



Alpha Networks Inc. Investor Conference

2019/3/20

Safe Harbor Statement

Except for the statements in respect of historical matters, the statements contained in this release are “forward-looking statements” subject to risks and uncertainties which may make actual performances and results differ materially from those contained in the forward-looking statements, including the financial stability of international market, demand in end market, supply chain management, impact of competitive products and pricing, exchange rate fluctuations, and other risks beyond the control of the company.

Agenda

- 4Q18 & 2018 Financial Reviews
- Growth Drivers
- Q&A



4Q18 & 2018 Financial Reviews

Consolidated Statements of Comprehensive Income QoQ

NT\$ Millions	4Q 2018		3Q 2018		QoQ	
	Amount	%	Amount	%	Amount	%
Net Revenue	4,086	100.0	3,584	100.0	502	14.0
Cost of Goods Sold	3,422	83.7	3,063	85.5	359	11.7
Gross Profit	664	16.3	521	14.5	143	27.4
Operating Expenses	611	15.0	540	15.0	71	13.1
Operating Income (Loss)	53	1.3	(19)	(0.5)	72	378.9
Non-Op. Inc.	30	0.7	42	1.2	(12)	(28.6)
Income Before Tax	83	2.0	23	0.6	60	260.9
Net Income	114	2.8	22	0.6	92	418.2
EPS (NT\$)	0.23		0.04			

Consolidated Statements of Comprehensive Income YoY

NT\$ Millions	2018		2017		YoY	
	Amount	%	Amount	%	Amount	%
Net Revenue	15,608	100.0	19,057	100.0	(3,449)	(18.1)
Cost of Goods Sold	13,504	86.5	16,165	84.8	(2,661)	(16.5)
Gross Profit	2,104	13.5	2,892	15.2	(788)	(27.2)
Operating Expenses	2,304	14.8	2,280	12.0	24	1.1
Operating Income (Loss)	(200)	(1.3)	612	3.2	(812)	(132.7)
Non-Op. Inc.	116	0.7	84	0.4	32	38.1
Income (Loss) Before Tax	(84)	(0.5)	696	3.7	(780)	(112.1)
Net Income (Loss)	(88)	(0.6)	549	2.9	(637)	(116.0)
EPS (NT\$)	(0.17)		1.26			

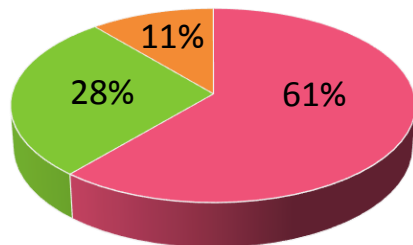
Consolidated Balance Sheets 2018/12/31 vs. 2017/12/31

NT\$ Millions	31-Dec-18		31-Dec-17		YoY	
	Amount	%	Amount	%	Amount	%
Cash and Cash Equivalents	2,529	16.9	2,662	19.4	(133)	(5.0)
Accounts Receivable	2,169	14.5	2,960	21.6	(791)	(26.7)
Inventories	3,722	24.9	3,383	24.6	339	10.0
Other Current Assets ^(Note)	4,097	27.4	2,162	15.8	1,935	89.5
Non-current Assets	2,412	16.2	2,558	18.6	(146)	(5.7)
Total Assets	14,929	100.0	13,725	100.0	1,204	8.8
Current Liabilities	4,173	28.0	4,638	33.8	(465)	(10.0)
Non-current Liabilities	362	2.4	392	2.9	(30)	(7.7)
Total Liabilities	4,535	30.4	5,030	36.6	(495)	(9.8)
Common Stock	5,435	36.4	4,444	32.4	991	22.3
Shareholders' Equity	10,394	69.6	8,695	63.4	1,699	19.5

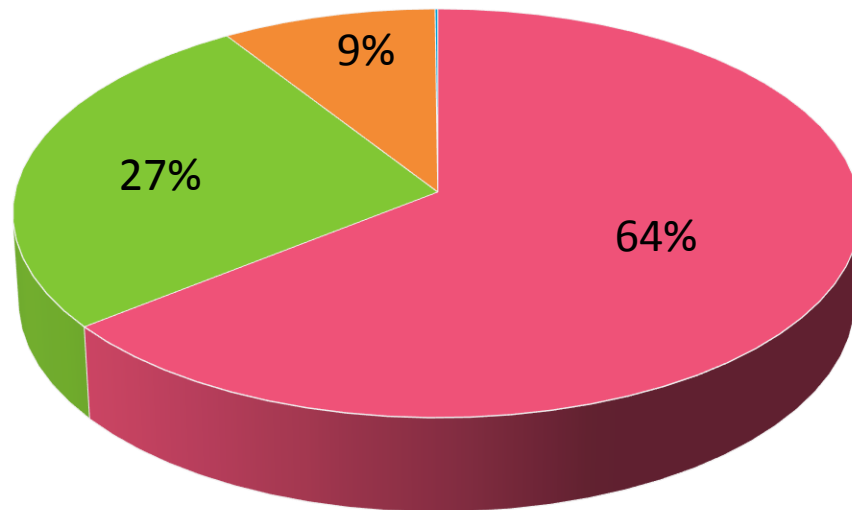
(Note) Other current assets includes deposits with original maturities of more than three months: NT\$3,883M and NT\$1,783M as of Dec. 31, 2018 and 2017.

