ПЕРЕДОВЫЕ СЕРВЕРНЫЕ РЕШЕНИЯ INTEL ДЛЯ ОБЛАЧНЫХ ИНФРАСТРУКТУР И ПРОГРАММНО-ОПРЕДЕЛЯЕМЫХ СЕТЕЙ

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НОВЫЕ БИЗНЕС МОДЕЛИ ПРИ ПОДДЕРЖКЕ ИННОВАЦИОННЫХ РЕШЕНИЙ В ДАТАЦЕНТРЕ

ОБЛАЧНАЯ ЭКОНОМИКА

УМНЫЕ БОЛЬШИЕ ДАННЫЕ

+

Новые бизнес Модели

Smart Agriculture

Retail: Real-Time Pricing & Inventory

Wearables (Industrial/Lifestyle)

Precision Medicine & Genomic Analytics

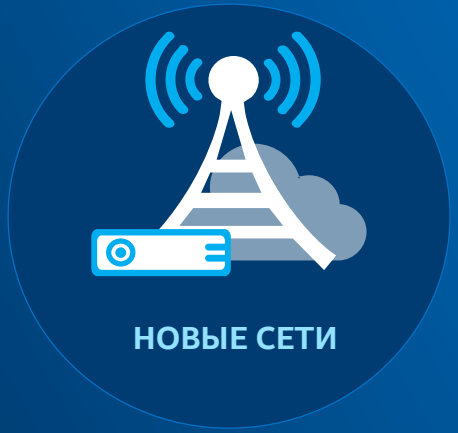
Autonomous Cars & 5G Connectivity

Virtual/Augmented Reality

КАКИЕ НАПРАВЛЕНИЯ РАСТУТ

ОБЛАКА

18% CAGR from 2017-2020[1]



НОВЫЕ СЕТИ

SDN/NFV spend up to $157B through 2020[2]

АНАЛИТИКА, СУПЕРКОМПЬЮТЕРЫ, УМНЫЕ ДАННЫЕ

AI is the fastest growing datacenter workload[3]

1. Source: IDC Q4'16 Cloud Infrastructure Tracker
2. Source: Technology Business Research, Sept 2015
3. Source: Amalgamation of Intel financials, analyst data and Intel analysis, Intel revenue includes FPGAs.

«СТРОИТЕЛЬНЫЕ БЛОКИ» ДЛЯ РЕШЕНИЯ ТЕКУЩИХ ЗАДАЧ

ANALYTICS & TECHNICAL COMPUTING

- Intel Scalable System Framework
- Intel / Cloudera (hadoop, Spark)
- Machine Learning Software

MANAGEMENT, ORCHESTRATION & STORAGE

- Intel® Data Center Manager
- Intel® Virtual Gateway
- snap
- Intel® Cache Accelration SW
- Intel® RSTe

SOFTWARE DEVELOPMENT TOOLS

- Intel® Parallel Studio XE
- Intel® Media Server Studio
- Intel® Inspector
- Intel® VTune
- Intel® CoFluent™
- Wind River

INSTRUCTIONS

- Intel ® AES-NI Instructions
- Intel® SHA Extensions
- Intel ® AVX Instructions
- Intel ® TSX Instructions
- ...

SW & LIBRARIES

- Intel® MKL Library
- Intel® DPDK
- Intel® MPI Library
- OpenGL/DX on Intel® HD Graphics
- Intel® Data Analytics Acceleration Library (DAAL)
- Intel ® TXT
- Intel® SPDK
- Intel® ISA-L
- Embree
- ...

HARDWARE

- Processors
- Chipsets
- Ethernet
- Intel® Omni-Path Fabric
- Network ASICs
- Silicon Photonics
- FPGAs
- SSDs
- Accelerators: Intel® QAT, Intel® DLIA, Intel® VCA

INTEL® XEON® SCALABLE PROCESSORS

ФУНДАМЕНТ ДАТАЦЕНТРА БУДУЩЕГО: ГИБКАЯ И НАДЕЖНАЯ АРХИТЕКТУРА

ПРОИЗВОДИТЕЛЬНОСТЬ ТАМ, ГДЕ НАДО

ОПТИМИЗИРОВАНО ПОД ВСЕ НАГРУЗКИ: COMPUTE, STORAGE, NETWORK

ПРОСТОТА ВНЕДРЕНИЯ

В СРЕДНЕМ УВЕЛИЧЕНИЕ ПРОИЗВОДИТЕЛЬНОСТИ В 1.6X РАЗА ПРОТИВ E5/E7 V4

НОВАЯ ПЛАТФОРМА ЭТО НЕ ТОЛЬКО INTEL® XEON® SCALABLE PROCESSOR

Fabric
Intel® Omni-Path Architecture

Networking
Intel® Ethernet

Accelerators
Intel® QuickAssist
Intel® AVX-512

INTEGRATED OPTIONS

SSDs
Intel® Optane™ SSD DC P4800X
Intel® SSD DC P4600
Intel® VMD

Complementary
Intel® FPGA
Intel® Xeon Phi™
Intel® Silicon Photonics

Огромное количество оптимизированного ПО
(e.g. Caffe*, Intel® DAAL, Intel® MKL, DPDK, SNAP*, SPDK)

ПРОИЗВОДИТЕЛЬНОСТЬ

ЗАЩИТА

ГИБКОСТЬ

ПОЛНОСТЬЮ НОВАЯ АРХИТЕКТУРА – ЯДРА, ПАМЯТЬ, PCI-E, СЕТЬ

Intel® Advanced Vector Extensions 512 (Intel® AVX-512)
Intel® Volume Management Device (Intel® VMD)
Intel® Data Analytics Acceleration Library (Intel® DAAL)
Intel® Math Kernel Library (Intel® MKL)
Storage Performance Development Kit (SPDK)
Data Plane Development Kit (DPDK)
Intel® Resource Director Technology (Intel® RDT)

* New features in ***bold***

INTEL® XEON® SCALABLE PROCESSOR

ПРОИЗВОДИТЕЛЬНОСТЬ ЯДРА

Faster application response time
More choices to optimize software license costs

- ***New*** core **micro-architecture**
- ***New*** lower latency **cache** memory hierarchy design

ПРОИЗВОДИТЕЛЬНОСТЬ СОКЕТА

Increased multi-tenancy & VM density for cloud
Application performance for parallelizable workloads

- **More cores**
- **New High-speed *Interconnects* = much greater inter-CPU bandwidth**

ПАМЯТЬ И ШИНА PCI-E

High bandwidth connections for networking and memory performance

- **More memory bandwidth** via added memory channels
- **Significantly more PCIe IO bandwidth** versus prior gen
- **Richer chipset & IO support options**

