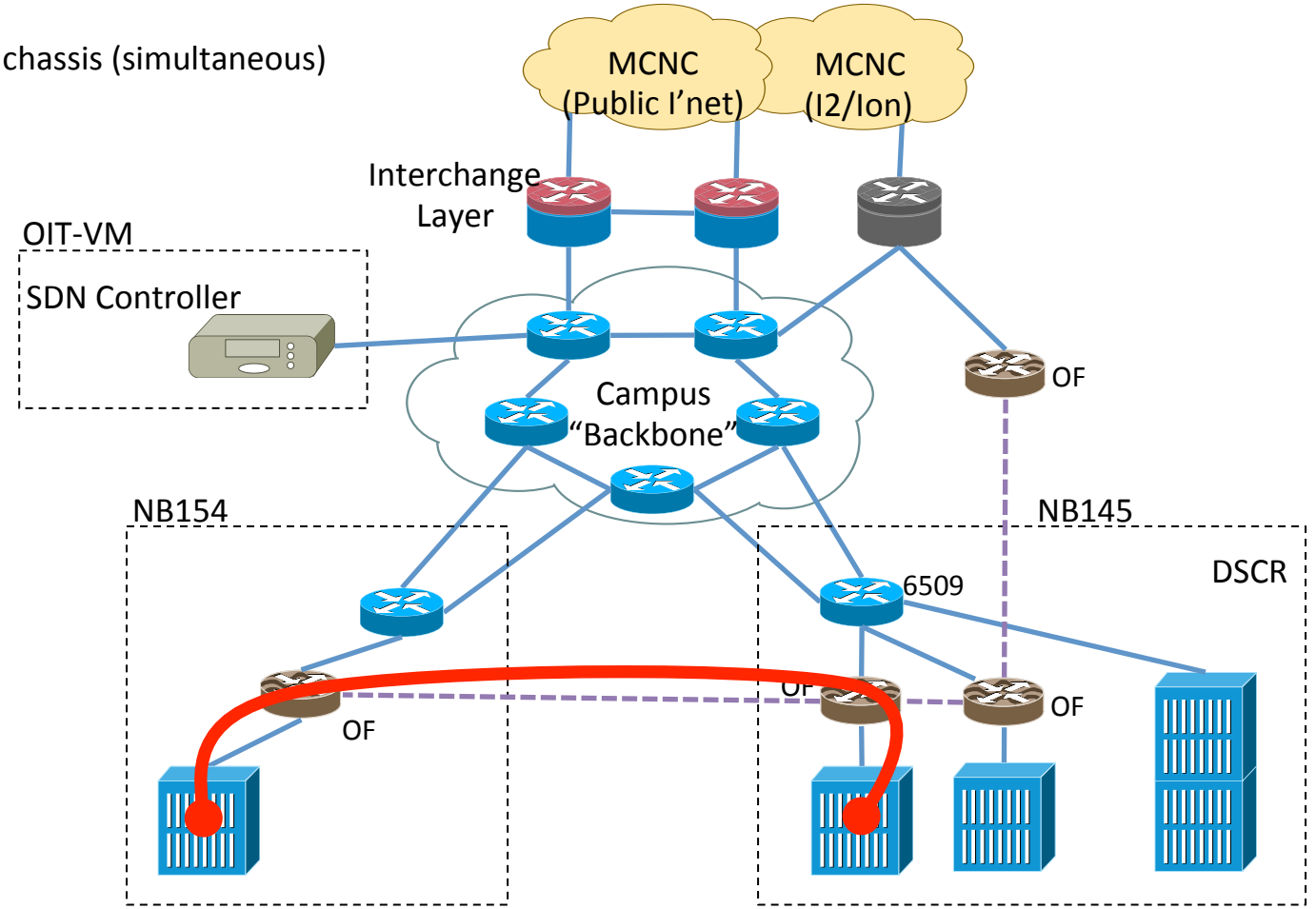


Infra-Test 2: Dept-to-Dept/Expressway Link

Data goes thru OF switch directly to next OF Switch

File xfer and TCP tests
Increase number of OF rules and retest

Can expand test to 3 chassis (simultaneous)

