

Napatech

Q4 2017 Presentation

February 13, 2018



Highlights

Sales performance for full year and Q4 2017

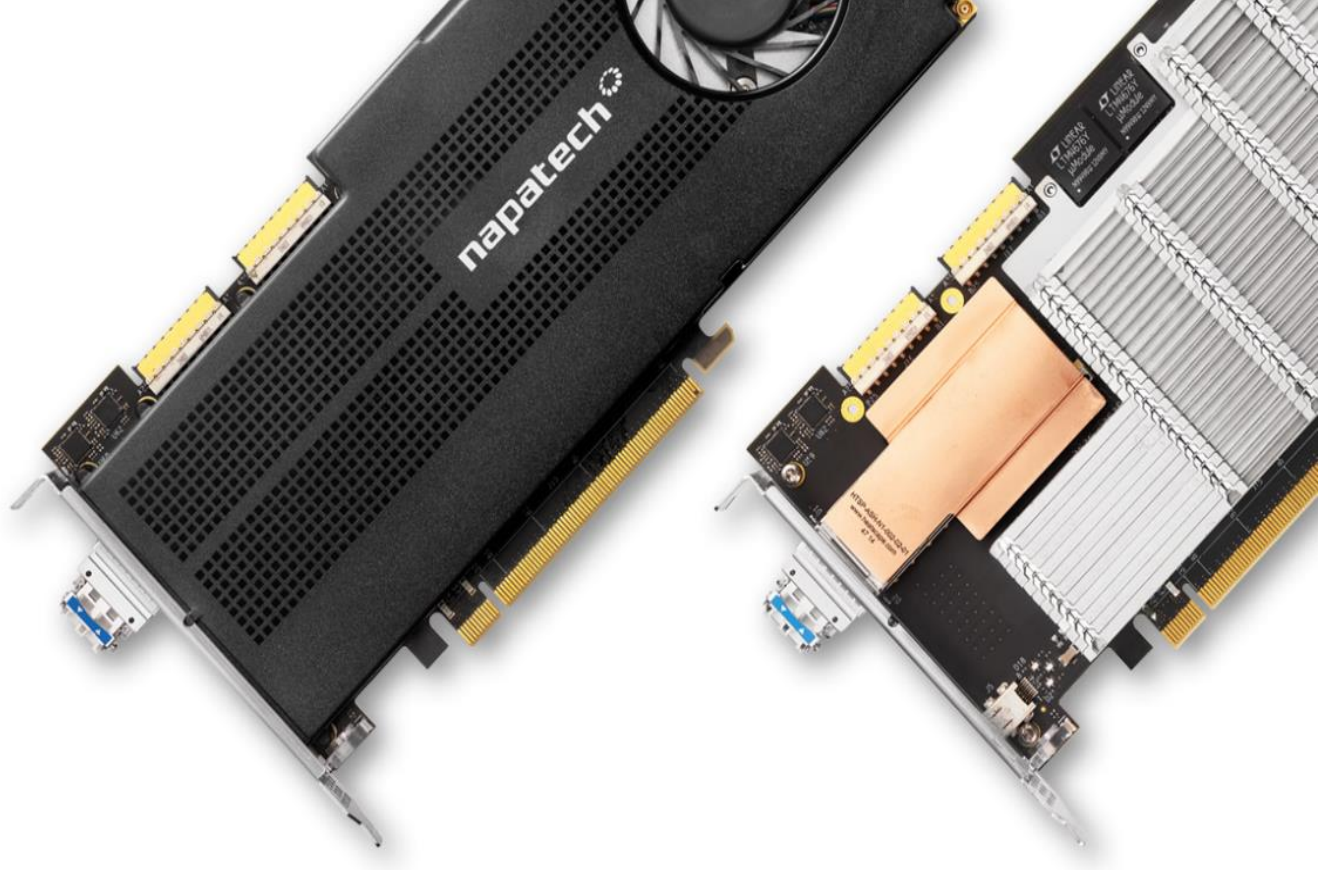
- 7% decrease in USD sales for the full year and 32% for Q4 2017
- 12% decrease in DKK Revenue for the full year and 48% for Q4 2017

Pandion business

- 4% of our sales in Q4 coming from Pandion products
- Branded solution not well accepted in the market

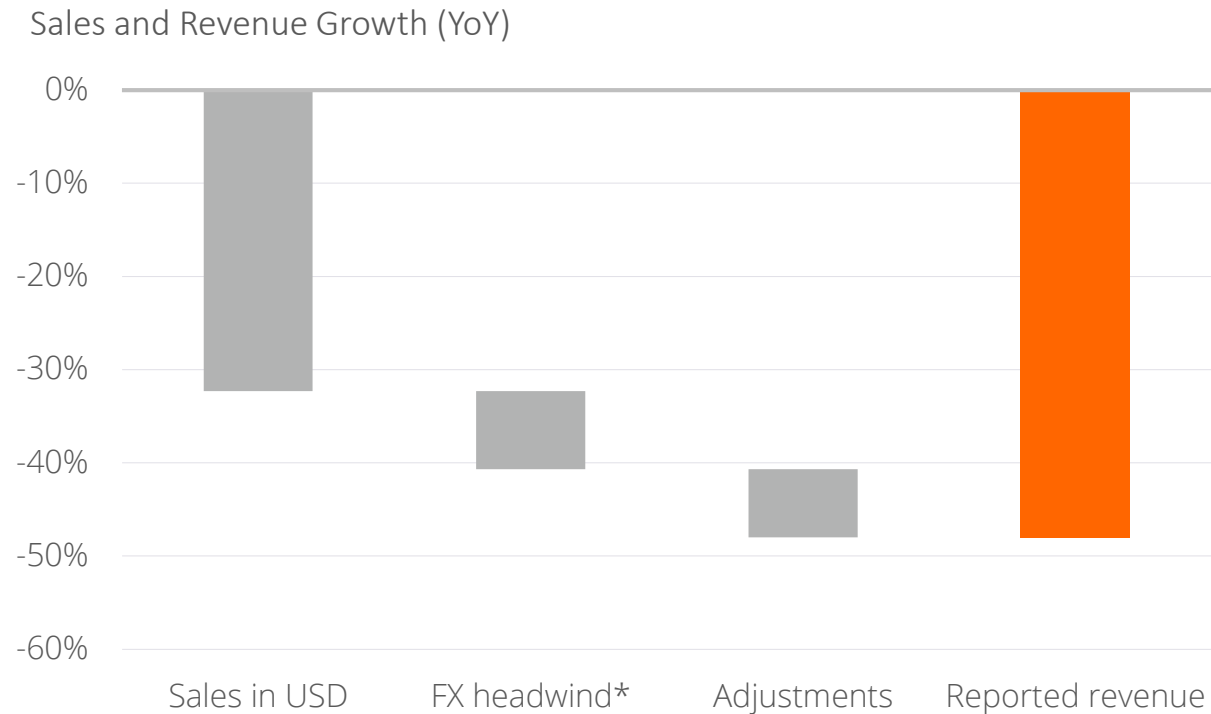
Progress in business strategy

- Progress in business transition towards a software delivery model taking longer than expected
- Substantial progress with Xilinx and Intel focused at delivering FPGA software solutions
- Strong development in our reconfigurable computing strategy demonstrated by delivery of a 5G virtual RAN solution – showcased at MWC



