Université IBM i 2018

16 et 17 mai

IBM Client Center Paris

thirty years

Session S45 - Build a Social Media Dashboard with Db2 for i & Node.js

IBM i & Open Source Tutorial & Demo

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IBM **Client Center** Montpellier

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IBM **Systems**

Plan de la présentation

- Introduction: Open Source & IBM i
- Tutoriel / Démonstration – Prototypage avec IBM Watson, Db2 for i & Node.js
- Questions / Réponses : Que faire en sortant de cette session?

IBM i OSS : A growing community

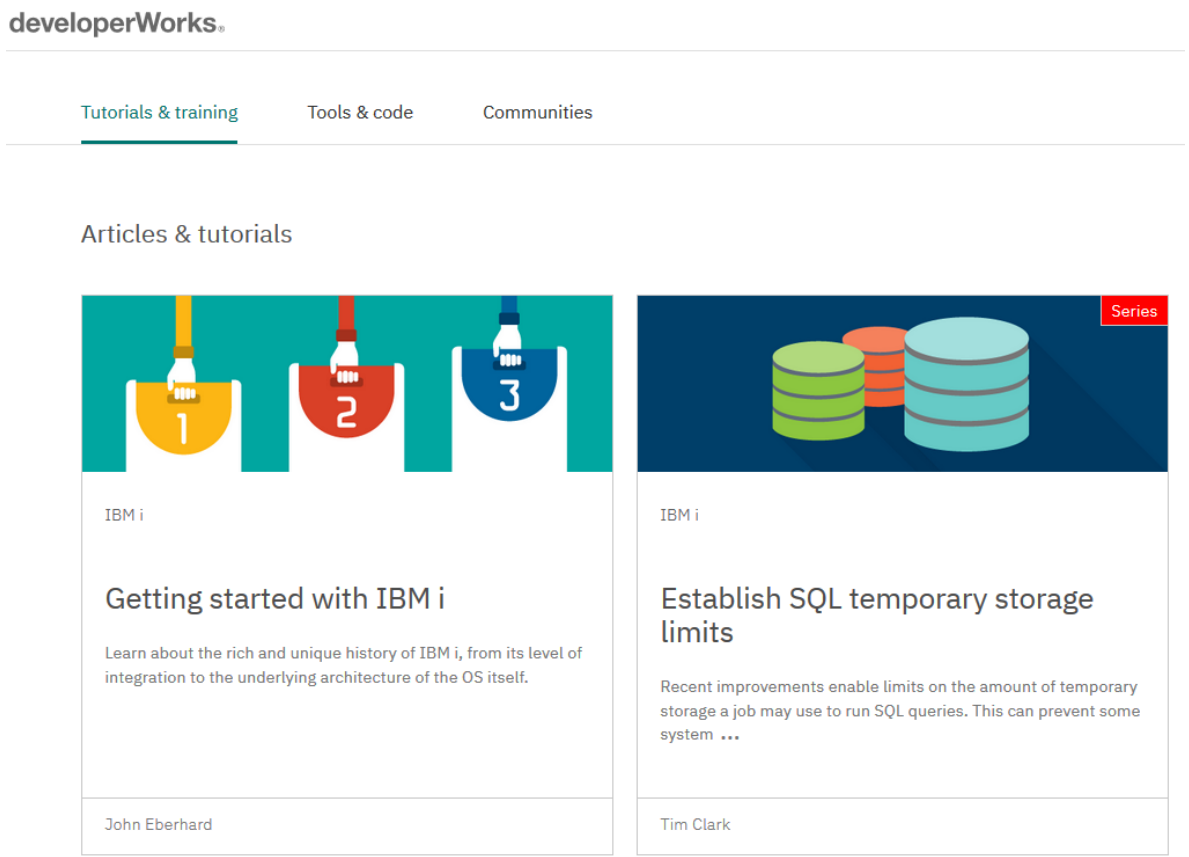
Many developers & experience feedback online….