2018 Revenue Breakdown by Products & YoY Comparison

2017 Revenue by Products



2018 Revenue by Products



■ LAN/MAN

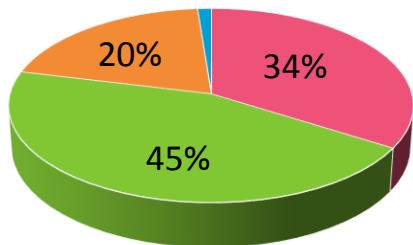
■ Wireless Broadband

■ Digital Multimedia

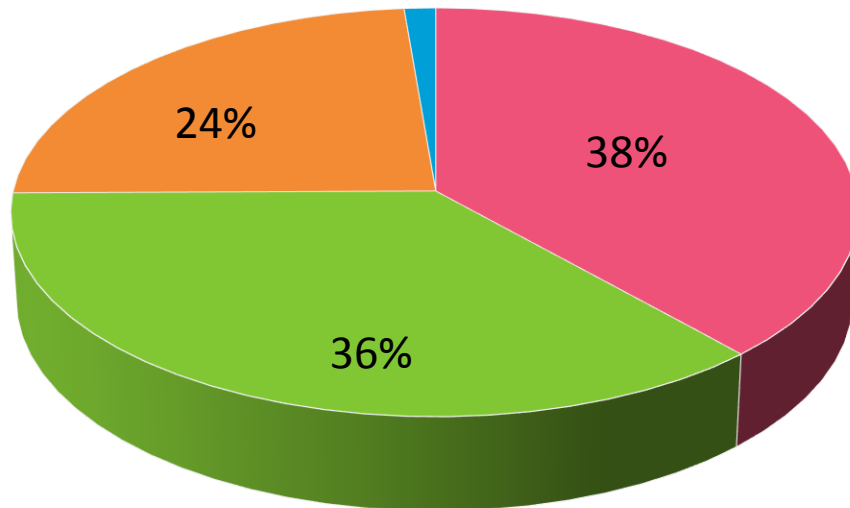
■ MES (Telematics) & Others

2018 Revenue Breakdown by Regions & YoY Comparison

2017 Revenue by Regions



2018 Revenue by Regions



■ North America ■ Asia/Pacific ■ Europe ■ Others



Growth Drivers

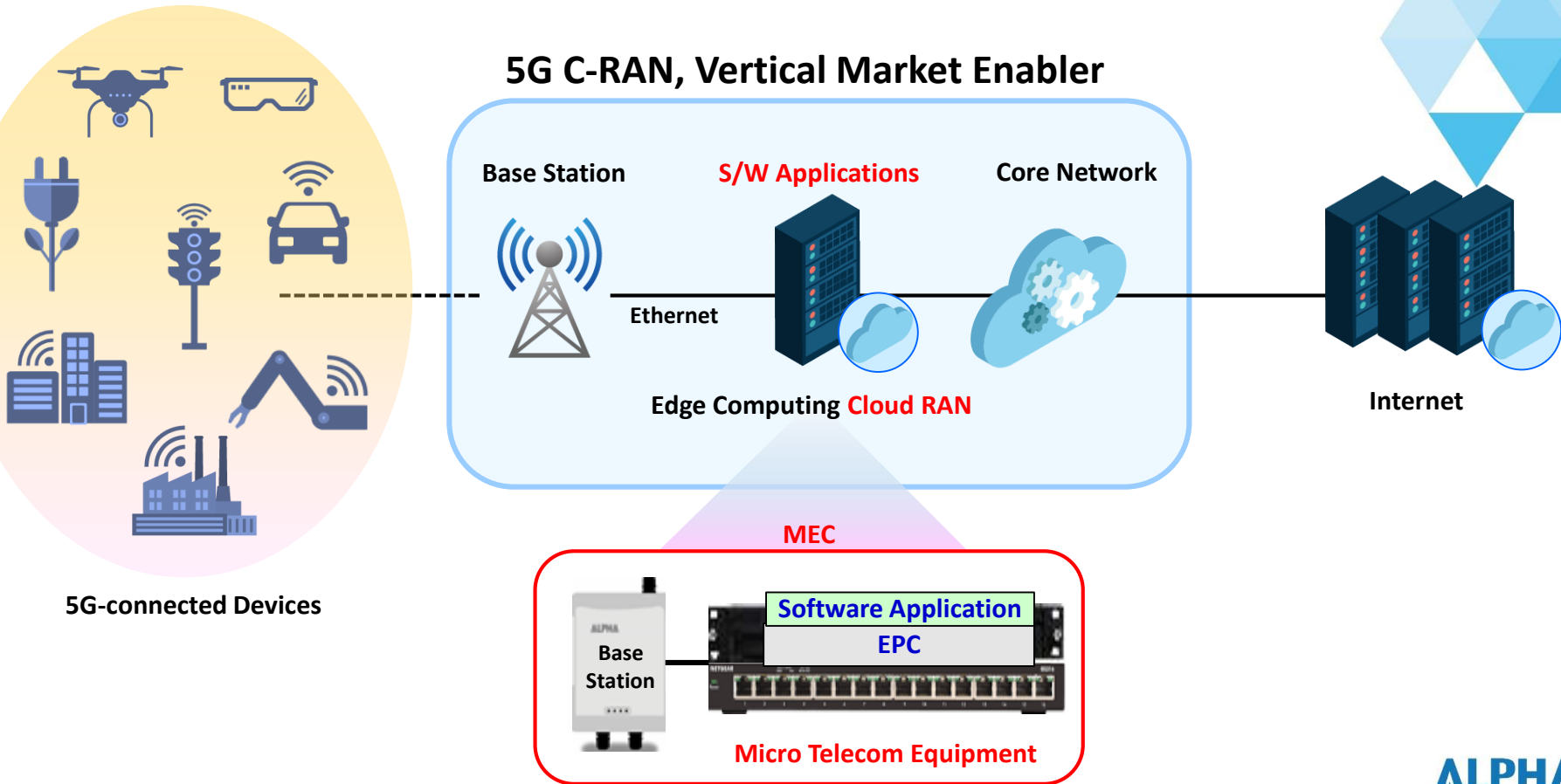
10Gbps, Anticipating & Inspiring to Networking Industry in 2019



