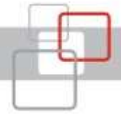
Jak správně navrhnout bezdrátovou síť a představení standardu WiFi7

Mgr. Roman Štemberk



Wi-Fi

Proč Wi-Fi 7?

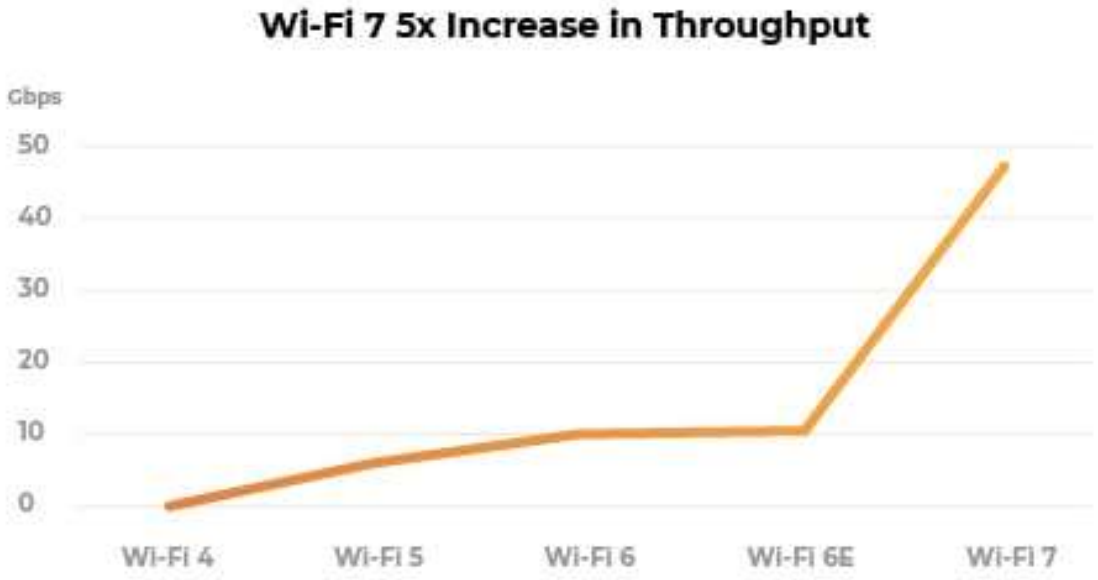
Proč Wi-Fi 7?

- 4K/8K videa
- VR/AR
- Cloud computing

Jaké technické inovace Wi-Fi 7 přinese?

Jaké technické inovace Wi-Fi 7 přinese?

- Propustnost

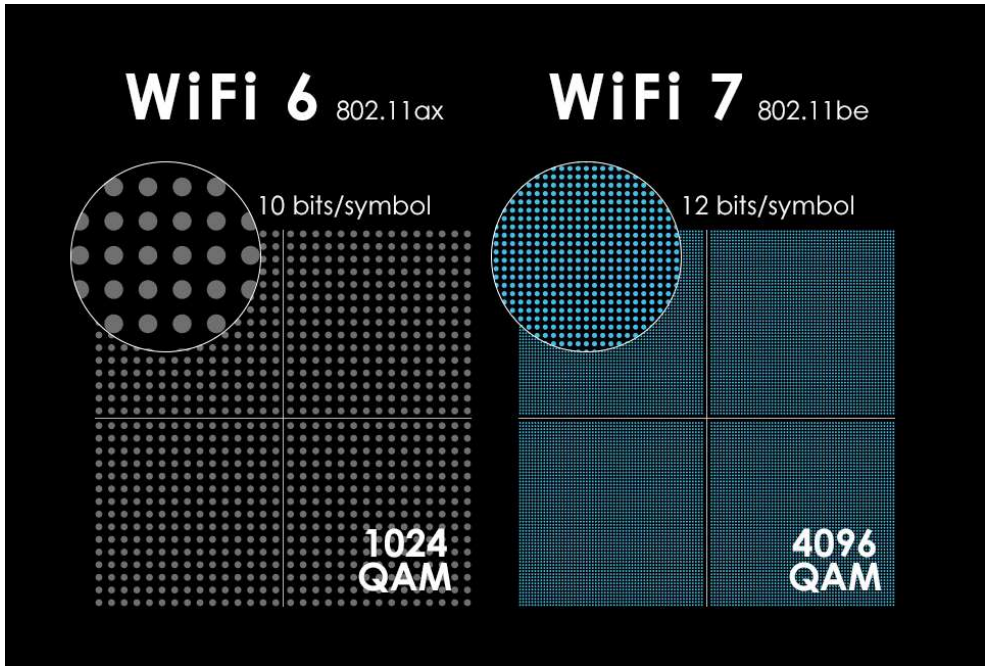


Jaké technické inovace Wi-Fi 7 přinese?

