

IBM

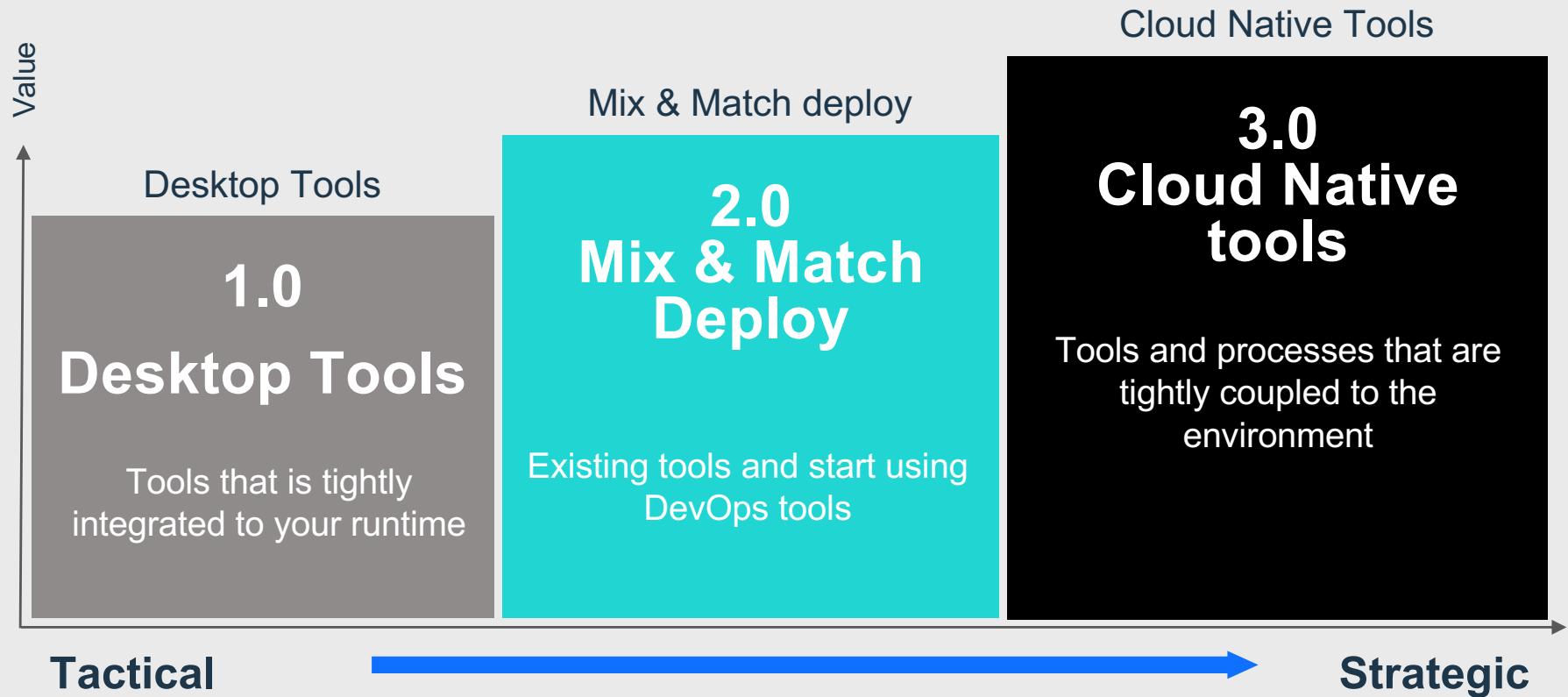
Microclimate

Overview and Strategy



IBM Cloud

The cloud has evolved as the technology for transformation



Multi-cloud is the key to organizational agility

8 out of 10 committing to Multi-Cloud

71% use 3 or more clouds



Getting new value from
third parties



Extracting value from
your entire business

Need tools that take advantage of the cloud
platform

<https://microclimate-dev2ops.github.io/>

Microclimate Projects 

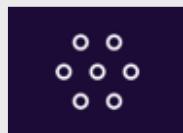
Welcome to Microclimate

Ready for a fast, incremental, intelligent, end-to-end development experience that puts you in charge? Create a new project to get started!



