



现代化企业数据中心 Windows Server 2016

翟爽

微软开发者与合作事业部

shzhai@microsoft.com



议程

上午

- 微软云操作系统及Windows Server 2016技术介绍
- 软件定义计算Hyper-V容器技术
- 软件定义计算之云操作系统Nano服务器

下午

- WS2016中软件定义计算之Hyper-V虚拟化技术增强
- WS2106中软件定义存储
- WS2016中软件定义网络



模块一

微软云操作系统及Windows Server 2016技术介绍

回顾

Windows Server 2008

System Center 2008

引入了虚拟化
平台和管理
技术

Windows Server 2012

System Center 2012

业界领先的
规模和
性能

Windows Server 2012 R2

System Center 2012 R2

Microsoft Azure

Azure 作为
设计
出发点

2015 Gartner x86 虚拟化魔力象限图

Thomas J. Bittman, Philip Dawson, Michael Warrilow, July 14, 2015

Figure 1. Magic Quadrant for x86 Server Virtualization Infrastructure



Microsoft a leader five consecutive years

"Gartner positions Microsoft in the Leaders' Quadrant in the Magic Quadrant for x86 Server Virtualization Infrastructure based on its completeness of vision and ability to execute in the market. The x86 server virtualization infrastructure market is defined by organizations that are looking for solutions to virtualize applications from their x86 server hardware or OSs, reducing underutilized server hardware and associated hardware costs, and increasing flexibility in delivering the server capacity that applications need. Microsoft is currently the only vendor to be positioned as a Leader in Gartner's Magic Quadrants for Cloud Infrastructure as a Service, Server Virtualization, Application Platform as a Service and Cloud Storage Services, and we believe this validates Microsoft's strategy to enable the power of choice as we deliver industry-leading infrastructure services, platform services and hybrid solutions."

Download the report at no cost

<http://www.gartner.com/technology/reprints.do?id=1-2JGMVZX&ct=150715&st=sb>

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者地位

x86 服务器虚拟化

公有云存储服务

云计算基础架构及服务

企业应用平台及服务

[1] Gartner "x86 Server Virtualization Infrastructure," by Thomas J. Bittman, Michael Warrilow, July 14, 2015; [2] Gartner "Public Cloud Storage Services," by Arun Chandrasekaran, Raj Bala June 25, 2015; [3] Gartner "Magic Quadrant for Cloud Infrastructure as a Service," by Lydia Leong, Douglas Toombs, Bob Gill, May 18, 2015; [4] Gartner "Enterprise Application Platform as a Service," by Yefim V. Natis, Massimo Pezzini, Kimihiko Iijima, Anne Thomas, Rob Dunie, March 24, 2015.

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Hyper-V customer momentum

"If our store servers go down, a third of our business evaporates. It's that simple. It's absolutely critical that our store servers remain running, and with Hyper-V, we've reduced store downtime."

Lance Shinabarger
VP, Global Infrastructure,
Domino's Pizza

"Features in Windows 2012 R2 such as live migration across heterogeneous environments are really meaningful to us, particularly in terms of cost savings, because we avoid having to invest in expensive storage area networks"

Patrick Wirtz
Innovation Manager at **The Walsh Group**

"Our goal was to deliver Microsoft applications that customers wanted in the way that they wanted them deployed—in a private cloud, Microsoft public cloud, or hybrid cloud model"

Sari Aumo
Head of Cloud Services,
Microsoft and Productivity Platforms,
Tieto

"By consolidating our on-premises datacenters and transitioning to a hybrid cloud model with Hyper-V and Microsoft Azure, we'll save a six-figure sum annually."

Paul Chong
Group IT and Commercial Director
Standard Life Insurance, UK

"I go home at night and sleep well knowing that our business can continue to operate no matter what happens in the world around us. That means an awful lot to us."

Tony Swayne
Graytone Finance Director

Azure IaaS customer momentum

"Using Microsoft Azure will help us bring new solutions to market faster, scale up and out easily, and meet the unique needs of our customers around the world."

Evren Eryurek
Chief Technology Officer
GE Healthcare

"With leading EMC infrastructure solutions and Microsoft Azure Site Recovery, we make it easy for customers to orchestrate a powerful end-to-end, storage-based replication and disaster recovery solution."

Jason Hepp
Senior Director, Enterprise Applications
EMC

"Business groups always complain that they have to wait for IT. With Azure, infrastructure setup is incredibly fast—one day instead of eight weeks—which will allow us to respond to the business faster."

Jose Luis Fernandez Domingo
Corporate Systems Director
Softtek

"By using Azure, we were able to launch our new extranet in six weeks versus waiting up to eight months for new servers to arrive. This helped us better deliver information to our gas stations and investors."

Mariela Manzanares
Manager of Infrastructure Support
Standard Life

故事到此...

