WINDOWS AZURE

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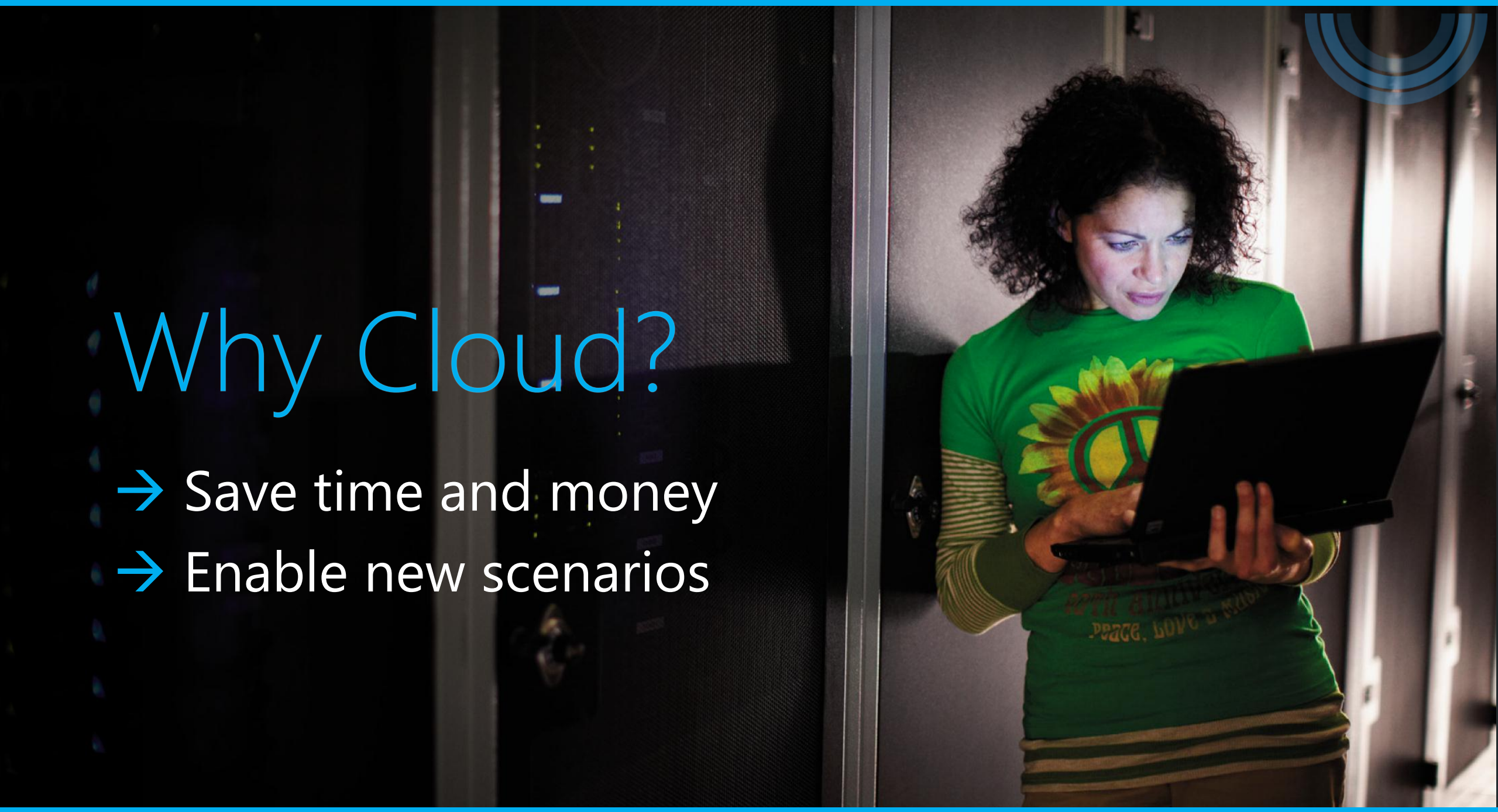
Why Cloud?

- → Save time and money
- → Enable new scenarios



windows azure

usage based

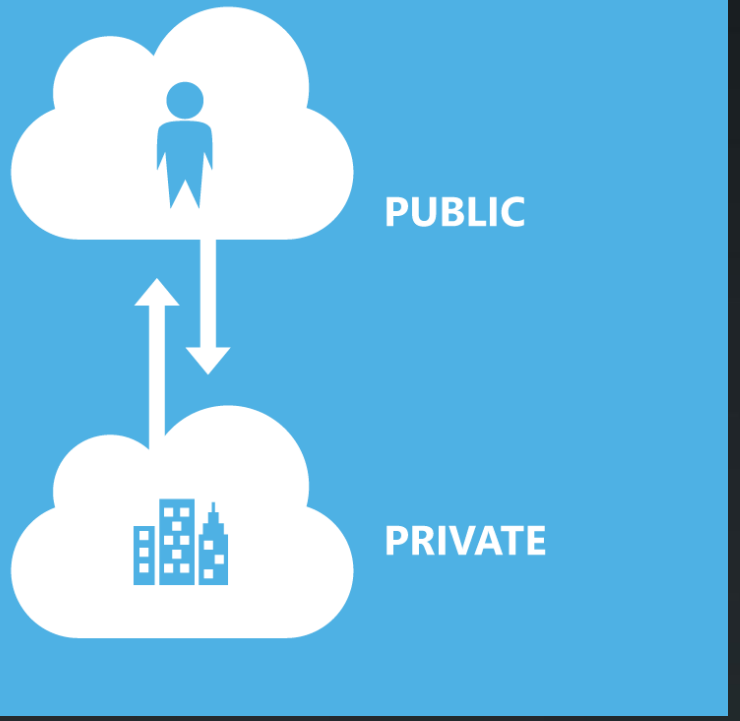
automated

managed resources

always up. always on.

elastic

economics



global datacenter footprint

Green Energy

San Antonio, TX
Approx 477K sq ft, 27MW, uses recycled water for cooling

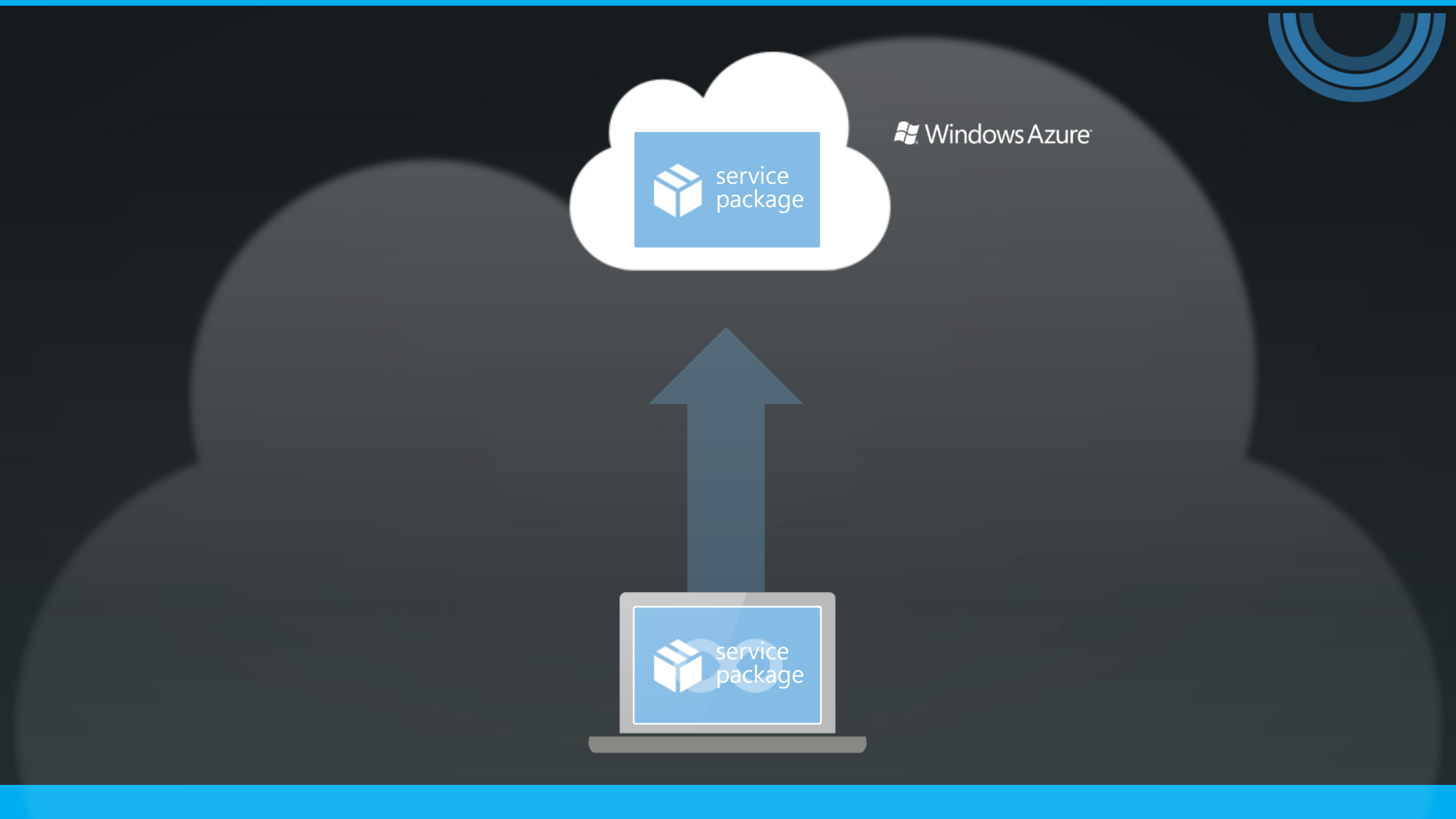
Chicago, IL
707,000 square feet with critical power of 60 MW, uses water side economization, containers

Dublin, Ireland
Approx 570K sq ft, up to 27MW, uses outside air for cooling.

