FORUMRNP 2018

Patrimônio digital, dados abertos e tecnologias de memória

A mobilidade em sua arquitetura inovadora e distribuída, AI e ML

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Aerohive Networks

RNP

WI-FI ARCHITECTURES

1. CENTRALIZED / HYBRID CONTROLLER
   - NMS
   - Physical/Virtual Controller
   - Thin/Hybrid AP
2. CLOUD CONTROLLER
   - Limited Cloud Control
   - Thin AP
3. AP NOMINATED AS CONTROLLER
   - NMS
   - AP Nominated as Controller
4. DISTRIBUTED CONTROL
   - Cloud Management
   - Distributed Control

AEROHIVE VS MARKET IN DETAILS

NMS

HIVEMANAGER

~~Physical/Virtual Controller~~

WE DON'T NEED DEDICATED HW/VM CONTROLLER

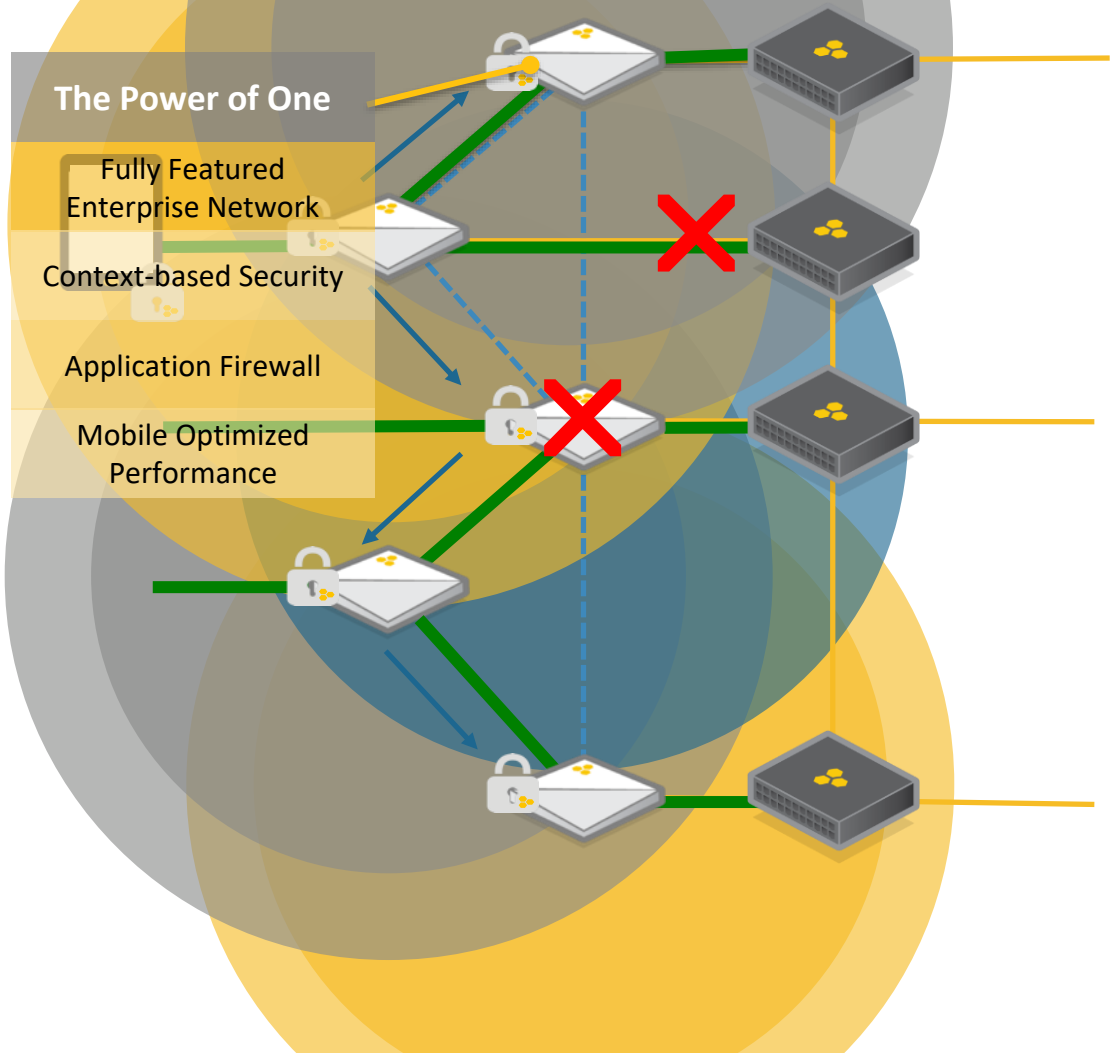
