IBM i Strategy, Roadmap and Latest Updates

Highlights of IBM i 7.4

Southeast Michigan IBM i User Group

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IBM i Anywhere
IBM i Everywhere

IBM Power Systems

Infrastructure built for business with hybrid cloud agility

IBM i Anywhere
IBM i Everywhere

Power E980

Power E950

Power S922/S924

Power S914

Consume Infrastructure as a Service

Flexibility in deployment, management, and payment options

Power Server Standalone

Traditional Infrastructure Deployment

Consume entire server as an application platform

- Leadership Performance and Scale
- Industry-leading Availability
- Flexibility & Agility
- End to end Security from the processor to virtualization and OS
- New scale out systems with high performance I/O (S9xx G models)
- NVMe storage delivers higher performance and lower cost
- 1-core S922 for IBM i

Power Private Cloud with Dynamic Capacity

Pay only for what you use

Cloud Capabilities On Prem. with Advanced Monitoring

- Flexible consumption options with built-in cost optimization
  - 20-30% lower TCO
  - ~ 50% lower TCA
- Simple agility to respond to business demands
- Cloud-based monitoring, metering by the minute
- Real time visibility and control

Power Virtual Server with IBM Cloud

Extend to Cloud

Same mission Critical Infrastructure as on-prem, for Dev/Test, HA/DR, Modernization

- VM as a Service
- Consistent architecture to On Prem infrastructure
- AIX, IBM i and Linux
- Access to other cloud services
- Expanding locations and capability

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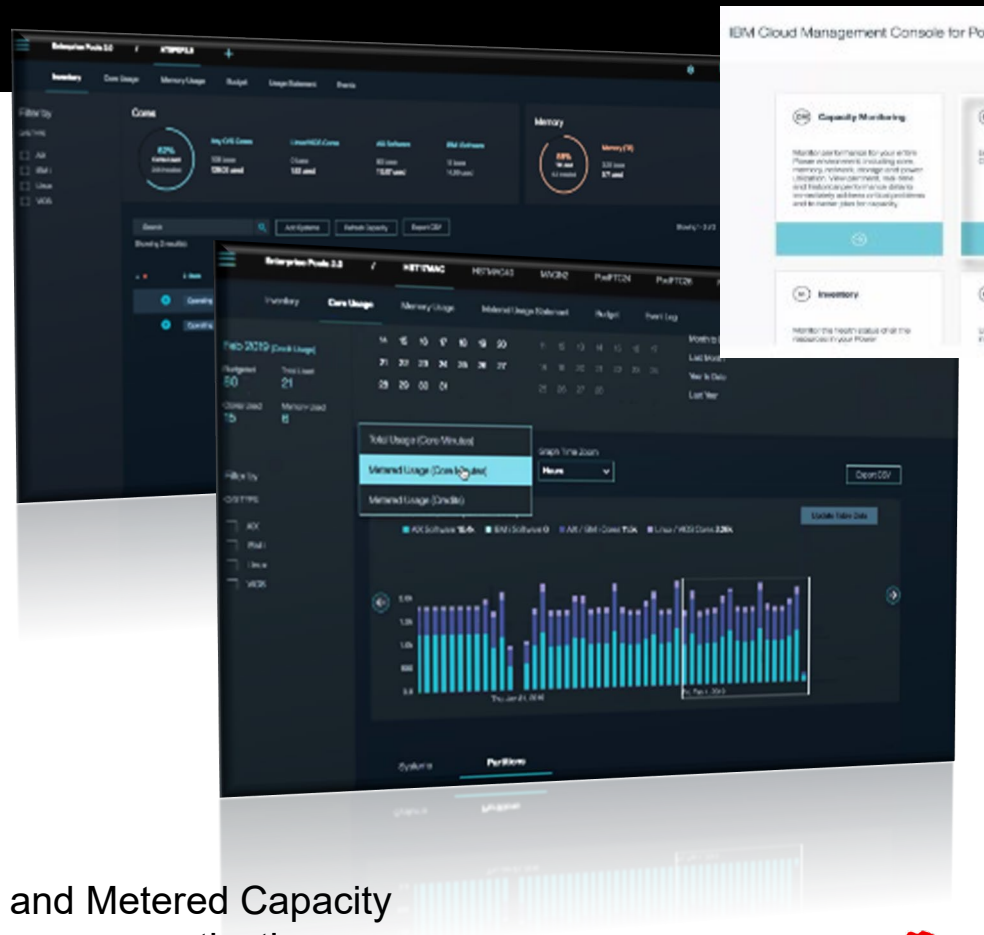
Power Private Cloud with Shared Utility Capacity

Fully active, metered by the minute

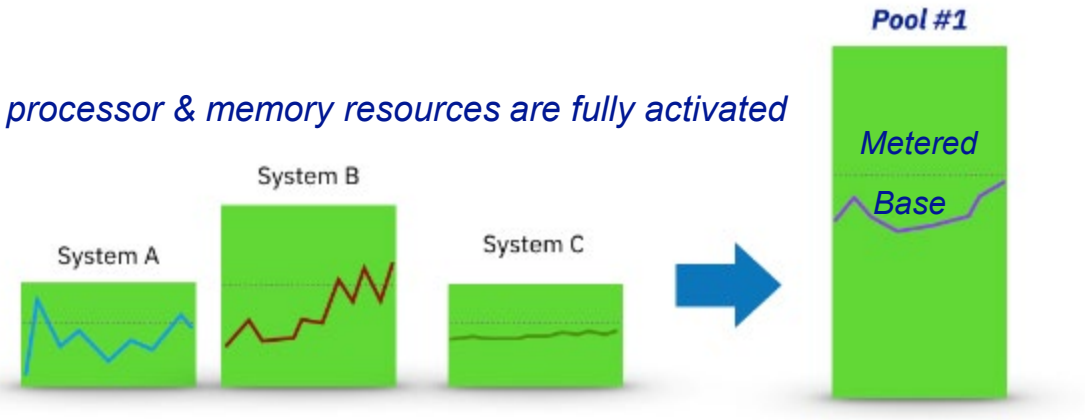
Deploy *Shared Utility Capacity* across a pool of Power E980, E950 or S922/S924 systems

POWER9

- One machine type supported per pool
- Purchase physical servers with Base capacity, which is aggregated and effectively shared across the pool
- Remaining capacity on each server is activated and made available for use when the pool is started
- IBM Cloud Management Console (CMC) interacting with an HMC automatically meters any resource use that exceeds the pool's Base capacity, and debits minutes real-time against Capacity Credits on account



All processor & memory resources are fully activated



Base and Metered Capacity

- Processor activations
- Memory activations on E950 & E980
- AIX and IBM i license entitlements
- SUSE Linux Enterprise Server subscriptions

New!

