

2.– 5. September 2013
in Nürnberg



Herbstcampus

Wissenstransfer
par excellence

From Zero to Azure Hero

Professionelle Cloud Entwicklung mit Windows Azure und C#

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Microsoft Deutschland

Herbstcampus
2013



From Zero To Azure Hero

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Technical Evangelist
Microsoft



Agenda

Windows Azure

Windows Azure Cloud Computing

SQL Database

Web Sites

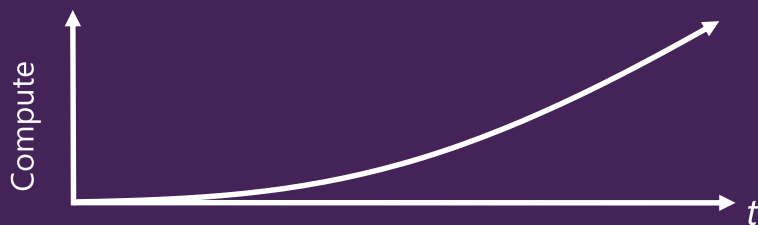
Und noch viel, viel mehr

Cloud Computing Patterns



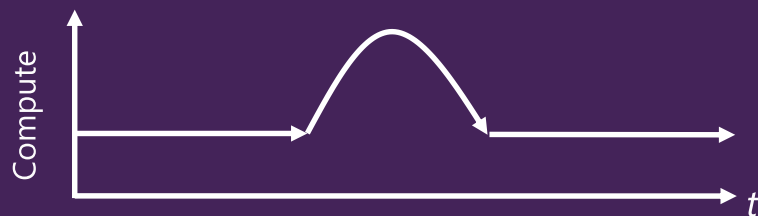
On and Off

On & off workloads (e.g. batch job)
Over provisioned capacity is wasted
Time to market can be cumbersome



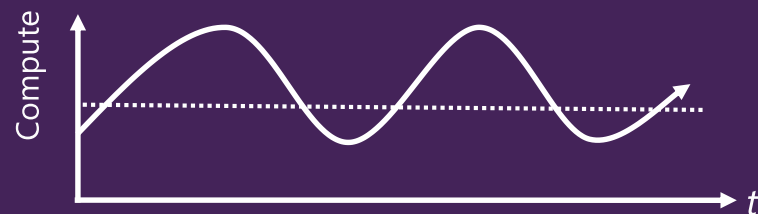
Growing Fast

Successful services need to grow/scale
Keeping up w/ growth is big IT challenge
Cannot provision hardware fast enough



Unpredictable Bursting

Unexpected/unplanned peak in demand
Sudden spike impacts performance
Can't over provision for extreme cases



Predictable Bursting

Services with micro seasonality trends
Peaks due to periodic increased demand
IT complexity and wasted capacity

