

**CLAVISTER®**

CONNECT . PROTECT



**Cloud Security in Telecom Networks**  
John Vestberg, President and CEO

# Clavister is...



...a provider of network security products  
to tier-1 clients across the globe

**180** employees  
**SEK 1b** in revenues to date  
**+18 000** active contracts  
Customers in **+150** countries  
**20** years of development

Founded in **1997** as an IT  
consultant in Örnsköldsvik  
Sweden

Developed security  
products since **1998**

Started telecommunications  
initiative in **2007** to meet  
security needs for next  
generation of networks

Listed on NASDAQ  
First North **2014**

CLAV SS

Acquisition of  
PhenixID **2016**



# Verticals



Education & Public Sector



Retail & Distributed offices



Critical Infrastructure



Industrial IoT & Transportation



Communication Service Providers

# Channel



MSSP



System Integrator



OEM

NEWS

**T-Mobile  
arverted  
significantly  
stronger  
DDOS  
attacks  
last year**

CYBERSPACE

**WannaCry  
a wake-up  
even for  
data giants  
such as  
Telefónica**

THE DAILY NEWS

**Portugal  
Telecom  
says hit by  
CYBER  
ATTACK**

THE DAILY NEWS



# Cybercrime's negative impact...

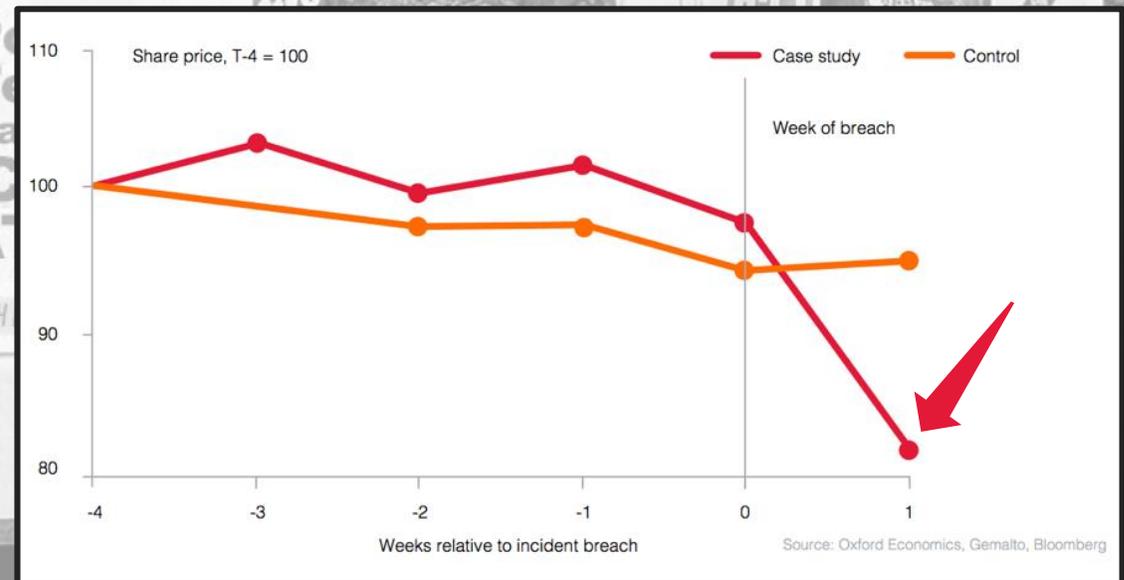
...on the brand value and share price can be devastating

