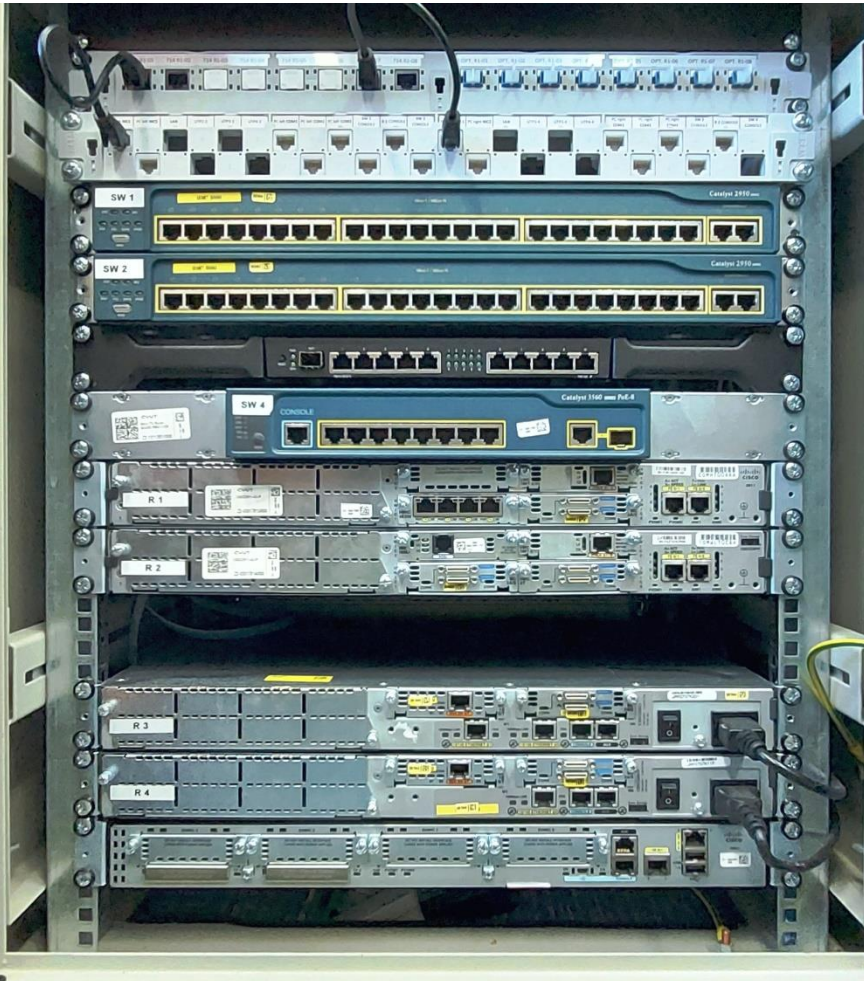


B2B32DATA – Datové sítě

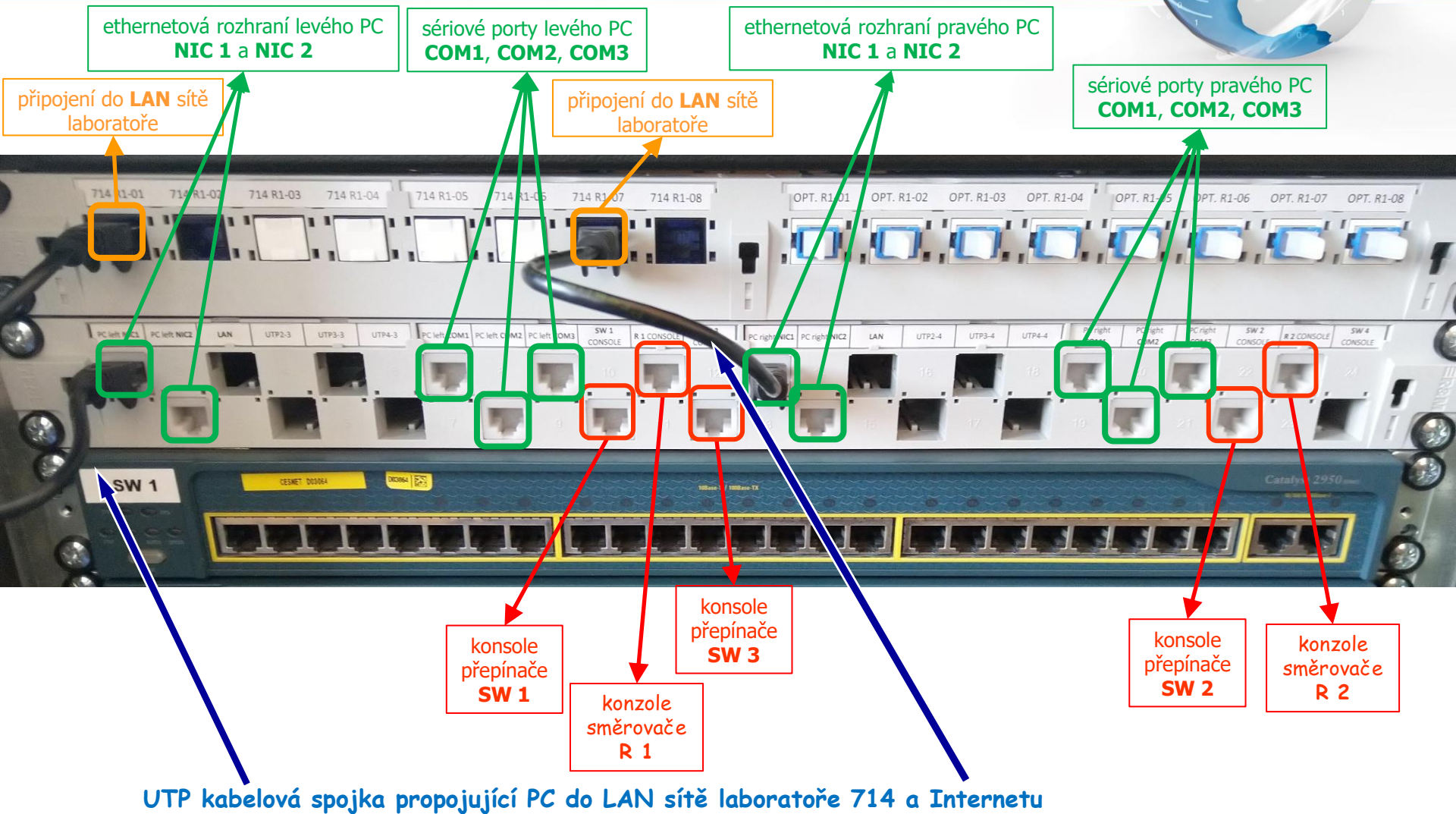
Orientace v laboratoři

Vybavení laboratoře



- V každé řadě
 - v datovém rozvaděči
 - patch panel,
 - 2x přepínač Cisco 2950,
 - přepínač Cisco 3560,
 - hub Planet,
 - 2x směrovač Cisco 2811,
 - 2x směrovač Cisco 26xx,
 - směrovač Cisco 2901,
 - na stole
 - 2x PC