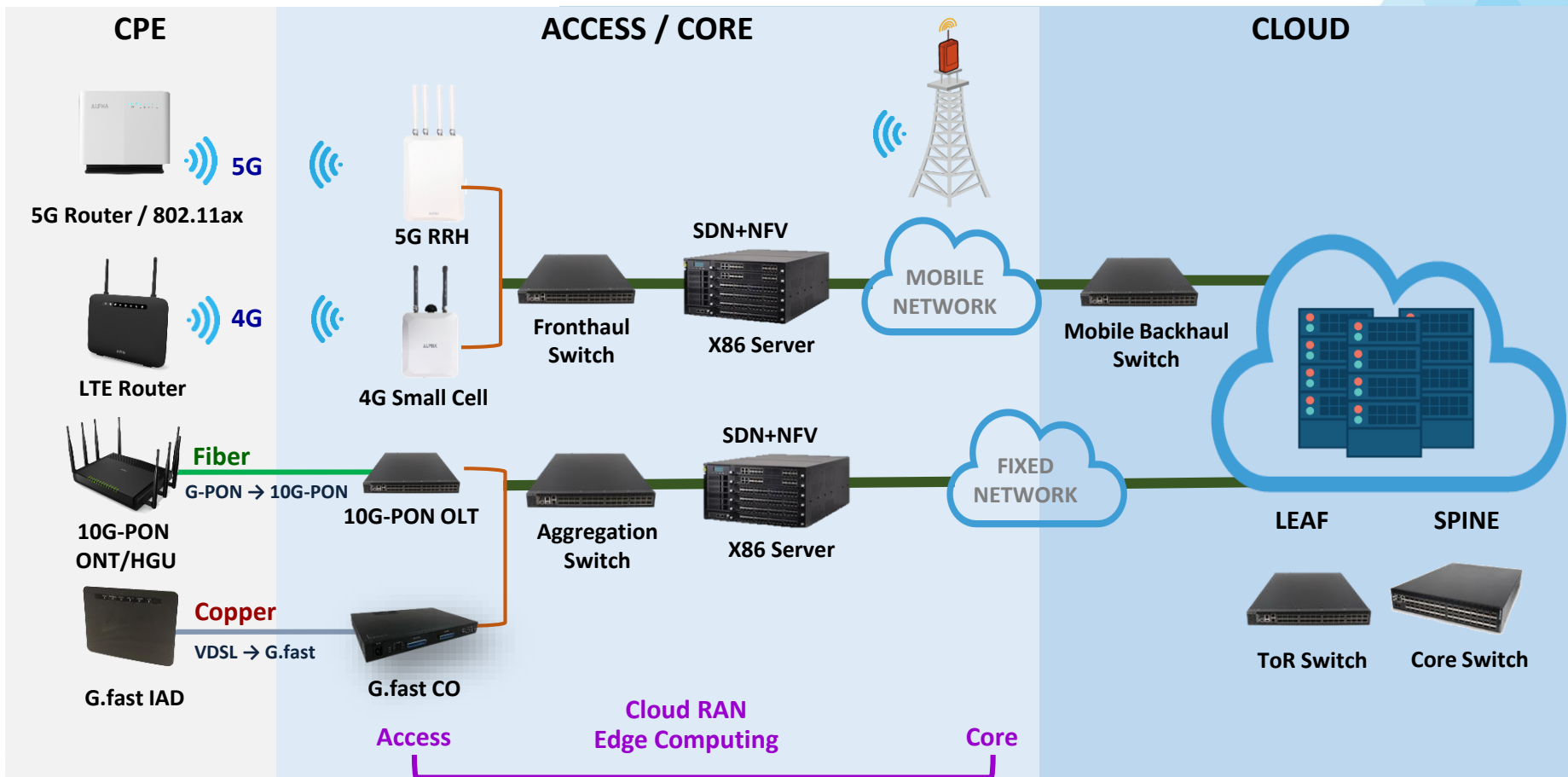
- Networking technologies are upgrading comprehensively,
 - **Copper wire** DSL → G.fast (2.5-3x faster)
 - **Fiber** G-PON → 10G-PON (4x faster)
 - **Wireless** Wi-Fi 5 (802.11ac) → Wi-Fi 6 (802.11ax) (4x faster)
 - **Ethernet** 10G → 25G , 100G → 400G
 - **Edge Computing (EC)**, especially the rise of Mobile Edge Computing (MEC)
- ADAS is thriving...

