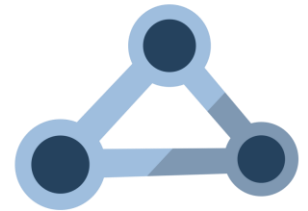


# SENDATE from an SME's perspective

Hagen Woesner  
BISDN GmbH  
Berlin



**BISDN**

Berlin Institute for  
Software Defined Networks

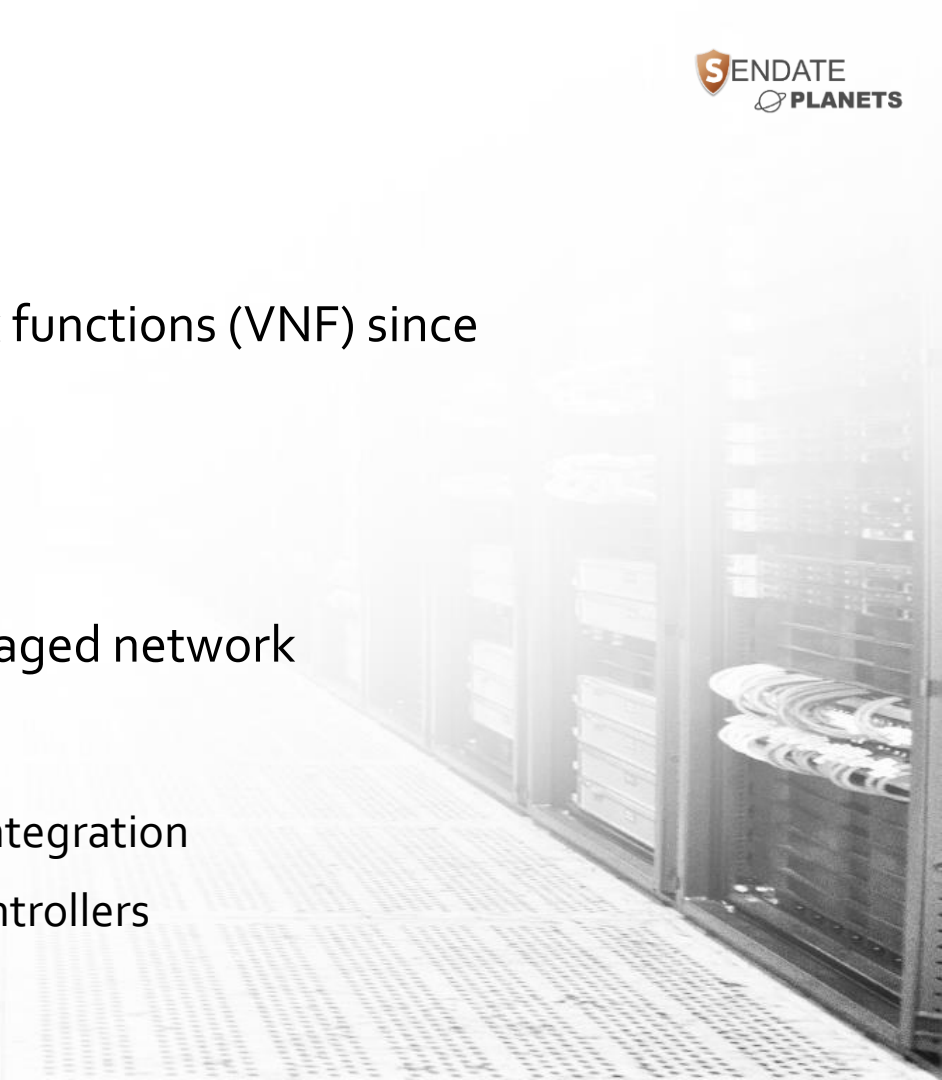
# BISDN

- Founded 2012
- 12 employees from all over Europe
  - Initial team from EU-funded project OFELIA
- Self-funded
- Close cooperation with DT Innovation Labs
  - Contract work for system integrators



# What we do

- Prototypes of virtualised network functions (VNF) since 2012
  - vBRAS, SGW, PGW
  - WiFi Access Gateway, vCPE
- Currently: Field trial for WiFi managed network
- Products on white-boxes
  - DataCenter Switch / OpenStack integration
  - WiFi Access Points and Access Controllers



# White-box?

- Silicon vendors => **SDK**
- ODM => **BSP**
- SMEs (and many of them together) => **open OS**
  - SDK: Software Development Kit
  - ODM: Original Device Manufacturer
  - BSP: Board Support Package
  - SME: Small&Medium Enterprise
  - OS: Operating System
  - **NDA: Non-disclosure agreement needed for SDK and BSP**

**White boxes are a means to an end:  
Bring innovation back to networks.**



# What innovation?

- IPSec needs hardware acceleration
- WiFi encryption/decryption
- Virtualized I/O for OpenStack and containers needs hardware acceleration
- QoS (traffic policing and shaping)...
- **Open platforms with hardware acceleration are rare**
- Whiteboxes get this problem out of the way.



# Why we participate

- Collaboration on tools makes sense
- Commercial solutions can be built on top
- BMBF funded project allows pre-competitive development
- **PLUS: IPR remains with us**

