Гиперконвергенция как ключ к успешной трансформации ИТ

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DELL EMC

Драйверы для внедрения HCI

Повышение эффективности | Снижение расходов OPEX

Зрелость

Скорость, эффективность и экономичность публичного облака в вашем ЦОД

Масштабируемость

Начиная с малого, вертикальная и горизонтальная масштабируемость с сохранением уровня производительности

Простота

Простота работы с программно-управляемой автоматизацией и управлением жизненным циклом

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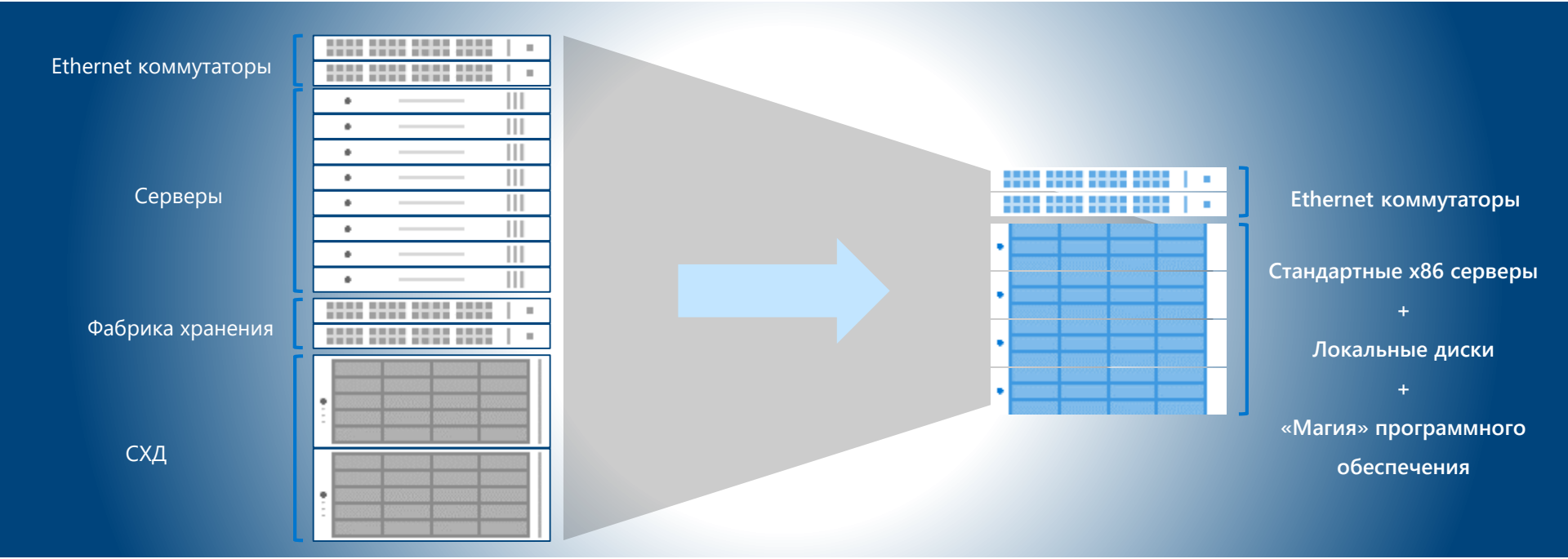
Трансформация архитектуры ИТ с программно-определяемыми решениями



Традиционная “3-х уровневая” инфраструктура

Гиперконвергентная инфраструктура (HCI)

