Company Presentation

February 2019

Ray Smets, Chief Executive Officer

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Corporate Overview

- +15 year history delivering **FPGA-based technology** to customers globally
- Unparalleled expertise accelerating compute-intensive applications on standard open servers
- High-tech solution with 22 patents & patents-pending provides high barrier-to-entry for competitors
- Solid gross margins and highly leverageable business model
- Targeting rapidly expanding $3.1B SmartNIC market by 2025
- Public company NAPA.OL

Top Tier Global Customers

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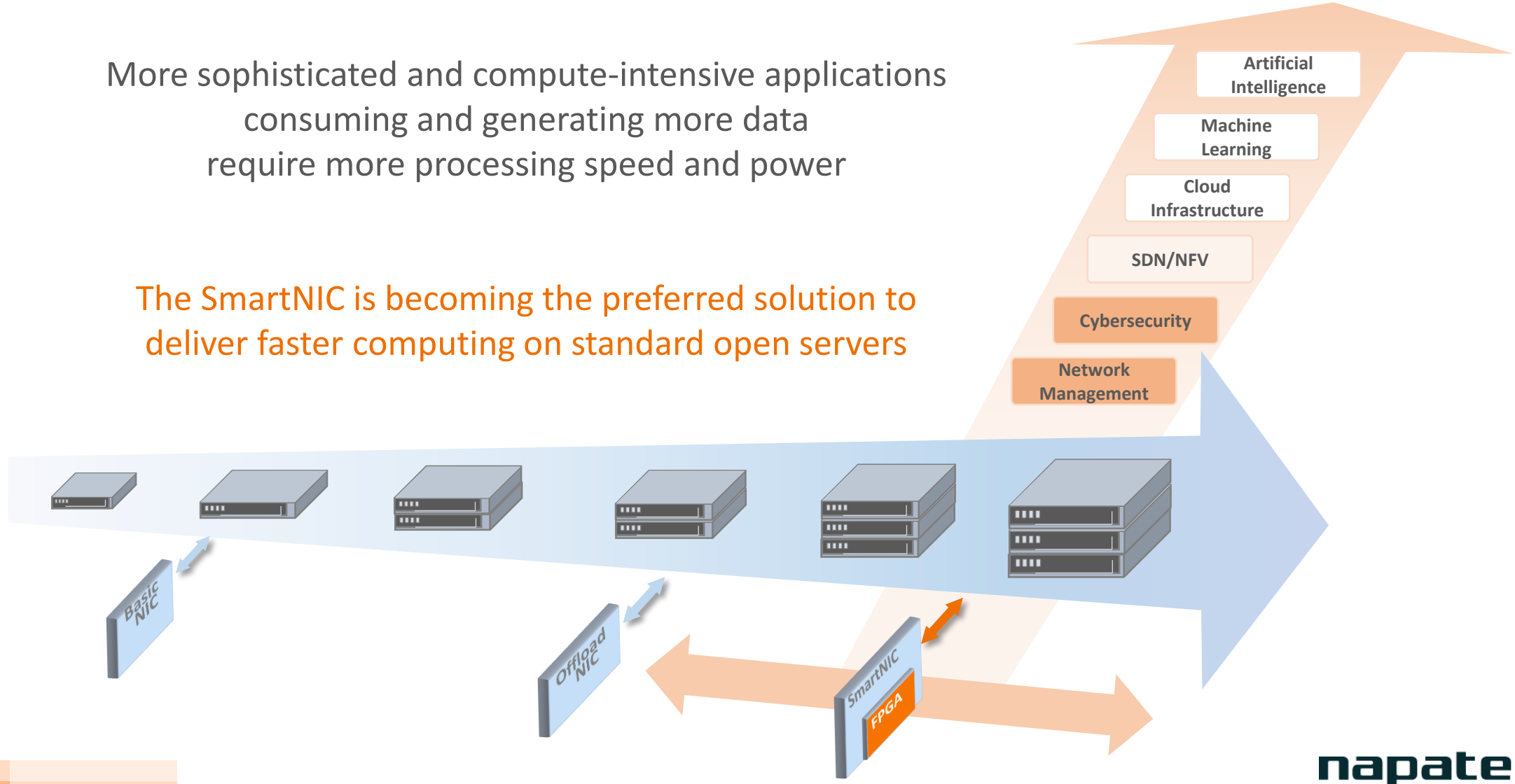
Napatech Sits at the Crossroads of Two Major Market Forces

More sophisticated and compute-intensive applications
consuming and generating more data
require more processing speed and power

The SmartNIC is becoming the preferred solution to
deliver faster computing on standard open servers



