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# Microsoft Azure : Central component of your SharePoint Online DevOps?

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pollen group inc.  
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SHAREPOINT **SATURDAY**  
OTTAWA

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# DevOps ?



# DevOps

According to Wikipedia

*“DevOps is a software development method that stresses communication, collaboration and integration between software developers and information technology (IT) operations professionals.”*

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# Cloud Models



# Cloud Models



## IaaS

Infrastructure-as-a-  
Service

Host



## PaaS

Platform-as-a-Service

Build



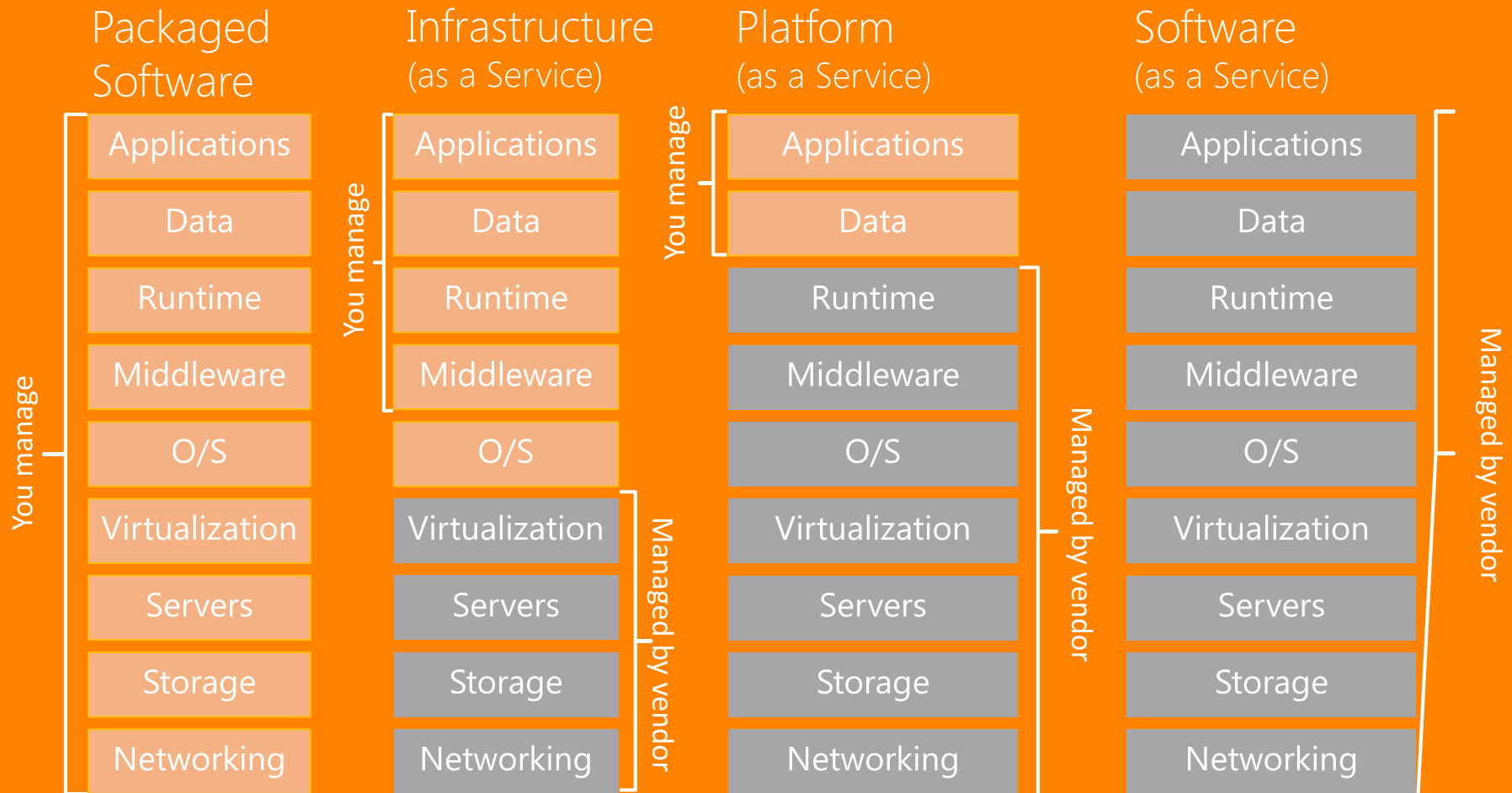
## SaaS

Software-as-a-Service

Consume



# Cloud Models



Our scenario



# Scenario

North America Region

Europe Region

Asia Pacific Region

Seattle

Detroit

New York

Paris

Barcelona

Shanghai

Phnom Penh

Rio de Janeiro

# The need



# The business need

Easy to deploy and instantiate Development VMs  
Provider-Hosted Weather App Part

PimpMySharePoint Weather PimpMySharePoint Weather PimpMySharePoint Weather



23°



12°



19°



New York (NY, USA)



Paris (IDF, France)



Montreal (QC, Canada)

Forecast

Mon		24°	13°
Tue		14°	-6°
Wed		2°	-3°
Thu		10°	1°
Fri		14°	4°

# A Weather App Part



... On Steroids !



