Developing in the Cloud Environment

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SHARE is an independent volunteer-run information technology association that provides education, professional networking and industry influence.
Organizations are combining on-premise, off-premise and public clouds to create the next wave of applications and solutions

- Application will be composable
- Systems will be integrated
- Services will be orchestrated
- IT environments will be hybrid

On-Premise

Classic Data Center
Private Cloud

Next Generation Management of Services

“SaaS”
“PaaS”
“IaaS/IaaS +”

Custom Infrastructure
Expert Integrated Systems

DevOps
Cloud Integration
Networking
IPC
SLA Management
Security

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IBM Bluemix

Run Your Apps
The developer can chose any language runtime or bring their own. Just upload your code and go.

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

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

Cloud Integration
Build hybrid environments. Connect to on-premises systems of record plus other public and private clouds. Expose your own APIs to your developers.

Flexible Pricing
Pay as you go and subscription models offer choice and flexibility.

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Focused on our users

Bluemix was built from the ground up with a user-based and design-centric approach. It addresses these personas and key needs.

Our users include novice, born-on-the-cloud, and enterprise developers.

Want to compose applications quickly with useful APIs, to avoid tedious backend config.

Expect fast time-to-value, simplicity, flexibility, clear documentation.

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Embracing Cloud Foundry as an open source PaaS

Continuing our history of embracing and extending Open Source
List of Cloud Platform Services
IBM, Open Source and Third Party APIs

Runtimes
- Java Liberty
- Node.js
- Ruby on Rails
- "Bring Your Own Buildpack"

Data Management Services
- IBM Relational Database
- IBM JSON Database
- Mongo DB
- MySQL
- PostgreSQL
- Mobile Data
- Mobile Sync
- BLU Data Warehouse
- MapReduce

Mobile Services
- Push
- CloudCode
- Mobile App Mgmt
- Mobile Quality Assurance
- Twilio
- Internet Of Things
- Historian
- MQTT

Web & App Application
- Data Cache
- Session Cache
- Elastic MQ
- Decision
- SSO
- Redis
- RabbitMQ
- Log Analysis

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Built in monitoring
Integrated diagnostics for detailed application behavior

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Scaling

Fully integrated environment for deploying and managing your application

Single Dashboard
Single view of application health, usage and status

Health and Monitoring
Integrated monitoring and diagnostics with the ability to add on features such as code level tracing

Scaling
Ability to scale the application by adding new runtime instances
Bluemix Security

Exploiting IBM portfolio of capabilities
- Leveraging SoftLayer and IBM hosting experience
- Adheres to rigorous IBM security standards:
  - Security in depth
  - Intrusion protection / penetration testing
  - Data isolation in virtualized components
  - Automation of security:

Enable Developers
- SSO service for multiple applications and social logins
- Appscan for web and mobile to detect vulnerabilities

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Integrate Into Existing Applications

Security connect to and leverage data from your existing systems
UrbanCode Deploy is how you deploy applications to Hybrid

Manage application components and versions
Manage configurations across all environments

- Offer secure ‘self-service’ capabilities
- Increase transparency
- Ensure governance and compliance

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Extend support to back-end Systems of Record

- **Push button deployments** to the mainframe
- **Secure and reliable** deployment and promotion of incremental native file system changes across environments
- **Greater visibility** of “what is where” with the ability rollback to any prior version at ease

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New integrations for UrbanCode Deploy

developer.ibm.com/urbancode/plugins

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Dev/Test with Hybrid Cloud

Off-Prem

IBM Bluemix

Image Registry

On-Prem

IBM UrbanCode Deploy

STAGING

PROD

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Summary

- Continuous Delivery supporting DevOps practices is a necessity for Hybrid Cloud
- IBM has a rich set of services to achieve Continuous Delivery
- DevOps toolchain will often include IBM and non-IBM solutions
Mobile to Mainframe DevOps for Dummies Book

Author: Rosalind Radcliffe, IBM Distinguished Engineer

Available as ebook and hard copy

8 Chapters – 72 pages
1. Understanding the Value of the Mainframe
2. Typical Mainframe Application Development Challenges
3. DevOps and Mainframe: Mission Possible?
4. DevOps Best Practices for z Systems
5. Building for the modern omni channel world
6. DevOps Success Stories in the Enterprise
7. Making a DevOps transition
8. Where DevOps can take you

• Meet the author while at SHARE

• Book signing at the IBM Booth #312 Atlantic Hall C
  Monday and Tuesday 6-7:30 PM
  First 250 copies

https://ibm.biz/mmdevops

Why the unique power of the mainframe is perfect for developing hybrid cloud applications
How mobile front ends can rejuvenate those back-end systems to reach new customers
The special considerations of using DevOps to accelerate mainframe software delivery

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QUESTIONS

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THANK YOU

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