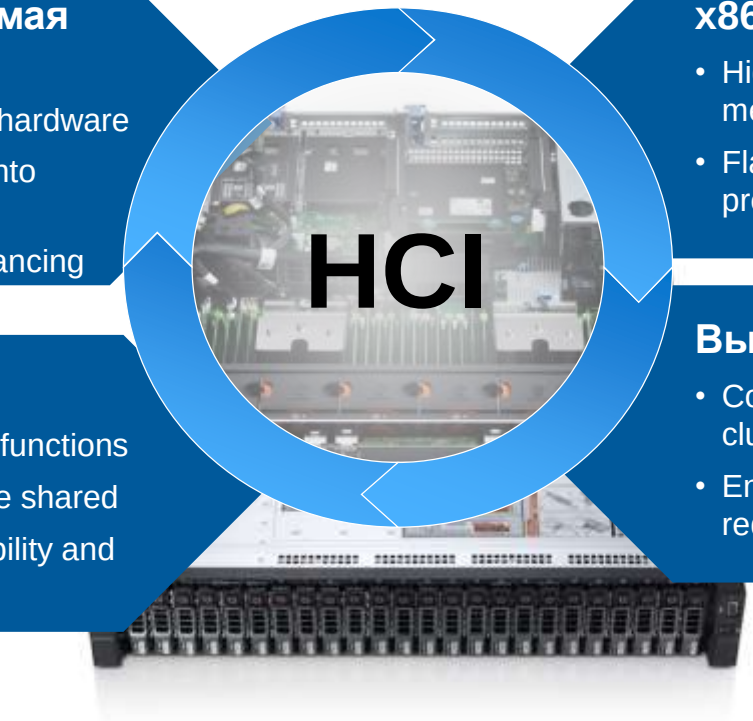
Ключевые компоненты решения

Программно-определяемая СХД

- Abstracts storage functions from hardware
- Virtualizes direct-attach storage into shared pool
- Automates provisioning, load balancing

Виртуализация

- Abstracts compute and network functions
- Enables physical resources to be shared
- Greatly improves utilization, mobility and security



x86 серверы

- High-performance processors, large memory
- Flash media delivers consistent, predictable performance

Высокоскоростная сеть

- Connects nodes together to create cluster
- Enables HCI to deliver high IOPS and reduced latencies

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Серверы PowerEdge + плюс лидирующее в индустрии ПО

Ключевое ПО

Гипервизор

Хранение

Сеть

Управление

vmware®

Microsoft

redhat

NUTANIX

Dell EMC HCI

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Портфель решений Dell EMC HCI

	ПОСТРОЙ *с Ready Nodes* Валидированные строительные блоки	ИСПОЛЬЗУЙ *интегрированные системы* Решения «под ключ»	
vmware vSAN | vSphere | NSX	**vSAN Ready Nodes** *Pre-validated & optimized for vSAN*	**VxRail** appliances	**SDDC** integrated rack
Разделяемая архитектура VxFlex OS	**VxFlex Ready Nodes** *Pre-validated & optimized for VxFlex OS*	**VxFlex** appliances	**VxFlex Rack** integrated rack
Партнерские решения Microsoft Hyper-V Nutanix AHV	**Azure Stack HCI Ready Nodes** *Pre-validated & optimized for WSSD*	**XC Series & XC Core**	**Cloud for Microsoft Azure Stack**

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Уровень интеграции

Экосистема Альянсы

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Портфель решений Dell EMC HCI

	ПОСТРОЙ *с Ready Nodes* Валидированные строительные блоки	ИСПОЛЬЗУЙ *интегрированные системы* Решения «под ключ»	
Dell Technologies	**vSAN Ready Nodes** *Use existing lifecycle management processes*	**VxRail** *Jointly engineered, turnkey experience with full stack security from core to cloud*	integrated rack
	VxFlex Ready Nodes *Hypervisor flexibility*	**VxFlex** *Maximum flexibility in scale point and deployment options*	*Flexibility and simplicity required with integrated networking* — integrated rack
Экосистема Альянсы	Партнерские решения — Microsoft Hyper-V, Nutanix AHV	*For customers running Windows and Linux VMs* — **Azure Stack HCI Ready Nodes**	*For customers who require Nutanix* — **XC Series & XC Core**
			For customers looking for consistent Azure experience on-premises — **Cloud for Microsoft Azure Stack**

