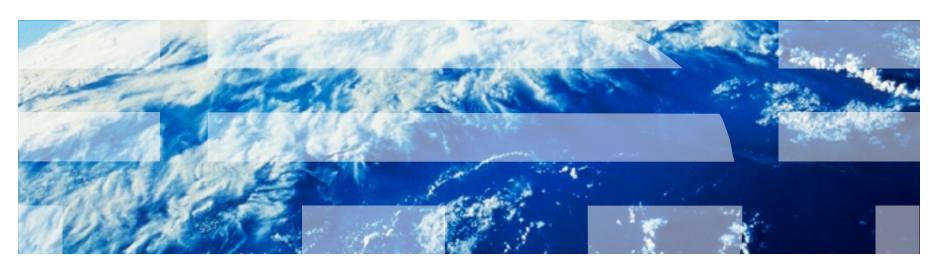# IBM BlueMix Introduction
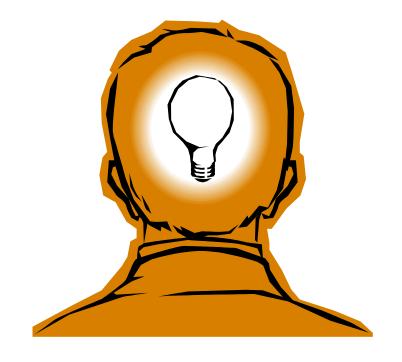
Jeffrey Liu
Senior Software Engineer
IBM China Development Lab

The next billion dollar idea starts with a single developer.

That developer starts with a single line of code

Translates into an application development environment that…

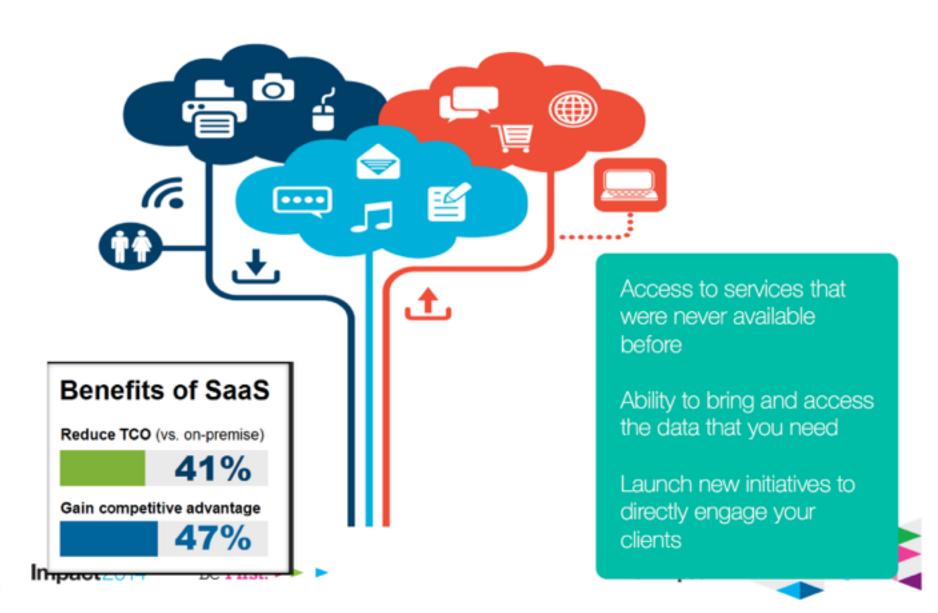Brings the best of born-on-the-cloud development without leaving behind enterprise data and services

Combines the flexibility of a platform as a service (PaaS) with existing suites of software as a service (SaaS)

Offers freedom of choice to use any software or open technologies

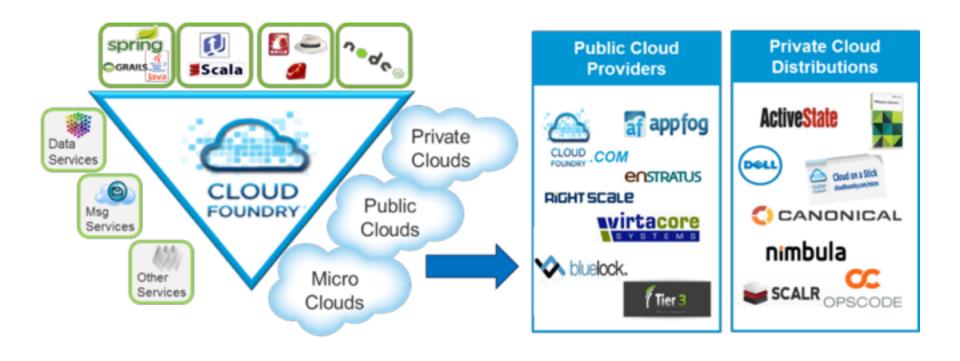Scales from a single developer to global teams

