

IBM's Strategy for Node.js and Community Involvement



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About Michael Dawson

IBM Community Lead for Node.js



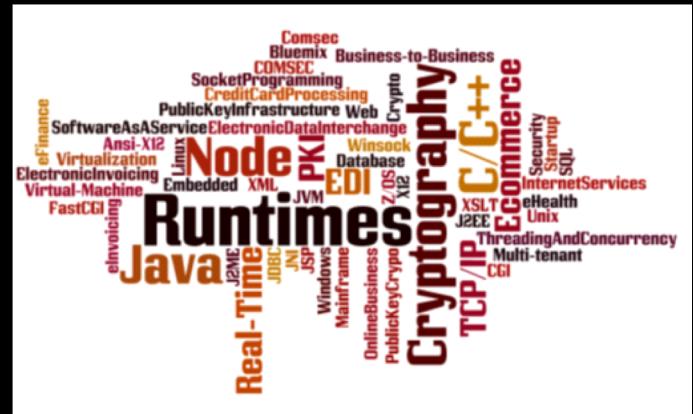
Active Node.js community member

Collaborator

Node.js Technical Steering Committee TSC Chair

Community Committee member

Working group(s) member/leadership



Twitter: @mhdawson1

GitHub: @mhdawson

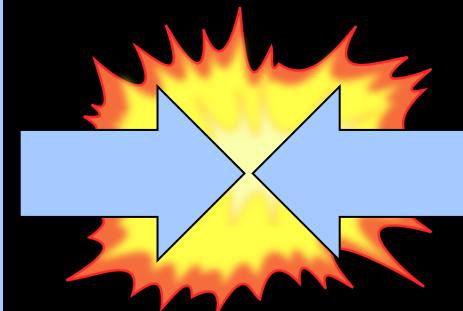
LinkedIn: <https://www.linkedin.com/in/michael-dawson-6051282>

The Challenge for Every Existing Enterprise:

How to make the old work with the new?

Traditional IT

- On Prem
- Packaged Apps
- SOA / Monolithic
- Relational DB
- Waterfall
- Java / .NET / C# / Other



New IT

- Cloud
- SaaS
- Microservices / APIs
- Relational & Non-Relational
- DevOps
- Node / SWIFT / Other**