Napatech Q4 2017 Financials

Q4 2017 Revenue



* Based on average rates

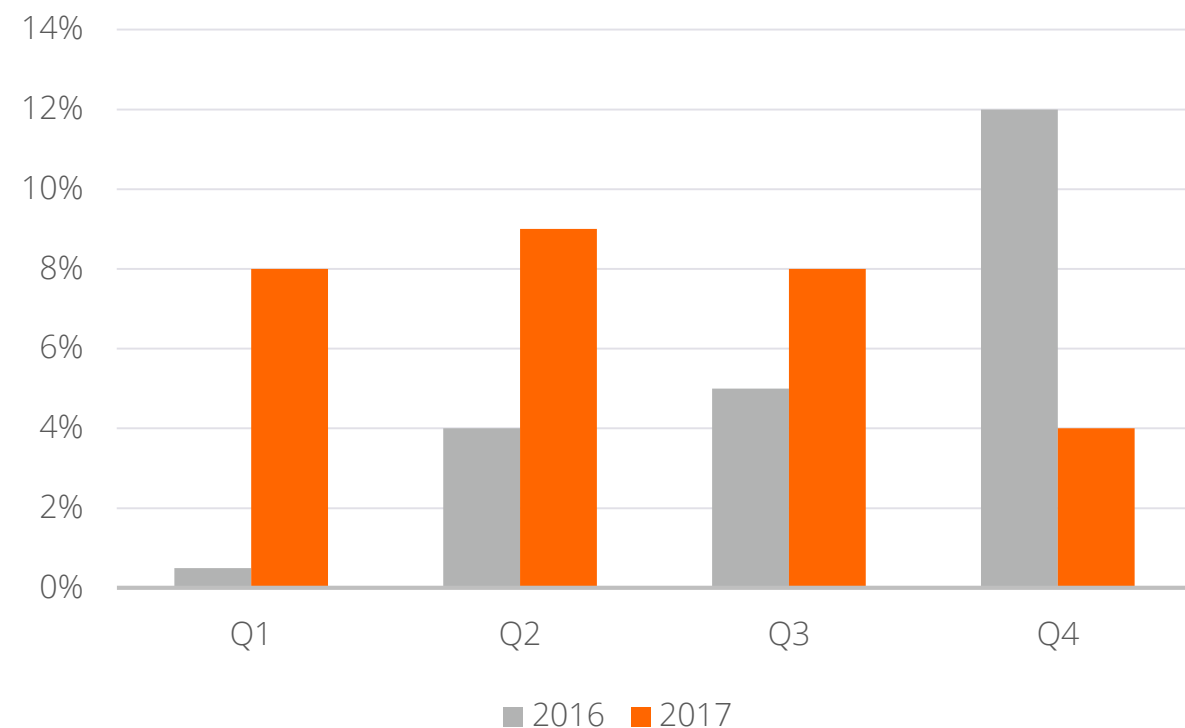
Comments:

- Revenue decline in Q4 is 48%
- Revenue decline FY 2017 is 12%
- The revenue for the period has been negatively influenced by the postponement of a few major projects into 2018
- Currency has had a large effect as the USD exchange rate decreased compared to the previous year

Note: The US Dollar to Danish Kroner exchange rate is calculated as a daily average rate through the quarter and compared YoY

Pandion Progression

Pandion share of sales



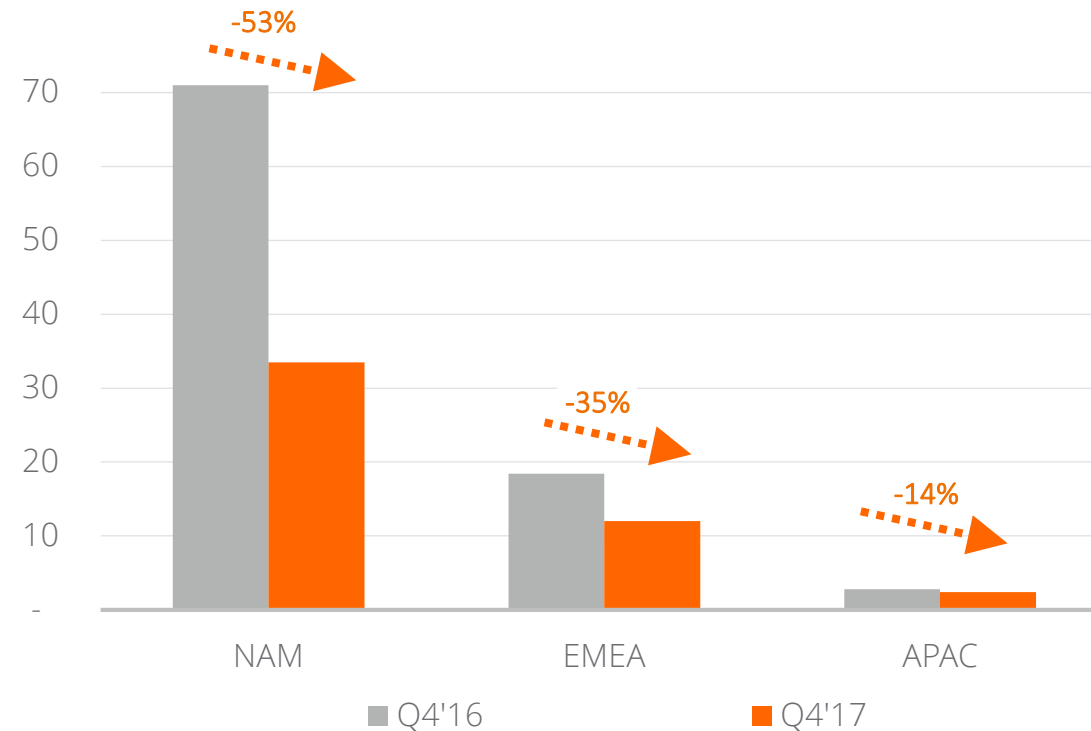
Comments:

- Q4 Pandion sale is below our expectations
- Pandion product mix sold:
 - As a recorder solution for system integrators
 - As recorder software and accelerators to OEM customers
 - As a DELL-branded recorder through DELL

Note: Pandion share of sales are measured in USD

Regional Revenue Distribution

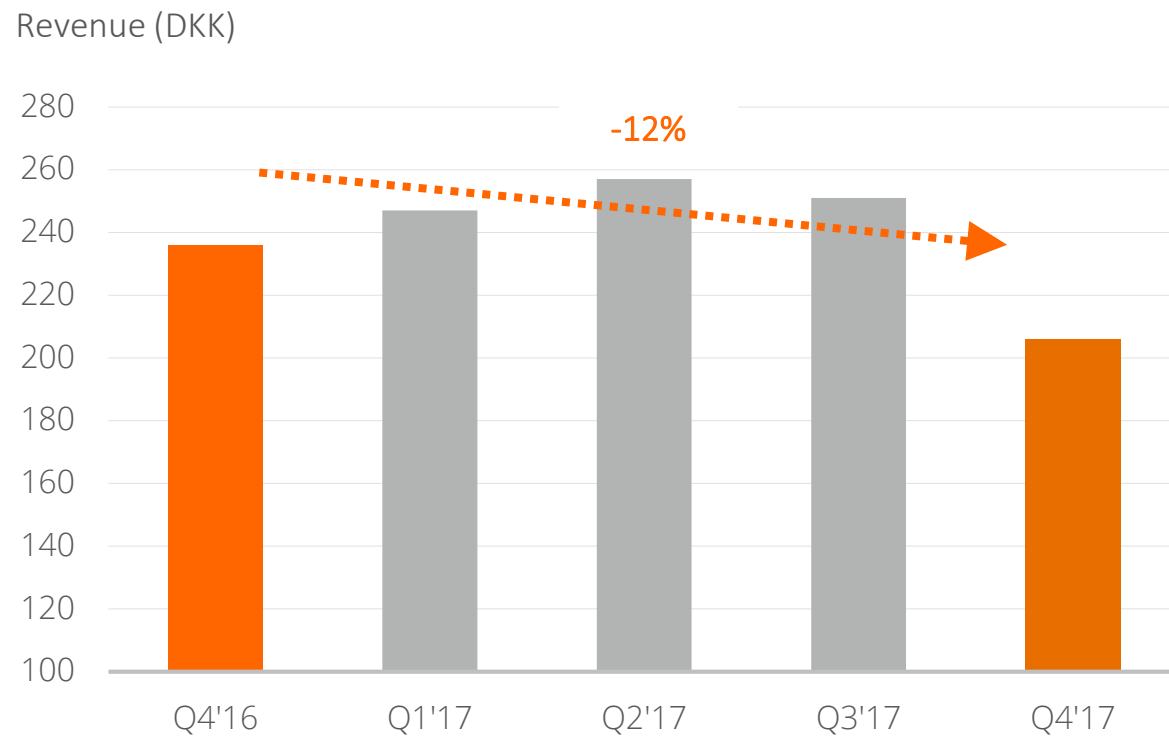
Quarterly revenue in MDKK



Comments:

- North America and EMEA growth affected by the postponement of a few major projects into 2018
- APAC decline due to timing of projects in the region

Last Twelve Months Rolling Revenue

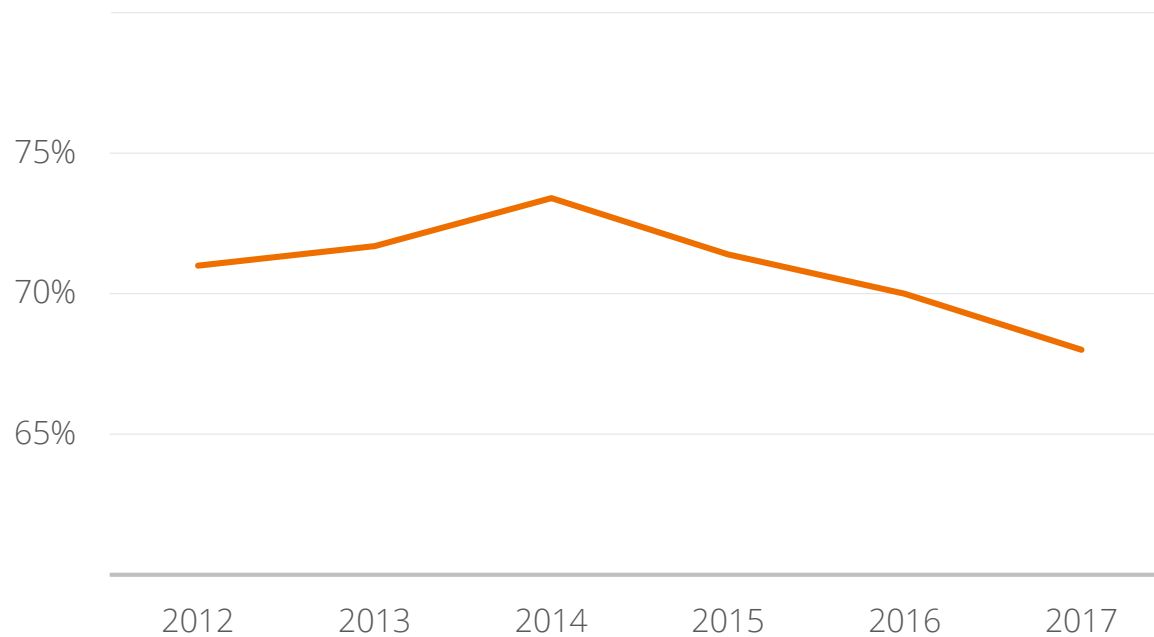


Comments:

- Last twelve months (LTM) rolling revenue is negative 12 % (FY 2017 guidance “negative growth”)
- By comparison, EBITDA (LTM) for same period has shown an decline of 68%

Gross Margin Development

Gross Margin

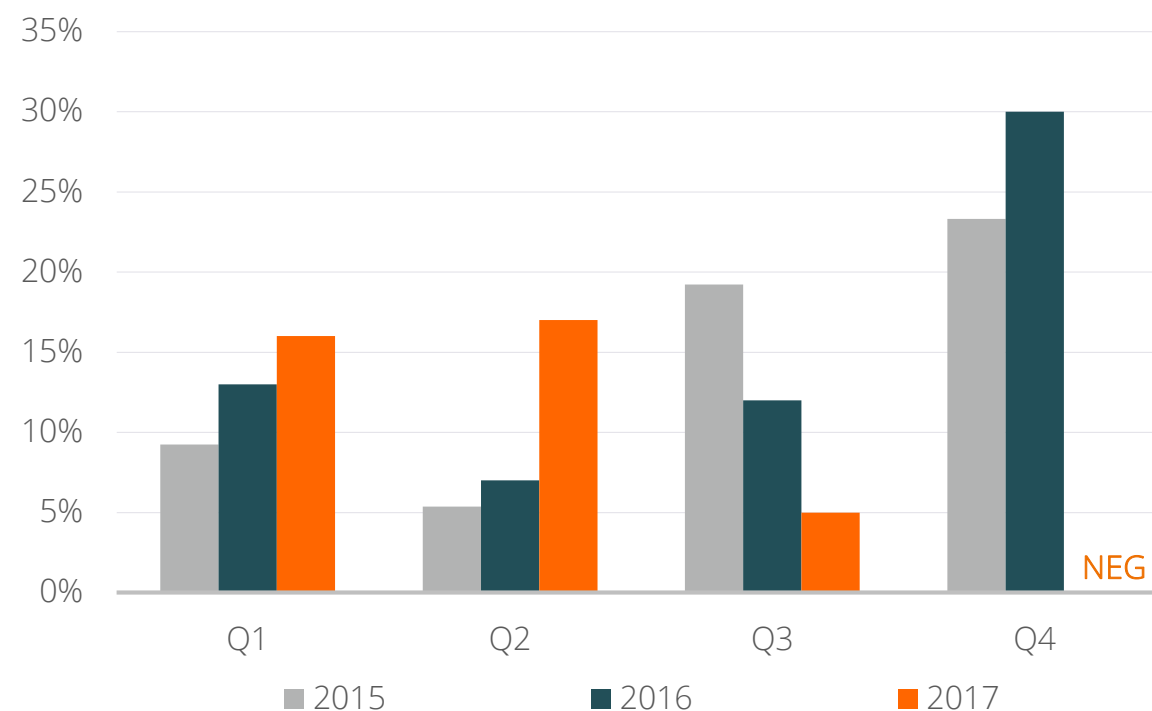


Comments:

- Gross margin FY 2017 is 68% (FY 2017 guidance “around 68%”)
- The gross margin in Q4’17 is at 54%, a decrease compared to Q4 2016
- Larger volumes to strategic accounts and changes in product mix are expected to drive the gross margin down

EBITDA Margin

EBITDA Margin



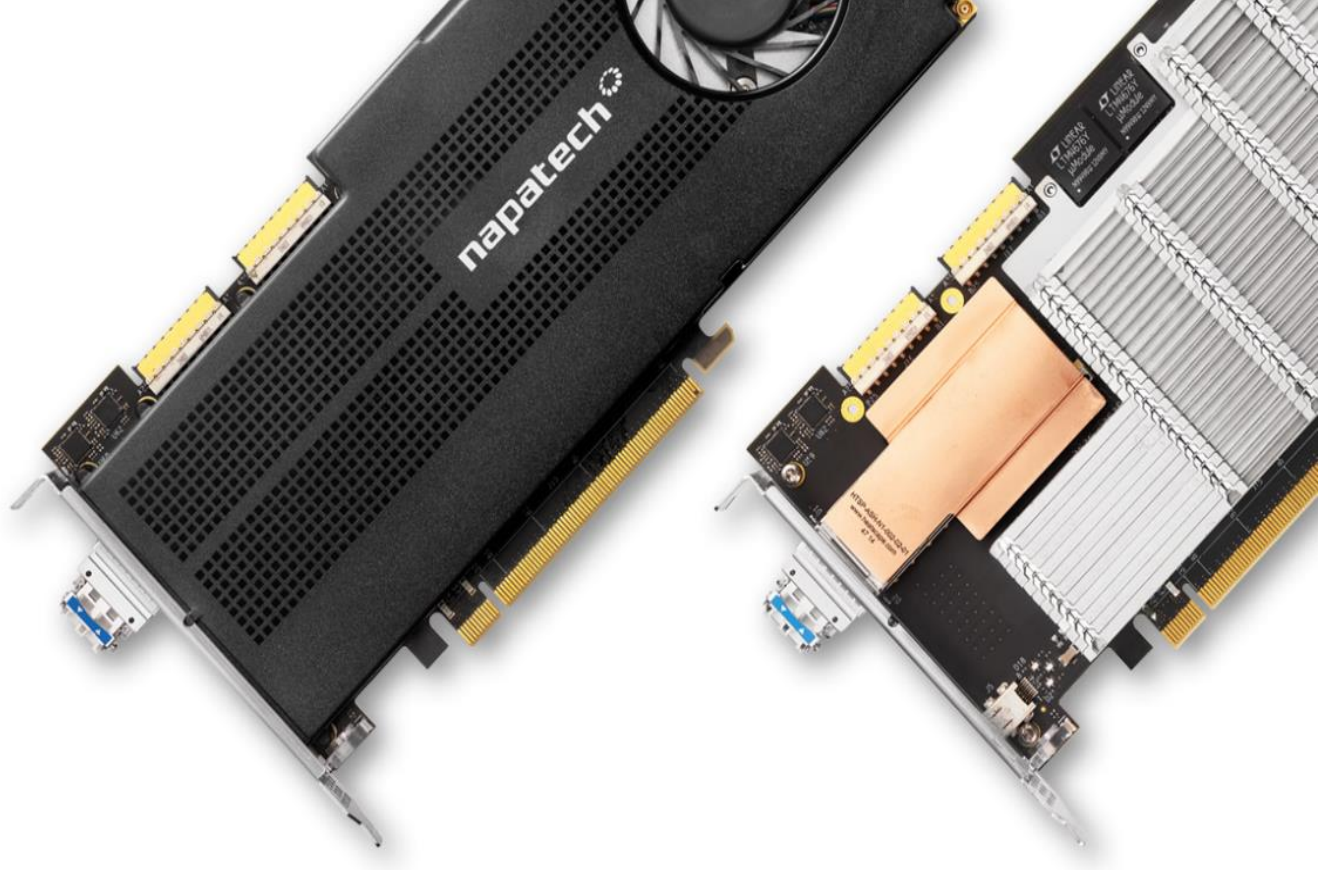
Comments:

- EBITDA margin Q4'17 is negative 15%
- EBITDA margin FY 2017 is 7%
- EBITDA margin is lower in Q4 compared to last year. This is due to the lower revenue and lower gross margin, as our cost are very stable, the EBITDA margin is heavily dependent on the revenue level

Financial Results Q4 2017

(Figures in MDKK)	Q4 2017	Q4 2016	2017	2016
Revenue	47.9	92.3	206.0	234.7
Growth YoY**	(48%)	32%	(12%)	8%
Gross Margin	54%	66%	68%	70%
EBITDA	(7.2)	28.0	13.9	43.5
EBIT	(16.5)	17.2	(23.9)	6.0
Cash flow from operating activities	8.2	5.7	12.7	13.0
Cash and cash equivalents, end of quarter	40.0	47.0	40.0	47.0

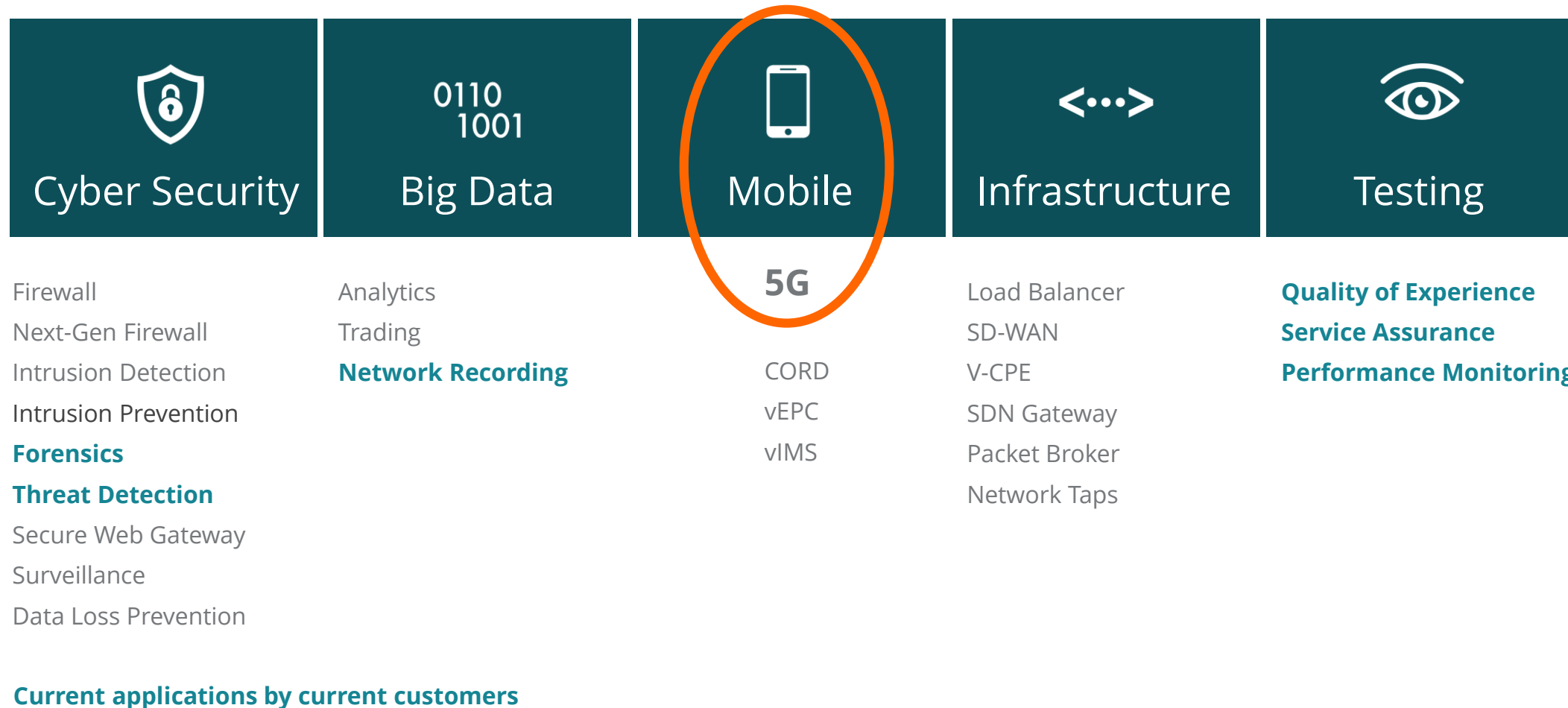
** YoY is the growth of current quarter compared with the same quarter one year earlier



This is Napatech

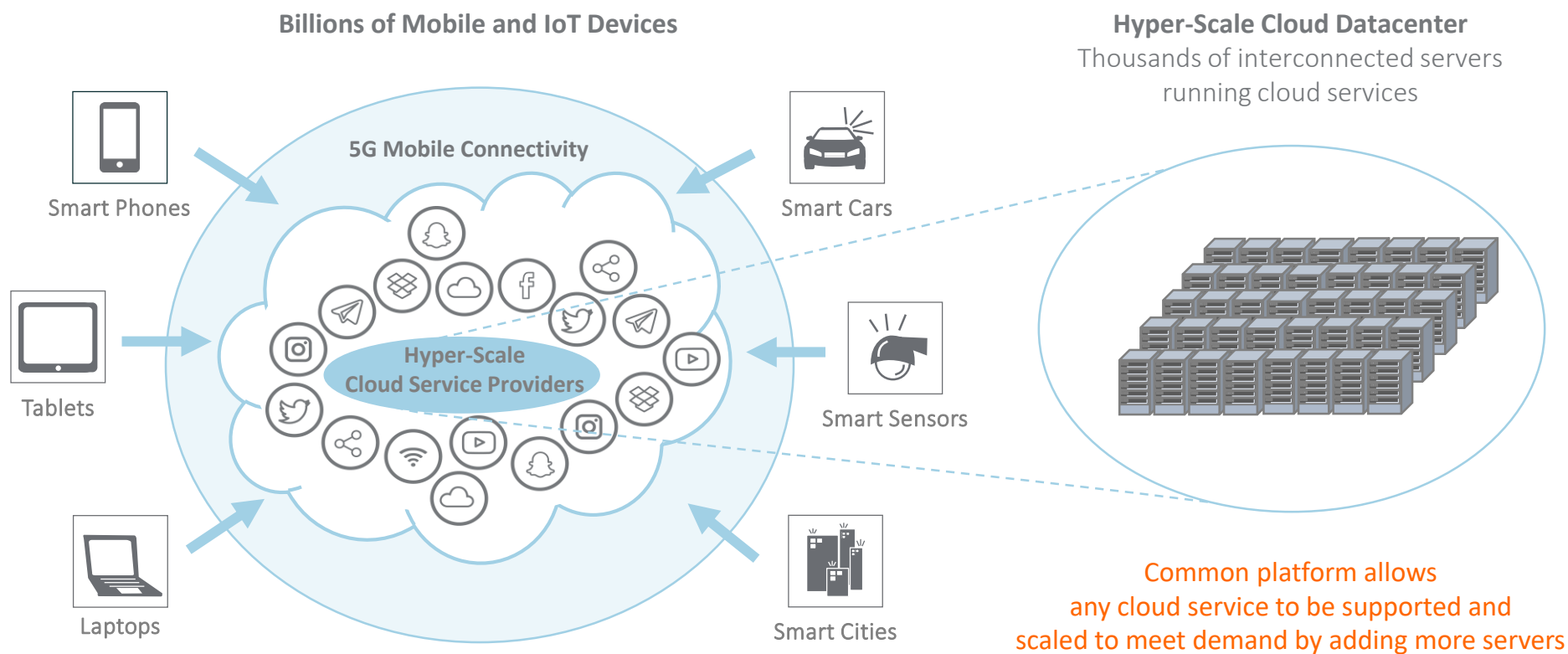
Today with focus on: “Network Function Virtualization”
for the 5G Mobile market

