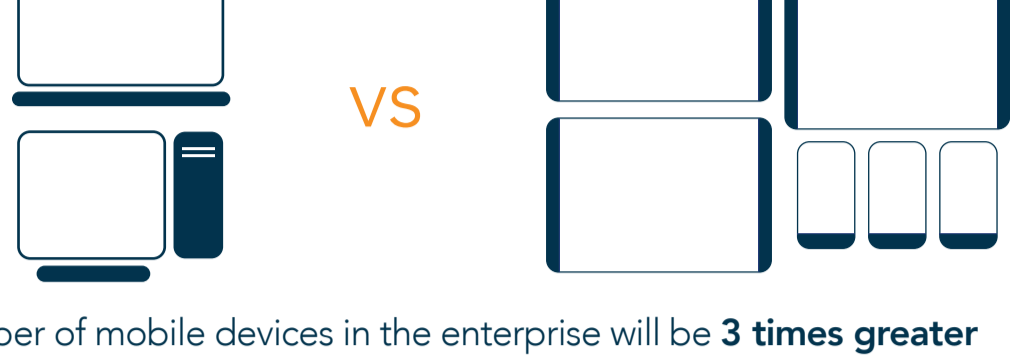


5 Steps to a Killer Wi-Fi Network

By 2016

10,900,000,000 GB

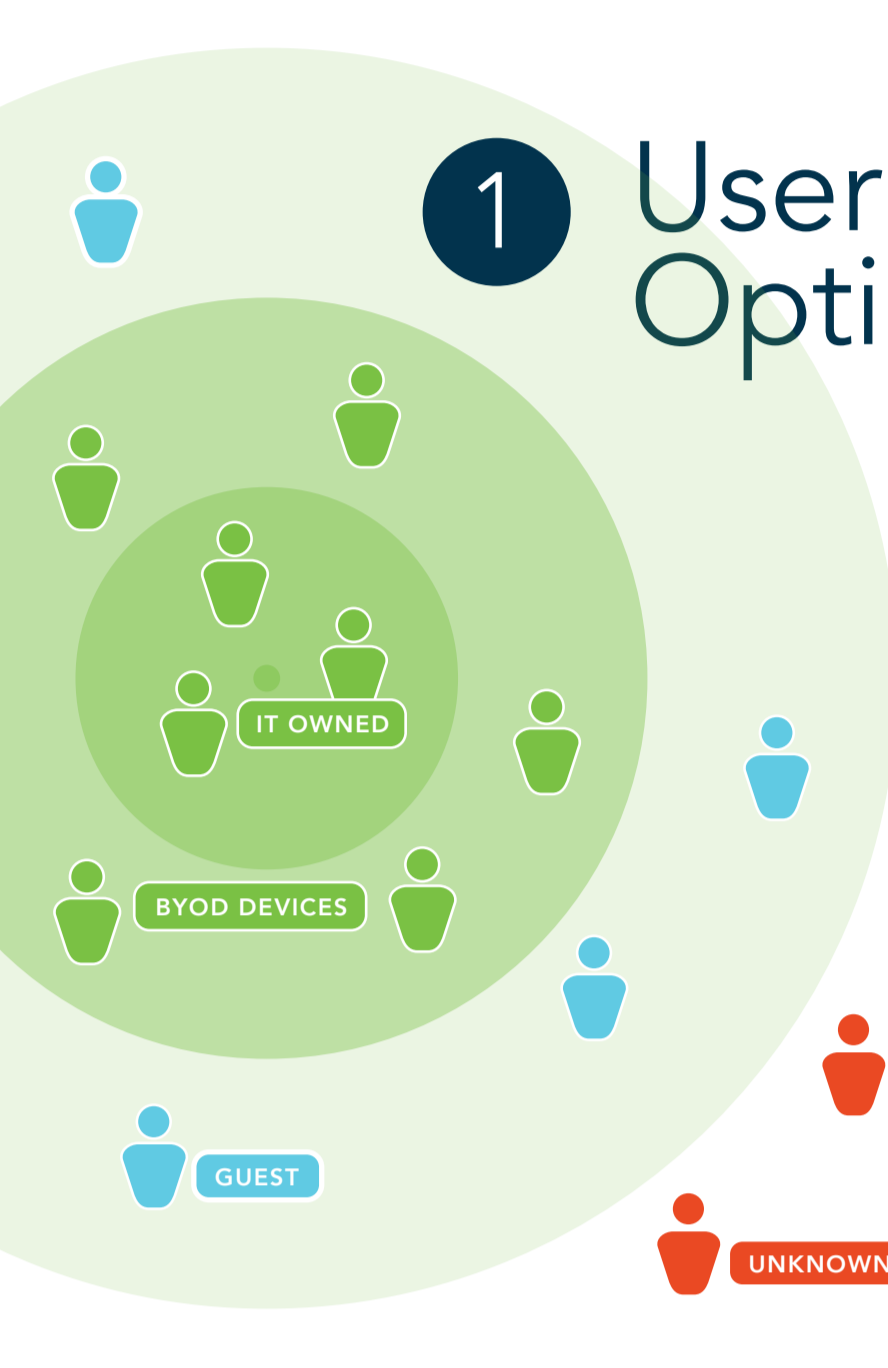
of mobile data will be downloaded every month (that's 10.9 quintillion bytes!)