IBM's Strategy for Node.js

Enterprise Ready Runtime

Production Enablement

Production Support

Enterprise Ready Runtime

Embrace and Improve Community Runtime

Engage and lead

Develop expertise and influence

Platinum member of Node.js Foundation

Enterprise Focus

Stable and Predictable releases

Platform support

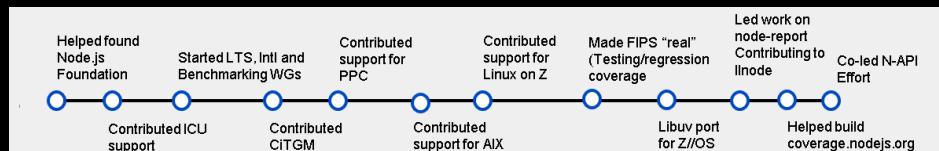
Security

Diagnostics

Performance

Code quality and safety net

Key Features



IBM's Leadership in Node.js Community

Participation in Technical Steering Committee



Michael
Dawson

IBM Node.js Community Leadership

9 Core Collaborators



Michel
Dawson



Ben
Noordhuis



Gireesh
Punathil



Bethany
Griggs



Yi-Hong
Wang



Sam
Roberts



Steven
Loomis



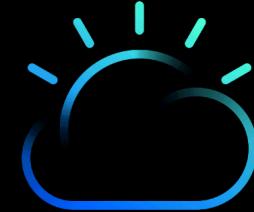
Richard
Lau



Ryan
Graham

Production Enablement

First Class Cloud Deployment Options



Freedom of Platform Choice



Leverage existing Data assets



Tools to Accelerate Cloud Native Node.js Development/Deployment

First Class Cloud Deployment Options

Public/Private/Hybrid

Standards Based

Docker

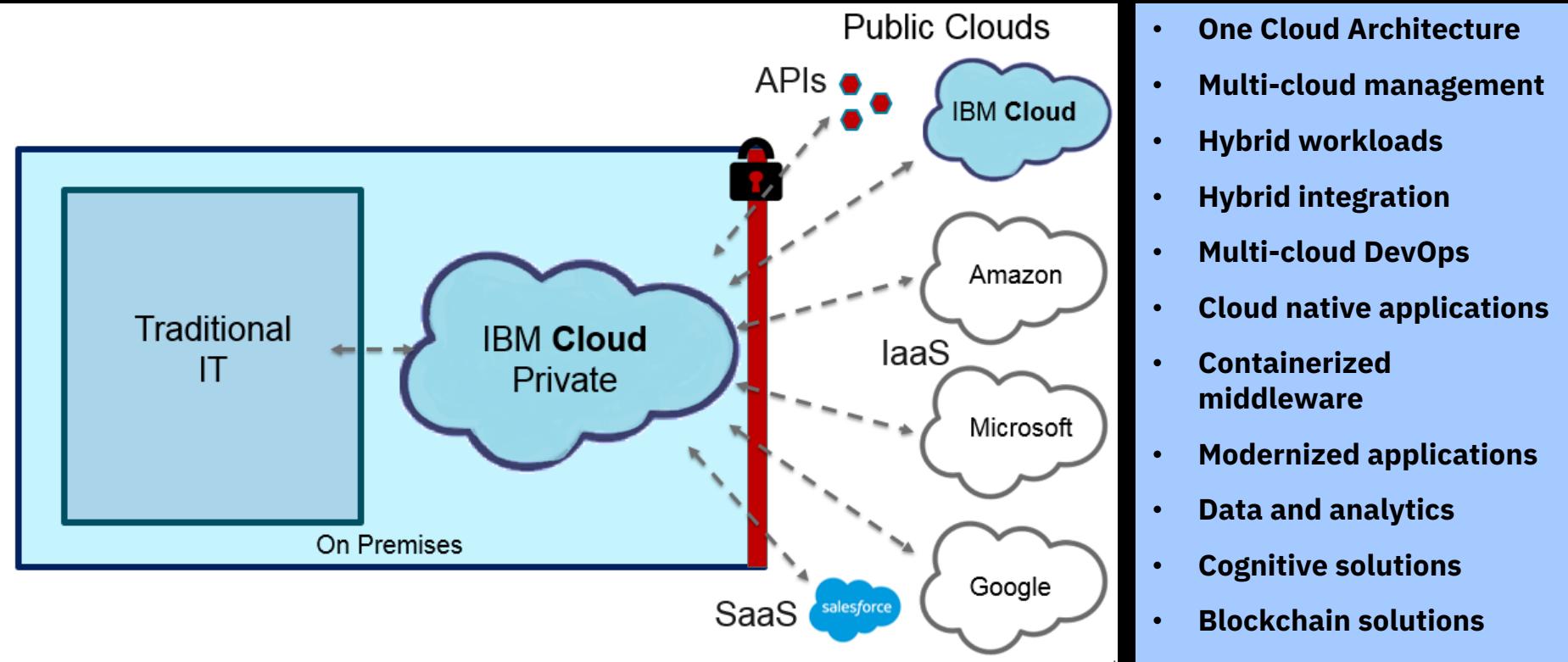
Kubernetes

First class Node.js support



IBM Cloud → The Cloud for Enterprise

Bridging Traditional IT with the Multi-Cloud Economy



Freedom of Platform Choice

Community Binaries

Linux on Z

Linux on P

AIX



IBM Binaries

System I

z/OS



Leveraging Existing Data Assets

68% of the world's production workloads and associated data is hosted in z/OS environments

Enable Collocation with Data hosted on z/OS

Up to 2.5x better throughput,
60% faster response time to DB2 on z/OS*

Enhance Node.js ecosystem to access z/OS middleware and assets

CICS, Db2, VSAM, etc.

* Based on performance test on Linux on Z

Tools to Accelerate Development/Deployment

NodeServer

IBM Cloud Application Service

MicroClimate

Node Application Metrics (appmetrics)

