

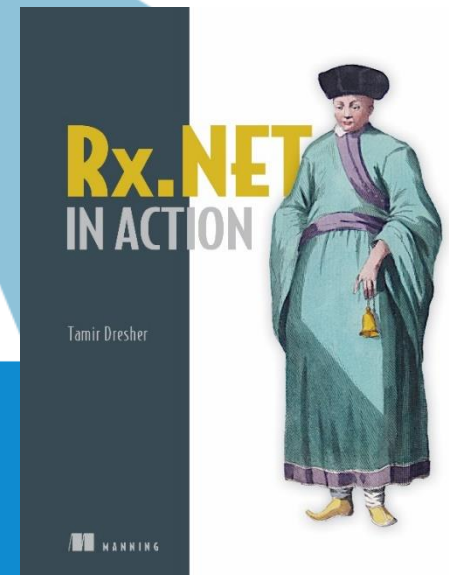


Azure Cloud Camp February 2017

Introduction

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Senior Software Architect





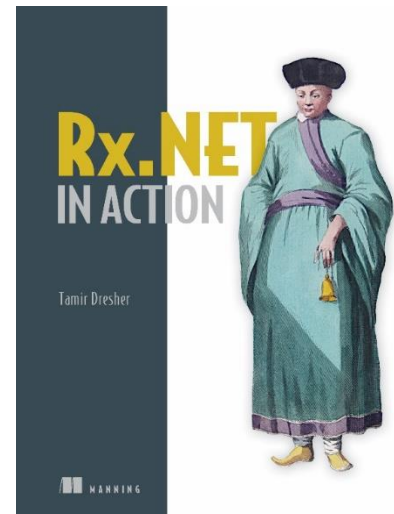
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<http://www.TamirDresher.com>.



- Author of *Rx.NET in Action* (manning publications)
- Software architect, consultant and instructor
- Software Engineering Lecturer @ Ruppin Academic Center
- Expert in large-scale, server-side, highly-concurrent systems
- Member of Microsoft Azure Advisors group





Course Syllabus

- 06/02 - IaaS
 - Introduction
 - IaaS on Azure
 - Storage and Data services
- 07/02 - PaaS
 - App & Web Service
 - Mobile & Logic Apps
 - Azure Functions (Serverless architecture)



Course structure

- Frontal presentation (hopefully short)
 - Slides: <https://github.com/CodeValue/AzureCloudCampFeb2017>
- Lots of practical experimentation
 - Rolling exercise:
<https://github.com/CodeValue/AzureCloudCampFeb2017/tree/master/Exercise>
 - Hands-on labs:
<https://github.com/CodeValue/AzureCloudCampFeb2017/tree/master/HOL>



Learning resources

- Samples and HOL can be found here: <http://github.com/azure-samples>
- Free book:
https://blogs.msdn.microsoft.com/microsoft_press/2016/09/01/free-ebook-microsoft-azure-essentials-fundamentals-of-azure-second-edition
- Azure technical documentation
 - <https://docs.microsoft.com/azure>
 - <https://github.com/Microsoft/azure-docs>



A Game Changing Technology

- Infinite shared resources & services
 - Infrastructure is not a limiting factor
 - No need to equip for peak-load requirements
- Elasticity on demand
 - Anytime, anywhere
- Efficient scalability and high availability
- Suitable pricing models
 - Pay for what you use





Cloud Computing

Evolution of Computing - The Next (Current) Big Thing

➤ Virtualization and Abstraction

- Details are abstracted from consumers
 - Reduces complexity

➤ Not necessarily the Internet, can be on premises

- Private cloud

➤ Automation, Monitoring, Deployment

- Reduce cost, shift risk, shorten time-to-market, focus on business functionality





Less Worries

Focus on functionality

- Let others take care of:
 - Resource management
 - Security
 - Environments (staging, production)
 - High availability, scalability, load balancing
 - Fault tolerance
 - OS - installation, licensing, updates, patches
 - Network
 - Maintenance





