

The logo for the 2016 Global Azure Bootcamp features the year "2016" in a large, black, sans-serif font. Below the year, the word "Global" is written in a black sans-serif font, followed by "Azure" in a blue sans-serif font. Below "Global Azure", the word "BOOTCAMP" is written in a bold, black, sans-serif font. The entire logo is set against a light gray background with a faint, circular gear-like pattern.

# Today



- WiFi: Events
- Agenda
  - 9:00 - 9:30 Networking
  - 9:30 - 10:30 Lap around Azure - Esteban Garcia
  - 10:30 - 11:30 Azure IAAS: Intro to VMs and Virtual Networks - Santosh Hari
  - 11:30 - 1:00 Hands-on labs & lunch
  - 1:00 - 2:00 Redis - Brian Hall
  - 2:00 - 3:00 ARM Templates and Automated Deployments - Esteban Garcia
  - 3:00 - 4:30 Happy hour

# Lab

- Lab Key: FEI-GMV-DWS
- <http://gabracingleab.azurewebsites.net/>
- <https://www.youtube.com/watch?v=Ul4Tabi7z80>

# ARM – Azure Resource Manager

Esteban Garcia

# About Us

- Application Lifecycle Management
- All about Azure
- Software Development & Consulting
- Headquartered in Orlando, FL

**Microsoft Partner**  
Silver Application Lifecycle Management  
Silver Cloud Platform

**CIO** 20 MOST PROMISING  
**ALM** TECHNOLOGY PROVIDERS 2015

# Esteban Garcia

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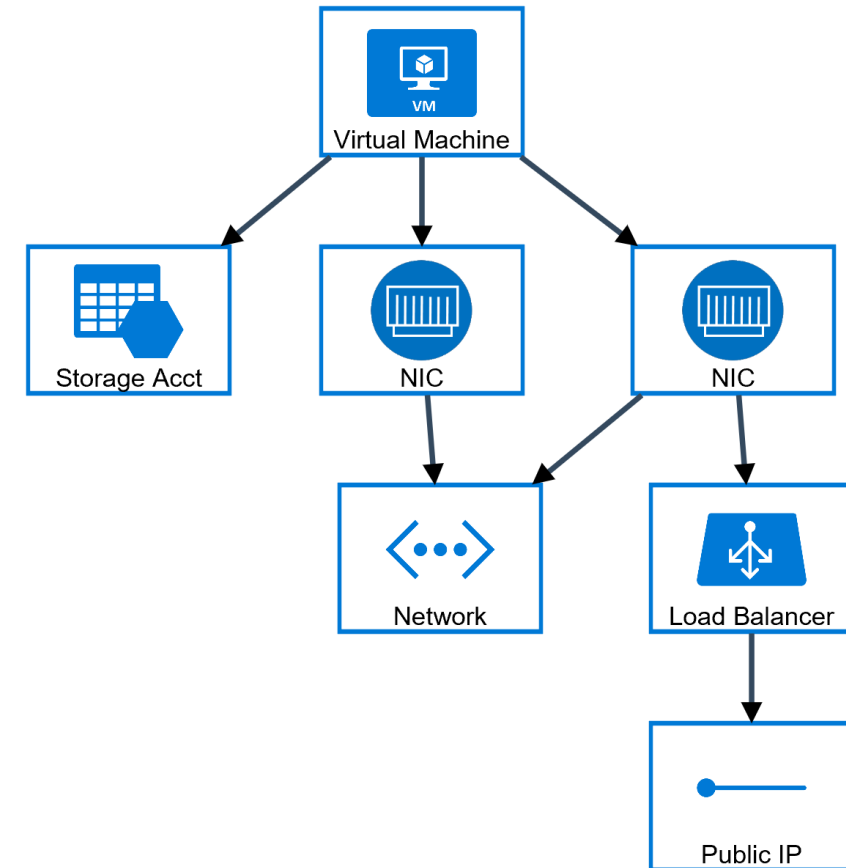
/in/estebangarcia



# ARM

## Work with Azure Resources

- Deploy
- Update
- Delete



# Benefits

- Deploy & Manage resources as a group
- Repeatedly deploy
- Declarative templates
- Define dependencies



# Authoring Templates

```
{  
  "$schema": "http://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",  
  "contentVersion": "",  
  "parameters": { },  
  "variables": { },  
  "resources": [ ],  
  "outputs": { }  
}
```

# Parameters

- Values that are provided when deployment is executed to customize resource deployment.

```
"parameters": {  
  "siteName": {  
    "type": "string",  
    "minLength": 2,  
    "maxLength": 60  
  },  
  "siteLocation": {  
    "type": "string",  
    "minLength": 2  
  }  
}
```

# Variables

Values that are used as JSON fragments in the template to simplify template language expressions.

```
"variables": {  
  "environmentSettings": {  
    "test": {  
      "instancesSize": "Small",  
      "instancesCount": 1  
    },  
    "prod": {  
      "instancesSize": "Large",  
      "instancesCount": 4  
    }  
  },  
  "currentEnvironmentSettings": "[variables('environmentSettings')[parameters('environmentName')]]",  
  "instancesSize": "[variables('currentEnvironmentSettings').instancesSize]",  
  "instancesCount": "[variables('currentEnvironmentSettings').instancesCount]"  
}
```

# Resources

- Resource types that are deployed or updated in a resource group.

```
"resources": [  
  {  
    "apiVersion": "2015-08-01",  
    "name": "[parameters('hostingPlanName')]",  
    "type": "Microsoft.Web/serverfarms",  
    "location": "[resourceGroup().location]",  
    "tags": {  
      "displayName": "HostingPlan"  
    },  
    "sku": {  
      "name": "[parameters('skuName')]",  
      "capacity": "[parameters('skuCapacity')]"  
    },  
    "properties": {  
      "name": "[parameters('hostingPlanName')]",  
      "numberOfWorkers": 1  
    }  
  }  
]
```

# Outputs

- Values that are returned after deployment.

```
"outputs": {  
  "siteUri" : {  
    "type" : "string",  
    "value": "[concat('http://',reference(resourceId('Microsoft.Web/sites',  
parameters('siteName'))).hostNames[0])]"  
  }  
}
```

# Functions

- Numeric (add, copyindex, div, int, length, mod, mul, sub)
- String (base64, concat, padLeft, replace, split, string, substring, toLower, toUpper)
- Array (concat, length, split)
- Deployment (deployment, parameters, variables)
- Resource (listkeys, list\*, providers, reference, resourceGroup, resourceId, subscription)

# Demo

Visual Studio

# Azure Quickstart Templates

- Community-contributed templates
- Deploy, learn, fork, contribute

<https://azure.microsoft.com/en-us/documentation/templates/>

<https://github.com/Azure/azure-quickstart-templates>



# Demo

Deploy

# Demo

VSTS

# Thank You



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