LoopBack

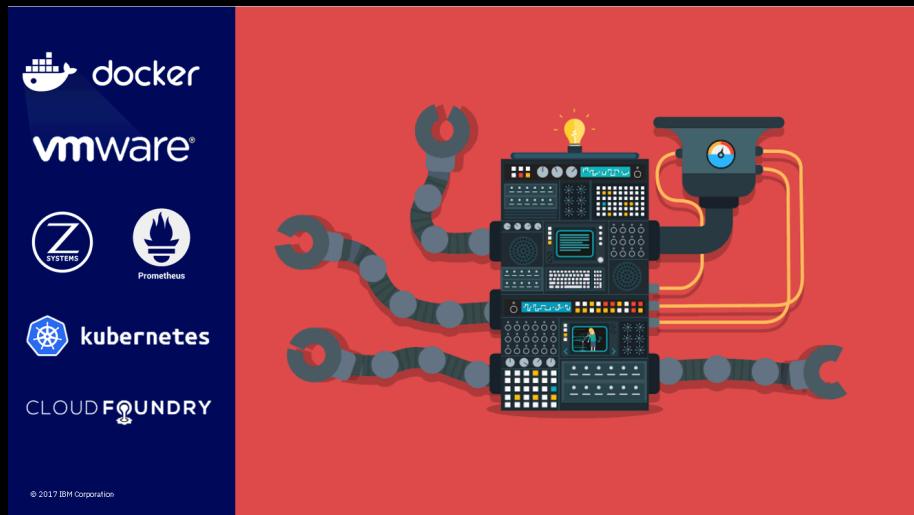
Documentation/guidance

Create
Deploy
Monitor

NodeServer – open source generators

Create Projects pre-wired for monitoring

Deploy to
Docker
Kubernetes
Cloud Foundry
Dev-ops pipeline



www.npmjs.com/package/generator-nodeserver

IBM Cloud Application Service

The screenshot shows the IBM Cloud App Service dashboard. On the left, a sidebar menu includes 'Overview', 'Starter Kits', 'Resources', and 'Projects'. The main content area features a large heading 'IBM Cloud App Service' with a subtext 'Fast on-ramp for building cloud-native apps'. To the right is a 3D illustration of purple cubes representing a cloud environment. Below this, two main sections are displayed: 'Focus on the code' and 'Power your existing apps'. The 'Focus on the code' section includes a 'Get Starter-Kit' button and a subtext about building cloud-native apps with starter-kits pre-integrated with the IBM Cloud. The 'Power your existing apps' section includes a 'Get CLI Tools' button and a subtext about using developer tools to cloud-enable server-side apps and deploy to Kubernetes. At the bottom, there's a 'Featured Resources' section with links to 'How-to: Deploy to Kubernetes using the CLI', 'Bluemix Blog', and 'Tutorial: Introduction to DevOps Continuous Delivery'.

Overview
Starter Kits
Resources
Projects

Fast on-ramp for building cloud-native apps

IBM Cloud App Service

Focus on the code

Get started building and deploying Cloud Native apps in minutes with starter-kits pre-integrated with the IBM Cloud.

Get Starter-Kit

Power your existing apps

Use our developer tools to cloud-enable your server-side apps, and easily deploy to Kubernetes.

Get CLI Tools

Featured Resources

Access our guides, documentation, tools and resources

→ Learn more

How-to: Deploy to Kubernetes using the CLI

Learn how to deploy an application to Kubernetes using the IBM Cloud Application Service.

Bluemix Blog

Check out news, announcements and how-tos about the many services on the IBM Bluemix cloud.

Tutorial: Introduction to DevOps Continuous Delivery

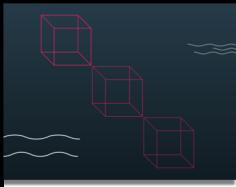
An introduction tutorial on the IBM DevOps Continuous Delivery service.

MicroClimate - IBM Developer Experience

Microclimate is an end to end development platform for the creation of cloud native applications and microservices. You can create, edit, build, test and deploy your applications via Continuous Delivery pipelines then run and manage them with IBM Cloud Private

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

1



Containerized Development

Start to from scratch using lightweight containers that are easily reproducible to match your production environment locally or on IBM Cloud Private

2



Rapid Iteration

Lightning fast round-tripping through edit, build, and run allows real-time performance insights, regardless of what development phase you're in, with an integrated IDE or use your editor of choice with Language Server Protocols

3



Intelligent Feedback

Best practices and immediate feedback to help improve your application through your IDE

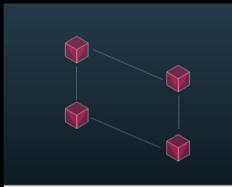
4



Diagnostic Services

Add capability at development time to improve problem determination in production through application metrics.

5



Integrated DevOps Pipeline

Get into production fast with a preconfigured DevOps pipeline that can be tailored to your needs

AppMetrics - open-source Node.js monitoring

What is it?

An open source module created by IBM for collecting application metrics to diagnose issues while developing your application. Metrics range from HTTP requests, event loop, memory usage, CPU usage, MongoDB connects, and more.

Why use it?

Monitor and diagnose issues while developing your application. App Metrics then connects with IBM Cloud and API Connect for auto-scaling and more detailed availability monitoring

How to get it?

Github at <https://github.com/RuntimeTools/appmetrics>. Users can view the dashboard by going to /appmetrics-dash or feeding it into their existing dashboard.