Major market trends allow Napatech to expand to a new range of high-growth applications – as presented on CMD'17



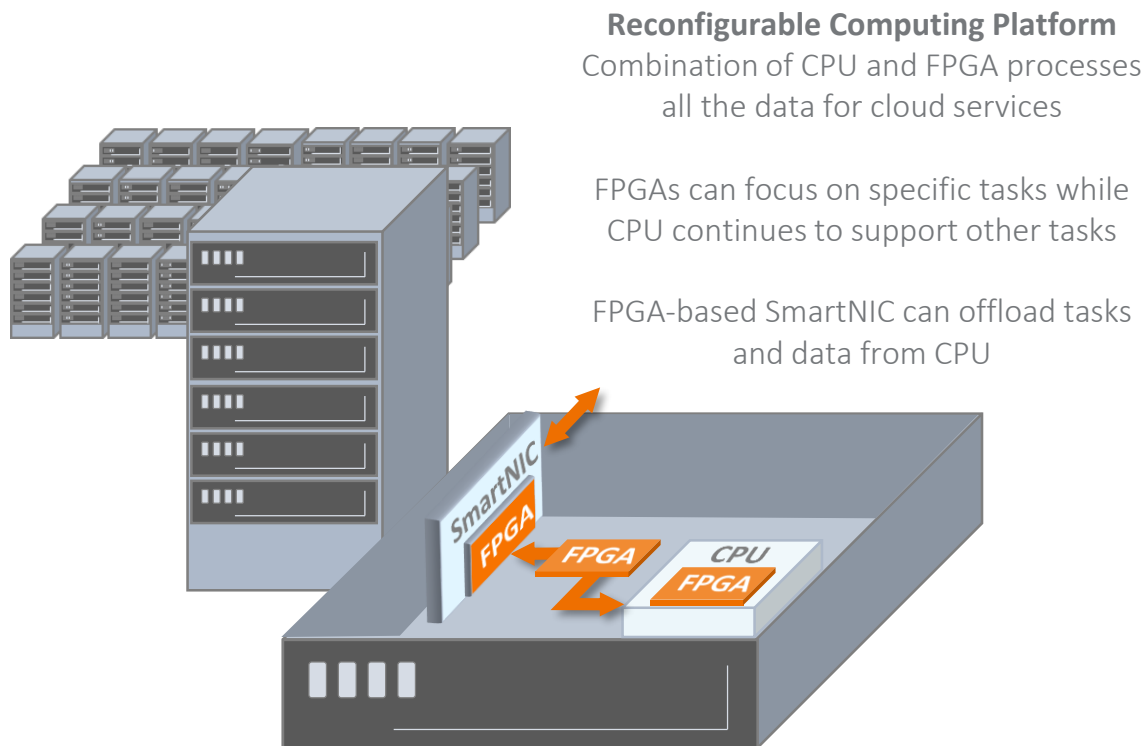
Hyper-Scale Cloud Data Centers

Common Platform Ensures Scalability to Meet Demand

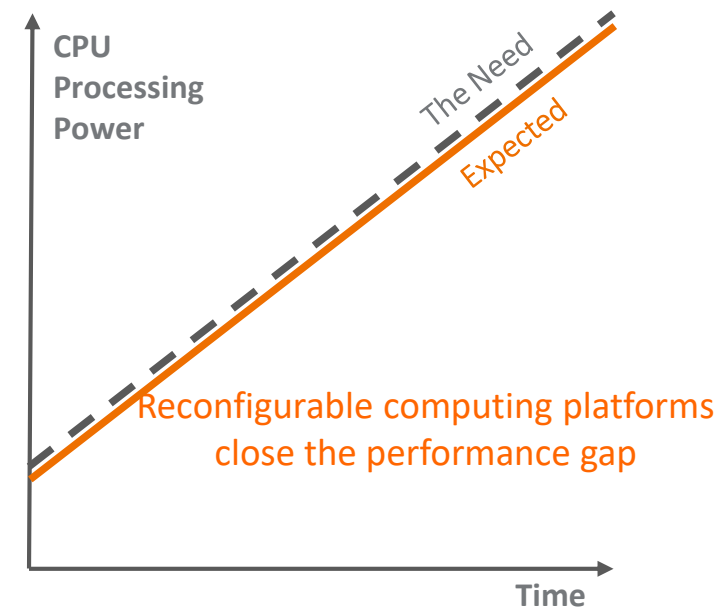


Reconfigurable Computing Platform

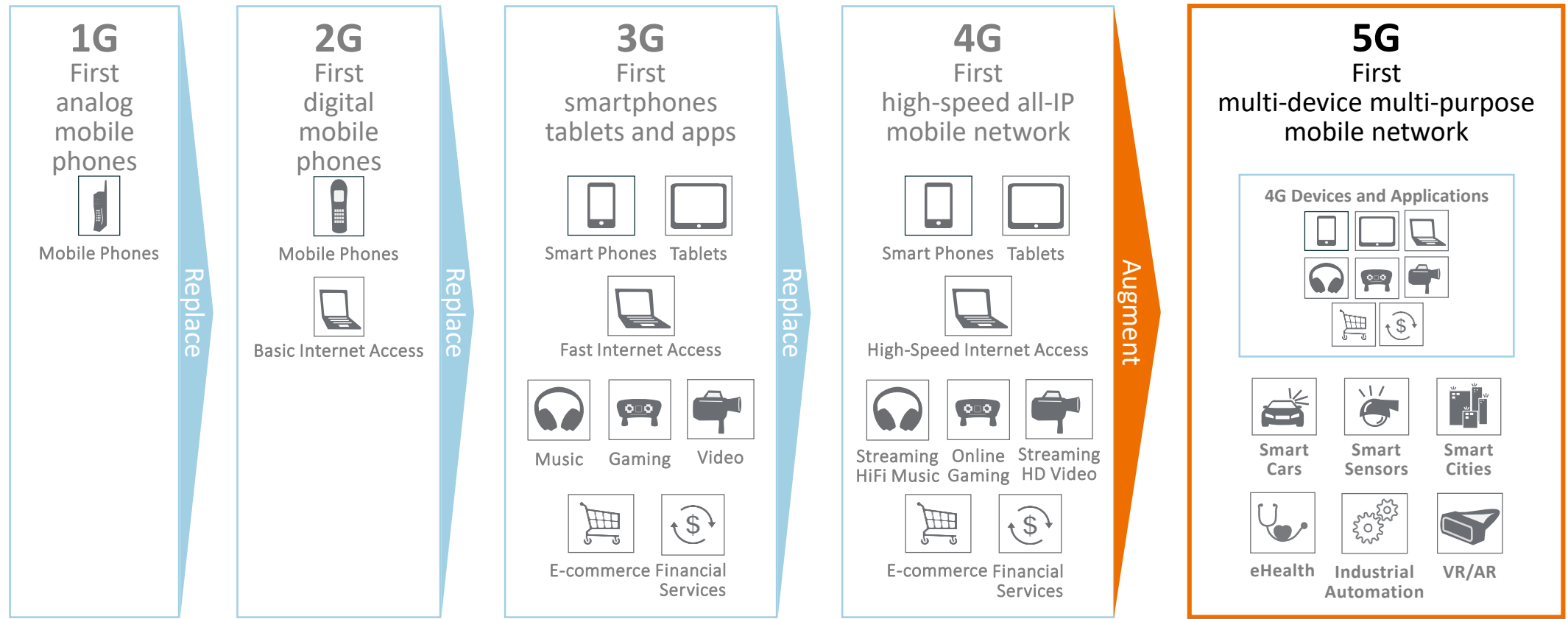
FPGA's Provide The Additional Processing Power