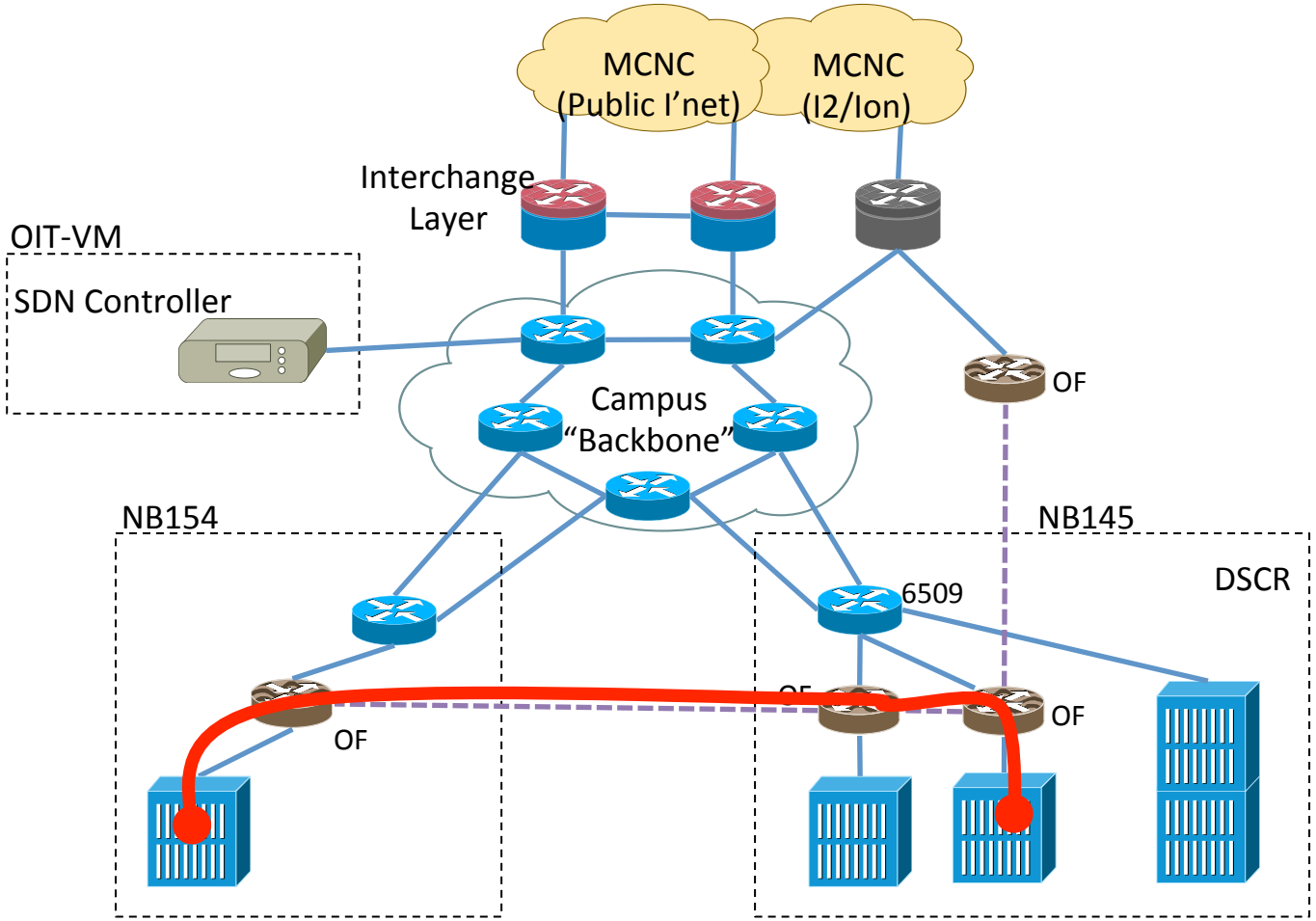


Infra-Test 2b: Dept-to-Dept/Expressway Link

Data goes thru OF switch through another OF Switch before arriving at destination OF switch

… more of a controller test, can it track network architecture, not just IP-addrs/end-points