AIX IBM i SUSE

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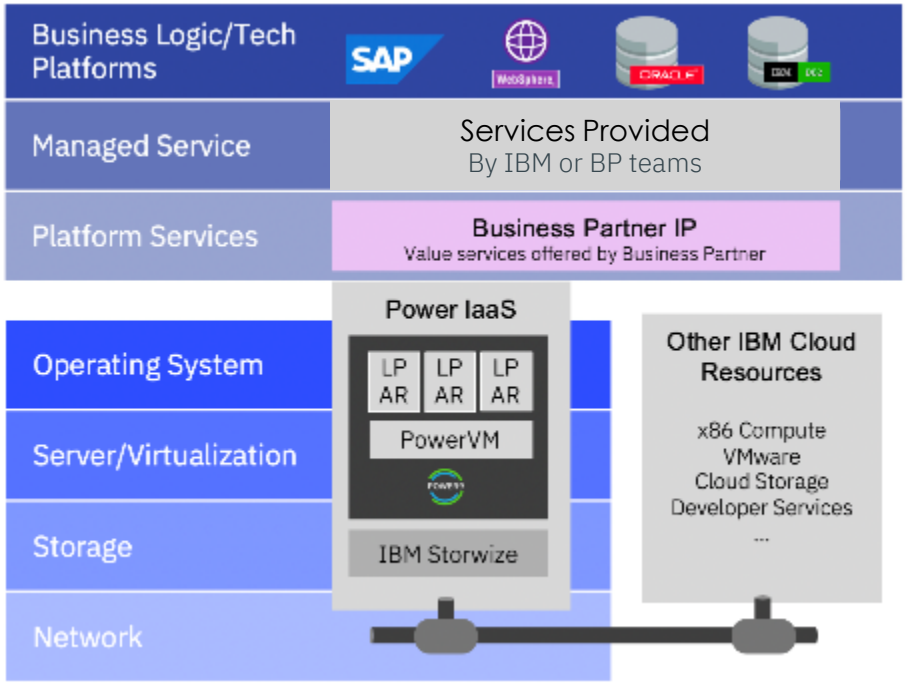
IBM Power Systems Virtual Server (PowerVS)

Offering Description:

- Self-provision and purchase monthly subscription Power IaaS instances from IBM Cloud.
- Self-service VM management of pool of compute, memory, storage, network infrastructure.
- Secure access to PowerVM based LPARs through client owned IBM Cloud resources.
- IBM manages IaaS resources and supports hardware/software up to OS deployment
- Client self-manages the Operating System and all software above the OS
- Client can bring their own OS images and add to available OS images.
- Client can bring their own Software for ISVs who support BYOL for Public Cloud

Systems:	S922, E880, E980
Compute:	0.25-153 cores (15 for S922, 153 for E880/980), Dedicated or Shared option (capped or uncapped)
Memory:	8-64 GB per core
Storage Type:	Tier 3 (HDD / SSD) or Tier 1 (SSD / NVMe)
Storage Quantity	10 GB minimum / 2 TB maximum per disk, 10 GB
Network:	increments
OS:	Public and/or Private IP
Data Centers:	AIX / IBM i / Bring your own Linux Dallas, Washington, Toronto, Frankfurt, London, Sidney, Sao Paolo, Montreal

https://www.ibm.com/cloud/power-virtual-server



Multi-tenant, self managed, Power compute as-a-service in IBM Cloud with consumption-based OPEX pricing

Pricing Methodology:

- **Consumption based pricing:**
  - **Hourly pricing, monthly billing**

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IBM Power Systems Virtual Server
External 2021 Roadmap

IBM i Anywhere
IBM i Everywhere

Our team's focus is around improving the ease of use and performance of our networking, achieving new standards in compliance for our client's data, integrating/facilitating additional workloads into Power VS, and continuously improving the user experience. The items below have been committed for delivery.

1Q21

Compliance:

- SOC 1 Type 2

Storage:

- IOPs script roll-out

Functionality:

- Increase VM min/max & mem bounds
- IBM i 7.1 support
- CentOS on PowerVS
- RHEL 8.1 & 8.2 BYOI/S
- RH Openshift

2Q21

Compliance:

- SOC 2 Type 2

Network:

- Allow 10G DL Connect VCs (Manual/
- ticket))
- Network Automation (API/CLI)

Functionality:

- 980 Expansion $/meter support for WDC04
- IBM i 7.2 Service Extension
- Enhanced Affinity placement (API)

ISV ecosystem:

- SAP HANA cert w/RHEL 8.1- image

3Q21

Compliance:

- ISO 27K Update

Network:

- Network Automation (UI)
- VPNaaS Automated (API/CLI)
- Private endpoint for PowerVS API

Storage:

- Expose storage pools (API)

Functionality:

- Software VTL for IBM i PowerVS
- IBM-i 5250 console Japanese Language

4Q21

Compliance:

- PCI Compliance
- OS Encryption w/ BYOK (AIX)

Network:

- VPNaaS automation (UI)
- 10G DL Connect VCs automation

Storage:

- Expose storage pools (UI/CL)

Functionality:

- Hybrid Cloud Credit management
- Integrated Backup (Resiliency Team)
- Enhanced Affinity- UI/CLI

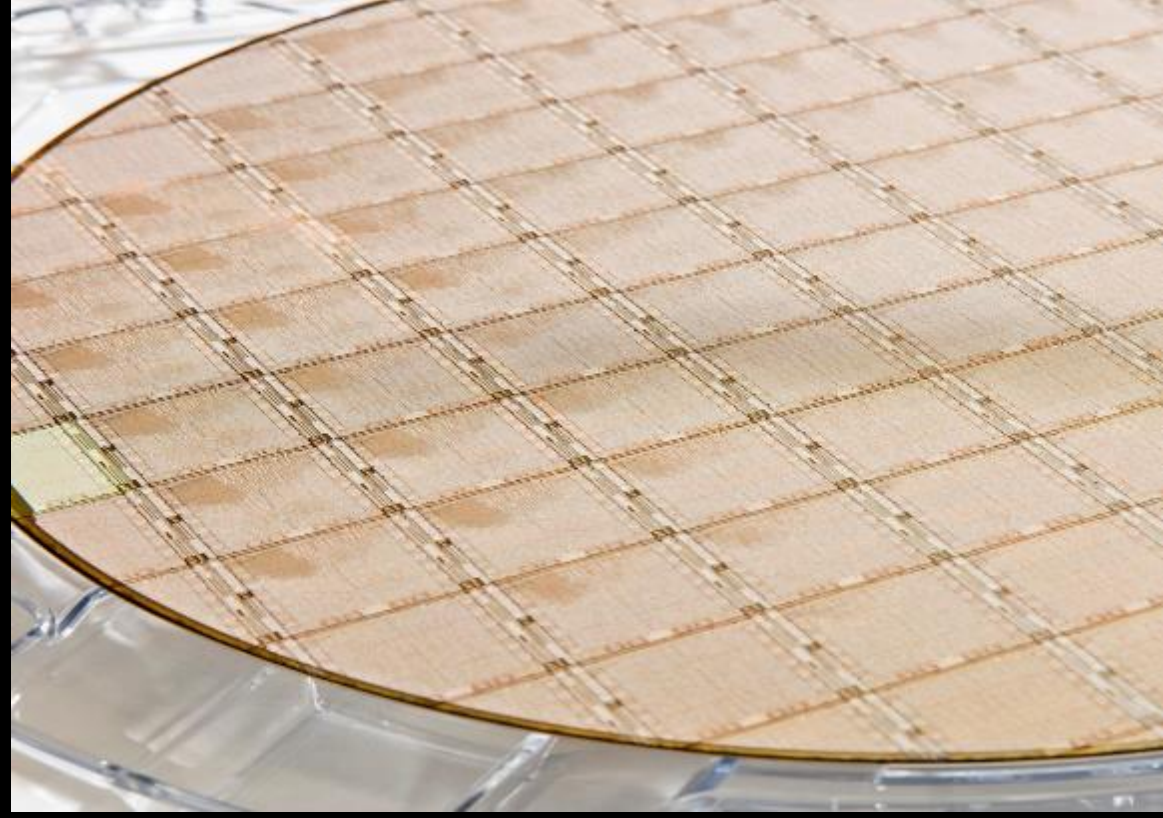
Performance:

- Benchmarking for Backup

These dates are subject to change

IBM Reveals POWER10 at Hot Chips Conference, August, 2020

The IBM POWER10 chip is built for the cloud – private, public, or hybrid – meeting demands for capacity, security, energy efficiency, elasticity, and scalability, while infusing AI into enterprise business applications driving the future of enterprise computing.