- Až 320 MHz flexibilní šířka pásma

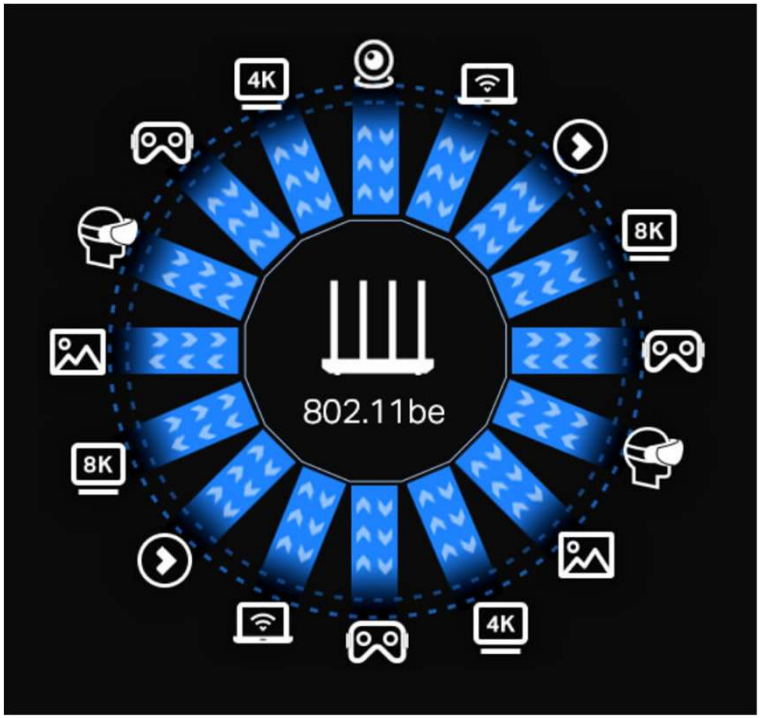
Jaké technické inovace Wi-Fi 7 přinese?

- 4K-QAM



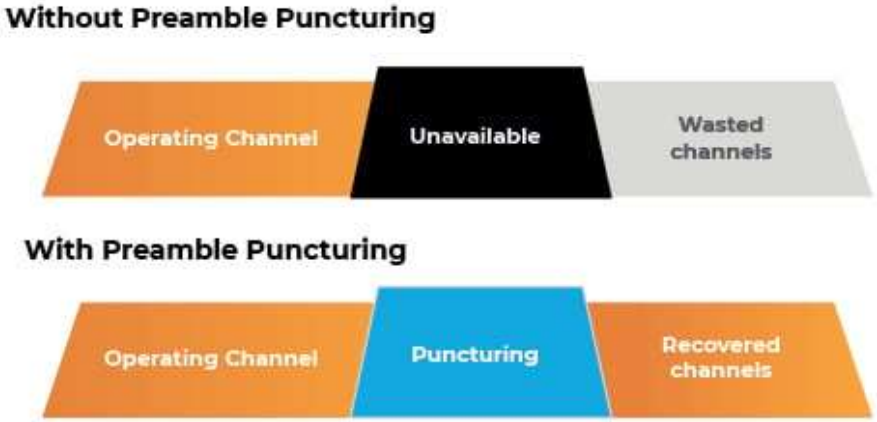
Jaké technické inovace Wi-Fi 7 přinese?

- 16 prostorových datových toků MU-MIMO



Jaké technické inovace Wi-Fi 7 přinese?

- Multi-Link Operation



chipset leader Morse Micro issued a number of announcements substantiating the surge in growth for this new segment. Perhaps the most impressive new device is a multi-protocol IoT AP from Edgecore dubbed EA112, the world's first Wi-Fi 6 device also to incorporate Wi-Fi HaLow technology.

The new AP uses LTE for backhaul and supports pretty much every IoT standard under the sun including Wi-Fi 6, Wi-Fi HaLow, BLE, Zigbee, and Thread – as well as the Matter application protocol. The Wi-Fi HaLow capabilities for the Edgecore device are powered by Morse Micro's Wi-Fi HaLow chip. Other announcements from Morse Micro include a new Wi-Fi HaLow module from partner and module provider Quectel and a new partnership with Australia-based Zetifi aimed at bringing long-range IoT connectivity to farms and remote rural areas. For more read here.

RUCKUS APs selected for Wi-Fi Alliance's Wi-Fi 7 certification testbed

CommScope has been selected as a platform provider for the Wi-Fi Alliance's Wi-Fi 7 interoperability testbed, the company said in a press release last week. CommScope's RUCKUS Wi-Fi 7 platform is not one of the industry's largest AP providers so this is a significant achievement for CommScope.

To our understanding it is somewhat unusual that AP vendors (as opposed to chipset providers) are selected to provide an interoperability reference platform for new Wi-Fi standards, which also makes this achievement stand out. It also ensures that Wi-Fi 7 certified end-user devices – phones, laptops, and more – will have been tested for successful interoperability against RUCKUS Wi-Fi 7 APs.

Plenty of Wi-Fi 7 laptops launched at CES & some new APs, routers

The Verge's poignant headline from CES reads "Wi-Fi 7 quietly took off while everyone was looking at AI" – and they're right. Intel has of course already launched Wi-Fi 7 connectivity for their processor platforms and the result was plenty of new Wi-Fi 7 capable laptops from the likes of Lenovo, MSI, Razer, and others.

Be sure to have a look at The Verge's story for links to many of the new Wi-Fi 7-capable laptops launched at CES (although not all of them are available immediately). The introduction of Wi-Fi 7-capable PCs is enormously important to the Wi-Fi industry since connected PCs drive a lot of early market adoption for new Wi-Fi standards.

Ubiquiti launched their first Wi-Fi 7 AP in the form of the ceiling-mounted U7 Pro, which is part of the company's new 'UniFi 7' enterprise networking system, described by Ubiquiti as "a massively scalable Wi-Fi 7 solution capable of delivering wired-like user experiences." ASUS launched a couple new Wi-Fi 7-

announcements from Morse Micro include a new Wi-Fi HaLow module from partner and module provider Quectel and a new partnership with Australia-based Zetifi aimed at bringing long-range IoT connectivity to farms and remote rural areas. For more read here.

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6
GHz

Šířka pásma v ....

