

System-Administrator- as-a-Service

SuSE Expert Days
Jakarta, February 2017
Uli Hitzel
Senior Architect, Microsoft Asia-Pacific



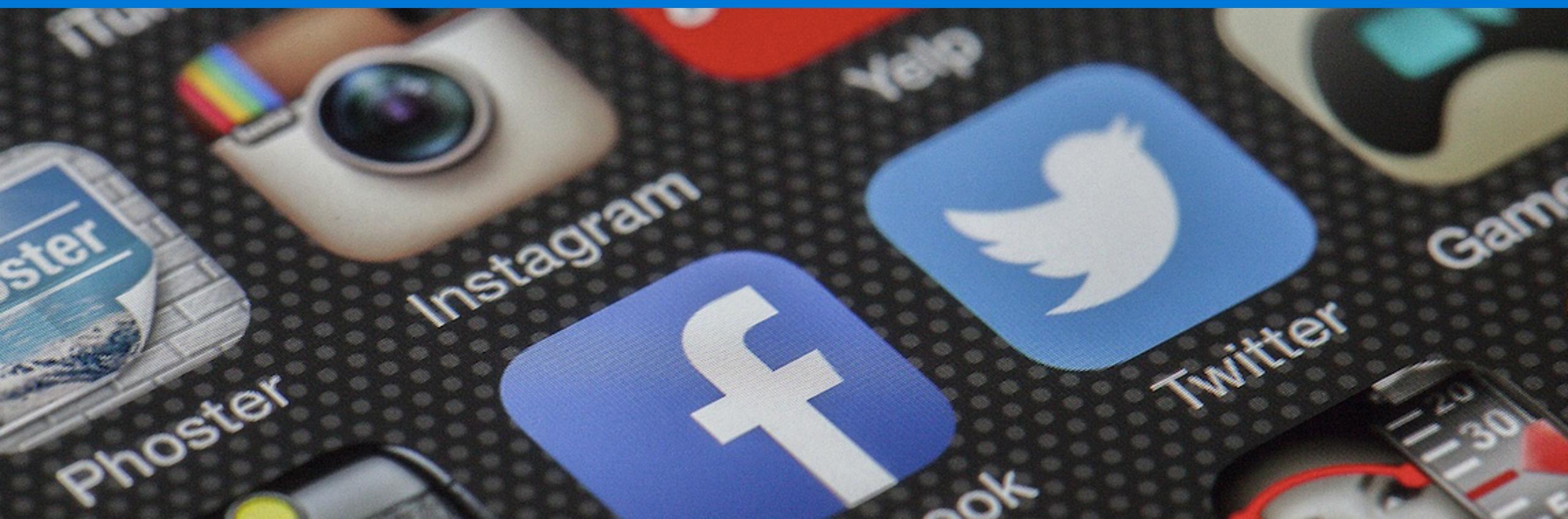
Uli Hitzel



- Cloud Architect at Microsoft
- based in Singapore
- covering South East Asia, New Zealand and Korea
- Application Development, Linux, Open Source, Python, Shell-Scripting, REST/API, CDNs

@u1i

Mobile & cloud are changing expectations.



