

IBM i - Platform for Innovators, By Innovators

Steve Will
IBM i Chief Architect

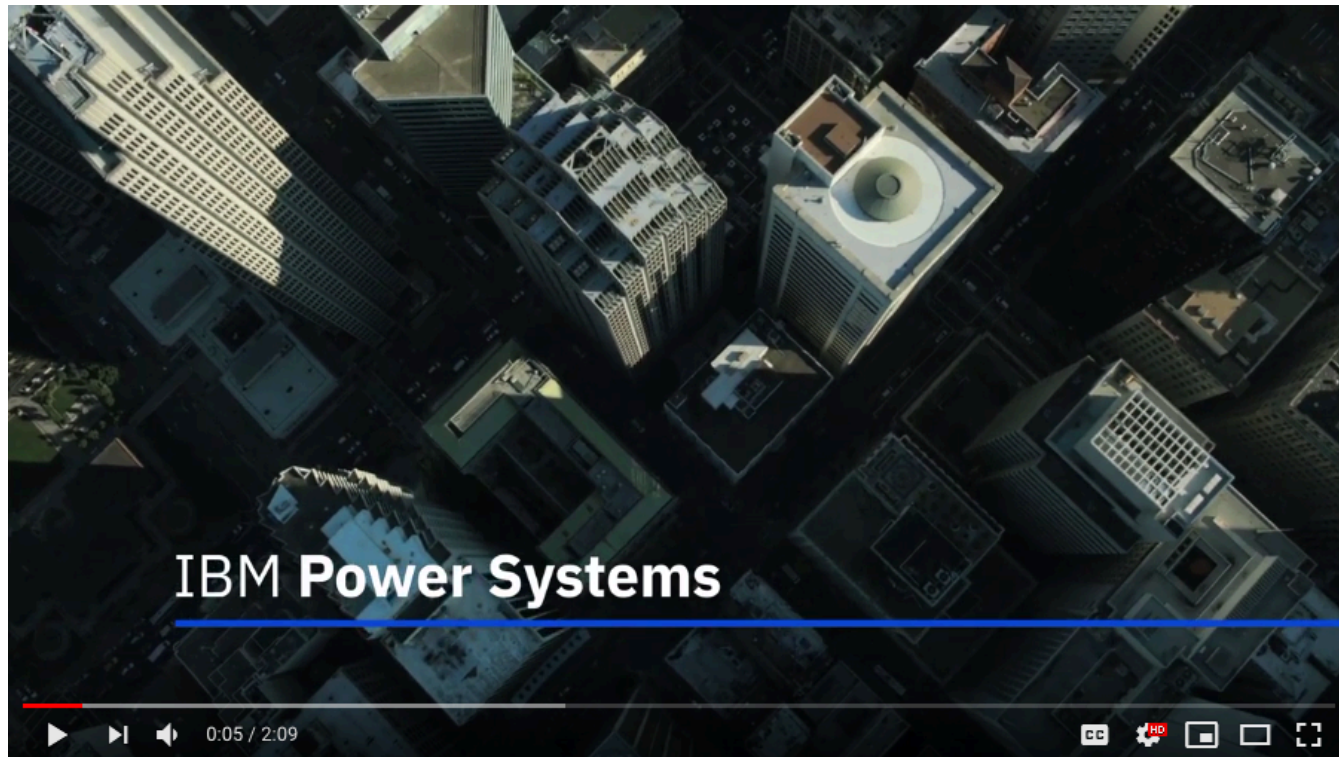


IBM i Business Today



IBM Power Systems

IBM i 2018 Double Digit Growth



[Link](#)

IBM i 2019 - <https://www.ibm.com/it-infrastructure/power/os/ibm-i>

IBM i: A platform for innovators, by innovators

IBM i never stops innovating with new features so that you never have to stop innovating your organization.

IBM i Release Roadmap



** All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.
** Arrows indicate "ongoing status and do not imply any specific dates."

A Platform of Innovation



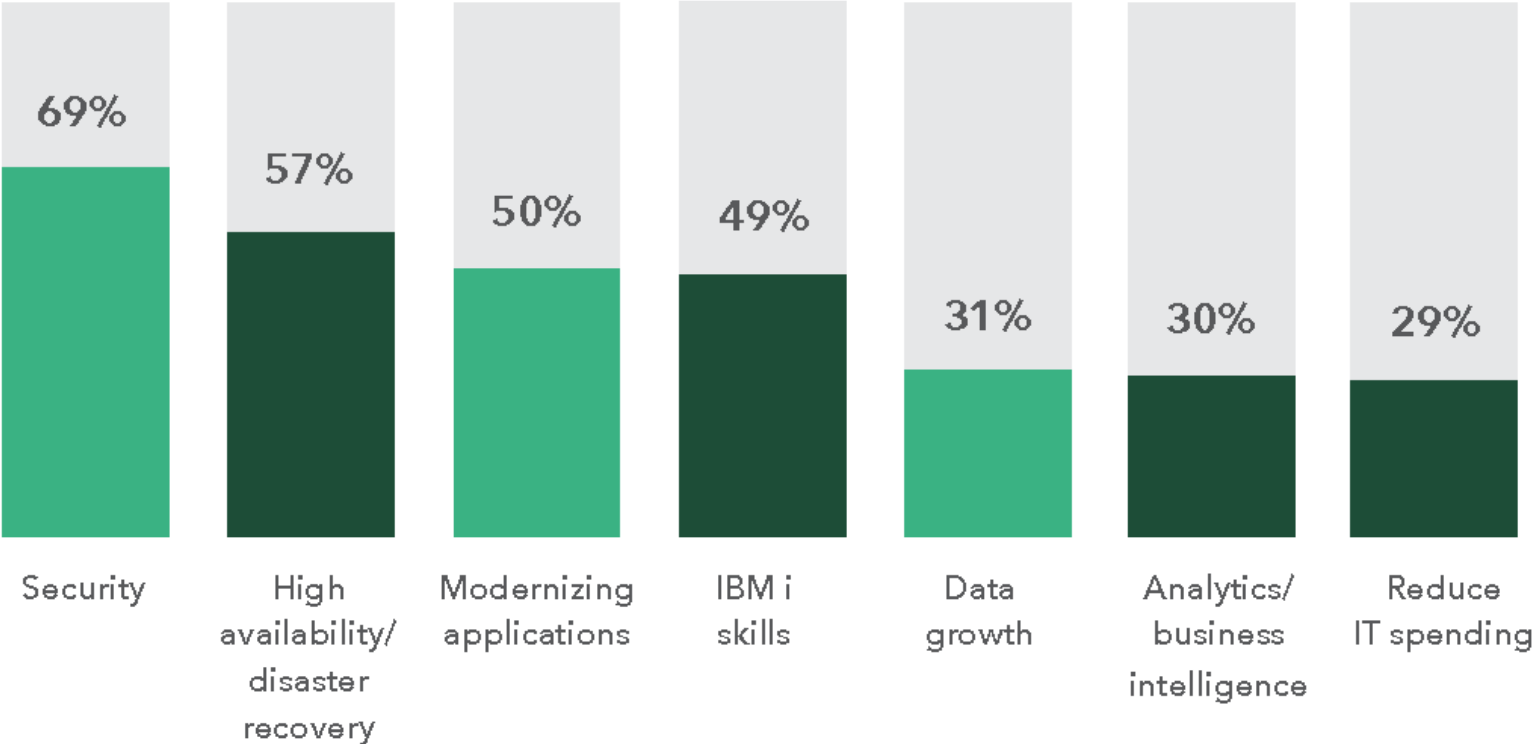


IBM i 7.4 – Innovation Responds to Client Needs



Top IT Concerns – HelpSystems 2018 Survey

What are your top concerns as you plan your IT environment?