New project Import project

Microclimate - an end to end development platform to develop, build, test and deploy code



Choice with consistency



Hybrid integration



DevOps productivity



Powerful, accessible data and analytics



Cognitive solutions

Get started quickly with choice of programming languages

Fast development cycle to develop, build, test to maximize team agility

Integrated DevOps experience that supports deployment to IBM Cloud Private

Seamless Experience

Regardless of where your development experience started, you get a single, seamless experience.

Key use cases

1

Simplify the creation
and deployment of
microservices

2

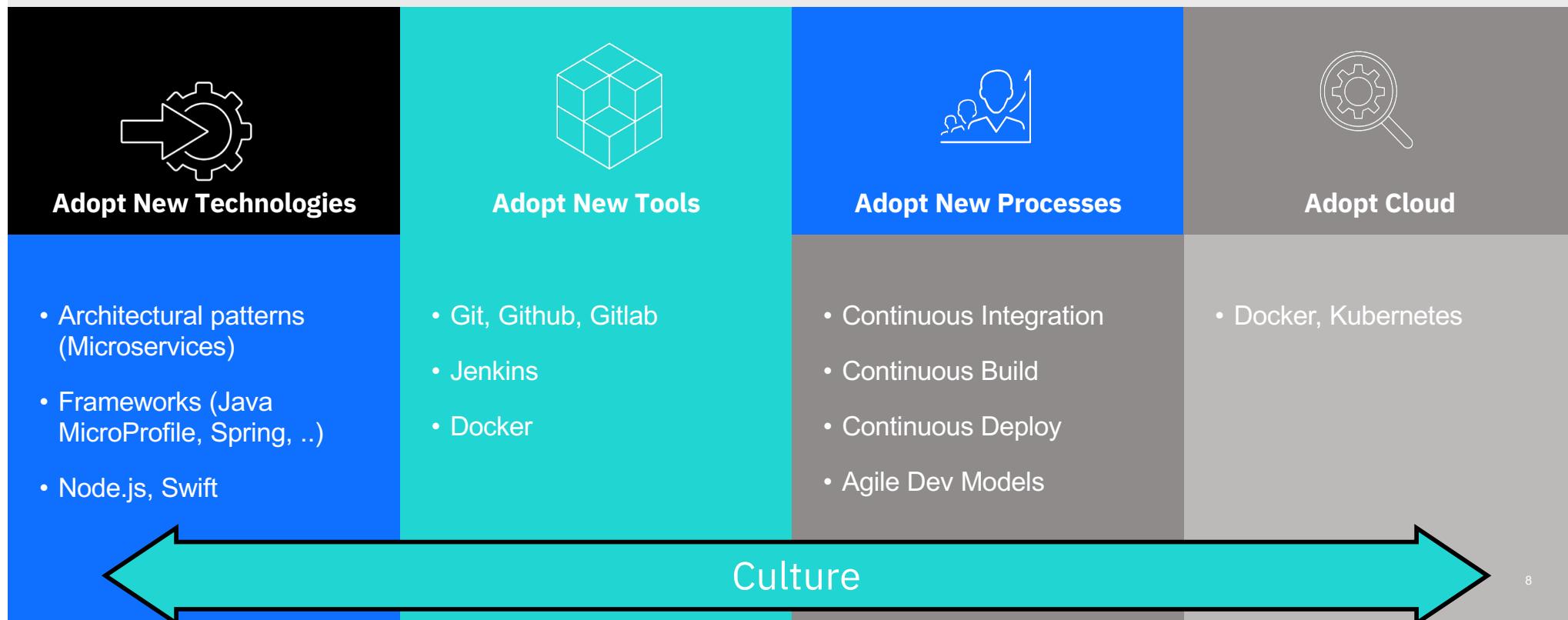
Modernize and
optimize existing
applications

3

Embrace new
programming practices
such as agile and
DevOps



Microclimate supports your entry point for transformation:



Built with open standards, to support developer choice



Support for popular Java stacks including Java EE/MicroProfile and Spring

Java



Multiple language support for Node and Swift

Polyglot



Speed and agility with safety using integrated DevOps

Pipeline



Manage containers at scale

Containers

Solution overview



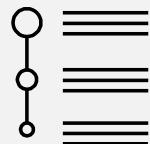
Quick start samples and import capability

Get started quickly and stay on pace



Rapid iteration

Quickly enhance, build and test



Intelligent feedback and diagnostics

Fast development with real time feedback

Integrated DevOps pipeline

Get into production fast with a preconfigured DevOps pipeline



kubernetes

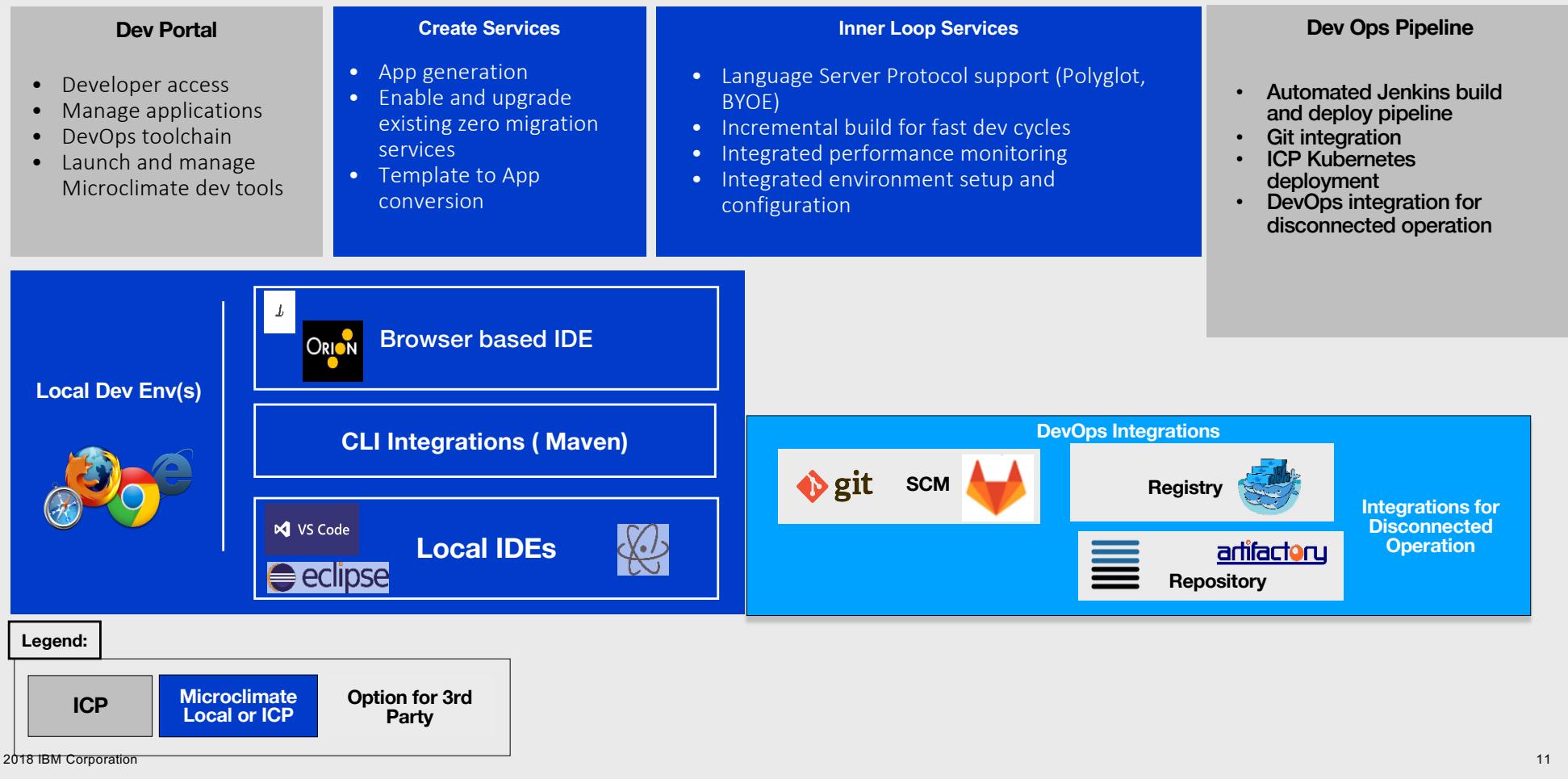
Free download to run locally or on IBM Cloud Private



