

RedHat Open Shift v IBM Cloudu

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IBM Cloud
Kubernetes Service



RED HAT
OPENSIFT



IBM Cloud

IBM & RedHat po roce

Kdo věří že RedHat zůstane nezávislá jednotka v IBM ať zvedne ruku:



IBM a Red Hat – 20 let partnerství v oblasti OpenSource

IBM a Red Hat spolupracují více než 20 let v oblasti **open source**.

Alokace **1,000+** IBM zaměstnanců ve více jak **1000+** open source projektech



IBM a Red Hat: 3 společné koncepty



Hybridní model

IT kombinující *privátní a public* cloud



Kontejnery

Adresující požadavky kladené na IT: rychlost dodávky, škálovatelnost, flexibilita



Inovativní principy

Mikroservisní architektura
DevOps: kratší vývojové cykly, častější dodávky
Specializované týmy

IBM Public Cloud

Cloud Native

as-a-service jako cloud služba

Hybrid

Flexibilní deployment

Multicloud

U více poskytovatelů

Cloud enabled

Přenos Lift&Shift do cloudu



Advanced Technologies

AI | Analytics | Blockchain | Encryption | IoT | ML | Quantum



Capabilities & Cloud Paks

Application | Data | Integration | Management | Automation | Security



OpenShift on IBM Cloud



Log & Mon

IAM

BYOK

VPC

API & Console



Foundation

Kubernetes

Cloud Databases

CI/CD

Serverless

Schematics

Runtimes

CFEE

DLaaS



Infrastructure

Bare Metal | VMs | Power | z | VMware
Public | Dedicated

Global Network

Multi Zone Regions (MZR)

Single Zone Regions (SZR)

Data Centers (DCs)



Open Principles



Security



Enterprise Grade

IBM Public Cloud catalog – 190 IaaS & PaaS services

Service Type

IBM Service
Third Party Service

AI

Watson Assistant
Watson Studio
Compare and Comply
Discovery
Knowledge Catalog
Knowledge Studio
Language Translator
Machine Learning
Natural Language Classifier

Natural Language Understanding
Personality Insights
Speech to Text
Text to Speech
Tone Analyzer
Visual Recognition
Voice Agent with Watson
Watson OpenScale
PowerAI

Analytics

Analytics Engine
DB2 Warehouse on Cloud
IBM Cognos Dashboard
Master Data Management
SQL Query
Streaming Analytics
Weather Company Data
AccountScore

Security & Identity

App ID
Certificate Manager
Cloud HSM
FortiGate Security Appliance
Hardware Firewall
Hardware Firewall (Dedicated)
Hyper Protect Crypto Services
Hyper Protect Virtual Servers
Internet Services
Key Protect

Security Advisor
SSL Certificates
Contrast Security
FusionAuth
Twilio Authy
Twilio Verify

Dev Tools

Availability Monitoring
Continuous Delivery
DevOps Insights
Cloud Event Management
Globalization Pipeline
Monitoring
Schematics
Toolchain
IBM Cloud Activity Tracker with LogDNA

IBM Cloud Monitoring with Sysdig
IBM Log Analysis with LogDNA
Pager Duty

VPC

Block Storage for VPC
Load Balancer for VPC
Virtual Private Cloud
Virtual Server for VPC
VPN for VPC

Web & Mobile

Mobile Foundation
Push Notifications
Email Delivery, powered by Sendgrid
Bitbar Testing Cloud
Esri ArcGIS for Developers
Naxmo
Phunware Location Based Services
Phunware Mobile Marketing Automation
SPlice Pre-CAT Insurance Notifications

Telstra Messaging API
Twilio Programmable SMS
Twilio Programmable Video
Twilio Programmable Voice

Web & App

Apache Spark
Consult with IBM Garage
Information Server
Managed Financial Data API
Simulated Instruments Analytics API
Accern-API
Network ACL for VPC
Subnet for VPC
Alloy
Bondevalue-API