IBM i Strategy

Power Solutions

- Enable clients to exploit latest POWER technology
- Enable clients to transform their customer experience
 - Mobile, Internet of Things, Cognitive, Machine Learning and AI
- Enable Solution Developers to implement the latest technologies

Open Platform for Choice

- Grow IBM i solutions options including open source languages and applications
- Extend IBM i solutions portfolio with Linux and AIX application choices
- Provide flexible solutions options for Cloud and MSPs

The *Integrated* Promise of IBM i

- Deliver a simple, high value platform for business applications
- Provide exceptional security and resiliency for critical business data
- Leverage IBM systems, storage and software technologies

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Addressed in 7.4 announcement

Open Platform for Choice

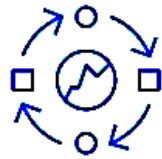
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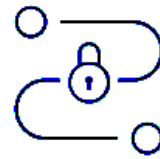
IBM i 7.4 from the IBM i home page

The latest IBM i features



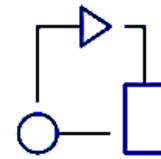
Availability

- IBM Db2 mirror provides continuous availability
- Near zero downtime
- Get work done 24 hours a day, 7 days a week, 365 days a year



Security

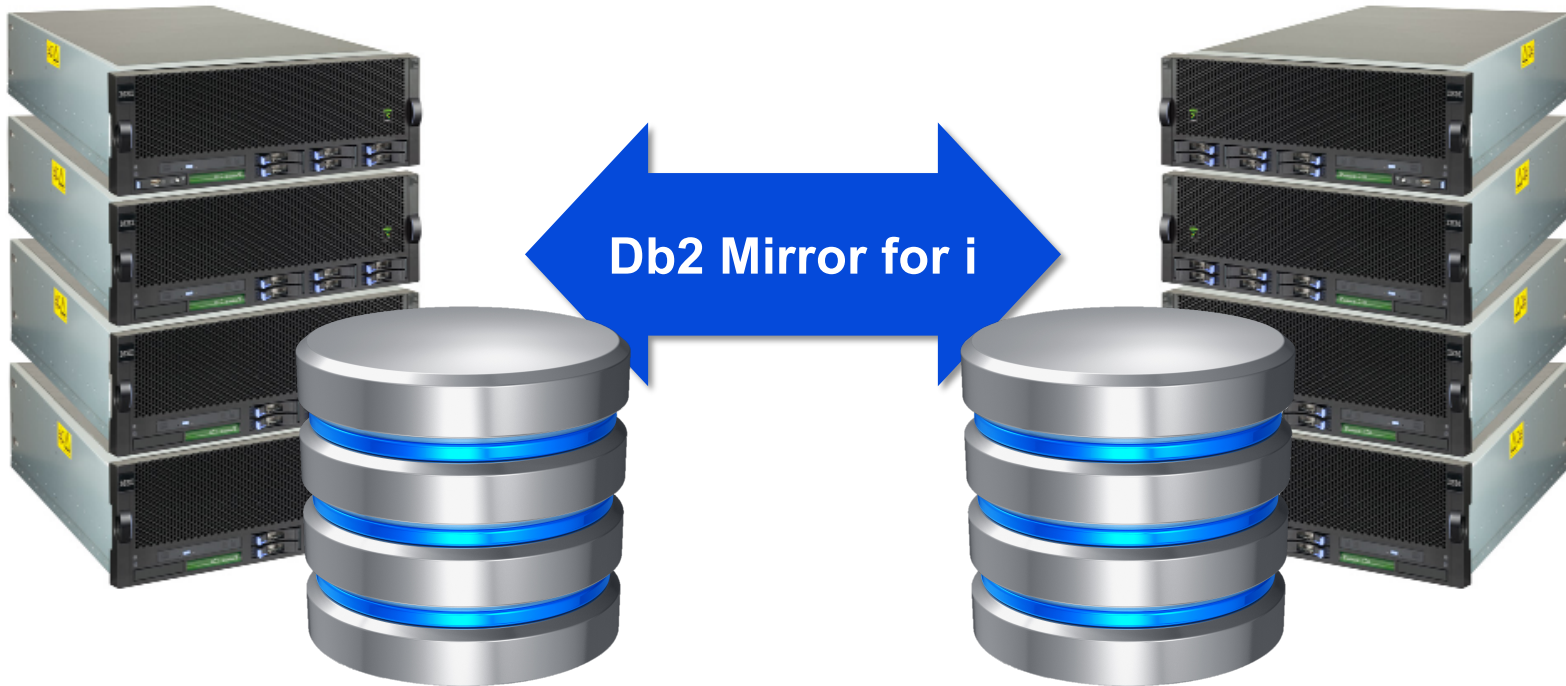
- Enhanced security features implement latest industry standard practices
- Protect critical business applications and data
- New auditing capability at the Object level



Open Source

- Industry standard Open Source environments
- Port more applications to IBM i
- Easily integrate with IoT, AI and Watson