Enables a massive and open ecosystem built on open standards

Cloud opens up new possibilities for developers

Benefits of SaaS

Reduce TCO (vs. on-premise)
41%

Gain competitive advantage
47%

Access to services that were never available before

Ability to bring and access the data that you need

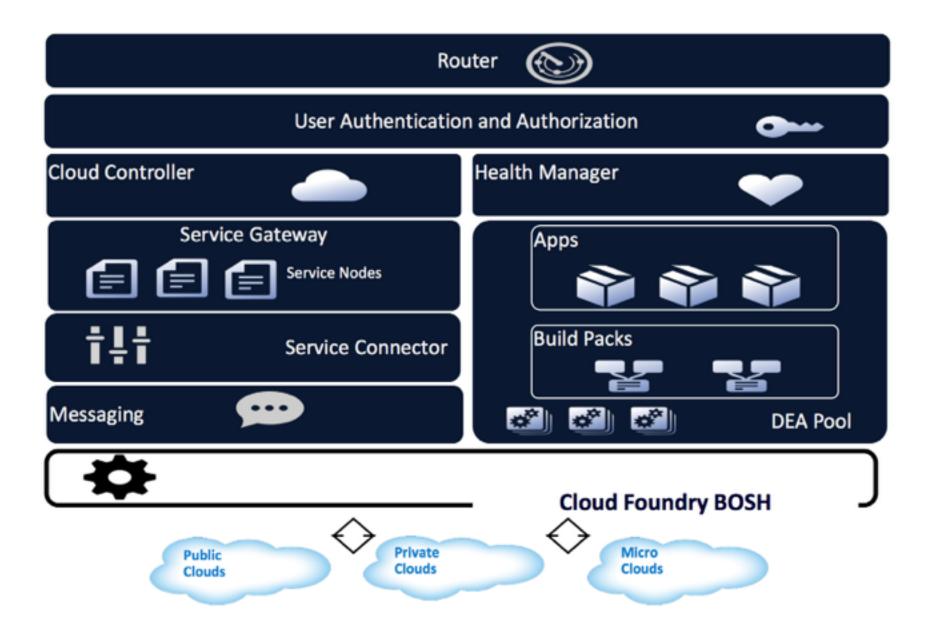Launch new initiatives to directly engage your clients

*An open platform-as-a-service (**PaaS**). The system supports **multiple** frameworks, **multiple** application infrastructure services and deployment to **multiple** clouds.*
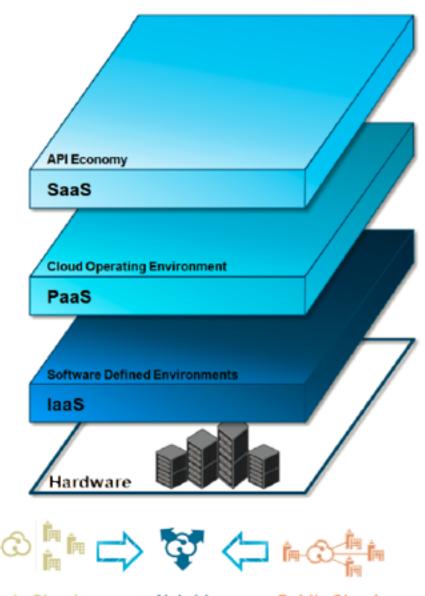

Making Multi-Cloud a Reality

Cloud Foundry architecture

IBM

Router

User Authentication and Authorization

Cloud Controller

Health Manager

Service Gateway

Service Nodes

Apps

Service Connector

Build Packs

Messaging

DEA Pool

Cloud Foundry BOSH

Public Clouds

Private Clouds

Micro Clouds

IBM Cloud computing layers

Business Applications as components
Service Oriented Architecture
(Bluemix)

Platform Services
(Bluemix)

Infrastructure Services
(SoftLayer)

API Economy
SaaS

Cloud Operating Environment
PaaS

Software Defined Environments
IaaS

Hardware

Private Clouds   **Hybrid**   **Public Clouds**

What is Bluemix?