Šířka pásma v U.S.A. 😔

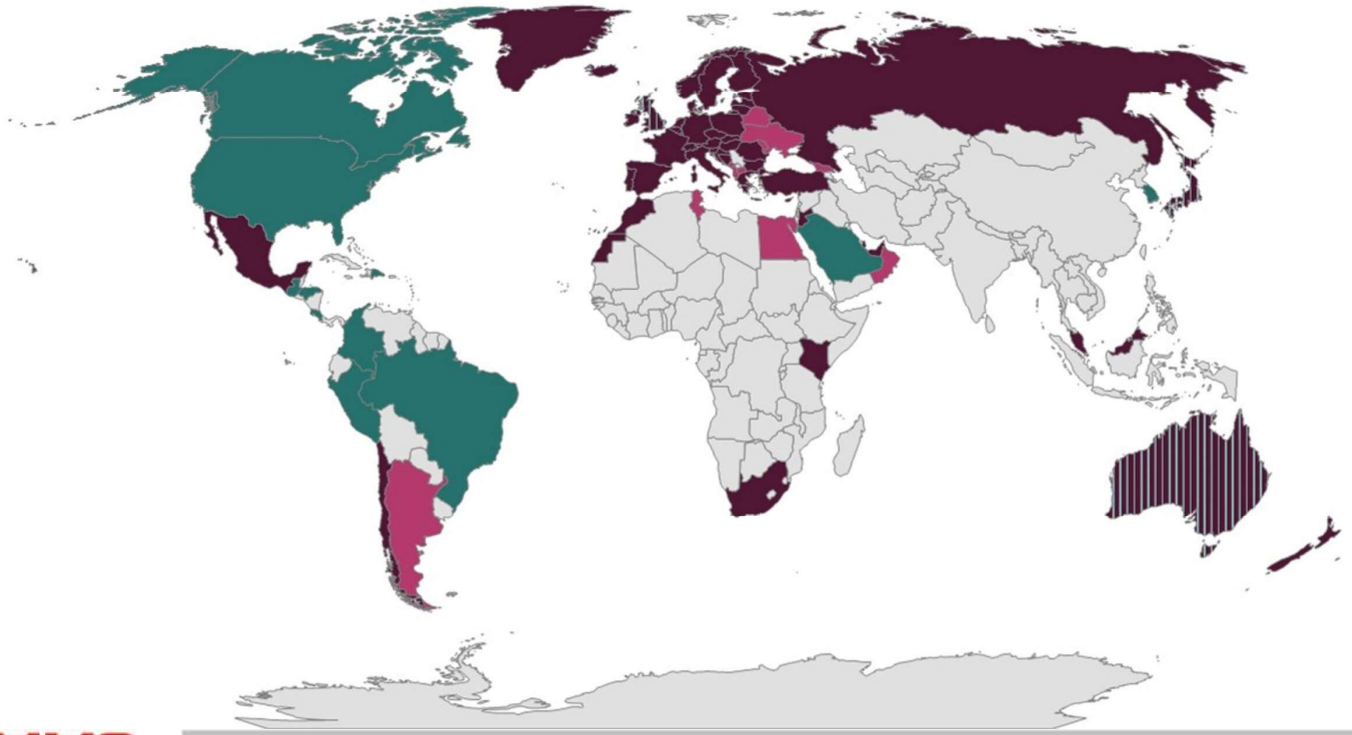
Šířka pásma v EU

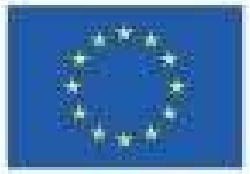
Adopted 5925-6425 MHz

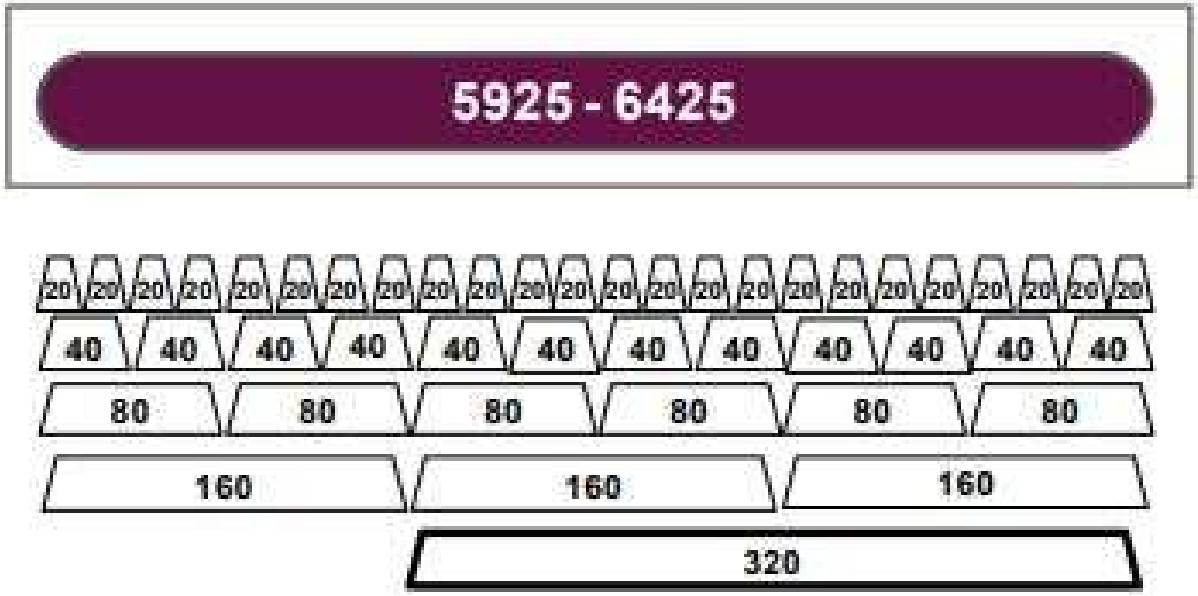
Adopted 5925-7125 MHz

Adopted 5925-6425 MHz, Considering 6425-7125 MHz

Considering 5925-6425 MHz






5925 - 6425
24 x 20 MHz
12 x 40 MHz
6 x 80 MHz
3 x 160 MHz
1 x 320 MHz
20
40
80
160
320