# IaaS

Prepare your deployments

# The Nut Cracker syndrom





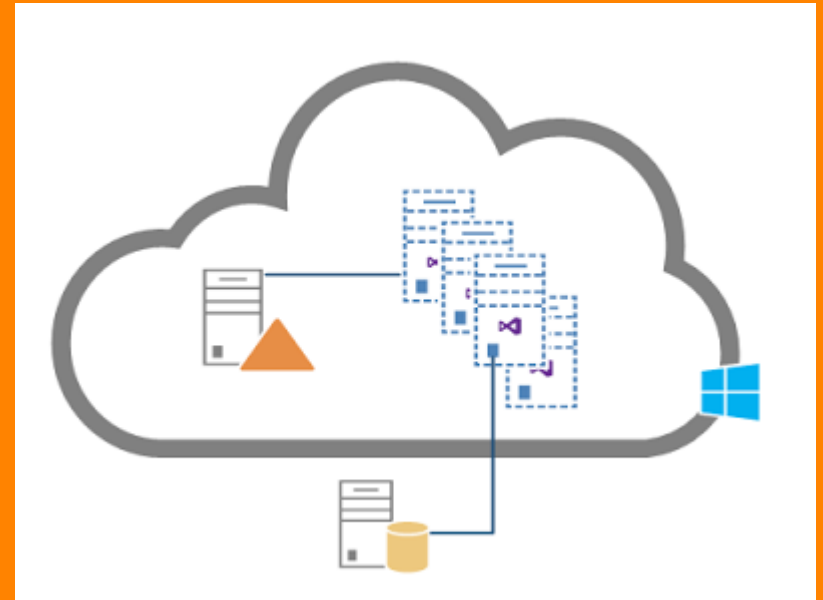
# Why !?!

Save your time

Save your money

Be flexible

Easy and powerful !!



# Infrastructure as a Service



## Virtual Network

CREATE A VIRTUAL NETWORK

### Virtual Network Details

NAME:

REGION:

AFFINITY GROUP:

AFFINITY GROUP NAME:

CREATE A VIRTUAL NETWORK

### Virtual Network Address Spaces

ADDRESS SPACE	STARTING IP	CIDR (ADDRESS COUNT)	USABLE ADDRESS RANGE
10.0.0.0/8	10.0.0.0	/8 (16777...	10.0.0.0 - 10.255.255.255
<b>SUBNETS</b>			
PMSP	10.0.0.0	/11 (2097...	10.0.0.0 - 10.31.255.255
<a href="#">add subnet</a>			



## Cloud Services

NEW CLOUD SERVICE - CUSTOM CREATE

### Create a cloud service

URL:  ☒

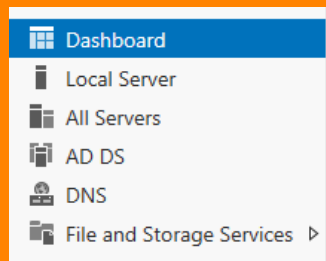
.cloudapp.net

REGION OR AFFINITY GROUP:

☐ Deploy a cloud service package.

# Infrastructure as a Service

## 1 - Active Directory

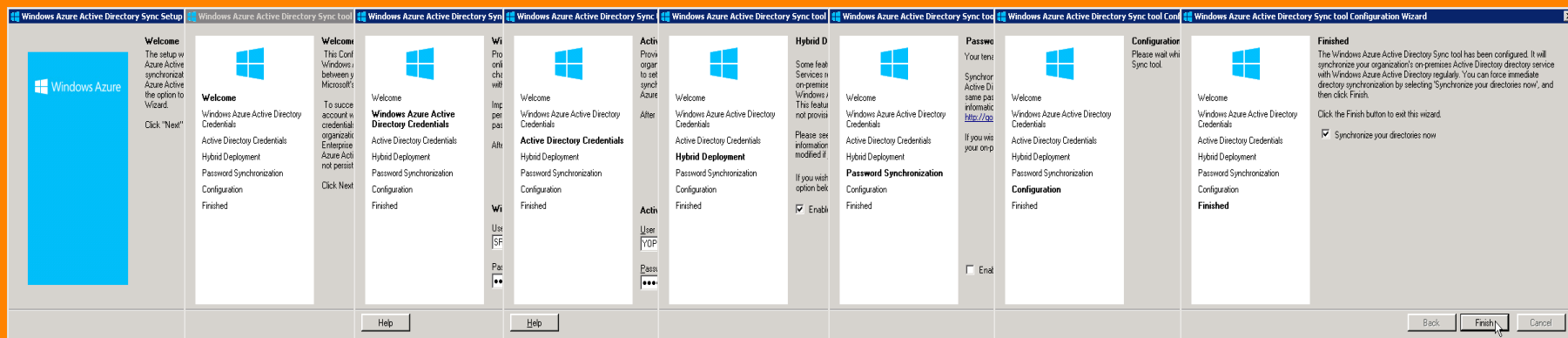


Processors	AMD Opteron(tm) Processor 4171 HE
Installed memory (RAM)	1.75 GB
Total disk space	197 GB