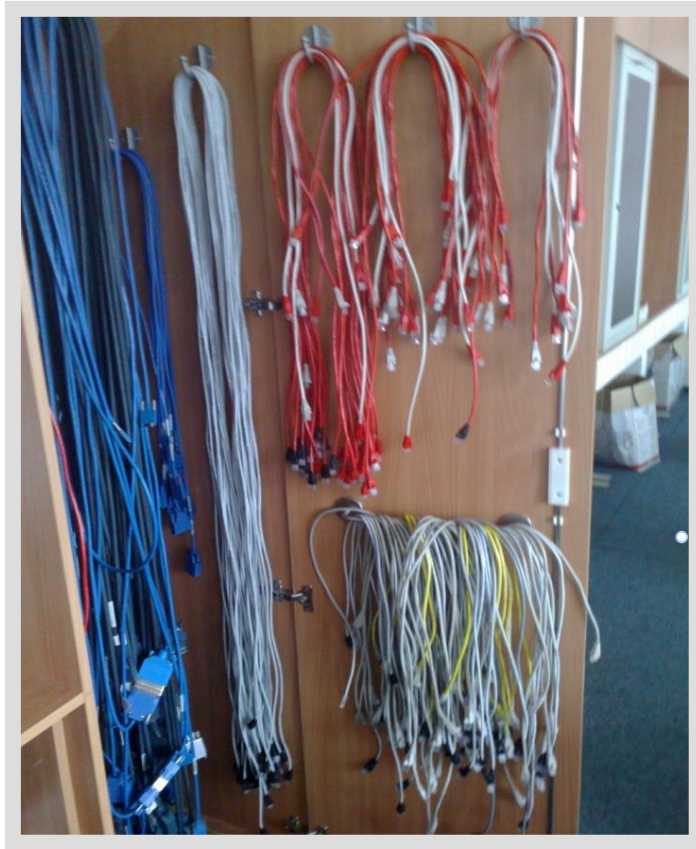
Datový rozvaděč - zapojení technologie



A kdeže kabely jsou ...



ve skříni u dveří



křížené UTP, nekřížené UTP, kratší, delší, nelesklé, lesklé, sériové s různým koncem, a tak dále.....

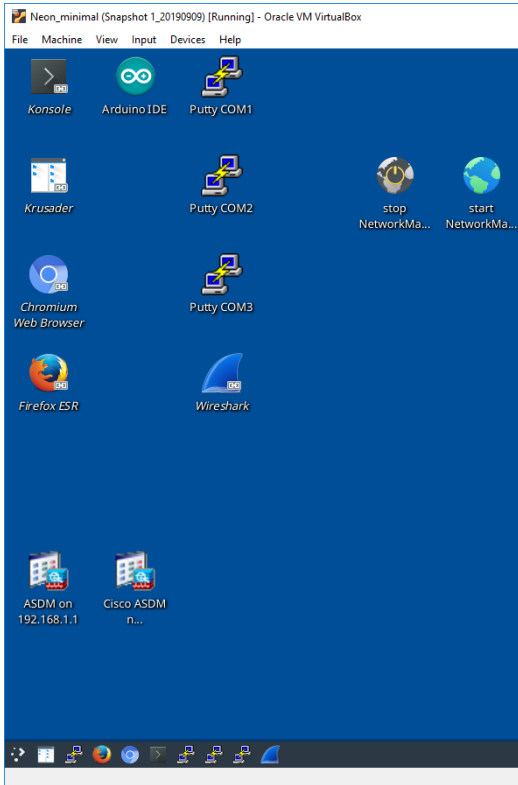
Kabely v laboratoři - typy



- Rollover kabely - konzolové.
- Datové kabely UTP:
 - Přímé.
 - Křížené.
- Datové kabely sériové
 - SmartSerial.



KDE Neon ...



Neon_minimal (Snapshot 1_20190909) [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