https://www.ibm.com/developerworks/learn/ibmi/index.html

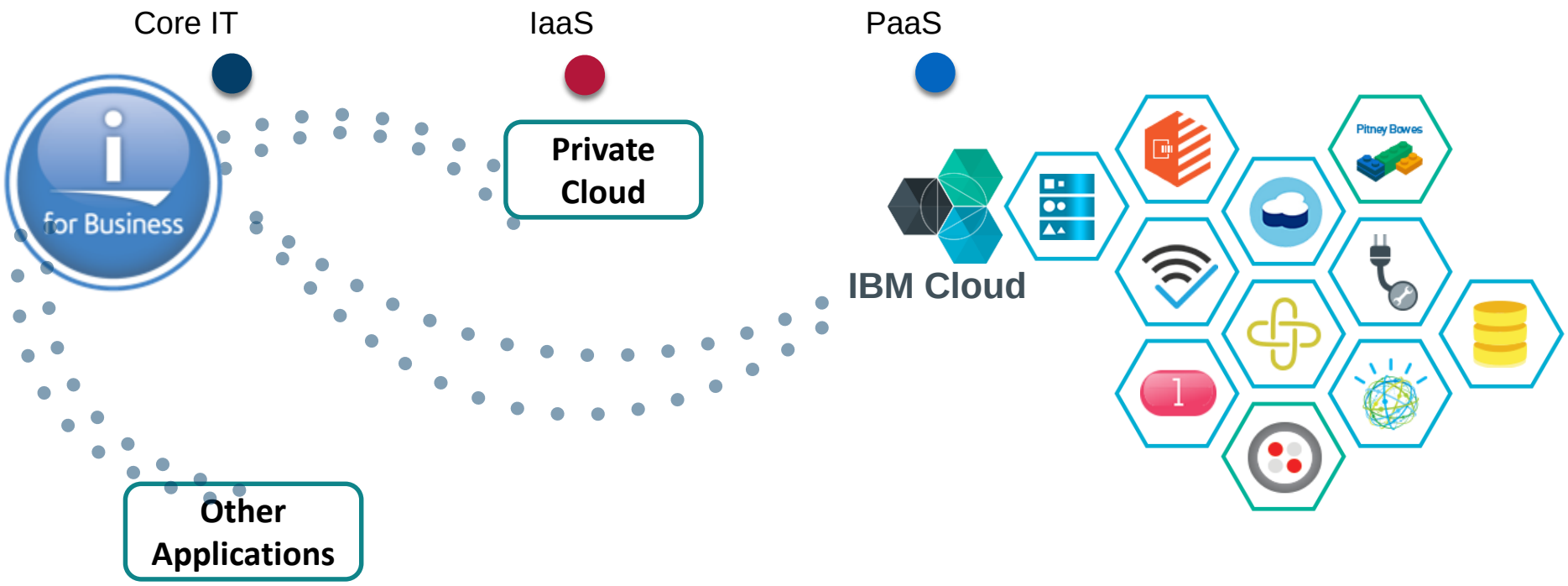
#IBMiOSS

ATLASSIAN Bitbucket

https://bitbucket.org/ibmi/opensource/wiki/Home



Open Source on IBM i …
…simplifies data & application integration

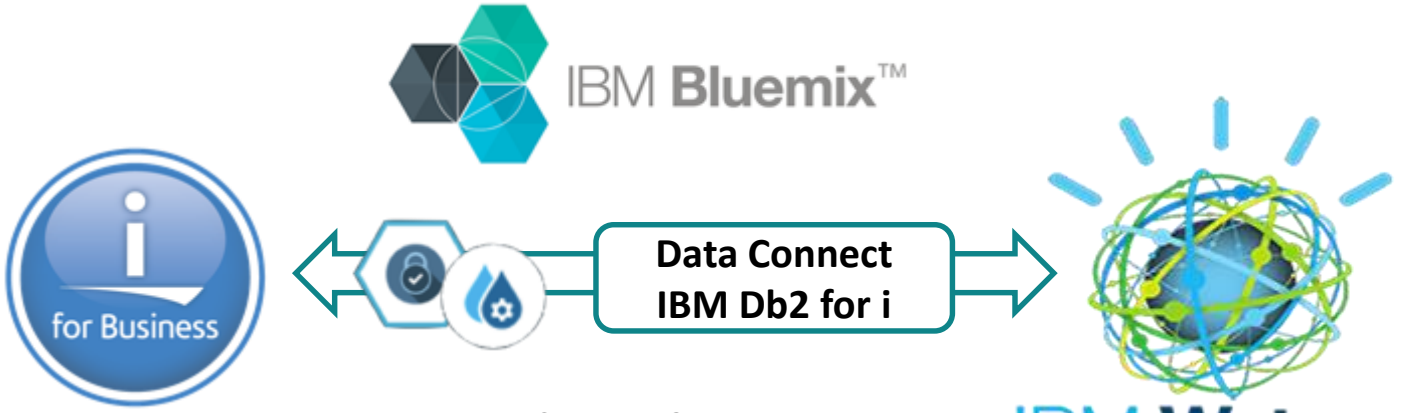


Open Source on IBM i …
… accelerates Business Opportunities

Ready for AI: Connecting your business to the future

JORI The art of fine seating

- 100+ Offers 100+ seating frames, fabrics and finishes
- Wanted to help customers visualize possible combinations
- Created a 3D configurator with open source software on IBM® i
- Inspires customers to create their ideal designs
- 50% faster deliveries, as configurator accelerates manufacturing
- Will use IBM Watson® cognitive technology to help consumers find their preferred fabric



The most integrated data platform for business

- Integrated Database (Db2 for i)
- Integrated Web Services

Modern, Open Source applications development

- Python, Node.JS, Ruby
- PHP
- Mobile Application Development

Secure Connectors to Watson for AI