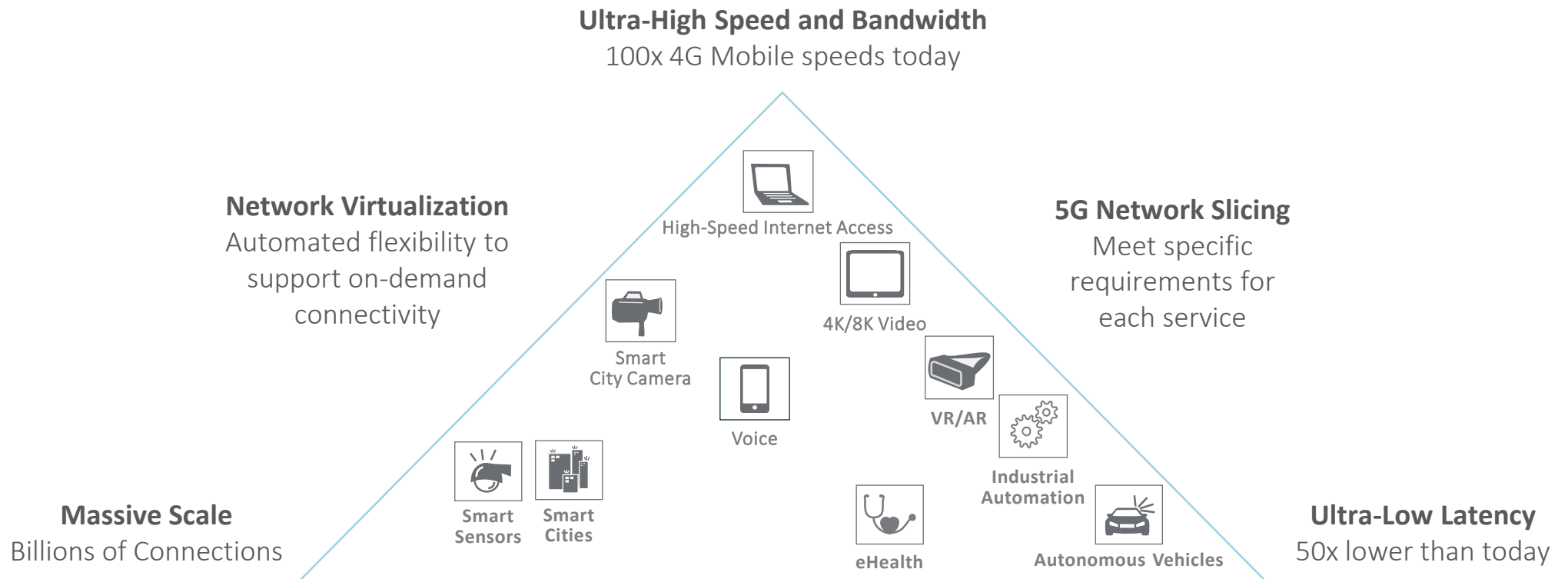
Napatech provides FPGA-based SmartNICs and software that can run on FPGAs



5G Mobile is not an evolution but a **complementary disruption** designed to enable new services on new devices reusing 4G



5G Mobile scope and requirements **more demanding** massive scale and ultra-low latency enables new solutions



Source: adapted from ITU-R IMT-2020

5G is real and is anticipated to roll-out towards 2020

Resources Industry Voice SMB Spotlight

the INQUIRER

News Artificial Intelligence Internet of Things Open Source Hardware Software Security

5G vs. 4G Mobile Technology: The Engineer's Guide Will 5G Mobile Networks Operate at Higher Frequencies Than 4G?

3GPP has finally agreed on the specification for 5G

Means 5G plans can finally be put in place.

Lee Bell
@leebell
23 December 2017

1 Comment

5G mobile speeds network telecoms.jpg

THE ORGANISATION that oversees cellular standards, the 3GPP, has finally agreed the specification for Non-Standalone 5G NR (New Radio) at a meeting in Lisbon, Portugal.

The 3GPP announced the news via Twitter, thanking the hard work of Qualcomm to make it happen faster than planned.

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Technology The five

Ian Tucker
Sun 21 Jan 2018 07:00 GMT

AT&T will roll out next generation 5G mobile internet to its customers this year

- AT&T said it will roll out 5G mobile internet for users across a dozen U.S. cities by late 2018
- 5G promises to bring faster mobile internet speeds and could underpin other technology like driverless cars
- AT&T said it expects to be the first U.S. carrier to bring 5G to customers

Arjun Kharpal | @ArjunKharpal
Published 138 AM ET Thu, 4 Jan 2018

5G

Patrick T. Fallon | Bloomberg | Getty Images
An employee assist a customer with a smartphone at an AT&T Inc. store.

AT&T said on Thursday it will roll out next generation 5G mobile internet in a dozen U.S. cities by late 2018.

America's second-largest wireless carrier said it expects to be the first U.S. company to introduce the technology if its timeline is achieved.

AT&T's announcement comes after international 5G standards were agreed in December by 3GPP, the body that develops and governs cellular standards.

Pyeongchang 2018: welcome to the future...

In the first of a new series on ideas and advances in science, nature and tech, we look at the innovations coming to this year's Winter Olympics

5G

South Korea boasts the speediest broadband in the world (an average of 28.6Mbps compared to the UK's 16.9) and connectivity will be further boosted at Pyeongchang by the introduction of a 5G mobile network at games venues, courtesy of Intel. 5G delivers download speeds of 100Mbps (Stoke-on-Trent was recently crowned the town with the fastest 4G connection in the UK at 26.6Mbps). The tech giant is planning to show off the capabilities of its enormous mobile bandwidth by offering such delights as transcendent live streaming and unsurpassed live VR experiences to visitors.

The Mainichi

Top Latest Japan World Business Sports Entertainment Opinion Lifestyle Features Photos

Tokyo 2020 events to be live-streamed in VR over 5G network: NTT Docomo pres.

May 26, 2017 (Mainichi Japan)

NTT Docomo President Kazuhiro Yoshizawa (Mainichi)

Mobile carrier NTT Docomo Inc. is aiming to roll out a 5th generation (5G) mobile network in time to live-stream Tokyo 2020 Olympic and Paralympic events to virtual reality (VR) headsets, company president Kazuhiro Yoshizawa told the Mainichi Shimbun in a May 25 interview.

"We want to offer services revolving around 5G networks that will revolutionize existing lifestyles," Yoshizawa said.

Docomo is considering launching high-definition broadcasts of Olympic and Paralympic events for smartphones. With the use of 5G networks, which

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Recent developments have brought the expected roll-out timetable for 5G forward

Written by: Tom Austin-Morgan | Published: 01 February 2018

It looks as if 5th generation mobile network technology could be developed as soon as 2020, despite 4G infrastructure not yet being fully implemented. The original date for the roll-out of was expected to be 2025. So what's changed?

While 4G download speeds typically hover around 100Mbps, the speed of 5G, at least theoretically, would be between 1-10Gbps.

