

# Open Liberty Overview

October 11, 2017

# Business challenge: deliver innovation...

- ✓ that attracts and retains developer talent
- ✓ using short development cycles and DevOps processes
- ✓ that optimizes existing investments
- ✓ that fits seamlessly into a hybrid cloud model

“Through 2019, every USD1 enterprises invest in innovation will require an additional USD7 in core execution.”

Gartner 2019 prediction:  
<http://www.gartner.com/newsroom/id/3482117>

The raw building blocks for innovation and disruption:

## Open source

- Community innovation
- Lower cost of entry
- Developer preference

+

## Microservices

- Engineered for the cloud
- Increased resilience
- Independent lifecycle

+

## Containers

- New unit of deployment
- DevOps and agility
- Multi-cloud support

# Introducing Open Liberty – WebSphere open source



- Provides a subset of the proven WebSphere Liberty codebase as an open project on GitHub
- Reflects IBM's commitment to making the WebSphere portfolio easily consumable by developers
- Demonstrates our ongoing commitment to open standards, open innovation, and open source
- Combines MicroProfile with Java EE for additional capabilities targeting microservice developers

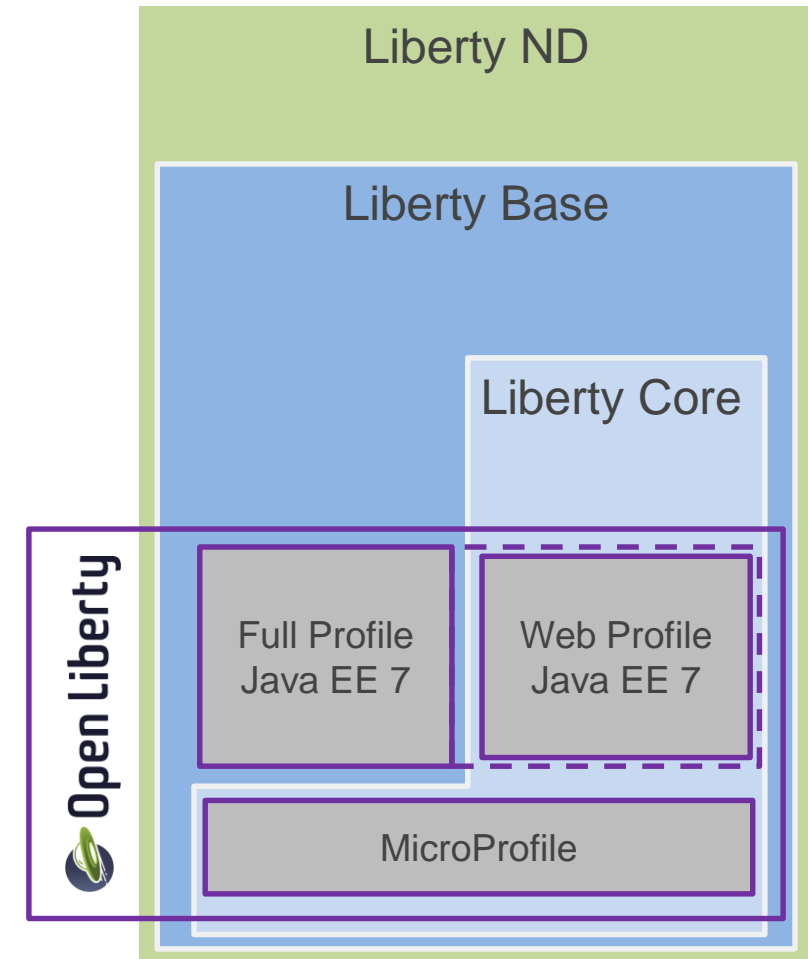
# Open source as the foundation to WebSphere

Open Liberty provides a proven open source foundation for the WebSphere Liberty portfolio that is built on top...

