Network Transformation – 爆发式数据增长驱动网络技术持续发展

Decentralization of Mobile Core Functions (CUPS, UPF)

IOT AND DEVICES

ON-PREM EDGE

DRIVERS FOR EDGE
LATENCY
BANDWIDTH
CONNECTIVITY
SECURITY
AI

NETWORK EDGE OR REGIONAL DATA CENTER

CORE NETWORK

CLOUD DATA CENTER

Virtualization/Cloudification

Centralization of Baseband Functions (CRAN)
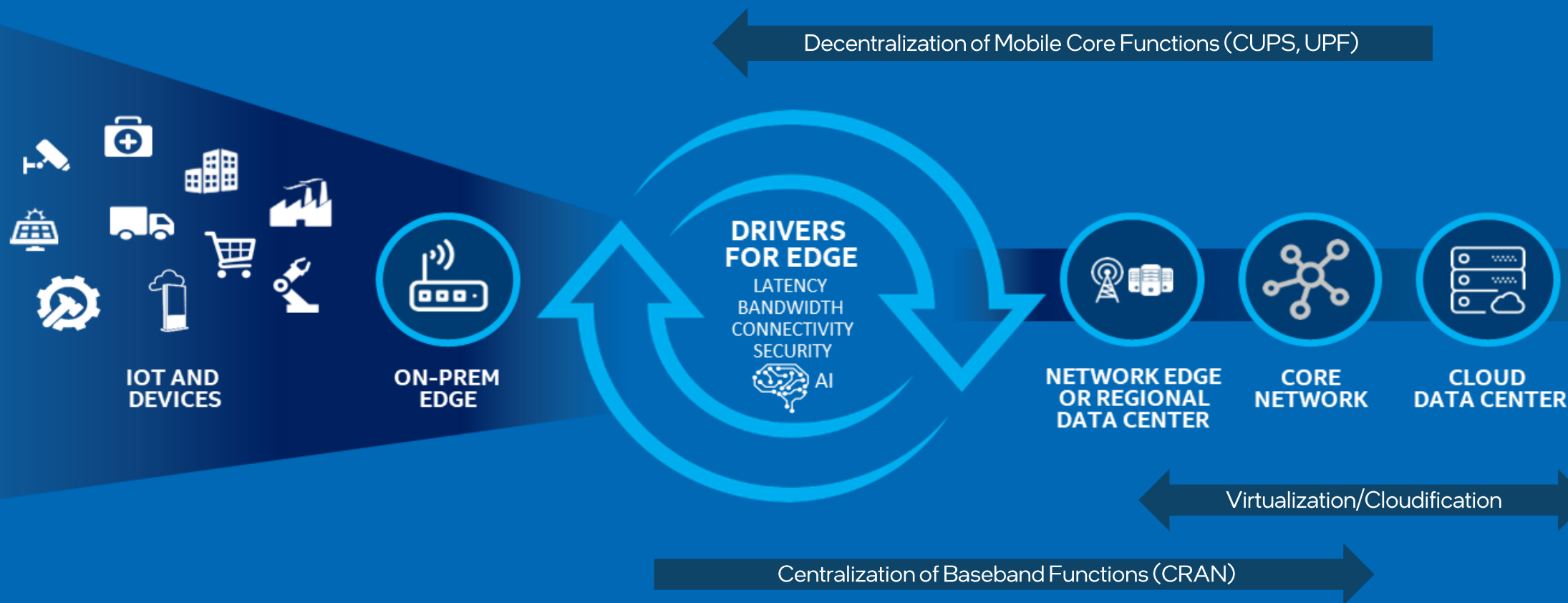
Empower Edge – 构建平台，助力边缘应用场景创新

INTEL® SMART EDGE

An industry-leading converged edge platform aligned with both Smart Edge and CERA.