- Data Connect for Db2 for i
- SQL
- Python, Node.JS
- Free form RPG

IBM i Enabling solutions for your business

IBM i Native Solutions

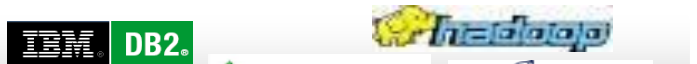
RPG Cobol

PASE

Open Source on IBM i

Linux Solutions

Expanded Linux ecosystem of solutions for CAMSS



”i” for INTEGRATION & Open Source = Low TCO

- Native Database Server: DB2 on i (part of the OS Kernel)
- Integrated File System : Unix File System, NTFS, NFS, CIFS, etc.
- Software Integration: Security, DB, WebSphere Liberty, Dev tools, Backup tools etc.
- Native Language : RPG (IBM Toronto Lab), a Language for Business Apps + Java, COBOL
- Open Source integration: Apache, 5733-OPS (Node.js, Ruby, Python, gcc, Orion, GIT…)
- PHP & MySQL by Zend (**iAMP** Stack)

- ISV Support : ERP SAP, Banking/Finance Misys, Infor M3

Open-source : 5733-OPS

- Option 1 – Node.JS V1
- Option 2 – Python 3.4.6
- Option 3 – GCC / Chroot
- Option 4 – Python 2.7.13
- Option 5 – Node.JS 4.x
- Option 6 – Git
- Option 7 – Tools
- Option 8 – Orion
- Option 9 – Cloud-init
- Option 10 - Node.JS 6
- Option 11 - Nginx