УСКОРЕНИЕ СПЕЦ ВЫЧИСЛЕНИЙ

Application specific instructions and accelerators

- **Intel® AVX-512** (2X FLOPs/clock) for HPC, Analytics, Database, & Security
- **Int. Intel® QuickAssist Technology**: faster crypto & data compression
- Intel® FPGA: Big speedups on server/storage/networking algorithms

БЕЗОПАСНОСТЬ

Built in performant security for trusted infrastructure

- **Up to 2X** security algorithm performance improvements
- Root of trust with Intel® TXT-**OTA**, ***Intel® PTT*** and ***Intel® Boot Guard***
- New ***Key Protection Technology*** (w/ *integrated Intel® QAT* & Intel PTT)

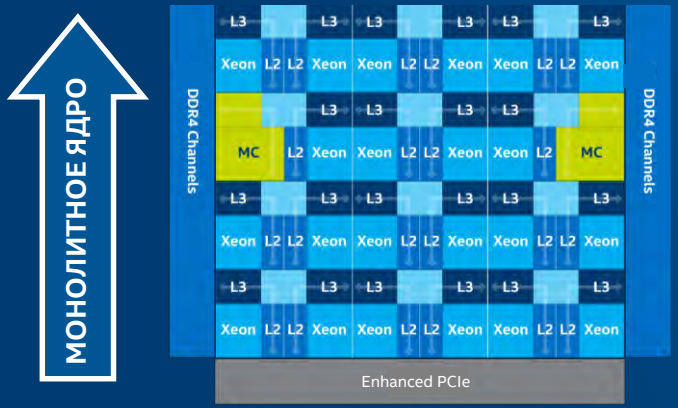
ГИБКОСТЬ

Optimized architecture for Hybrid-Cloud world

- **Enhanced Intel® RunSure Technology**
- **Enhanced Intel® Virtualization Technology (VT-x): MBE & TSC**
- New ***Intel® VMD*** for improved management of NVMe SSD drives

- Mode-based Execute Control (**MBE**):
- Timestamp Counter Scaling (**TSC**):

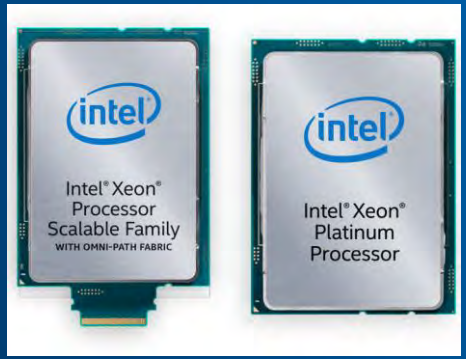
INTEL® XEON® SCALABLE PROCESSORS: СДЕЛАНО ДЛЯ ДАТАЦЕНТРА



Note: Not representative of top bin die

«СЕТЕВАЯ» архитектура:

- **Максимальная производительность**
- **Гарантированно низкие задержки при передачи данных**
- **Оптимизировано для работы с общей памятью**
- **Масшабируется эффективно для** 2, 4, & 8+ сокет конфигур



МНОГО ВЫЧИСЛИТЕЛЬНЫХ ЯДЕР, БЫСТРАЯ ПАМЯТЬ, МАЛЫЕ ЗАДЕРЖКИ

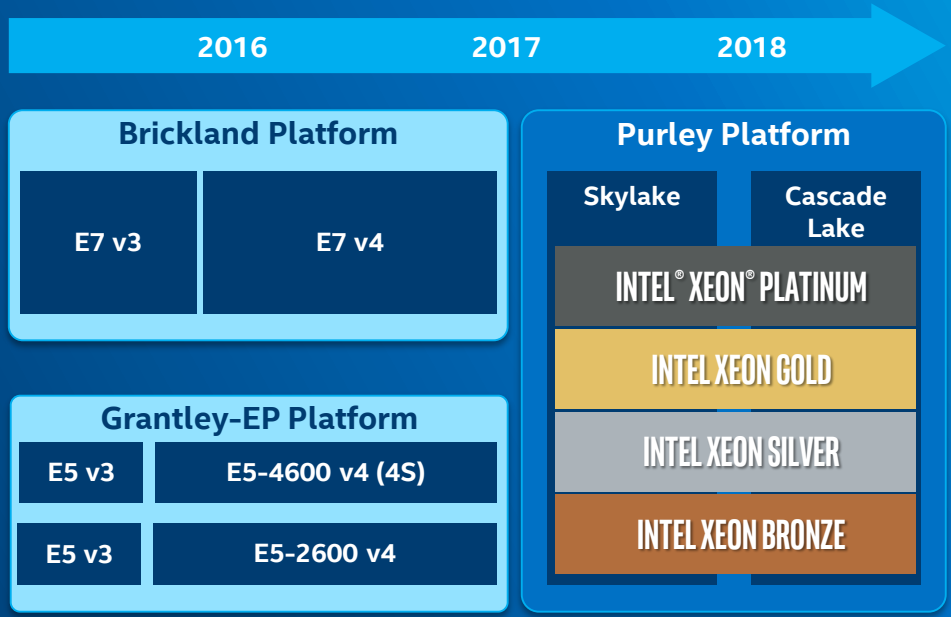
INTEL® XEON® PROCESSOR - РОАДМАП

Intel® Xeon® Processor E7

High-end сервера с масшабированием по сокетам и поддержкой RAS

Intel® Xeon® Processor E5

Сбалансированные 2х сокет системы с лучшим соотнош performance/watt/$



ОБЩАЯ ПЛАТФОРМА ДЛЯ ПОСТРОЕНИЯ E5 И E7 - CLASS РЕШЕНИЙ

INTEL® XEON® SCALABLE PROCESSOR

THE FOUNDATION FOR AGILE, SECURE WORKLOAD-OPTIMIZED HYBRID CLOUD

UP TO **28 CORES**

UP TO **2, 4 & 8** SOCKET SUPPORT WITH UP TO **3** UPI LINKS

DDR4 **2666** MHZ WITH UP TO **1.5 TB** TOPLINE MEMORY CHANNEL BANDWIDTH

HIGHEST ACCELERATOR THROUGHPUT

MAINSTREAM

INTEL® XEON® PLATINUM 81XX PROCESSORS

- **Most cores** (28C, 56T)
- Highest **frequency** (up to 3.6 GHz, 4C)
- **Most Socket flexibility** (2, 4, 8+)
- Elite IO/memory (**48** PCIe 3.0 lanes, **6** memory channels)
- Most/fastest **3 UPI** (Ultra Path Interconnects, **10.4 GT/s)**
- **Fastest Memory** (DDR4-**2666** MHz)
- Highest **Intel® AVX-512** with **2 FMA** per core
- Intel® **Turbo** Boost and Intel® **Hyper-Threading** Technology
- **New Advanced RAS**
- **Node Controller Support** to assist in scaled node management

RESULT:

- **Best** workload-optimized performance for general purpose compute across virtualized environments and hybrid cloud deployments
- **Best** choice for mission-critical, traditional DC apps, real-time analytics, and AI/deep learning inference workloads; smart path for DL training
- **Best** performance for the most demanding storage and networking workloads

RAS: Reliability, Availability, and Serviceability

INTEL® XEON® SCALABLE PROCESSOR

THE FOUNDATION FOR AGILE, SECURE WORKLOAD-OPTIMIZED HYBRID CLOUD

UP TO **28 CORES**

UP TO **2, 4 & 8** SOCKET SUPPORT WITH UP TO **3** UPI LINKS

DDR4-**2666** MHZ WITH UP TO **1.5 TB** TOPLINE MEMORY CHANNEL BANDWIDTH

HIGHEST ACCELERATOR THROUGHPUT

UP TO **22 CORES**

2 & 4 SOCKET SUPPORT

UP TO **3** UPI LINKS

ADVANCED RELIABILITY, AVAILABILITY AND SERVICEABILITY

MAINSTREAM

INTEL® XEON® GOLD 61XX PROCESSORS

- 22C (44 threads w/ HT)
- 2 and 4S
- Up to 3.4 GHz, (6C)
- **3** UPI links (10.4GT/s)
- DDR4-**2666** MHz
- Intel® AVX-512 with **2** FMA
- Node Controller Support
- Enhanced scalability and workload optimized performance for general purpose/virtualized compute & hybrid cloud
- Improved performance for demanding storage and networking

INTEL® XEON® GOLD 51XX PROCESSORS

- Up to 14C (28T)
- 2 UPI links
- DDR4-**2400** MHz
- Intel® AVX-512 with 1 FMA
- Affordable Advanced RAS and 4-socket scalability
- Suitable for a wide range of workloads

INTEL® XEON® SCALABLE PROCESSOR

INTEL® XEON® SILVER 41XX PROCESSORS

Up to 12C, 24T
Up to 2.2 GHz (10C)
DDR4-**2400** MHz
2 UPI at 9.6 GT/s
Intel® AVX-512 w/ 1 FMA
Intel® **Turbo** Boost and Intel® **HT** for multi-threaded apps
Suitable for a moderate range of workloads

INTEL® XEON® BRONZE 31XX PROCESSORS

Up to 8C
Up to 1.7GHz (8C)
Entry 2-socket configuration
DDR4-2133 MHz
2 **UPI** at 9.6 GT/s
Intel® AVX-512 w/ 1 FMA
Reliability upgrade versus Intel® Xeon® processor E3 platform

	EFFICIENT	ENTRY
	intel XEON SILVER inside	intel XEON BRONZE inside
	UP TO 12 CORES	UP TO 8 CORES
	2 SOCKET SUPPORT	2 SOCKET SUPPORT
	DDR4 2400 MHZ	48 LANES PCIe 3.0
	INTEL TURBO BOOST TECHNOLOGY HYPER-THREADING TECHNOLOGY	STANDARD RELIABILITY, AVAILABILITY AND SERVICEABILITY

PRODUCT NUMBERING CONVENTION FOR INTEL® XEON® SCALABLE PROCESSORS

Intel® Xeon® processor E7 Family (4/8S+)

Intel® Xeon® processor E5 Family (2S, 4S)

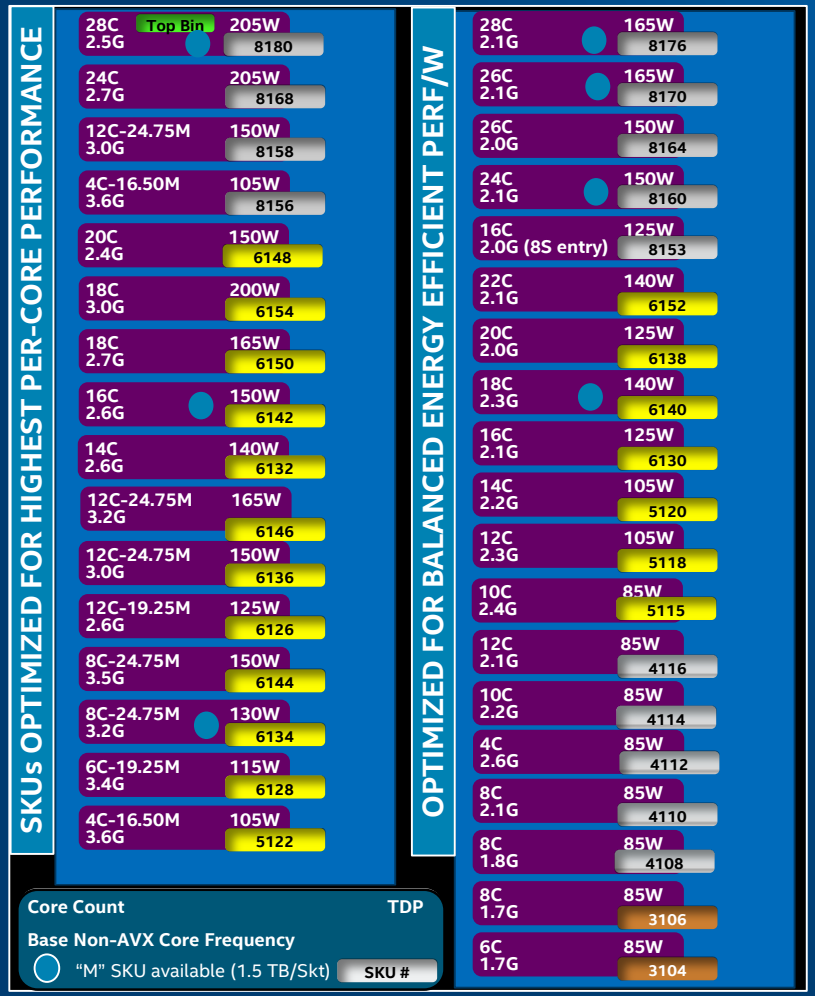
SKU Level
- 8 = Platinum
- 6, 5 = Gold
- 4 = Silver
- 3 = Bronze

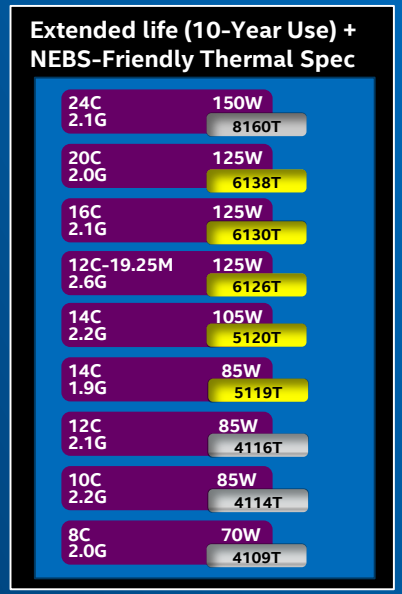
Processor Generation
- 1 = 1st Gen (Skylake-SP)