- Liberty Core offers supported Web Profile
- Liberty Base offers supported Full Profile
- Liberty ND offers supported Full Profile and support entitlement to Microservice Builder

All 3 commercial editions provide additional capabilities:

- ✓ Programming model extensions
- ✓ Production quality of service extensions
- ✓ Security extensions
- ✓ *And IBM's full support*



# WAS Liberty editions

	Open Liberty	Liberty Core	Liberty Base	Liberty ND
<i>WebSphere portfolio runtime:</i>				
Open source foundation	✓ (Open Liberty)	✓ (Open Liberty)	✓ (Open Liberty)	✓ (Open Liberty)
Java EE 6 Web Profile		✓	✓	✓
Java EE 6 Full Profile			✓	✓
Java EE 7 Web Profile	✓	✓	✓	✓
Java EE 7 Full Profile	✓		✓	✓
MicroProfile programming model	✓	✓	✓	✓
Security Extensions		✓	✓	✓
API Extensions		✓	✓	✓
Production QOS Extensions		✓	✓	✓
Supported in production		✓	✓	✓
Open source database integration, WebRTC, Batch			✓	✓
Collectives, Health Management, Dynamic Routing				✓

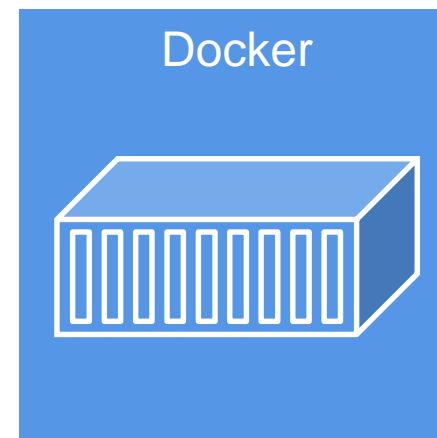
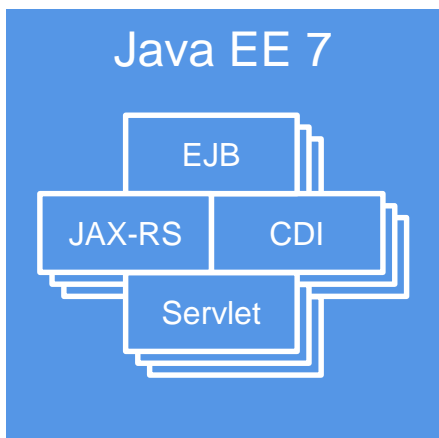
## *Production Support for Microservice Builder capabilities:*

Jenkins pipeline, Zipkin and opentracing, elastic search, log monitoring, certificate management for secure clusters				✓
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# Open Liberty

A lightweight open source server runtime that can be ideal for building Java microservices and cloud-native apps

*Easier to consume; Deploy on any cloud; Seamlessly transition to supported WebSphere*



for seamless  
integration with  
your existing WAS<sup>1</sup>  
investment

for building  
microservices  
and cloud-native  
apps

for community  
contributions  
and ecosystem  
integration

for ease of  
inclusion in a  
DevOps build  
pipeline

easily upgraded  
to WebSphere  
Liberty for  
support

# Eclipse MicroProfile Project: Microservice innovation

- Vendor-neutral programming model, designed in the open, for Java microservices
- Provide core capabilities for building fault tolerant, scalable, microservices
- Increasing the rate and pace of innovation beyond Java EE



## Standardizing microservices in enterprise Java via the MicroProfile community

Fault Tolerance	Config	Healthcheck	Metrics	Tracing
build robust behavior to cope with unexpected failures	externalize configuration to improve portability	ensure services are running and meeting SLAs	understand the interactions between services while running	resolve problems in complex distributed systems

Invite your developers to join the MicroProfile community and influence the future

# Open Liberty license and contributions

- Open Liberty is available for download from GitHub
- Provided under the Eclipse Public License (EPL)
  - Eclipse Public License is a permissive license

Eclipse License



## Code Contributions

- IBM accepts contributions through GitHub pull requests accompanied by a contributor license agreement.