Powerful new enterprise core architecture in 7nm technology with larger caches and reduced latency

Advanced IO for data throughput with PCIe Gen 5 and Open Memory Interface

Nearly 3X improvement in energy efficiency and Capacity

Enhanced end-to-end security, co-optimized with PowerVM

AI acceleration infused in the core

HOT CHIPS

Hot Chips: A Symposium on High Performance Chips

Conference Sponsor IEEE Technical Committee on Microprocessors and Microcomputers.

https://newsroom.ibm.com/2020-08-17-IBM-Reveals-Next-Generation-IBM-POWER10-Processor

https://www.youtube.com/watch?v=btbeXx6xXBU#action=share

https://www.youtube.com/watch?v=KCP_MmqVStI

https://www.anandtech.com/show/15985/hot-chips-2020-live-blog-ibms-power10-processor-on-samsung-7nm-1000am-pt

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IBM i gets a modern look!

- IBM has moved to Consistent Imaging
- Power Systems icons are changing
- And there is a round one!

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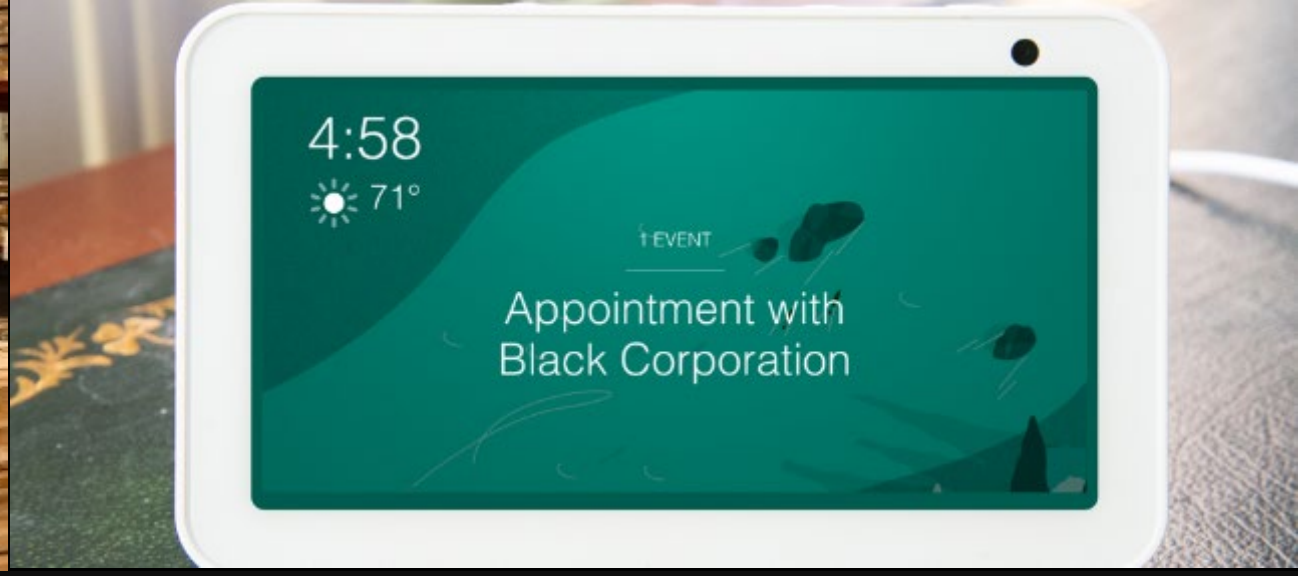
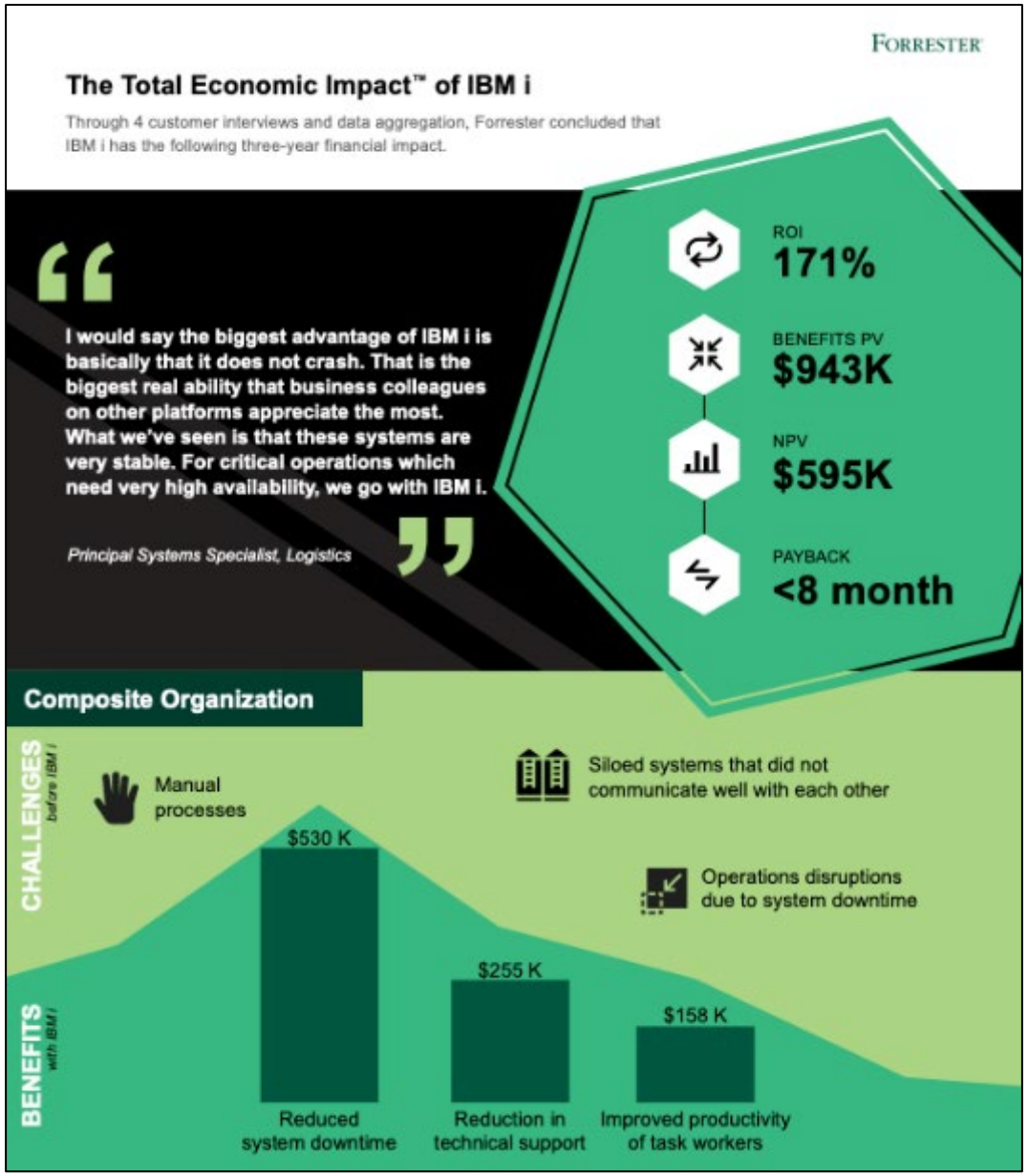
IBM