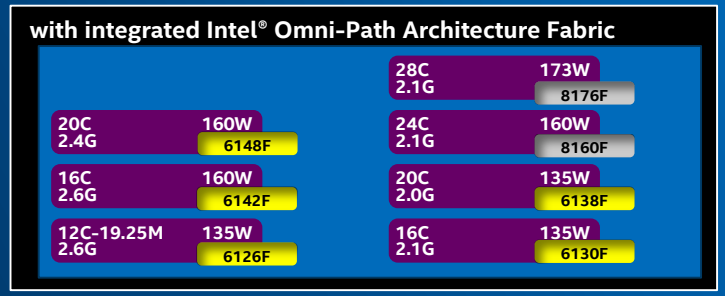
Processor SKU
- (ex. 20, 34…)

Integrations and Optimizations
(if applicable)
- F = Fabric
- T = High Tcase/Extended Reliability

Memory Capacity
- No Suffix = 768GB per socket
- M = 1.5TB per socket







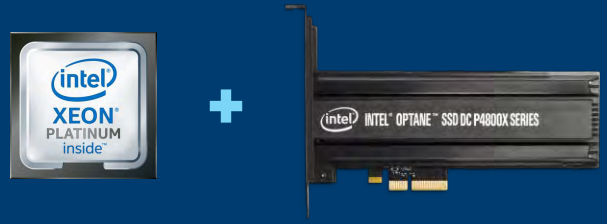
- **Highly flexible offerings optimized to address broadest array of workloads**
- **Four primary SKU lineups:**
  1. **Optimized for per core performance**
  2. **Balanced, energy efficient perf/W**
  3. **Extended life**
  4. **Integrated Intel® Omni-Path**
- **New 205W SKUs:**
  - **e.g. 8180 hits 2.5 GHz at 28 cores**
- **Great high frequency options:**
  - **e.g. 6144 w/ 8 cores at 3.5 GHz base**
  - **SKUs w/ add'l cache per core vs. default**

НОВАЯ ПЛАТФОРМА ДЛЯ ГИБРИДНЫХ ОБЛАЧНЫХ STORAGE ИНФРАСТРУКТУР

- БЫСТРЫЕ INTEL® OPTANE™ DC SSDs
- ЕМКИЕ INTEL® 3D NAND DC SSDs
- БОЛЬШЕ PCIe ВВОДА ВЫВОДА
- INTEL® STORAGE ПО
  - INTEL® INTELLIGENT STORAGE ACCELERATION LIBRARY (ISA-L)
  - INTEL® STORAGE PERFORMANCE DEVELOPMENT KIT (SPDK)
- INTEL® PLATFORM STORAGE РАСШИРЕНИЯ
  - INTEL® VOLUME MANAGEMENT DEVICE (INTEL® VMD)
  - INTEL® VIRTUAL RAID ON CPU (INTEL® VROC)

БЫСТРЫЙ И НАДЕЖНЫЙ

- Up to **60X** better at 99% **QoS**[1]
- Up to **40X** **faster response time**[1]



6x Optane SSD + Intel® SPDK

Up to **5.2x** higher **IOPS**
Up to **3.3x** **lower latency**

1 Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. **For more complete information** visit http://www.intel.com/performance Configurations: Tested by Intel as of Jun 2017; test versus out of box 4x NVMe SSD

НОВАЯ ПЛАТФОРМА ДЛЯ 5G-READY СЕТЕЙ

26B IP NETWORKED DEVICES/ CONNECTIONS
BY 2020

2.3 ZB GLOBAL IP TRAFFIC
ANNUALLY BY 2020

INTEL® ETHERNET 700 SERIES

- **One Architecture. Multiple Speeds**
  - int. Intel Ethernet Connection X722 w/ iWARP RDMA (4x10GbE)
- **Advanced features**
- **Optimized SW (DPDK) for NFV**

INT. INTEL® QUICKASSIST TECHNOLOGY

- **Crypto & Data Compression**

INTEL® OMNI-PATH ARCHITECTURE (FABRIC)

- High-bandwidth & low-latency fabric for HPC clusters (100 Gb / sec)

ПРИВАТНОСТЬ ДАННЫХ

up to **2.55x** higher
IPSec (Gbps)

ШИФРАЦИЯ ПЕРЕДАЧИ

up to **2.49x** higher
TLS Web Proxy (Gbps)

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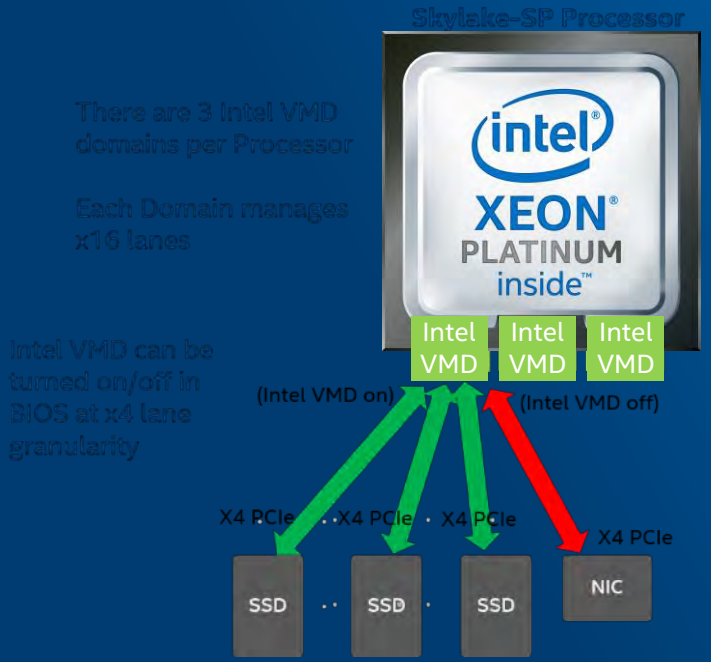
INTEL® VOLUME MANAGEMENT DEVICE (INTEL® VMD)