## IBM Stewardship

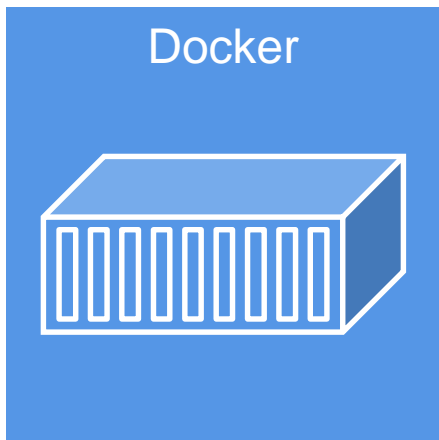
- IBM provides stewardship of Open Liberty to protect the existing investment our clients have in WebSphere.
- IBM helps ensure that quality is maintained across all IBM platform offerings including IBM® z/OS®



# Downloads, Docker and DevOps

## Get started with a simple download

- Visit <http://openliberty.io> to find the latest Open Liberty builds
- Incorporate Open Liberty into your DevOps process

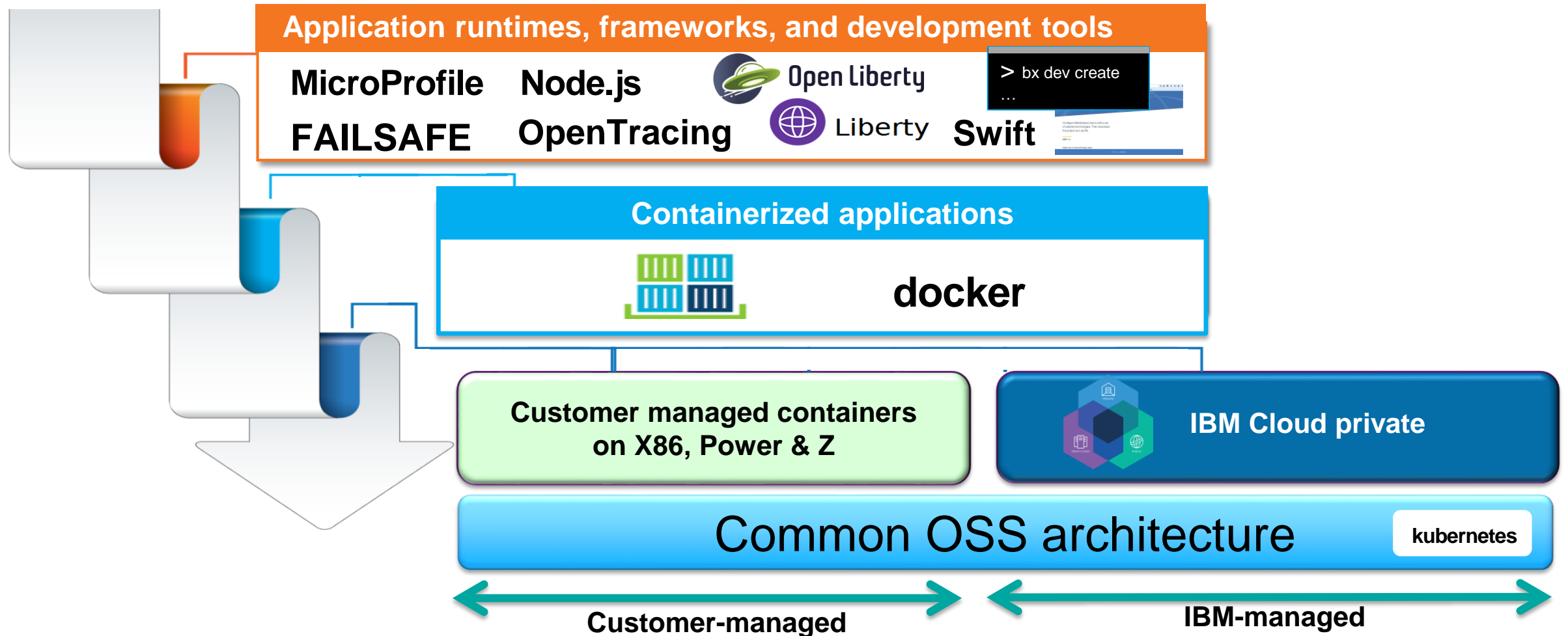


Use Open Liberty in a pre-built Docker container from Docker Hub as part of your DevOps pipeline, or as part of the end-to-end pipeline provided by Microservice Builder.