Computer name  
Domain

VMPMSP1  
pimpmysharepoint.lan

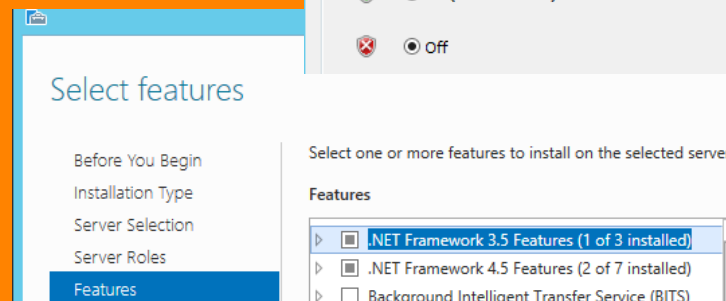
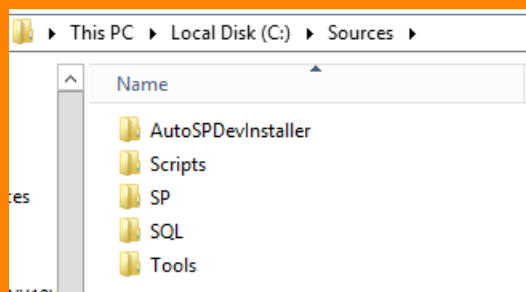
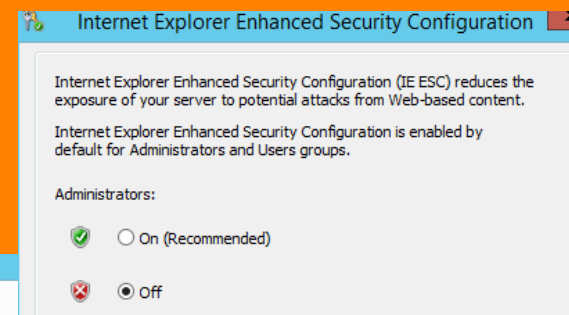
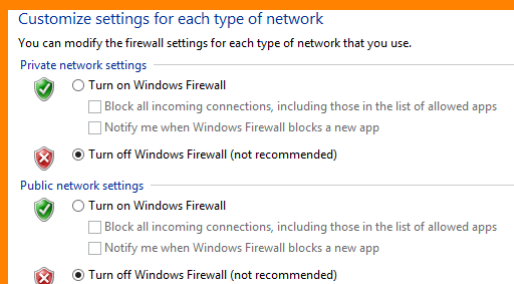
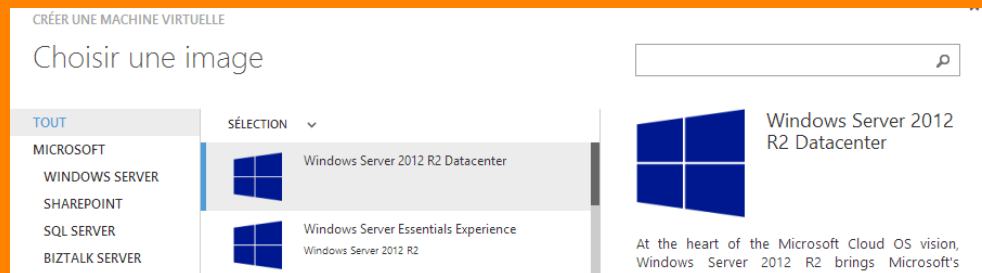
## 2 - DirSync



# Infrastructure as a Service

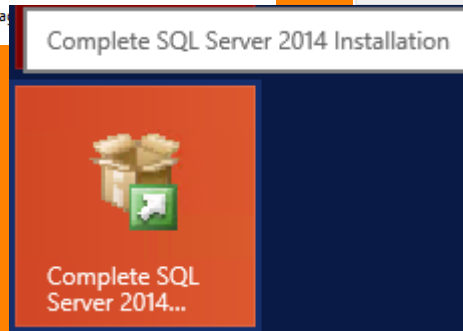
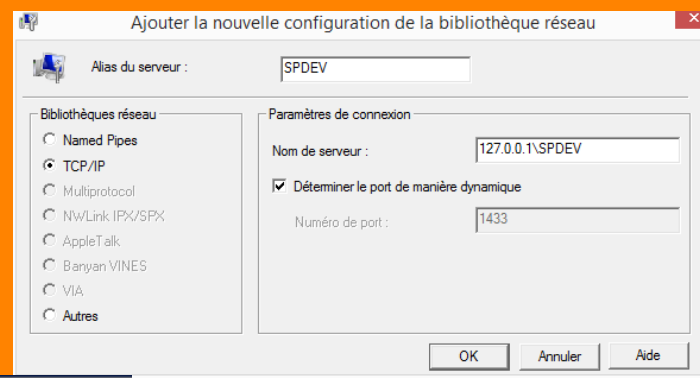
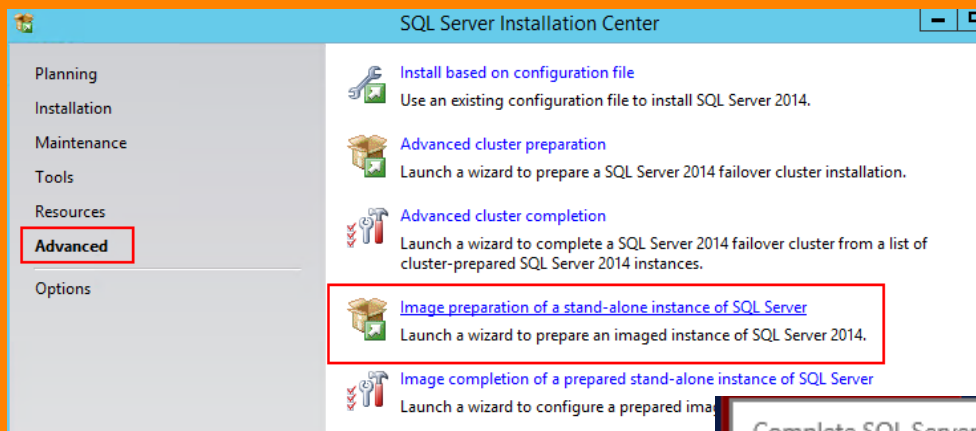
## 3 – Dev Template

- Windows Server 2012 R2 Updated
- Apply your configurations
  - IE Enhanced
  - Firewall
  - Remote Desktop
  - .NET Framework
  - Sources
  - ...