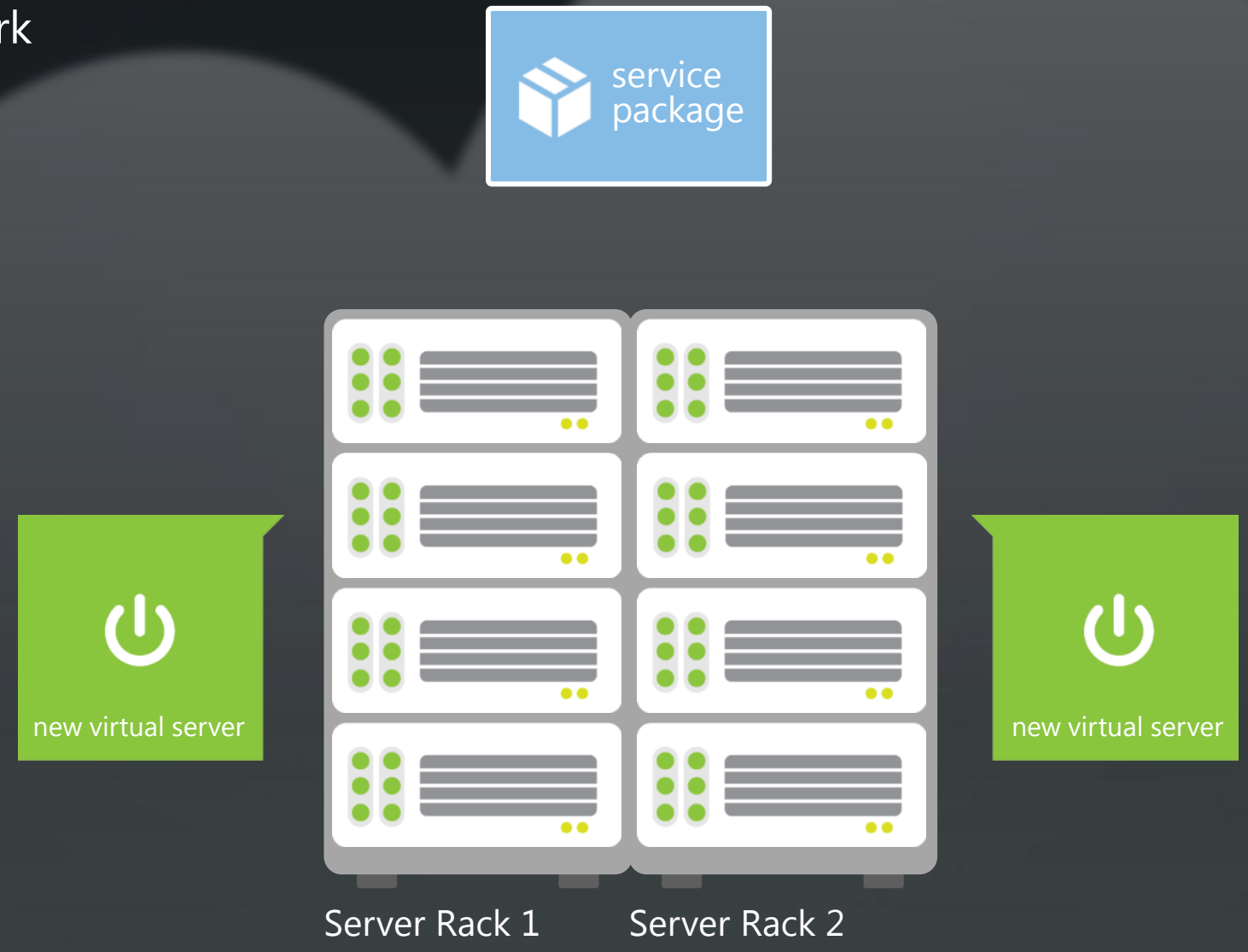
DANGER
480
VOLTS
NOTICE
AVISO

demo

Getting Started with Windows Azure


service package
Windows Azure
service package

- Provision Virtual Servers
- Deploy App Code
- Configure Network



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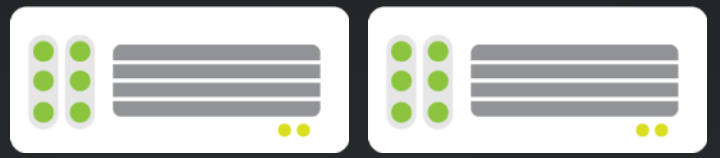
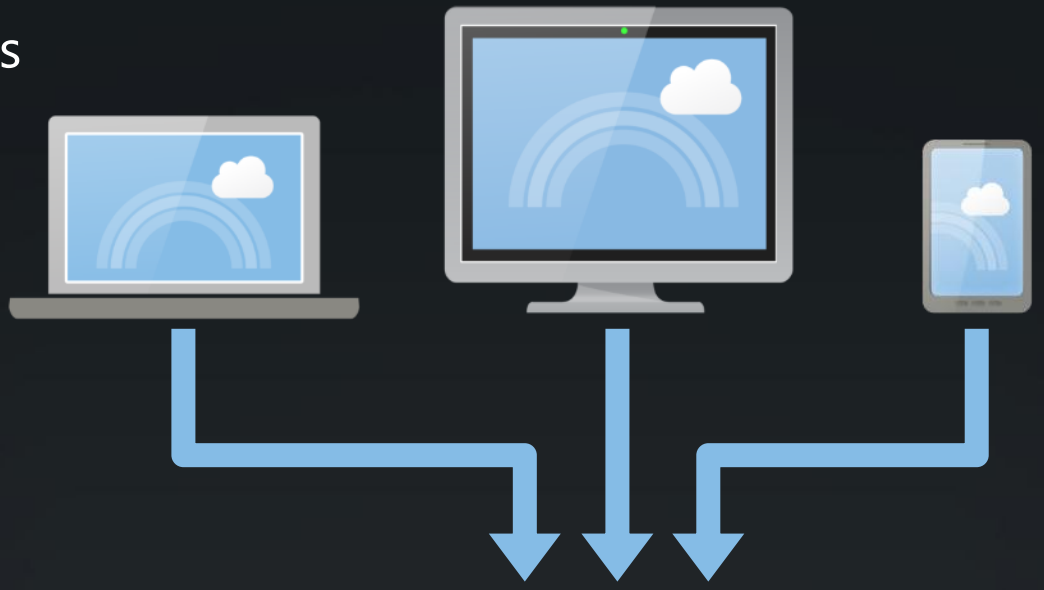


Windows Azure Datacenter

- Provision Virtual Servers
- Deploy App Code
- Configure Network

Windows Azure Datacenter

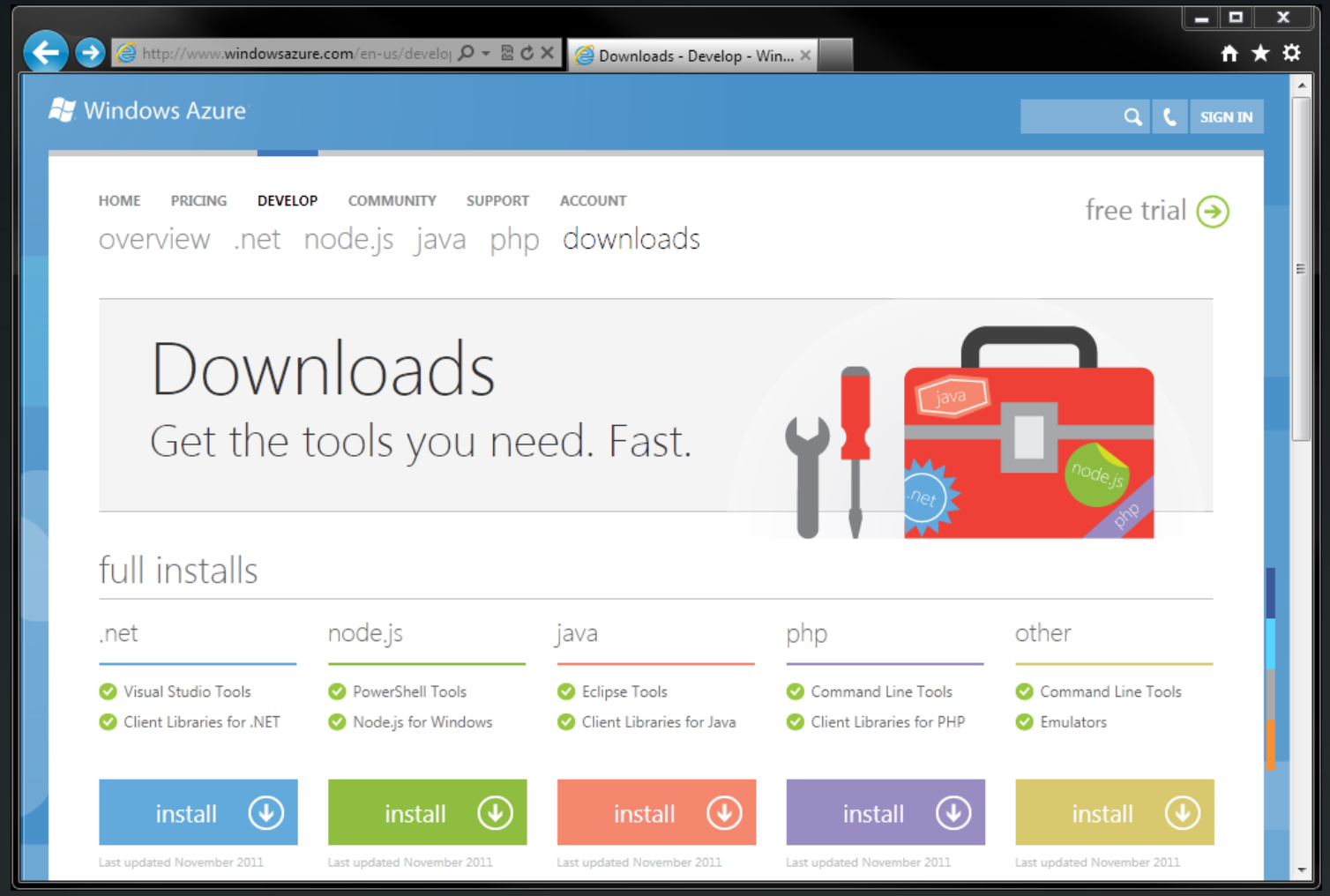
- Provision Virtual Servers
- Deploy App Code
- Configure Network