5G Enabling Digital Transformation of All Industries

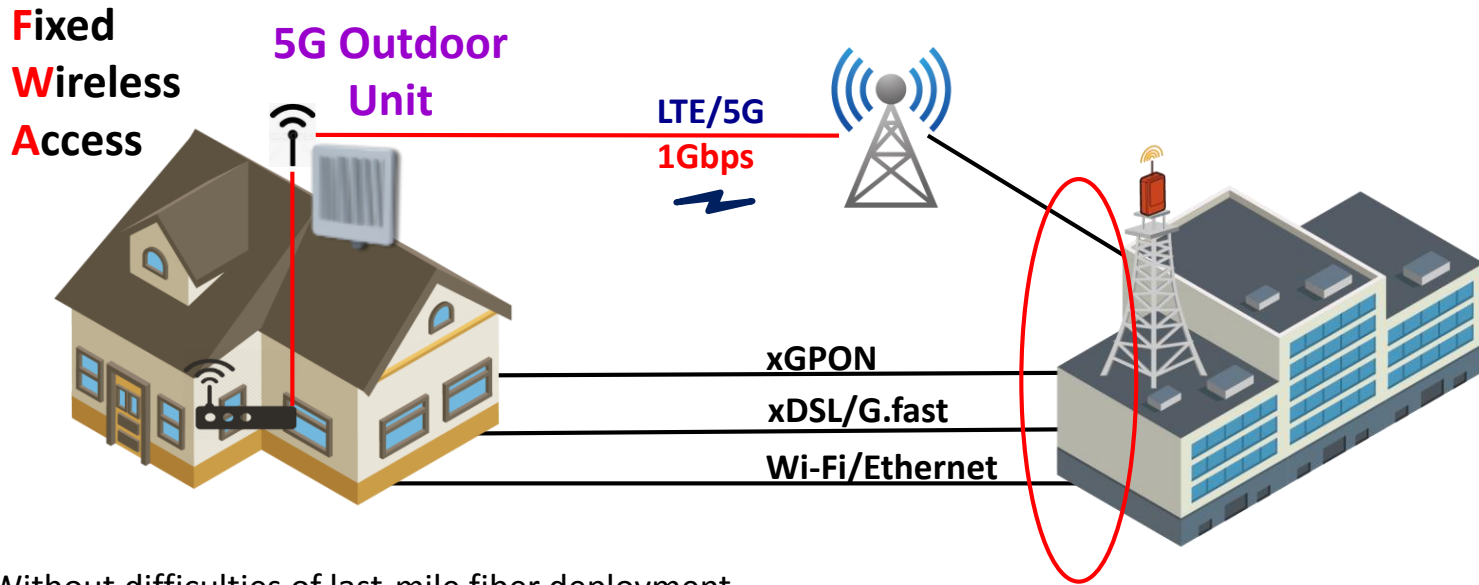
5G C-RAN, Vertical Market Enabler



Complete End-to-End Solution



FWA and MPTCP

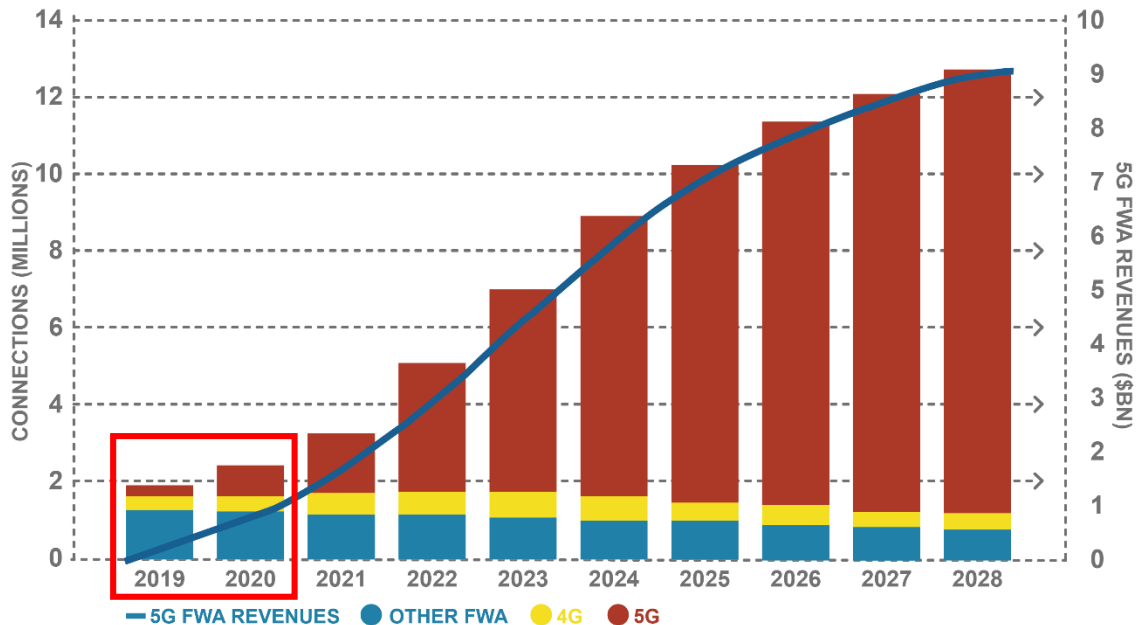


Without difficulties of last-mile fiber deployment, the adoption of 5G FWA will accelerate.