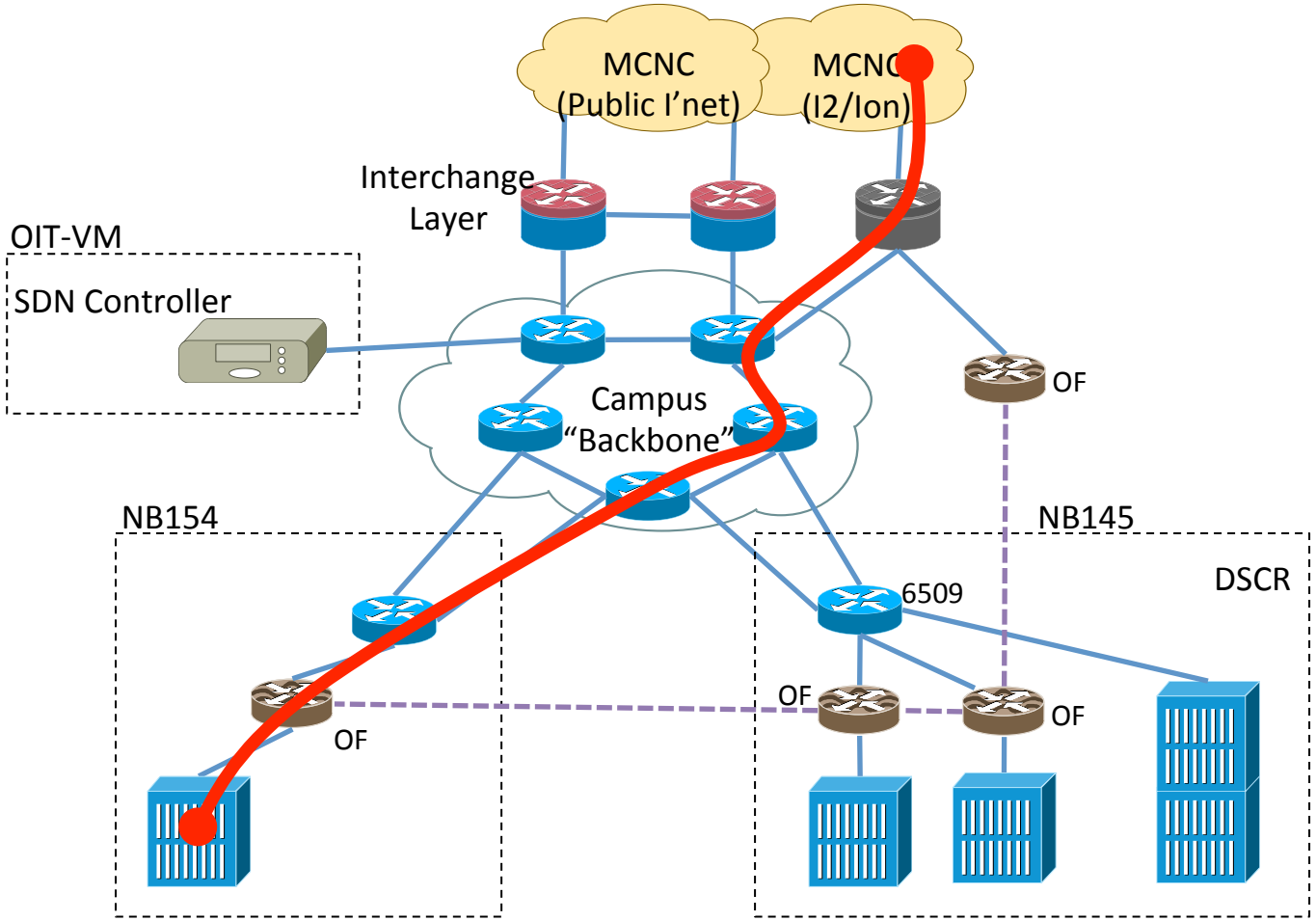
File xfer and TCP tests



Infra-Test 3: Dept-to-External/Campus Core

Data goes thru OF switch to campus core
Through campus core to I2/Ion

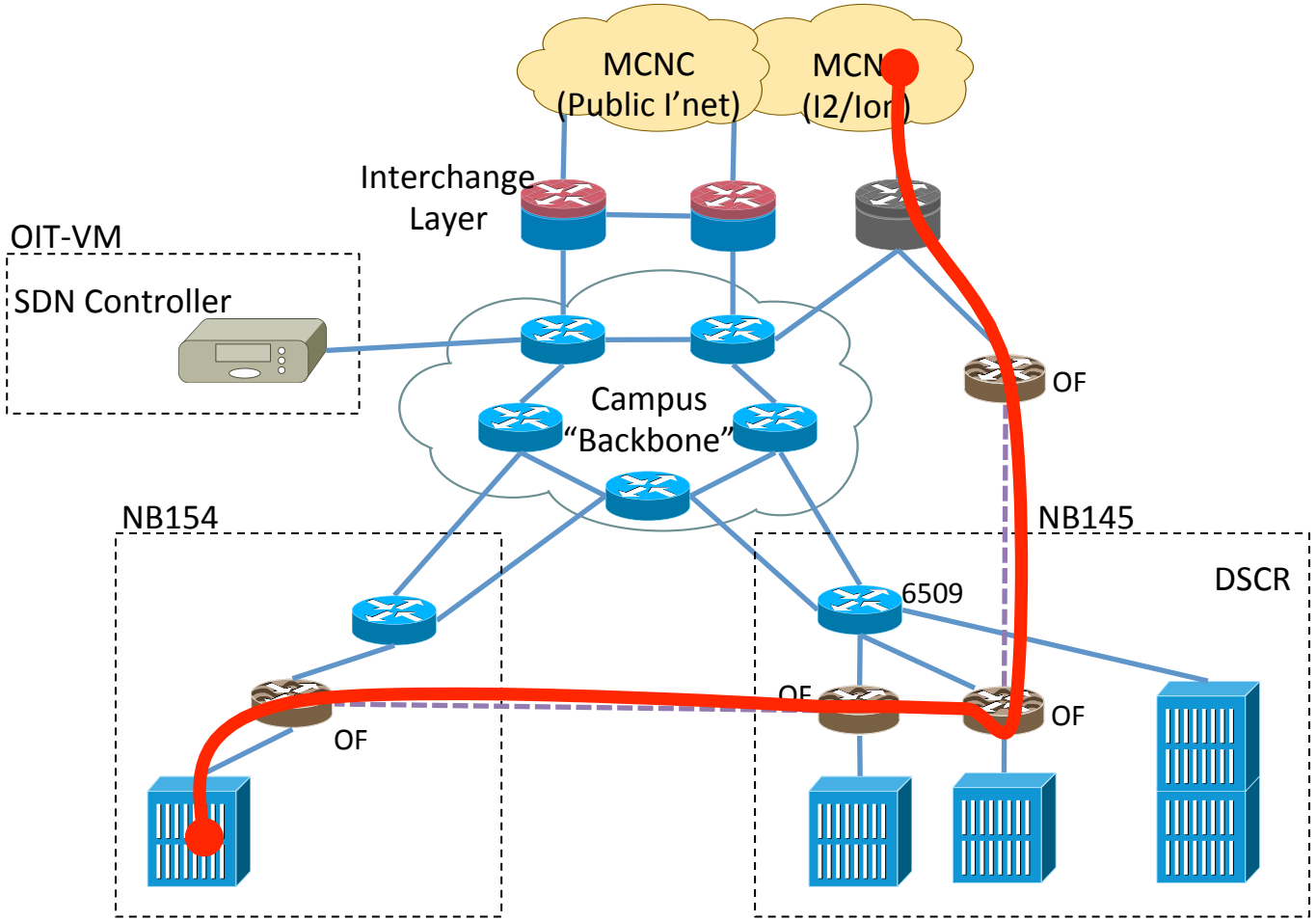
File xfer and TCP tests



Infra-Test 4: Dept-to-External/Expressway Links