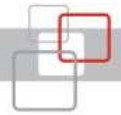
Co umíme v PFC

Edge-corE®

RUCKUS® COMMSCOPE

Extreme™

JUNIPER® NETWORKS



Co umíme v PFC

Edge-corE®

ecCLOUD

ecCLOUD Cloud Controller

Extreme™ JUNIPER NETWORKS RUCKUS® COMMSCOPE

Co umíme v PFC

RUCKUS®
COMMSCOPE

Physical Appliance	Virtual Appliance	Cloud-managed	Controller-less
SmartZone	SmartZone	Cloud Managed	Unleashed

Extreme™ JUNIPER NETWORKS Edge-corE®

Co umíme v PFC

Juniper Networks

Mist AI

Extreme™

Ruckus CommScope

Edge-corE

PROFICOMMS value added distributor

Co umíme v PFC

Extreme™

JUNIPER NETWORKS

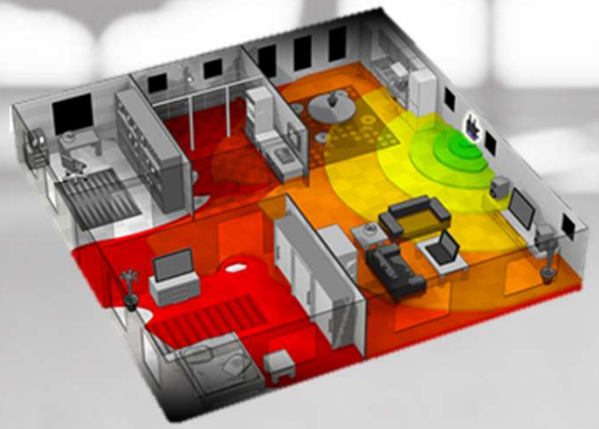
RUCKUS COMMSCOPE

Edge-corE

Wifi Desgin, Optimalizace a Troubleshooting

ekahau

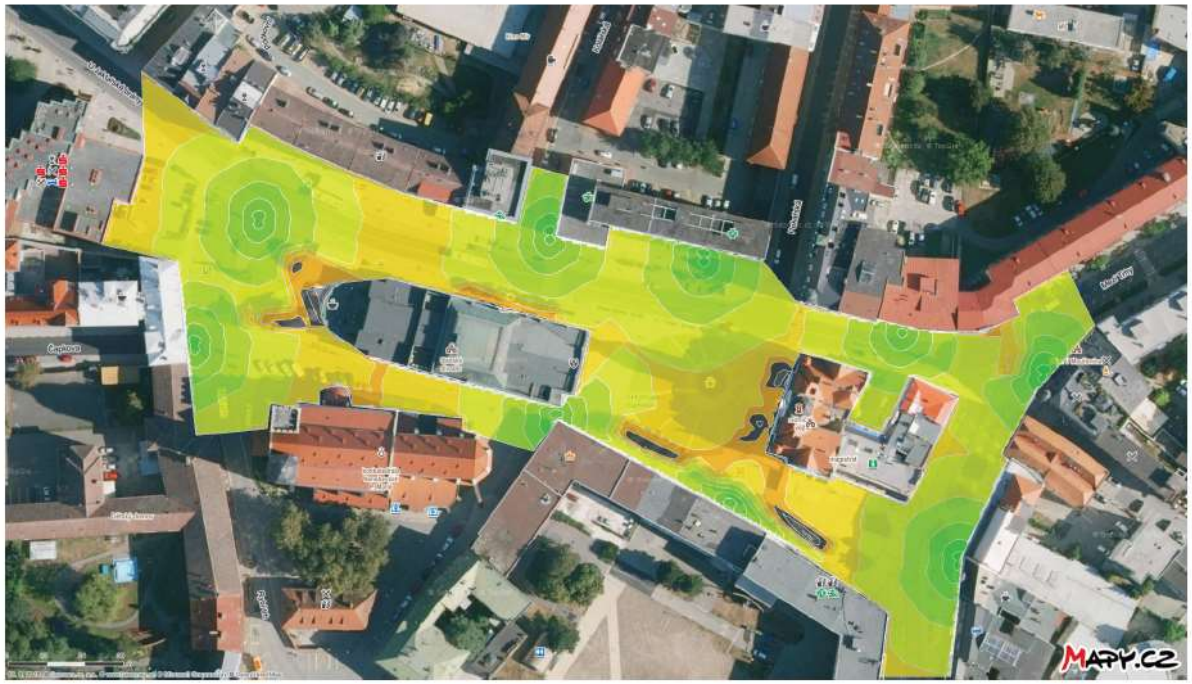
WIRELESS DESIG



ekahau
WIRELESS DESIGN

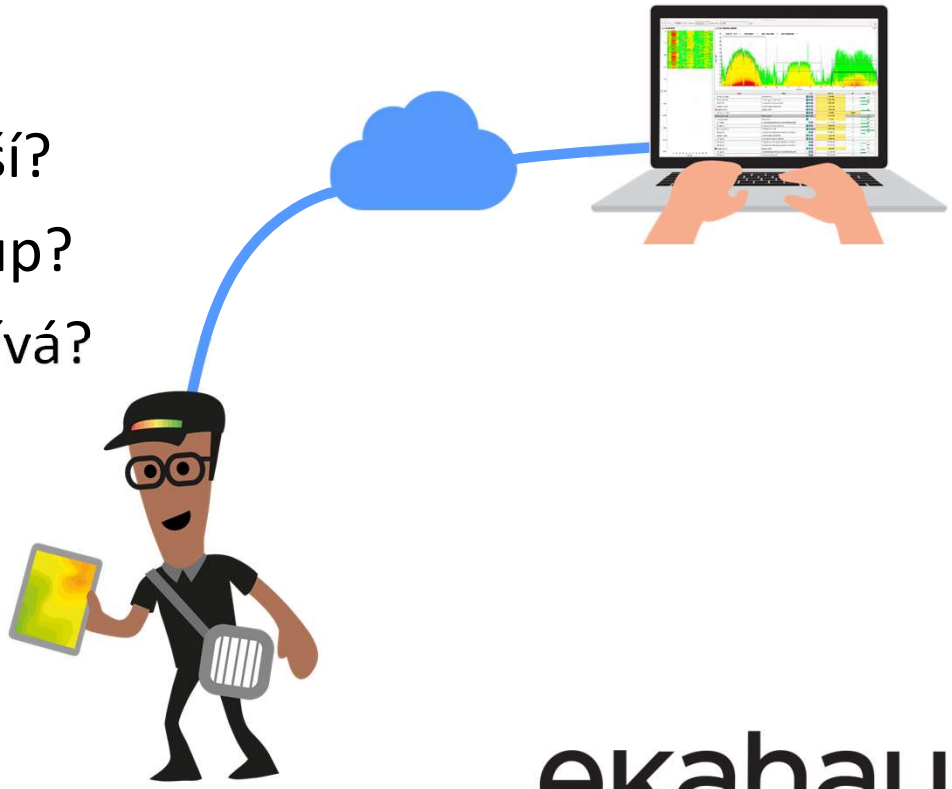
Design

- Kdy se řeší?
- Co potřebujeme?
- Jak vypadá výstup?



Site Survey a optimalizace

- Kdy se řeší?
- Co je výstup?
- Co se používá?