Dell EMC **#1** в HCI

28.6% доля рынка

84.7% годовой рост

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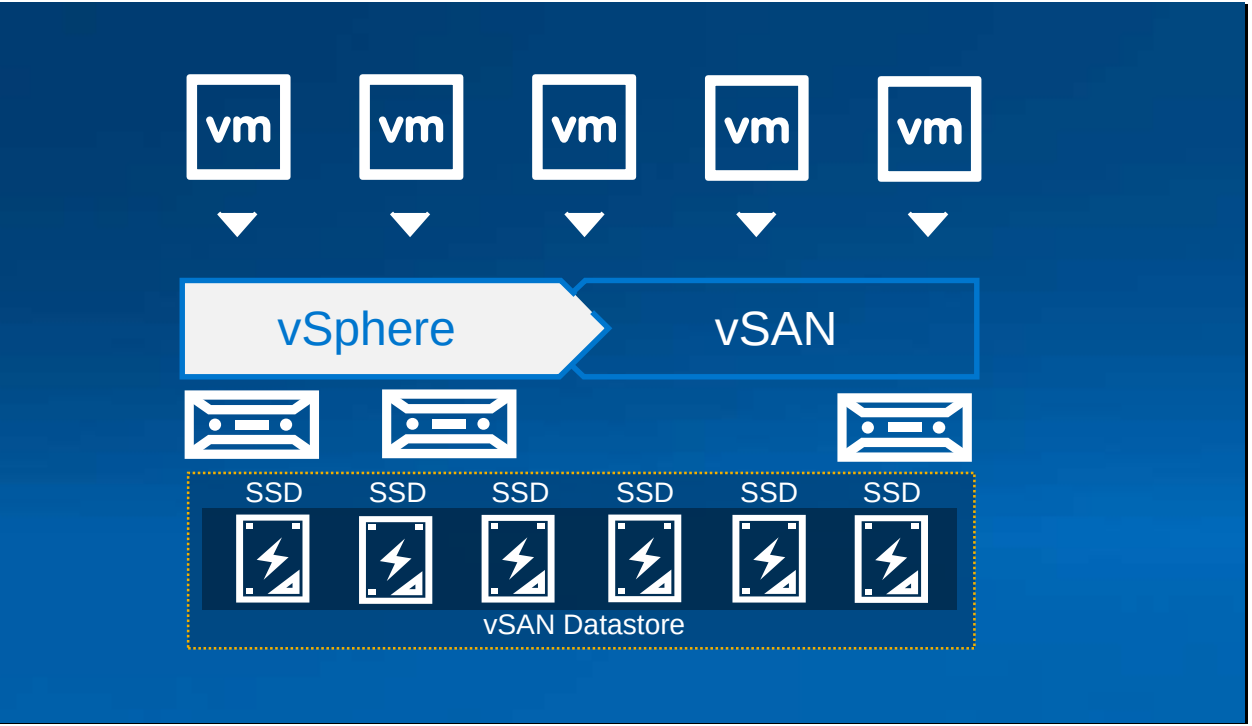
Корпоративная СХД на основе архитектуры vSphere -VMware vSAN



- **Интеграция** в гипервизор vSphere
- Пулы HDD/SDD в едином **кластерном хранилище с общим доступом**
- Легкое **масштабирование**
- Управление через политики хранения ВМ
- Запуск практически на любом сервере **PowerEdge**, а также на VxRail

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VXRAIL

Наиболее быстрорастущая HCI система[1]

Годовой доход[2]	**>$1млрд**
Рост	**178%**
# Заказчиков	**4,700+**

1. For Q4 2019 year-over-year among TOP 10 product brands. IDC Converged Systems Tracker, Q4-2018, April 2019.
2. On an orders basis.