2014

2015

7.3 & 7.2 TR4

2016

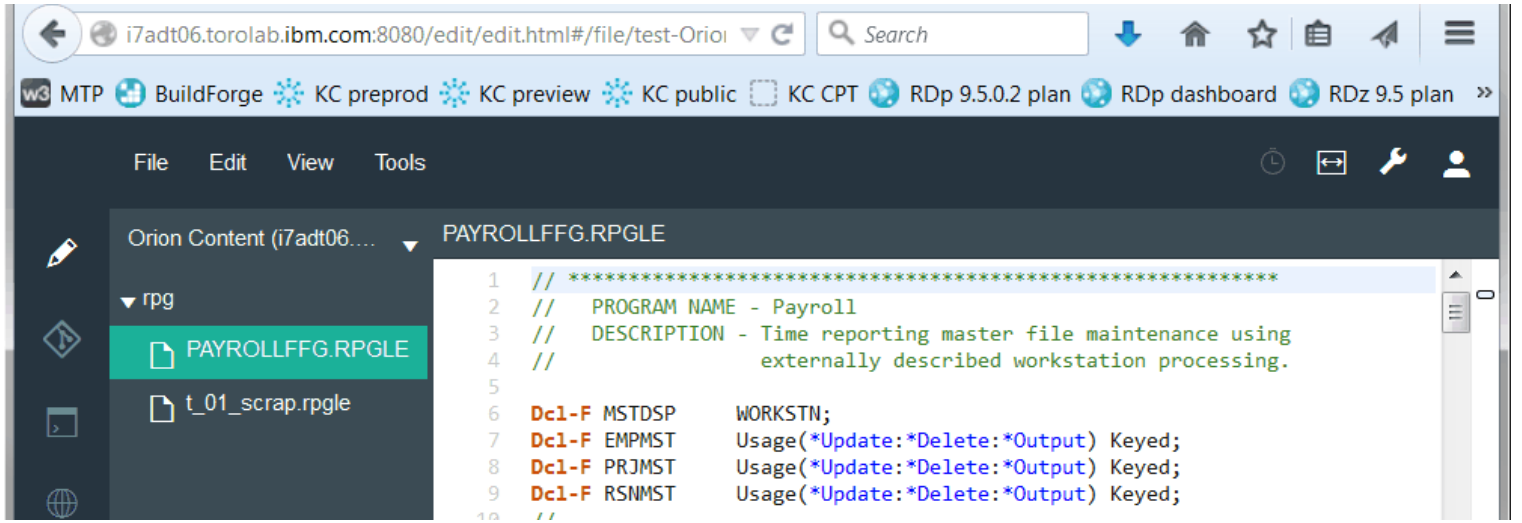
2017

Open-source : 5733-OPS …

- Node.JS
  - provides a platform for server-side JavaScript applications running without browsers
  - based on Google Chrome V8 Engine
- Python
  - popular high-level programming language
  - multiple programming styles (object oriented, procedural)
- GCC / chroot and Tools
  - C language compiler used for compiling Open Source projects
  - zip, unzip, bash, …
  - set of scripts that enable you to install RPMs from perzl.org

… Open-source : 5733-OPS

- GIT
  - Source Control Management (SCM) system
  - Place under control sources from open-source (Node.js, Python…) and RPG
- Orion
  - Open-source Web development environment based
  - Open source (Node.js, Python…) and RPG



IBM i & Open Source

New yum / RPM package management support

- New way to install packages on i & get access to additional packages & versions
- Same process than on Unix & Linux ☺ … with IBM Test & Support
- More information on the Getting Started Wiki
- Example: Get the latest Node.js version (ex: 8.10) on IBM i..

bash-4.4$ /QOpenSys/pkgs/bin/yum --version
3.4.3
bash-4.4# /QOpenSys/pkgs/bin/yum install nodejs
Setting up Install Process
Resolving Dependencies
--> Running transaction check
---> Package ***nodejs.ppc64 0:8.10.0-0 will be installed***
bash-4.4# node -v
v6.9.1
bash-4.4# /QOpenSys/pkgs/bin/node -v
v8.10.0

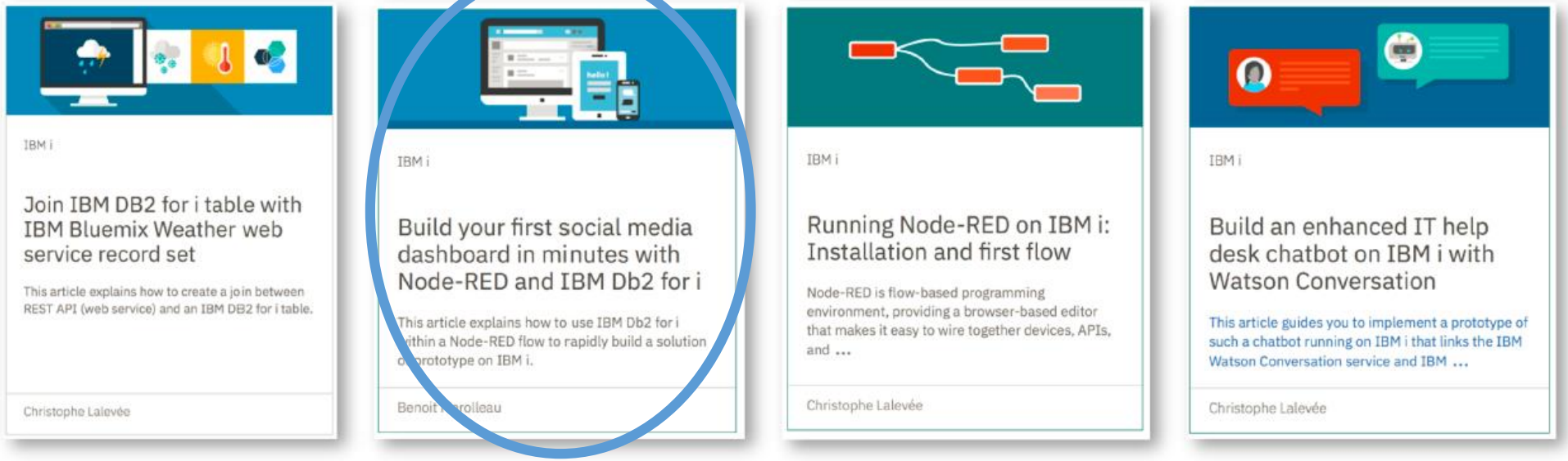
Develop in IBM Cloud / IBM Cloud Private, Deploy & Run on Power Systems.