ekahau
WIRELESS DESIGN

LinkyFi

linkyFi

Business Intelligence

+

Guest Wi-Fi management

+

Marketing Engine

+

Location Based Services

Tipy pro dobrou Wi-Fi

5 a 6GHz má přednost

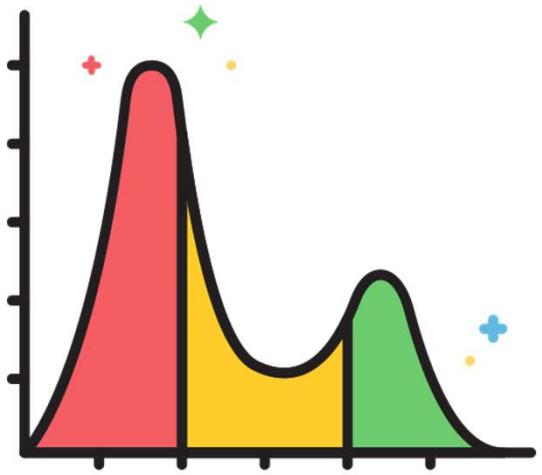

DRONE
TYPE: WIDEBAND
WI-FI BAND: 2.4 & 5 GHz
POWER OUPUT:
THREAT LEVEL:
MICROWAVE OVEN
TYPE: WIDEBAND
WI-FI BAND: 2.4 GHz
POWER OUPUT:
THREAT LEVEL:
MOTION SENSOR
TYPE: NARROWBAND
WI-FI BAND: 2.4 & 5 GHz
POWER OUPUT:
THREAT LEVEL:
SPY CAMERA
TYPE: WIDEBAND
WI-FI BAND: 2.4 GHz
POWER OUPUT:
THREAT LEVEL:
BABY MONITOR
TYPE: FREQUENCY HOPPING
WI-FI BAND: 2.4 GHz
POWER OUPUT:
THREAT LEVEL:
GAME CONTROLLER
TYPE: FREQUENCY HOPPING
WI-FI BAND: 2.4 GHz
POWER OUPUT:
THREAT LEVEL:
BLUETOOTH
TYPE: FREQUENCY HOPPING
WI-FI BAND: 2.4 GHz
POWER OUPUT:
THREAT LEVEL:
WIRELESS HEADSET
TYPE: FREQUENCY HOPPING
WI-FI BAND: 2.4 GHz
POWER OUPUT:
THREAT LEVEL:
LAPEL MICROPHONE
TYPE: NARROWBAND
WI-FI BAND: 2.4 GHz
POWER OUPUT:
THREAT LEVEL:

Tipy pro dobrou Wi-Fi

WiFi = klienti

Tipy pro dobrou Wi-Fi

Hodně AP = Menší šířka pásma



Tipy pro dobrou Wi-Fi

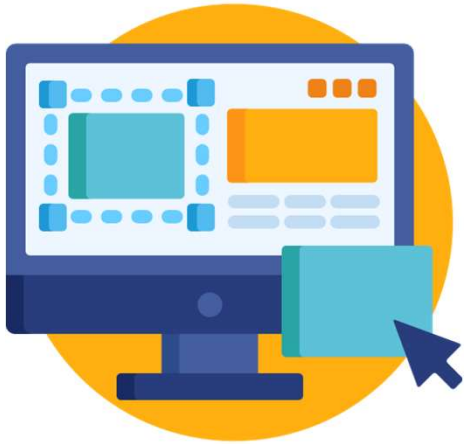
Vypnout 802.11b

Tipy pro dobrou Wi-Fi

Počet SSID

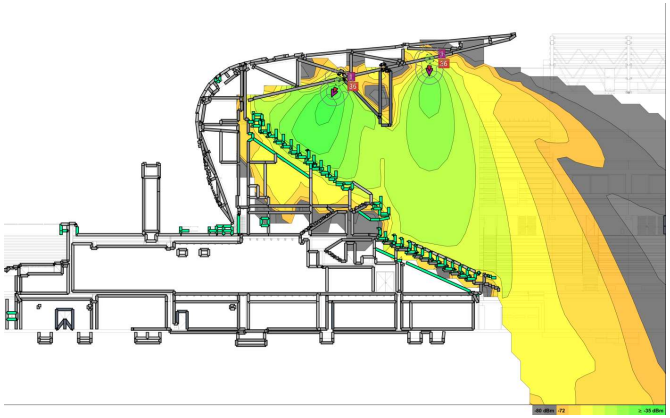
Tipy pro dobrou Wi-Fi

Design



Reference NFŠ Bratislava

ekahau
WIRELESS DESIGN



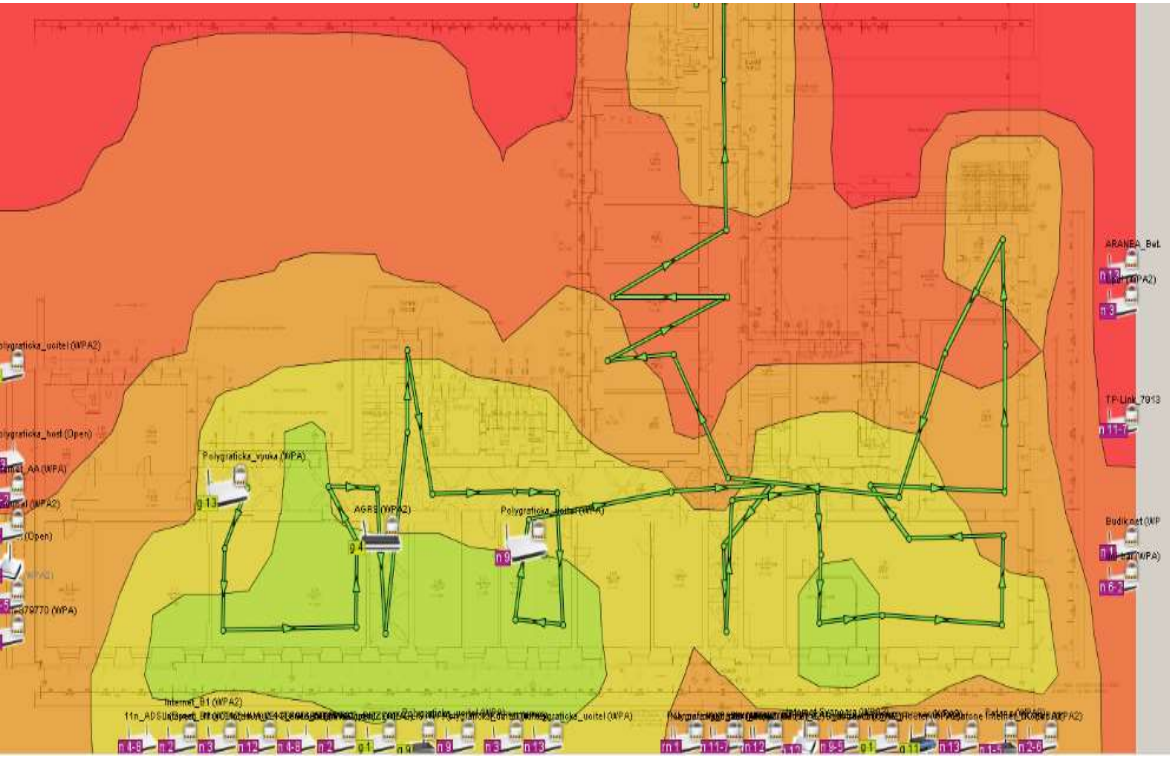
Reference Školství– IROP Konektivita Do Škol