student: bash — Konsole

```
Soubor Úpravy Pohled Záložky Nastavení nápověda
student@Neon:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue
   link/loopback 00:00:00:00:00:00 brd 00:00:00:00:
   inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
   inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500
   group default qlen 1000
   link/ether 08:00:27:8b:d2:00 brd ff:ff:ff:ff:ff:ff
   inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic
       valid_lft 86213sec preferred_lft 86213sec
   inet6 fe80::e364:8764:c161:9e4f/64 scope link no
       valid_lft forever preferred_lft forever
3: enp0s8: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500
   group default qlen 1000
   link/ether 08:00:27:8b:d2:00 brd ff:ff:ff:ff:ff:ff
student@Neon:~$ ip route
default via 10.0.2.2 dev enp0s3 proto dhcp metric 100
10.0.2.0/24 dev enp0s3 proto kernel scope link src 10.0.2.15
169.254.0.0/16 dev enp0s3 proto link metric 1000
student@Neon:~$ ping www.seznam.cz
PING www.seznam.cz (77.75.74.176) 56(84) bytes of data:
64 bytes from www.seznam.cz (77.75.74.176): icmp_seq=1 ttl=64 time=0.000 ms
64 bytes from www.seznam.cz (77.75.74.176): icmp_seq=2 ttl=64 time=0.000 ms
64 bytes from www.seznam.cz (77.75.74.176): icmp_seq=3 ttl=64 time=0.000 ms
--- www.seznam.cz ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 0.000 ms
rtt min/avg/max/mdev = 0.000/0.000/0.000/0.000 ms
student@Neon:~$
```

Capturing from enp0s3

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Apply a display filter ... <Ctrl-F>

No.	Time	Source	Destination	Protocol	Length	Info
88	129.207058254	192.168.43.1	10.0.2.15	DNS	81	Standard query response 0xb612 No s...
89	129.207809495	10.0.2.15	77.75.75.176	UDP	74	37824 → 33450 Len=32
90	129.207939173	10.0.2.15	77.75.75.176	UDP	74	35975 → 33451 Len=32
91	129.208049360	10.0.2.15	77.75.75.176	UDP	74	37173 → 33452 Len=32
92	129.208558351	10.0.2.15	192.168.43.1	DNS	92	Standard query 0xef5b PTR 2.2.0.10...
93	129.238172578	192.168.43.1	10.0.2.15	DNS	92	Standard query response 0xef5b No s...
94	129.238631831	10.0.2.15	192.168.43.1	DNS	81	Standard query 0xef5b PTR 2.2.0.10...
95	129.257331955	192.168.43.1	10.0.2.15	DNS	81	Standard query response 0xef5b No s...

Frame 93: 92 bytes on wire (736 bits), 92 bytes captured (736 bits) on interface 0

Ethernet II, Src: RealtekU 12:35:02 (52:54:00:12:35:02), Dst: PcsCompu 8b:0d:d2 (08:00:27:8b:d2:d2)

Destination: PcsCompu 8b:0d:d2 (08:00:27:8b:d2:d2)

Source: RealtekU 12:35:02 (52:54:00:12:35:02)

Type: IPv4 (0x0800)

Internet Protocol Version 4, Src: 192.168.43.1, Dst: 10.0.2.15

0100 ... = Version: 4

... 0101 = Header Length: 20 bytes (5)

Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)

Total Length: 78

Identification: 0x002f (47)

Flags: 0x0000

Time to live: 64

0000 08 00 27 8b 0d d2 52 54 00 12 35 02 08 00 45 00 ... RT ... 5 ...

0010 00 4e 00 2f 00 00 40 11 82 b8 c0 88 2b 01 0a 00 ... N ... 6 ...

0020 02 04 00 35 a1 c4 00 3a 70 e5 ef 5b 81 83 00 01 ... 5 ... p ...

0030 00 00 00 00 00 01 01 32 01 32 01 30 02 31 30 07 ... 2 ... 0 10 ...

0040 69 6e 2d 61 64 64 72 04 61 72 70 61 00 00 0c 00 ... in-addr: arpa ...

0050 01 00 29 02 00 00 00 00 00 00 00 00 00 00 00 00 ...) ...