Strategic Value:

Integration with IBM Cloud Private gives you an integrated developer platform for developing, building, testing, deploying code

Microclimate scope



Different ways to begin

Create new cloud native applications using:

- Java (MicroProfile, Spring Cloud)
- Node
- Swift

OR

Import an existing service from:

- Git repository
- Local disk
- Archive

The image contains two screenshots of the Microclimate application interface. The top screenshot shows the 'Projects' screen with a dark header bar containing 'Microclimate' and 'Projects'. Below the header is a search bar with a magnifying glass icon and the word 'Search'. The main area is titled 'Projects' and lists two items: 'nodeapp' (Language: node) and 'test1' (Language: node). The bottom screenshot shows the 'Import project' screen. It has a dark header bar with 'Microclimate' and 'Import project'. Below the header is a 'Select location' section with three options: 'GitHub' (selected, with URL 'https://github.ibm.com/dev-ex/mcholidays.git'), 'Local project' (with 'Select project folder' button), and 'Project archive' (with 'Select archive file' button). At the bottom of the screen are 'Cancel' and 'Next' buttons.

Rapid onboarding and app creation

The screenshot shows the Microclimate web interface. At the top, there's a navigation bar with 'Microclimate' and 'Projects'. Below it, a 'Projects' section has a search bar. A 'Create New Project' button is visible. On the left, there's a 'Select a project language and name' dropdown with options like 'nodeapp' (Language: node), 'test1' (Language: node), '.java', '.js', and '.swift'. A 'Project name:' input field and 'Next' and 'Cancel' buttons are at the bottom.

Hosted on ICP, containerized install, or command line tools



Web-based IDE supporting full lifecycle or BYOE

The screenshot shows the Microclimate web IDE. It features a code editor with Node.js code for a 'server.js' file, which includes imports for 'appmetrics-dash', 'appmetrics-prometheus', 'logger', 'express', 'services/service-manager', and 'topojs'. It also shows a terminal window with the command 'node server.js' and its output.

Included web IDE or bring your own



Powered by

Language Server Protocol (LSP)

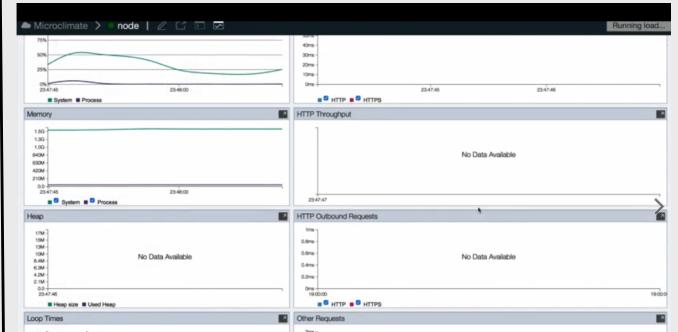
Edit

Rapid Dev Cycle (Inner Loop)