Network Load Balancer

← Network load-balancer configured for traffic

Windows Azure Datacenter



multiple languages

demo

"Hello World"

Using Java

Infinite Scale

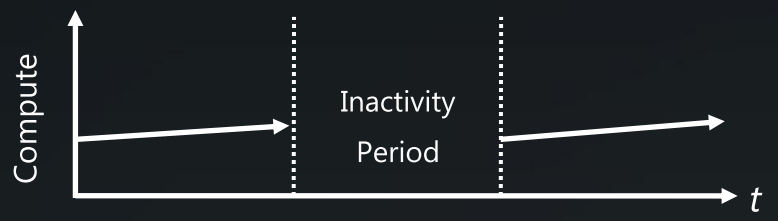
2
6
92
Scale

92
Scale

10
Scale

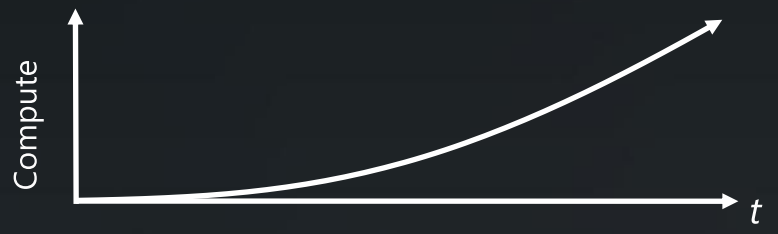
Pay Only For What You Use.

Cloud Computing Patterns



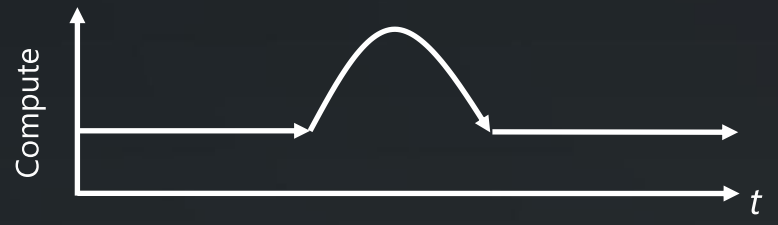
On and Off

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



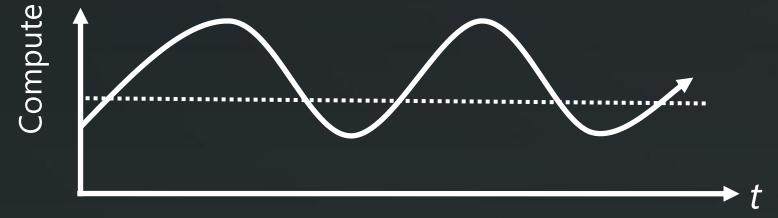
Growing Fast

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



Unpredictable Bursting

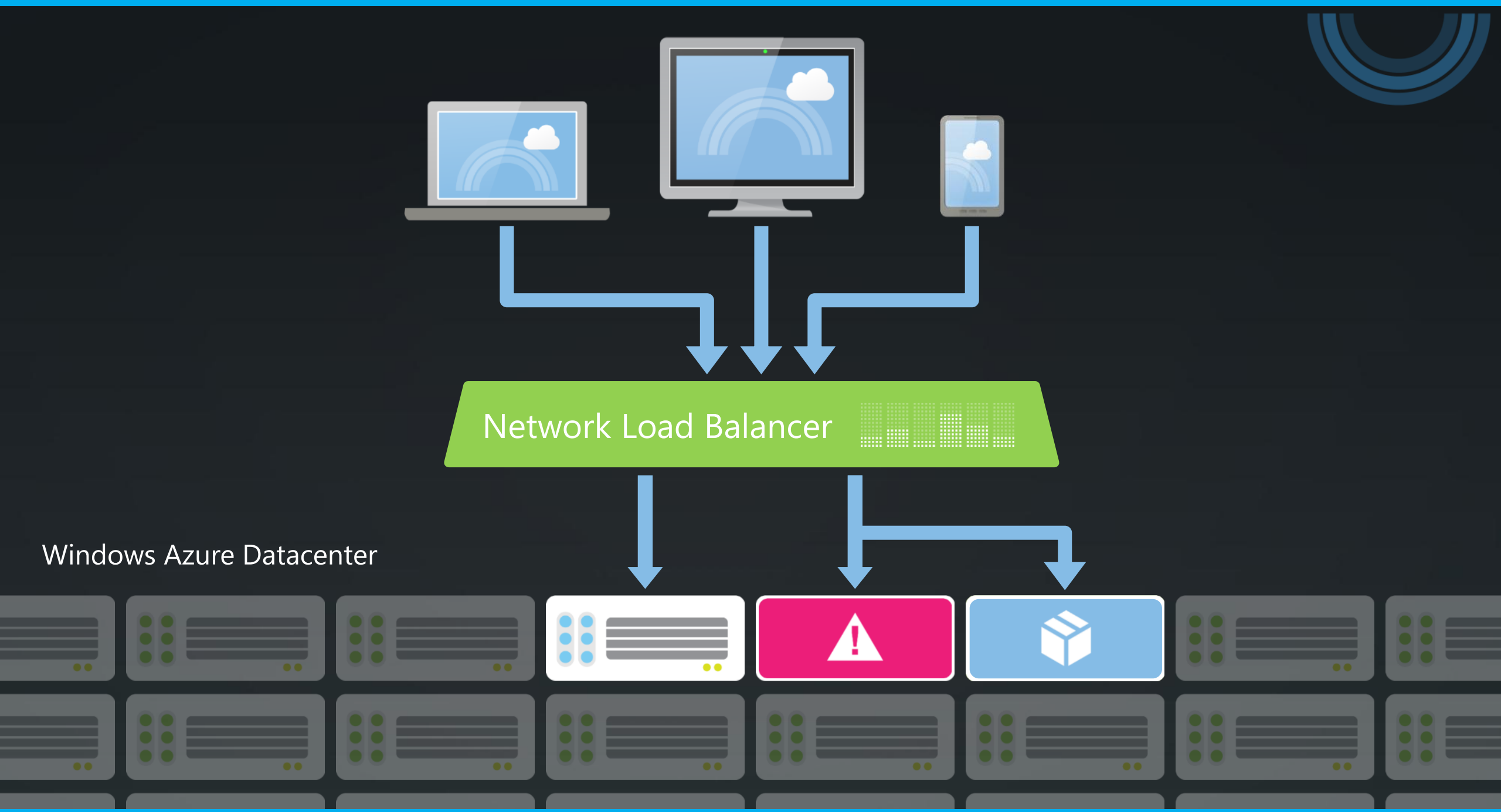
Unexpected/unplanned peak in demand
Sudden spike impacts performance
Can't over provision for extreme cases



Predictable Bursting

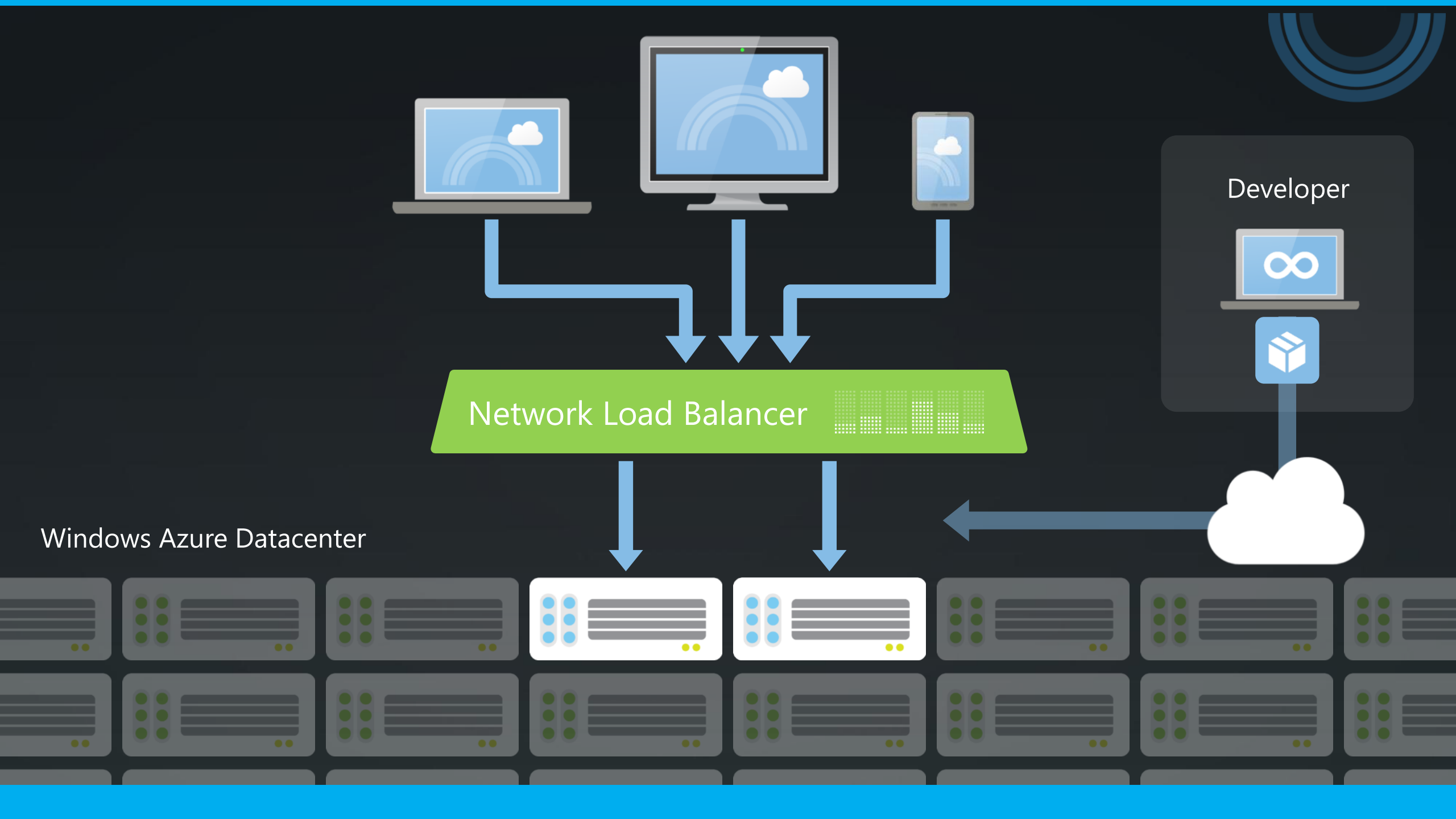
Services with micro seasonality trends
Peaks due to periodic increased demand
IT complexity and wasted capacity