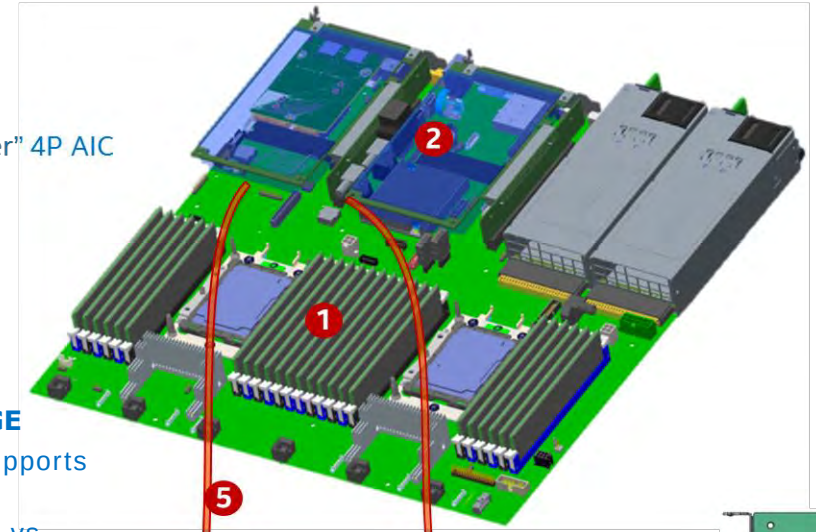
Intel® VMD is a CPU-integrated device to aggregate NVMe SSDs into a storage volume and enables other storage services such as RAID

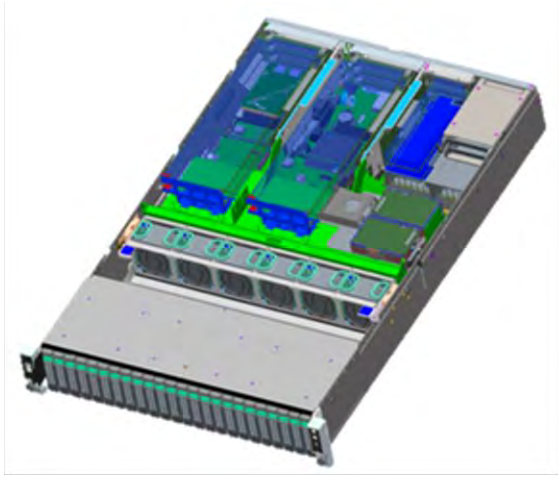
- Intel® VMD is an “integrated end point” that stops OS enumeration of devices under it
- Intel® VMD maps entire PCIe* trees into its own address space (a domain)
- Intel® VMD driver sets up and manages the domain (enumerate, event/error handling), but out of fast IO path

ELIMINATES ADDITIONAL COMPONENTS TO PROVIDE A FULL-FEATURE STORAGE SOLUTION

ПОДДЕРЖКА 24 NVMe на примере 2U 2S платформы

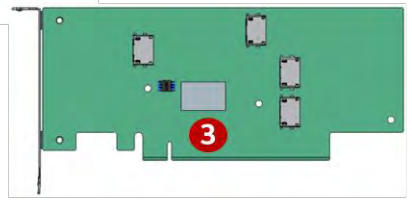
1. PURLEY BASEBOARD
2. PCIe SSD AIC on RISERs
3. PCIe SSD “Switch” or “ReTimer” 4P AIC
4. PCIe SSD “Switch” 8P AIC
5. OCuLink cables out to HSBP
6. 2U 8x25 Combo HSBPs
7. 2.5” PCIe SSD Drive

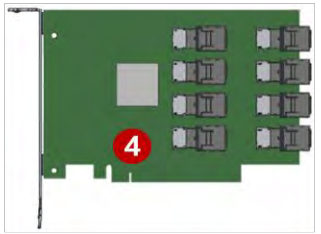




GRANTLEY to PURLEY CHANGE

- 2U 8x25 Combo HSBP now supports NVMe in all 8 Drive Slots
- OCuLink being used for NVMe vs. miniSAS HD
- More options for PCIe SSD AIC

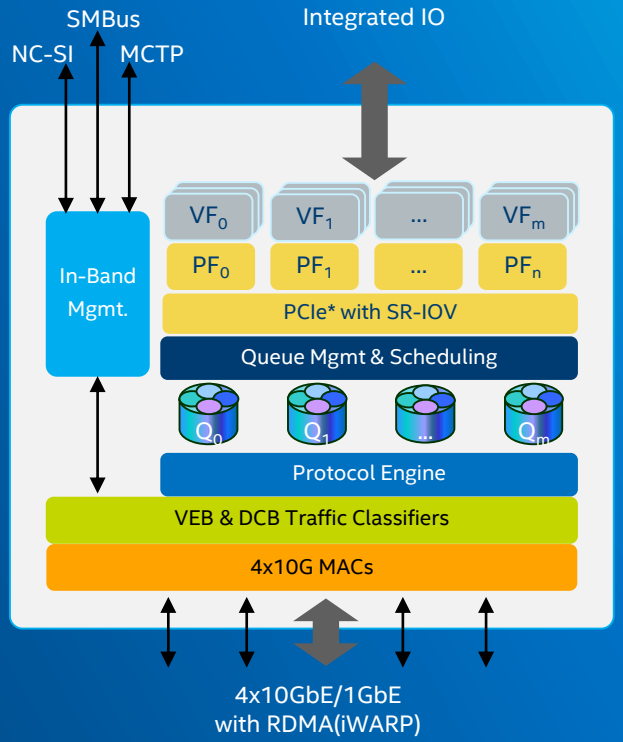




PCIe SSD: OCULINK
SAS/SATA: MINISAS HD

INTEL® 4X10GB/1GB ETHERNET CONTROLLER

Feature Support	Customer Value
Quad Port 10GbE MAC/PHY • Based on Intel's 10GbE solution • Interfaces: 10G (KR, SFI, XFI), 1G (KX)	• Optimized for networking capability in Cloud, Comms, and Storage • Single network driver on Intel® platform
Remote Direct Memory Access • iWARP	• Routable and scalable RDMA ideal for large segmented networks in private and public clouds
Network Virtualization Offloads • Flexible Filters (ATR, Flow Director) • NVGRE, IPinGRE, VXLAN, MACinUDP	• Abstract the network for cloud flexibility • Enhanced programmability and application affinity
Standards Based Virtualization • SR-IOV: 4 Physical/128 Virtual Function • VEB (Virtual Ethernet Bridge)	• Broad OS enablement
Power Management	• Energy Efficient Ethernet
Manageability • BMC Pass-Through (control & network) • Interfaces: NC-SI, SMBus, and MCTP	• Common transport for LAN-to-BMC



REMOTE DIRECT MEMORY ACCESS (RDMA)

RDMA is a network performance optimization

- •Enables direct app-to-app communication across nodes
- •Bypasses the OS stack & kernel
- •Provides direct channel for remote memory application access

RDMA offers lower latency, high throughput by:

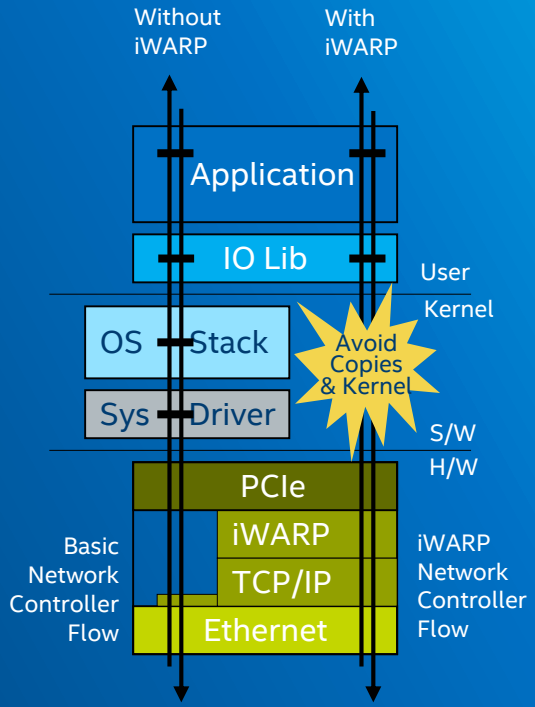
- •Avoiding application context switching
- •Placing data directly in application buffers (zero-copy DMA)
- •Moving protocol processing off the CPU

Intel® Ethernet Connection X722 is featured with iWARP (Internet Wide-area RDMA Protocol) RDMA:

- •Recommended for easy deployment and configuration, scalability and congestion control

RDMA-aware applications or messaging layers are required

- •Windows*/Linux* Drivers supported for Storage, Messaging Middleware and HPC application categories



BUILDERS.INTEL.COM

МАСШАБИРУЕМАЯ ПРОИЗВОДИТЕЛЬНОСТЬ

Install base

ОБЛАКА

UP TO 4.28X

VIRTUALIZATION
SpecVirt

ОБРАБОТКА ДАННЫХ

UP TO 5X

DATABASE
OLTP Hammer DB

ТРАНСФОРМАЦИЯ СЕТЕЙ

UP TO 2.7X

NETWORKING
DPDK L3 FWD

НАУЧНЫЕ ВЫЧИСЛЕНИЯ

UP TO 8.2X

SUPERCOMPUTING
LINPACK

Быстрее в
1.6 раз
Против
e5/7 v4

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ИТАК,

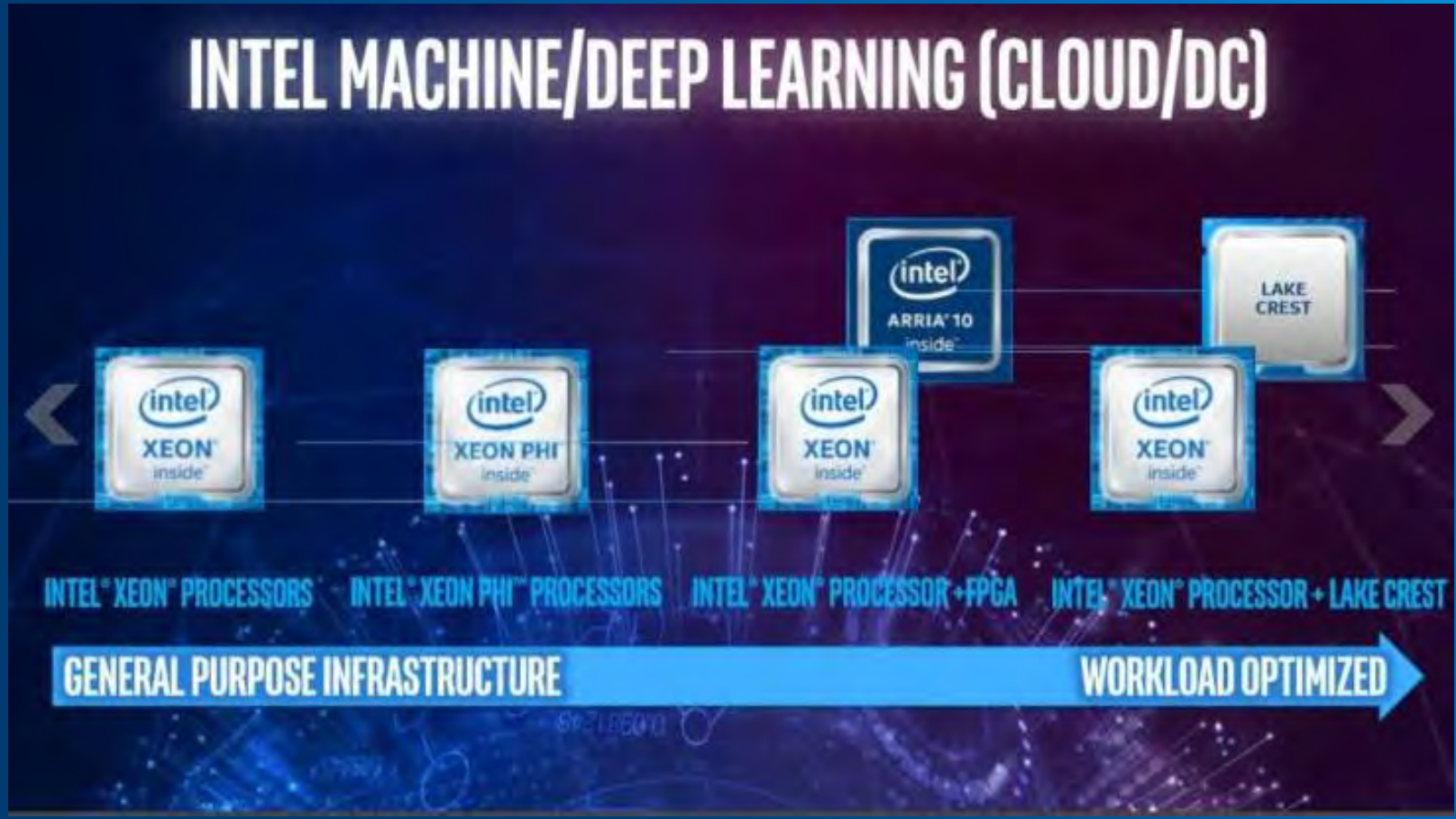
Революция в использовании данных меняет ВСЕ индустрии

Новые датацентры должны быть мощнее, безопаснее и более конфигурируемы, чтобы справиться с требованием бизнеса

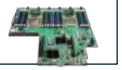
Новая платформа представляет мощность, безопасность и конфигурируемость (compute / storage / network)

Общий сокет и стабильность платформы (Skylake / Cascade Lake / Ice Lake = один сокет LGA 3647) дает возможности масшабирования

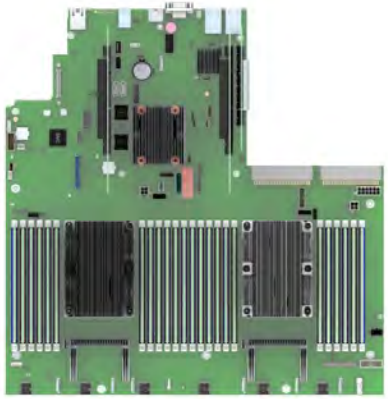
ЭТО ЕЩЕ НЕ ВСЕ



Платформы Интел для постороения ПОЦОД (SDDC)