APs

WE HAVE DISTRIBUTED CONTROL ON ALL APS!!!

DISTRIBUTED CONTROL - WHY IT'S SO IMPORTANT

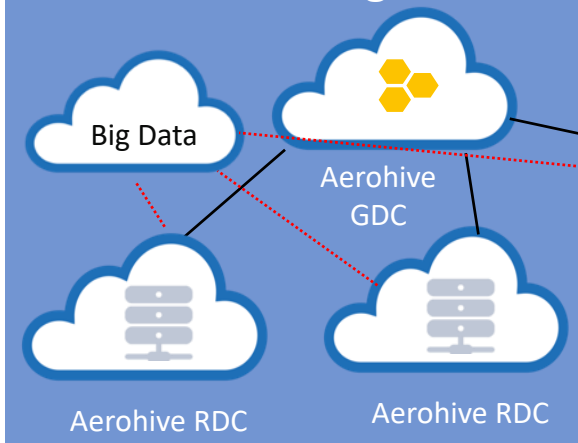
Smarter Access Layer

- Shared control plane increases speed, resiliency, and scale
- No need for dedicated wireless LAN Controllers



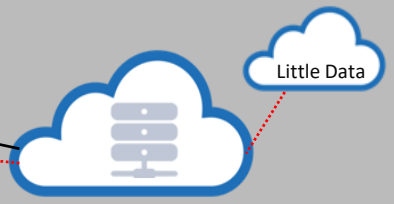
CLOUD IS A REALITY

Aerohive Cloud NMS & Insights



Org 1 | Org 2

NG Private Cloud & Insights



Customer or Partner RDC
Cloud Infrastructure

Run by DevOps
Supports Analytics
From 7,5k up to 50k devices

Org 1 | Org 2

NG Portable Cloud On-Premises

Private Cloud or HW Server

- AWS/Google/Azure
- vSphere Essentials plus:
  - Up to 3,5k devices
  - Roadmap to 5k devices