5G Mobile facing formidable challenges

Performance Challenge

Virtual switching costs too many server resources or places too many restrictions on flexibility

Operational Challenge

Insight into virtual traffic provided by pure software solutions requiring double the amount of servers

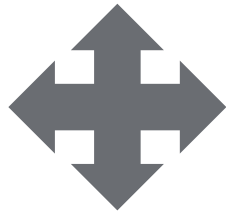
Security Challenge

Performance and operational challenges mean either high costs or potential breaches missed

Solution today is NFV running on standard compute platforms
However current NFV solutions struggling to meet challenges

Napatech Reconfigurable Computing address 5G challenges

Performance



Faster virtual switching with low cost and high flexibility

Operational



Low cost insight into virtual traffic for automation and quality assurance

Security



Efficient insight for automated response and offload of critical functions

Napatech solutions provide the raw power to improve performance
But also the reconfigurability to keep up with new demands

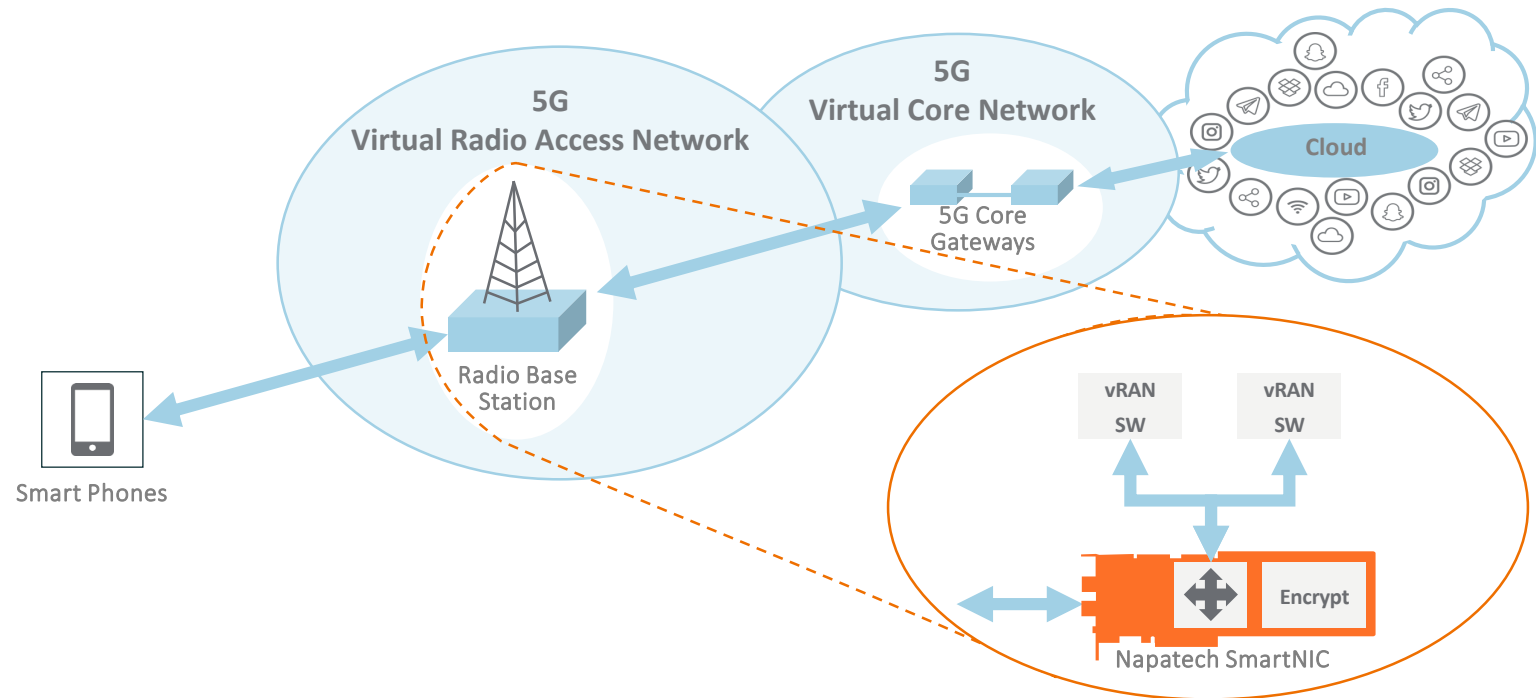
5G Virtual RAN solution based on Napatech reconfigurable computing – showcased at MWC

napatech

XILINX

radisys

SILEX
Inside



Napatech SmartNIC and software accelerates virtual switching and encryption
Goal is 10 times improvement in performance

napatech

Upcoming webinar reimagining mobile networks for 5G

Register at:

<https://www.mobileworldlive.com/>



Reimagining Mobile Networks for 5G

Unlocking the Disruptive Power of 5G with Reconfigurable Computing

Daniel Joseph Barry, Napatech

5G

napatech

BN-1443 Rev. 1

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Reimagining Mobile Networks for 5G
14 FEB 4pm GMT | 11am EST

5G is the next big thing for mobile networks. But unlike previous generations of mobile technology, 5G will be far more disruptive to the mobile network industry. The next generation will enable much more than incremental improvements in data rates and spectral efficiency. It will fundamentally change how networks are deployed, operated and secured.

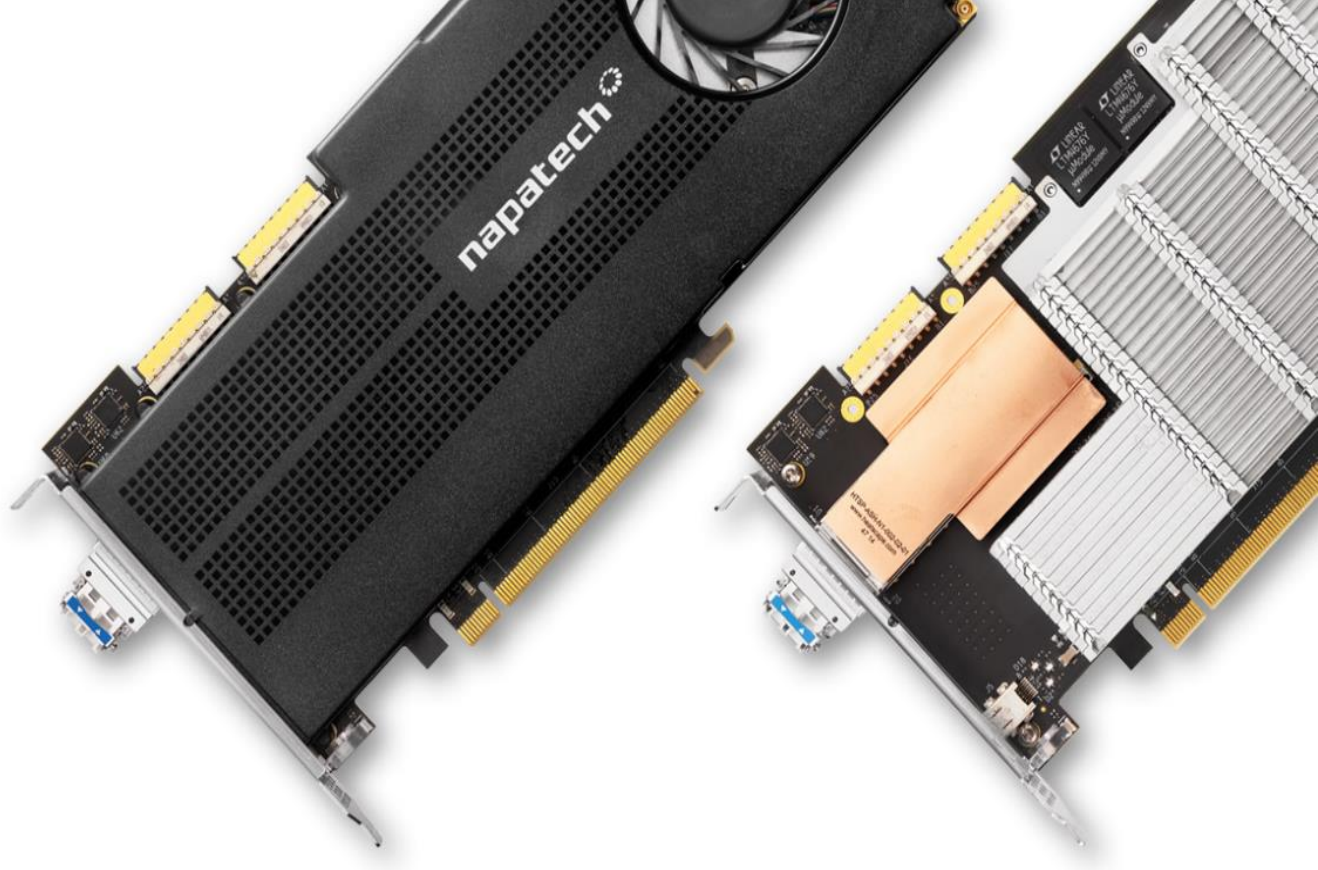
While some of the developments will be evolutionary, much of 5G's capabilities will be built upon new architectural foundations. The vision for the future mobile network embraces new use cases and services that cannot be delivered on today's static, physical infrastructure. It's time to reimagine mobile networks from a holistic perspective to deliver high performance as well as operational efficiency in the 5G era.