Global Footprint



Industrial Compute Generation

ITPAC (IT-Pre-Assembled-Components)
4th Generation Data Center



<http://www.youtube.com/watch?v=nlliMskAHro>

Industrial Compute Generation

Network Operation Center



Cloud Computing



IaaS

Infrastructure-as-a-Service

host



PaaS

Platform-as-a-Service

build



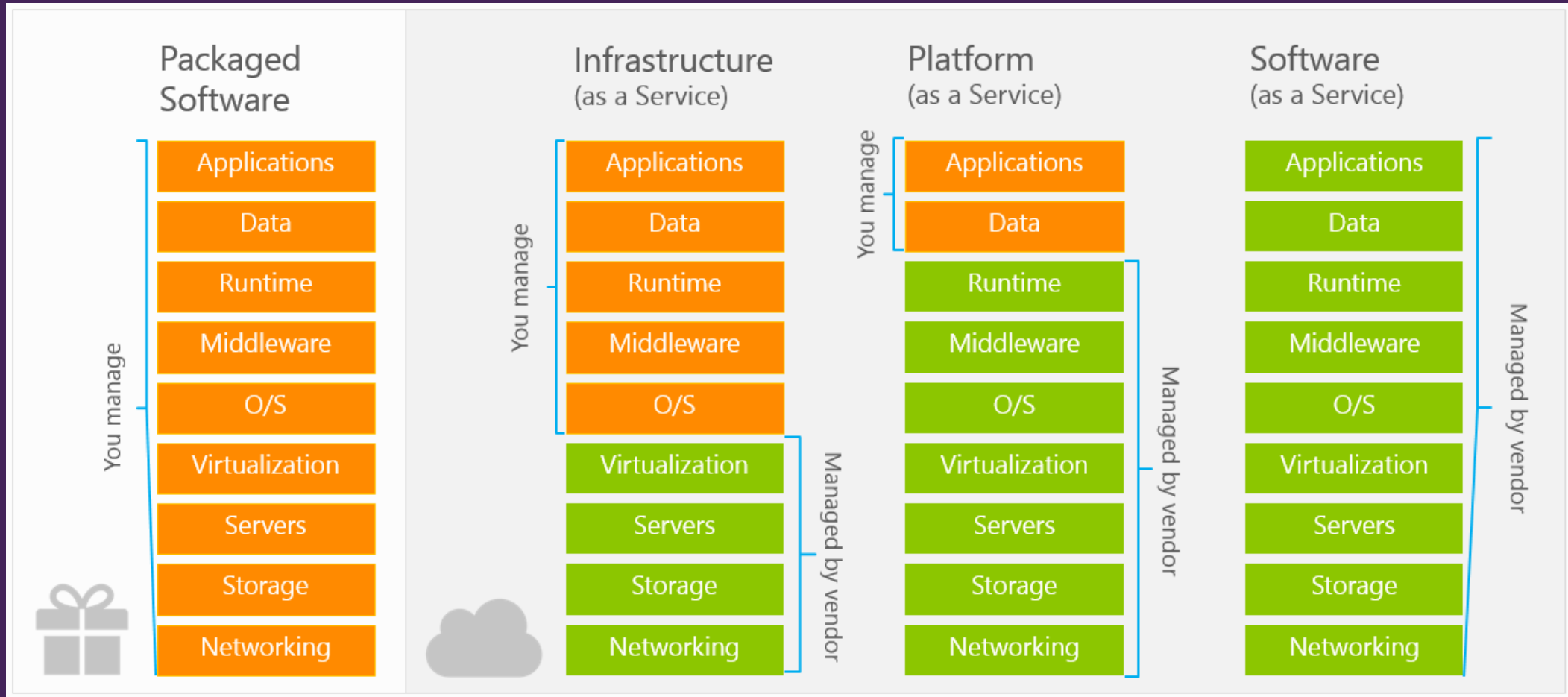
SaaS

Software-as-a-Service

consume

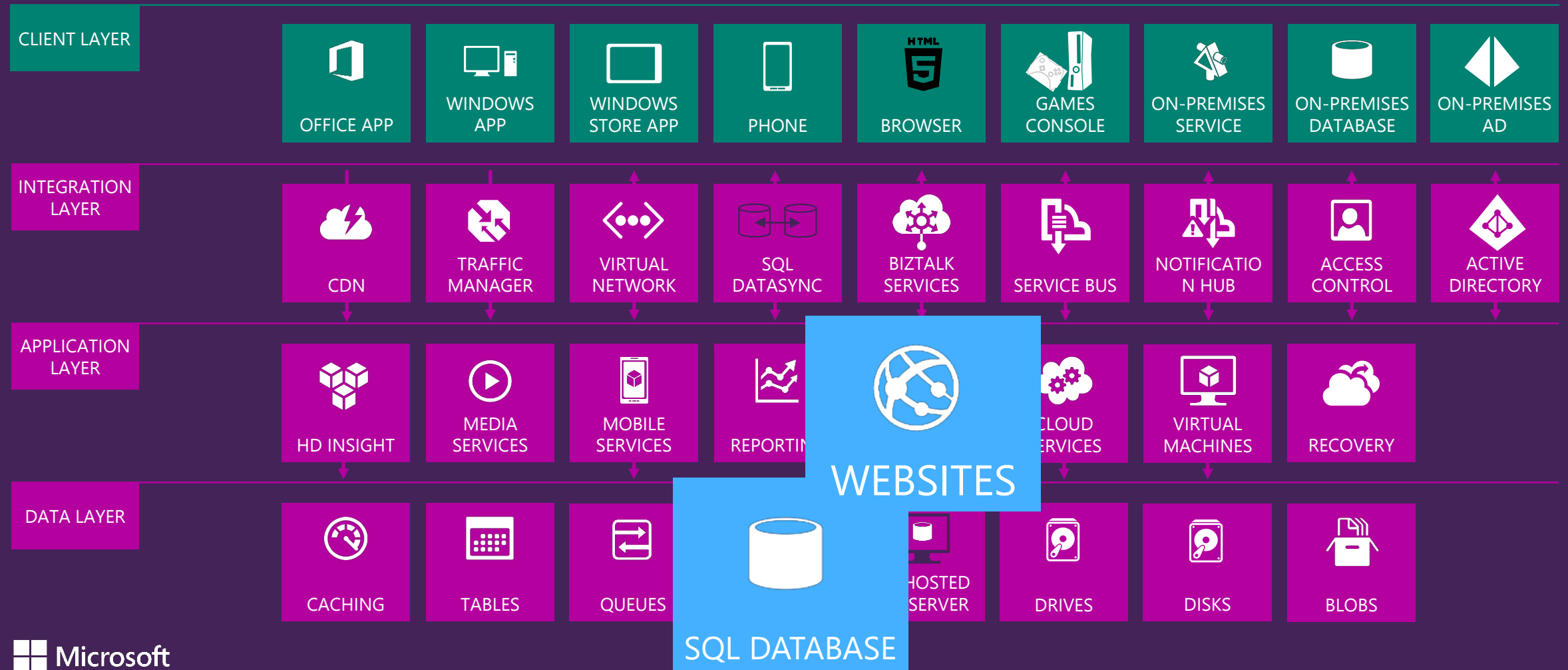