MPTCP, Multipath TCP, aggregates multiple access network bandwidths for households.

Market Value of 5G FWA in North America is Thriving Since 2019

Connections and revenues of 5G FWA in North America, from 2019 to 2028.

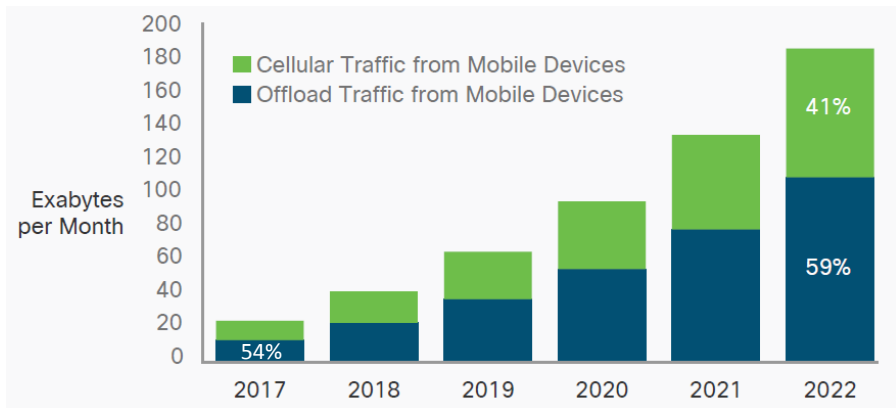


Source: Ovum, 2018

Almost 9% of broadband households will use 5G as their main broadband connection by 2028, generating nearly \$9bn in revenues.

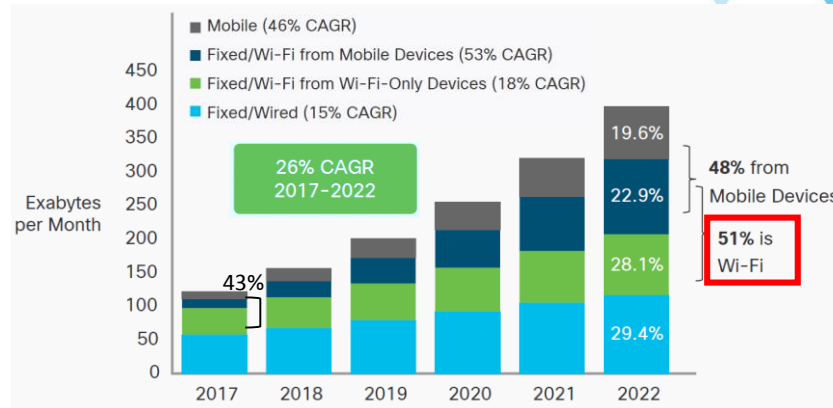
Growing Mobile Traffic Boosting Demand of Wi-Fi Offload

Global Mobile Data Traffic Offload to Wi-Fi



Source: Cisco VNI Mobile Report, 2019

IP Traffic by Access Technology



Source: Cisco VNI Mobile Report, 2019

- ◆ Mobile offload to Wi-Fi increases from 54% in 2017 to 59% by 2022.
- ◆ Wi-Fi traffic from both mobile devices and Wi-Fi-only devices together will account for 51% of total IP traffic by 2022, up from 43% in 2017.

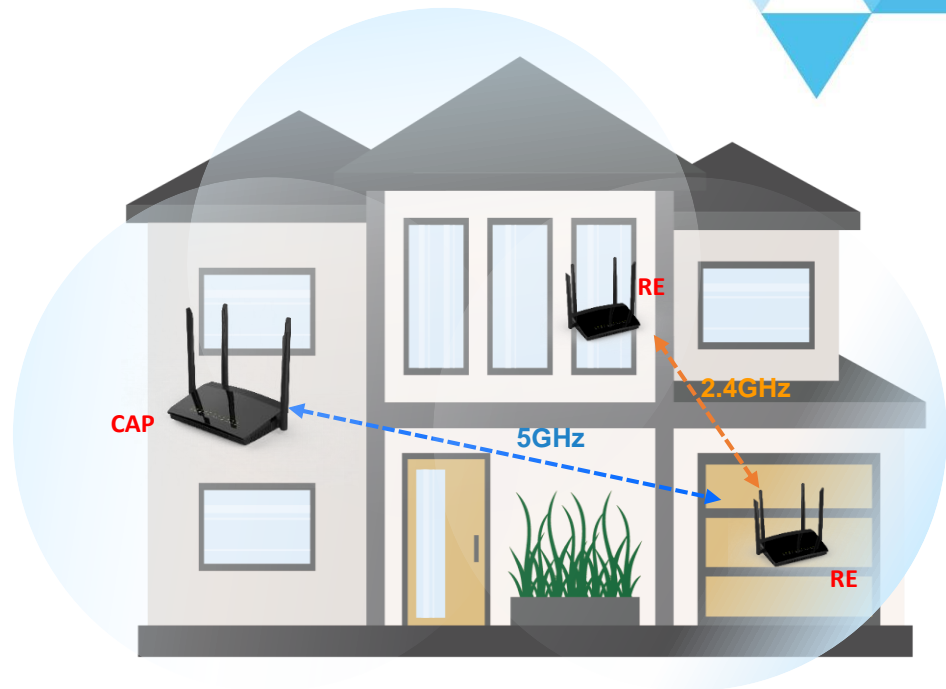
Wi-Fi Technology Trend – Wi-Fi 6 (802.11ax) & MESH