# Infrastructure as a Service

## Prepare an imaged instance of SQL 2014



# Infrastructure as a Service

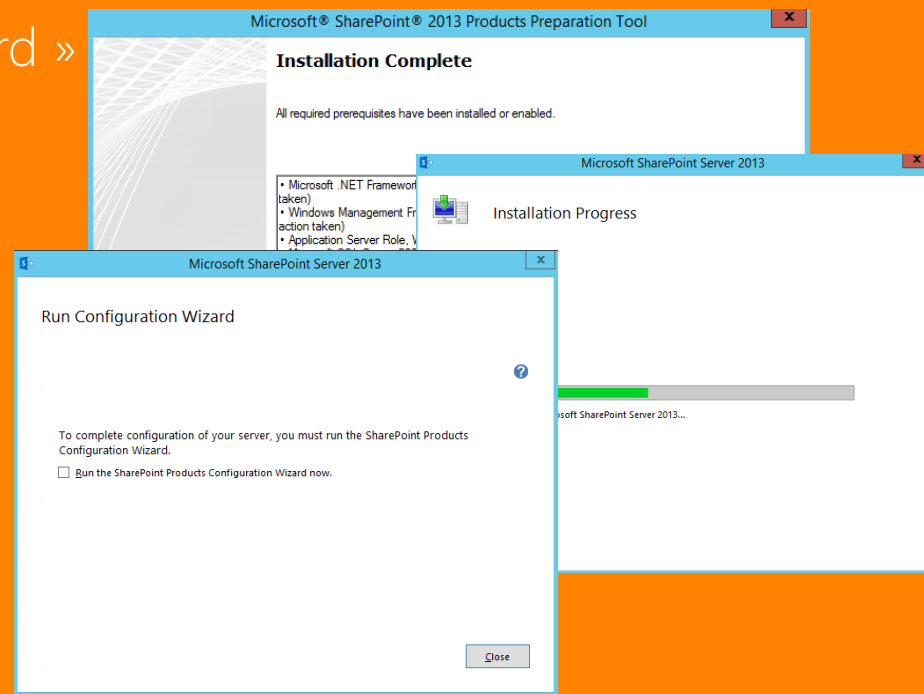
Install all SharePoint's prerequisites with some rebootss

Install SharePoint's binaries with SP1 (MSDN version)

Do not run the « Configuration Wizard »

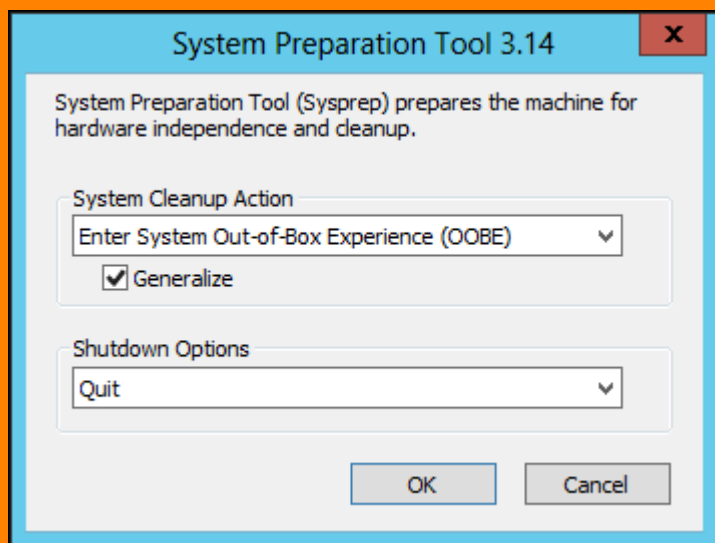
Configure your scripts sequence

This PC > Local Disk (C:) > Sources > SP > AutoSPInstaller				
Name	Date modified	Type	Size	
AutoSPInstallerConfigureRemoteTarget	1/10/2012 12:47 AM	Windows PowerS...	1 KB	
AutoSPInstallerFolderStructure	11/18/2013 10:44 ...	Text Document	2 KB	
AutoSPInstallerFunctions	3/1/2014 9:30 AM	Windows PowerS...	404 KB	
AutoSPInstallerFunctionsCustom	12/17/2012 5:02 PM	Windows PowerS...	1 KB	
AutoSPInstallerInput	4/9/2014 3:45 AM	XML File	60 KB	
AutoSPInstallerLaunch	3/25/2013 11:05 PM	Windows Batch File	3 KB	
AutoSPInstallerMain	4/9/2014 3:27 AM	Windows PowerS...	29 KB	



# Infrastructure as a Service

SysPrep your machine

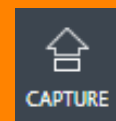


`C:\Windows\system32\sysprep\sysprep.exe /generalize /oobe /quit`

<http://social.msdn.microsoft.com/Forums/windowsazure/en-US/fafb9ee6-1e57-46ba-8440-27467ad986cf/image-capture-issue-vm-unexpectedly-started-after-guestinitiated-shutdown?forum=WAVirtualMachinesforWindows>

# Infrastructure as a Service

Capture your machine to save as a template



×

## Capture an image from a virtual machine

The operating system disk of the virtual machine is used to create an image that can be used to create new virtual machines. The virtual machine will be deleted after the image has been captured.

VIRTUAL MACHINE NAME

IMAGE NAME

☒ I have run Sysprep on the virtual machine ?

**IMPORTANT NOTE**

The virtual machine will be deleted when the image is captured.