# Microservice Builder

Accelerate the creation and deployment of microservice, hybrid, and containerized applications, targeting Kubernetes-based Docker clouds: in Bluemix or on-premises



# Upgrade your support

Because Open Liberty shares a codebase with the WebSphere portfolio upgrading to WebSphere Liberty is seamless and provides IBM's world class support...

## Community support:

- Raise issues against the GitHub repository
- Ask questions on stackoverflow
- Discuss with the community on Groups.io



## IBM Support:

- answers to deployment, migration, and code questions
- access to fixes in real time
- troubleshooting tools and problem prevention
- 24 hour rapid response to severity 1 support issues
- latest versions and releases of your installed software
- incremental enhancements
- security patches



Available 24 hours a day, seven days a week, IBM Support provides protection for all of your IBM software, infrastructure and systems investments.



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# WebSphere Editions and Feature Map including Open Liberty

zOS		zosRequestLogging-1.0	batchSMFLogging-1.0	zosSecurity-1.0	
		zosConnect-1.2	zosTransaction-1.0		
		zosLocalAdapters-1.0	zosWlm-1.0		
ND		clusterMember-1.0	collectiveController-1.0		
		healthAnalyzer-1.0	scalingController-1.0		
		healthManager-1.0	scalingMember-1.0		
			dynamicRouting-1.0		
Base		rtcomm-1.0	rtcommGateway-1.0	wsAtomicTransaction-1.2	wsSecurity-1.1
		cloudant-1.0	batchManagement-1.0	mediaServerControl-1.0	wsSecuritySaml-1.1
		couchdb-1.0			
		mongodb-2.0			
		sipServlet-1.0			
		javaee-6.0			
Core	javaee-7.0				
	passwordUtilities-1.0				
	restConnector-2.0	osgiAppIntegration-1.0	distributedMap-1.0	apiDiscovery-1.0	spnego-1.0
	jpaContainer-2.0	httpWhiteboard-1.0	adminCenter-1.0	bluemixUtility-1.0	jwt-1.0
	federatedRepository-1.0	wab-1.0	serverStatus-1.0	logstashCollector-1.0	scim-1.0
	ldapRegistry-3.0	blueprint-1.0	webCache-1.0	timedOperations-1.0	samlWeb-2.0
	monitor-1.0	osgiBundle-1.0	collectiveMember-1.0	requestTiming-1.0	oauth-2.0
	bells-1.0	osgiConsole-1.0	productInsights-1.0	eventLogging-1.0	openid-2.0
	microProfile-1.0	webProfile-6.0	sessionDatabase-1.0		openidConnectClient-1.0
	concurrent-1.0				openidConnectServer-1.0
	javaMail-1.5				constrainedDelegation-1.0
	webProfile-7.0				socialLogin-1.0
	json-1.0				jwt-1.0
				transportSecurity-1.0	
	Open Liberty	APIs	Production	Security	
				New in 2Q17	
				New in 1Q17	
				New in 4Q16	
				New in 3Q16	

# Microservice Builder: The support advantage

*Overview of support policy for open source technologies bundled with Microservice Builder*

Customers can raise Problem Management Records/Tickets per the normal process

1. IBM support determines if the problem is reported in a documented scenario from the Knowledge Center and is associated with the integration of operational support system (OSS) components with WebSphere Liberty:
  - IBM dev team determines if the problem is in the IBM code integrating with the OSS, not OSS fixes
  - IBM provides guidance and fix in the integration code
2. IBM determines that a problem is in the open source or is an undocumented scenario
  - IBM will hand off customers to external forums for any products that are not already supported by an IBM team
3. IBM and customer will subscribe, track and monitor open source community for fix or upgrade
4. When a fix becomes available through the open source community:
  - IBM tests and delivers the fix in the next Microservice Builder Update

(ELK) Elastic, Log Analytics, Kibana

Jenkins

ZIPKIN

GIT



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