Netflix, Spotify, Uber, Go-Jek



Use cost-optimized & agile infrastructure

Fully Managed



Connect everything with each other

Mashups

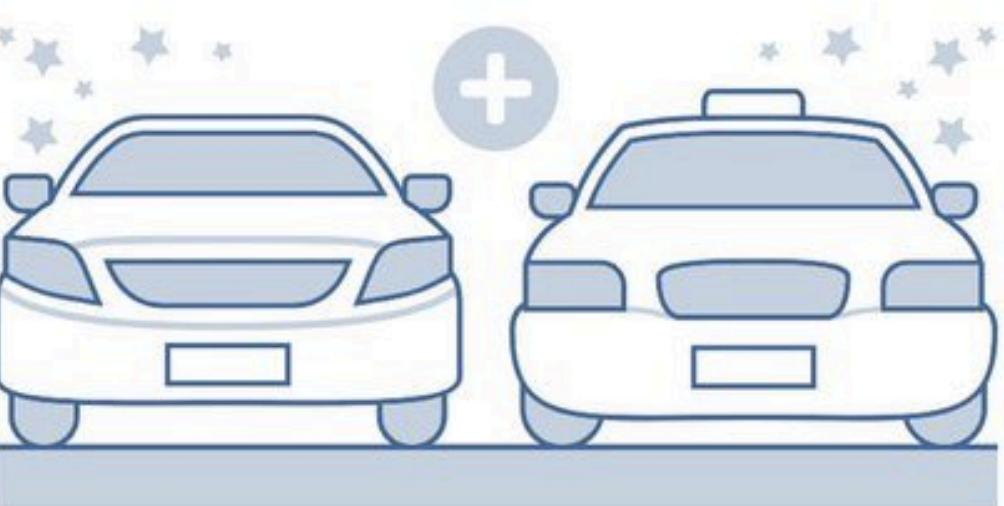


Build & release updates extremely fast

DevOps



GO CAR

**GO-CAR & BLUEBIRD Join Forces!**

Now by ordering GO-CAR, you will get the nearest GO-CAR or a Bluebird, both with same fixed price and GO-PAY discount

Balance of responsibility

| Responsibility | On-Prem | IaaS | PaaS | SaaS |
|----------------|---------|------|------|------|
| Applications | ■ | ■ | ■ | ■ |
| Data | ■ | ■ | ■ | ■ |
| Runtime | ■ | ■ | ■ | ■ |
| Middleware | ■ | ■ | ■ | ■ |
| O/S | ■ | ■ | ■ | ■ |
| Virtualization | ■ | ■ | ■ | ■ |
| Servers | ■ | ■ | ■ | ■ |
| Storage | ■ | ■ | ■ | ■ |
| Networking | ■ | ■ | ■ | ■ |