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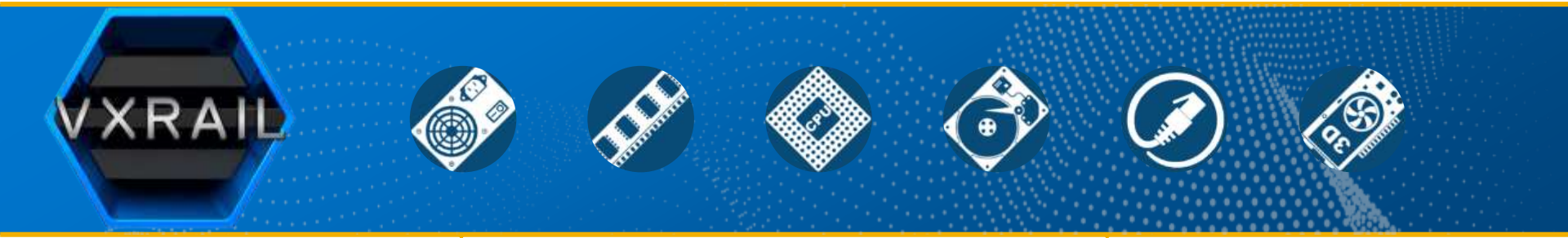
Что внутри VXRAIL?



Работает на VMware vSAN

- Гибкое лицензирование vSAN
- Готов для vSphere *
- Сервер vCenter
- vRealize log Insight

Системное ПО VxRail HCI

- VxRail Manager
- **VxRail ACE (Analytical Consulting Engine)**
- RESTful APIs
- Сервисы Automation & orchestration

Опции по защите данных

- RecoverPoint for VMs
- VMware vSphere replication

*Compatible with a broad range of customer-supplied vSphere licenses

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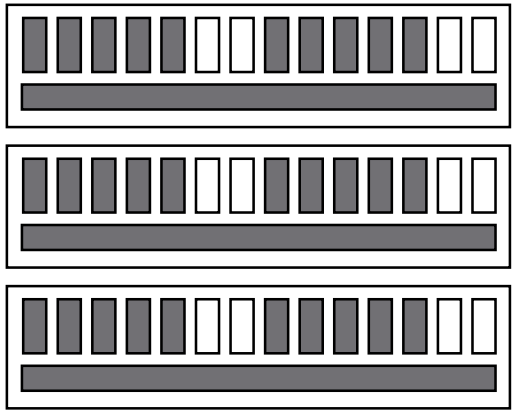
Масштабирование и модернизация

Минимизация рисков и расширение по запросу

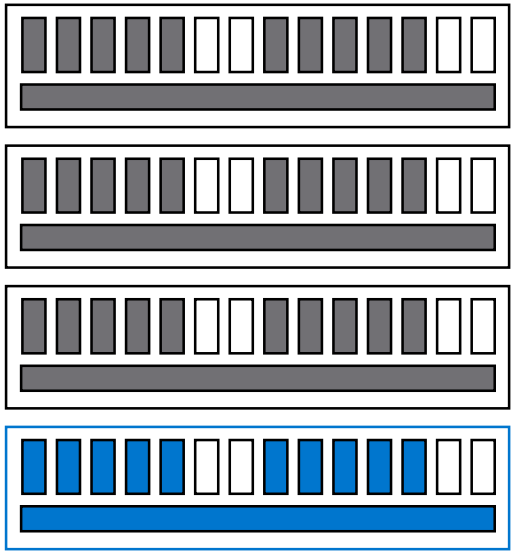
Старт с минимальных потребностей

Минимизация рисков с точным соответствием потребностям



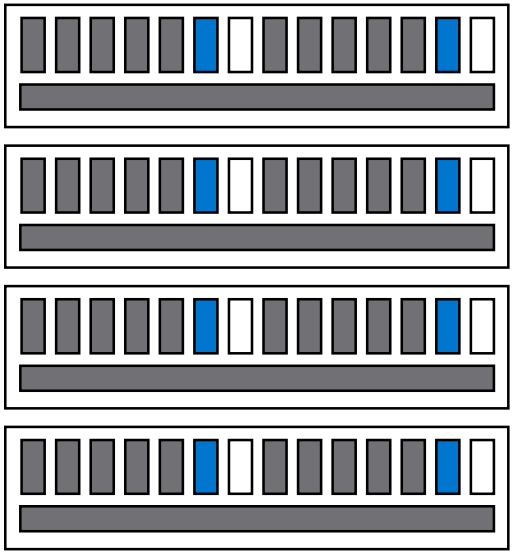
ГОРИЗОНТАЛЬНОЕ МАСШТАБИРОВАНИЕ

Добавление одного или нескольких узлов для повышения производительности и емкости