Cloud Computing

How to use



Dienste der Windows Azure Plattform

Die Cloud Dienste können zu Speicher-, Anwendungs- und Integrationsdiensten gruppiert werden.



Demo Azure SQL Database



Demo

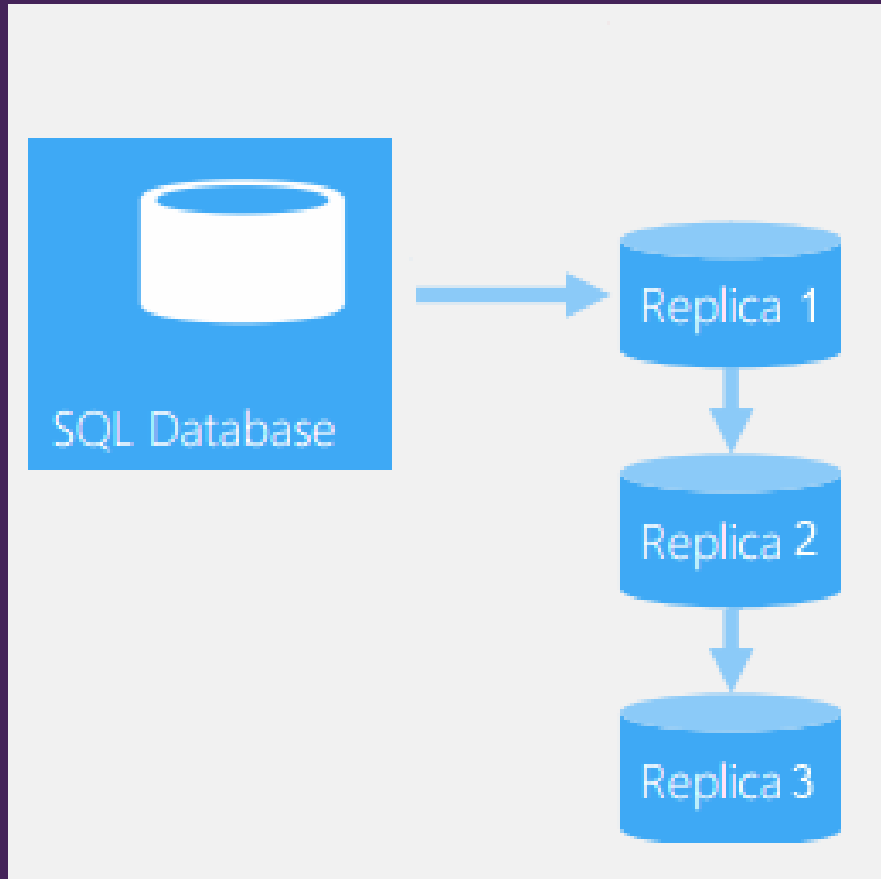
Web Sites

Create / Code / Deploy



Demo

Azure SQL Database



Redundante Speicherung

- Jede Datenbank wird 3-fach redundant im Storage im Azure Storage Subsystem abgelegt