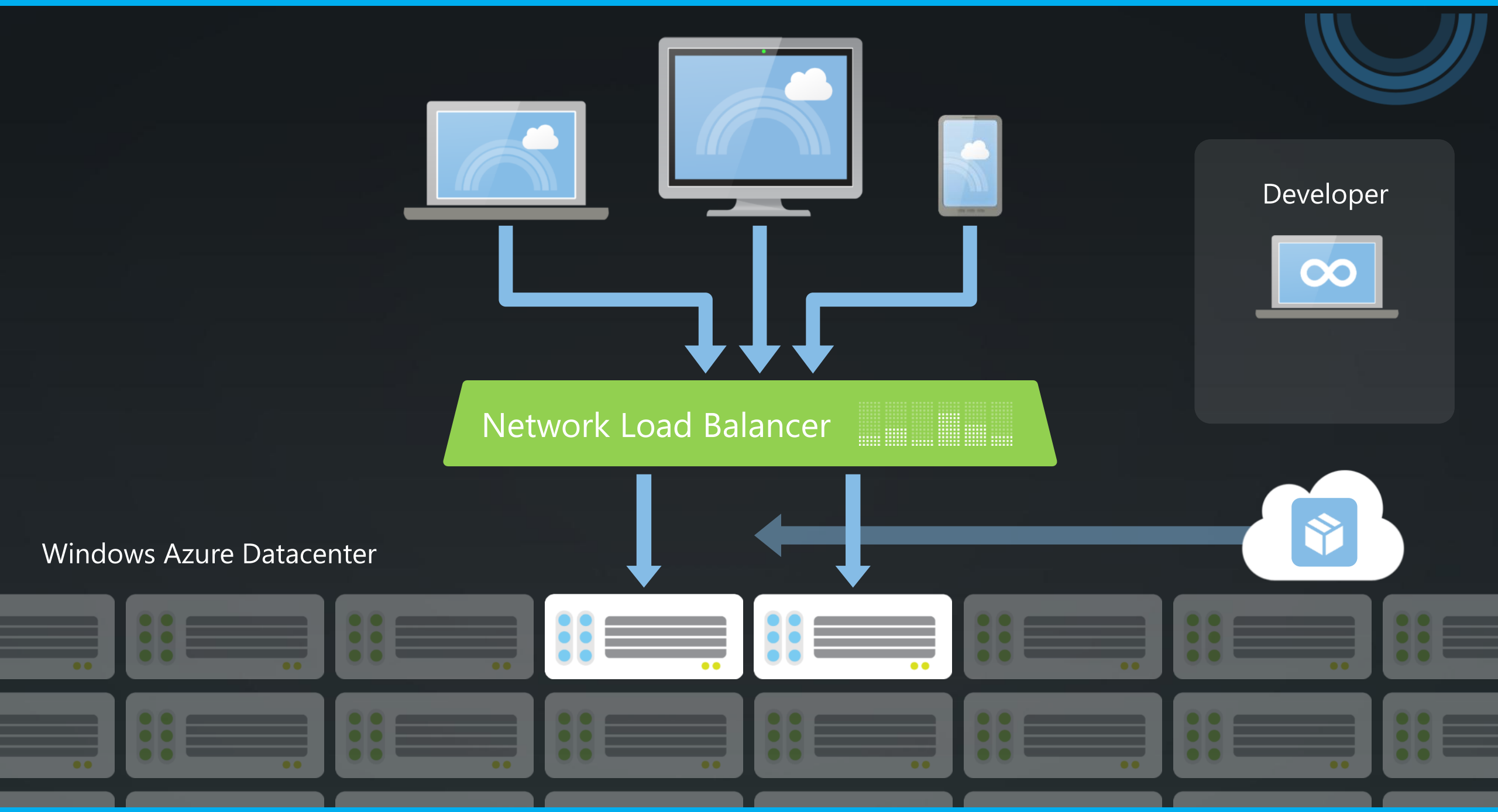
Recovering from Hardware Failures


Network Load Balancer
Windows Azure Datacenter

99.95% Monthly SLA

Smooth Updates


Developer
Network Load Balancer
Windows Azure Datacenter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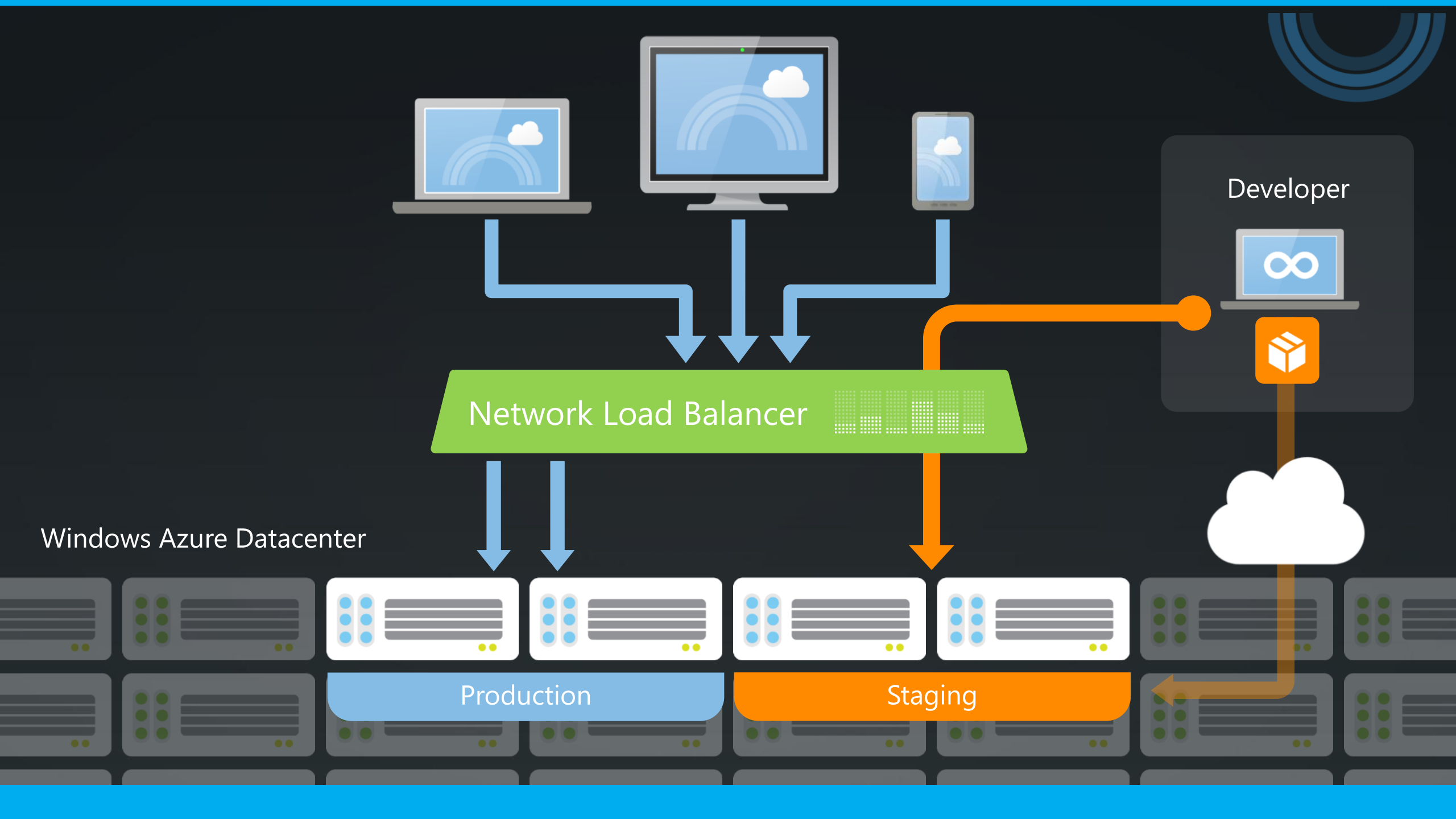

Developer
Network Load Balancer
Windows Azure Datacenter
Production
Staging

demo

Staging & Production

Focus on Apps, not Infrastructure

Storage

Windows Azure

Storage Options

Blob Storage

SQL Azure Database

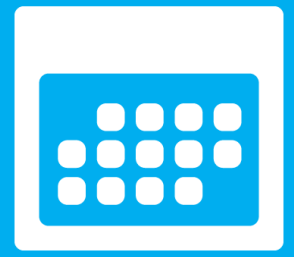
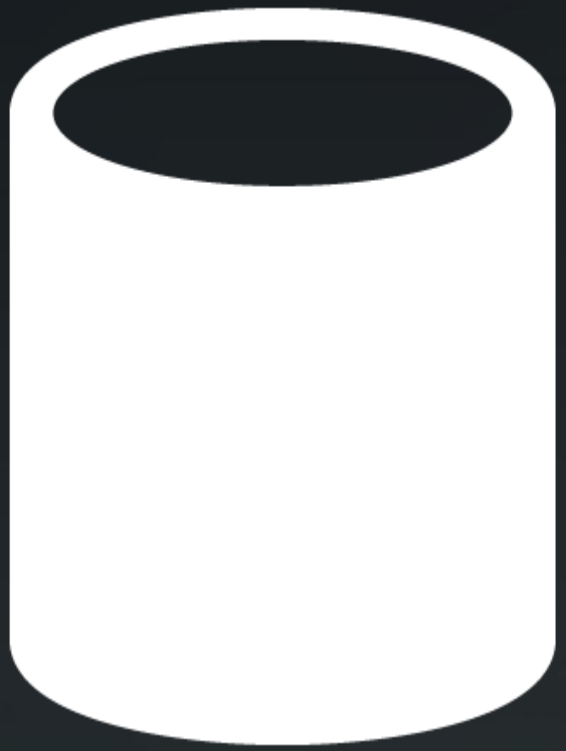