Test

Compile

Instant monitoring and feedback



Consistent tools from dev to ops

Language server protocols

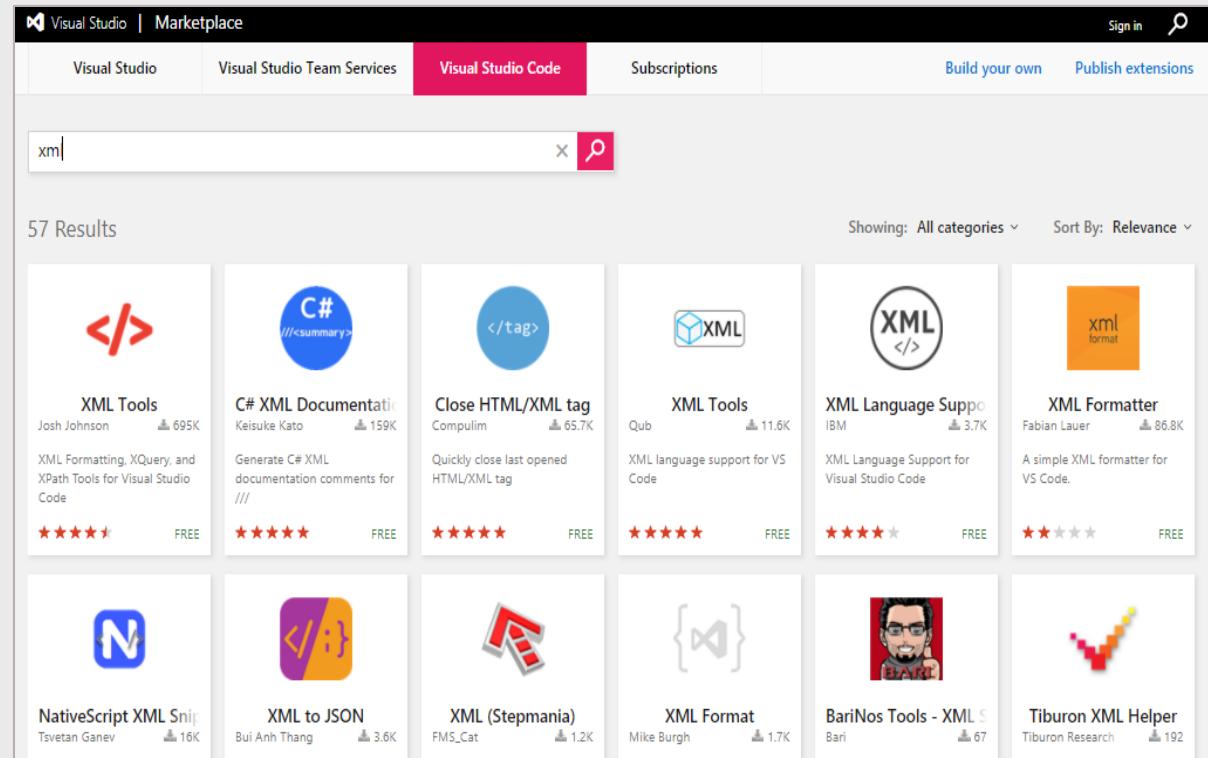
Language Server Protocol (LSP) provides for language services with an uplift to cognitive capabilities on cloud for supporting editors.

1

The Language Server Protocol allows for decoupling language services from the editor so services may be contained within a general purpose *language server*.

2

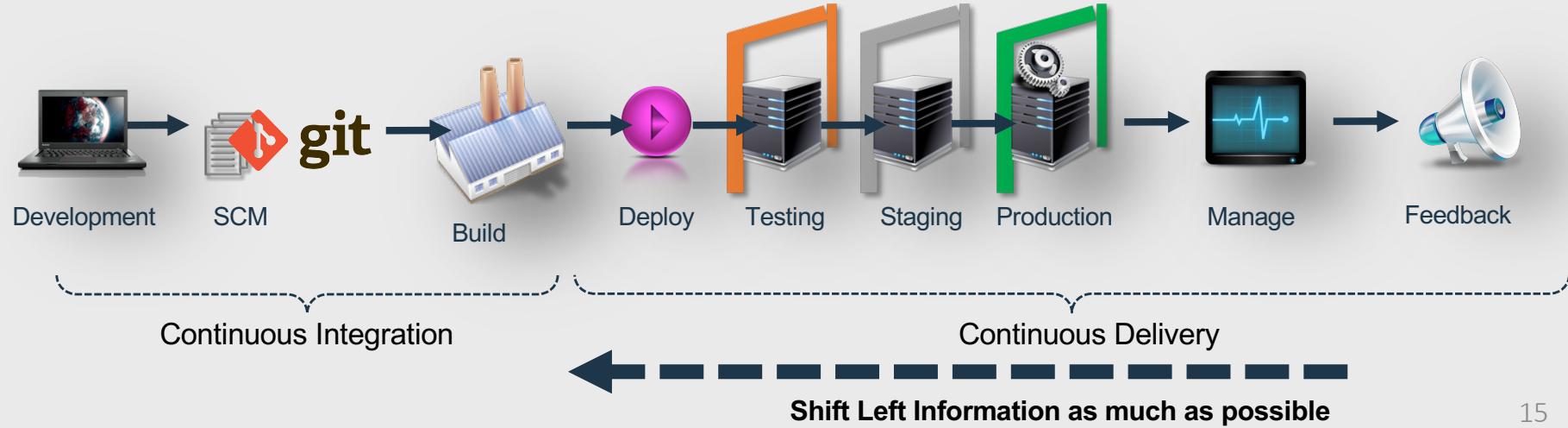
Any editor can inherit sophisticated support for many different languages by making use of existing language servers.