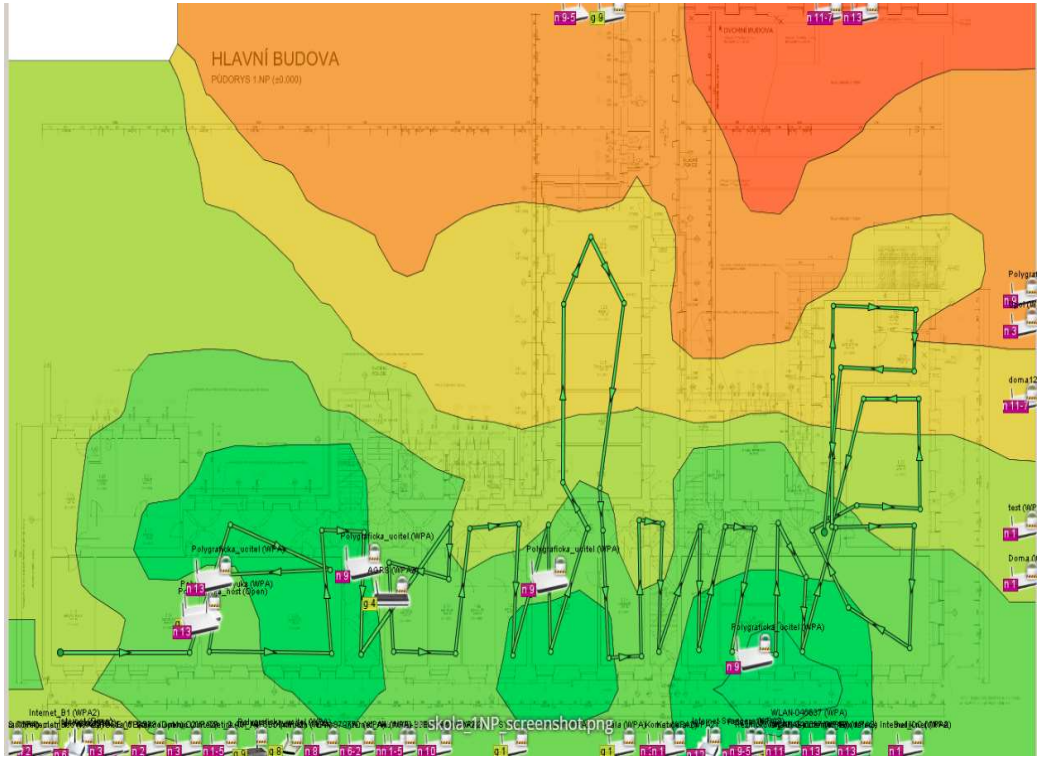
- Funkce a propustnost
- Eduroam
- Fenix
- Wlan
- LAN
- Analýza
- Dokumentace