✓

virtual machines					
VIRTUAL MACHINE INSTANCES					
NAME	STATUS	SUBSCRIPTION	LOCATION	DNS NAME	
VMPMSP	Stopped (Deallocated)	Visual Studio Premium avec MS...	AffIPMSP (East US)	pmsplabs.cloudapp.net	
VMPMSP1	Running	Visual Studio Premium avec MS...	AffIPMSP (East US)	pmsplabs.cloudapp.net	
VMPMSP3	Stopped	Visual Studio Premium avec MS...	AffIPMSP (East US)	pmsplabs.cloudapp.net	

virtual machines		
VIRTUAL MACHINE INSTANCES		
NAME	SUBSCRIPTION	STATUS
SharePoint_Dev	Visual Studio Premium avec MSDN	Available



# Infrastructure as a Service

CREATE A VIRTUAL MACHINE

## Choose an Image

ALL

MICROSOFT

- WINDOWS SERVER
- SHAREPOINT
- SQL SERVER
- BIZTALK SERVER
- VISUAL STUDIO
- DYNAMICS

UBUNTU

CENTOS

SUSE

ORACLE

PUPPET LABS

MY IMAGES

MY DISKS

MSDN

SUPPORTED

FEATURED

WINDOWS

SharePoint\_Dev

SharePoint\_Dev

OS FAMILY: Windows

SUBSCRIPTION: Visual Studio Premium avec MSDN

LOCATIONS: East US

PRICING INFORMATION

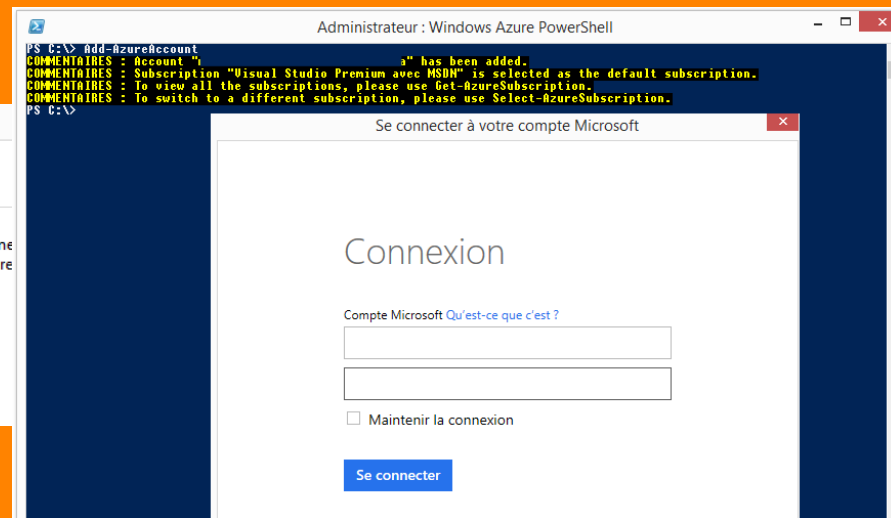
Pricing varies based on the subscription you select to provision your virtual machine.

2 3

# Infrastructure as a Service

Install the Microsoft Azure PowerShell Cmdlets

<http://azure.microsoft.com/en-us/documentation/articles/install-configure-powershell>



Get-AzureSubscription

Set-AzureSubscription -SubscriptionName "XX" -CurrentStorageAccountName "YY"

# Infrastructure as a Service

You are now able to create a VM based on your template

```
$newVM = New-AzureVMConfig -Name "VMPMSPDev"  
    -InstanceSize "Basic_A3"  
    -ImageName "SharePoint_Dev"  
    -HostCaching ReadWrite  
    -DiskLabel " VMPMSPDev _OS"  
    -MediaLocation "http://pmspstorage.windows.net/disk/ VMPMSPDev.vhd" |  
Add-AzureProvisioningConfig  
    -WindowsDomain -AdminUsername "Julien"  
    -Password "pass@word1"  
    -Domain "PMSP"  
    -DomainUserName "Admin"  
    -DomainPassword "pass@word1"  
    -JoinDomain "pimpmysharepoint.lan" |  
Set-AzureSubnet -SubnetNames "PMSP«
```

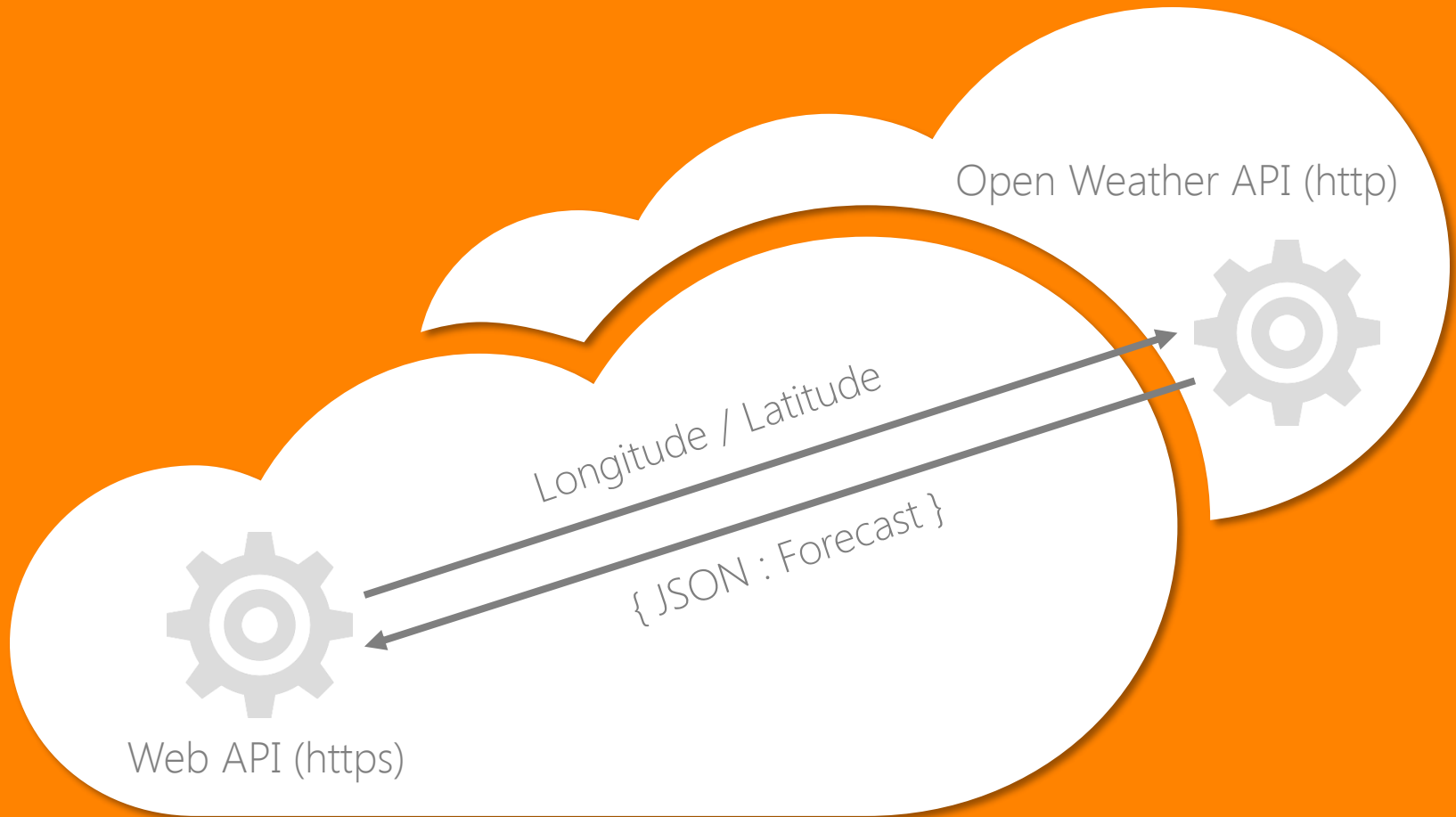
```
New-AzureVM -VMs $newVm -ServiceName "PMSPLabs"
```