Client Innovation

https://www.ibm.com/it-infrastructure/us-en/resources/power/ibm-i-customer-stories/

New Forrester TEI of IBM i Report



Link

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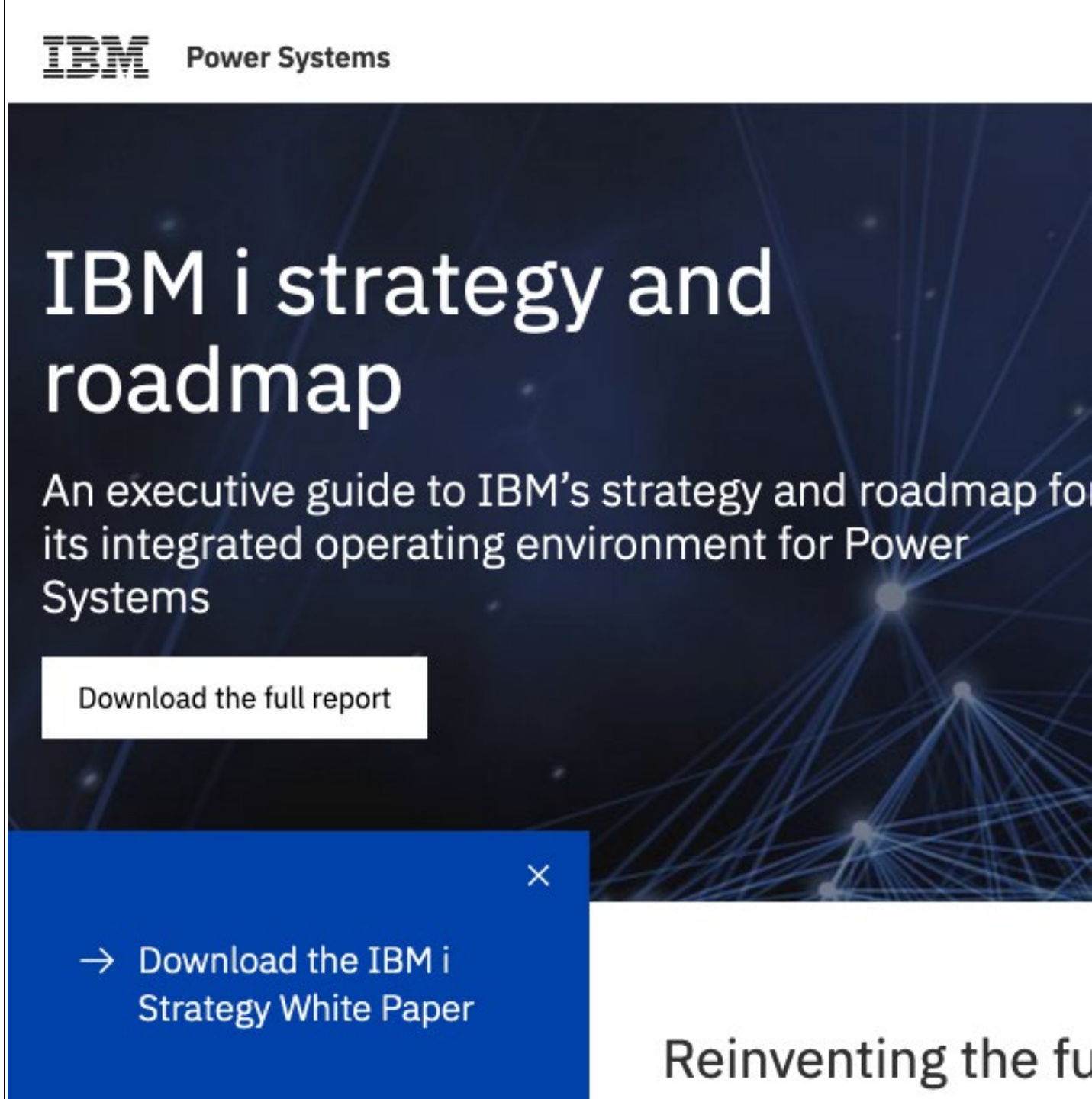
IBM i Strategy Whitepaper

Reviews industry directions

Reflects the strategy of IBM i in specific roadmaps such as

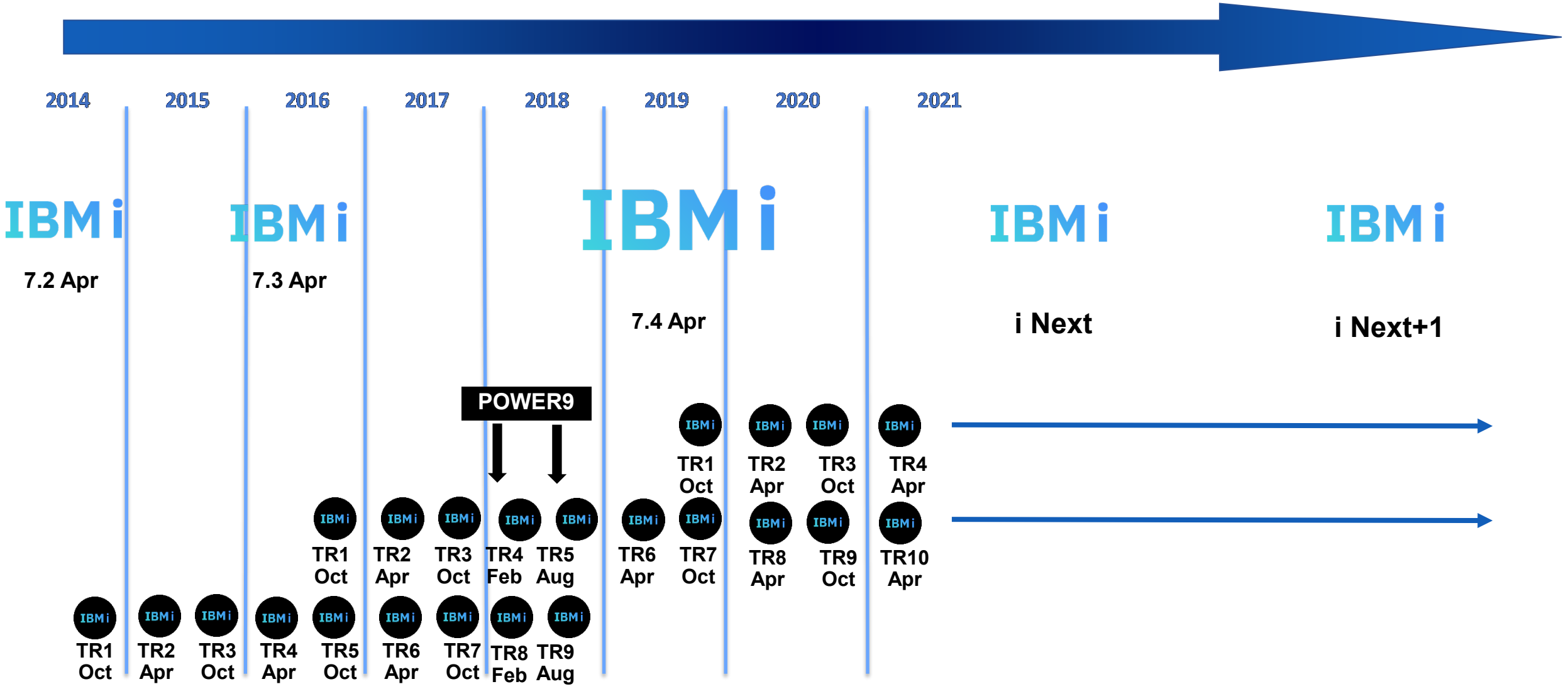
- Strategy
- Partners
- Cloud
- Cognitive Computing
- Application Modernization
- Database