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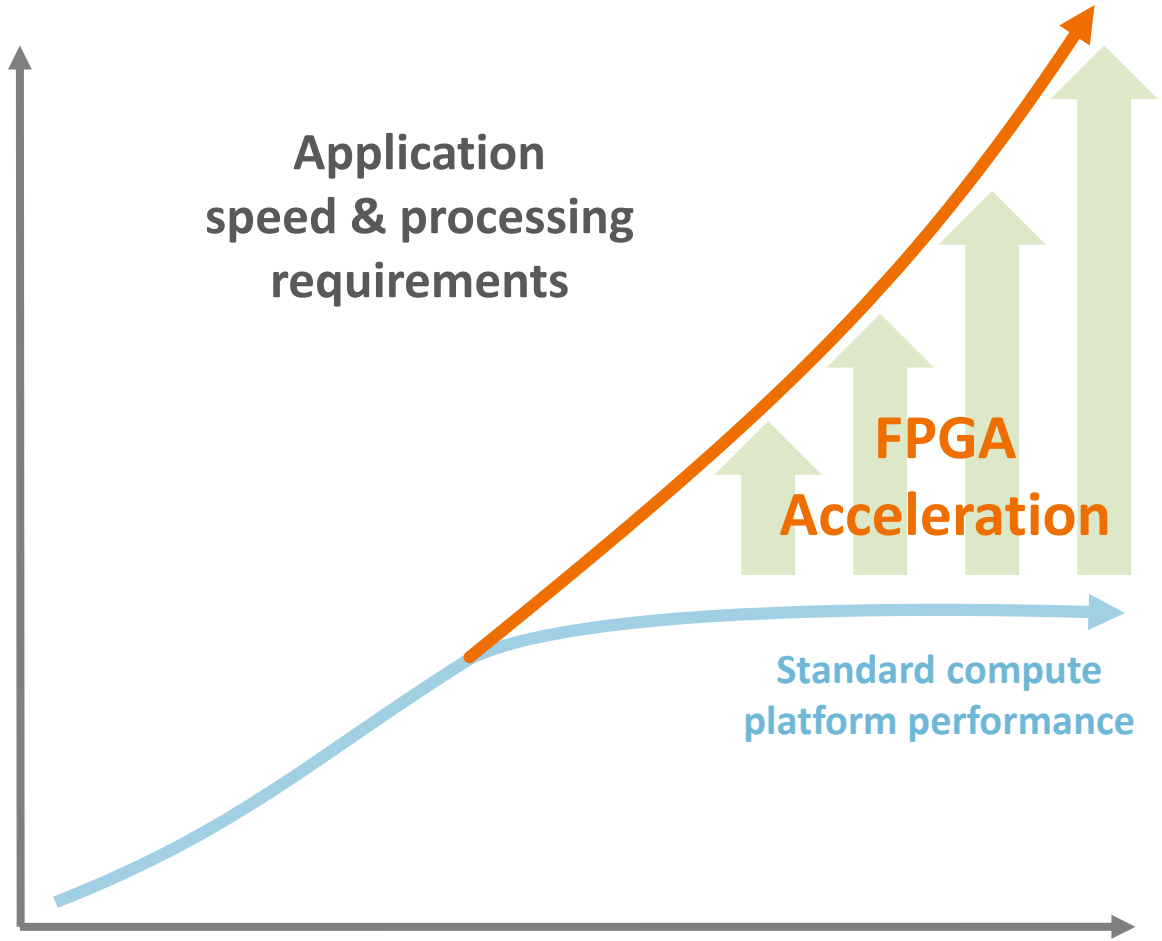
The Problem: Standard Compute Platforms Cannot Keep Up



Major industry players have focused their strategies on FPGA technology

Major FPGA chip vendors

intel FPGA

XILINX

Major cloud companies have standardized on FPGA SmartNICs

Microsoft Azure

amazon web services

Tencent Cloud

百度云 cloud.baidu.com

Alibaba Cloud

Major server vendors now include FPGA SmartNICs with their servers

DELL EMC

Hewlett Packard Enterprise

Lenovo

FUJITSU

Major telco vendors use FPGA as basis for infrastructure solutions

NOKIA

HUAWEI

ERICSSON

The Solution: The FGPA solves the performance gap on standard compute platforms

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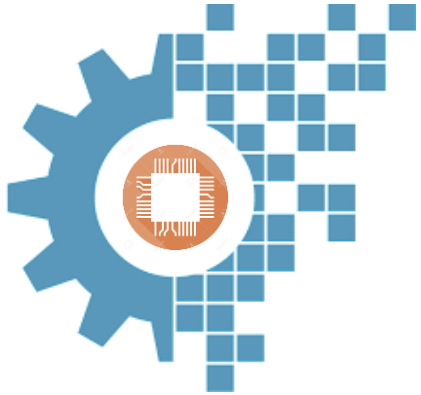
The Coming of Age of Napatech's FPGA Solutions

Past Decade
Faster Network Monitoring

FPGA's primarily used
to improve
network monitoring performance

Growing Cloud Adoption
Appliance Hardware
Premise-based Architectures



Now and the Future
Application Acceleration

FPGA's have won the battle
for application acceleration
on reconfigurable standard open servers

Massive Growth in Cloud, 5G Mobile & IOT
Standard Servers Dominate
Application & Software Driven

Napatech's FPGA Expertise Has Emerged into the Spotlight

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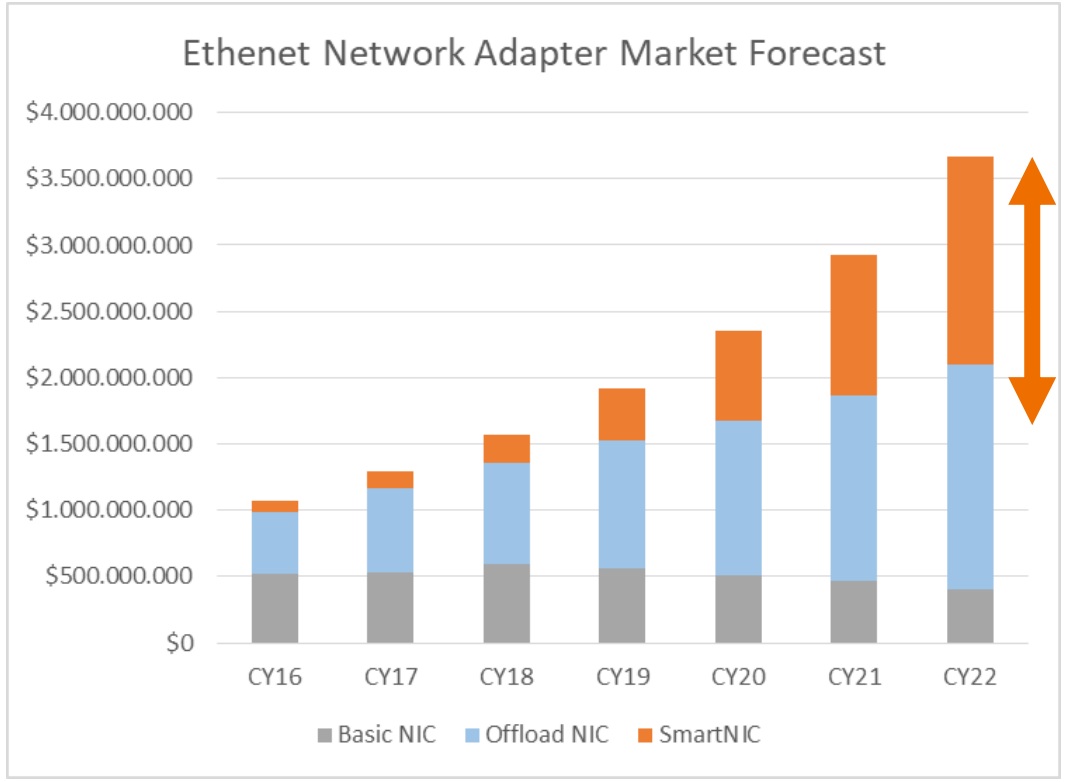
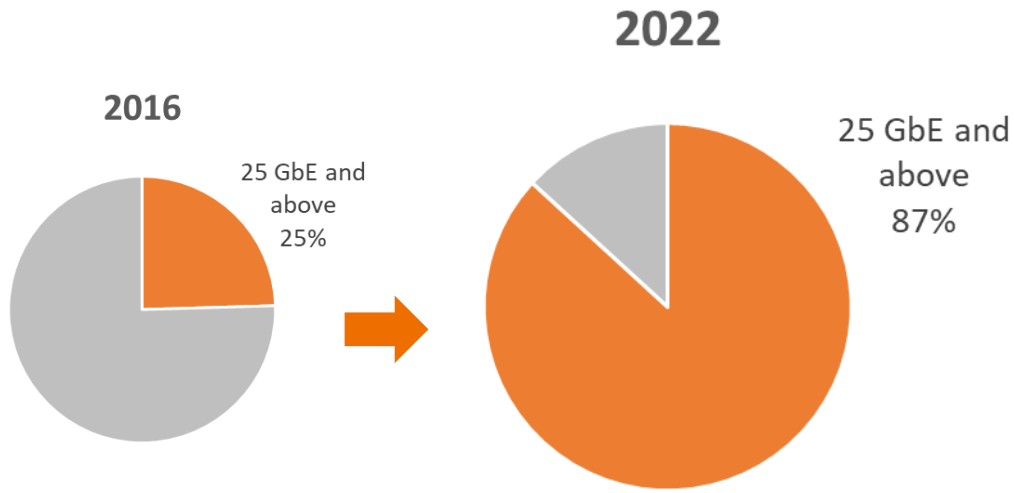
Market Opportunity for SmartNICs is Growing Rapidly