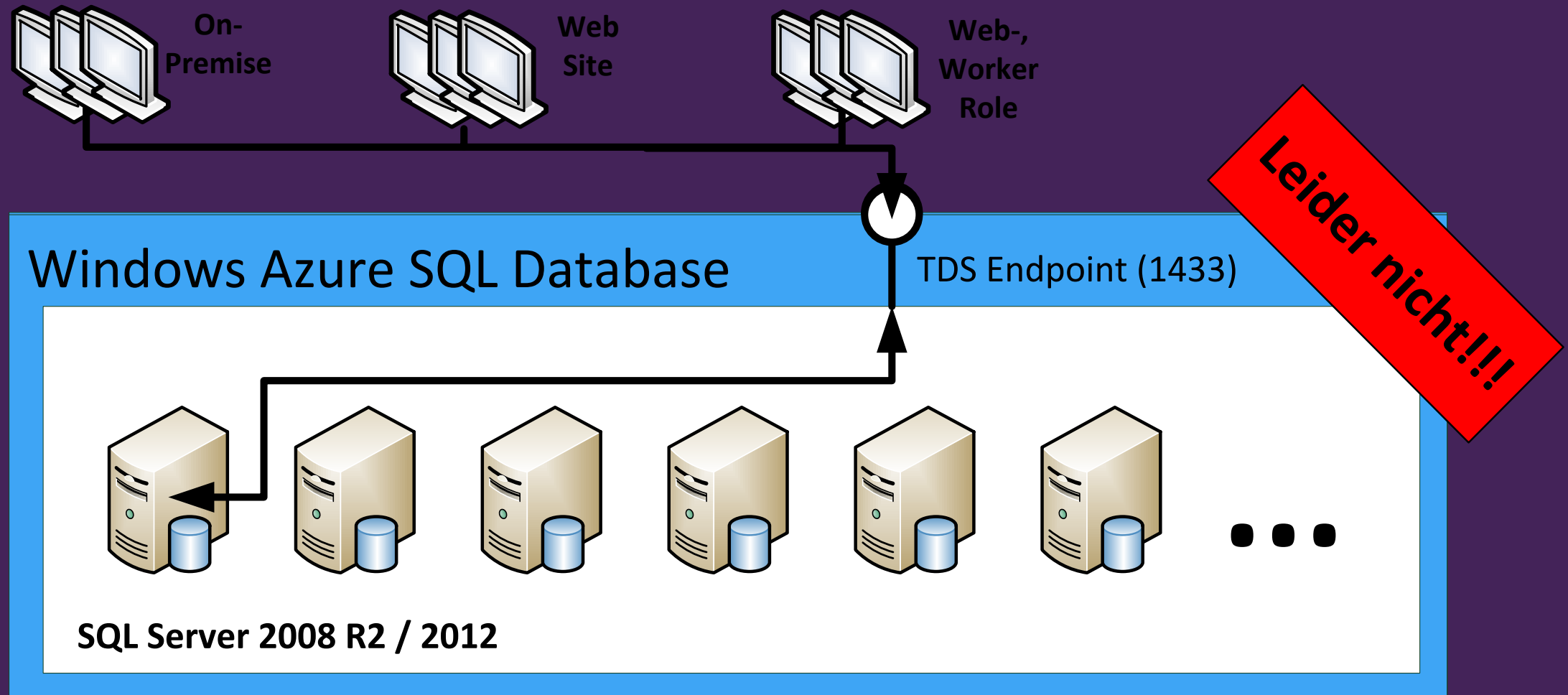
Fehlerfall

- „Ausfalltolerantes Self-Healing-System“
- Automatische Anlage von neuen Kopien

Skalierung

- Bedingt skalierbar

Azure SQL Database



Azure SQL Database

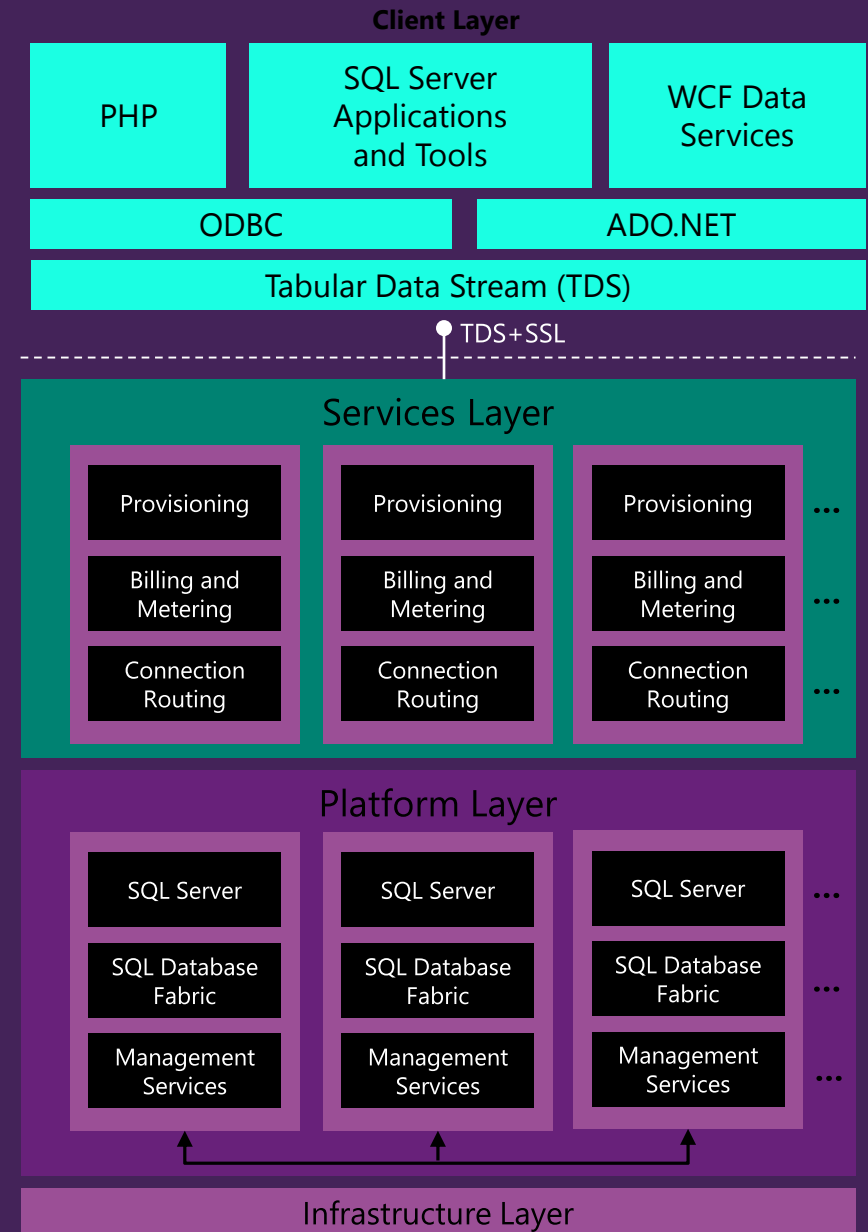
Architecture

Client Layer - Used by application to communicate directly with SQL Database.

Services Layer – Gateway between Client layer and Platform layer.

Platform Layer – Includes physical servers and services that support the Services layer.

Infrastructure Layer – IT administration of the physical HW and OS.



Azure SQL Database

Common

- Shared, Multitenant Environment
- No dedicated „Server“

Failover

- Connection Pool Handling

Governance

- Max. 180 concurrent worker
- Soft Throttling / Hard Throttling

Resource Limits

- TempDB usage
- LogSpace usage
- ...