Table Storage

blob storage

- Highly scalable, durable, available file system
- Blobs can be exposed publically over http
- Can securely lock down permissions to blobs



SQL Azure

- Relational SQL Server Engine in the Cloud
- Same Programming Model as SQL Server
- Fully Managed Service

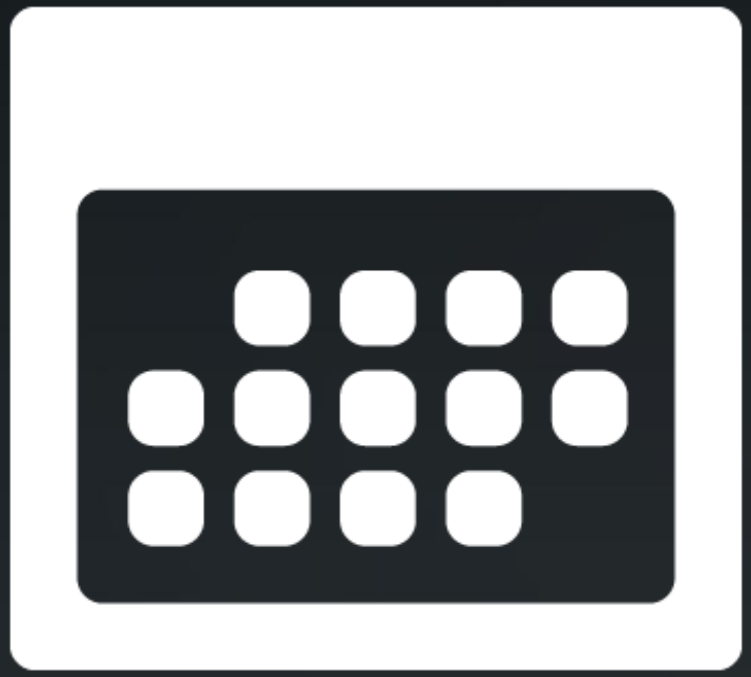
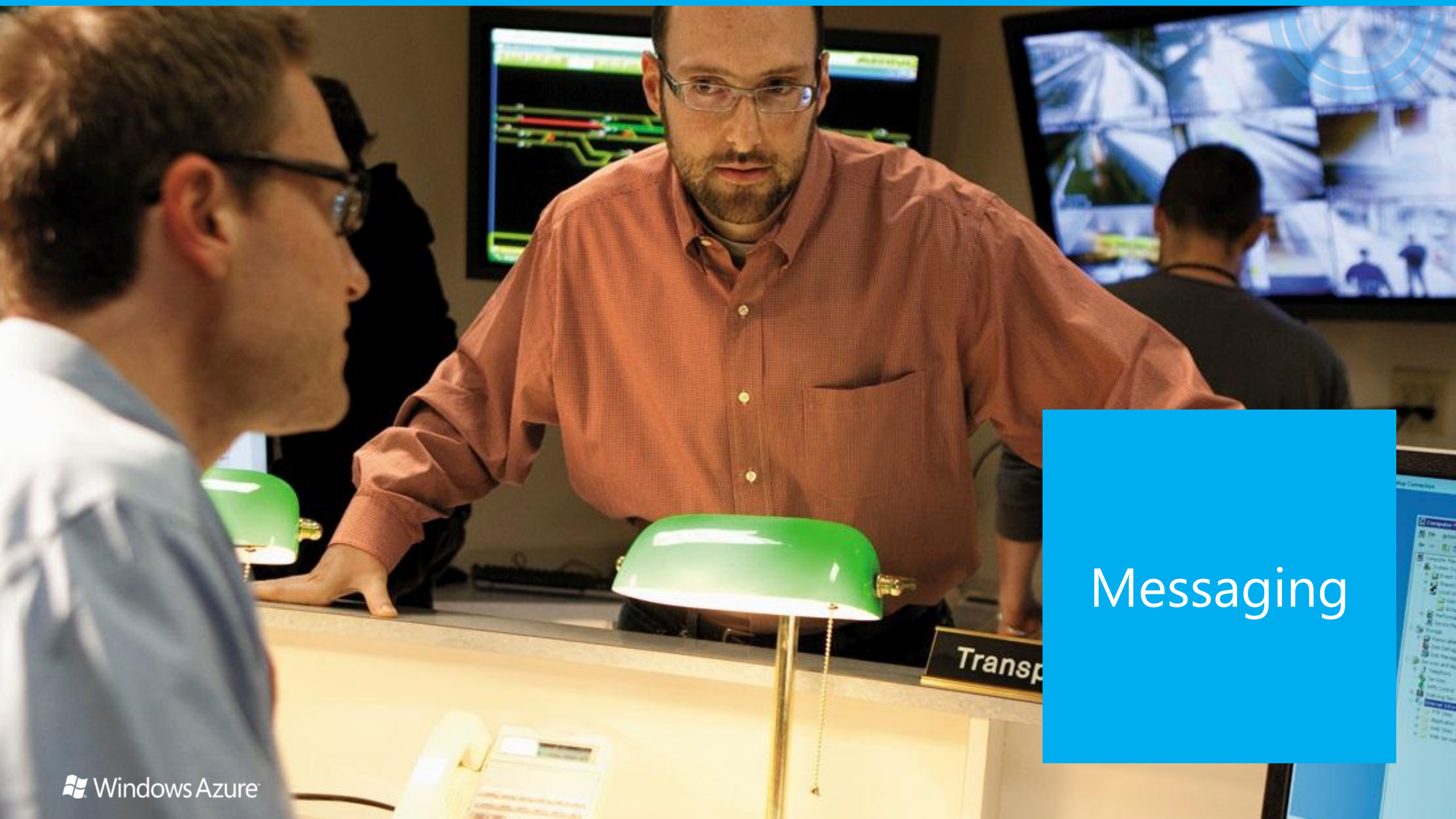


table storage

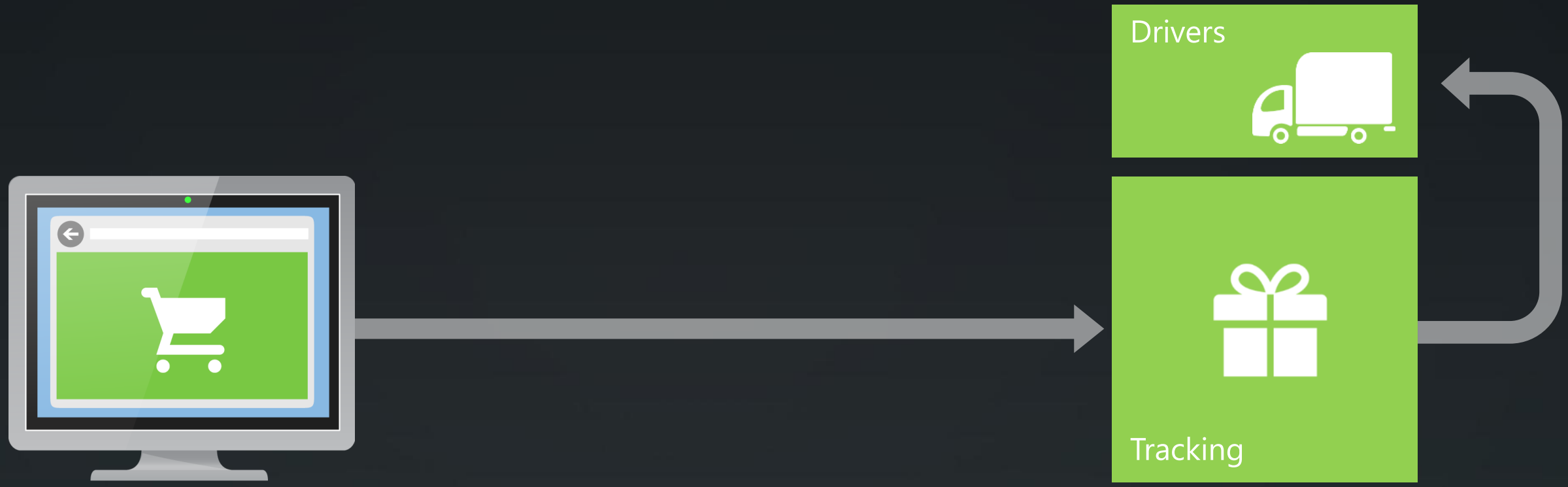
- No SQL Approach
- Partition based
- 100TB per table