Wi-Fi 5 (802.11ac) → Wi-Fi 6 (802.11ax)



- ◆ 6.9Gbps → 9.6Gbps, intrinsic upgrade 38.6%
- ◆ OFDMA to provide 4x-faster throughput
- ◆ Reducing latency effectively for low latency applications
- ◆ Wi-Fi 6 will offload better in 6-GHz

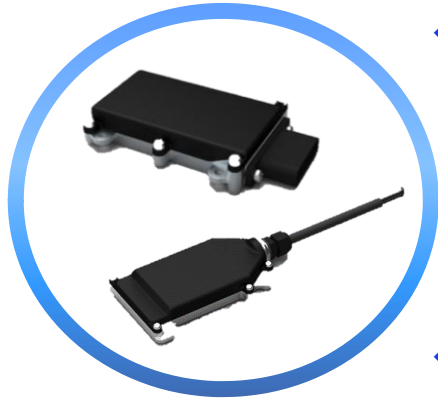
MESH



- ◆ MESH improves Whole Home Coverage

ALPHA

Radar Sensor Applications



◆ SRR, Short Range Radar

- **Automobile:** Blind Spot Detection (BSD), Rear Collision Warning (RCW), Lane Departure Warning (LDW), Kick-Activated Tailgate, Door Open Warning (DOW).....
- **Industrial:** Parking Assist System (PAS), Intelligent Traffic Monitoring, Automated Guided Vehicle, Security Monitoring, Detection object's speed, direction and distance.....

◆ LRR, Long Range Radar

- Autonomous Cruise Control (ACC), Autonomous Emergency Brake (AEB)

Passenger Car
Asia- Shipped



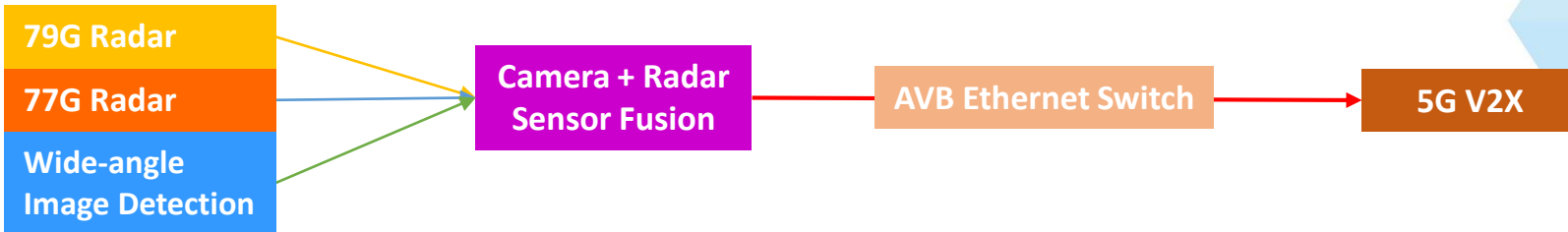
Commercial Car
America, Europe- Shipped



Motorcycle
Taiwan- Testing

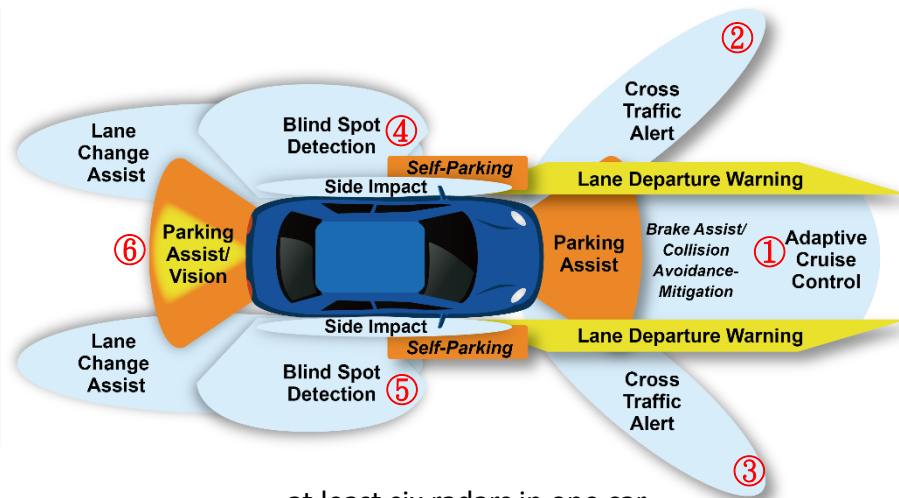


Automotive Sensor Fusion



Perception	Camera	Radar	Lidar	Ultrasonic	Camera + Radar
Detection	●	●	●	●	●
Classification	●	●	●	●	●
Distance	●	●	●	●	●
Lane tracking	●	●	●	●	●
Boundary	●	●	●	●	●
Weather	●	●	●	●	●
Lighting	●	●	●	●	●