Market growing from $1.5B in 2018 to $3.7B in 2022 with SmartNICs the fastest growing category (80% CAGR)



Source: IHS Markit Ethernet Network Adapter Market Tracker Q3 2018
IHS Markit use the term "Programmable NIC" instead of "SmartNIC"

Need for higher speeds and more capacity driven by demanding data-hungry applications



Combined Offload NIC and SmartNIC market for 25 GbE and above Ethernet adapters is **$3.1B** in 2025
SmartNIC market alone is **$1.4B** in 2025

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Napatech Reconfigurable Computing Platform

Open Source | Bro/Zeek | WIRESHARK | SURICATA | SNORT | TRex | ntop n2disk™ | ●●● | Homegrown IT | Commercial Applications

Application Driven

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Network Management | Cybersecurity | Virtual Switching

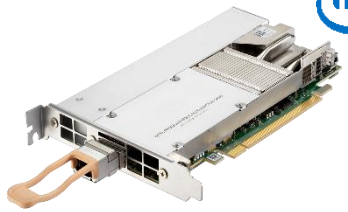
Software-Centric

XILINX

Napatech designed portfolio of FPGA SmartNICs

Price Range: $1,500-$10,000, Margins: around 68%

intel



Intel designed FPGA SmartNICs

$1,700 software-only

Hardware Independent

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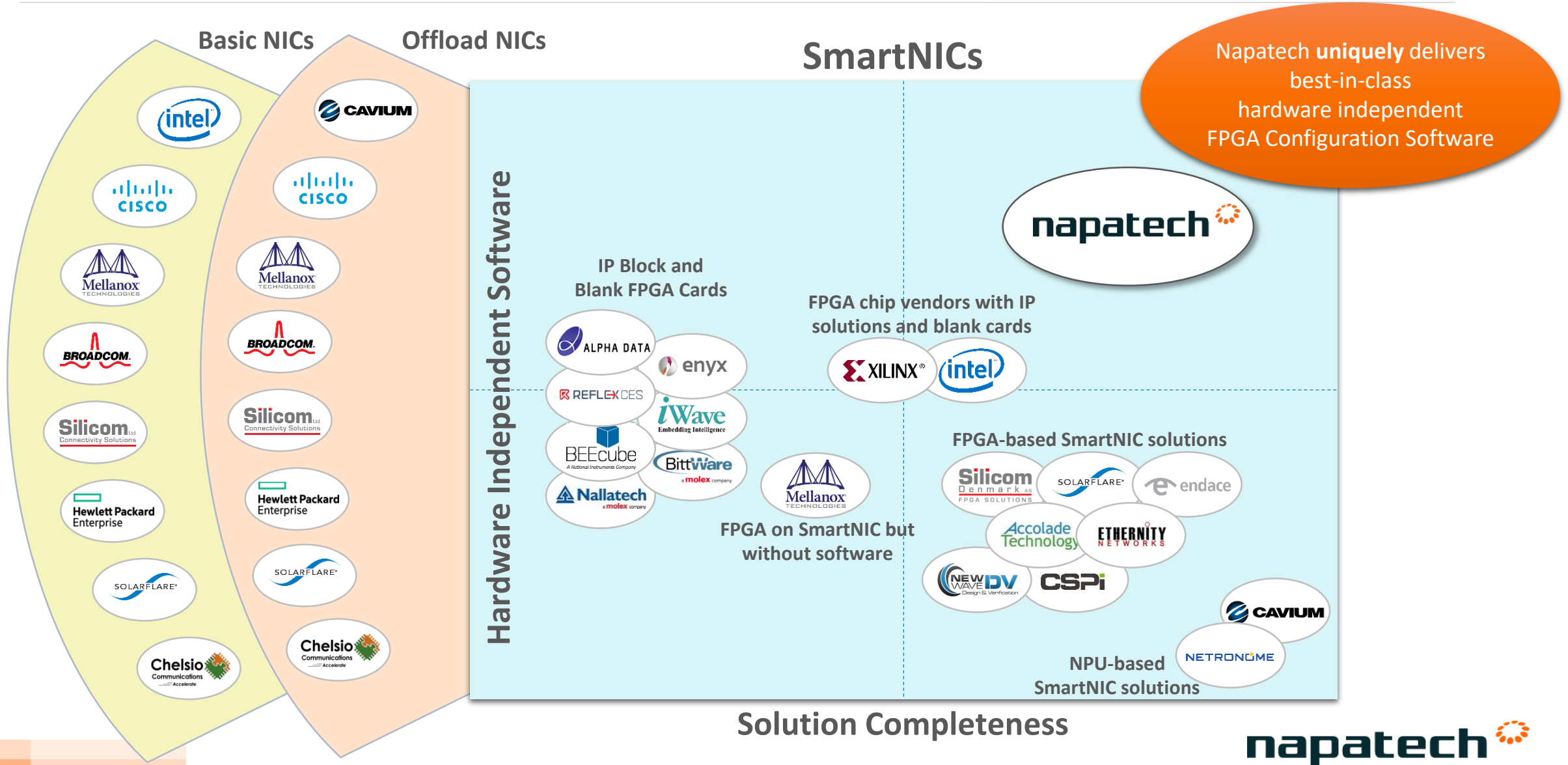
Why is Napatech Unique?