Processor	Segment/ Use Cases	Server Product	Shipping Now	Q1 '17	Q2 '17	Q3 '17	Q4 '17	Future
Intel® Xeon® processor Scalable Performance family **Scalable Performance**	Wide range of IO, storage and memory configurations to meet HPC, Storage, HCI, Cloud and Enterprise needs	**2S spread core 1U/2U rack optimized server system** 	**Wildcat Pass S2600WT** Intel® Xeon® processor E5-2600 v4 24 DIMMs, 8 PCIe slots 24 2.5" drives, 12 3.5" drives, 8 NVMe in 2U 1U/2U rack chassis			**Wolf Pass S2600WF** Intel® Xeon® processor Scalable Performance family 24 DIMMs, 8 PCIe slots, Omni-Path, QAT, M.2, OCP mezzanine 24 2.5" drives, 12 3.5" drives, 24 NVMe in 2U, dual 10GbE 1U/2U rack chassis	
	Optimized density for HPC, HCI and Cloud use cases	**2S density-optimized compute module and chassis** 	**Kennedy & Taylor Pass S2600KP, S2600TP** Intel® Xeon® processor E5-2600 v4 8/16 DIMMs, 1 PCIe slot, 12/24 drives, 8 NVMe in 2U 2U/4-node, rack chassis			**Buchanan Pass S2600BP** Intel® Xeon® processor Scalable Performance family 16 DIMMs, 2 PCIe slots, Omni-Path, QAT, M.2 24 2.5" drives, 12 3.5" drives, 8 NVMe in 2U 2U/4-node	
	High PCIe slots and performance at optimized price for entry level SMB, Embedded and Web hosting	**2S EEB standard server board** 	**Cottonwood Pass S2600CW** Intel® Xeon® processor E5-2600 v4 16 DIMMs, 6 PCIe slots, 8/16 drives, SAS, dual 1/10GbE 4U pedestal chassis			**Sawtooth Pass S2600ST** Intel® Xeon® processor Scalable Performance family 16 DIMMs, 6 PCIe slots, dual 10GbE, M.2 16 2.5" drives, 8 3.5" drives, 16 NVMe in 4U pedestal chassis		
Intel® Xeon® processor Scalable Performance FPGA	High-performance and acceleration for Cloud, Enterprise and Network	**2S Xeon+FPGA server board** 					**Blue Mountain Pass S2600BL** Intel® Xeon® processor Scalable Performance family FPGA 24 DIMMs, 4 PCIe slots, 2U rack	
Intel® Xeon® processor E3-1200 family	Mid-range Enterprise storage, Embedded & Web applications that value fast cores	**1S micro-ATX server system** 	**Silver Pass S1200SP** Intel® Xeon® processor E3-1200 v5 4 DIMMs, 3 PCIe slots, 8 drives, SAS, IOM, 1U Rack /4U Tower chassis	**Silver Pass Kaby Lake Refresh** Intel® Xeon® processor E3-1200 v6 4 DIMMs, 3 PCIe slots 8 drives, SAS, I/O module				
Intel® Xeon Phi ™ product family **Performance**	Parallelized workflows in the HPC market	**1S $^1/_2$ width compute module and chassis** 			**Adams Pass S7200AP** Intel® Xeon Phi ™ processor, 215W TDP 6 DIMMs, 2 PCIe slot, Dual-port Intel® Omni-Path via KNL-F for PCIe, 2U/4-Node, rack chassis		**Adams Pass Refresh S7200AP** Intel® Xeon Phi ™ processor, up to 260W KNL-Halo, up to 320W KNM 6 DIMMs, 2 PCIe slot, KNL-F , 2U/4N	
Intel® Xeon® processor E3 family w Iris™ Pro Graphics **Accelerators**	Visual Cloud: Dense transcode and remote graphics for Xeon E5 systems	**Intel® Visual Compute Accelerator (VCA)** 	**Valley Vista VCA1283LVV** 3 Intel® Xeon® processor E3-1283L v4 2 8GB/ 16GB DDR3L ECC SODIMMs/ E3 node Full-length, double width x16 PCIe AIC			**Monte Vista VCA1585LMV** 3 Intel® Xeon® processor E3-1585L v5 2 16GB/ 32GB DDR4 ECC SODIMMs per E3 node Full-length, double width x16 PCIe add-in card		

Обычный сервер: «spreadcore»

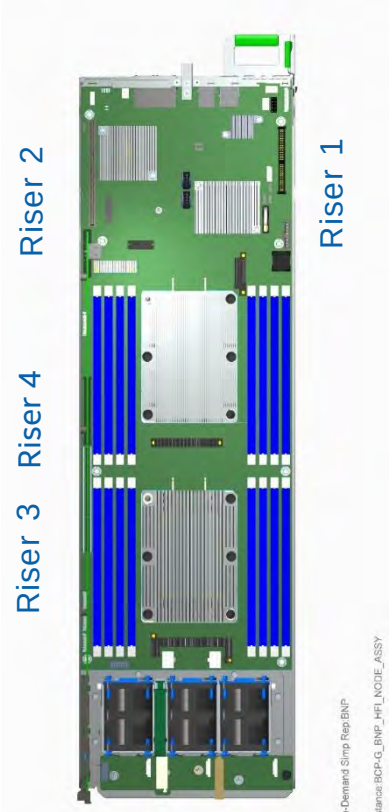


Wolf Pass Board

2U Bighorn Peak Chassis

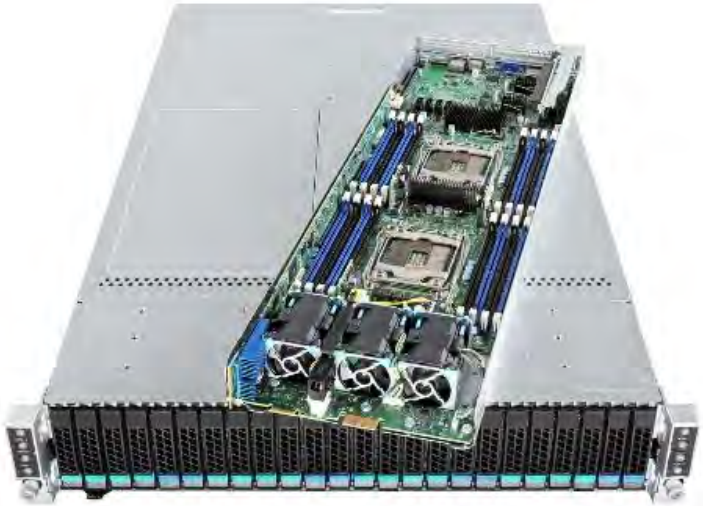
1U Buffalo Peak Chassis

Высокая плотность: «shadowcore»