扩展性

64 vCPU per VM
1TB RAM per VM
4TB RAM per Host
320 LP per Host
64 TB VHDX
1024 VMs per Host
vNUMA

网络

Integrated Net Virt
Net Virt Gateway
Extended Port ACLs
vRSS
Dynamic Teaming

敏捷性

Dynamic Memory
Live Migration
LM with Compression
LM over SMB Direct
Storage LM
Shared Nothing LM
Cross-Version LM
Hot Add/Resize VHDX
Storage QoS
Live VM Export

异构环境

Linux
FreeBSD

可用性

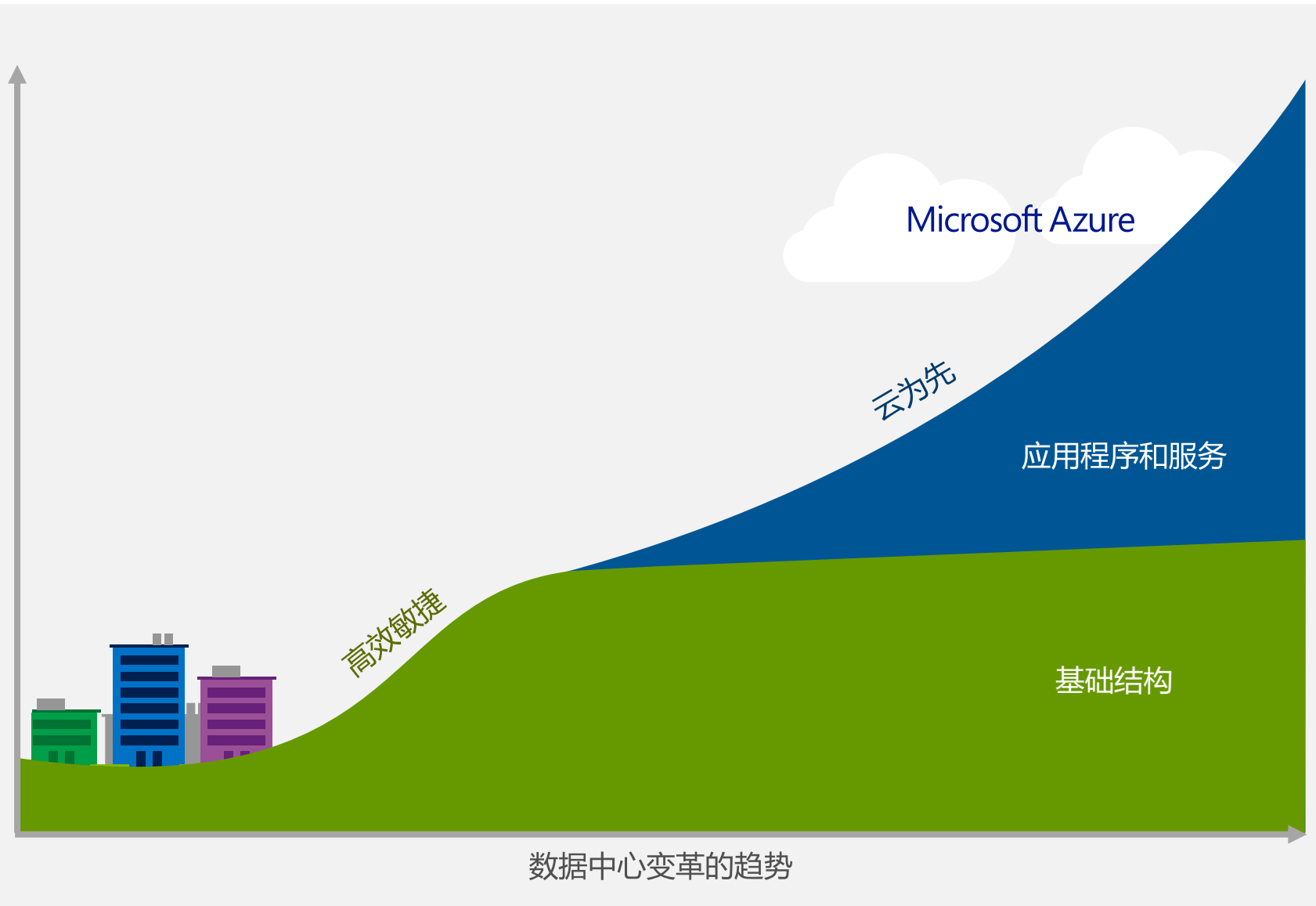
Host Clustering
64 Node Clusters
Guest Clustering
Shared VHDX
Hyper-V Replica

更多...

Gen 2 VMs
Enhanced Session
Auto VM Activation

内建.

我们希望IT专业人员成为应用程序创变的核心力量



还有哪些没有进行虚拟化

为什么业务选择使用影子IT业务？

为什么我们的CIO寻找敏捷替代方案？

为什么在应用领域的投入远远大于IT领域？

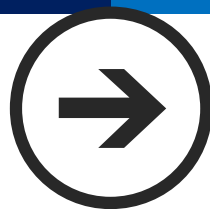
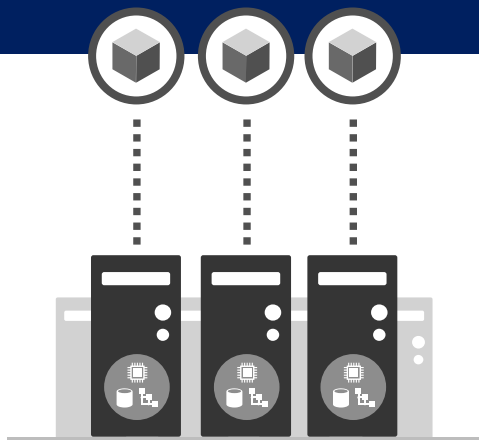
现在是重新思考和定位数据中心的机会： 考虑服务而不是服务器

传统数据中心

- 应用与基础结构之间紧耦合的关系
- 昂贵的，垂直集成的硬件环境
- 竖井式基础结构和运维操作
- 高度定制化流程和配置

微软 Azure 数据中心

- 松耦合结构和微服务架构
- 行业标准硬件
- 面向服务的开发运维一体化
- 标准化流程和配置



展望

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Microsoft Azure

Azure 作为
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Windows Server 2016

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Microsoft Azure

云为先变革:
基础架构和
应用平台
两个维度

引入Azure作为掌控数据中心的力量

介绍Microsoft Azure Stack