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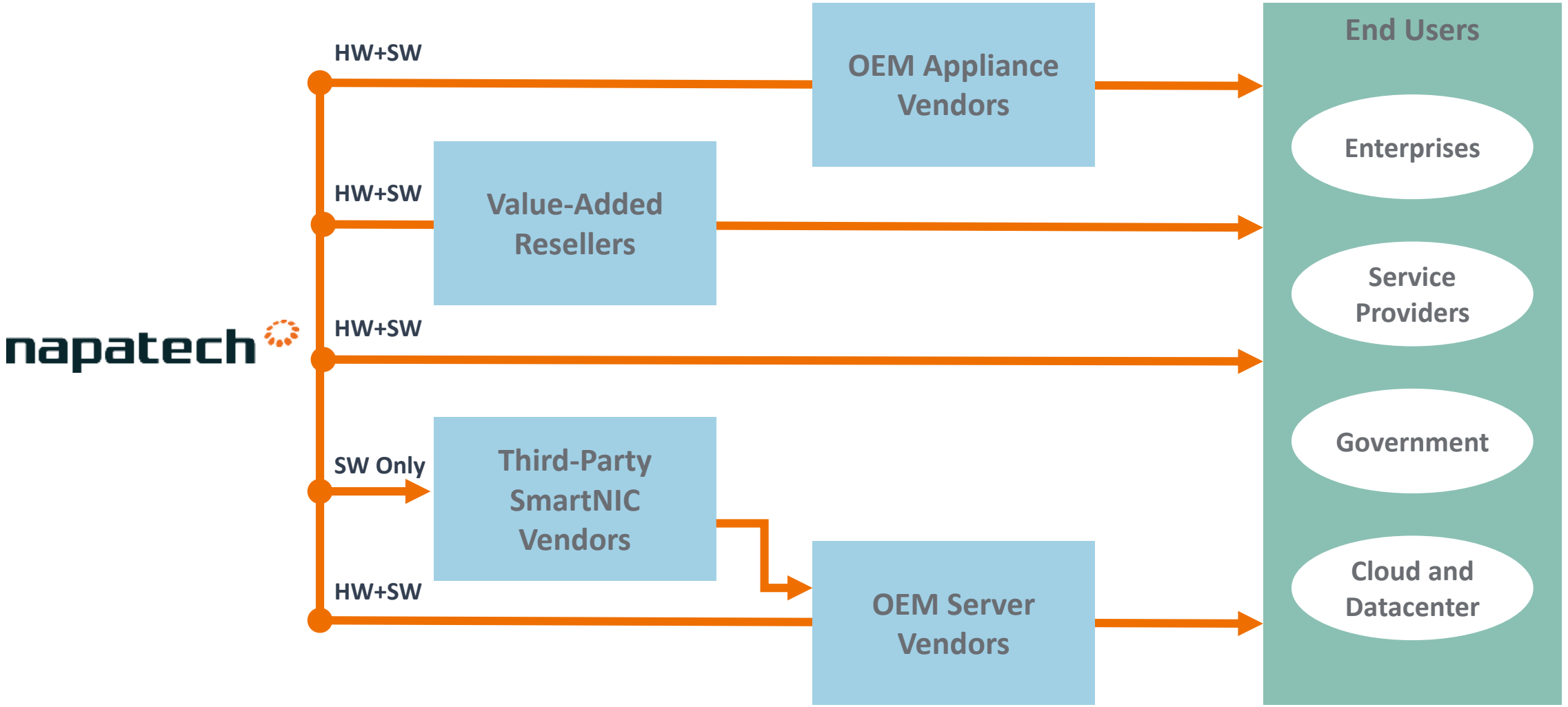
The Go-To-Market Plan



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Napatech Future Revenue Growth

Revenues Today

- 69% of revenue is based on Network Management
- 20% of sales revenue from top OEM customer
- 79% of sales revenue from direct OEM and End-user sales
- 0% sales revenue from SW-Only

Revenues in the Future

- Drive growth in three product areas
  - Network Management +10%
  - Cybersecurity +40%
  - Virtualization Acceleration +80%
- Cybersecurity sales will eclipse Network Management by 2023
- Virtualization Acceleration growth could be the largest growth engine by 2025 driven by 5G mobile deployments
- Higher growth from SW-Only revenue
- New unbundled service revenue growth
- Expand sales through indirect value-added and strategic channels