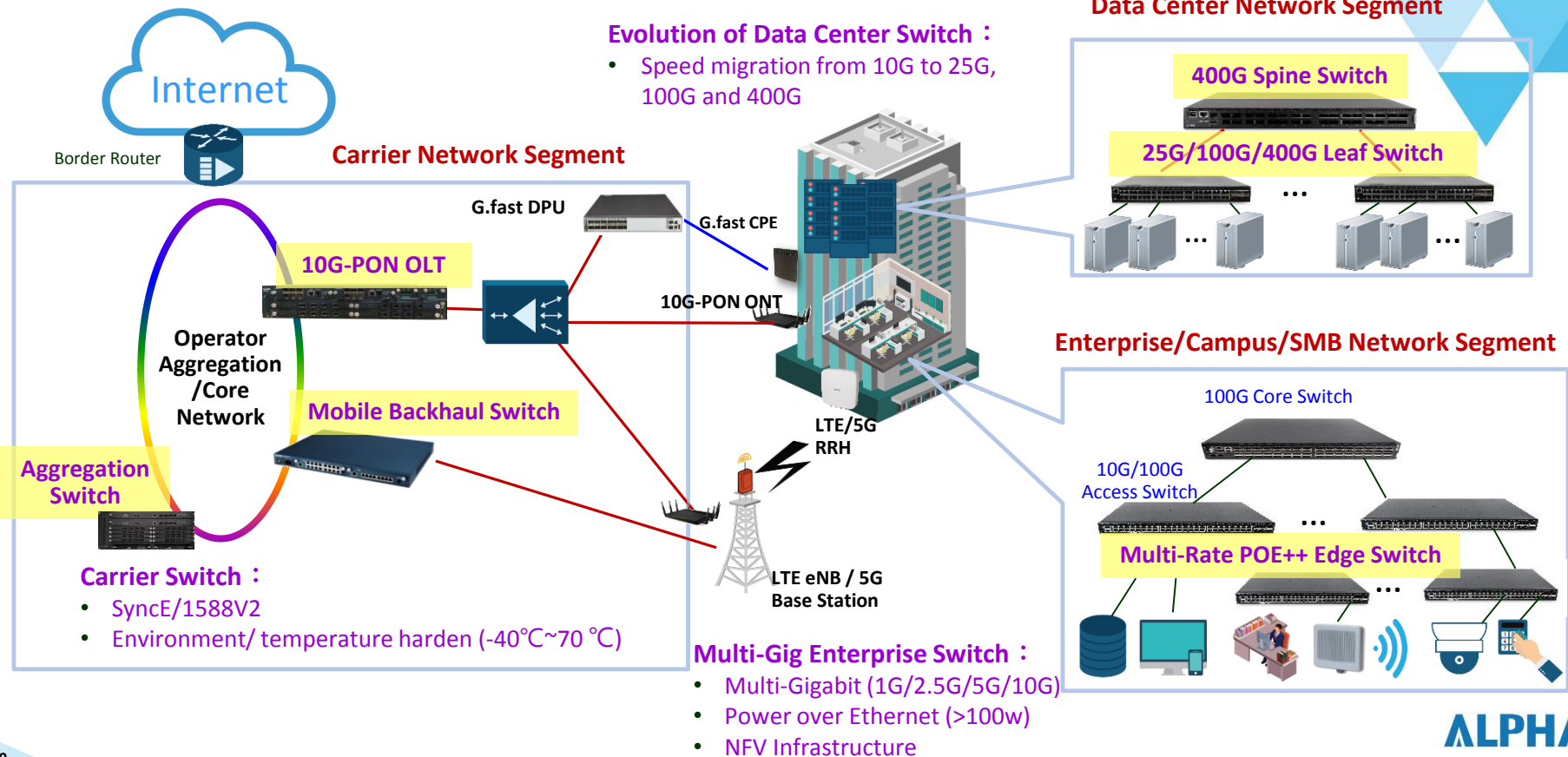
● Excellent ● Fair ● Limited



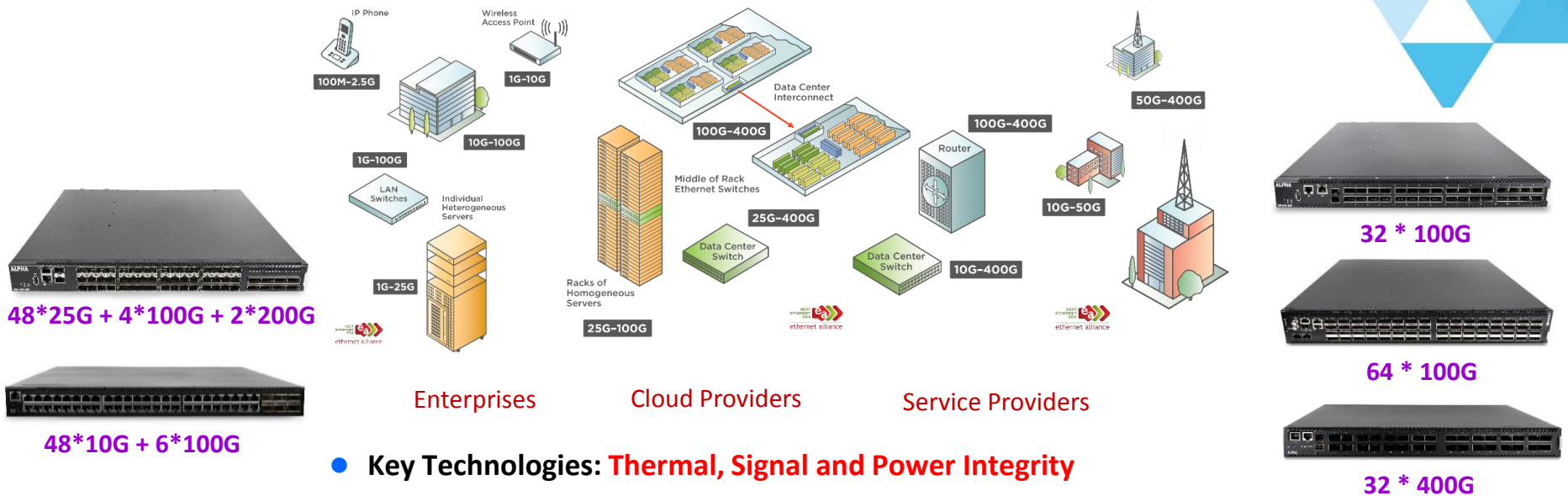
at least six radars in one car

- ◆ Radar, providing information of speed, direction and distance of objects, will enable Camera with higher precision and efficiency.

Complete Ethernet Solution

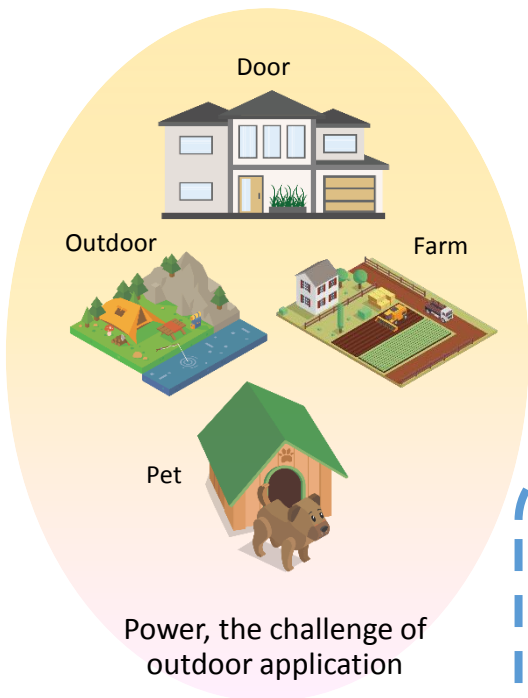


High Speed Ethernet Switch Migrating



- **Leaf/ToR Switch:** $48 * 10G + 6 * 40G \rightarrow 48 * 10G + 6 * 100G$; $48 * 25G + 4 * 100G + 2 * 200G$
- **Spine/Core Switch:** $32 * 40G \rightarrow 32 * 100G \rightarrow 64 * 100G \rightarrow 32 * 400G$