ВЕРТИКАЛЬНОЕ МАСШТАБИРОВАНИЕ

Ступенчатое увеличение емкости по мере роста потребностей



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VMware Cloud Foundation на Dell EMC VxRail

Лидирующая облачная платформа Dell Technologies

vmware Cloud Foundation™ на VXRAIL

Only

VMware Cloud Foundation infrastructure offering with **full stack integration***

Only

Jointly engineered integrated HCI system with VMware Cloud Foundation

*"The integration between VxRail Hyperconverged appliances and Dell EMC/VMware Cloud stack (like **VMware Cloud Foundation**) as a set of integrated software, provides a roadmap for GraceKennedy **to optimally run our business-critical applications** in private and public environments."*

- Nicole Case, Chief Information Officer, GraceKennedy Financial Group

GraceKennedy

Full stack integration

Future proof for VMware cloud

ONE

Available single-vendor support

Automated end-to-end lifecycle management

Deployment flexibility

Learn more DellEMC.com/VxRail

*Based on internal analysis in April 2019

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Dell EMC VxFlex

Непревзойденная комбинация производительности, надежности и гибкости для корпоративных ЦОД

Производительность

- Workload Consolidation
- Scale Linearly
- Wide data distribution

Надежность

- Enterprise-grade Data Protection
- Self-healing Architecture

Гибкость

- Multi-hypervisor
- Independent Scaling
- 2-layer or HCI

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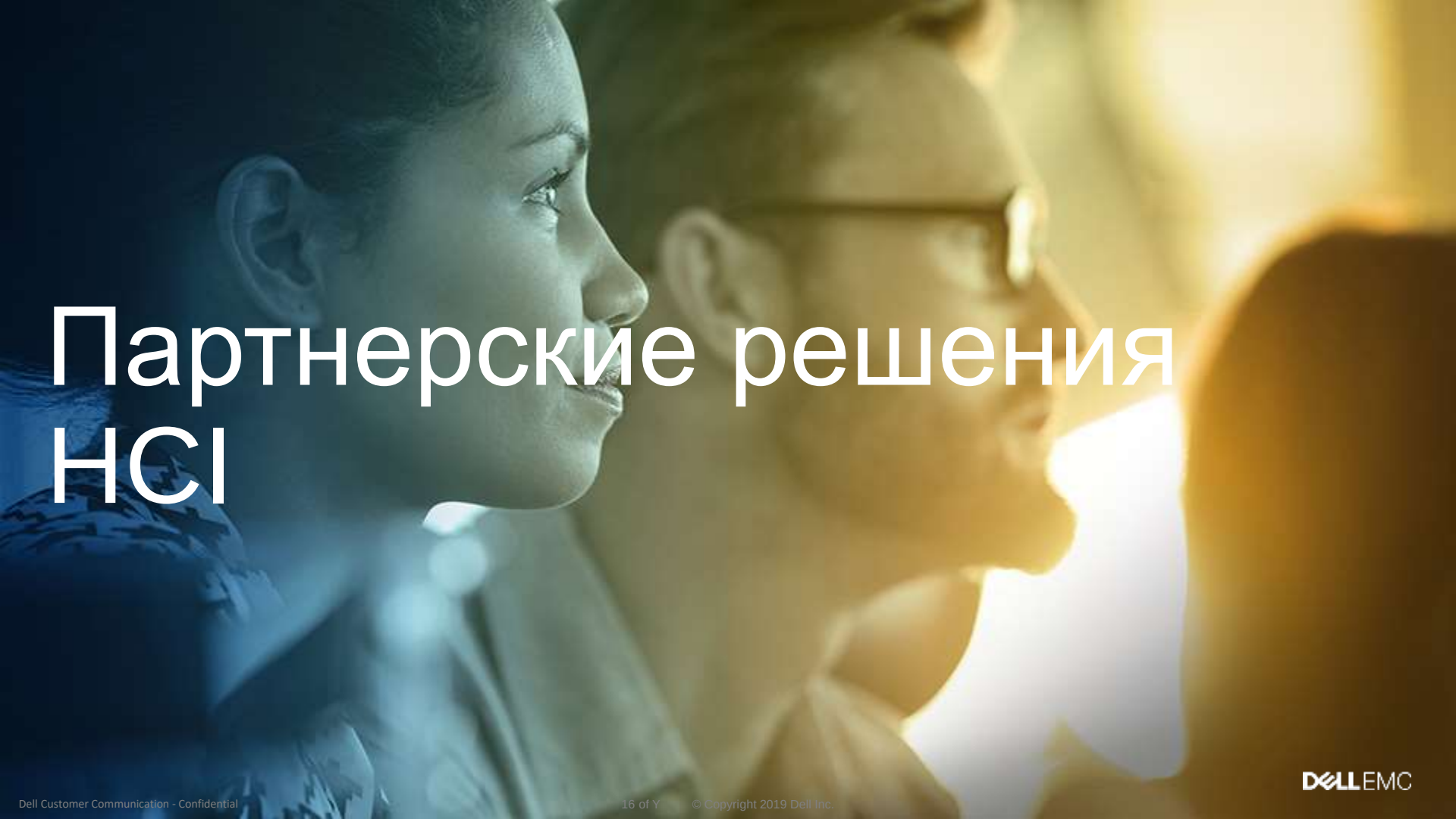