Messaging

Windows Azure

Tightly Coupled



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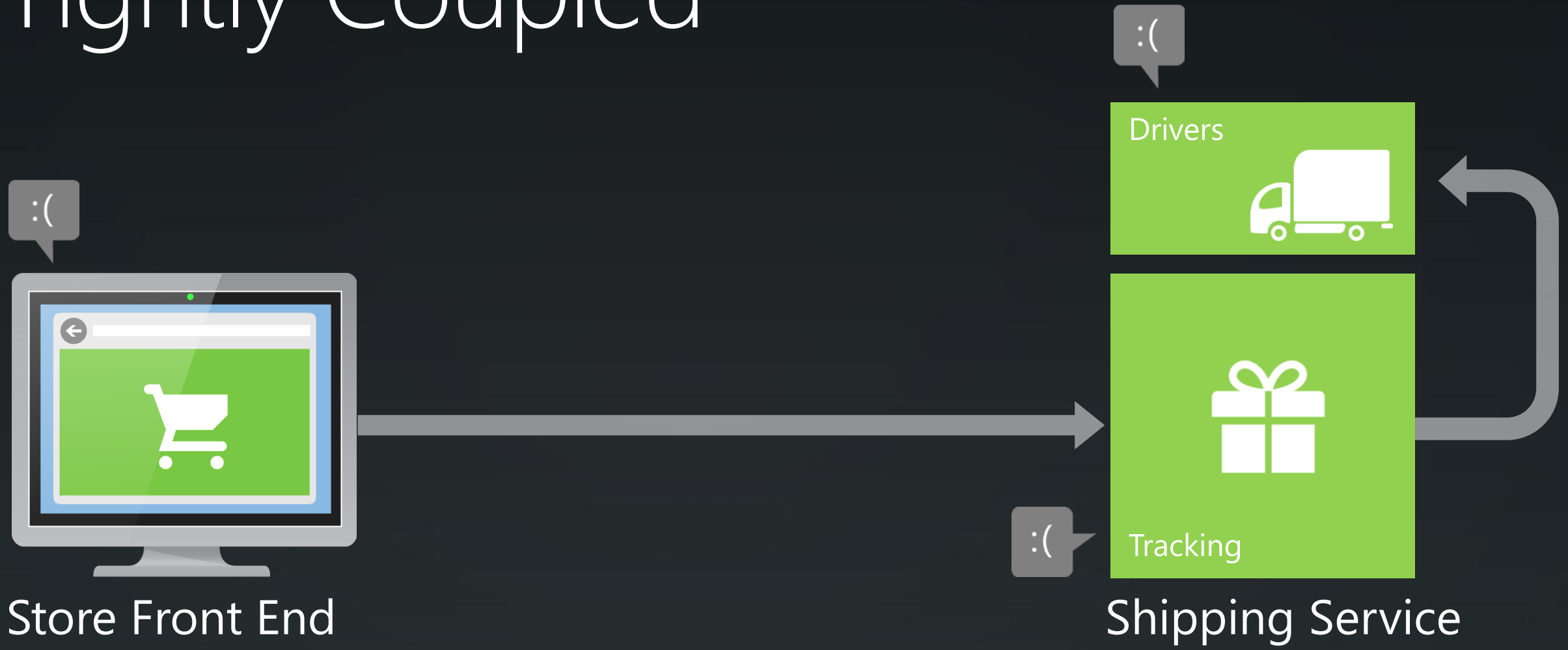