## NEWS

**T-Mobile averted significantly stronger DDOS attacks last year**

## CYBERSPACE

**WannaCry a wake-up even for data giants such as Telefónica**





**KEEP  
GATE  
CLOSED**

# CLAVISTER® – Leading virtualized security



**Our mission is  
to secure  
business  
continuity and  
protect brand  
integrity.**

# The road to 5G....

**vEPC**

**NGC**

**MEC**





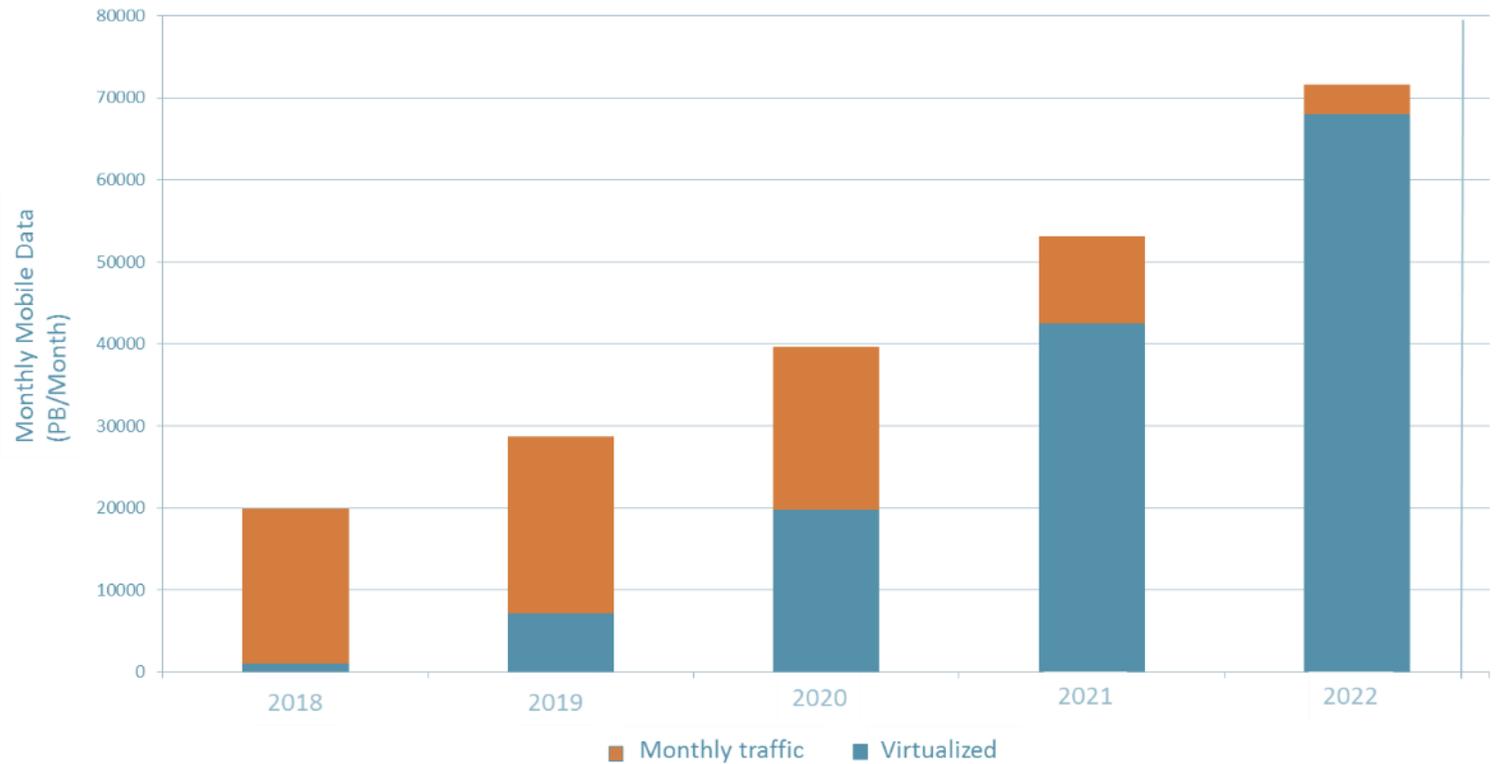
# Virtualization rollout is **a reality**

“ Five years ago virtualization was just a dream – now it's a fact ”