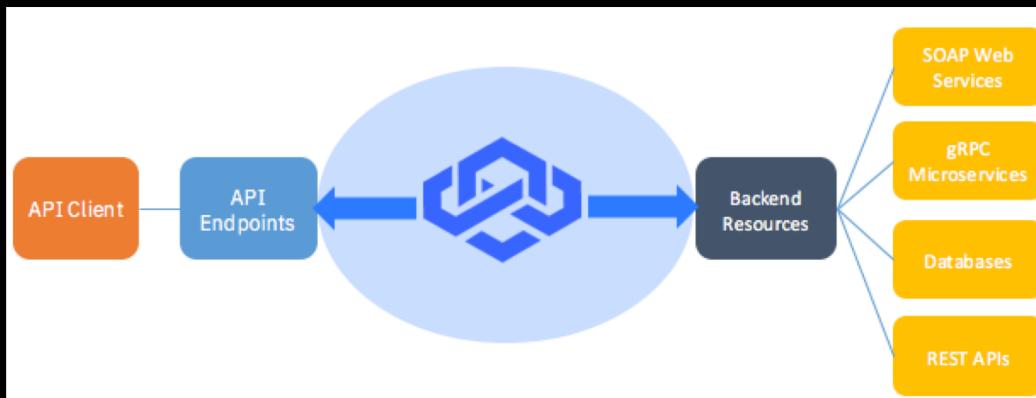


appmetrics-dash
appmetrics-zipkin
appmetrics-prometheus

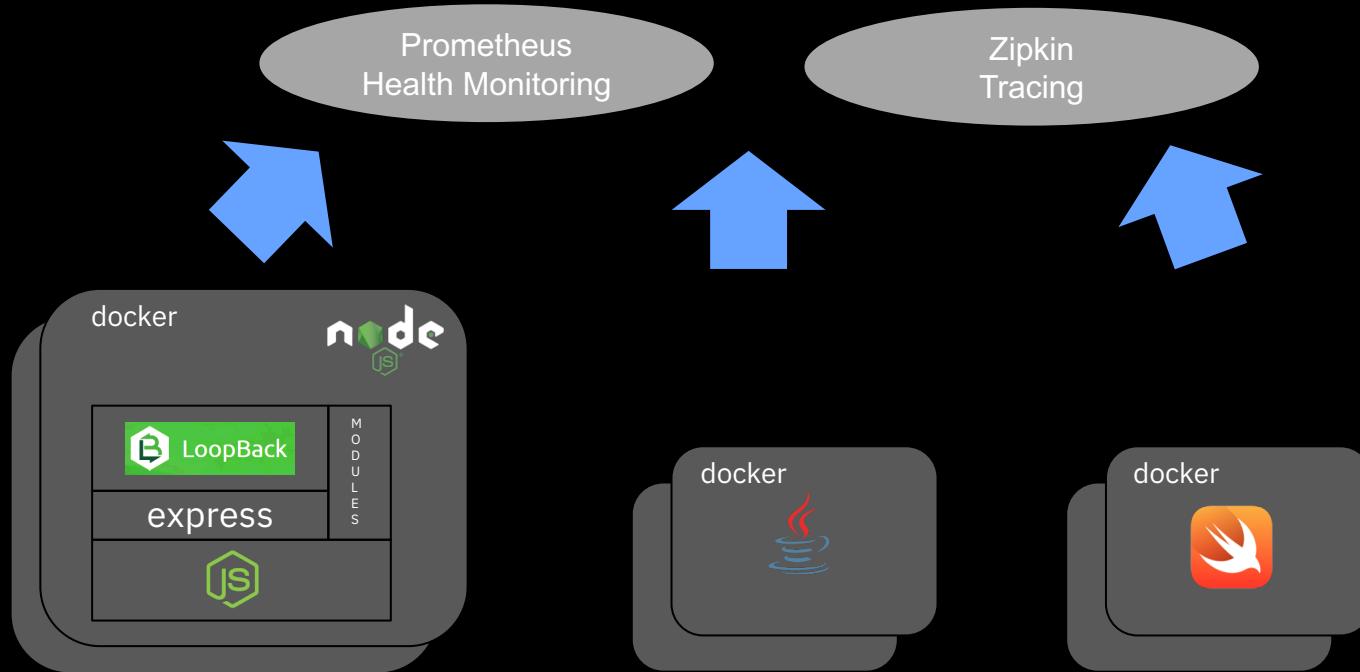
LoopBack – open-source Node.js framework



- Extends Express to accelerate API creation
- Create APIs quickly as microservices from existing services and databases
- Connects the dots between accepting API requests and interacting with backend
- Built for developers by developers (Reached 10k+ GitHub stars)
- LB3 is for production use. LB4 is under active development
- LB4 brings in support for TypeScript



Tools to Accelerate Development – End Result



Docker / Kubernetes/ Cloud Foundry

Production Support - IBM Support for Runtimes

Years of experience

Foundation -Community binaries

Advanced – Key Modules from the Ecosystem

<https://www.ibm.com/uk-en/marketplace/support-for-runtimes/faq>