Intel® Smart Edge is a commercial out-of-the-box Multi-access Edge Computing (MEC) platform that allows enterprises to run their private mobility (4G/5G) applications and 3rd party VNFs on the premise's edge in a highly secure and scalable way.

PWEK

PRIVATE WIRELESS EXPERIENCE KITS

Support diverse workloads across inference, media, networking and other IOT applications in a common infrastructure.

Speeds up time to market resulting in readily-deployable, vertical-aligned service platforms.

OpenVINO™

Streamline + Optimize Deep Learning

6X
Growth in 2019

Optimize AI inference on Intel® platforms deployed everywhere, from retail to healthcare to public safety. Widely available in solutions:
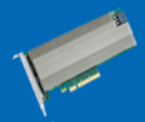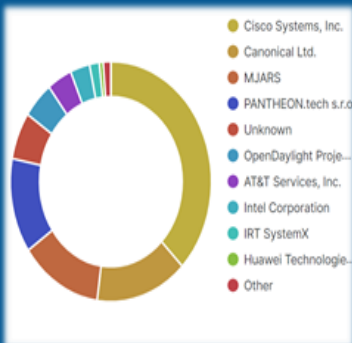
Intel® Smart Edge Open
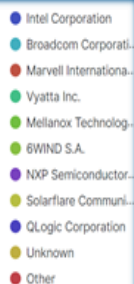
Streamline networking and application deployment at the edge.

Enable highly optimized and performant edge platforms to on-board and manage applications and network functions with cloud-like agility across any type of network.
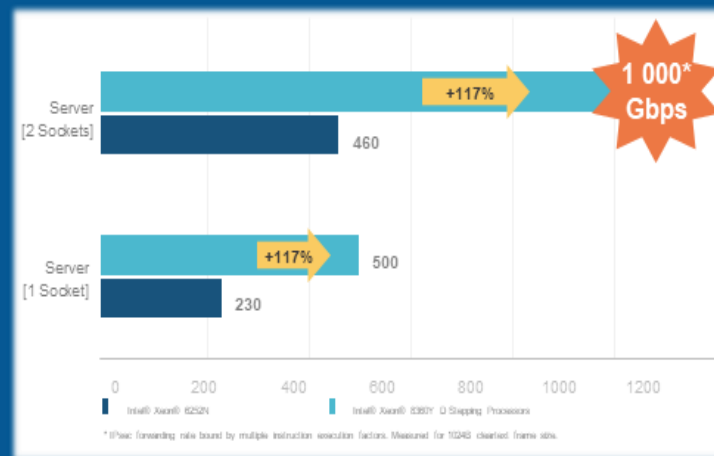
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Network Function Cloudification – 优化性能，始终如一的追求

DPDK
DATA PLANE DEVELOPMENT KIT

FD.io

- Intel Corporation
- Broadcom Corporati...
- Marvell Internationa...
- Vyatta Inc.
- Mellanox Technolog...
- 6WIND S.A.
- NXP Semiconductor...
- Solarflare Communi...
- QLogic Corporation
- Unknown
- Other

- Cisco Systems, Inc.
- Canonical Ltd.
- MJARS
- PANTHEON.tech s.r.o
- Unknown
- OpenDaylight Proje...
- AT&T Services, Inc.
- Intel Corporation
- IRT SystemX
- Huawei Technologie...
- Other

intel XEON

INTEL® QUICK ASSIST TECHNOLOGY

Intel® Ethernet Technology

INTEL® SILICON PHOTONICS PRODUCTS

IPsec Forwarding Rate [Gbps]

Server [2 Sockets] +117% 1 000* Gbps
460

Server [1 Socket] +117% 500
230

0   200   400   600   800   1000   1200

Intel® Xeon® 6252N   Intel® Xeon® 6382Y D Stepping Processors

* IPsec forwarding rate bound by multiple instruction execution factors. Measured for 1024B cleartext frame size.