IBM i Db2 Mirror



IBM Db2 Mirror for i

Operating System Synchronous Replication

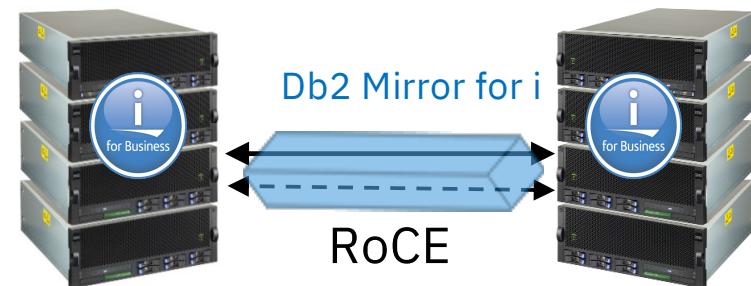
Continuous Availability

24 x 7 Up Time; RTO/RPO Near Zero

Rolling Upgrades

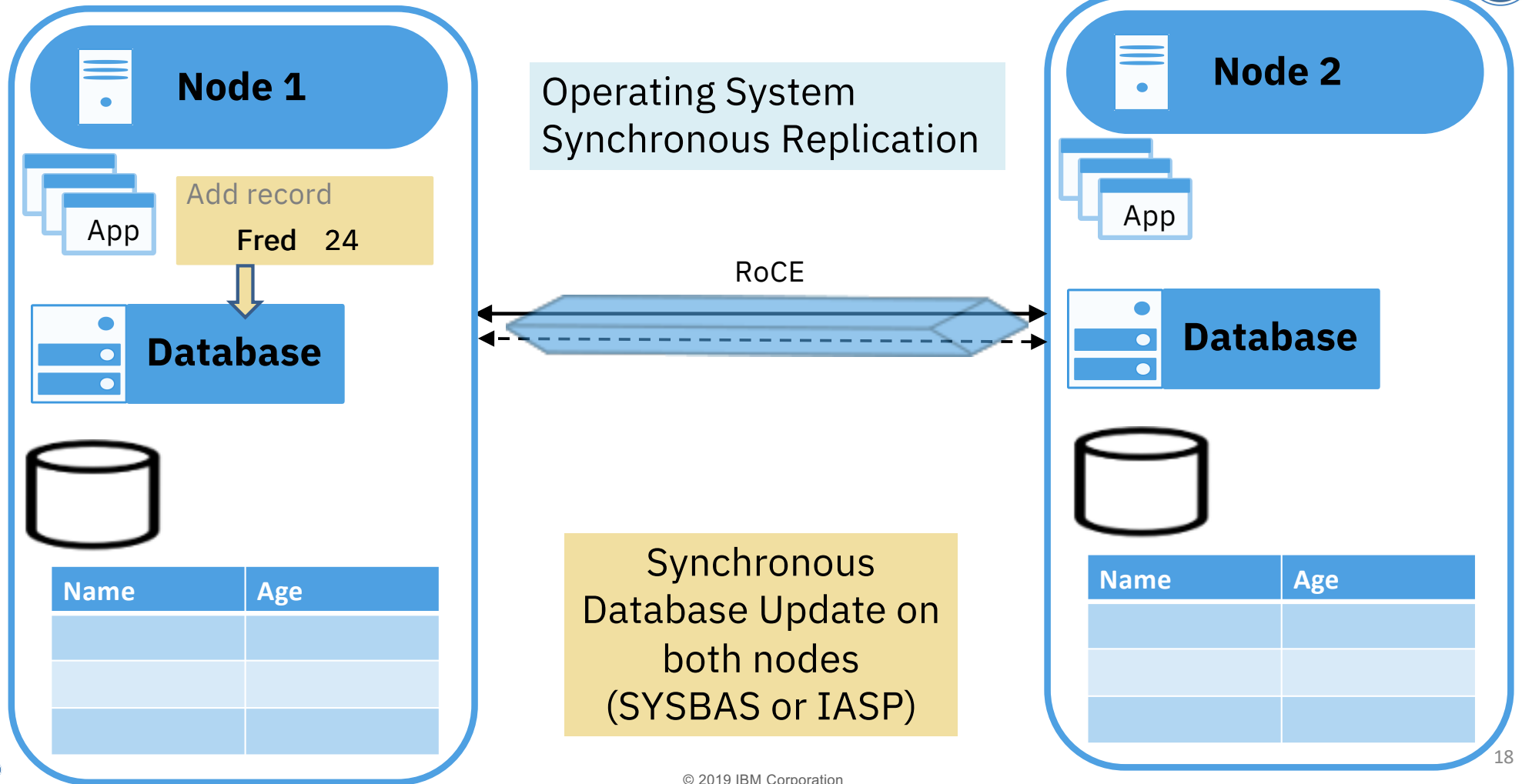
IBM Db2 Mirror for i (5770-DBM)

External Storage at GA; Statement of Direction for Internal Storage



POWER8 or later & IBM i 7.4

Db2 Mirror – Active Active



China Merchants Bank



Svenska Handelsbanken AB - Sweden



Pervasive Security

- New “view” in Authority Collection
 - Based on object vs user
- New Communication Protocols
 - TLSv1.3 higher encryption
 - SNMPv3 trap and inform messages
 - JTOpen
 - SMB3
- Access Client Solutions and RDi
 - Uses newest secure protocols
- Password rules enforced
 - DST and SST passwords – apply 27 rules
- Digital Certificate Manager increases automation



Authority Collection by Object

IBM i 7.4



Concept

- Capture detail related to authority checks for a specific **object**

Benefits

- ❖ **Safely reduce** excess authorization
- ❖ **Review** authorization model prior to deploying new solutions
- ❖ **Train** your IBM i security officers
- ❖ **Diagnose** authorization failures

Acquisition Cost

- None - included in IBM i 7.4



Systems Management

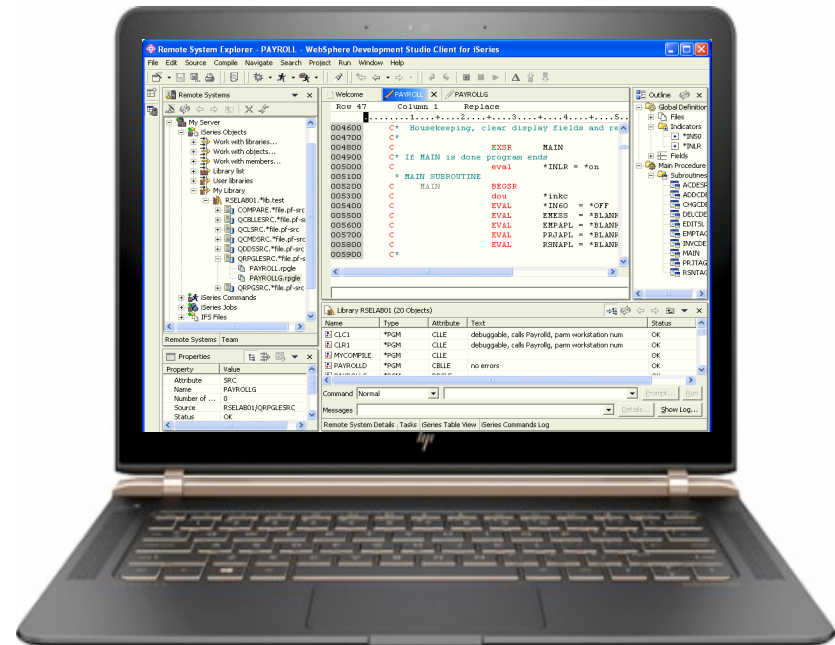
- Integrated Web App Server (IWS)
 - REST API generation for SQL procedures
- IBM i Services
- Work Management
 - QHST improvements
 - Workload Groups by SBS not JOBD
- New behavior for SAVE/RESTORE dedicated activities
 - option to remain in restricted state once operation is completed