Cloud Containers

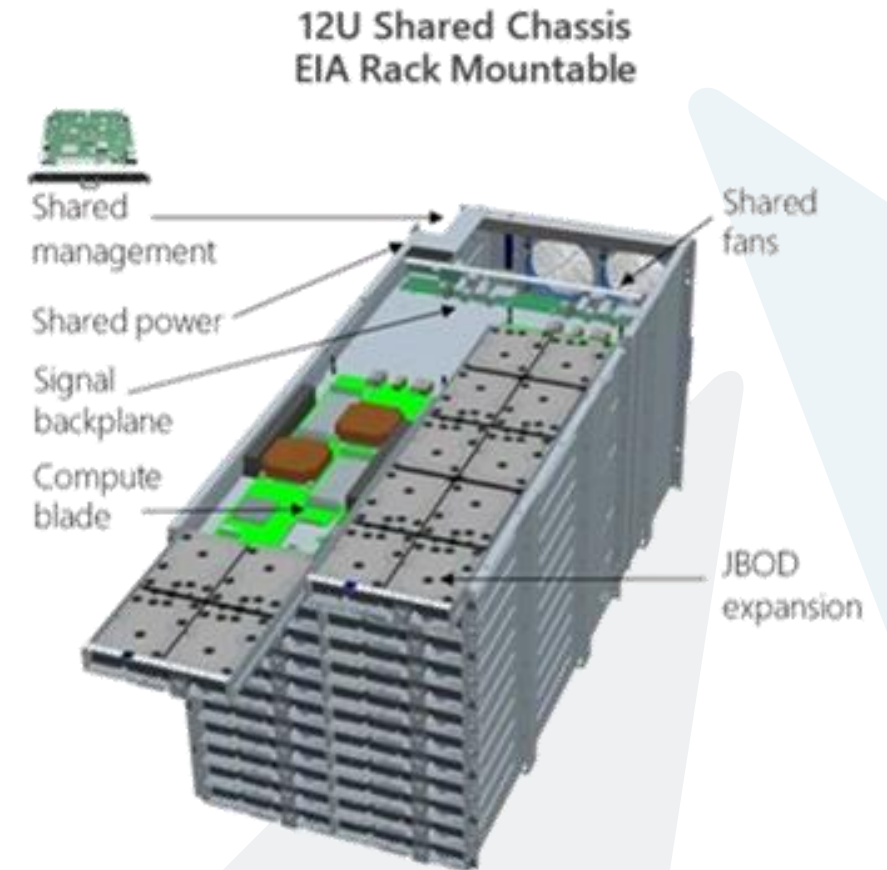




Cloud Containers

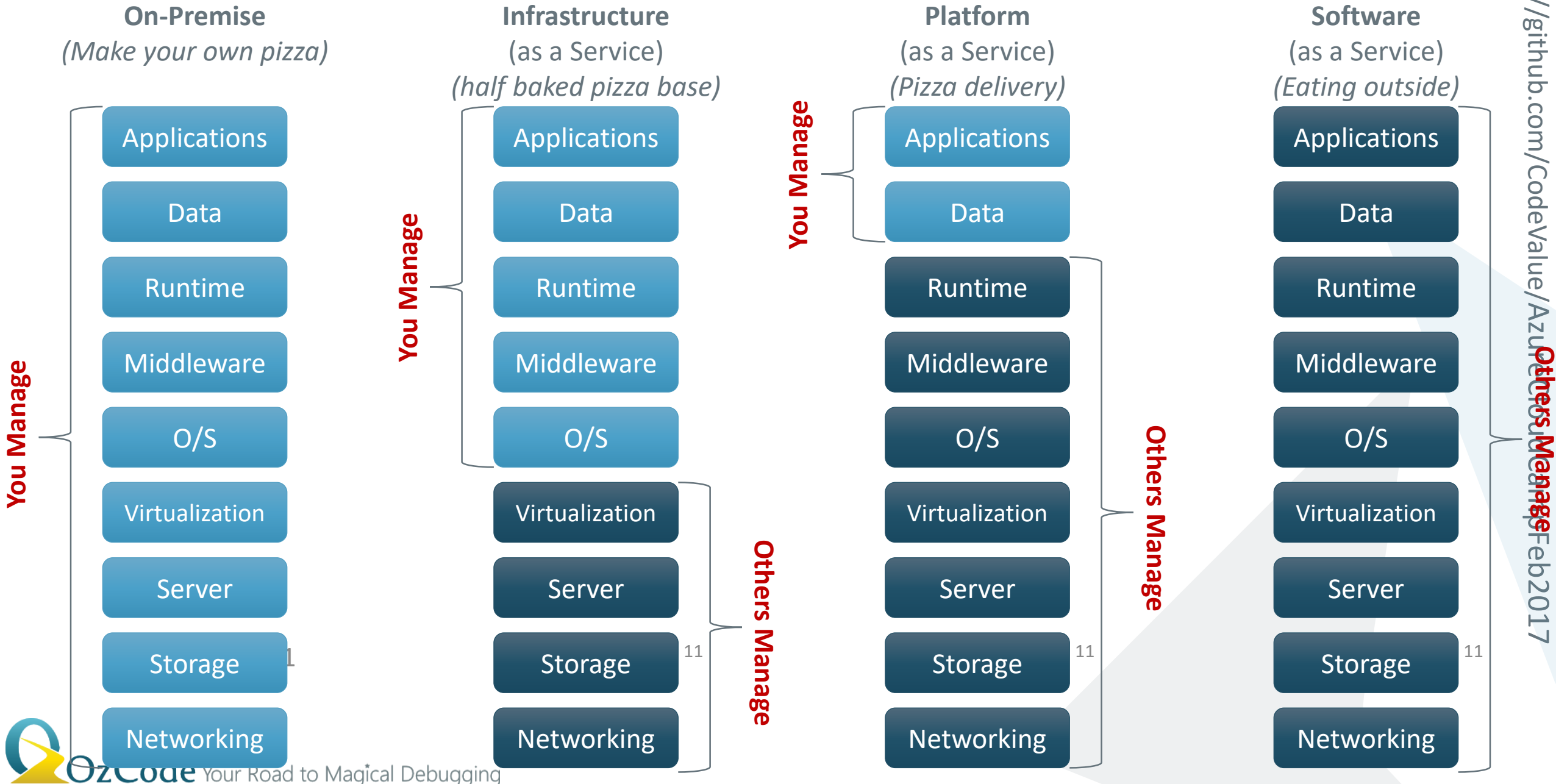
Practically infinite resources on demand

- You need, they provide
- Lower costs
 - Hardware
 - Location-based
 - Power (electricity)
 - Cooling
 - Networking
 - Good coverage





IaaS, PaaS & SaaS





Microsoft Azure

- Microsoft cloud
- Rich with services
- Affordable
- Powerful

Developer Services



Visual Studio Team Services



Azure DevTest Labs



VS Application Insights*



HockeyApp



Developer Tools

Management & Security



Azure Portal



Scheduler



Automation



Log Analytics



Key Vault



Security Center*

Compute



Virtual Machines



Virtual Machine Scale Sets



Cloud Services



Batch



RemoteApp



Service Fabric



Azure Container Service

Web & Mobile



Web Apps



Mobile Apps



Logic Apps*



API Apps



API Management



Notification Hubs



Mobile Engagement



Functions*

Data & Storage



SQL Database



DocumentDB



Redis Cache



Storage: Blobs, Tables, Queues, Files and Disks



StorSimple



Search



SQL Data Warehouse*



SQL Server Stretch Database*

Analytics



Data Lake Analytics*



Data Lake Store*



HDInsight



Machine Learning



Stream Analytics



Data Factory



Data Catalog



Power BI Embedded*

Internet of Things & Intelligence



Azure IoT Suite



Azure IoT Hub



Event Hubs



Cortana Intelligence Suite



Cognitive Services*

Media & CDN



Media Services



Content Delivery Network

Identity & Access Management



Azure Active Directory



B2C*



Domain Services*



Multi-Factor Authentication

Hybrid Integration



BizTalk Services



Service Bus



Backup



Site Recovery

Networking



Virtual Network



ExpressRoute



Traffic Manager



Load Balancer



Azure DNS*



VPN Gateway



Application Gateway



Managing your Azure

- Portal: <https://portal.azure.com>
- Classic portal: <https://manage.windowsazure.com>
- Pricing and Billing
 - <http://azure.microsoft.com/pricing/calculator/>
 - Billing blade