Topaz Integration

EnterpriseLibrary.WindowsAzure.TransientFaultHandling



Demo



Azure SQL Database

SQL Server database management as a Service

Multi tenant

Fully managed SaaS SQL
Server database

Topaz

Use Transient Fault Handling
strategy

Provided via Enterprise
Library

Hybrid

On-prem <-> Cloud

Web Sites

Create / Code / Deploy



Demo

web sites

shared

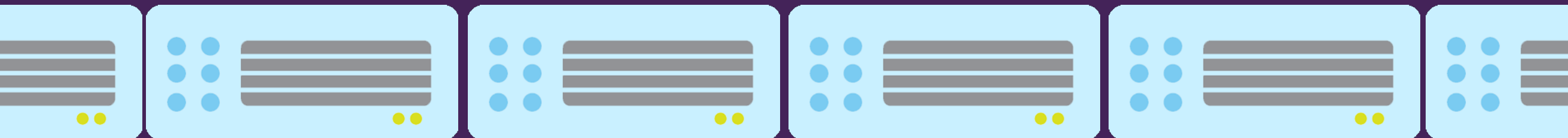
reserved

shared



1

SHARED INSTANCES



web sites

shared

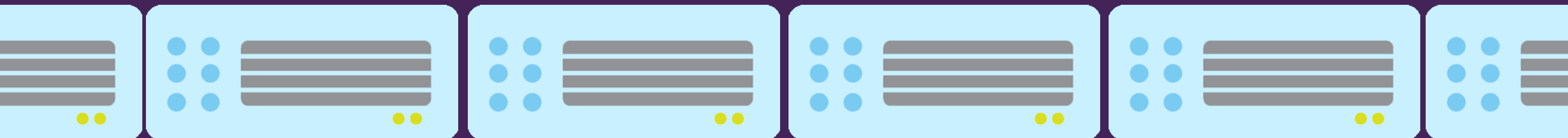
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shared



2

SHARED INSTANCES



web sites

shared

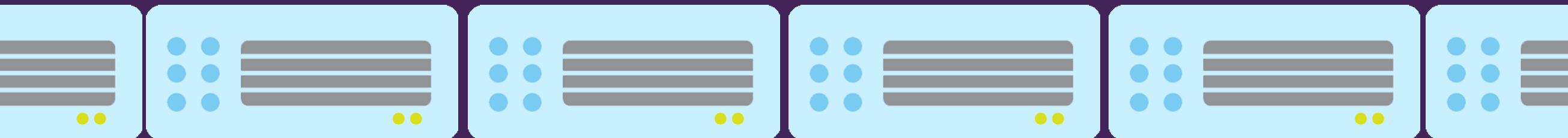
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reserved



2

RESERVED INSTANCE



web sites

shared

reserved

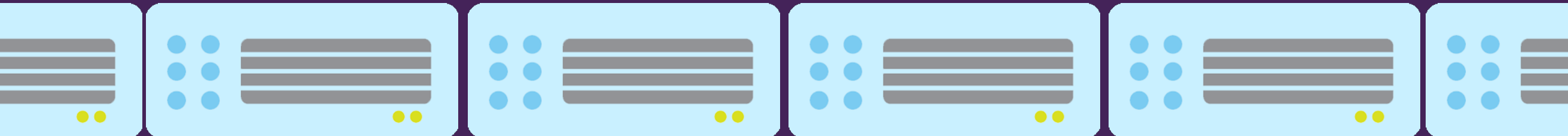
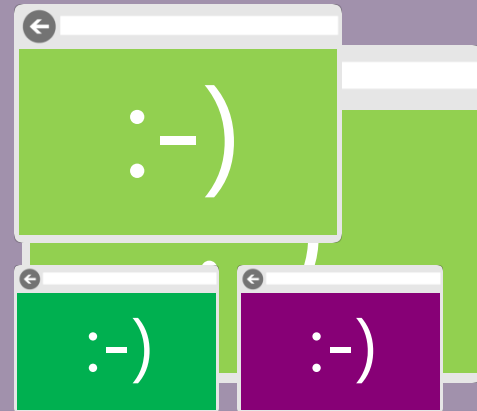
reserved