Application Development - Traditional



- Key Languages and Environments
 - RPG – top client requests
 - COBOL many new enhancements
 - ILE CL can be compiled from IFS
- RDi
 - Many RFEs answered
 - ** PDM view delivered earlier



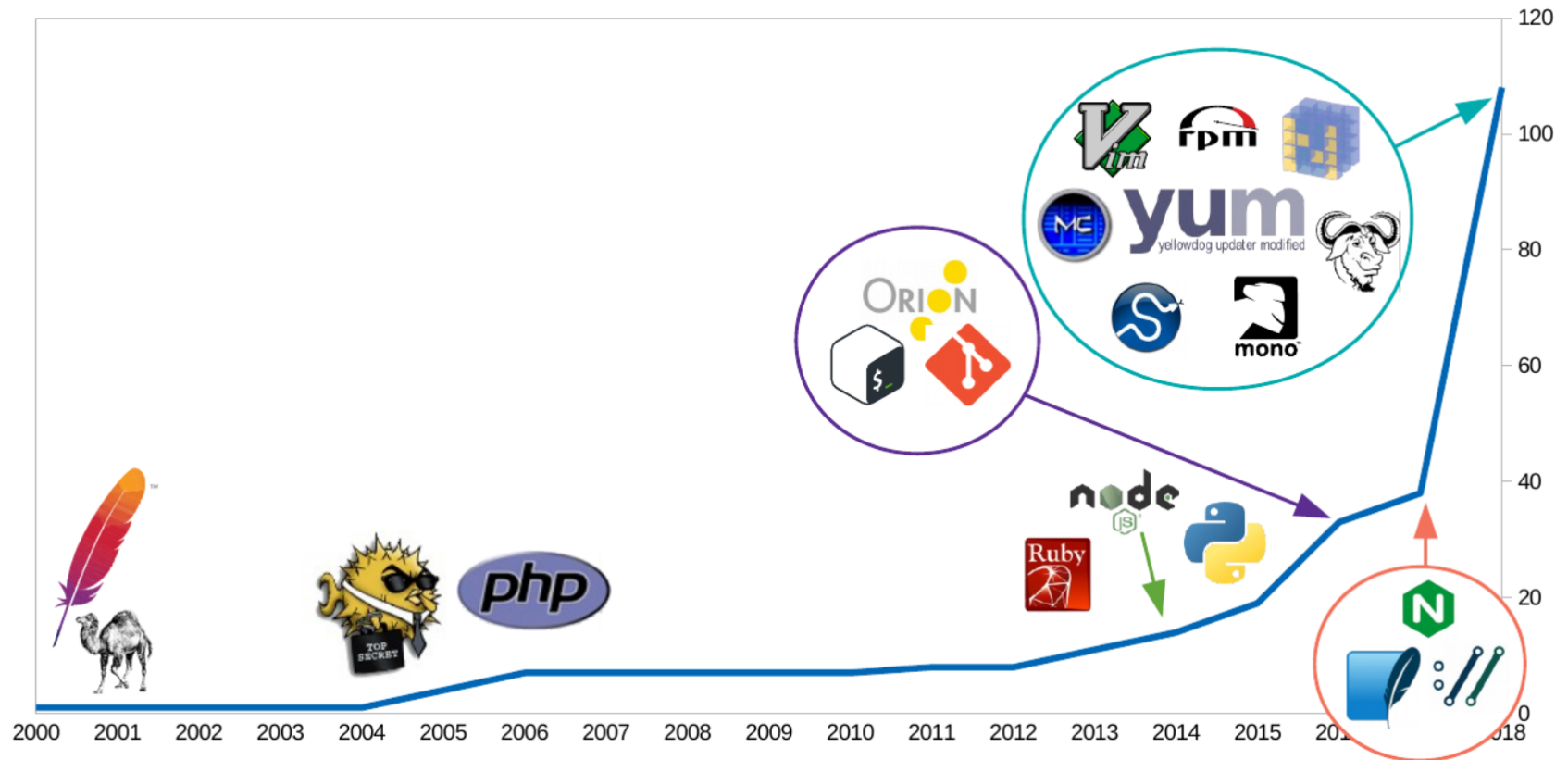
Open Source



- Node.js v10 and updated Python packages
- Midnight Commander
 - 2-pane file manager
- R
 - Language for analytics and statistical computing
- vim
 - Popular terminal based editor
- Active MQ
 - Open source message broker