https://www.ibm.com/it-infrastructure/us-en/resources/power/i-strategy-roadmap/



IBM i Release Roadmap – Announcement Dates

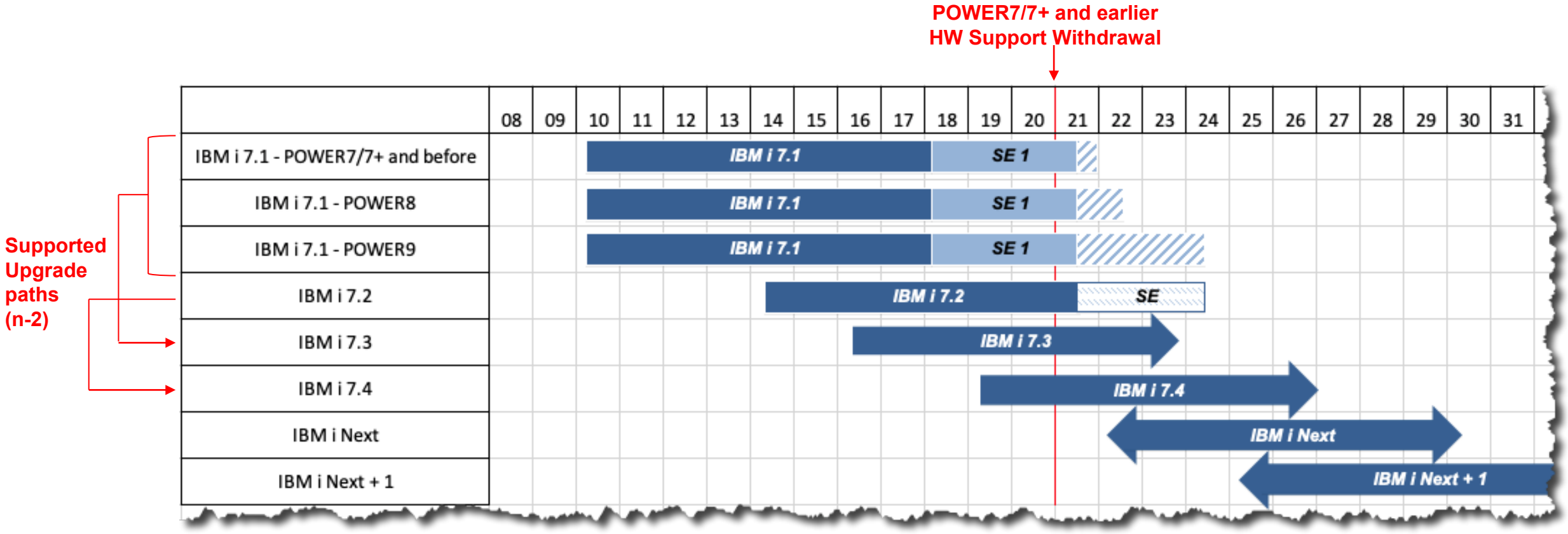
IBM i Anywhere
IBM i Everywhere



** 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.

IBM i and POWER Support Roadmap

IBM i Anywhere
IBM i Everywhere



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** Arrows indicate “ongoing status” and do not imply any specific dates.
** Service extensions of older Operating System releases are dependent on specific hardware support availability

IBM i Strategic Directions

Power Solutions

- Enable clients to exploit latest POWER technology
- Enable transformation of customer solutions with new value
  - Mobile, Internet of Things, Cognitive, Machine Learning and AI
- Enable Solution Developers to modernize around services & hybrid cloud

Open Platform for Choice

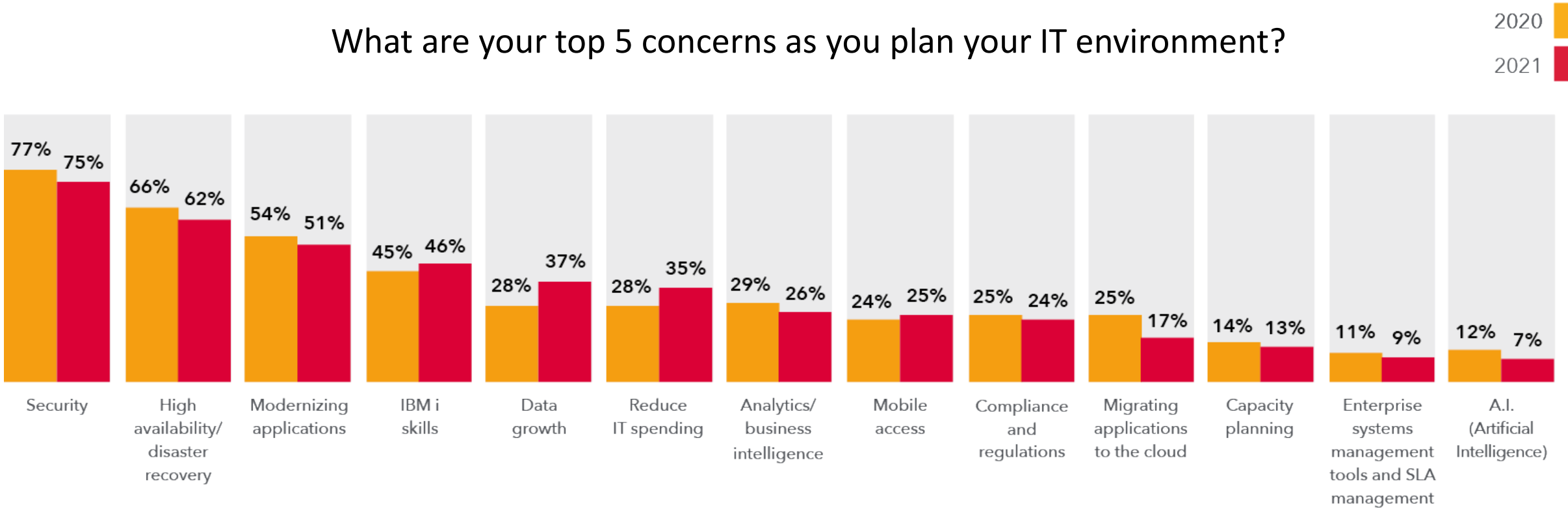
- Grow IBM i solutions options including open source languages & applications
- Flexible options for Cloud (inside or outside Data Center)
  - Dynamic Capacity, Power Virtual Server, etc
- Entice new talent with popular open languages and tools