Партнерские решения HCI

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XC Family

The ultimate platform for Nutanix

51% Less time to manage and support[1]

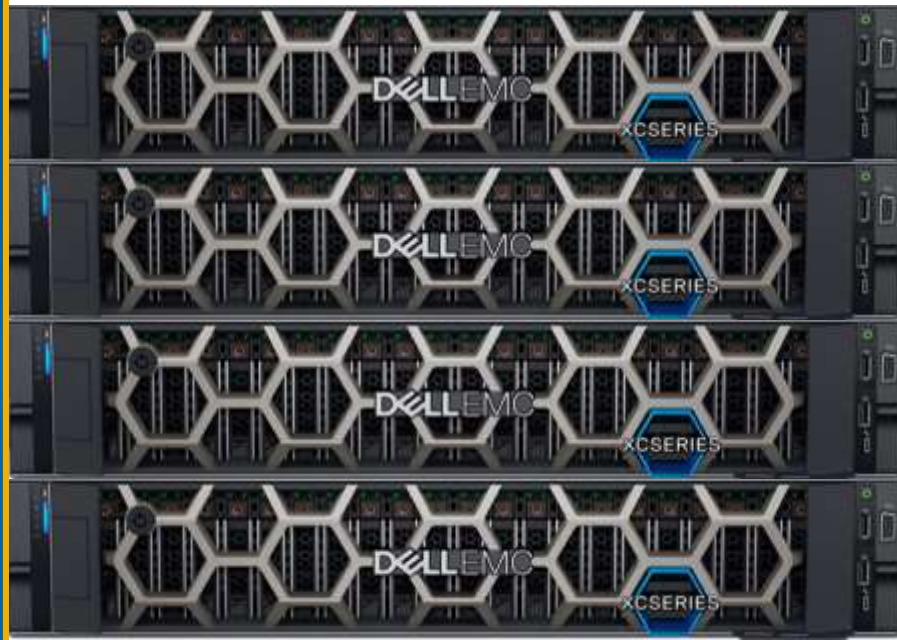
61% Lower total cost of operations on average over 5 years[1]

ZERO Downtime for software and firmware upgrades[1]

1. Compared to 3-tier architecture. Source: IDC: "Dell EMC XC Series Creating Value as Scalable, Efficient, Hyperconverged Platform", January 2018 Ad # G17000262

"The Dell EMC XC solution and Nutanix together enabled more than $2 million in immediate savings compared to other technology we considered."