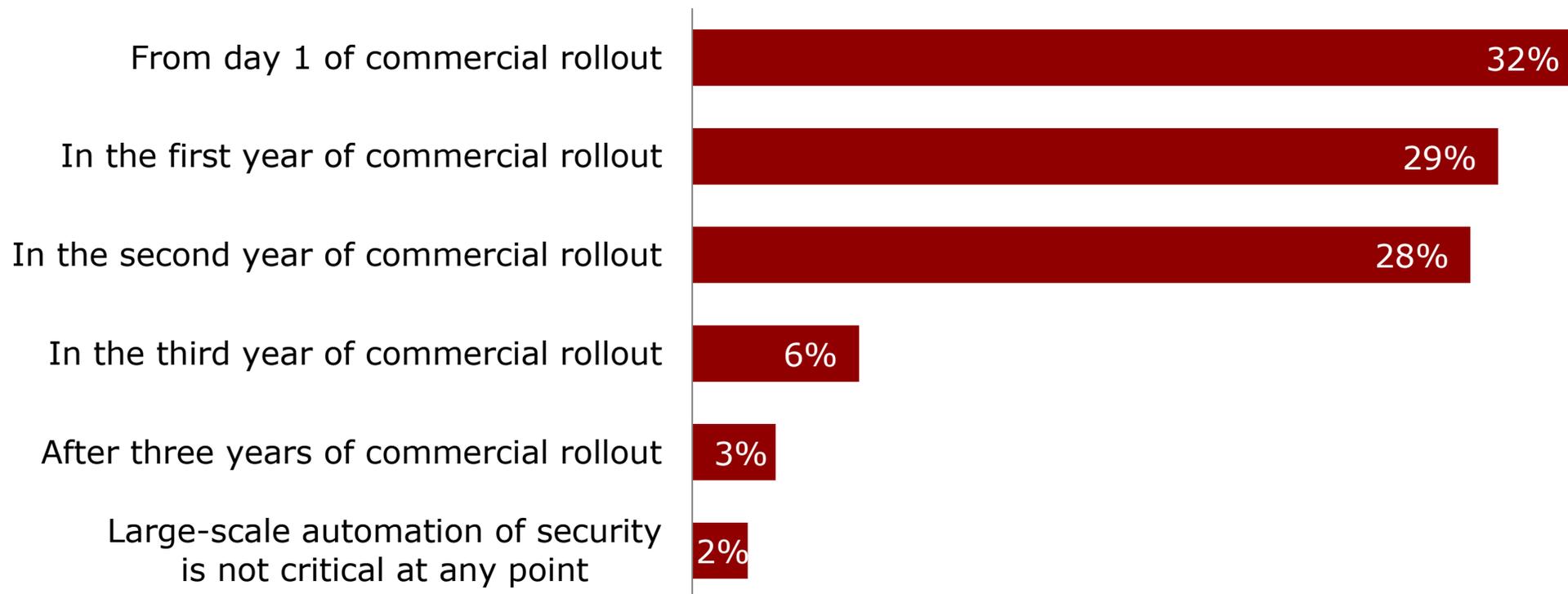
- Telefónica's CTO Enrique Blanco Feb -18

“ Virtualization will enable it to reduce \$10B in costs ”

- Verizon CEO Lowell McAdam Sep -17



# When does NFV/SDN Security become critical?

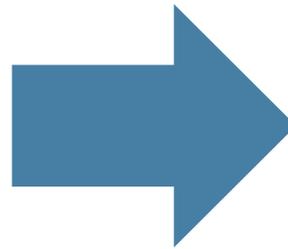


At what point in your company's commercial rollout of virtualized offerings using NFV/SDN/cloud technologies does large-scale automation of security become critical?

Source: Heavy Reading Security Perception Study 4Q17 (N=100)