CloudAMQP
Difitek
Dwolla
ElephantSQL
Investnet | Yodlee
FundingShield – Wire Accounts
Verification Service (WAVS)
HazardHub Property Risk Data API
Health Score
Hydrogen

Morningstar
Natural Language Generation APIs
Payeezy
Plaid
Powerlytics Behavior/Propensity Model API
Powerlytics Consumer Income API
Powerlytics Investable Assets & Wealth API
Quovo
Rainbow

RelSci
Risk Engine
SizeUp Small Business Intelligence
Strands Business Financial Management
Totum Risk
TradeIt
uCloud Multitenant Core Platform for VMWare
WealthEngine API
Xignite Market Data APIs
Ylabs

IoT

IoT Platform
Weather Company Data
AT&T Flow Designer
AT&T IoT Data Plans
Bosch IoT Rollouts
Car Diagnostic API
Precision Location
Unification Engine

Starter Kits

Custom Vision Model for Core ML with Watson
Internet of Things Platform Starter
Java Microservice with MicroProfile and Java EE
Java Microservice with Spring
Java Web App with Spring
Mobile Basic
Node.js Microservice with Express.js

Node.js Web App with Express.js
Python Microservice Flask
Python Web App with Django
Python Web App with Flask and Watson Assistant Basic
Watson Natural Language Understanding Basic
Watson Visual Recognition Basic
Node-RED Starter

Databases

Blockchain Platform
Cloudant
Databases for PostgreSQL
Databases for Redis
Databases for Elasticsearch
Databases for MongoDB
Messages for RabbitMQ
Databases for etcd
Compose Enterprise
Compose for RethinkDB

Db2
Db2 Hosted
Db2 Warehouse
Hyper Protect DBaaS for MongoDB
Hyper Protect DBaaS for PostgreSQL
Informix
SQL Query
GEO Web Services
InfluxCloud

Storage

Block Storage
Block Storage for VPC
File Storage
IBM Cloud Backup
Object Storage
OSNEXUS Software Defined Storage for Bare Metal
Actifio GO
box

Network

Load Balancers
Content Delivery Network
Direct Link Connect
Direct Link Dedicated
Direct Link Dedicated Hosting
Direct Link Exchange
Domain Name Service
FortiGate Security Appliance

Gateway Appliance
Internet Services
IPSec VPN
Load Balancer for VPC
Subnets/IPs
Virtual Private Cloud
VLAN
VPN for VPC

Integration

API Connect
APP Connect
Lift CLI
MQ
Secure Gateway
Rocket Mainframe Data
SPlice Pre-Cat Insurance
Notifications

Compute

Bare Metal Server
Cloud Foundry Enterprise Environment
HPCaaS from Rescale
Power System Virtual Server
Virtual Server
Virtual Server for VPC
WebSphere Application Server
VMware vCenter Server on IBM Cloud

VMware vSphere on IBM Cloud
NetApp ONTAP Select
Single-node Trial for Migration and App Modernization
Single-node Trial for Data Protection & Disaster Recovery
Caveon RiskForesight on IBM Cloud
F5 on IBM Cloud
FortiGate Security Appliance on IBM Cloud
FortiGate Virtual Appliance on IBM Cloud

HCX on IBM Cloud
HyTrust CloudControl on IBM Cloud
HyTrust CloudControl on IBM Cloud
HyTrust DataControl on IBM Cloud
HyTrust KeyControl on IBM Cloud
IBM Cloud Private Hosted
IBM Cloud Secure Virtualization
IBM SPECTRUM Protect Plus on IBM Cloud
KMIP for VMware on IBM Cloud

Veeam Availability Suite for Virtual Server
Veeam on IBM Cloud
VMware vRealize Operations and vRealize Log Insight on IBM Cloud
Mission Critical VMWare on IBM Cloud
Managed Services from IMI
Managed Services for Veeam on IBM Cloud
Managed Services for Zerto on IBM Cloud
IBM Cloud Backup