Growth of Open Source



IBM i Clients – 45+ Stories of Innovation



Internet of Things – Sensors and More



Norwegian Air Ambulance - Norway



27 C



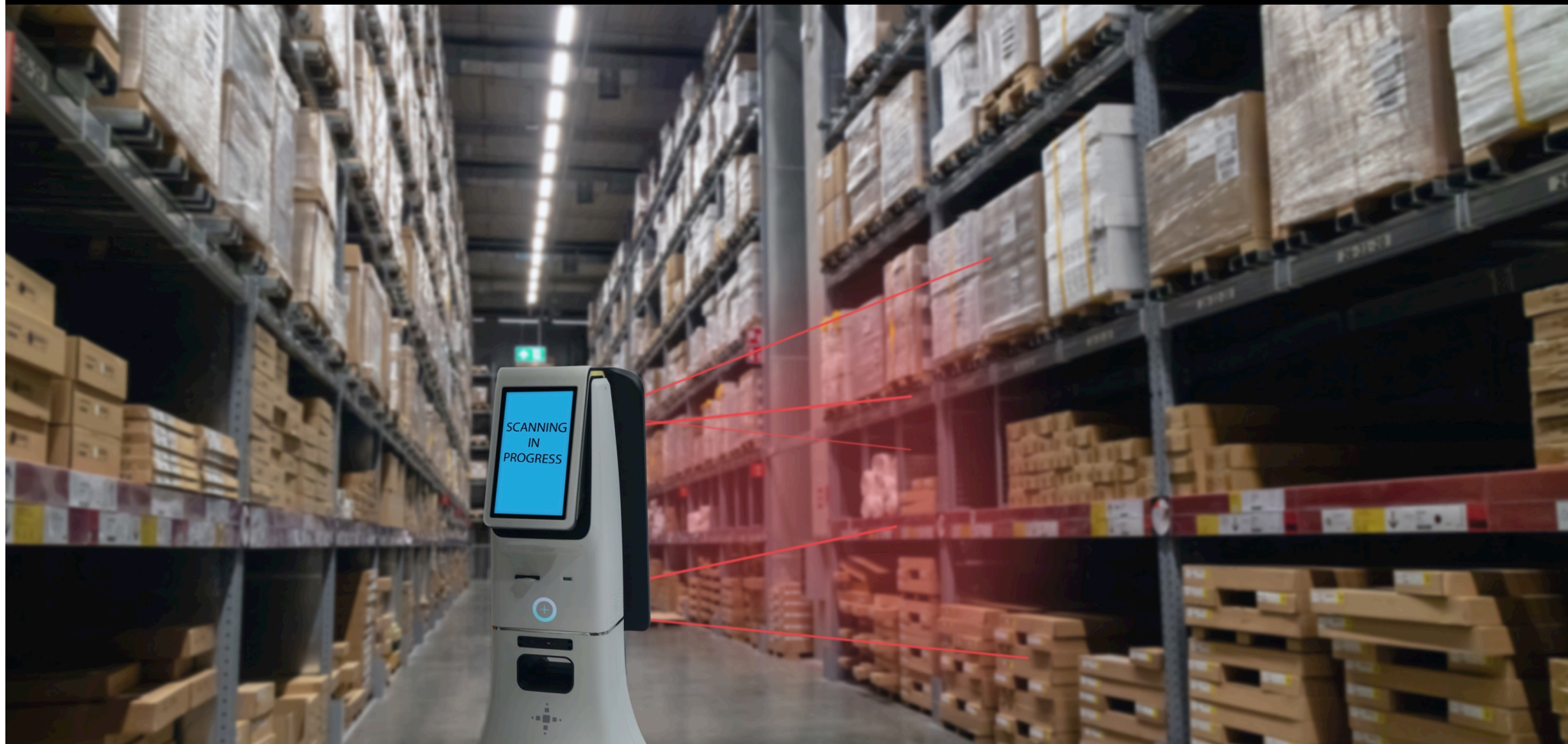
Mostly Cloudy

Wind: W at 6 mph

Humidity: 79%



Robotics



Brødrene A&O Johansen A/S - Denmark



Precise and Sensitive Robotics



Cras Woodshops – Belgium – Future Robotics TODAY!



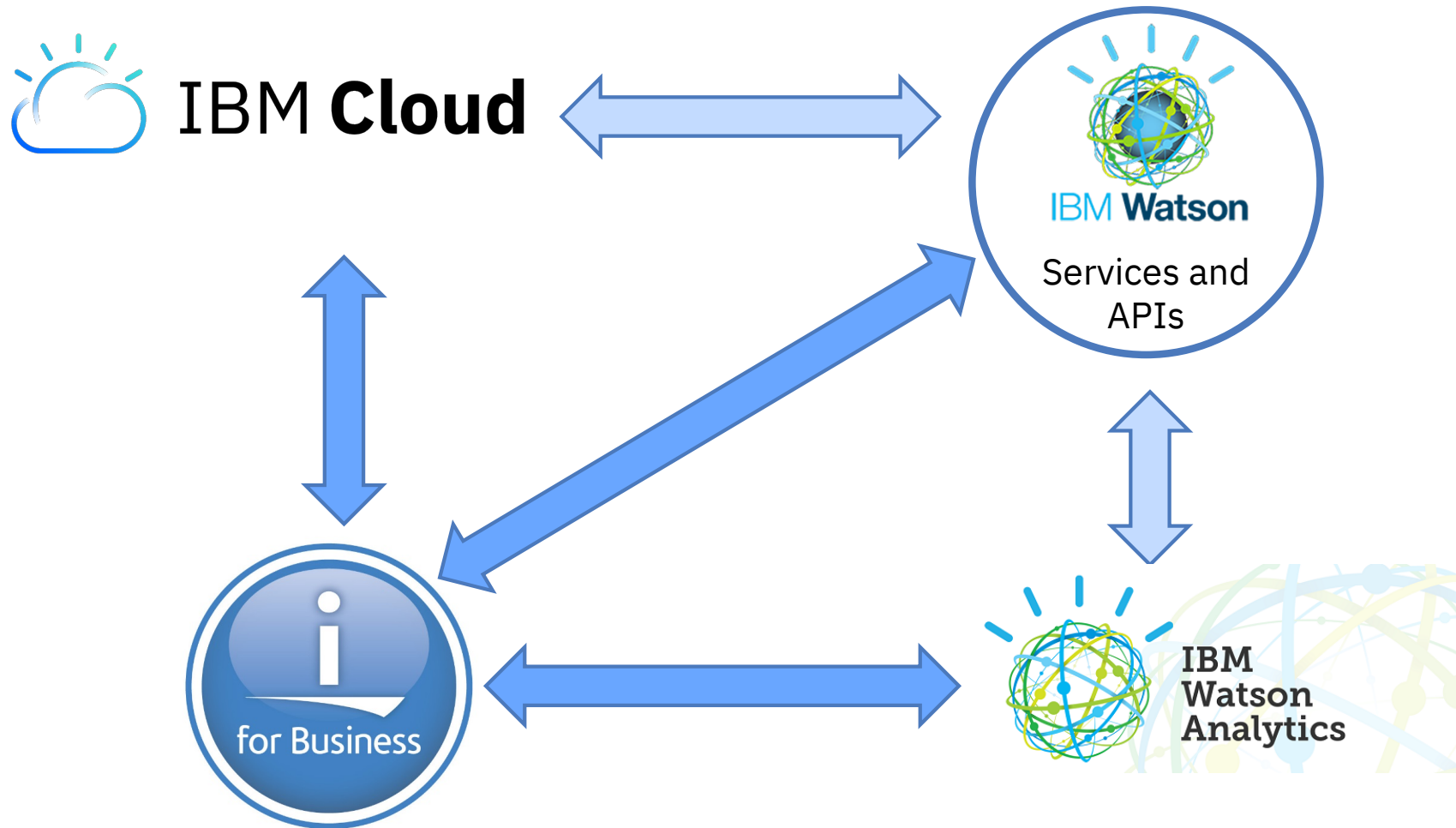
New Workloads: Machine Learning, AI and more



Mixing Multiple Technologies to Extend Business Value



IBM i & Watson



Robertet - France



Machine Learning and IBM i



Getting Started with Machine Learning and IBM i

The emerging realm of AI and Machine Learning can bring seemingly-limitless opportunity for your enterprise (and perhaps even mankind). How can you leverage these new technologies from IBM i? This session will provide an overview of what technologies you can be using from your IBM i today. We will cover various AI/ML packages available to run on the system, as well as the cloud-based capability of IBM Watson. After all, IBM i has always been a data-centric platform. Surely, Db2 for i houses mission-critical and intensely valuable data. Coupling AI and ML with this data can bring an unprecedented amount of innovation.