Dev-Ops-Dev-Ops-Dev...

Innovate and improve client experience by speeding the customer feedback loop by being agile.

Flow information back to development by bringing ops information back to dev allowing the team to work on constant improvement.



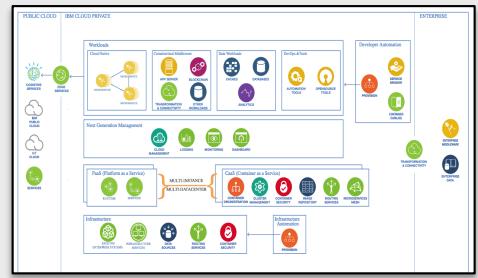
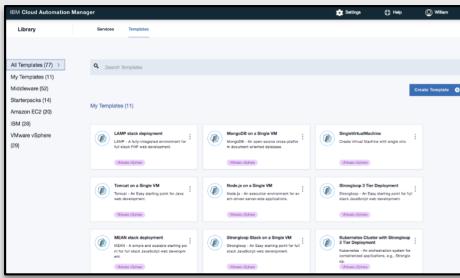
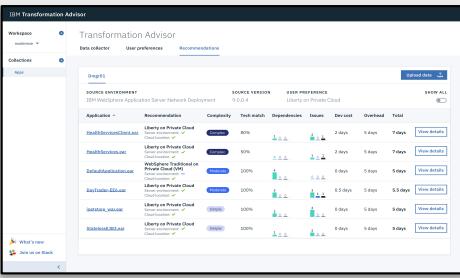
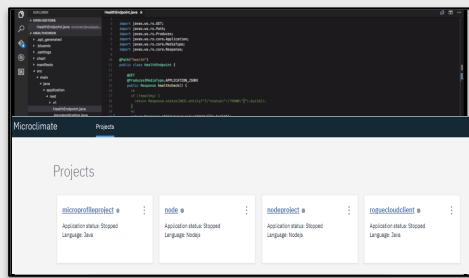
Microclimate DevOps Pipeline

The screenshot shows the Microclimate interface with the 'Pipeline' tab selected in the sidebar. The main area displays a message: 'Wait a second... there isn't a pipeline setup yet. We should probably take care of that.' Below this message is a stylized illustration of a complex network of pipes and valves. At the bottom of the screen is a blue button labeled 'Create pipeline'.

Easily create a new pipeline in Microclimate by providing the repository location and the necessary credentials.

The screenshot shows the 'Create pipeline' form within the Microclimate interface. The form includes fields for 'Repository location' (set to <https://github.com/user/test>), 'Authentication required' (checked), 'User' (username field), 'Password' (password field), and 'Auto-build' (checkbox set to 'On'). A tooltip for 'Auto-build' explains: 'Automatically trigger the build whenever code changes are pushed to the repository.' At the bottom is a blue 'Create pipeline' button.