vEPC

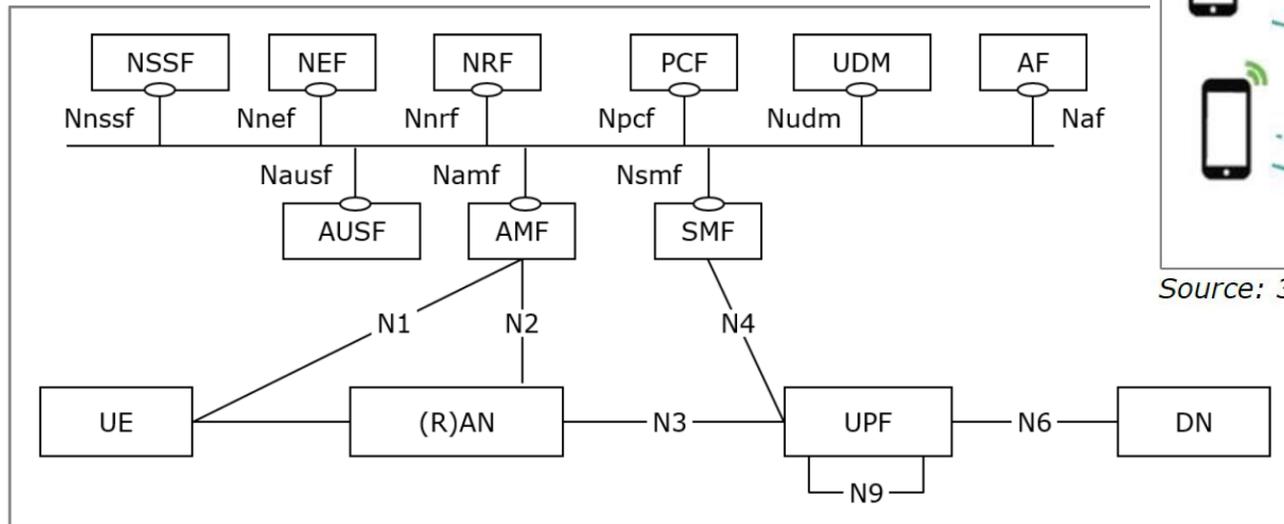
# Virtualise Security





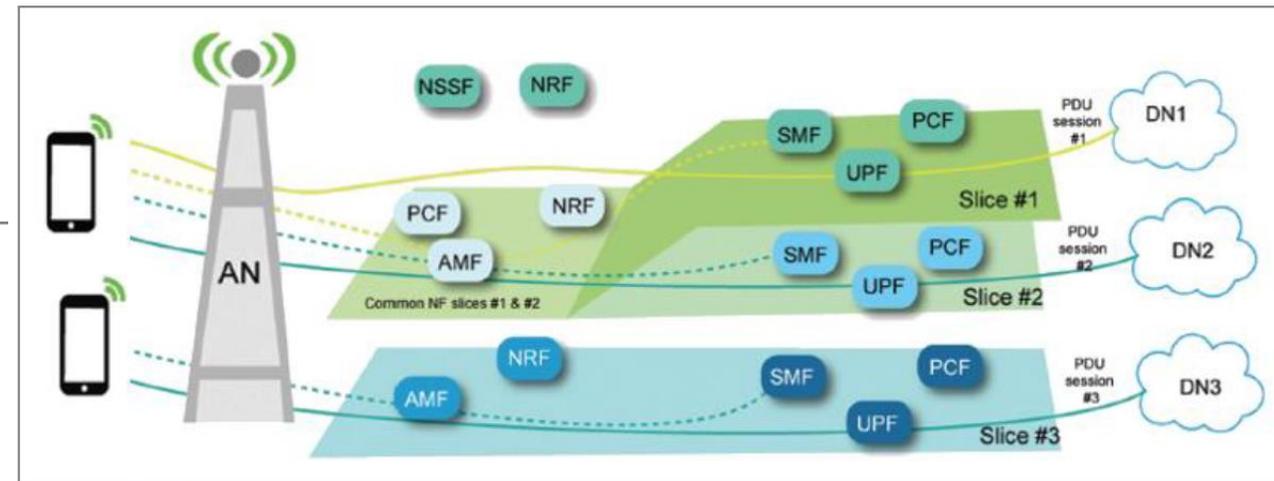
# Next Generation Core

## Services Based Architecture



Source: 3GPP TS23.501 V15.2.0 (2018-06)