Data goes thru OF switch around campus core
To OF switch to I2/Ion

File xfer and TCP tests

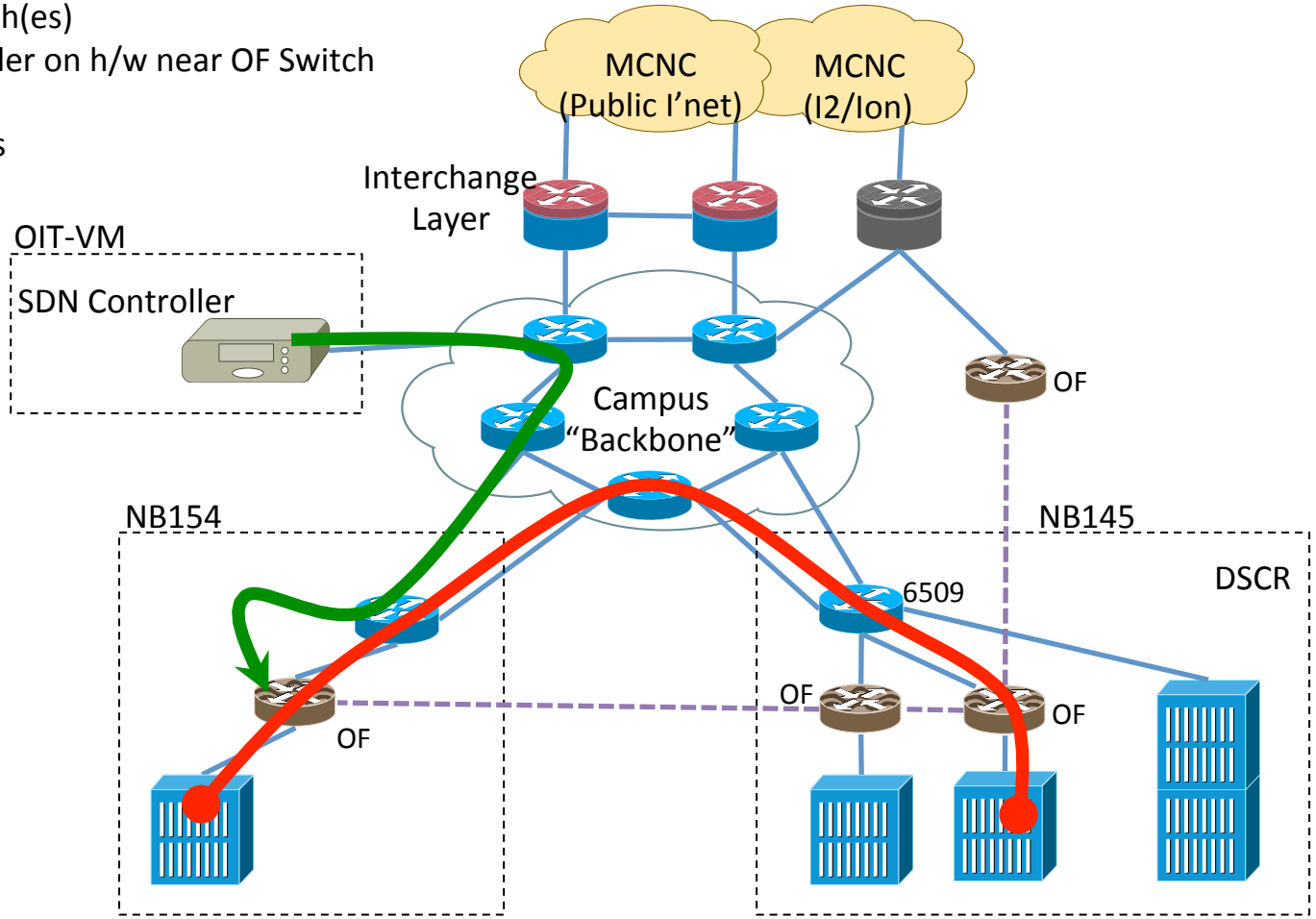


Infra-Test 5: Dept-to-Dept/Campus Core/OF "Overload"

Data goes thru OF switch onto campus-core
Off campus-core into next OF switch

OF Controller issues #Rules/sec to cause throttling on OF switch(es)
May want OF Controller on h/w near OF Switch

File xfer and TCP tests



Infra-Test 6: Dept-to-Dept/Expressway Link/OF "Intervention"

Data goes thru OF switch directly to next OF Switch

OF Controller receives all packets and submits new rules to OF switches (for each packet)

File xfer and TCP tests