Microclimate – Part of the solution to accelerate modernization



Microclimate

End-to-End development experience

Transformation Advisor

Assess and plan
Prescriptive guidance

Cloud Automation Manager

Multi-cloud provisioning and management

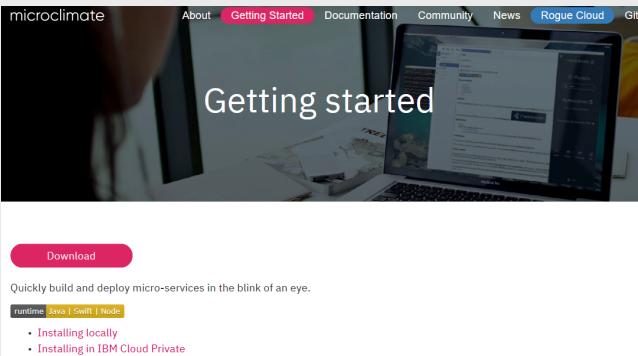
IBM Cloud Garage

Best practices
Reference architectures

Microclimate – Get started

Via home page

<https://microclimate-dev2ops.github.io/gettingstarted>

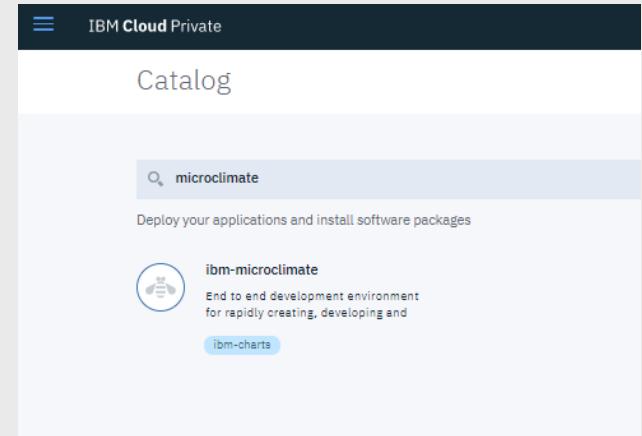


Freely Available

1. Download from Microclimate home page to run locally (ILAN license)
2. Install into IBM Cloud Private from the ICP Catalog (supported with ICP license)

Use with IBM Cloud Private Community Edition

Via IBM Cloud Private Catalog



Resources

Resources

Home Page

- Microclimate overview
- Introductory videos
- Documentation

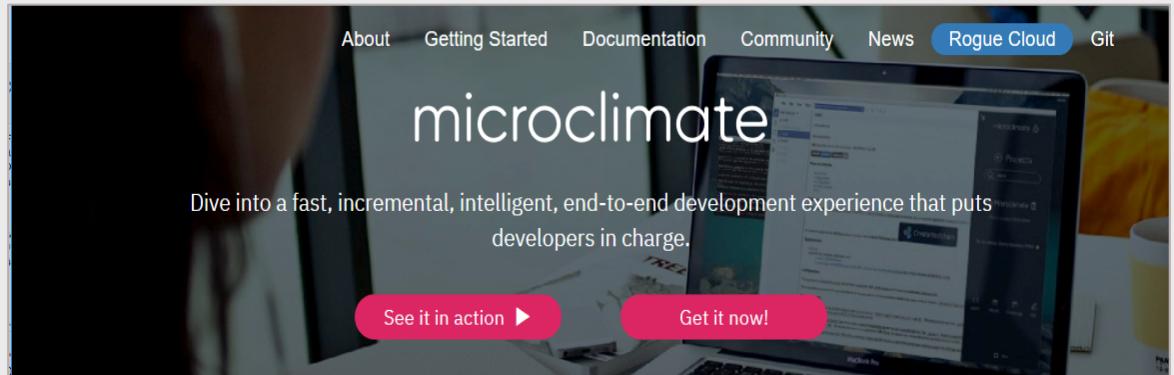
<http://ibm.biz/dev2ops>

Rogue Cloud Game

- Rogue Cloud overview
- Introduces Microclimate through a game experience
- Documentation



[External Slack Channel](#)



Microclimate is an end to end development environment that lets you rapidly create, edit, and deploy applications. Applications are run in containers from day one and can be delivered into production on Kubernetes through an automated DevOps pipeline using Jenkins. Microclimate can be installed locally or on IBM Cloud Private.