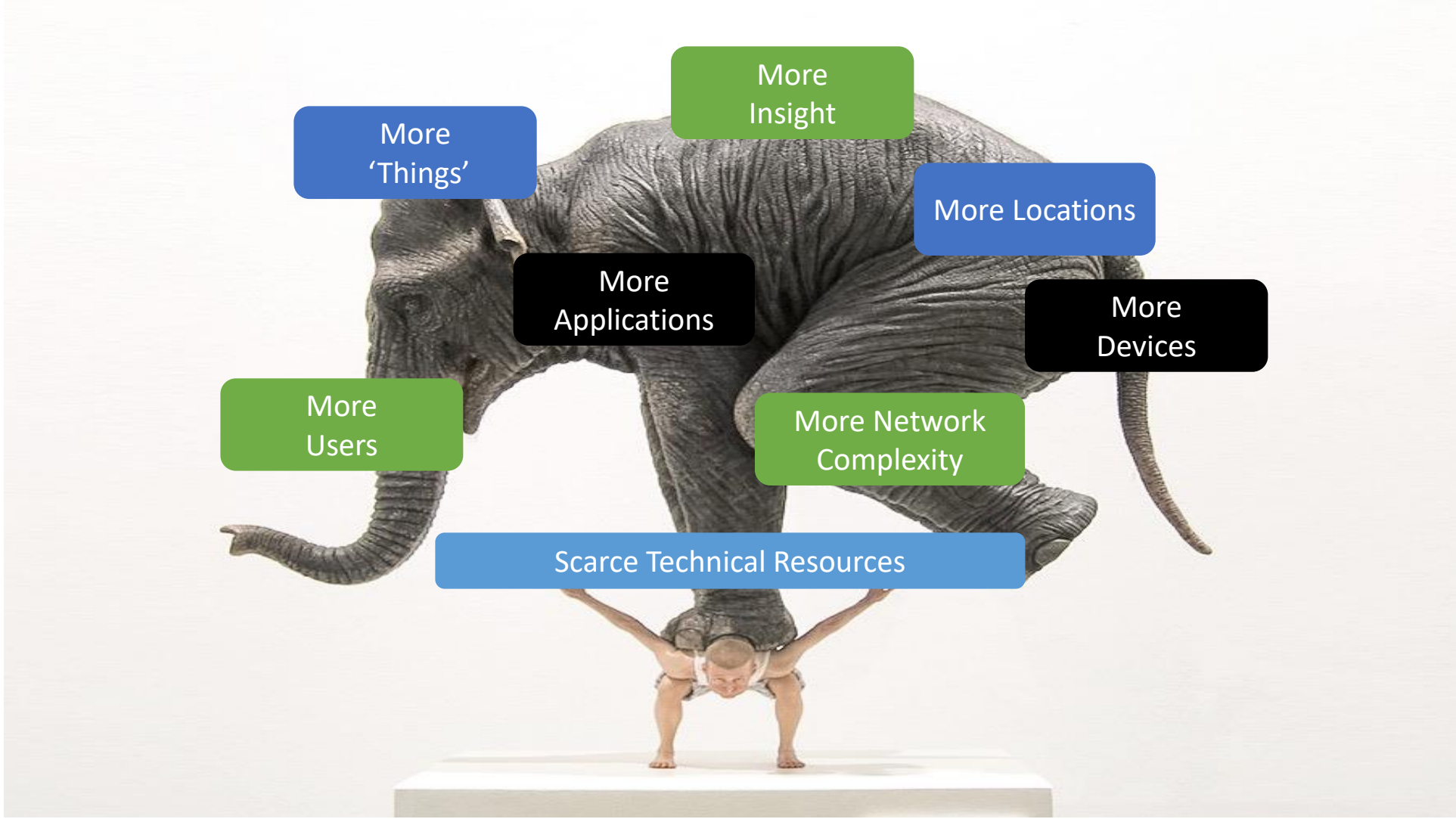
HHM for multi-org

Org 1 | Org 2

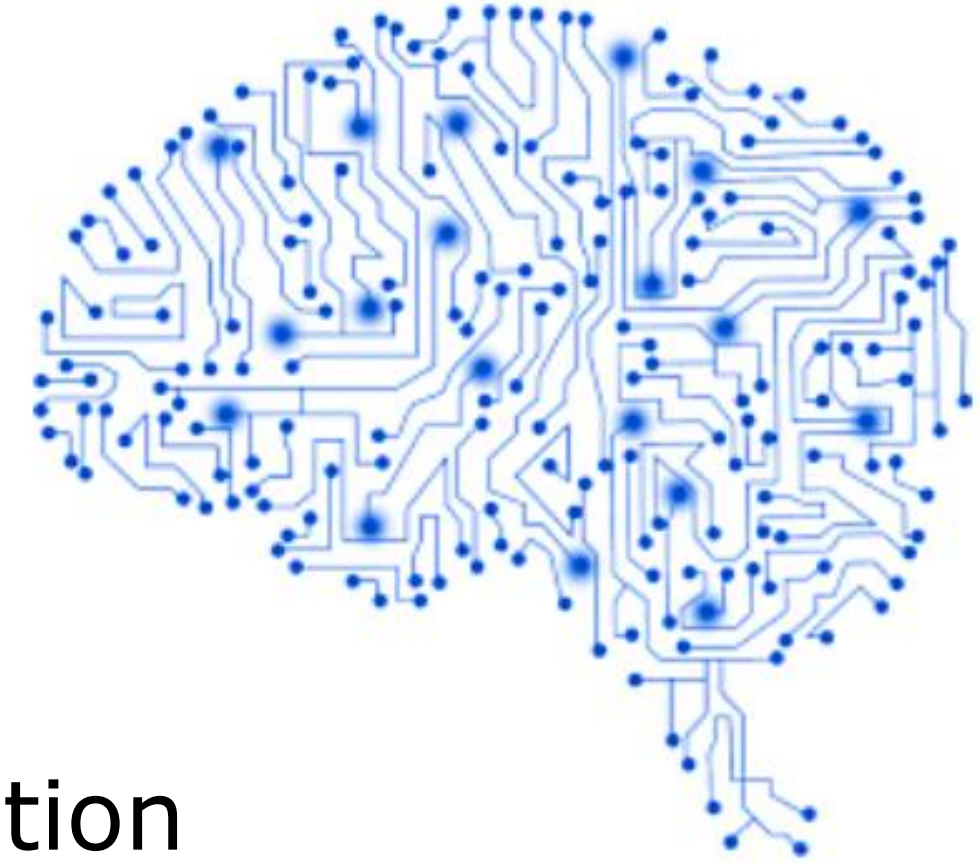
WHAT EXPECT FROM WI-FI?

- Connectivity
- Stability
- Performance
- Security

BUT IT GUYS ARE LIKE THAT…



- Is proactive
- Identify LAN issues
- Do the IoT classification
- Detect poor client connection



ML/AI - CLIENT 360 COMPAR. HEALTH SCORE

Client Trail

DEVICE NAME	DURATION	RSSI	SNR	SSID	ROAM	ASSOC	AUTH	DHCP	DEFAULT GATEWAY ARP	DNS
US-MIL-1-05	17 Secs	Excellent	Very High	SSID-A	50 ms	●	●	●	●	●
US-MIL-1-05	2 Hrs 4 Mins 58 Secs	Excellent	Very High	SSID-A	50 ms	●	●	●	●	●
US-MIL-1-12	39 Secs	Poor		SSID-A	45 ms	●	●	●	●	●
US-MIL-1-03	21 Mins 46 Secs	Poor		SSID-B	50 ms	●	●	●	●	●
US-MIL-1-09	1 Secs	Very Good		SSID-A	2999 ms	●	●	●	●	●
US-MIL-2-05	36 Mins 2 Secs	N/A		SSID-A		●	●	●	●	●

- ASSOCIATION — Duration: **3 Secs** | RSSI: **Excellent -56 dBm** | SNR: **Very High 39 dB**
- AUTHENTICATION — Protocol: **PPSK** | Response Time: **2 ms** | Status: **PASS**
- DHCP — Server IP Address: **10.10.10.0** | Response Time: **2 ms** | IP Address Obtained: **10.10.1.1**
- DEFAULT GATEWAY ARP — Round-trip Delay: **2 ms** | Default Gateway IP Address: **10.10.1.2**
- DNS — Server IP Address: **10.10.2.2** | Response Time: **2 ms**

ML/AI – USER PROFILING

NAME	IDENTITY	DEVICE	VLAN	FIREWALL	SPEED	LOCATION	TIME OF DAY
JAMES	CORP		10			ENTIRE CAMPUS	24/7
RAJESH	BYOD		20			MAIN BUILDINGS	24/5
SERENA	GUEST		30			CONFERENCE & PUBLIC AREAS	9/5
CAROLINE	CONTRACTOR		40			LIMITED FLOORS	12/5
PHILLIPS	IOT		50	10.0.5.100/ 24		FIXED ROOM	24/7

Radio 1

Radio 2

5 GHz

Software Configurable *Radios*

5 GHz

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Obrigado(a)

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