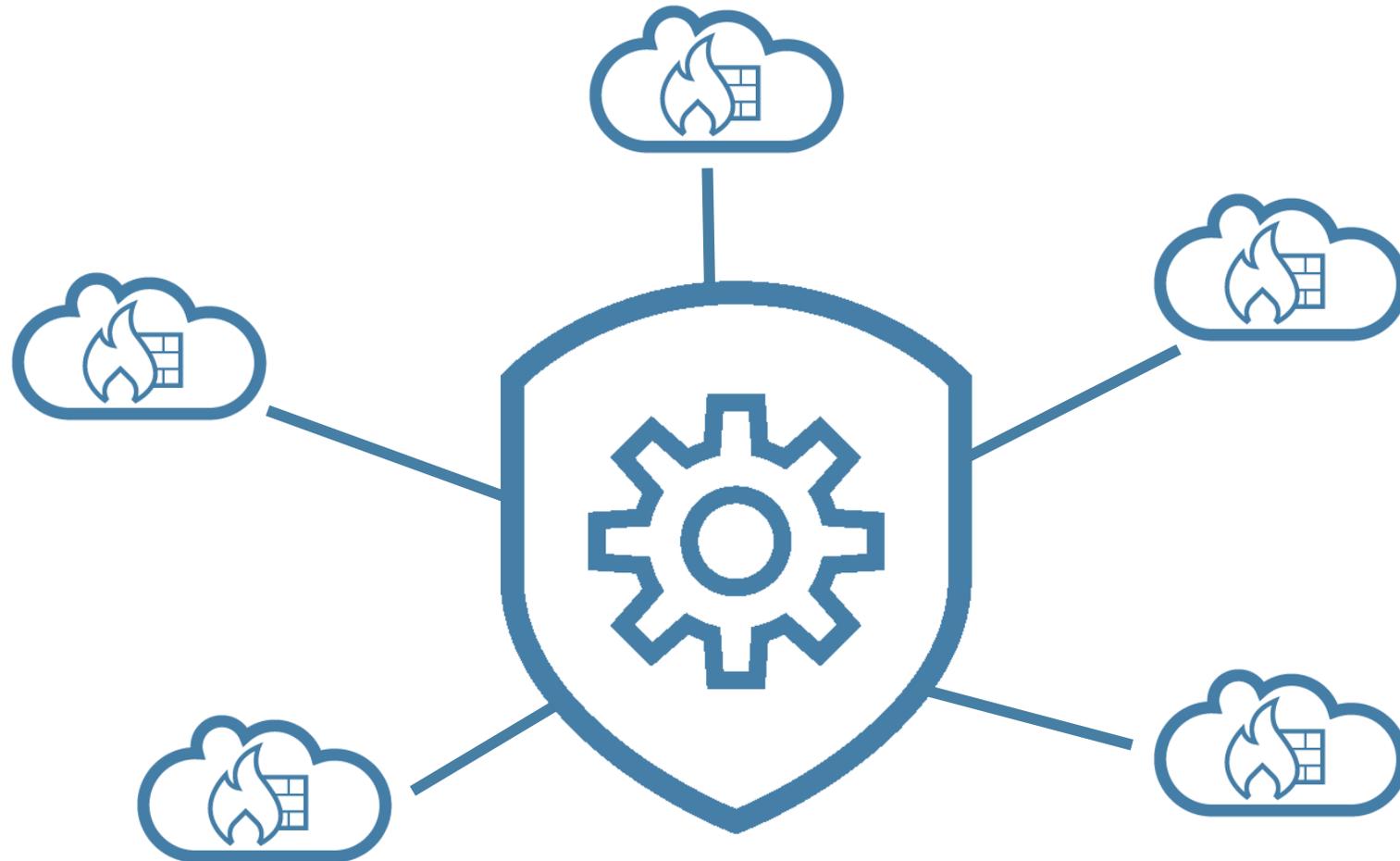
## Network Slicing



Source: 3GPP



# The emergence of the Services-Based Firewall

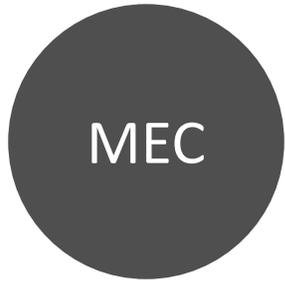


NGC

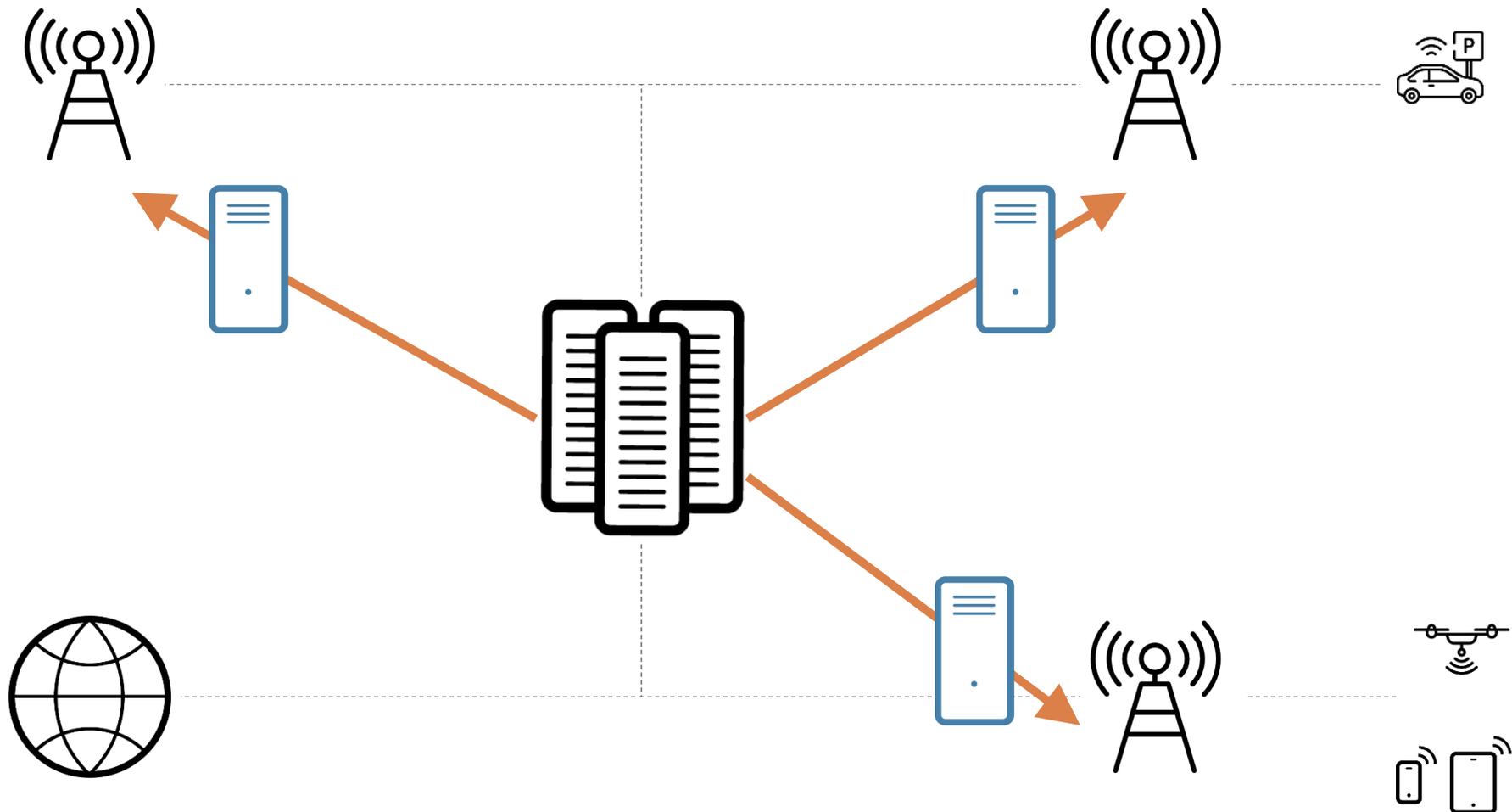
## NGFW vs. SFW

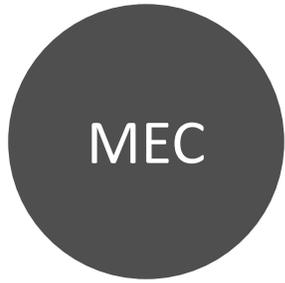
Attribute	NGFW	SFW
Virtualized firewall	☐	☐
DPI	☐	☐
IDS	☐	☐
IPSec	☐	☐
Automated security policy	✘	☐
Software configurable at the edge	✘	☐
Security analytics integration	Limited	☐
5G SBA architecture optimized	✘	☐
Effective 5G security slice enforcement	✘	☐
API exposure support	Limited	☐
Advanced control plane signaling validation	✘	☐
Orchestration of security VNFs at the edge	✘	☐
Identity-driven policy enforcement	Limited	☐