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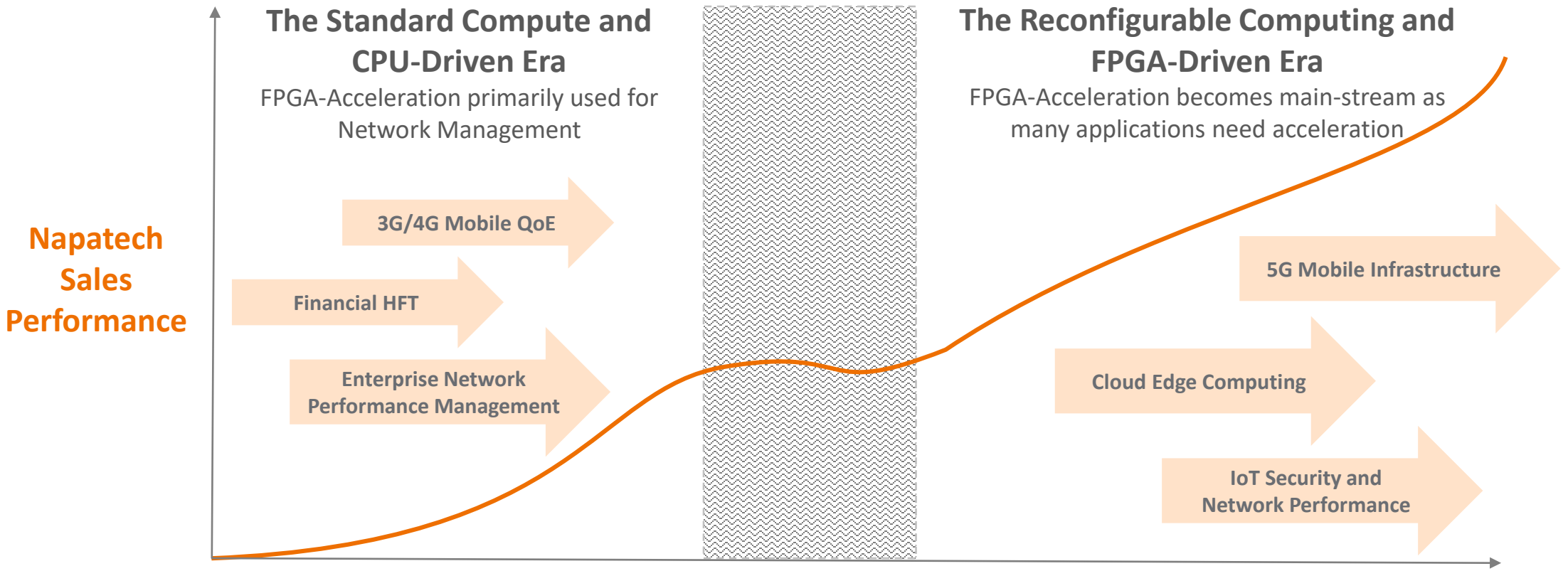
Napatech Rides The Growth in Key Market Trends



The Digital Transformation Disruption

False dawn of software-defined virtualized networking and poor performance of software-only solutions on standard computing platforms causes disruption as need for acceleration is slowly accepted

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What's Different Now About Napatech?

Solely focused on our unique core competency:

- We embrace our unique expertise in FPGA

FPGA Configuration Software is at the center of our new product strategy:

- We will access new growing markets in cybersecurity and virtualization, but we are doing it in a different way

Now is the time:

- The new mega-market areas are finally gaining traction, while our relationship with key industry players are also gaining traction
- The entire market now believes that the FGPA solution we deliver will solve the growing application acceleration opportunity

Leverageable business model:

- Our highly leverageable business model with new paths to the market allows us to grow and drive more profit

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Why Napatech?

Large Market Opportunity

- FPGA SmartNIC market opportunity rapidly expanding to $1.4B in revenue by 2025 with the opportunity to also address a further $1.7B in the offload NIC market
- Establish Napatech as the leading supplier of FPGA-based solutions for networking and cybersecurity on Napatech and third-party SmartNICs

Positioned for Success

- Proven Technology with FPGA-based market leading reconfigurable computing platform
- Protected position in high-barrier-to-entry FPGA technology leadership market with competitive advantage in software market

World Class Team

- Seasoned at building exceptional solutions exceeding customer requirements
- Unmatched quality and customer satisfaction with loyal brand name customers

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World Class Team with Deep Seasoned Industry Experience

Ray Smets
CEO

30+ years' experience in security, cloud, networking, software and telecom industries

Heine Thorsgaard
CFO

20+ years' experience in the IT and networking consulting industry

Jarrod J.S. Siket
CMO

25+ years' experience in delivering solutions to the IT, networking, security and telecom industries

Flemming Andersen
Chief Research and Development Officer

25+ years' experience in delivering solutions to the IT, networking, security and telecom industries

Henrik Brill Jensen
COO

30+ years' experience including 20+ years' in management in IT, networking and telecom industries

Heidi Thisgaard
HR Manager

25+ years' experience Including 10+ years' in HR in the IT, software and telecom industries

20+

Average years of experience of Napatech employees

15+

Average years of engineer FPGA experience

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Back-Up Information

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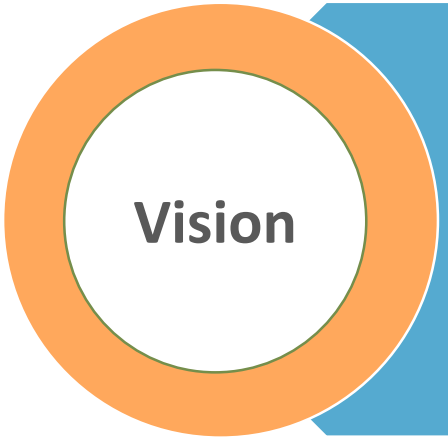
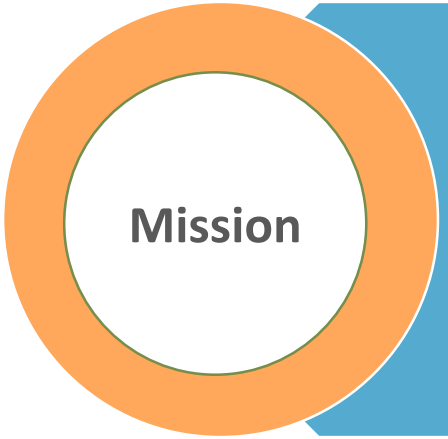
Napatech Vision & Mission



Be the global leader in Reconfigurable Computing Platforms
leveraging our deep expertise in FPGA software
helping companies of all sizes
accelerate application performance and secure their networks



We enhance open and standard servers
to boost and release valuable compute resources
with market leading FPGA software
on top of the best FPGA chipsets available