Caixa Geral de Depositos - France



The Cloud

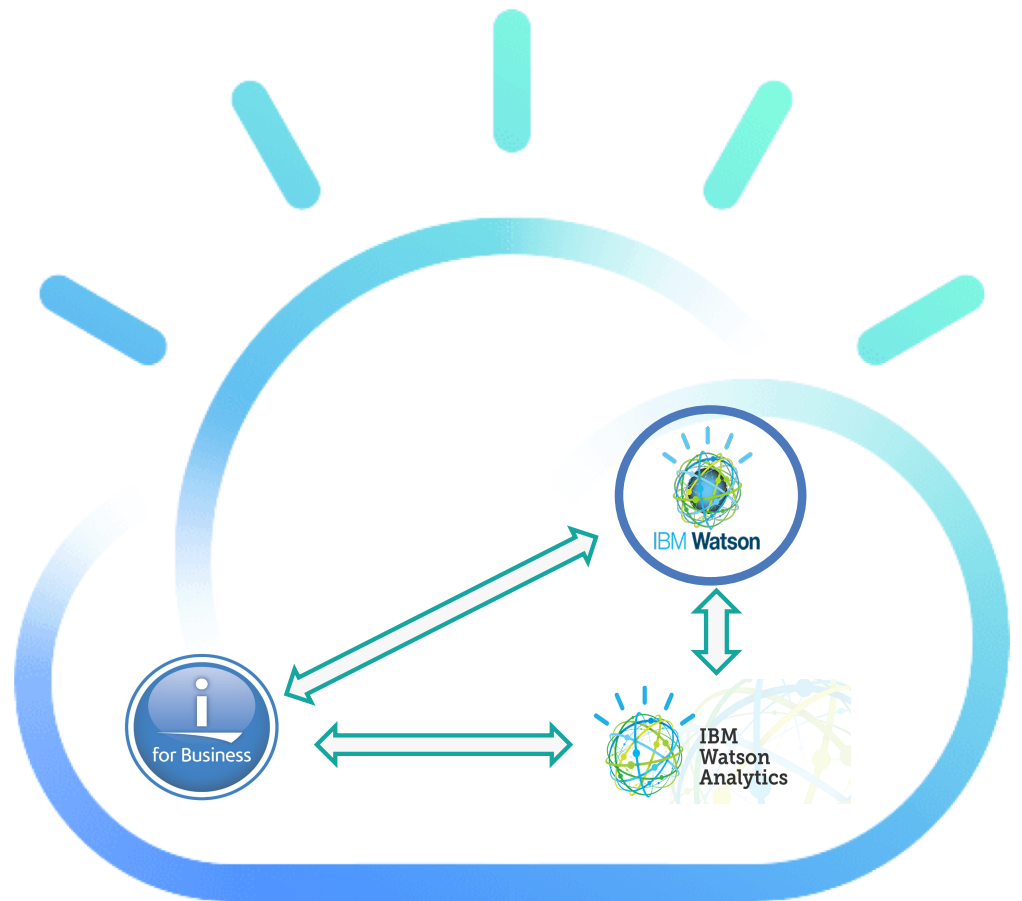


Steffimmo - Belgium

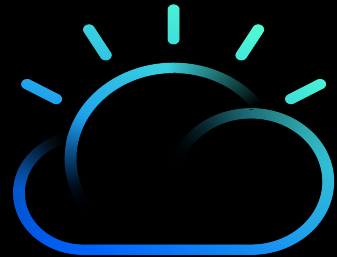


IBM i & Cloud Journey

- Customers considering Private, Hybrid and 100% cloud solutions where IBM i would be closer to the APIs that IBM Cloud delivers
- Enabling IBM i to be provisioned as a Cloud service allows the flexibility and scalability of the Cloud to be extended to IBM i
- SaaS ISVs looking to exploit an x86/Power architecture in the Cloud with micro services connecting them together
- Enabler for IBM i born on the Cloud applications