Source: Heavy Reading

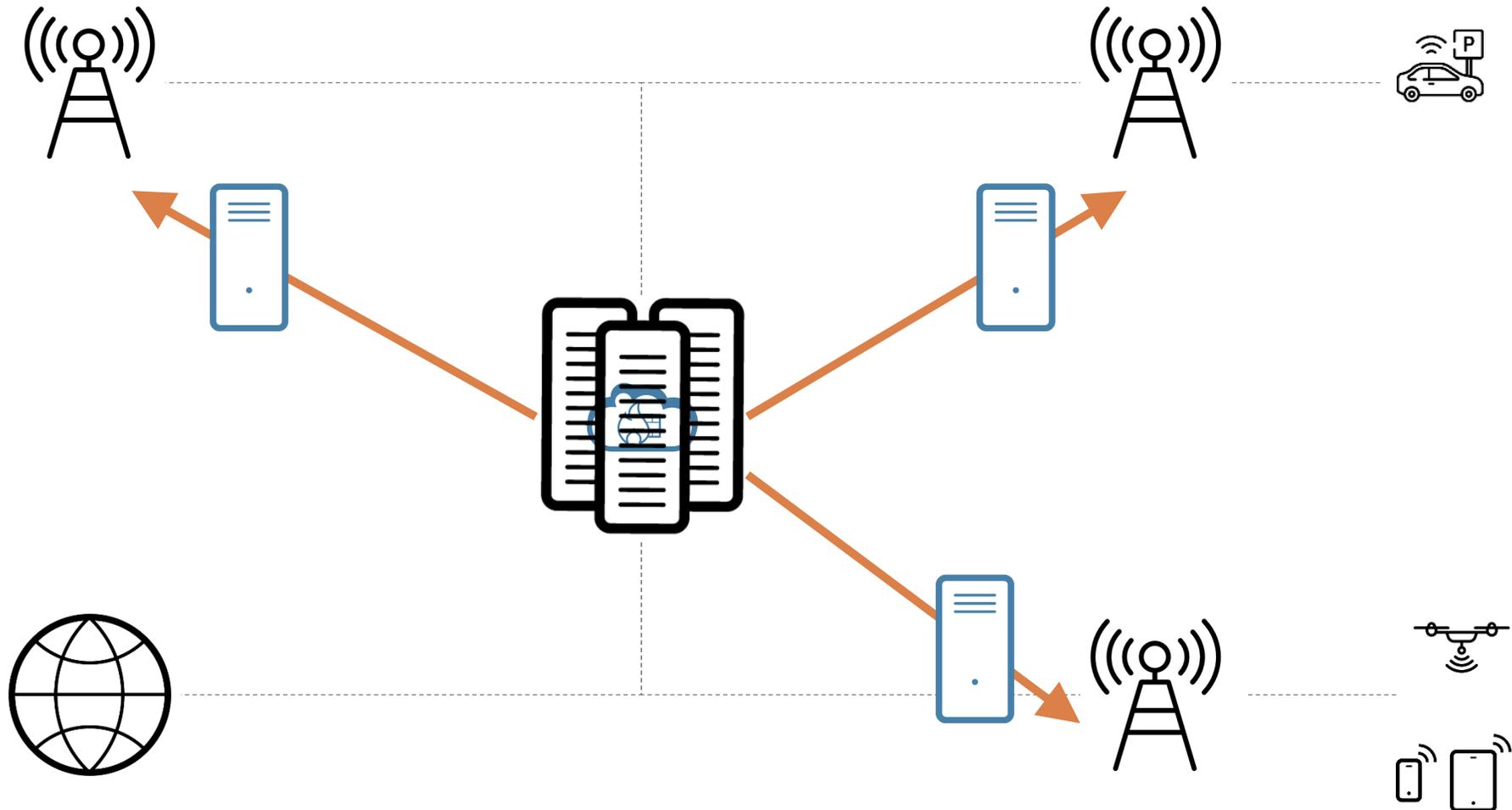


# Mobile Edge Computing





Security must follow...



# The road to 5G....

**vEPC**

Start virtualizing  
now!

**NGC**

Services-based  
firewall meeting  
network slicing  
needs.

**MEC**

Low latency in  
your edge  
security.

**CLAVISTER**<sup>®</sup>

Read the latest Heavy Reading white paper sponsored by Clavister:

# 5G Security VNFs

and the Emergence of the  
Services Based Firewall

Download your copy:  
<https://www.clavister.com/SBFW>