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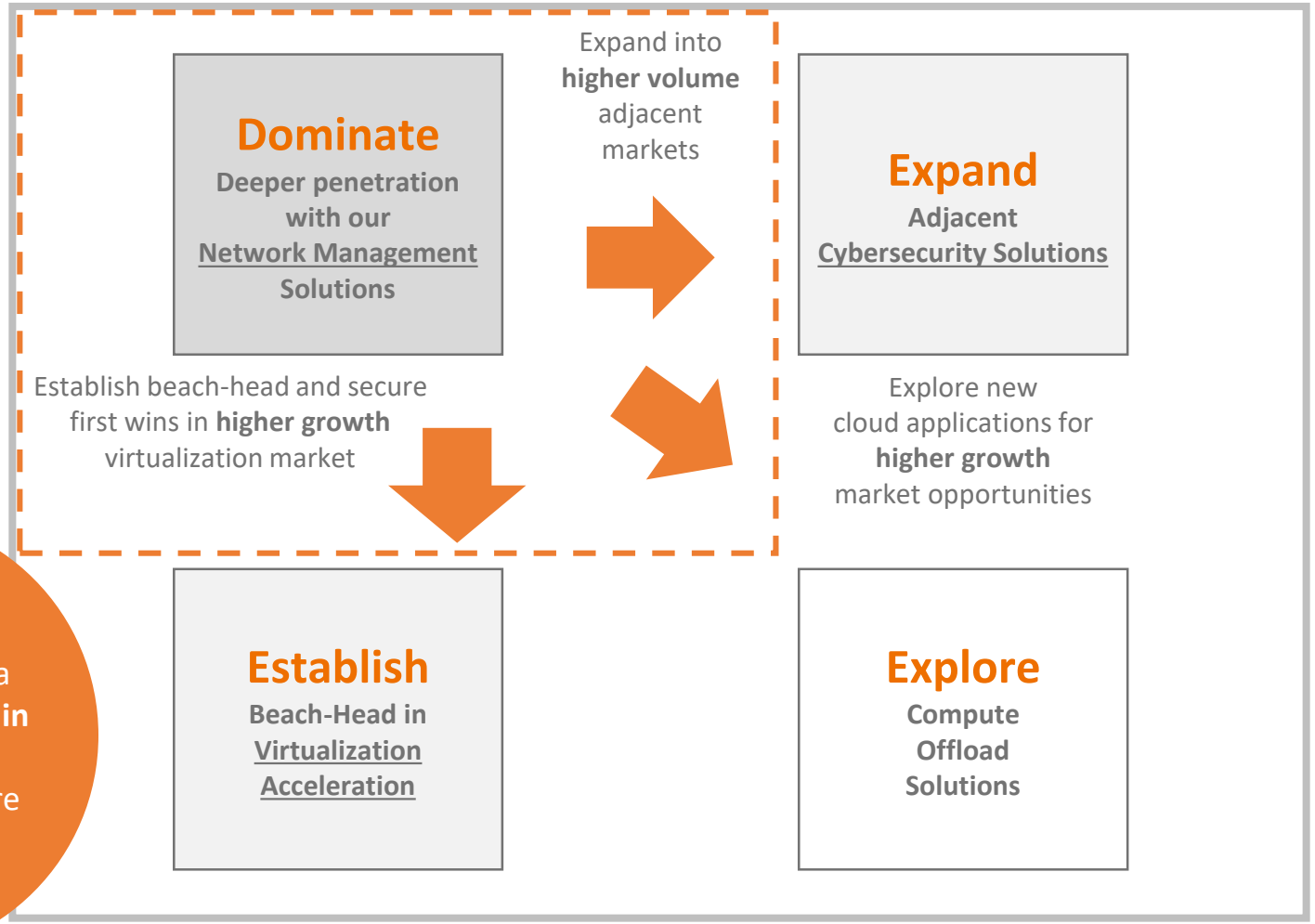
Key Areas of the Napatech strategy



Success of our strategy requires a **Strong Foundation in Dominate** that will fund future developments

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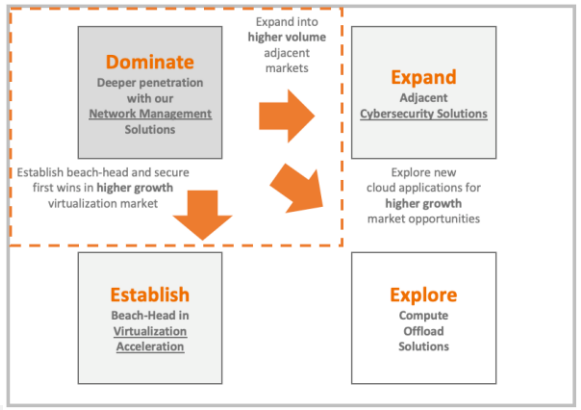
Our Strategy Targets Immediate Opportunities



Dominate Existing Network Mgmt Solutions

Expand Adjacent Cybersecurity Solutions

Establish Beach-Head in Virtualization Acceleration

Explore Compute Offload Solutions

- Network Test and Infrastructure: SPIRENT Communications, ixia, Gigamon
- Network Management: NETSCOUT, riverbed, ca technologies
- Cybersecurity Threat Detection: IBM, splunk>, Symantec
- Cybersecurity Threat Prevention: cisco, Check Point, paloalto NETWORKS
- Telecom SDN/NFV: AT&T, ERICSSON, verizon, NOKIA, Telefónica, HUAWEI
- Enterprise SDN/NFV: vmware, cisco, JUNIPER NETWORKS
- Cloud Infrastructure: aws, Google, Azure