Bluemix is an **open-standard**, cloud-based **platform** for **building**, **managing**, and **running applications of all types** (web, mobile, big data, new smart devices, and so on).

Go Live in Seconds
The developer can choose any language runtime or bring their own. Zero to production in one command.

APIs and Services
A catalog of IBM, third party, and open source API services allow the developer to stitch an application together in minutes.

On-Prem Integration
Build hybrid environments. Connect to on-premise assets plus other public and private clouds.

DevOps
Development, monitoring, deployment, and logging tools allow the developer to run the entire application.

Layered Security
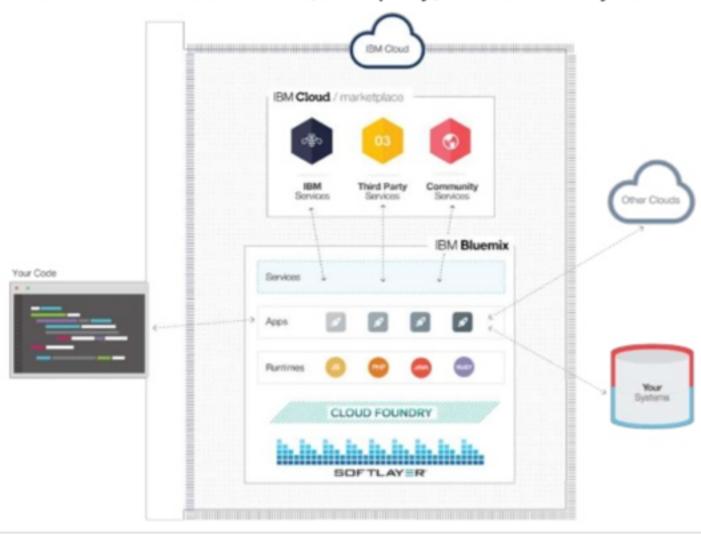IBM secures the platform and infrastructure and provides you with the tools to secure your apps.

Flexible Pricing
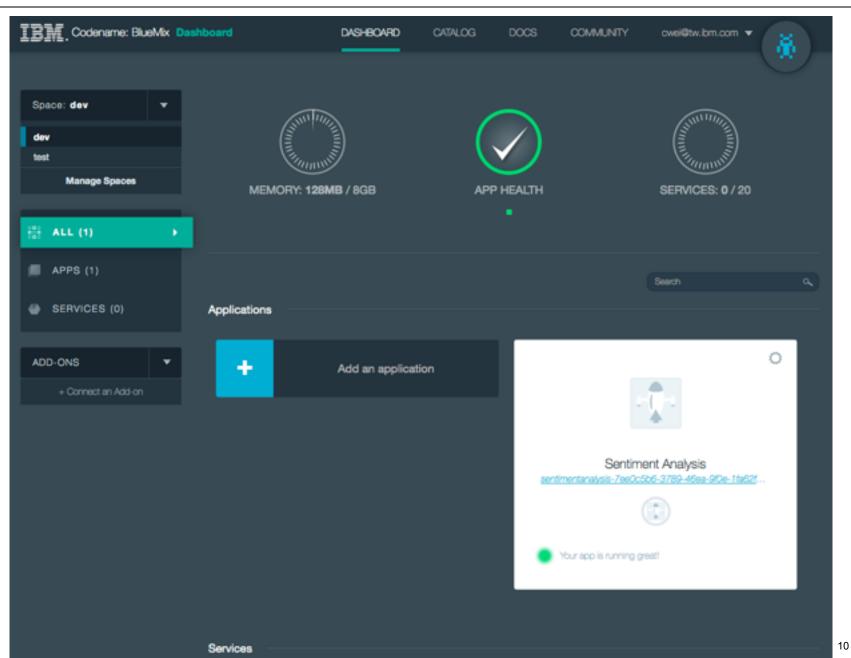Sign up in minutes. Pay as you go and subscription models offer choice and flexibility.

9

How does Bluemix work?