■ You ■ The Cloud

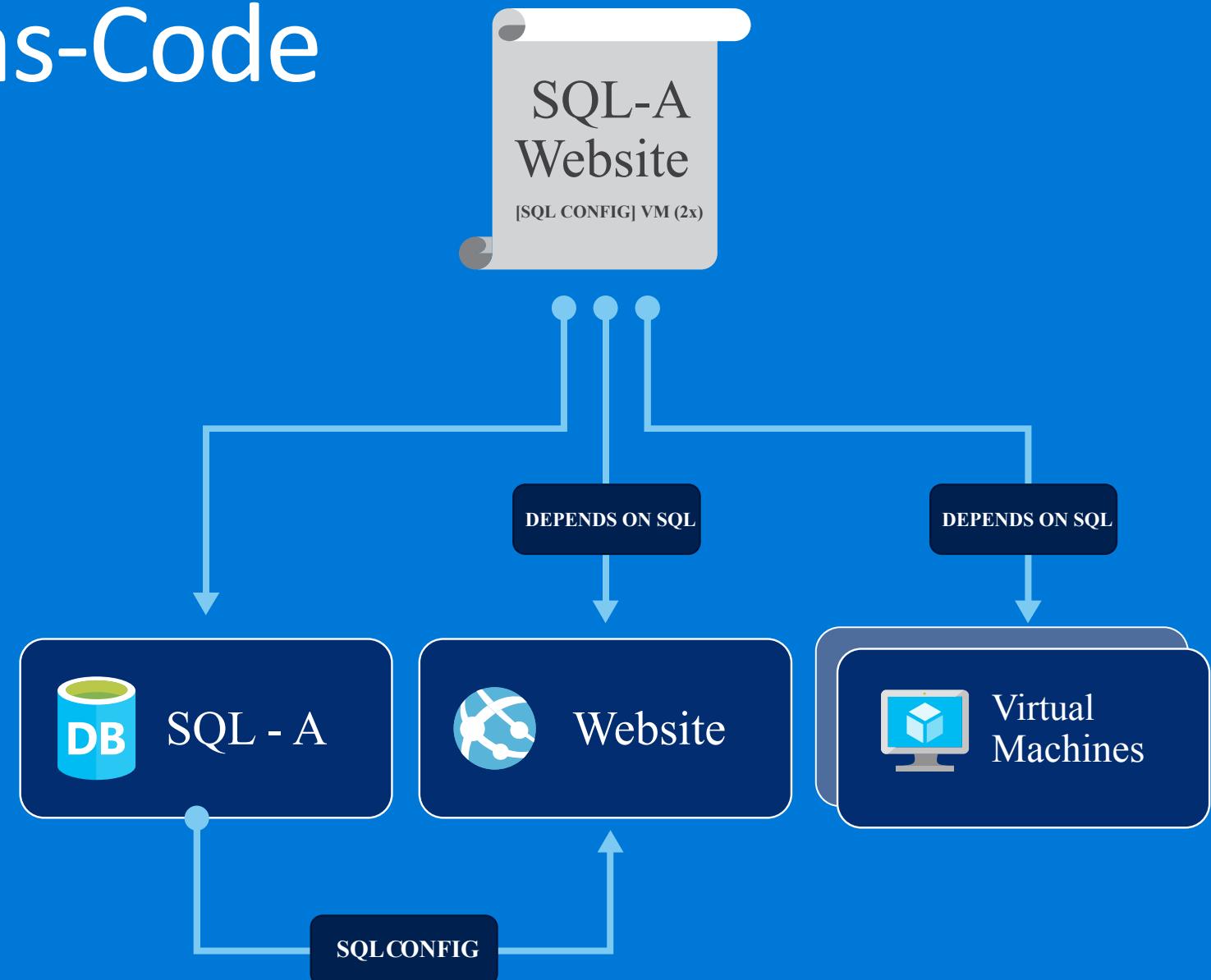
Infrastructure-as-Code



ANSIBLE

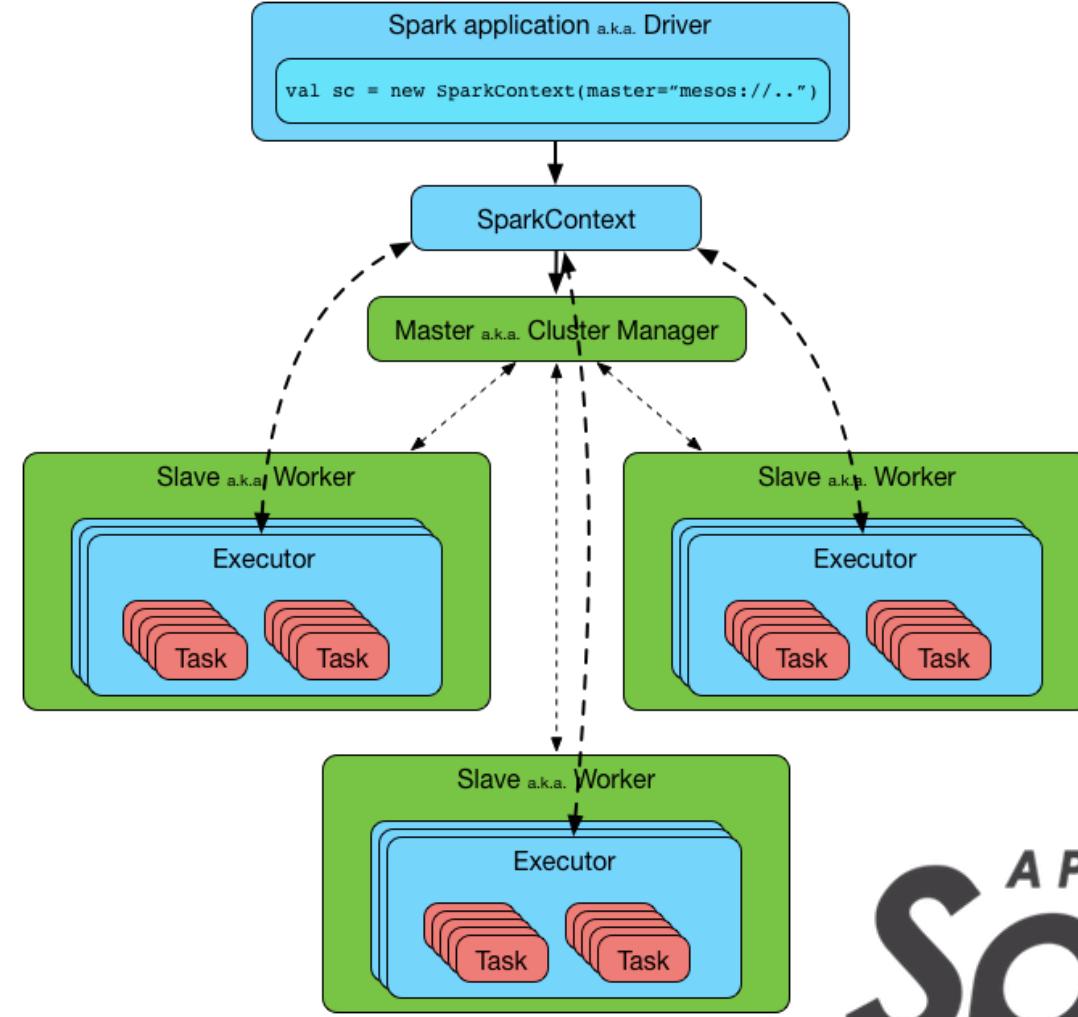


Azure Templates



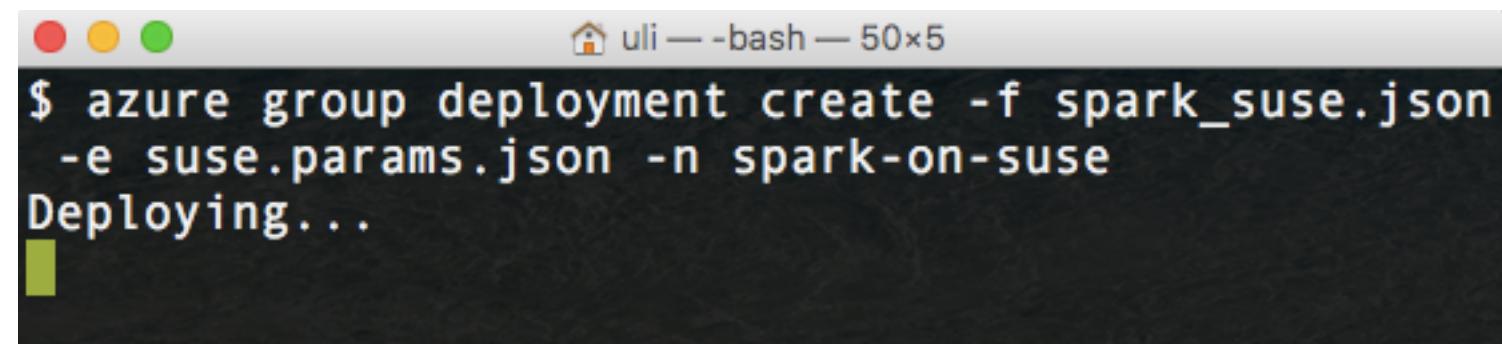
Example: Spark 2.0 on SuSE on Azure

- Virtual Network
- Storage
- Virtual Machines
- Network Interfaces
- Public IP Addresses
- Databases
- Custom Scripts
- Firewall Rules
- Software Installation
- Configuration



Example: Spark 2.0 on SuSE on Azure

```
"resources": [
  {
    "type": "Microsoft.Compute/virtualMachines",
    "name": "[variables('sparkMasterMachineName')]",
    "apiVersion": "2015-06-15",
    "location": "[variables('resourceGroupLocation')]",
    "dependsOn": [
      "[resourceId('Microsoft.Storage/storageAccounts', variables('storageAccountName'))]",
      "[resourceId('Microsoft.Network/networkInterfaces', variables('sparkMasterNetworkInterfaceName'))]"
    ],
    "properties": {
      "networkProfile": {
        "networkInterfaces": [
          {
            "id": "[resourceId('Microsoft.Network/networkInterfaces', variables('sparkMasterNetworkInterfaceName'))]"
          }
        ]
      },
      "hardwareProfile": {
        "vmSize": "[variables('sparkMasterSize')]"
      },
      "storageProfile": {
        "imageReference": {
          "publisher": "SUSE",
          "offer": "SLES",
          "sku": "12-SP1",
          "version": "latest"
        }
      }
    }
  }
]
```