UPF w/ Dynamic Device Personalization
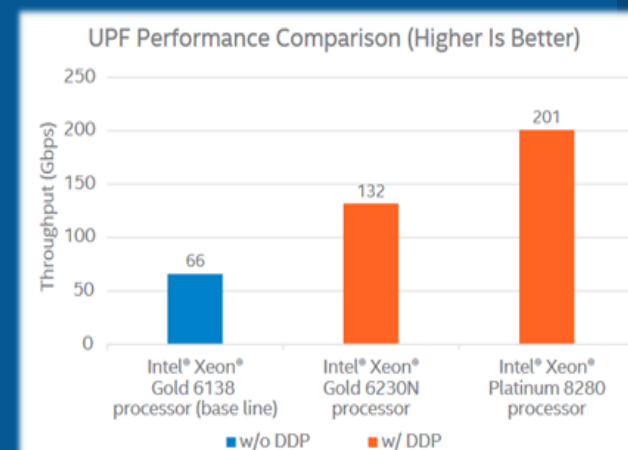
UPF Performance Comparison (Higher Is Better)

	Throughput (Gbps)
Intel® Xeon® Gold 6138 processor (base line)	66
Intel® Xeon® Gold 6230N processor	132
Intel® Xeon® Platinum 8280 processor	201

■ w/o DDP   ■ w/ DDP

IOT AND DEVICES → ON-PREM EDGE

DRIVERS FOR EDGE
LATENCY
BANDWIDTH
CONNECTIVITY
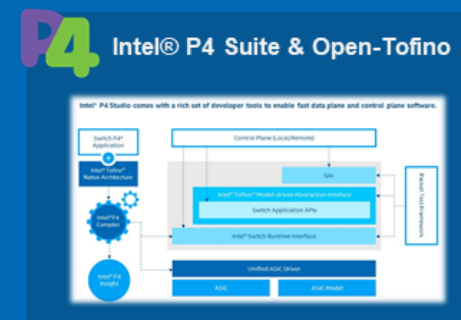SECURITY
AI

NETWORK EDGE OR REGIONAL DATA CENTER   CORE NETWORK   CLOUD DATA CENTER
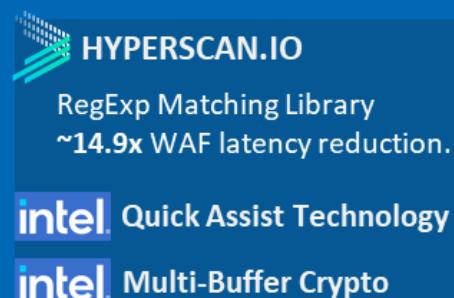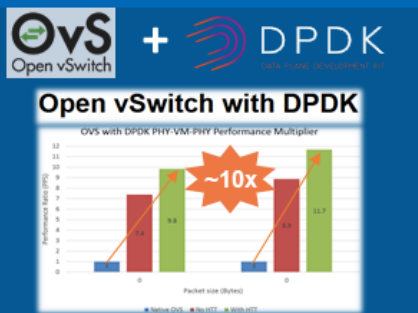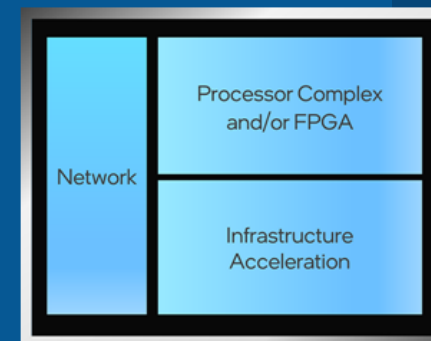
Software Defined Cloud Infrastructure – 开拓创新，扎根基础持续耕耘

OvS + DPDK — Open vSwitch
Open vSwitch with DPDK
OVS with DPDK PHY-VM-PHY Performance Multiplier
~10x

FD.io/VPP
TADK (Traffic Analytic Development Kit)

HYPERSCAN.IO
RegExp Matching Library
~14.9x WAF latency reduction.
intel **Quick Assist Technology**
intel **Multi-Buffer Crypto**

P4 Intel® P4 Suite & Open-Tofino
Intel P4 Studio comes with a rich set of developer tools to enable fast data plane and control plane software.