Bluemix **embraces** Cloud Foundry as an **open source Platform** as a Service and **extends** it with IBM, third party, and community built services.
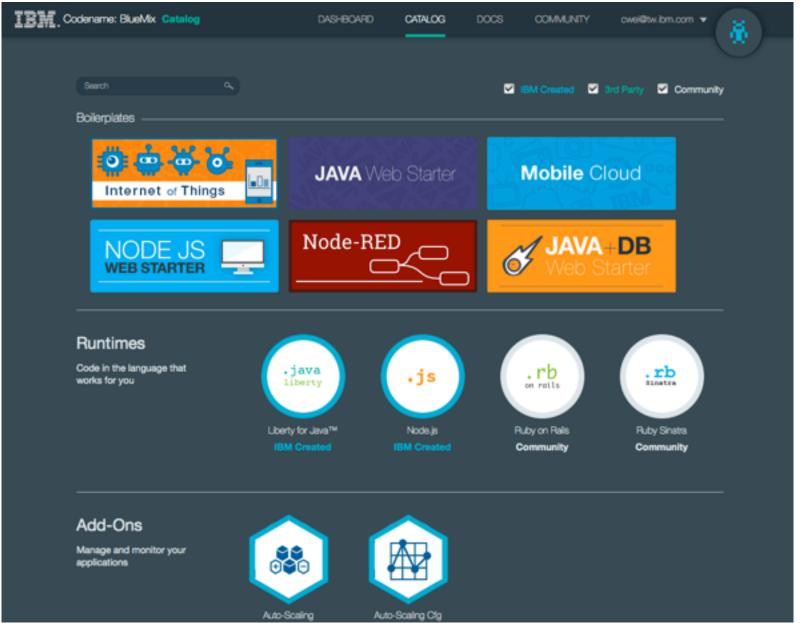
BlueMix UI – Dashboard

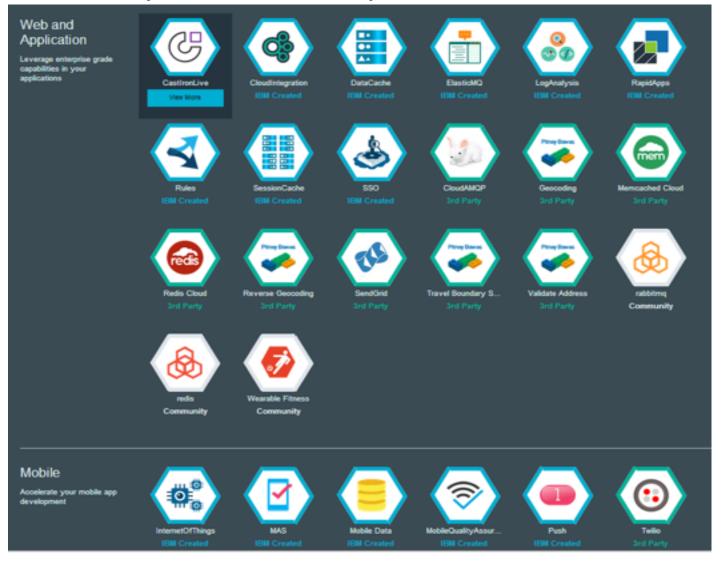# BlueMix UI – Catalog

App Runtimes

Runtimes in the BlueMix represent different buildpacks that are provided. Each runtime is an application with a starter application code deployed, and a starter application is a template so that you can use it directly with the existing buildpack from BlueMix user interface.

Services

A service is a piece of code that BlueMix hosts. And the service offers a piece of functionality for applications to use. BlueMix provides a set of predefined services that can you can use directly

IBM DevOps Services

- DevOps Solution in the cloud for building mobile and cloud applications

- Optimized for use with BlueMix

- Integrated task tracking, agile planning, source control with auto deploy

- Use your favorite tools or work from the Web IDE

- Hosted Jazz SCM or Git or link to GitHub

- Public and private projects

- Continuous Integration and Deployment with Jenkins

- Mobile quality and application performance monitoring (coming)

Powered by JazzHub

Useful links

- IBM cloud marketplace
  http://www.ibm.com/cloud

- IBM BlueMix
  https://ace.ng.bluemix.net/

- IBM BlueMix introduction
  https://www.ibmdw.net/bluemix/docs/about/

- Getting started with BlueMix and JazzHub
  https://hub.jazz.net/tutorials/jazzeditor

www.ibm.com