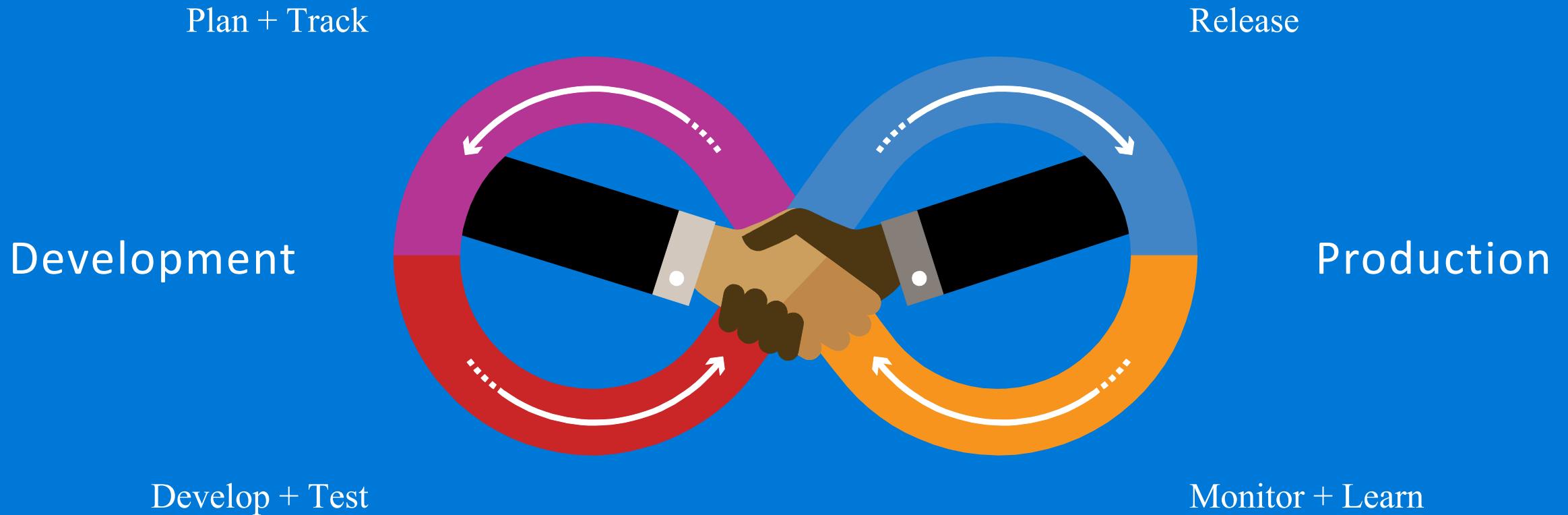
The screenshot shows a terminal window with the following content:

```
uli — -bash — 50x5
$ azure group deployment create -f spark_suse.json
-e suse.params.json -n spark-on-suse
Deploying...
```