OSNEXUS Software Defined Storage for Bare Metal
Plesk Onyx Linux
Unlimited for Virtual Server
Red Hat Enterprise Linux OS for Virtual Server

Liberty for Java
SDK for Node.js
ASP.NET Core
Runtime for Swift
Go
PHP
Python
Ruby
Tomcat

Red Hat OpenShift Cluster
Kubernetes Service
Container Registry



IBM Cloud Datacentera

- Standardizovaná Architektura
- x86 a IBM POWER Hardware
- Public, Private a Mgmt Network
- Management & Podpora
- SLA 99.9% a 99.99% pro cloud services



● Data Center & Network PoP ◆ Region ● Network PoP ○ Federal Data Center

+190 services

With local, public or private models

60 Data Centers

in 19 Countries

Multi-zone regions

Dallas | D.C. | Frankfurt | Tokyo | London | Sydney

Planned: Sao Paulo

1st GDPR Compliant

Data Hyper protection and GDPR compliance

One Cloud Architecture

To execute Watson, Data, IBM Z, Blockchain



IBM Kubernetes Service & RedHat OpenShift




- **Public cloud služba typu PaaS**
- **Managed service**
- **Kubernetes / RedHat OpenShift Cluster**
- **Lokace clusteru: EU, Amerika, Asie**
- **Single-zone/Multi-zone**
- **Worker nódy**
 - Fyzické
 - Virtualizované
 - Virtualizované dedikované
- **Volitelné GPU**
- **Volitelná enkrypcie lokálního disku**




Red Hat OpenShift Cluster
IBM

Deploy and secure enterprise workloads on native OpenShift with developer focused tools to run highly available apps.

Compute, Containers



4 vCPUs 16GB RAM 

Virtual - shared
b3c.4x16
RHEL
25GB SSD primary disk
100GB SSD secondary disk
1Gbps network speed

\$0.27 / hr

IBM Cloud Paks – kontejnerová SW řešení

Kontejnerizovaná IBM softwarová řešení určená pro provoz enterprise aplikací v Cloudu

IBM containerized software

Packaged with Open Source components,
pre-integrated with the common operational services,
and secure by design



Container platform and operational services

Logging, monitoring, security,
identity access management



Kompletní

*Application, data and AI services,
fully modular and easy to consume*

IBM certified





























*splňující požadavky na security, compliance a
version compatibility*

Provozovatelná kdekoli

*On-premises, on private a public cloudy,
a také jako pre-integrovaná*



Cloud Paks: Pre-integrovaná pro vybrané případy

Cloud Pak for Applications	Cloud Pak for Data	Cloud Pak for Integration	Cloud Pak for Automation	Cloud Pak for Multicloud Management	Cloud Pak for Security	
  <p>Developer & DevOps Tools Modernization Toolkit</p>  <p>Frameworks and Runtimes</p>	  <p>Organize Analyze</p>  <p>Collect</p>	  <p>API Lifecycle Messaging and Events</p>  <p>App and Data Integration</p>	  <p>Content Operational Intelligence</p>  <p>Workflow and Decisions</p>	  <p>Multicloud App and Infrastructure</p>  <p>Security and Compliance Management</p>	  <p>Federated Search and Investigation Incident Response</p>  <p>Security Orchestration and Automation</p>	
<i>Build, deploy, and run applications</i>	<i>Collect, organize, and analyze data</i>	<i>Integrate applications, data, cloud services & APIs</i>	<i>Transform business processes, decisions, content</i>	<i>Multicloud visibility, governance & automation</i>	<i>Connect security data, tools, and teams</i>	
 IBM containerized software			 Common operational services			
		Open Hybrid Multicloud Platform				
IBM public cloud 	AWS 	Microsoft Azure 	Google Cloud 	Edge 	Private 	IBM Z IBM LinuxOne IBM Power Systems