Driven by changing end user requirements, the transition to virtualized, cloud-centric networking, as well as the adoption of edge computing, means new infrastructure foundations are needed for 5G. Join this webinar to learn how Reconfigurable Computing Platforms – which is the combination of standard compute platforms and FPGA technology – will be sound foundations for 5G infrastructure by providing the flexibility, performance and operational efficiency that mobile operators will require.

**Daniel Joseph Barry**
VP Positioning and Chief Evangelist
Napatech
[View Biography](#)

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Business Highlights

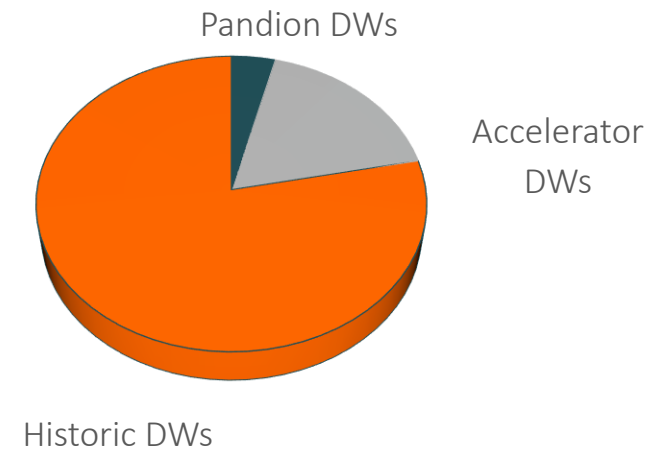
Recent Design Wins to Drive Future Business

- 40 Gigabit Accelerator solution design win for a North American Tier-1 customer delivering a Network Monitoring solution
- 10 Gigabit Accelerator solution design win for a Tier-1 Chinese customer focused on Network Monitoring applications
- 10 Gigabit Accelerator solution design win for a EMEA based customer for a Telecom Network monitoring application by a major APAC Telecom service provider



Design-win Effect on Q4 Revenue

- Design wins during the last 8 quarters delivered 22% of the overall Q4 2017 revenue
- The Pandion business delivered:
 - 4% of the overall revenue in Q4
 - is based on design-wins secured in 2016 and 2017
- The Accelerator business delivered:
 - 18% of the overall revenue in Q4 is based on design-wins secured in 2016 and 2017
- Recent design wins and new customers are the basis for our growth momentum, why even more resources are focused on new business

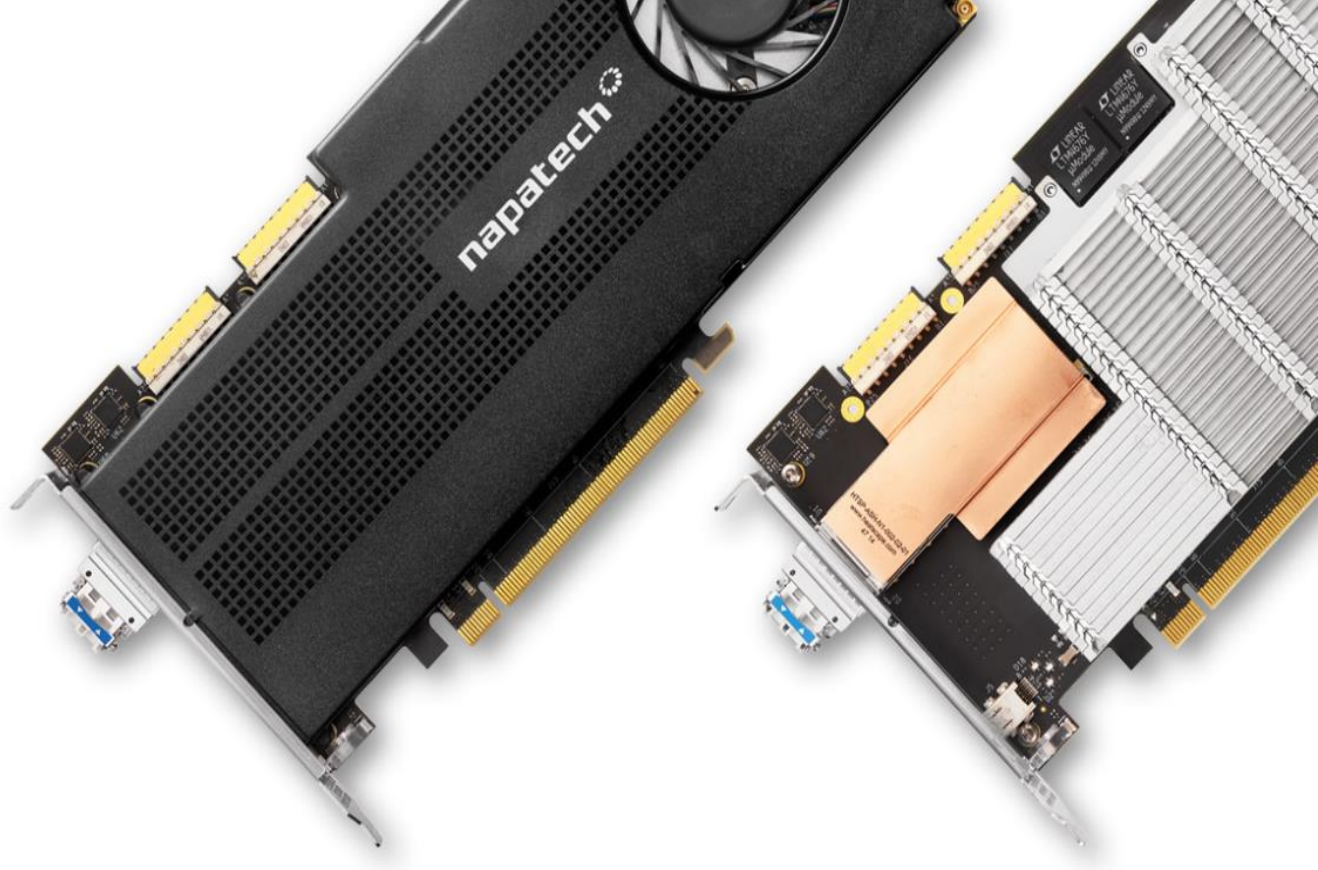


Progress in our Business Strategy

- Progress in business transition towards a software delivery model taking longer than expected. The company have a strong believe in this journey and expect this part of the strategy to open new and larger market segments
- Substantial progress with Xilinx and Intel focused at delivering FPGA software solutions for open and standard reconfigurable platforms delivered by the server industry, providing great scalability in delivery of Napatech solutions
- Re-focus of our US sales team and efforts to ensure more substantial design wins by Tier-1 customers within cyber security and mobile where we see a pervasive need for solutions within high-growth applications and services
- Validation of our strategy well under way demonstrated by strong development in our reconfigurable computing solutions by delivery of a 5G Virtual RAN solution – showcased at MWC with Xilinx – targeted at major equipment manufactures and service providers



Outlook



Management's Outlook

- We have a sharp focus at being Application Driven to align with the leading cloud, mobile, IoT and security applications and services that are behind the current network transformations. Our strategy is Software Centric in order to provide the most valuable FPGA software to accelerate and optimally enhance standard server platforms that host those leading applications
- The company expects the revenue growth to resume in 2018, but underlines that the short-term visibility is limited and will be affected by quarter-to-quarter order volatility and general business uncertainty. As also outlined, the business transition toward a more software focused business will take longer than expected
- The company strongly believes in the 100 MUSD top-line ambition, but recognizes longer ramp-up time for some of the new applications. We believe the target will be reached in 2022

Comments:

Guidance for 2018:

- USD sales growth 0-10%
- Gross margin around 68%
- EBITDA margin around 15%

Q&A Session

napatech

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