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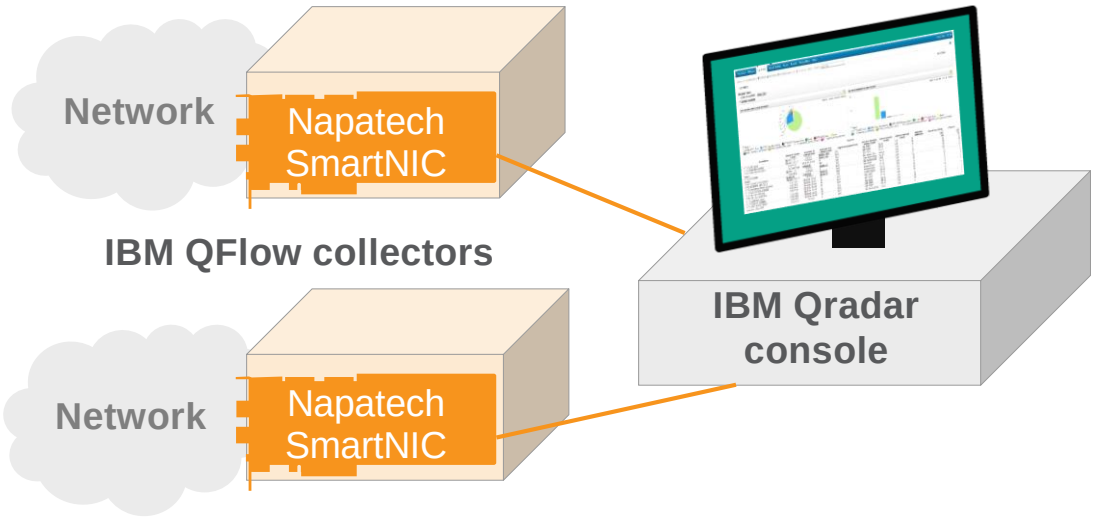
Cybersecurity and Network Management Application Acceleration

IBM

Neusoft

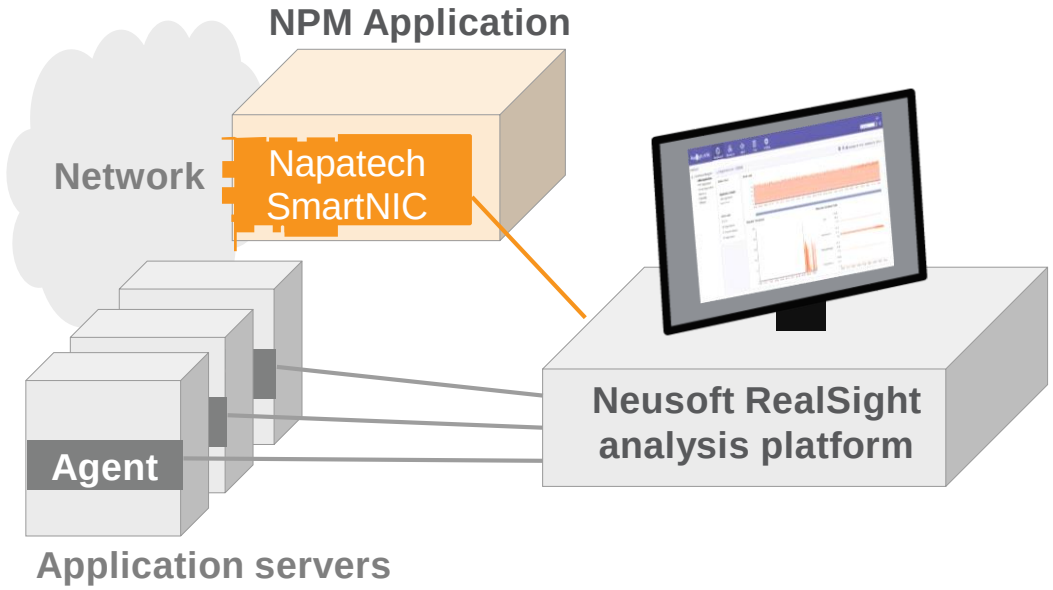
Guaranteed Data Capture for High-Speed Cybersecurity

- Doubles the performance of IBM solution with zero packet loss
- Ultra-fast extraction of critical data with deep insight



Accelerated Network Performance Management (NPM)

- Requirement to scale to millions of simultaneous users
- Acceleration and offload of data capture with low latency



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Real World Case: Improved TCO for Cybersecurity Application