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

2021 Top IT Concerns

What are your top 5 concerns as you plan your IT environment?



https://www.helpsystems.com/resources/guides/ibm-i-marketplace-survey-results

IBM i 7.4 from the IBM i home page

IBM i Anywhere
IBM i Everywhere

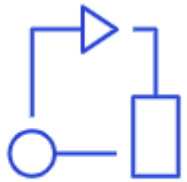
Key IBM i features

Availability

- Ensures mission-critical applications remain up and running
- 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

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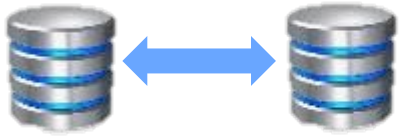
IBM i 7.4 – New in 2019

IBM i Anywhere
IBM i Everywhere

Availability
- PowerHA supports Hyperswap clustering configurations, and user profile administration is automated
- IBM Db2 Mirror for i reduces RTO to zero by providing continuous availability



Security
- Implementing latest in industry standards, allowing clients to secure critical business information
- Authority collection has added support for object based control

Support of POWER9 Hardware
- Add support for applicable hardware and I/O available in the 2Q timeframe

POWER9

nvm EXPRESS

Cloud
- Supporting cloud initiatives from IBM Cognitive Systems – IBM i in IBM Cloud, MSPs, Private & Hybrid Cloud

Solution Enablement
- Providing new RPG and COBOL Operations, making processing of data more efficient
- Many improvements in Db2 functions, including HASH built-in and Services for DTAARAs
- New Open Source environments allowing the porting of new application solutions to IBM i

python

node

Connectivity
- Enhancements to multiple products connecting to and from IBM i applications and database

Social
- Supporting the latest in social connections, Domino 10 is available for IBM i
- IBM Content-Manager-on-Demand 7.4 available

Lots More

IBM i

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IBM i – Announcement Themes – April 2021

IBM i Anywhere
IBM i Everywhere

IBM i is the integrated operating environment for IBM Power Systems™ servers. Our amazing clients are transforming their businesses by leveraging frequent updates to the Db2 for i database, improvements related to resiliency, and new tools to assist with application modernization. Stay tuned for more great things to come.

Database

Db2 for i adds the Query Supervisor which will allow clients to establish automated controls for supervising the on-going consumption of system resources

Services

IBM i Services are added and enhanced, providing useful SQL-based alternatives to IBM i commands and APIs

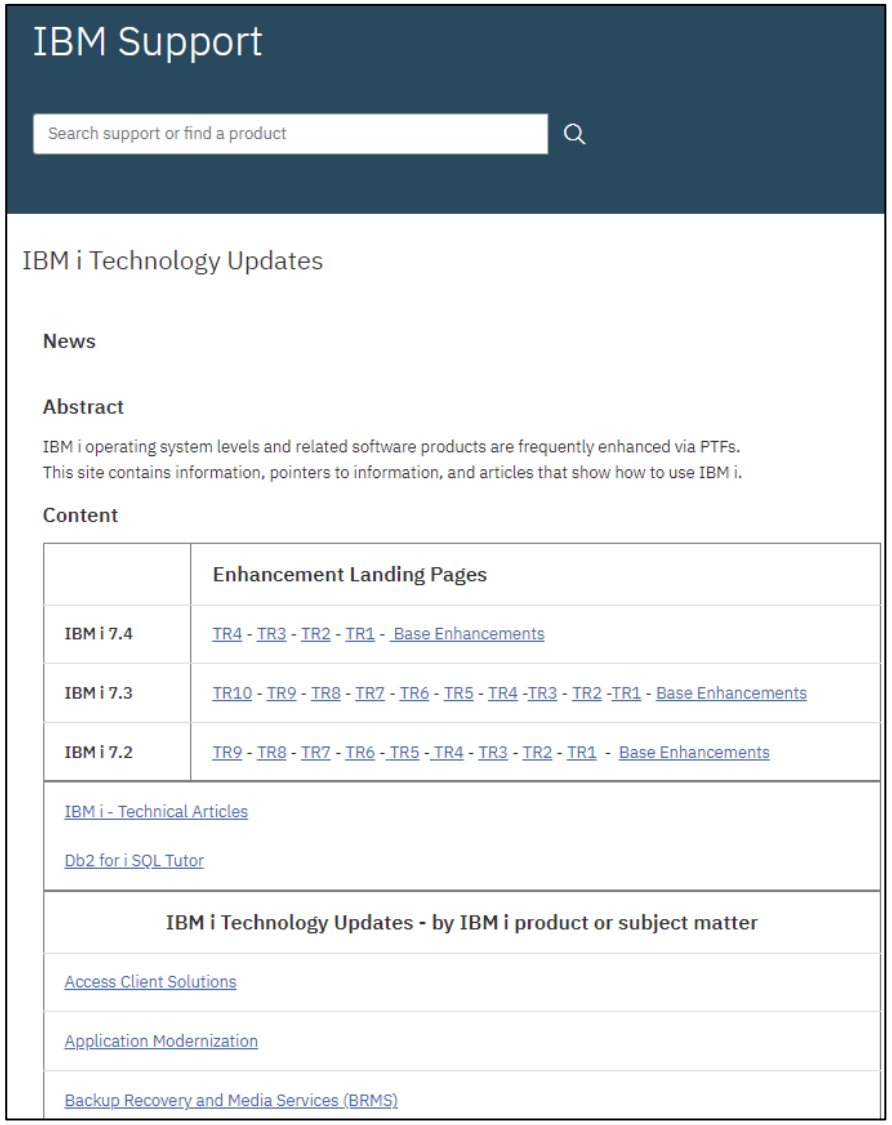
Modern Development

Listening to the community, IBM is delivering key new features requested by RPG developers and adding more Open Source options to extend the value proposition and appeal to new developers.

Availability

IBM Db2 Mirror for i adds security and support for additional objects. IBM PowerHA SystemMirror for i and BRMS updated with new capabilities.

IBM i Technology Updates



IBM Support

Search support or find a product

IBM i Technology Updates

News

Abstract

IBM i operating system levels and related software products are frequently enhanced via PTFs.
This site contains information, pointers to information, and articles that show how to use IBM i.