Developers



DevOps



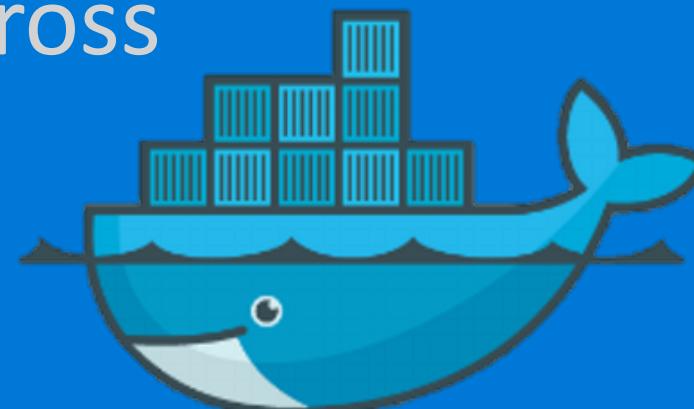
Containers

Form of OS virtualization

Operates inside an instance
of the OS

Acts as a fully isolated and
independent OS

→ Portability across
environments



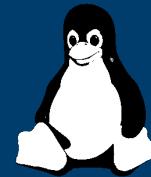
Virtual
Machine



Virtual
Machine
+ Containers

Containers in Azure

Docker support for
Azure VMs



Container-based
PaaS



Service
Fabric



CLOUD
FOUNDRY™



OPENSIFT

Azure