How will your network handle this explosion of mobile data traffic?

1 User Optimization

Deploy an access management system that ensures easy guest and BYOD onboarding with seamless security



- Quick-connect**
internal users
- Segregate Traffic**
between guest & business network
- Rapid Onboarding**
of employees and guest users
- Isolate**
unknown users

2 Application Optimization

Enable effective control of applications to ensure predictable performance when the network is under heavy load

An average smartphone user has over **40 apps**

50% of all internet traffic is **video**

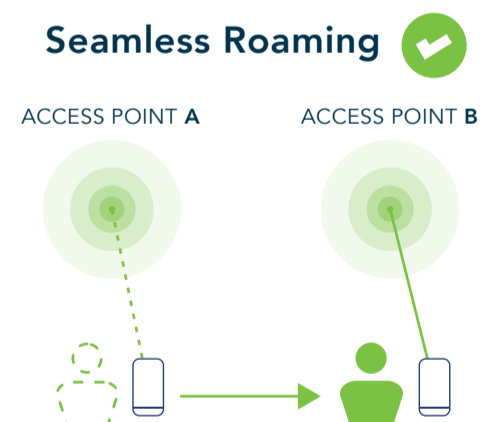
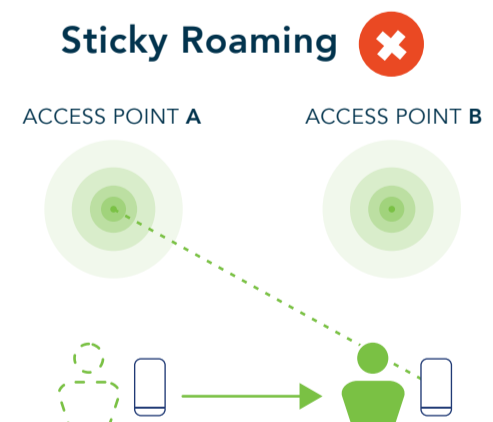
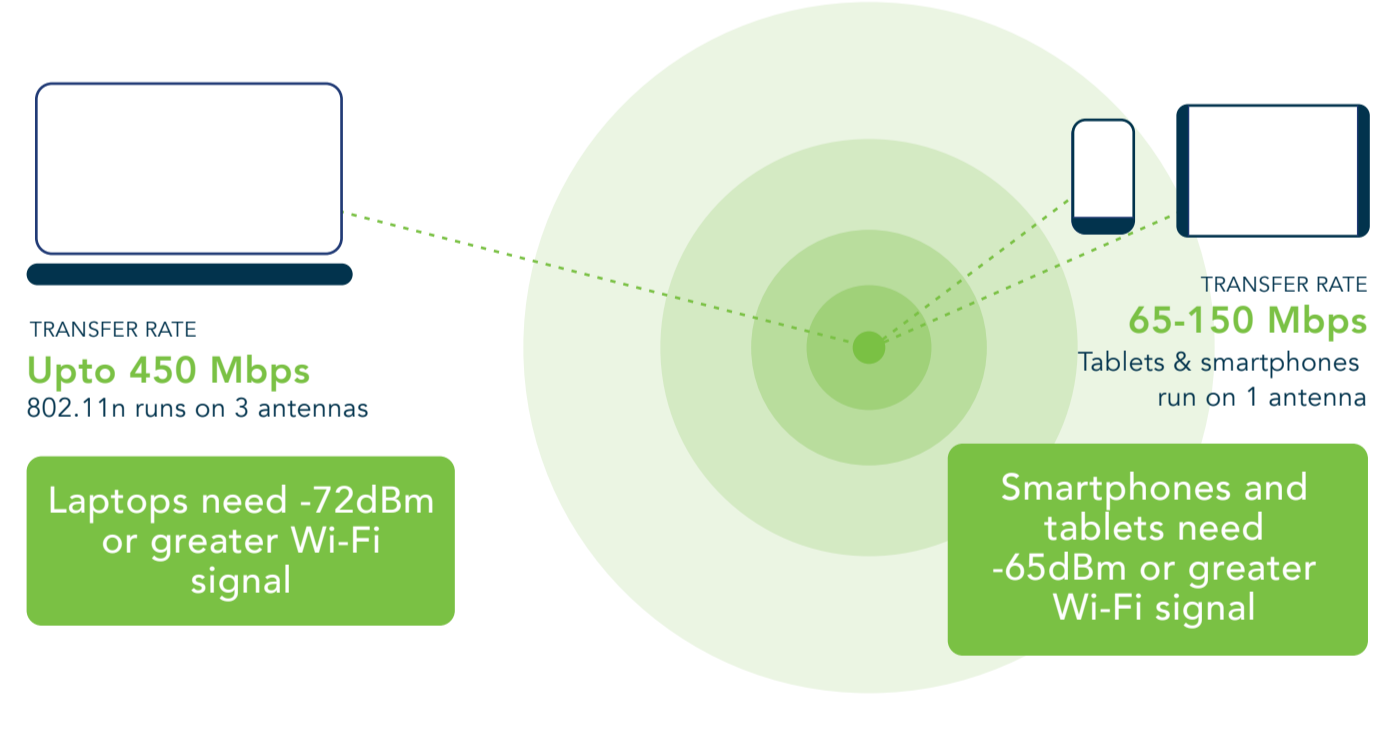
- 3 STEPS TO OPTIMIZE APPLICATION PERFORMANCE**
- Full Layer 7 DPI for application visibility on the Wi-Fi network
 - Policy enforcement based on application type
 - Prioritize, rate limit, and block applications



3 Device Optimization

Classify and manage devices by type to address their unique characteristics

Tablets and smartphones have limited Wi-Fi capabilities



Some devices like to stay connected to a far-away access point which results in lower performance

The Wi-Fi network should account for device type when managing roaming proactively

4 Spectrum Optimization

Maximize the usage of limited RF spectrum available to Wi-Fi

There are two Wi-Fi bands available

2.4 GHz

Supports only 3 non-overlapping (usable) channels
Basic Performance



5 GHz

Supports up to 21 (usable) channels
Best performance



Due to higher throughput and emerging technologies like 802.11ac, the wireless network should move clients to the 5GHz band whenever possible

5 Capacity Optimization

Deploy the necessary amount of wireless capacity to meet user requirements

1 size does not fit all



Handling varying device densities and use cases requires an appropriate quantity of radios to be deployed.

$$\# \text{ of radios} = (\# \text{ of devices} * \text{Avg. bandwidth per device}) / \text{Avg. bandwidth per radio}$$