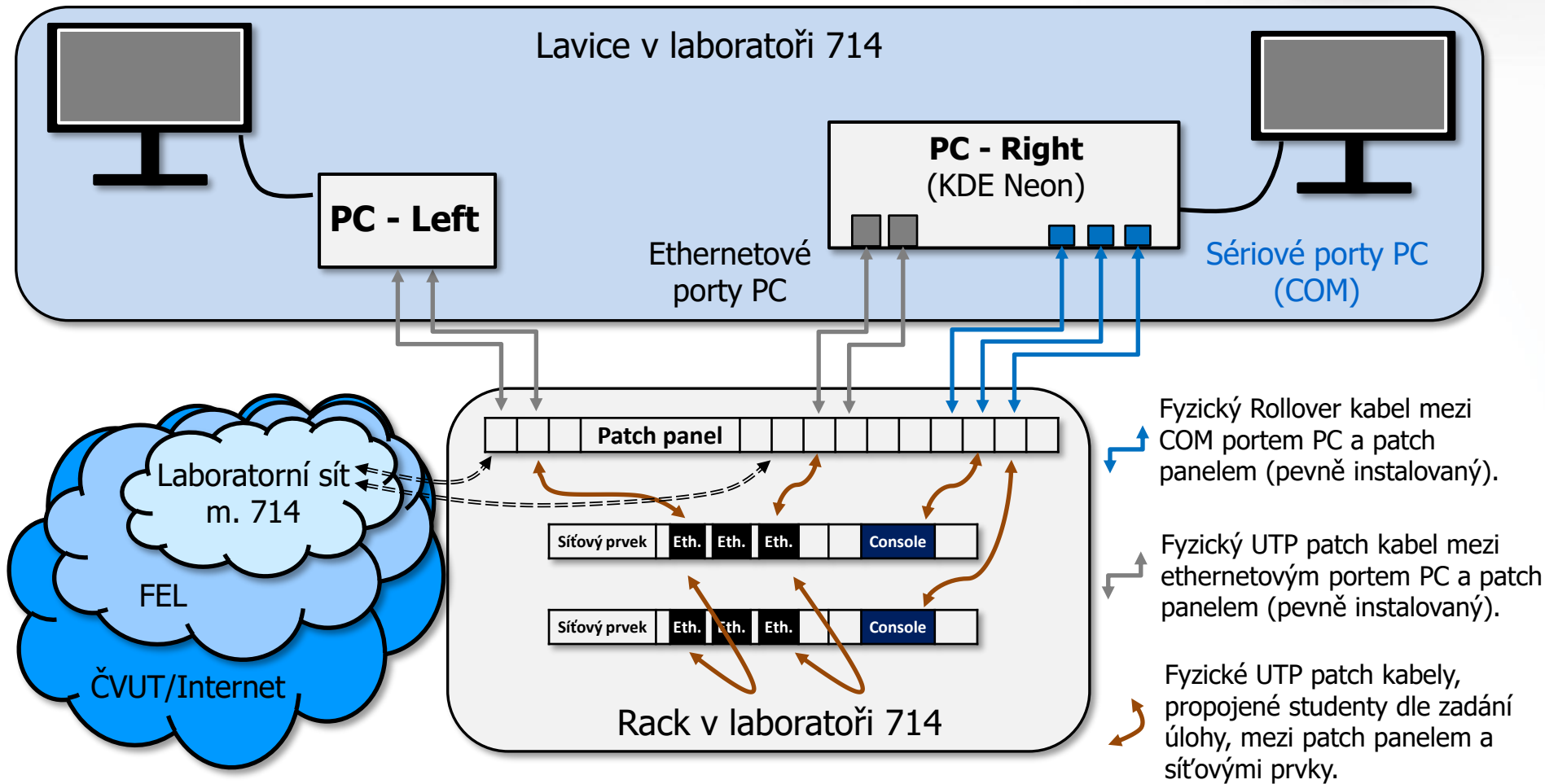
Internet Protocol Version 4 (ip), 20 bytes

Packets: 243 · Displayed: 243 (100.0%) Profile: Default

student: bash — Konsole

czq 11:47

Pracoviště v laboratoři 714



Dotazy, diskuse