- Michael Allison
CTO, Office of Technology Services
State of Louisiana



Cloud for Microsoft Azure Stack

Azure-consistent services on-premises

10 min	**vs. hours for patch and update of hardware**
5 days	**To full cloud deployment**
1st	**To market with all-flash, 4-socket and Tactical Azure Stack**

"The combination of Azure Stack with Dell EMC brings together innovative technology and market experience that we are leveraging to help drive our customers' business transformations."

- Yukihisa Kato, Director, Executive Officer and General Manager, MKI

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Применение HCI

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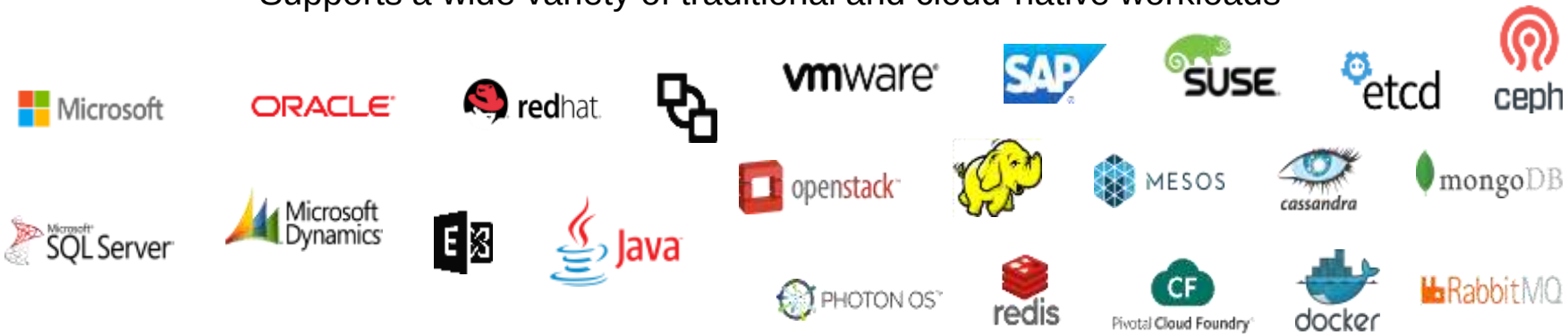
Какие рабочие нагрузки подходят для HCI?

ДА или НЕТ: HCI – только для VDI? НЕТ!!

Supports a wide variety of traditional and cloud-native workloads



TRADITIONAL BUSINESS APPS

TEST/DEV

IAAS, PAAS

BIG DATA ANALYTICS

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Полное решение VDI от Dell EMC – работает на Horizon

+ vmware Horizon 7 +

Flexible Consumption Model

Cost per seat for as low as $8 per seat per month**

ONE place to pay
ONE hand to shake
ONE stop support

Exceptional total cost of ownership	Superior end-to-end VDI solution	Start small and pay as you grow	Simplified sales & support model

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SAP HANA TDI Model

Dell EMC VxRail powered by VMware HCI software

Extend and simplify VMware environments

- Managed through VMware vCenter Server with tight integration and lifecycle management functionality

Lifecycle assurance and simplified operations

- Regularly stabilized and optimized infrastructure with firmware/software upgrades

Start small and grow

- Start small – with as few as three nodes - and grow incrementally, scaling capacity and performance easily and non-disruptively

VxRail P570F

2U Socket up to 3TB

Architected to support SAP HANA in-memory database with features such as Intel® Xeon® Scalable processors

- Form Factor: Single-system 2U
- Processors: Single or dual socket, up to 28 cores per CPU
- Memory : Up to 3,072 GB RAM (1,536 per processor) 6 or 12 DIMM configurations only
- Capacity: 76.8 TB SSD

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