2

RESERVED INSTANCE



RESERVED INSTANCE



Web Sites

Gallery



Demo



Windows Azure Web Sites

powerful web sites in seconds

start simple

start free, scale up and out as you go, friction-free and without the headaches

code smart

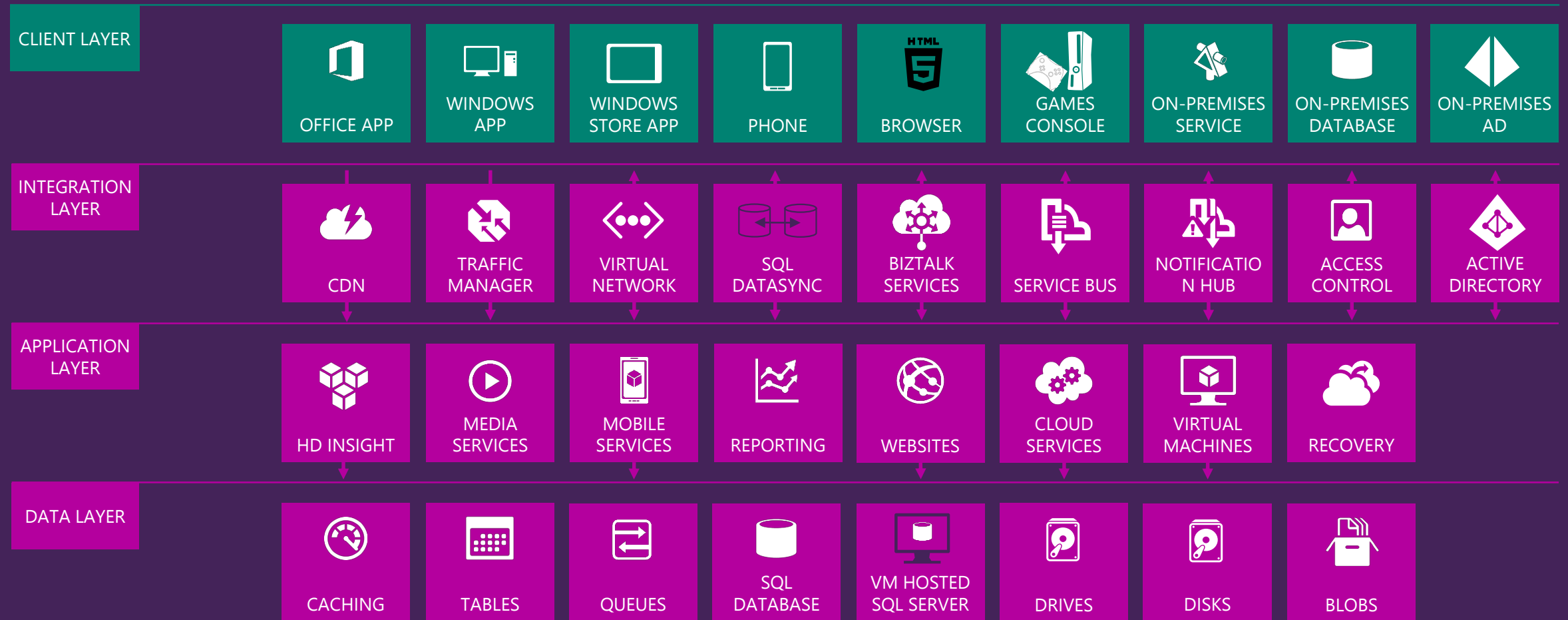
with classic asp, asp.net, php or node.js, develop on Windows, OSX or Linux

go live

deploy live in seconds, easily monitor performance, rapidly diagnose and fix issues

Dienste der Windows Azure Plattform

Die Cloud Dienste können zu Speicher-, Anwendungs- und Integrationsdiensten gruppiert werden.



Summary

Windows Azure

Web Sites

- Start Simple
- Code Smart
- Go Live and Scale

SQL Database

- Multi Tenant Service
- Managed DB
- Topaz

Web Ressourcen

Alles was für einen Start in Windows Azure wichtig ist.

- Windows Azure Homepage
<http://www.windowsazure.com>
- Kostenloser Demo Account
<http://www.windowsazure.com/en-us/pricing/free-trial/>
- Windows Azure Development Center
<http://www.windowsazure.com/en-us/documentation/?fb=en-us>
- Windows Azure SDKs
<http://www.windowsazure.com/en-us/downloads/?fb=en-us>
- Kundenreferenzen
<http://www.microsoft.com/de-de/business/kundenreferenzen/default.aspx?qu=&product=54&industry=&select=&topic=&companysize=&customer=&partner=>

Fragen?

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