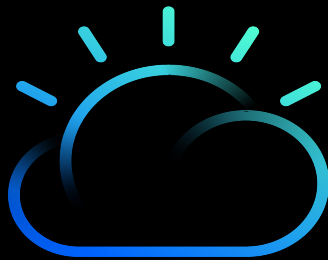
Cognitive Systems for hybrid multicloud



IBM Cloud



Partner Clouds



IBM Cloud
Private

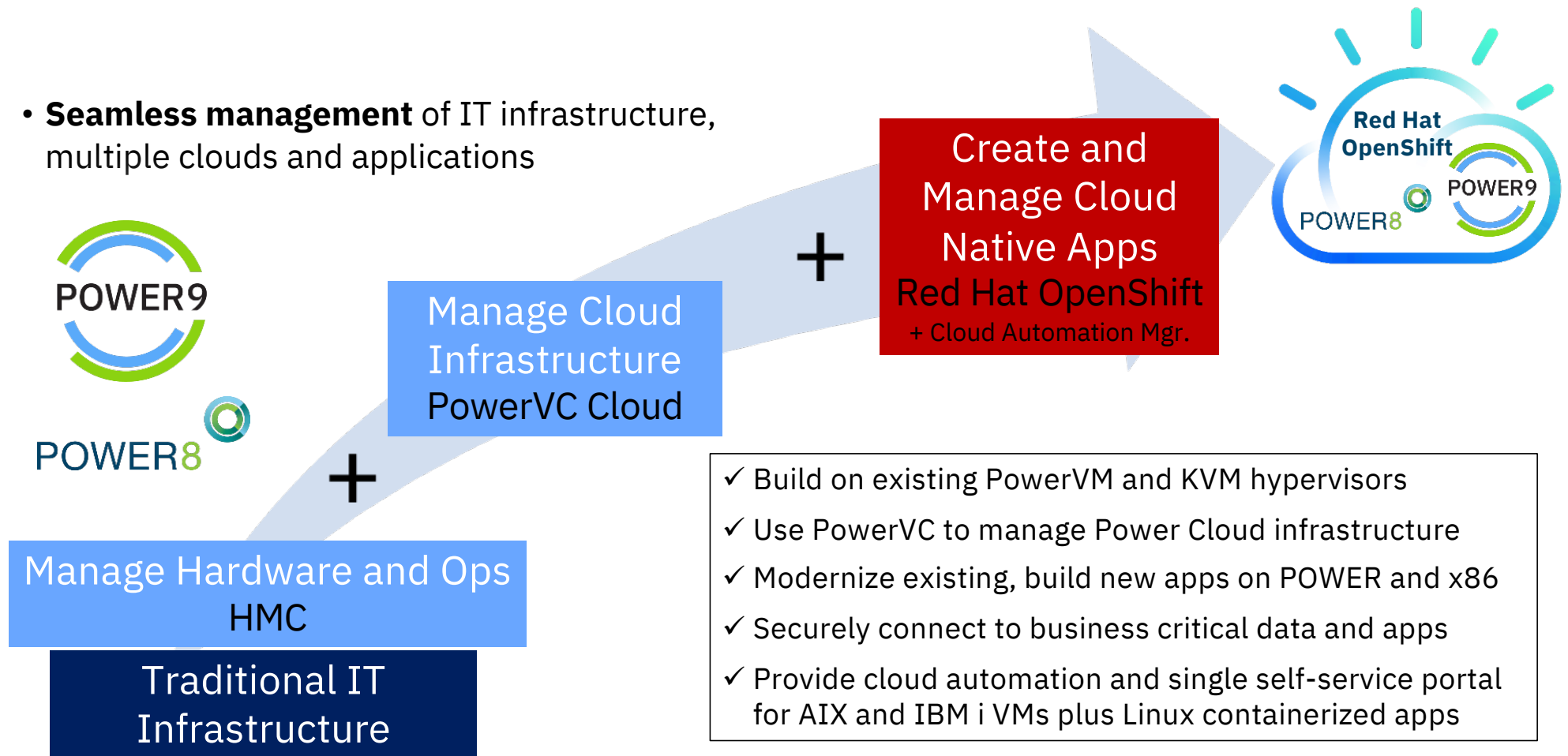
vmware®



OPENSIFT®
by Red Hat®

“Modernization” and Cloud Journey for POWER

- **Seamless management** of IT infrastructure, multiple clouds and applications



- ✓ Build on existing PowerVM and KVM hypervisors
- ✓ Use PowerVC to manage Power Cloud infrastructure
- ✓ Modernize existing, build new apps on POWER and x86
- ✓ Securely connect to business critical data and apps
- ✓ Provide cloud automation and single self-service portal for AIX and IBM i VMs plus Linux containerized apps

Use Terraform Templates to Automate IBM i Configuration

Publish the service by putting different templates together in a working flow.

The screenshot displays the IBM Cloud Automation Manager interface for a service named 'i-nodejs-setup'. The interface includes a navigation menu on the left with categories like Flow Components, Notification, Integration, Helm Charts, and Templates. The main area shows a 'Provision' flow diagram with a 'VM size' decision node branching into 'small' and 'medium' paths, each leading to a 'template_ibmi_nodejs' node. A right-hand panel shows the details for 'template_ibmi_nodejs_d392d8', including a table of input parameters and their values.

INPUT PARAMETERS	VALUE
<u>image_name</u>	ibmi-qciuser
<u>flavor_name</u>	lj-medium
<u>network_name</u>	net50
<u>ibmi_vm_name</u>	m-nodejs


Catalog



i-nodejs-setup
service

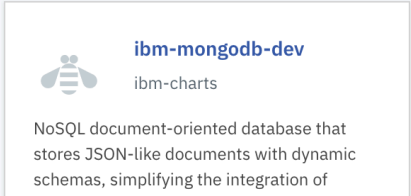
Setup a node js environment.

ation **Repositories** Reset all



ibm-block-storage-attacher
ibm-charts-public

A Helm chart for installing ibmcloud block storage attacher. This is used for attaching the pre-created block volumes on the wo...



ibm-mongodb-dev
ibm-charts

NoSQL document-oriented database that stores JSON-like documents with dynamic schemas, simplifying the integration of

IBM
As
for

Runtimes & Frameworks

DSM deployed per namespace,

plugins to support building, deploying and

What are “They” saying about today’s IBM i



IBM I: The Most Amazing IBM Product You've Never Heard Of

By: Rob Enderle | February 13, 2019



NEW PRODUCT ANALYSIS: The IBM I platform (the second "I" stands for Integrated) is converged packaged software platform that evolved out of that legendary AS400, and it is even more amazing.



SAN FRANCISCO--Occasionally, I run into a product that just has me sitting back wondering if I stepped into some kind of alternative universe. One of the first products that gave me this impression was the old AS400 from IBM. It was kind of like if you took an Abrams Tank and created a server with similar survivability. The stories of these things were legendary.

One system was on the top floor of a four-story building that was demolished, literally flattened, by a tornado and after falling those four stories, being buried by rubble and rained on, they only needed to dry it out to bring it back on line. Another system ran for a whopping 18 years without anyone patching, updating or even backing it up with no issues. Yet another was walled up accidentally yet remained in service for years until someone tracing down the power and network wiring opened a wall to see what the wiring went to and found a hidden AS400.

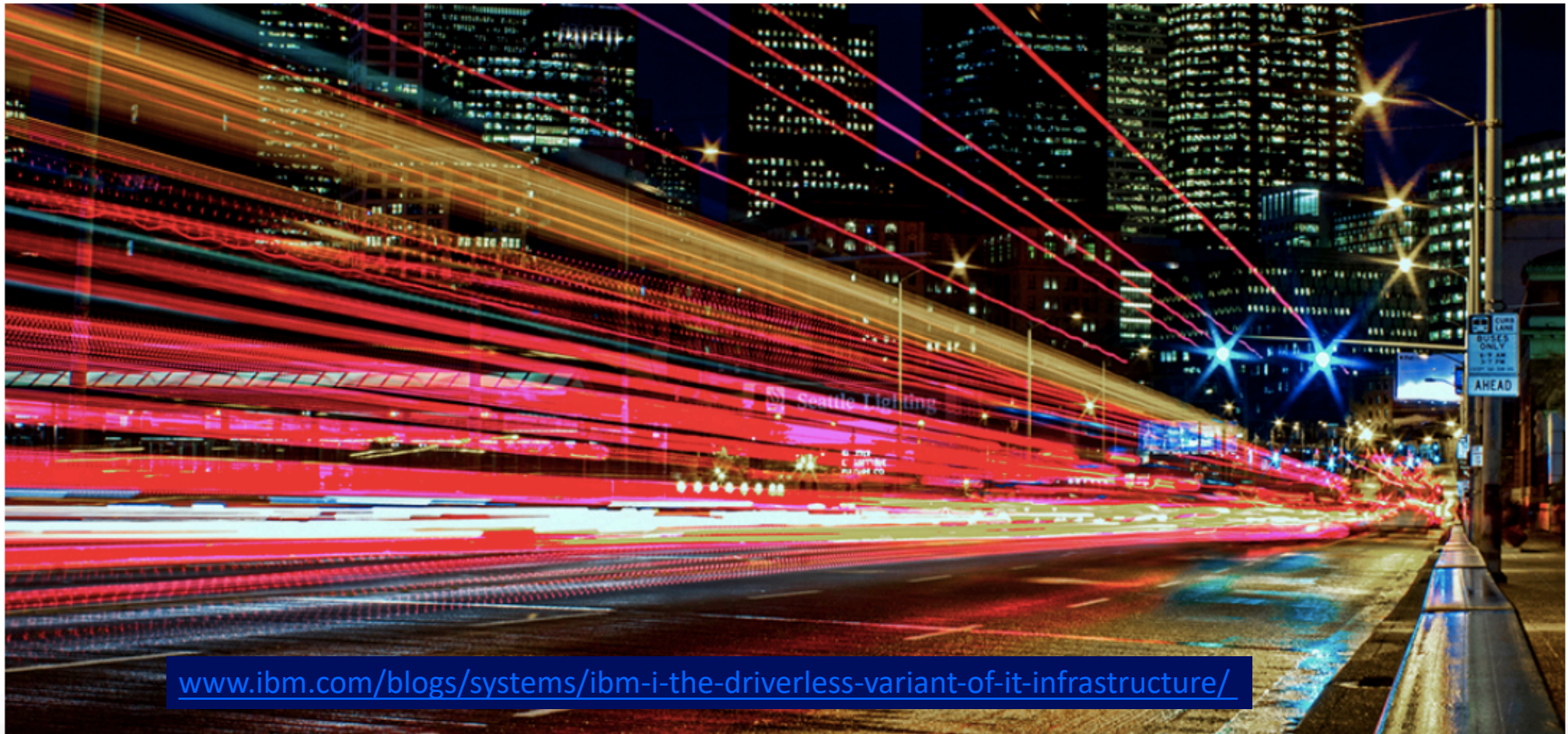
<https://www.eweek.com/innovation/ibm-i-the-most-amazing-ibm-product-you-ve-never-heard-of>