Content

	Enhancement Landing Pages
IBM i 7.4	TR4 - TR3 - TR2 - TR1 - Base Enhancements
IBM i 7.3	TR10 - TR9 - TR8 - TR7 - TR6 - TR5 - TR4 -TR3 - TR2 -TR1 - Base Enhancements
IBM i 7.2	TR9 - TR8 - TR7 - TR6 - TR5 - TR4 - TR3 - TR2 - TR1 - Base Enhancements

IBM i - Technical Articles

Db2 for i SQL Tutor

IBM i Technology Updates - by IBM i product or subject matter

Access Client Solutions

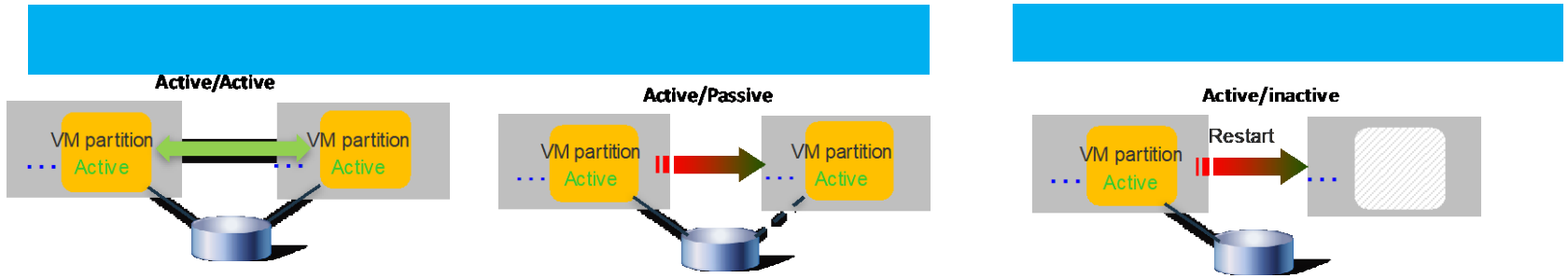
Application Modernization

Backup Recovery and Media Services (BRMS)

https://www.ibm.com/support/pages/ibm-i-technology-updates

High Availability Topology Classification and Positioning

IBM i Anywhere
IBM i Everywhere

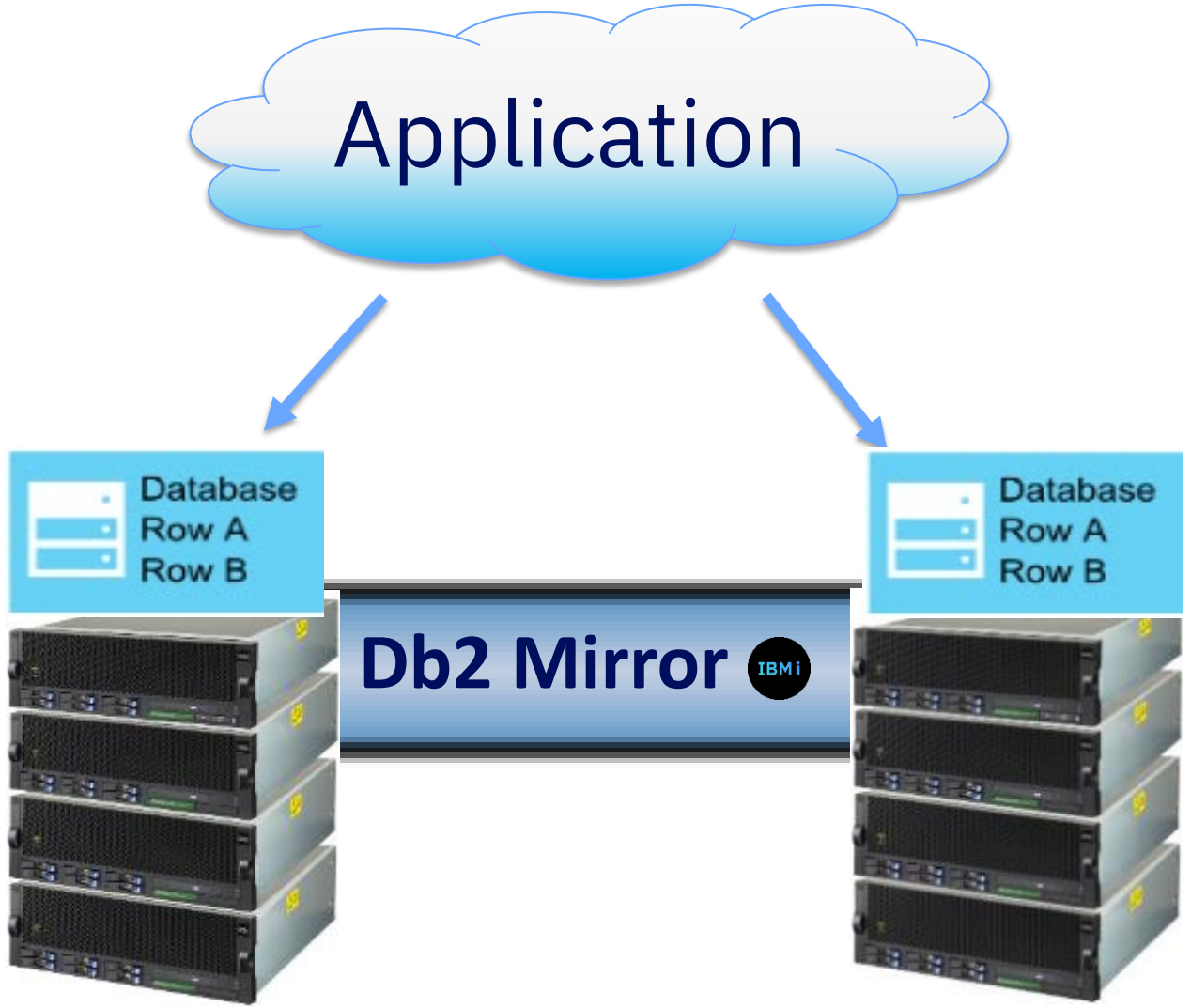


Technology	Active/Active Clustering	Active/Passive Clustering	Active/Inactive
Definition	**Application level clustering**; applications in the cluster have simultaneous access to the production data therefore no app restart upon an app node outage. Certain types enable read-only access from secondary nodes	**OS level clustering**; one OS in the cluster has access to the production data, multiple active OS instances on all nodes in the cluster. Application is restarted on a secondary node upon outage of a production node.	**VM level clustering,** One VM in a cluster pair has access to the data, one logical OS, one or two physical copies. OS and applications must be restarted on a secondary node upon a primary node outage event. LPM enables the VM to be moved non-disruptively for a planned outage event.
Outage Types	SW,HW,HA, planned, unplanned RTO 0, limited distance	SW,HW,HA,DR, planned, unplanned, RTO>0, multi-site	HW,HA,DR, planned, unplanned, RTO>0, multi-site
OS integration	Inside the OS	Inside the OS	OS agnostic
RPO	Sync mode only	Sync/Async	Sync/Async
RTO	0	Fast (minutes)	Fast Enough (VM Reboot)
Licensing*	N+N licensing	N+1 licensing	N+0 licensing
Industry Examples	Oracle RAC, **Db2 Mirror**, pureScale	PowerHA, Redhat HA, Linux HA	VMware, VMR HA, LPM,