- ❑ IBM Cloud Runtimes (Cloud Foundry Build packs) are <u>all</u> supported on Power Systems!
- ❑ Consume IBM Cloud Services (Watson,…) from IBM i easily using REST calls.

What to do next?

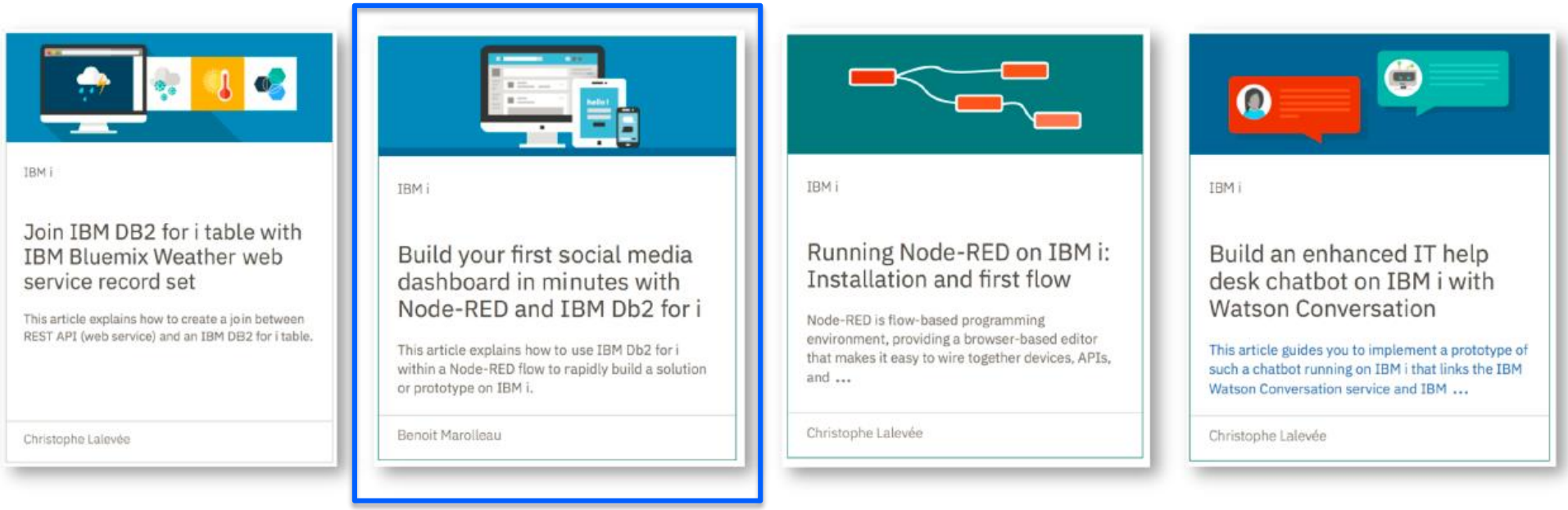
- ❑ New to Open Source on IBM i & 5733OPS? The reference wiki is here
- ❑ Become a Watson master with the "IBM Cloud & Watson Day Labs" , Self-paced labs.
  - ❑ Lab 8 - Twitter Dashboard with Node-RED & Watson
- ❑ IBM DeveloperWorks & IBM i

https://www.ibm.com/developerworks/learn/ibmi/index.html



Demonstration

Demonstration - Tutorial

- https://www.ibm.com/developerworks/ibmi/library/i-social-media-dashboard/

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