střední škola polygrafická olomouc

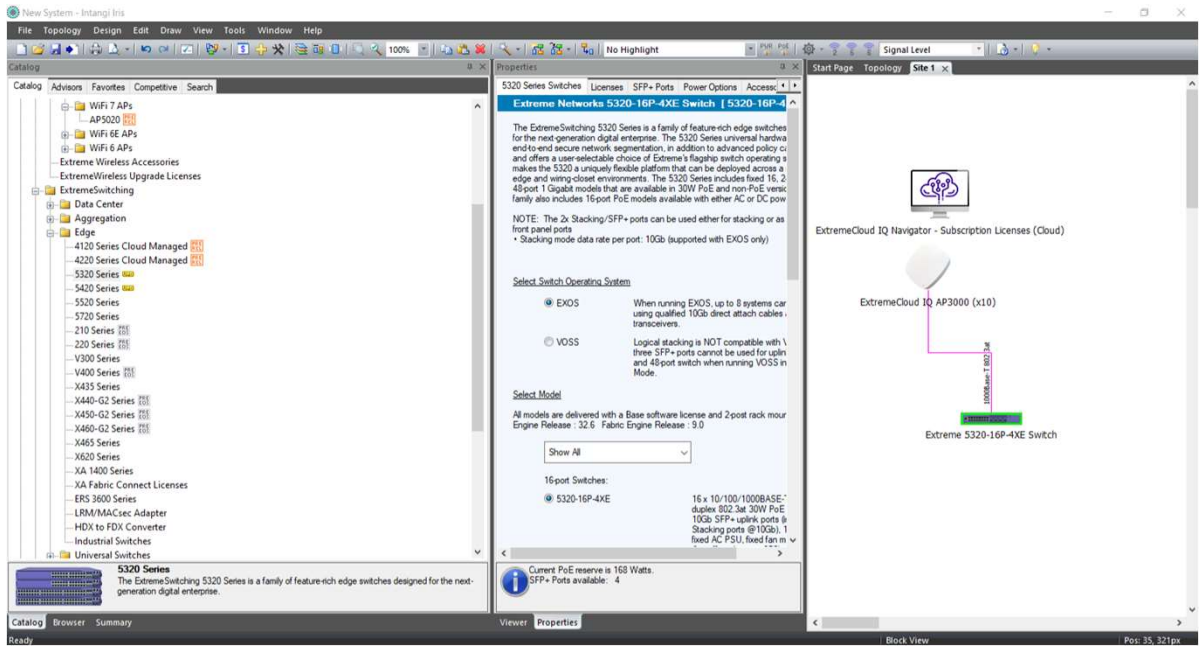
SZeŠ ČÁSLAV

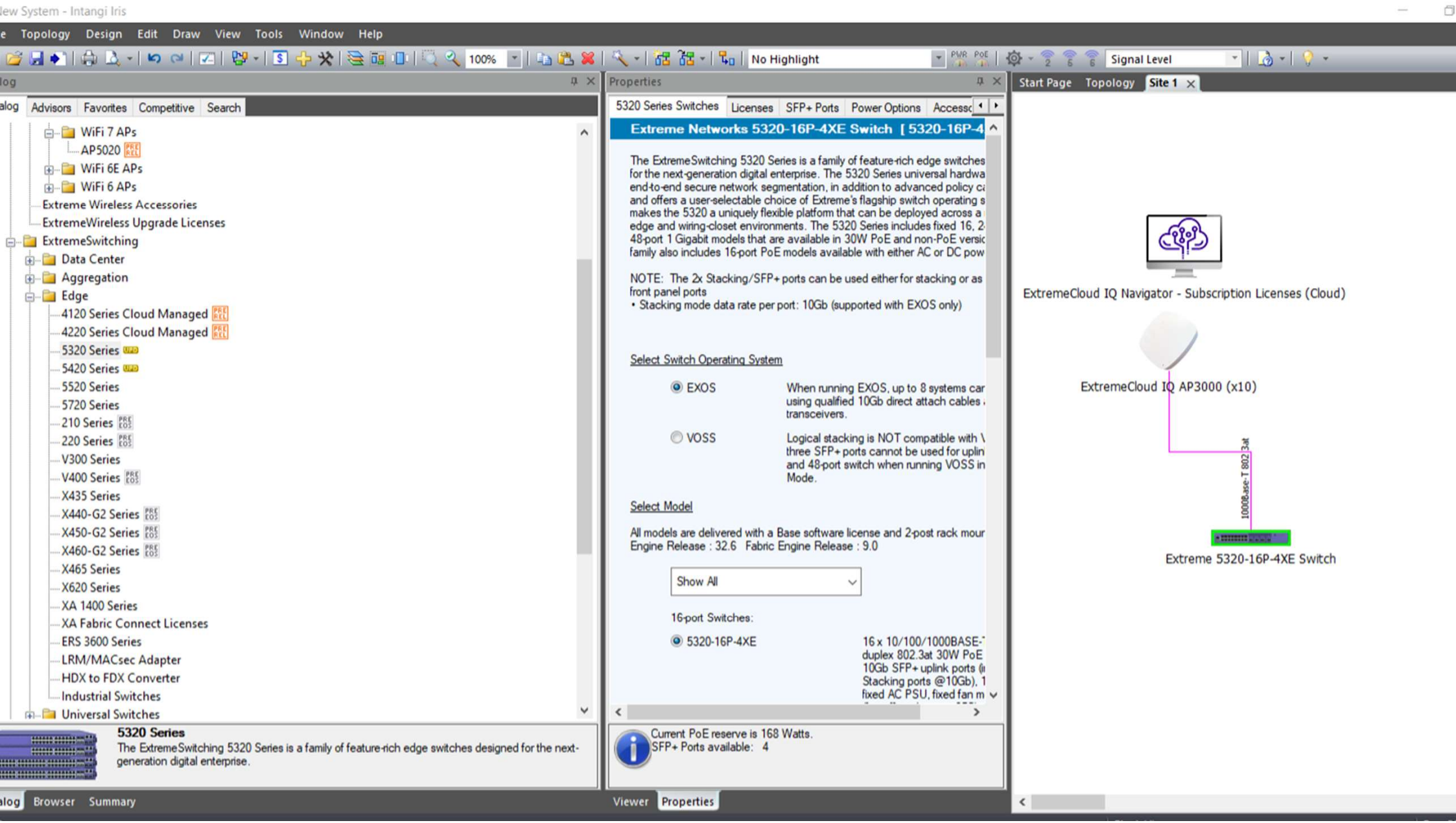
Reference Školství – WiFi Ekahau





IRIS – SW který vám ulehčí plánování




New System - Intangi Iris
Topology Design Edit Draw View Tools Window Help
100%
No Highlight
Signal Level
Advisors Favorites Competitive Search
WiFi 7 APs
AP5020
WiFi 6E APs
WiFi 6 APs
Extreme Wireless Accessories
ExtremeWireless Upgrade Licenses
ExtremeSwitching
Data Center
Aggregation
Edge
4120 Series Cloud Managed
4220 Series Cloud Managed
5320 Series
5420 Series
5520 Series
5720 Series
210 Series
220 Series
V300 Series
V400 Series
X435 Series
X440-G2 Series
X450-G2 Series
X460-G2 Series
X465 Series
X620 Series
XA 1400 Series
XA Fabric Connect Licenses
ERS 3600 Series
LRM/MACsec Adapter
HDX to FDX Converter
Industrial Switches
Universal Switches
5320 Series
The ExtremeSwitching 5320 Series is a family of feature-rich edge switches designed for the next-generation digital enterprise.
Browser Summary
Properties
5320 Series Switches Licenses SFP+ Ports Power Options Access
Extreme Networks 5320-16P-4XE Switch [5320-16P-4
The ExtremeSwitching 5320 Series is a family of feature-rich edge switches for the next-generation digital enterprise. The 5320 Series universal hardwa end-to-end secure network segmentation, in addition to advanced policy c and offers a user-selectable choice of Extreme's flagship switch operating s makes the 5320 a uniquely flexible platform that can be deployed across a edge and wiring-closet environments. The 5320 Series includes fixed 16, 2 48-port 1 Gigabit models that are available in 30W PoE and non-PoE versi family also includes 16-port PoE models available with either AC or DC pow
NOTE: The 2x Stacking/SFP+ ports can be used either for stacking or as front panel ports
• Stacking mode data rate per port: 10Gb (supported with EXOS only)
Select Switch Operating System
EXOS
When running EXOS, up to 8 systems car using qualified 10Gb direct attach cables transceivers.
VOSS
Logical stacking is NOT compatible with V three SFP+ ports cannot be used for uplin and 48-port switch when running VOSS in Mode.
Select Model
All models are delivered with a Base software license and 2-post rack mour Engine Release : 32.6 Fabric Engine Release : 9.0
Show All
16-port Switches:
5320-16P-4XE
16 x 10/100/1000BASE- duplex 802.3at 30W PoE 10Gb SFP+ uplink ports (Stacking ports @10Gb), 1 fixed AC PSU, fixed fan m
Current PoE reserve is 168 Watts.
SFP+ Ports available: 4
Viewer Properties
Start Page Topology Site 1
ExtremeCloud IQ Navigator - Subscription Licenses (Cloud)
ExtremeCloud IQ AP3000 (x10)
10GBase-T 802.3at
Extreme 5320-16P-4XE Switch

Co můžeme nabídnout?

Design

Dodávku

Konfiguraci

100% podporu

Děkuji za pozornost

Mgr. Roman Štemberk, DiS.

Stemberk@proficomms.cz

736 625 838