IBM I: The Most Amazing IBM Product You've Never Heard Of

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IBM i – The driverless variant of IT infrastructure

By Peter Rutten | 4 minute read | August 13, 2019



www.ibm.com/blogs/systems/ibm-i-the-driverless-variant-of-it-infrastructure/

Peter Rutten



Research Manager, Server Solutions, IDC

Peter Rutten is a Research Manager, Server Solutions with IDC's Enterprise Platforms Group. In this role, Mr. Rutten focuses on the high-end server market, including Unix, mainframes, and high-end x86 servers. His research also covers subjects that are of critical importance to high-end server customers such as high availability, big data, and flash storage.

From Peter Ruttan's "Driverless"

"The [Help Systems 2019] survey shows

- 38% employ a single administrator for their IBM i environment;
- 13% have none. Zero.
- 57% IBM i environment runs fully unattended."

"That sounds pretty close to autonomous. And, I might add, it sounds somewhat astounding given that businesses in IBM i's three largest verticals— manufacturing, finance, and distribution— actually run their core business applications on the platform."

Considering Leaving Legacy IBM Platforms? Beware, as Cost Savings May Disappoint, While Risking Quality

Published 21 March 2019 - ID G00383838 - 16 min read

Legacy platforms may seem old, outdated and due for replacement. Yet IBM and other vendors are continually integrating open-source tools to appeal to more developers while updating the hardware. Application leaders should reassess the capabilities and quality of these platforms before leaving them.



Thomas Klinect
Sr Director Analyst



Mike Chuba
Managing Vice President



<https://www.gartner.com/doc/reprints?id=1-6L80XQJ&ct=190429&st=sb>

Gartner “Leaving Legacy Platforms is Risky” - Recommendations

“[Remove emotion from the decision-making process](#) by conducting a business-led, IT supported audit of the entire ecosystem, in order to understand the business benefits of a platform change.

[Analyze existing technology](#) and capabilities as well as the quality of traditional platforms by documenting the gap between business requirements and the platforms supporting them.

[Uncover the total cost of ownership of transitioning](#) from the existing platform to another by performing a fact-based analysis of current expenditures, as well as contrasting the target platform expenses, being sure to include total transformation costs in the budget.”

The Newest IDC Paper



White Paper

For Many Businesses, It's Time to Upgrade Their Best-Kept Secret: IBM i

Sponsored by: IBM

Peter Rutten
September 2019

<https://www.ibm.com/account/reg/us-en/signup?formid=urx-41002>

What Will the Future Bring?



IBM i Release Roadmap



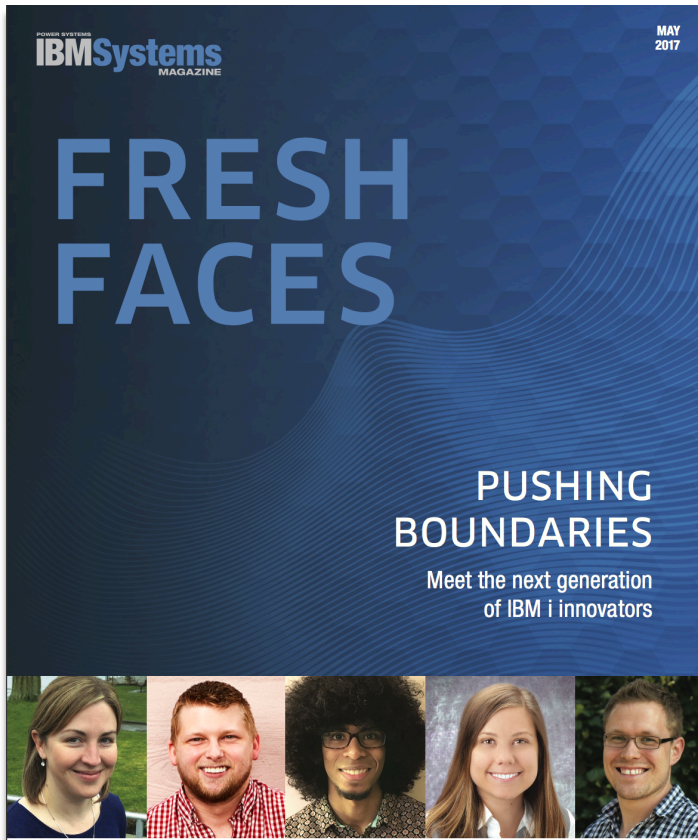
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IBM i 2019 - <https://www.ibm.com/it-infrastructure/power/os/ibm-i>

IBM i: A platform for innovators, by innovators

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Fresh Faces of IBM i – Joining a Community of Innovators



New Talent Brings Innovation to IBM i

June 2019 | by Brett Martin



<http://ibmsystemsmag.com/power/trends/whatsnew/new-talent-brings-innovation-to-ibmi/>

You and i *IBM i Trends and Strategies*



By Steve Will

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Fresh Faces in IBM i Development

August 14, 2018

Last week I wrote the blog I had to write. This week, I get to write the blog I've been wanting to write for most of the summer.

Last week was important, for sure: an announcement about Technology Refreshes and the big POWER9 systems. It's part of our communication strategy that I write a blog for announce day.

This week, the story is more strategically important—plus, it's just fun!

<http://ibmsystemsmag.com/blogs/you-and-i/august-2018/fresh-faces-in-ibm-i-development/>

Fresh Faces in IBM i Development – the newest Innovators





What is your next innovation with IBM i?





obrigado

Dank U

Merci

mahalo

Köszi

спасиби

Grazie

Thank
you

mauruuru

Takk

Gracias

дякую

Děkuju

danke

Kiitos

IBM