



# Cloud Foundry: Infrastructure Options

**Victoria Fedzkovich**  
Technical Evangelist

**Alex Khizhnyak**  
Director of Tech Communications

[www.altoros.com](http://www.altoros.com)  
[@altoros](https://twitter.com/altoros)



# Table of Contents



- Infrastructure Options for Cloud Foundry
- PaaS Deployment and Orchestration
- Communication via BOSH CPIs
- BOSH CPIs at GitHub
- Examples of Hardware Requirements
- Evaluation Criteria

# Infrastructure Options for Cloud Foundry



Cloud Foundry is infrastructure-agnostic;  
it can be deployed on:

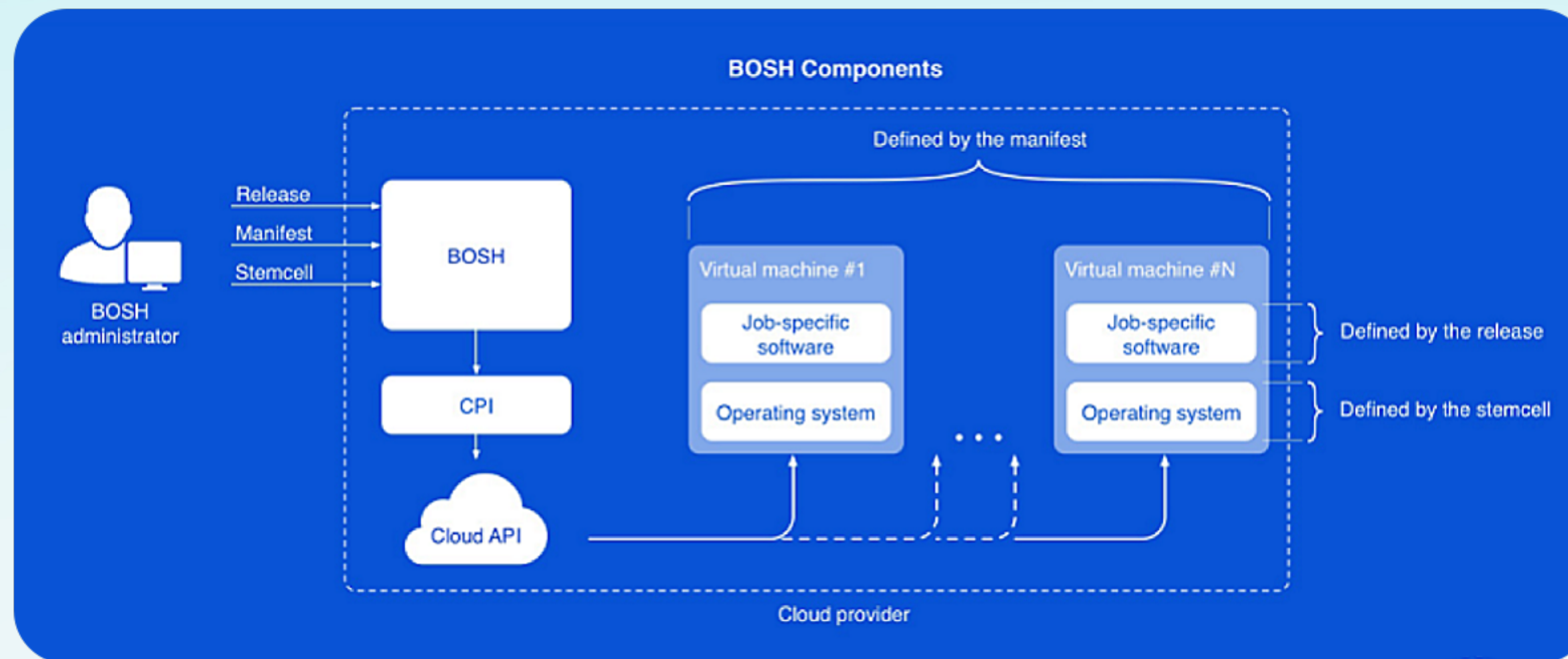
- an IaaS
- a virtualization platform
- a local machine



# Deployment and Orchestration

**BOSH:** a tool chain for Cloud Foundry deployment and management

**BOSH Lite:** a local Cloud Foundry deployment



# Communication via BOSH CPIs



BOSH interacts with an infrastructure layer through CPIs.

## BOSH CPIs

Amazon Web Services

vCloud

CloudStack

vSphere

+ Custom CPIs

Microsoft Azure\*

Warden/Garden

OpenStack

\* A Microsoft-native CPI for Azure has just arrived.

Work in progress: Google Compute Engine, SoftLayer, and more.

