

# Laborbericht - NVS - 5CHIF

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Ziel: Erfüllung der Aufgabenstellung

## Monitroing (RSPAN) Configuration

### Switch RSPAN\_SRC

```
Switch#show monitor
Session 1
-----
Type                : Local Session
Description          : -
Source Ports        :
  Both              : Fa0/10
Destination Ports   : Fa0/5
  Encapsulation     : Native
  Ingress           : Disabled

Session 3
-----
Type                : Remote Destination Session
Description          : -
Source Ports        :
  RX Only           : Fa0/10
Dest RSPAN VLAN     : 5

Switch#show run | include monitor
monitor session 1 source interface Fa0/10
monitor session 1 destination interface Fa0/5
monitor session 3 source interface Fa0/10 rx
monitor session 3 destination remote vlan 5 reflector-port Fa0/6
Switch#
```

### Switch RSPAN\_DEST

```
Switch>en
Switch#show monitor
Session 5
-----
Type                : Remote Source Session
Description          : -
Source RSPAN VLAN   : 5
Destination Ports   : Fa0/1
  Encapsulation     : Native
  Ingress           : Disabled

Session 7
-----
Type                : Remote Source Session
Description          : -
Source RSPAN VLAN   : 5
Destination Ports   : Fa0/2
  Encapsulation     : Native
  Ingress           : Disabled

Switch#show run | include monitor
monitor session 5 destination interface Fa0/1
monitor session 5 source remote vlan 5
monitor session 7 destination interface Fa0/2
monitor session 7 source remote vlan 5
Switch#
```

# Monitoring Simulieren

Network Notes:

RSPAN SRC: Configured with both SPAN and RSPAN sessions.  
 RSPAN DEST: Configured with RSPAN session.  
 Sniffer2: receives traffic from SPAN session on RSPAN SRC switch.  
 Sniffers 0, 1: receive traffic from RSPAN on switch RSPAN DEST.

To investigate either switch configurations for SPAN and/or RSPAN use CLI:  
 enable  
 show monitor  
 You can also use:  
 enable  
 show run | include monitor  
 In order to observe the actual commands used for [RSPAN configuration].  
 Additionally,  
 enable  
 show vlan  
 will also reflect relevant [RSPAN configuration properties].

In order to observe packets capture, switch to Simulation mode and ping PC1 from PC2 using Command Prompt desktop appllet. Use "capture" controls in the simulation panel to control packet propagation.

Simulation Panel - Event List

Vis.	Time(sec)	Last Device	At Device	Type	Info
<input checked="" type="checkbox"/>	0.000	PC2	PC2	ICMP	

Reset Simulation  Constant Delay Captured to: 0.000 s

Play Controls: Back Auto Capture / Play Capture / Forward

Event List Filters - Visible Events: ICMP, LLDP

Edit Filters Show All/None

Time: 00:08:58.356 Power Cycle Devices PLAY CONTROLS: Back Auto Capture / Play Capture / Forward Event List Simulation

## Ping Kommando testen

Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ping 1.1.10.20

Pinging 1.1.10.20 with 32 bytes of data:
Reply from 1.1.10.20: bytes=32 time=0ms TTL=128
```

Simulation Panel - Event List

Vis.	Time(sec)	Last Device	At Device	Type	Info
<input checked="" type="checkbox"/>	150.742	RSPAN D...	PC1	ICMP	
<input checked="" type="checkbox"/>	150.743	RSPAN D...	Sniffer0	ICMP	
<input checked="" type="checkbox"/>	150.743	RSPAN D...	Sniffer1	ICMP	
<input checked="" type="checkbox"/>	150.743	PC1	RSPAN ...	ICMP	
<input checked="" type="checkbox"/>	150.744	RSPAN D...	RSPAN S...	ICMP	

## Sniffer 2

Service  On  Off

Incoming Packets  Port0  Port1

Buffer Size  256

ICMP

ICMP

ICMP

ICMP

ICMP

ICMP

ICMP

Ethernet II

0 4 8 14 19 Bytes

PREAMBLE:	DEST MAC:	SRC MAC:
101010...1011	0050.0F5A.31C7	0002.173B.97C4
TYPE:	DATA (VARIABLE LENGTH)	FCS:
0x800		0x0

  

IP

0 4 8 16 19 31 Bits

4	IHL	DSCP: 0x0	TL: 28
ID: 0x1		0x0	0x0
TTL: 255	PRO: 0x1	CHKSUM	
SRC IP: 1.1.10.10			
DST IP: 1.1.10.20			
OPT: 0x0			0x0
DATA (VARIABLE LENGTH)			

  

ICMP

0 8 16 31 Bits

TYPE: 0x8	CODE: 0x0	CHECKSUM
ID: 0x2	SEQ NUMBER: 1	

Clear

### Sniffer 1

Sniffer1

Physical | Config | GUI | Attributes

Service  On  Off

Incoming Packets  Port0  Port1

Buffer Size

256

- ICMP
- ICMP
- ICMP
- ICMP

Ethernet II

0 4 8 14 19 Bytes

PREAMBLE:	DEST MAC:	SRC MAC:
101010...1011	0050.0F5A.31C7	0002.173B.97C4
TYPE:	DATA (VARIABLE LENGTH)	FCS:
0x800		0x0

IP

0 4 8 16 19 31 Bits

4	IHL	DSCP: 0x0	TL: 28
ID: 0x1		0x0	0x0
TTL: 255	PRO: 0x1	CHKSUM	
SRC IP: 1.1.10.10			
DST IP: 1.1.10.20			
OPT: 0x0		0x0	
DATA (VARIABLE LENGTH)			

ICMP

0 8 16 31 Bits

TYPE: 0x8	CODE: 0x0	CHECKSUM
ID: 0x2		SEQ NUMBER: 1

Clear

Event List Filters - Visible Events

ICMP, LLDP

Edit Filters

Show All/None

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## Sniffer 0

Sniffer0

- Physical
- Config
- GUI
- Attributes

Service  On  Off  
 Incoming Packets  Port0  Port1  
 Buffer Size

- ICMP
- ICMP
- ICMP
- ICMP

Ethernet II

0 4 8 14 19 Bytes

PREAMBLE:	DEST MAC:	SRC MAC:
101010...1011	0050.0F5A.31C7	0002.173B.97C4
TYPE:	DATA (VARIABLE LENGTH)	FCS:
0x800		0x0

IP

0 4 8 16 19 31 Bits

4	IHL	DSCP: 0x0	TL: 28
ID: 0x1		0x0	0x0
TTL: 255	PRO: 0x1	CHKSUM	
SRC IP: 1.1.10.10			
DST IP: 1.1.10.20			
OPT: 0x0			0x0
DATA (VARIABLE LENGTH)			

ICMP

0 8 16 31 Bits

TYPE: 0x8	CODE: 0x0	CHECKSUM
ID: 0x2		SEQ NUMBER: 1

Clear

Event List Filters - Visible Events

ICMP, LLDP

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Die Übertragenen Pakete wurden von allen Sniffern empfangen

[http://nvs.schreib.at/NVS/5CHIF\\_20170109\\_Schreib/](http://nvs.schreib.at/NVS/5CHIF_20170109_Schreib/)