Demand of Outdoor Surveillance Driving the Growth of IP-Cam

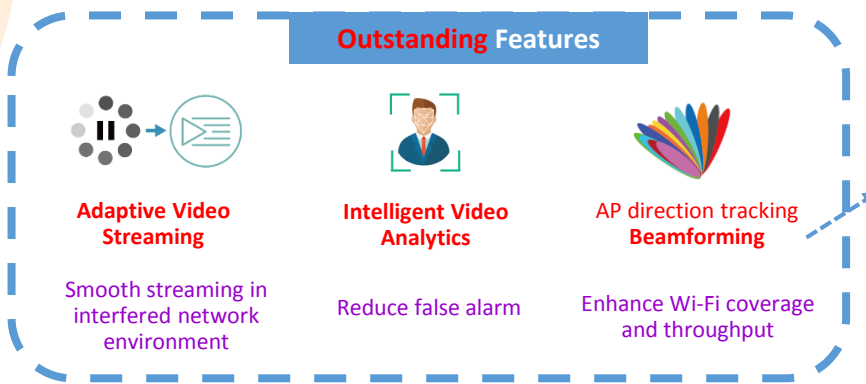


Doorbell Camera



Battery Camera

- Powered by batteries
- 24-hour door monitoring
- Instant communication with visitors
- Early warning and privacy protection



Outstanding Features



Adaptive Video Streaming

Smooth streaming in interfered network environment



Intelligent Video Analytics

Reduce false alarm



AP direction tracking Beamforming

Enhance Wi-Fi coverage and throughput



w/o Tx STA BF

w/ Tx STA BF

MIMO

Tx STA Beamforming





Q&A



▶ Thank You

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