

Serial Connections

- Professional networking devices have a **console port**;
- This port is used for the **initial configuration, troubleshooting, password recovery** and so on;
- We must have **physically access** to the device in order to configure it using the console;
- We need a console cable (RJ45 to DB9) and if using a laptop with an USB port we need an USB to RS232 cable;
- The OS needs a driver for the usb to rs232 /db9 converter;
- An application like **putty** or **minicom** is required;

Serial Connections

- **pyserial** package is used for serial connections

- **Open** a serial connection:

```
import serial
```

```
with serial.Serial(port='/dev/ttyUSB0', baudrate=9600, parity='N', stopbits=1, bytesize=8, timeout=8) as console:
```

```
    if console.isOpen():
```

```
        print('Serial is Opened')]
```

```
    else:
```

```
        sys.exit()
```

- **Write** into a serial connection (console)

```
console.write(b'\n')
```

```
time.sleep(1)    #this is mandatory
```

Serial Connection

- Read from a serial connection (console)

```
#returns bytes to be read. This is an int  
bytesToBeRead = console.inWaiting()
```

```
#read no. of bytes from console  
consoleData = console.read(bytesToBeRead)  
print(consoleData.decode())
```