VMPMSPDev	→	✓ Running	Visual Studio Premium avec MS... AffiPMSP (East US)	<a href="http://pmsplabs.cloudapp.net">pmsplabs.cloudapp.net</a>
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PaaS  
Develop solutions

# Weather Service



# Blob Storage



# Content Delivery Network

North America Region

Europe Region

Asia Pacific Region



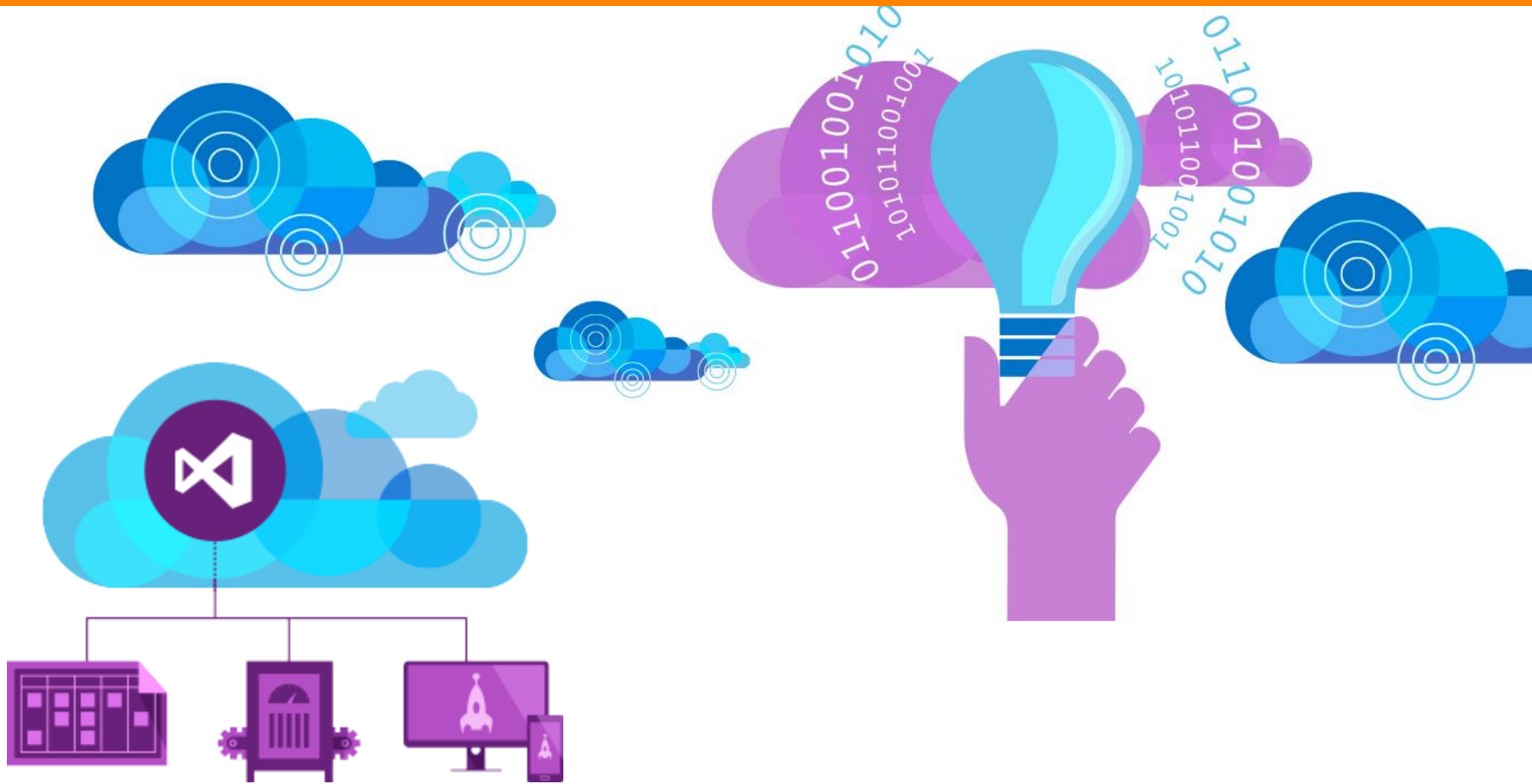
# SaaS

## Using services





# Visual Studio Online

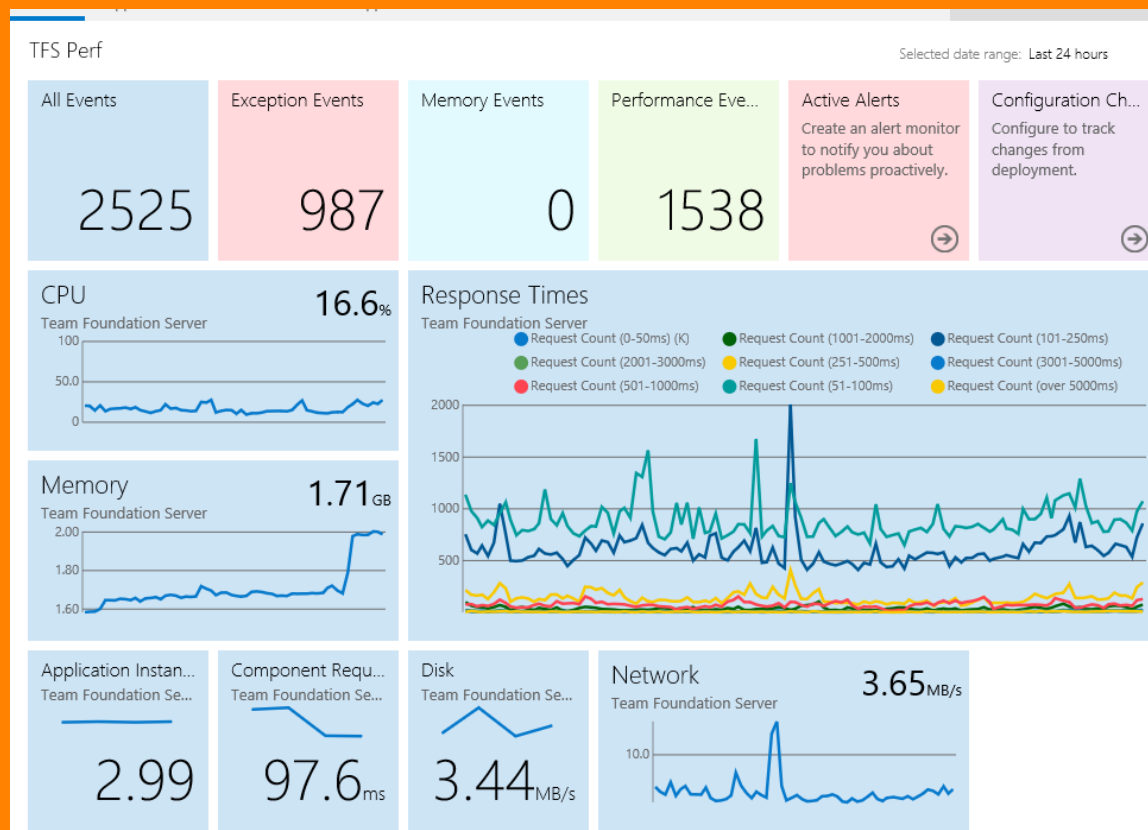


# Visual Studio Online



Visual Studio®