Custom Hardware

Proprietary hardware and software

40 Gbps lossless

$225k USD

Software Only

Standard server and open-source software

15 Gbps lossless

$10k USD

Clustered to Perform

Multiple servers, open-source and load balancer

40 Gbps lossless

$70k USD

Server with FPGA Acceleration

Standard Server, open-source and FPGA SmartNIC

40 Gbps lossless

$15k USD

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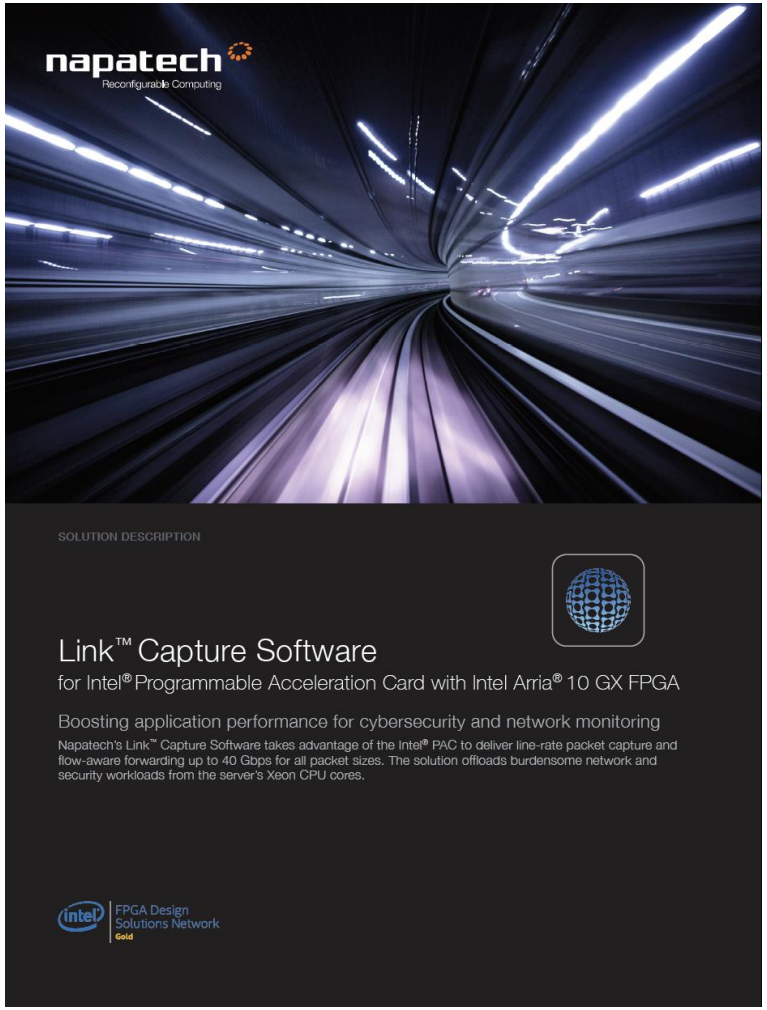
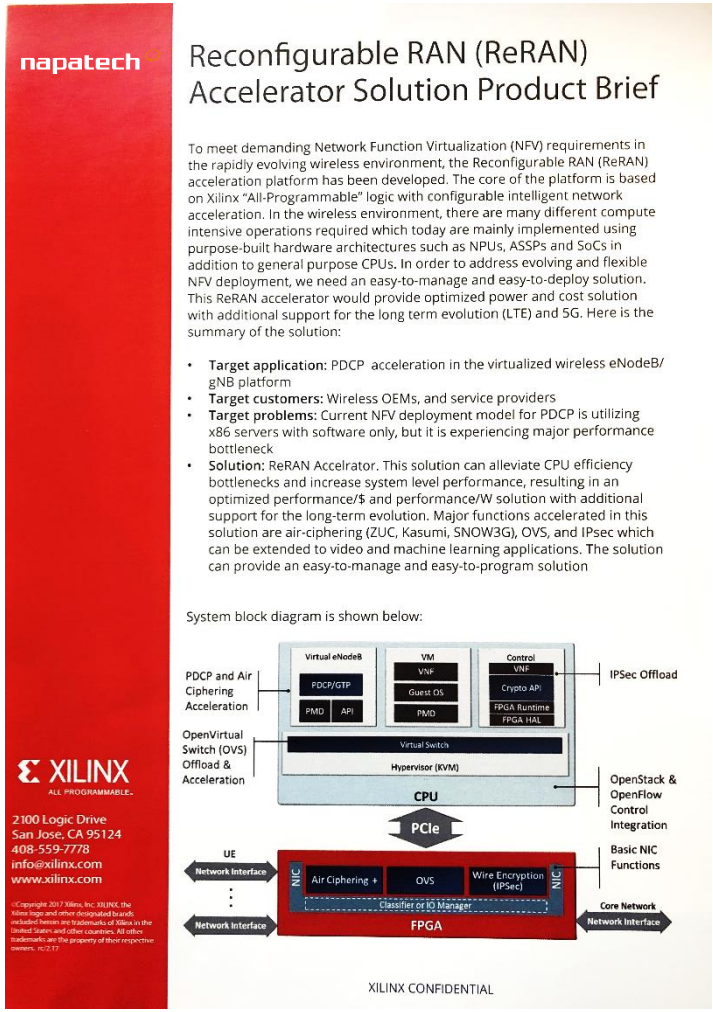
Partnership with Intel and Xilinx





Napatech is the sole provider of networking FPGA Configuration Software on Intel & Xilinx SmartNICs

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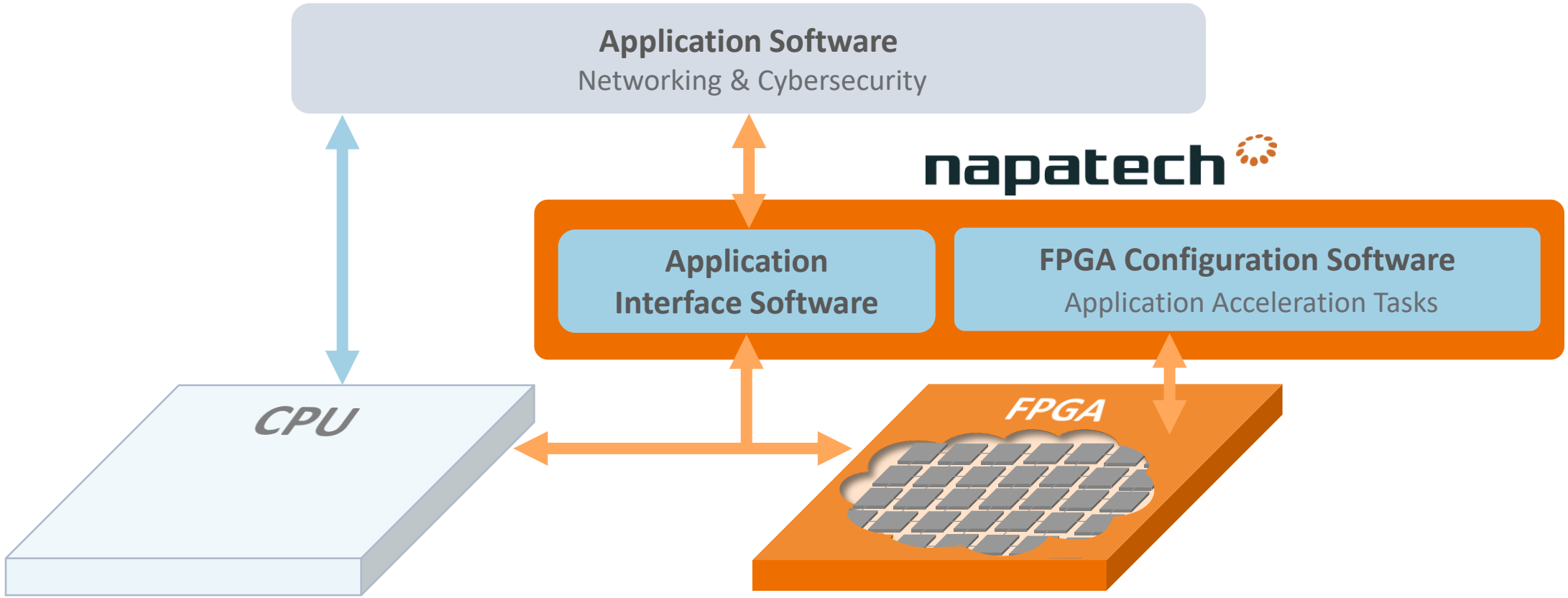
Napatech Unique Value is in the API and FPGA Configuration Software



Napatech recognized as experts in FPGA Configuration Software for Networking and Cybersecurity application acceleration

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