Loosely Coupled

Store Front End

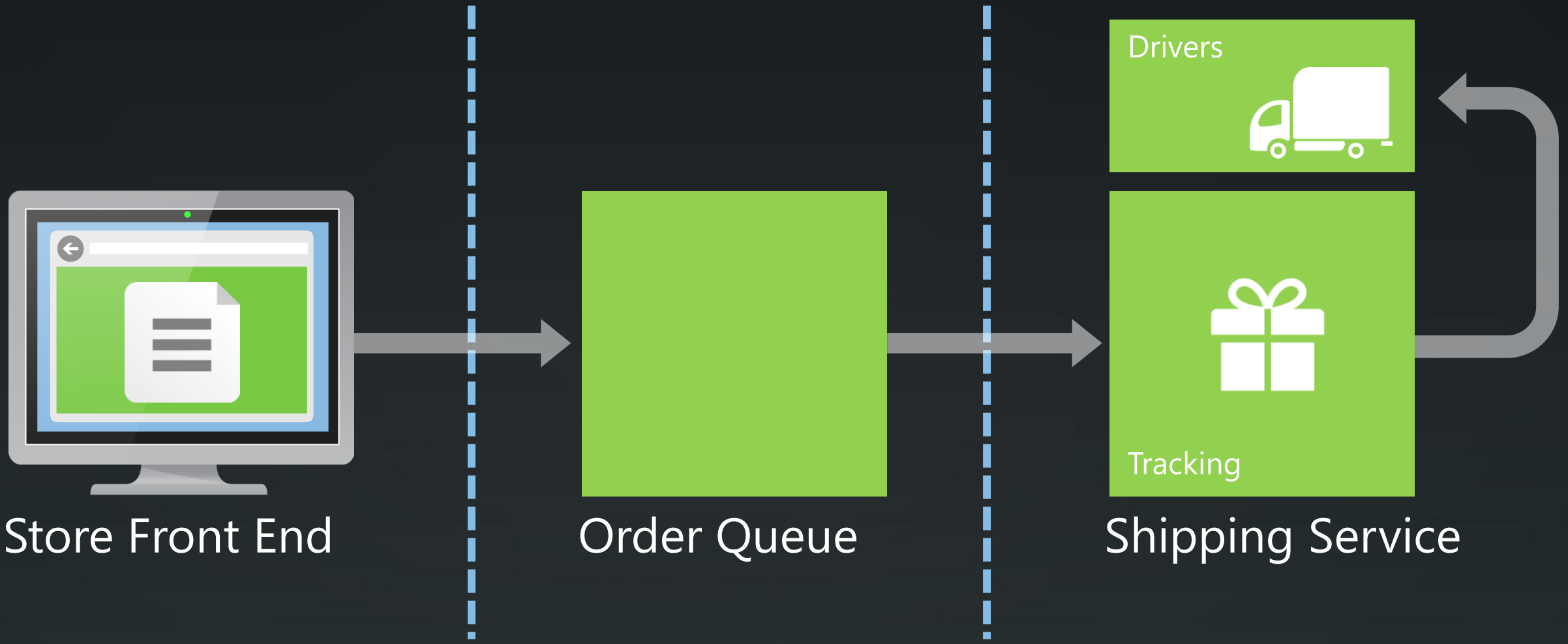
Order Queue

Drivers

Tracking

Shipping Service

Loosely Coupled



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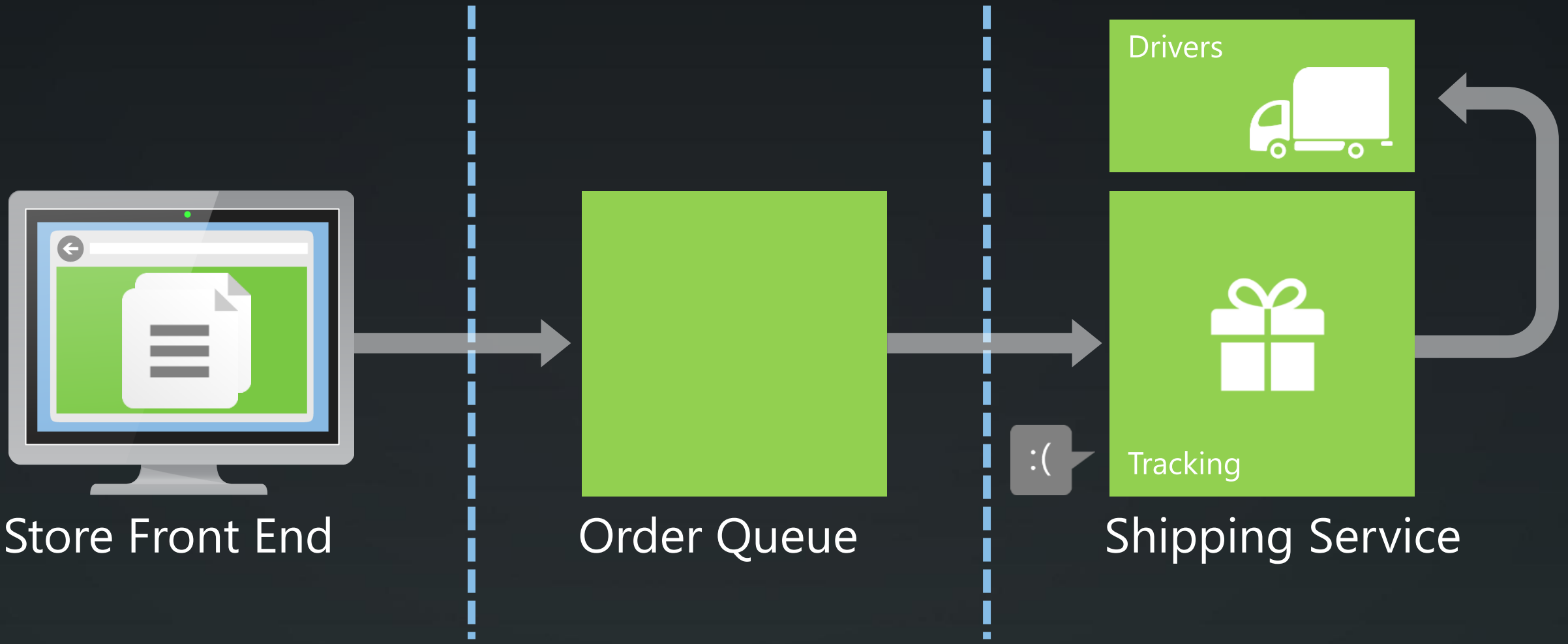
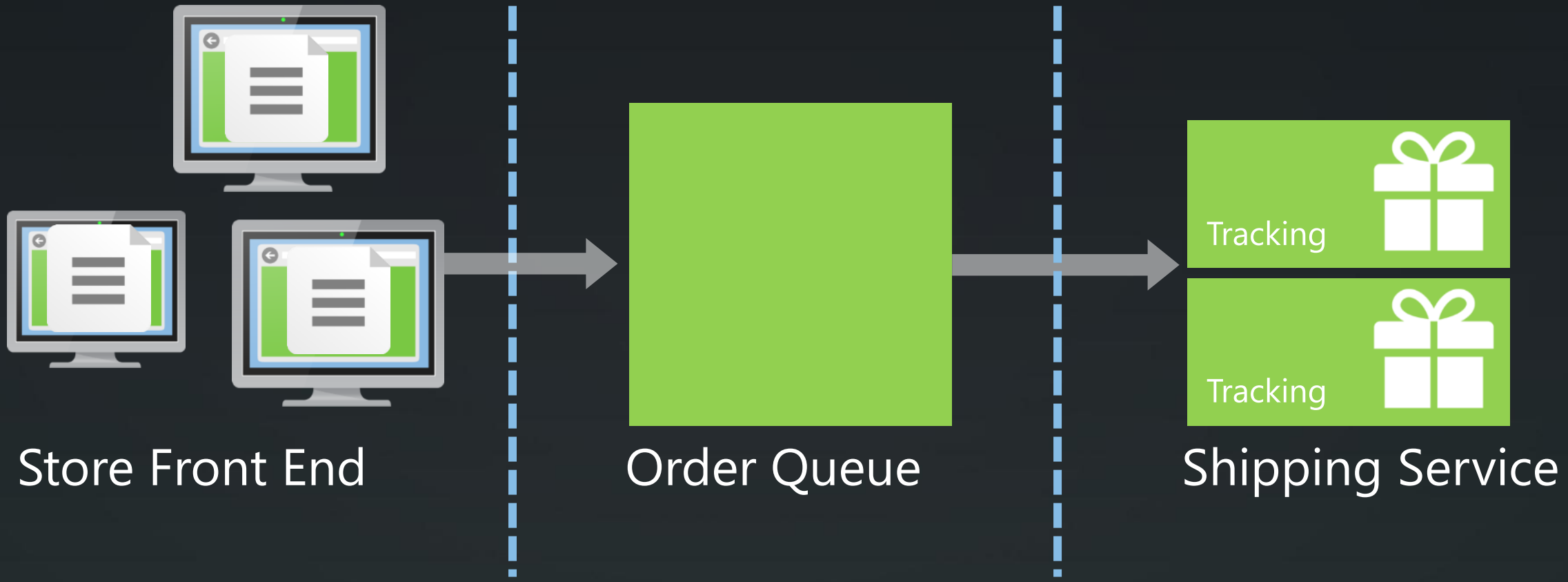
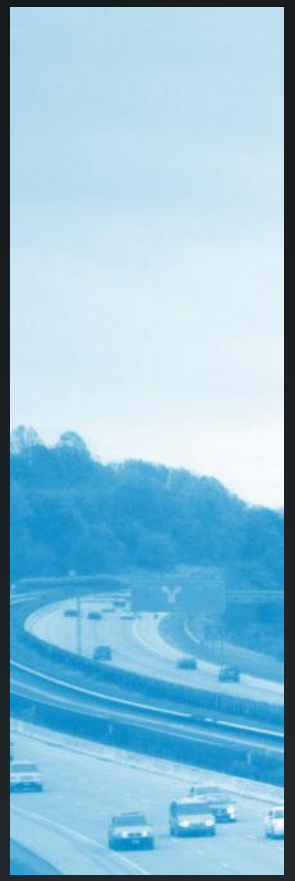
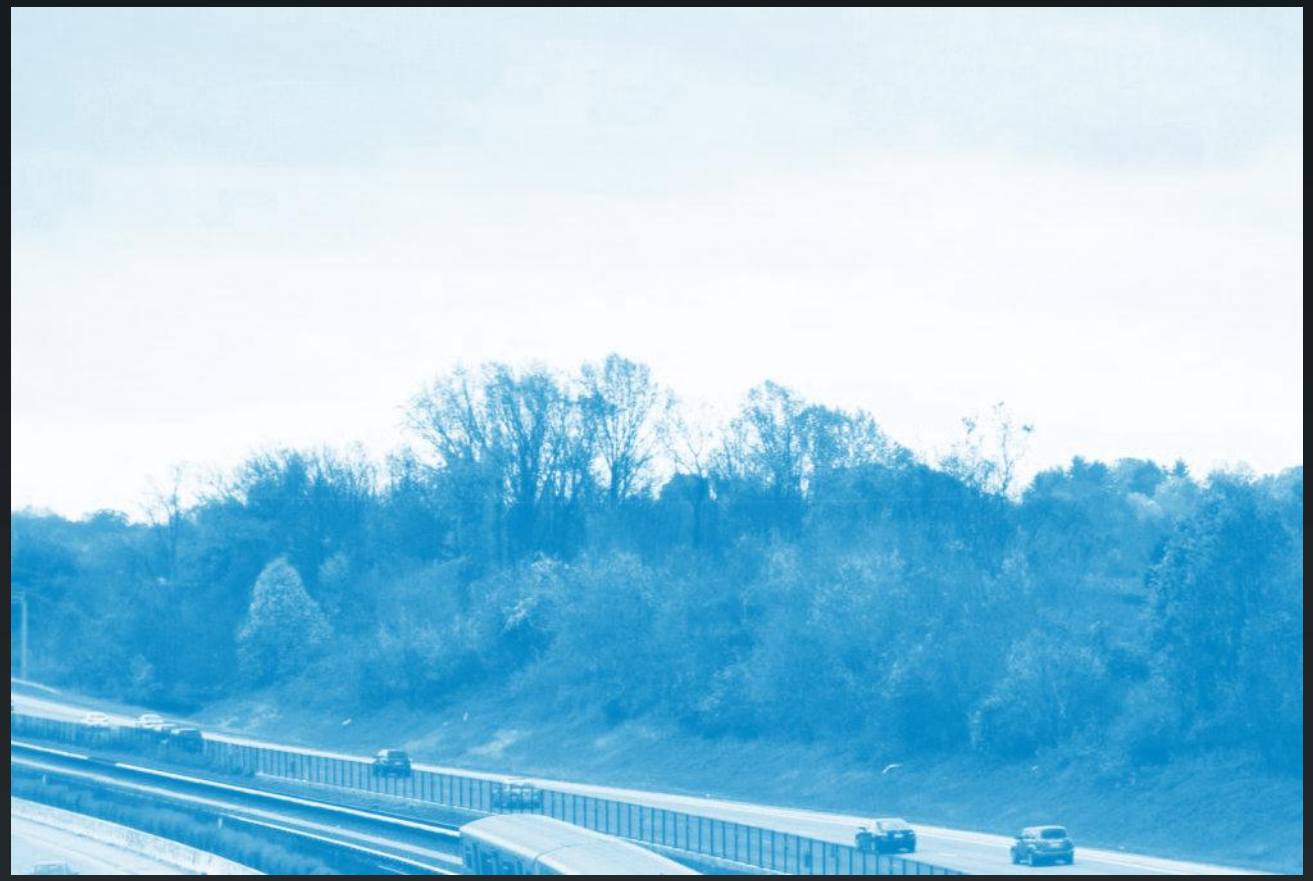