# Application Insights

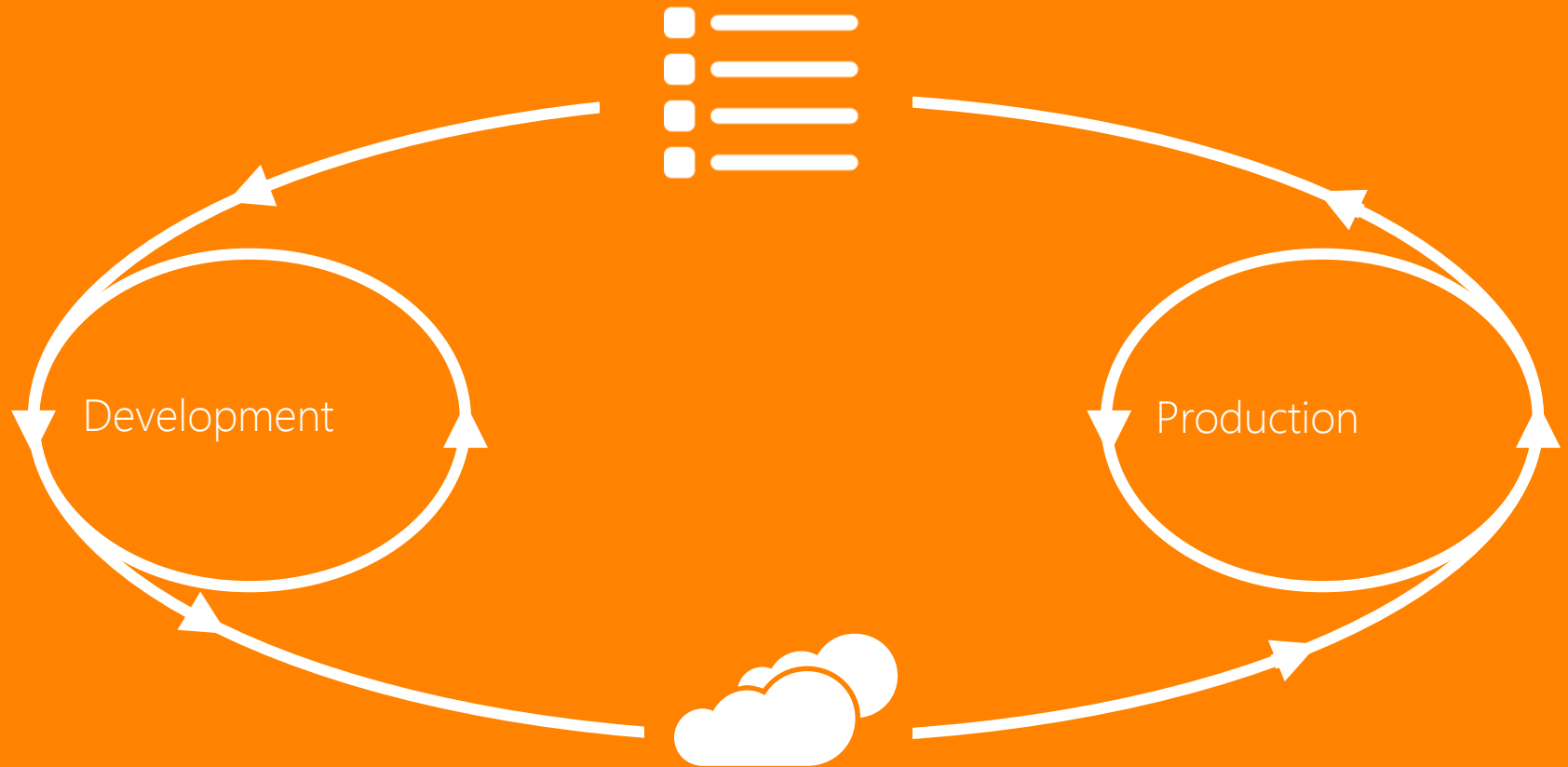




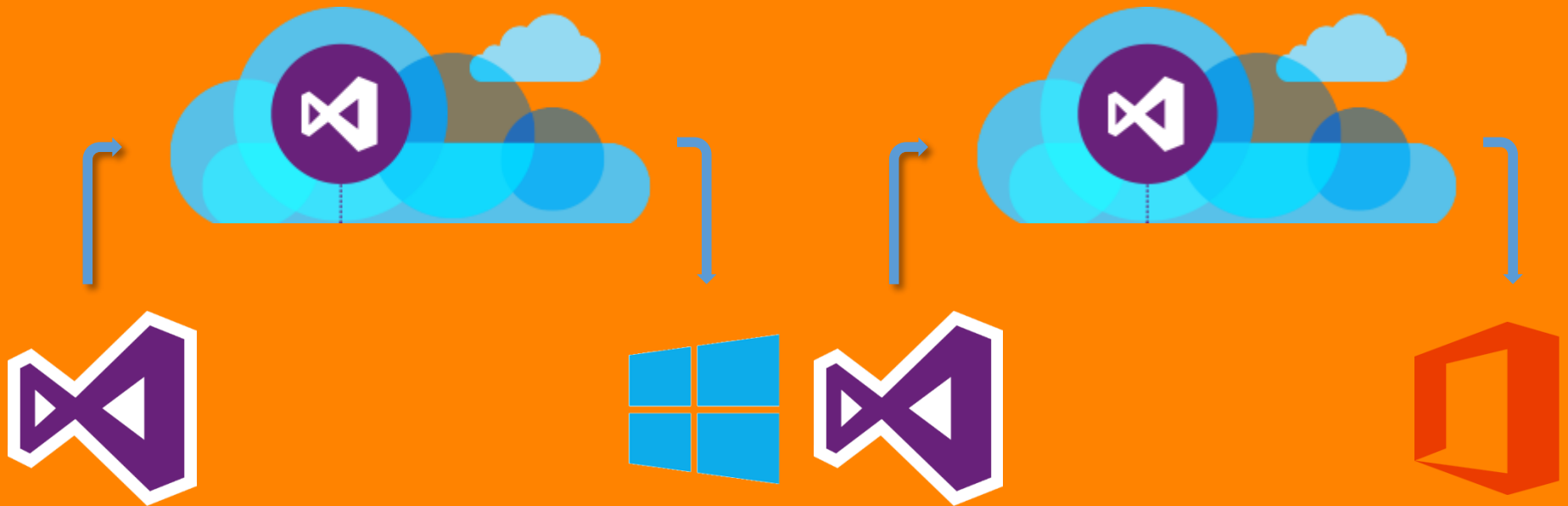
# DevOps

## Azure to the rescue

# ALM & Azure



# Builds & Continuous Integration



# New Azure Portal





Questions



# Montrealers' sessions

- Automating your SharePoint Deployments with TFS and Build Server"
  - Vlad Catrinescu (130, 8h30)
- Microsoft Azure: Central component of your SharePoint Online DevOps?"
  - Julien Stroheker, Sébastien Levert (130 9h45)
- How to use SP2013, O365 and Yammer to create a knowledge network
  - Nicolas Georgeault (117 11h00)
- SharePoint 2013: Managing access and security or sharing?"
  - Serge Tremblay (119, 1h15)
- Build your business portal on office 365 : the social company
  - Fabrice Vaxelaire, Vincent Biret (119, 2h30)

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&

Join us for SharePint today!

Date & Time: Immediately after prizes  
Location: Observatory Student Pub  
Address: On Algonquin Campus  
Parking: No need to move your car!\*

Site: <http://www.algonquinsa.com/ob.aspx>

\*Please drive responsibly! We are happy to call you a cab 😊