# BOSH CPIs at GitHub



Amazon Web Services	<a href="https://github.com/cloudfoundry-incubator/bosh-aws-cpi-release">https://github.com/cloudfoundry-incubator/bosh-aws-cpi-release</a>
CloudStack	<a href="https://github.com/cloudfoundry-community/bosh-cloudstack-cpi-release">https://github.com/cloudfoundry-community/bosh-cloudstack-cpi-release</a>
Microsoft Azure	<a href="https://github.com/cloudfoundry-incubator/bosh-azure-cpi-release">https://github.com/cloudfoundry-incubator/bosh-azure-cpi-release</a>
OpenStack	<a href="https://github.com/cloudfoundry-incubator/bosh-openstack-cpi-release">https://github.com/cloudfoundry-incubator/bosh-openstack-cpi-release</a>
vCloud	<a href="https://github.com/cloudfoundry-incubator/bosh-vcloud-cpi-release">https://github.com/cloudfoundry-incubator/bosh-vcloud-cpi-release</a>
vSphere	<a href="https://github.com/cloudfoundry-incubator/bosh-vsphere-cpi-release">https://github.com/cloudfoundry-incubator/bosh-vsphere-cpi-release</a>
Warden/Garden	<a href="https://github.com/cppforlife/bosh-warden-cpi-release">https://github.com/cppforlife/bosh-warden-cpi-release</a>



# Examples of Hardware Requirements



## Example 1. Installing Cloud Foundry on vSphere

	CPU	RAM	DISK	NIC
Minimum hardware requirements	2 physical cores	48 GiB	500 GB	1
Recommended hardware configuration for a CF POC	8 physical cores	128 GiB	1 TB	2

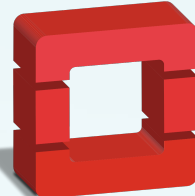
Source: [CF Docs](#)



# Examples of Hardware Requirements



## Example 2. Installing Pivotal CF on OpenStack

Instance	VM	RAM	vCPU	Storage	Network
22	<div>16 small VMs:</div> <ul style="list-style-type: none"><li>• 1 vCPU</li><li>• 1,024 MB of RAM</li><li>• 10 GB of root disk</li></ul> <div>3 large VMs:</div> <ul style="list-style-type: none"><li>• 4 vCPU</li><li>• 16,384 MB of RAM</li><li>• 10 GB of root disk</li></ul>	70 GB	32	1 TB	<div>Neutron networking with floating IP support</div> <div> openstack. CLOUD SOFTWARE</div>

Source: [Pivotal CF Docs](#)



# Evaluation Criteria

Things to consider when choosing a cloud provider:

- SLA
- Risk management
- Location
- Pricing
- Customer reference
- Benchmarks



# Want More? Download This Guide!



## Architect's Guide to Implementing Cloud Foundry

- Infrastructure offerings for CF
- Choosing an IaaS
- Hardware requirements for a CF deployment

**GET THE GUIDE**



<http://paas.ly/1Q6fXvP>

## Related Information:

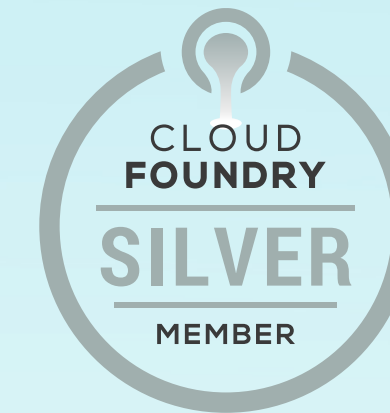
[How to Add BOSH Support to a Custom Cloud](#)



# In Case You Need Assistance...



Altoros deploys and integrates solutions offered by the Cloud Foundry ecosystem.



Consulting

Training

Integration

Managed Services



Pivotal CF



vmware®



We're behind some of the world's largest Cloud Foundry deployments!

# Altoros Fact Sheet



**250+**  
Employees



Established in  
**2001**



**800+**  
Implemented  
projects



**91.5%**  
Senior/mid-level  
engineers



**94%**  
of customers  
recommend Altoros



**100+**  
Workshops  
organized





# Thank You!



**Victoria Fedzkovich**  
Technical Evangelist

**Questions?**

[engineering@altoros.com](mailto:engineering@altoros.com)

**Subscribe to new research:**

[blog.altoros.com](http://blog.altoros.com)

**Cloud Foundry overviews:**

[www.altoros.com/cflive](http://www.altoros.com/cflive)

**Daily tech insights:**

[@altoros](https://twitter.com/altoros)



**Alex Khizhnyak**  
Director of Tech Communications  
[@alxkh](https://twitter.com/alxkh)

**Further reading**

(Benchmarks and tech studies):

[www.altoros.com/research-papers](http://www.altoros.com/research-papers)