Container Service



DC/OS



docker

Container
Management



docker



DC/OS



kubernetes



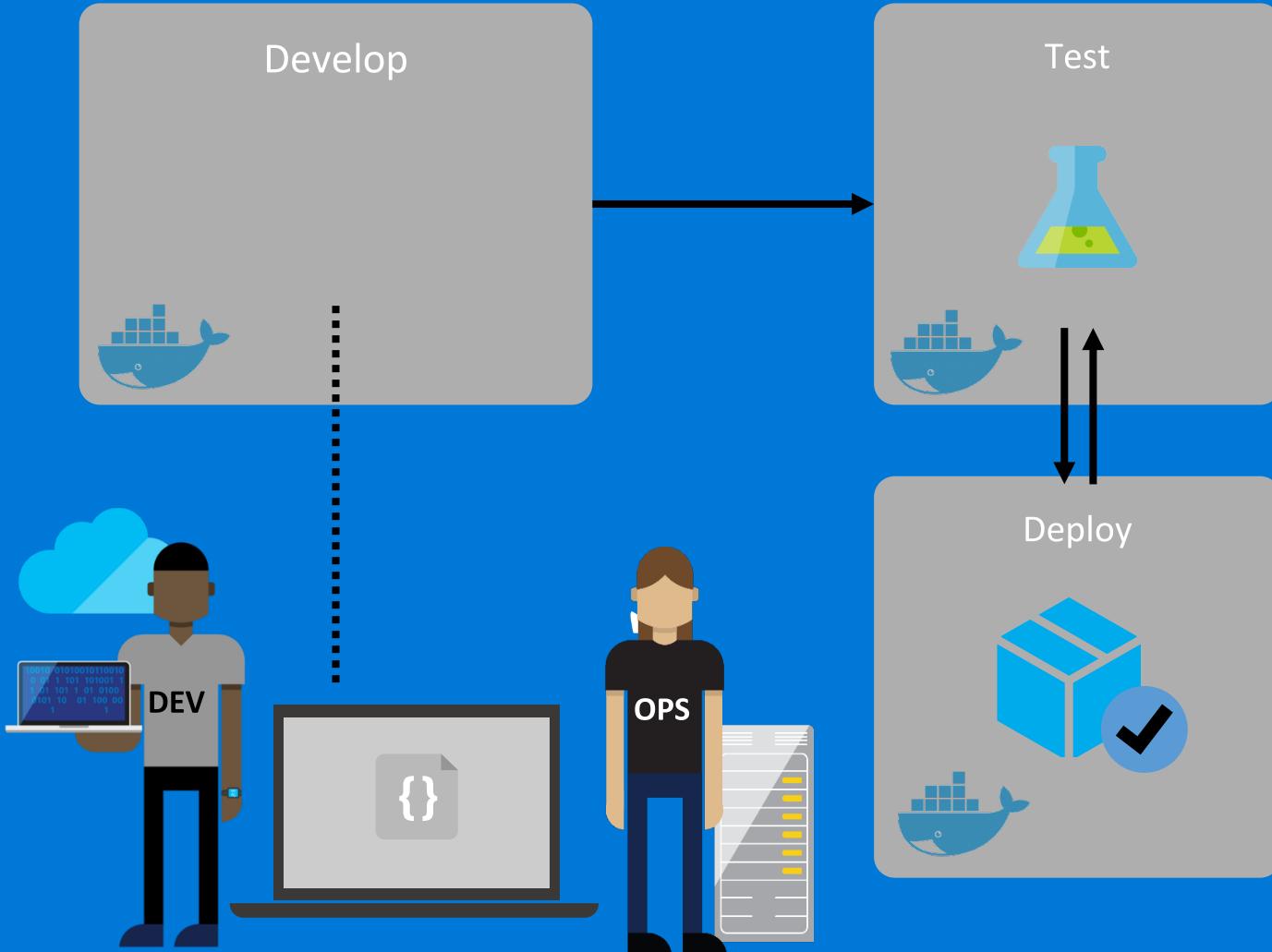
CoreOS



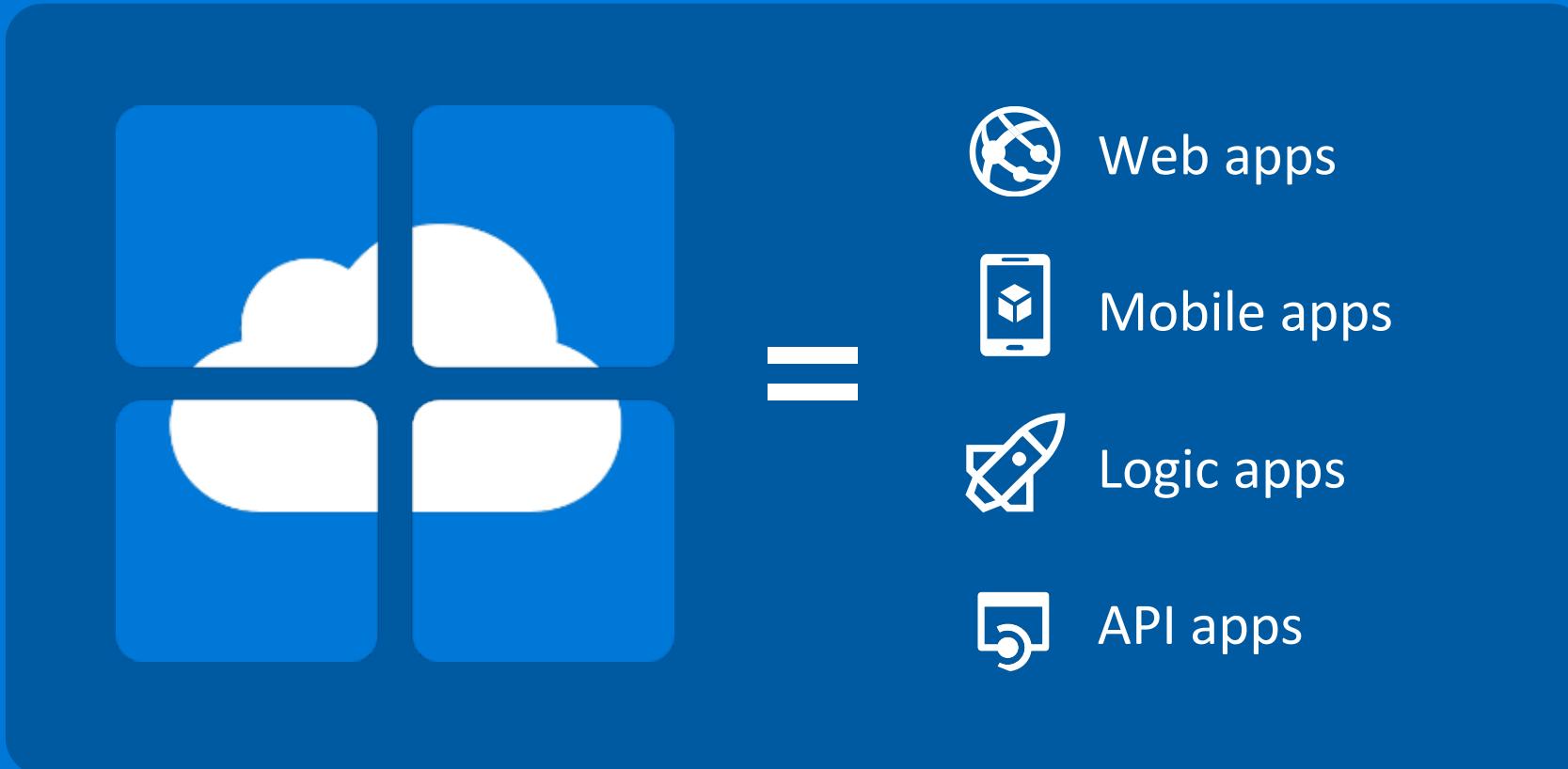
RANCHER

Microsoft Azure

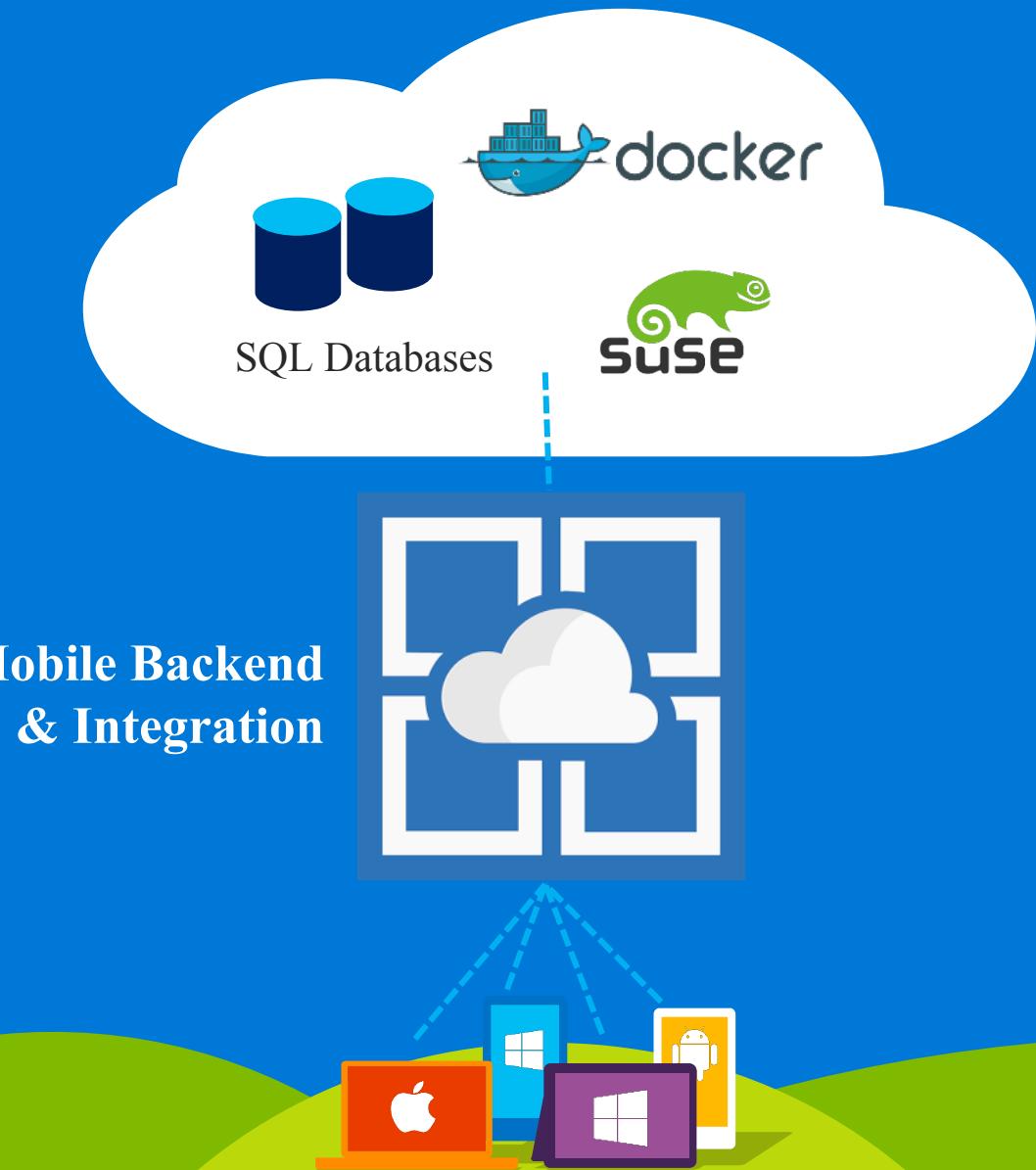
Portability across environments



Azure App Service



Both Worlds Combined



Azure and Open Source

DevOps

Nagios®



Gradle

Clients



Xamarin

APACHE CORDOVA™

Management

CHEF™

puppet labs

ANSIBLE

SALTSTACK



mist.io

libcloud



SCALR CLOUD MANAGEMENT

Applications



Joomla!

Drupal™

PaaS & Devops

CLOUD FOUNDRY



apprenda®

Jelastic



App frameworks and tools

php

nodeJS



Java™



IntelliJ IDEA

eclipse

Databases and middleware

hadoop

redis

cleardb

cloudera

MySQL

mongoDB



Couchbase

Infrastructure



redhat.

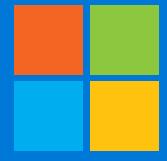
suse

bitnami

ORACLE LINUX

FreeBSD

docker



Microsoft