2 Board Offerings:
S2600BPQ (Quick Assist Technology)
S2600BPB (Base)

2 Chassis Offerings:
H2224XXLR3 (24 x 2.5”)
H2312XXLR2 (12 x3.5”)



Где обо всем почитать?

http://www.intel.com/content/www/us/en/servers/overview.html

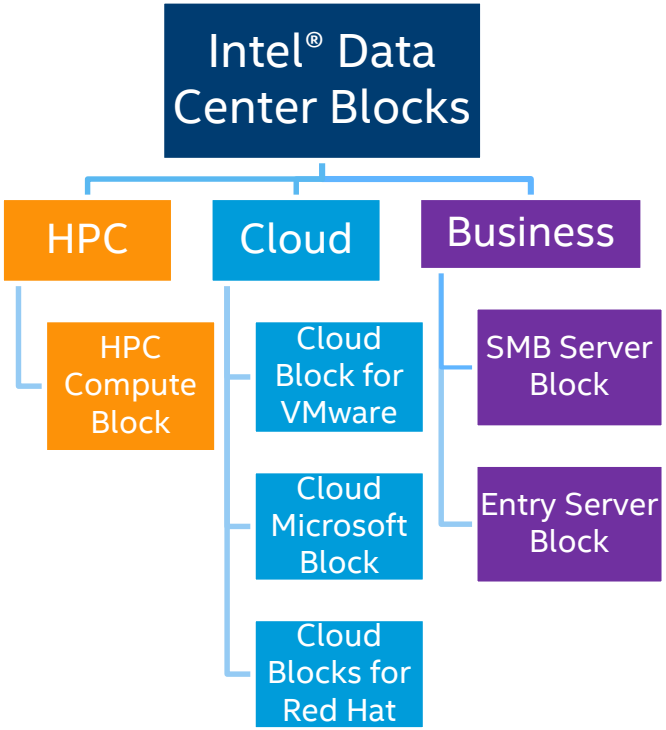
https://www.intelserveredge.com/the-edge/

http://www.intel.com/content/www/us/en/data-center-blocks/data-center-blocks.html

http://www.intel.com/content/www/us/en/servers/raid/intel-raid-controllers.html

У вас есть выбор…

INTEL® DATA CENTER BLOCKS



Снижение сложности

- Дизайн
- Валидация
- Сборка
- Тестирование
- И поддержка от Intel®

Стоимость

- Снижение TCO,
- **Спец. цены**

Прямое внедрение новых продуктов на рынок

- Эксклюзивность предложений

Серверные блоки от Intel® для построения широкого сегмента решений

Гарантия

Data Center Block Replacement Shipping Target SLA[2]		
Region	**Target Minimum SLA**	**Target Maximum SLA**
APAC	2 Days	7 Days
ASMO	2 Days	9 Days
EMEA	2 Days	8 Days

- Компоненты – зависит, 3 года в основном
- L9 / blocks – есть расшир гарантия 5 лет, дается НА КОМПОНЕНТЫ ВНУТРИ СИСТЕМЫ
- AWR / SWR в зависимости от статуса.

Data Center Block Warranty Options			
Part	**3-Year Standard**	**5-Year Option**	**Details**
Server Board, accessories & RAID	✓	✓	5 years by extended warranty
Server Chassis	✓	✓	5 years by extended warranty
Memory	✓		DIMM modules can be replaced with a "like" DIMM part that meets size, speed, rank type and voltage requirements.
Processor	✓		The Finished Process Order (FPO) and Assembly Test Product Order (ATPO) of CPU are required to process warranty requests for processors.
Networking			Networking parts are covered by a limited lifetime warranty with no time limits.
Intel SSD	✓	✓	5 years standard warranty
Fabric, OPS HFI	✓		

Партнерские программы

http://www.intel.com/content/www/us/en/technology-provider/overview.html

Специализации: HPC/Cloud/Datacenter etc…

http://www.intel.com/content/www/us/en/technology-provider/find-an-hpc-specialist.html

- Тренинги
- Обьем
- Скидки, промо
- Маркетинговые компании

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Tests document performance of components on a particular test, in specific systems. Differences in hardware, software, or configuration will affect actual performance. Consult other sources of information to evaluate performance as you consider your purchase. For more complete information about performance and benchmark results, visit http://www.intel.com/performance.

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experience
what's inside™

ОПИСАНИЕ ПРОЦЕССА

1. Расчет стоимости конфигурации.

1.1. Выявление потребности и определение проекта на поставку систем L9.

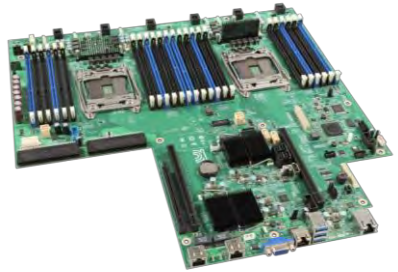
1.2. Запрос.

- согласование конфигураций систем, определение продуктовых кодов и количеств;
- отправка конфигураций на просчет (*с указанием поставщика (ITP) и заказчика/проекта*):
  - выбранному Дисти;
  - в Интел (sergeyx.lysokobylka@intel.com).

1.3. Расчет.

1.4. Получение предложения.

- от выбранного Дисти;
- от всех Дисти.



2. Заказ (через выбранного Дисти).

- создание уникальных PC/MM#;
- размещение заказа Дисти на сборку.

2.1. Сборка систем L9 на фабрике Интел.

2.2. Доставка.

- получение систем на склад Дисти от Интел (4-5 нед.);
- получение на складе поставщика систем L9 (*ITP*) от Дисти;
- репорт на ITP.

3. Поставка заказчику.

3.1. Доукомплектование систем ОС и необходимым ПО. Trade Mark®.

3.2. Доставка заказчику / размещение у себя.

3.3. Гарантийное обслуживание и сервис ITP.

Важные комментарии

- Чтобы правильно сконфигурировать, надо иметь под рукой 3 ресурса:
  - THOL (https://serverconfigurator.intel.com -> link inside tool) – память, AIC
  - TPS (technical product specification – on motherboard and/or system) – PCI-e конфиг, mem config, LPC etc…
  - **Config guide (on motherboard and/or system)** – всевозможные варианты сборки компонент и совместимость
- За правильное конфигурирование отвечает интегратор и/или дистрибутор
- Интел по запросу от дистрибутора делает квотирование, правильность конфигурации НЕ ПЕРЕПРОВЕРЯЕТСЯ, об очевидных ошибках конечно же сообщается
- Цена выдается ТОЛЬКО ДИСТРИБУТОРУ, он озвучивает финальную цену для интегратора и/или клиента