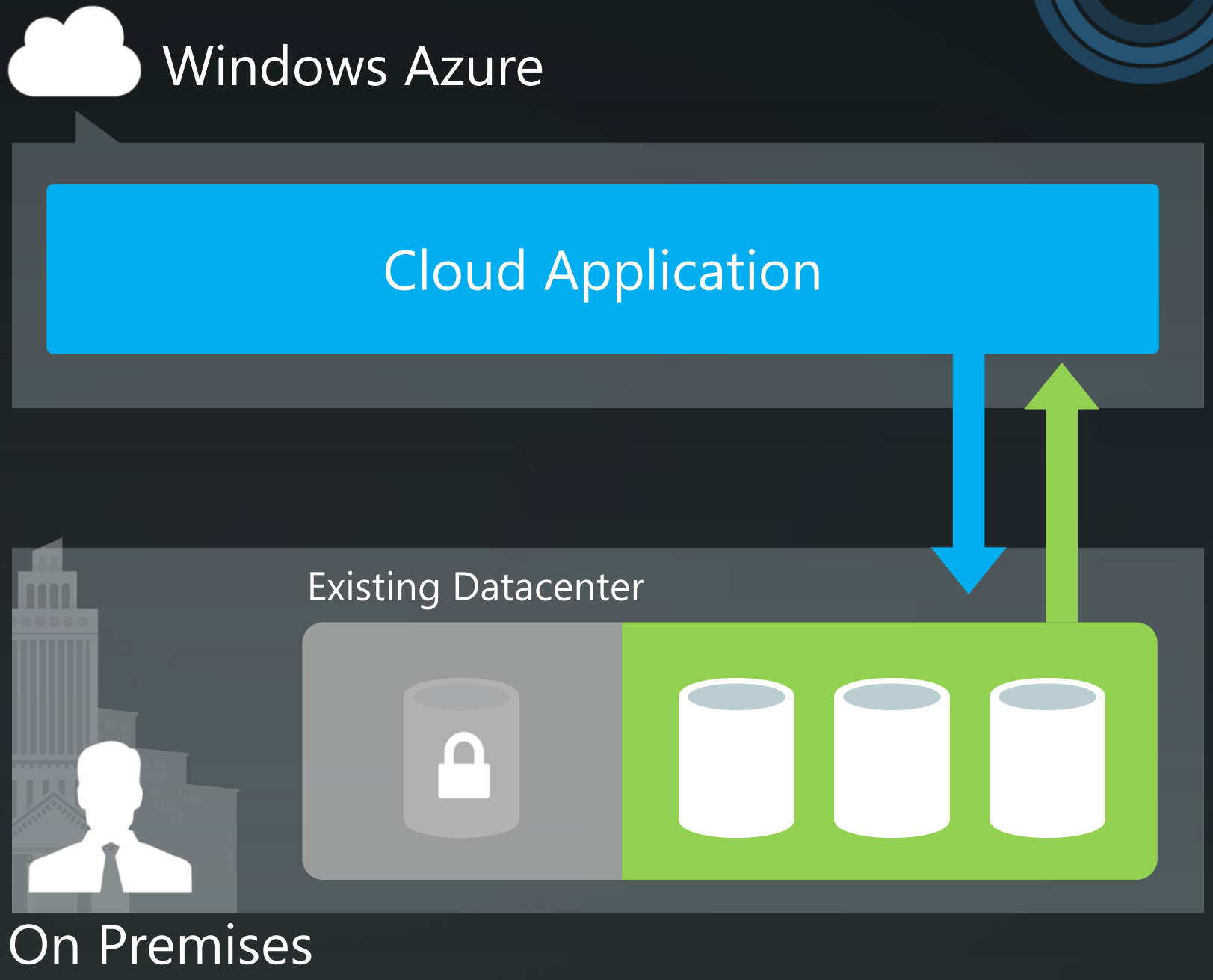
Loosely Coupled

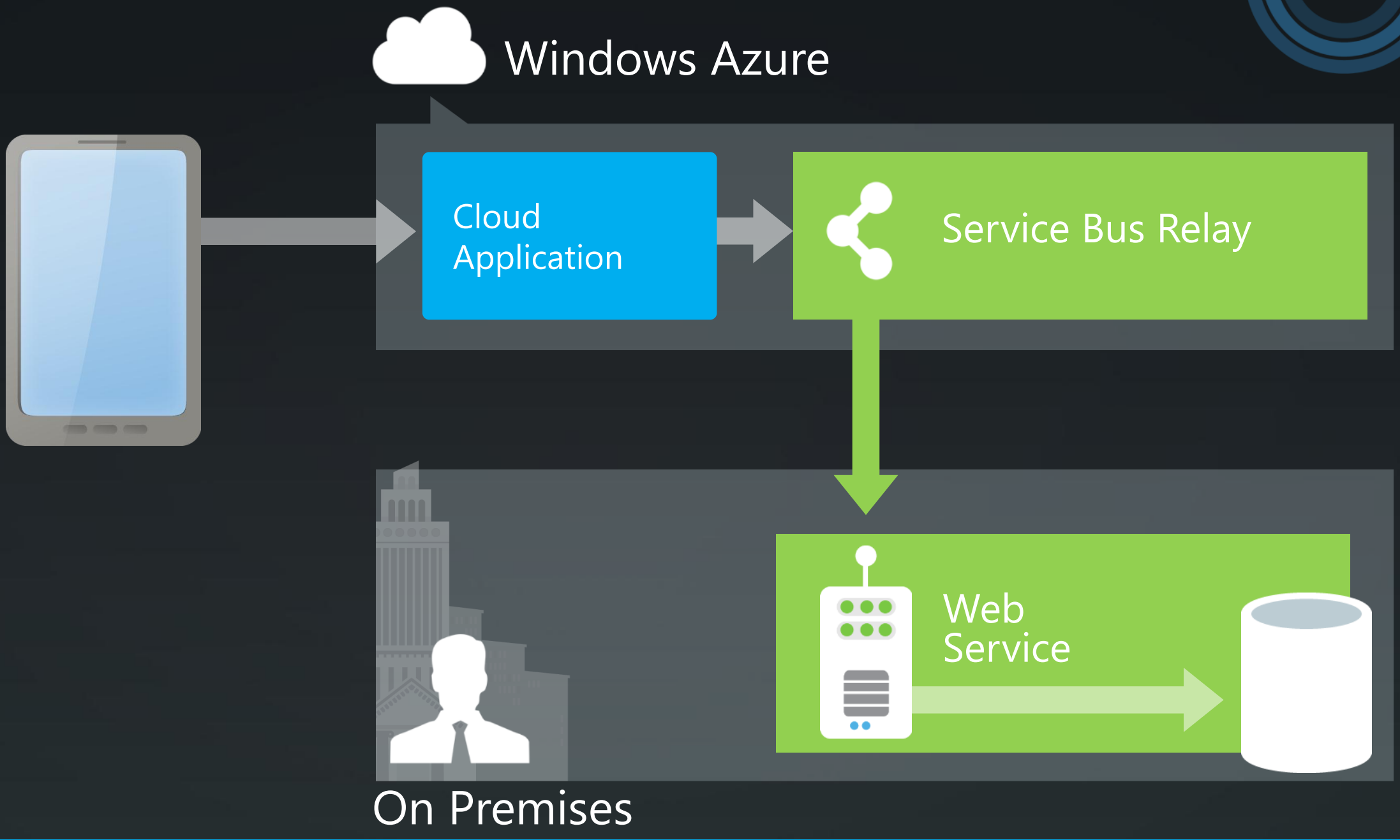


hybrid






Windows Azure
Cloud Application
Existing Datacenter
On Premises

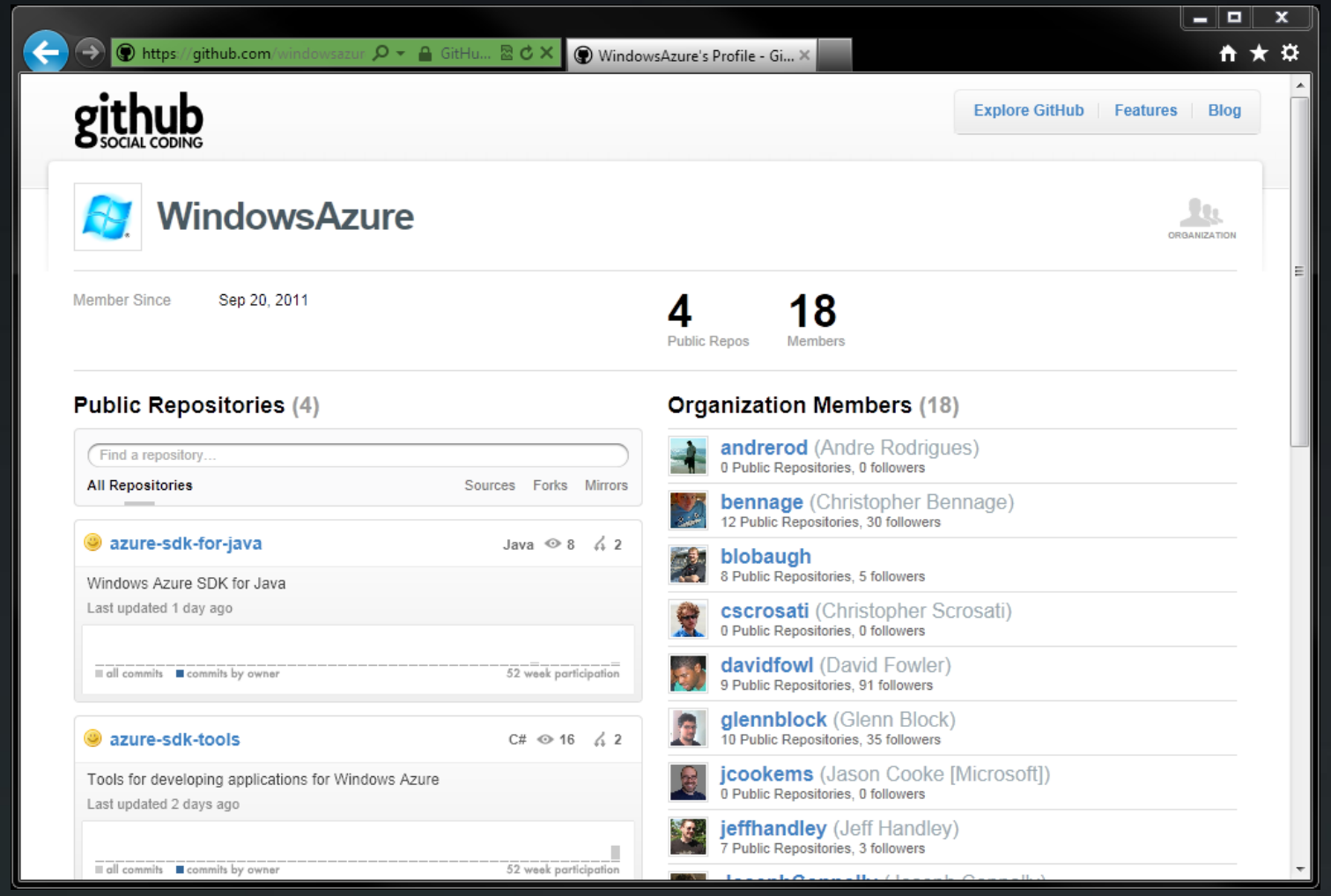

Windows Azure
Cloud Application
Service Bus Relay
Web Service
On Premises

building blocks

demo

Developer Guides

Open and Flexible



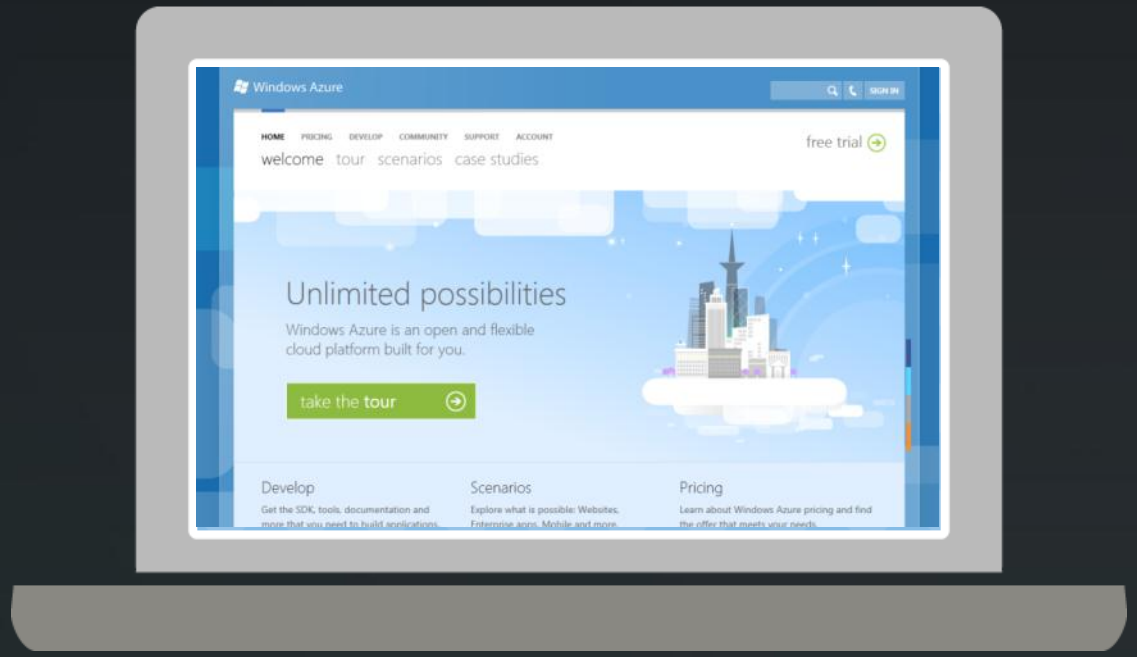
open source libraries

- Apache 2 License
- Multiple Languages
- Hosted on GitHub
- Contributions Welcome

- http://github.com/windowsazure

Get started.

http://WindowsAzure.com



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