Infrastructure Processing Unit
Network | Processor Complex and/or FPGA
Infrastructure Acceleration

intel **XEON**   intel **ATOM**   intel **ARRiA** 10   intel **AGILEX**   intel **STRATiX** 10   intel **eASIC**

IOT AND DEVICES — **ON-PREM EDGE** — **DRIVERS FOR EDGE** LATENCY BANDWIDTH CONNECTIVITY SECURITY AI — **NETWORK EDGE OR REGIONAL DATA CENTER** — **CORE NETWORK** — **CLOUD DATA CENTER**

Unleashing The Potential of Data – 携手共进，释放数据的潜能

Summit Agenda

Time	Session	Speaker
09:00 – 09:15	Opening Speech: Intel Network Platform for the Data Center of the Future Intel 网络平台助力未来数据中心的变革	Zhou Lin 周林 Intel网络平台事业部 资深研发总监
09:15 – 10:00	Network Platform on 3rd Gen Intel Xeon Scalable Processors 第三代智能英特尔至强可扩展处理器加速网络平台发展	Yang Tao 杨涛 Intel数据中心事业部 资深网络应用工程师经理
10:00 – 10:45	Previous life, this life and the future of HDSLB HDSLB的前世、今生和未来	Zhang Pan 张攀 Intel网络平台事业部 平台方案架构师 / Ni Hongjun 倪红军 Intel网络平台事业部 资深工程师
10:45 – 11:00	Break & Lucky Draw 抽奖环节	
11:00 – 11:45	CoSP/CSP Network Solutions accelerated by Intel E810 DDP 基于Intel E810 DDP 技术加速CoSP/CSP网络的成功案例	Ma Jianwei 马建伟 Intel网络平台事业部 资深应用工程师 / Zhang Qi 张祺 Intel网络平台事业部 资深工程师 / Zou Steven 邹洪伟 Intel网络平台事业部 资深应用工程师

Time	Session	Speaker
13:00 – 13:45	Cloud Security AI – Inline inferencing for networking functions with TADK AI助力云安全----使用TADK构建网络安全应用	Qiu Kun 邱堃 Intel网络平台事业部 工程师
13:45 – 14:30	Enterprise Edge solution powered with AI 更智能的企业网边缘方案	Liu Frank 刘明璋 Intel网络平台事业部 资深平台方案架构师 / Chang Harry 昌昊 Intel网络平台事业部 资深工程师
14:30 – 15:15	Intel Smart Edge Open Features and 5G E2E Solution Intel 智能边缘计算参考平台特性及5G端到端方案	Dong Chuang 董闯 Intel网络平台事业部 资深应用工程师
15:15 – 15:30	Break & Lucky Draw 抽奖环节	
15:30 – 16:15	Hyperscan Updates on ICX Platform and Data Analytics Use Case Hyperscan关于ICX平台和数据分析用例的新进展	Hong Yang 洪扬 Intel网络平台事业部 工程师
16:15 – 17:00	Data Center Infrastructure evolution with Intel FPGA IPU/ SmartNIC Intel IPU/SmartNIC推动数据中心基础架构演进	Tang Houston 唐和庆 Intel PSG cloud BU 业务拓展经理（BDM） / Xu Rosen 许炜华 Intel网络平台事业部 资深工程师
17:00 – 17:45	P4 and Tofino programmable switch for leading network innovation P4和Tofino可编程交换芯片引领网络创新	Kang Haitao 康海涛 Intel Barefoot事业部 技术总监
17:45 – 18:00	Close & Lucky Draw 抽奖环节及闭幕	

intel

Welcome to Future Network Ecosystem!

intel®