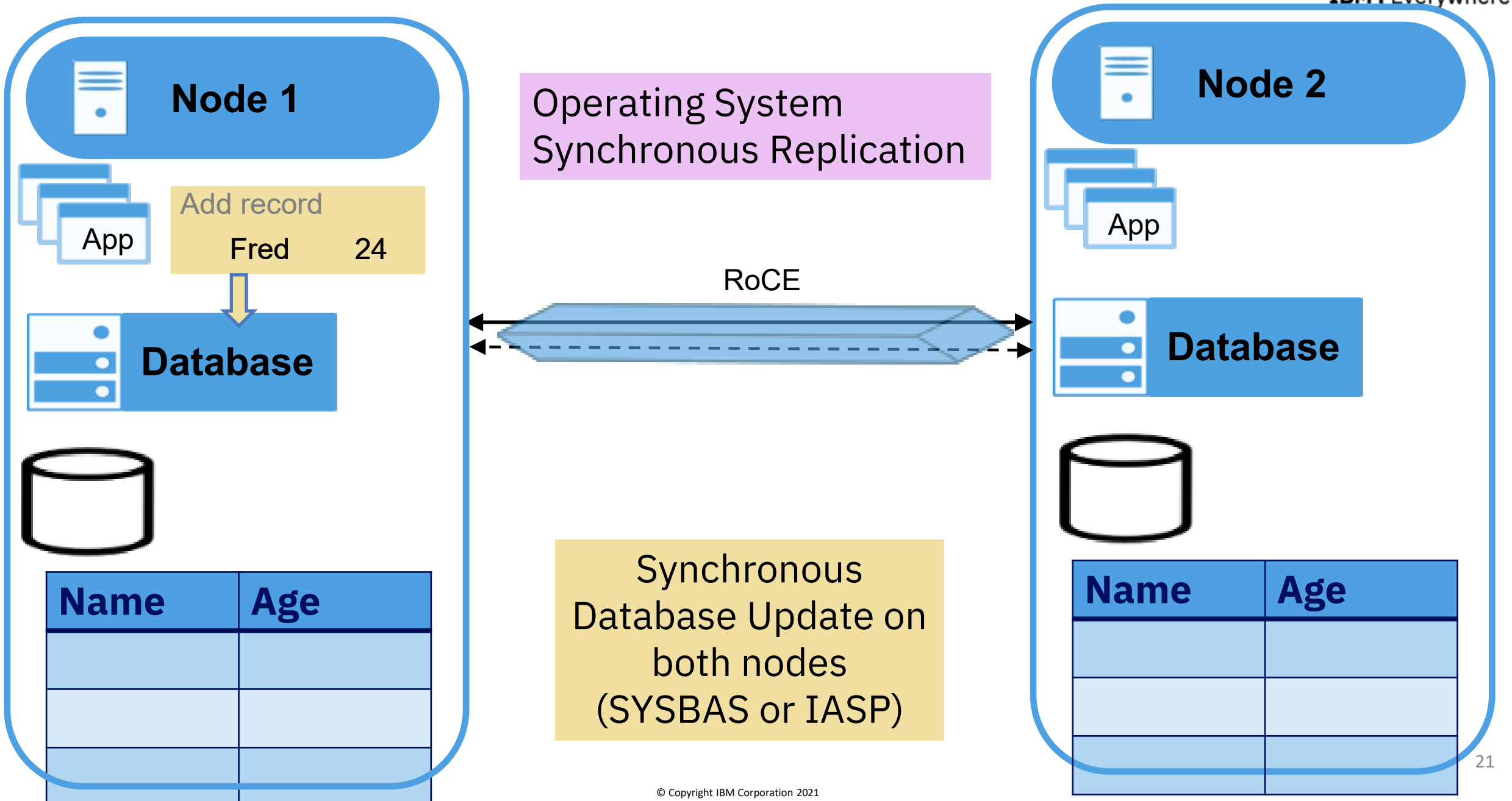
- N = number of licensed processor cores on each system in the cluster
- Illustrations represent two-node shared-storage configurations for conceptual simplicity. There are many other topologies and data resiliency combinations

IBM Db2 Mirror for i

- **IBM Db2 Mirror for i: Enables Continuous Availability**
  - High speed synchronous replication of Db2 for i (Data Center Solution)
  - Access Db2 objects from either node (partition or system)
- **Application Availability Enablement**
  - Two nodes read and write to the same database files
  - Enables quickly moving all work to one node, for planned maintenance or node failure
- **Enables Business Continuity for Disruptive System Upgrades**
  - Nodes can be at different OS levels (future statement)
  - Nodes can be on different Power hardware generations
  - Rolling upgrades for no downtime
  - Roll a node back a release with minimal impact if Active/Active applications are deployed
- **Requirements**
  - POWER8 or later servers, RoCE adapter(s)
  - External storage (fast, low latency storage such as IBM DS8K or Spectrum Virtualize) or internal storage (as of IBM i 7.4 TR2)
  - IBM i 7.4
  - New IBM i LPP: 5770-DBM



Db2 Mirror – Active Active



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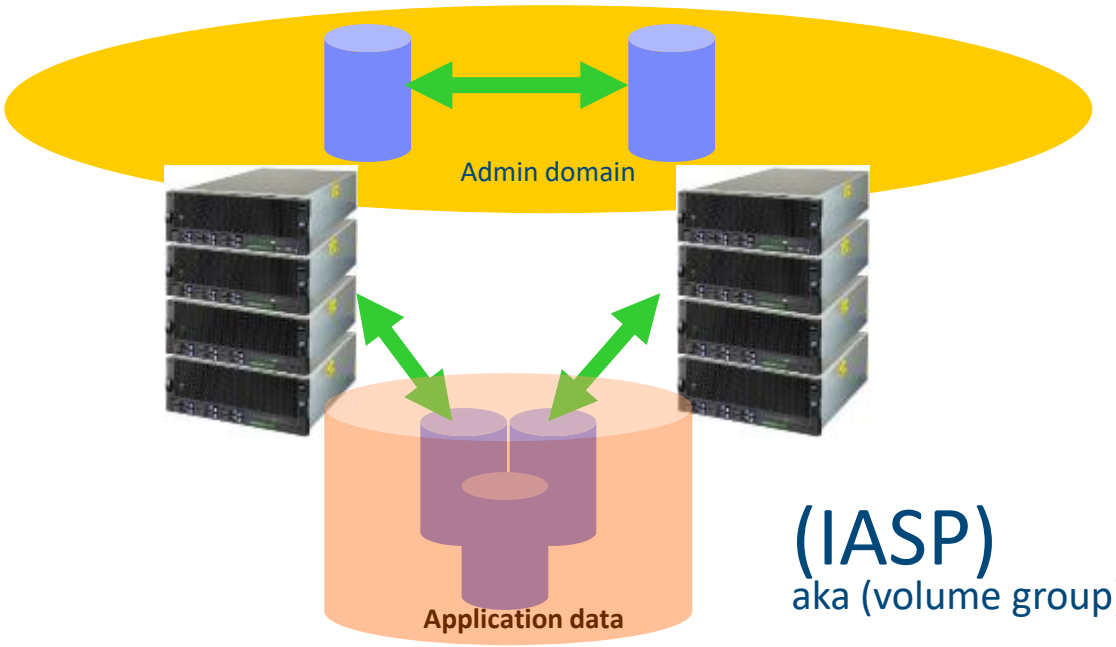
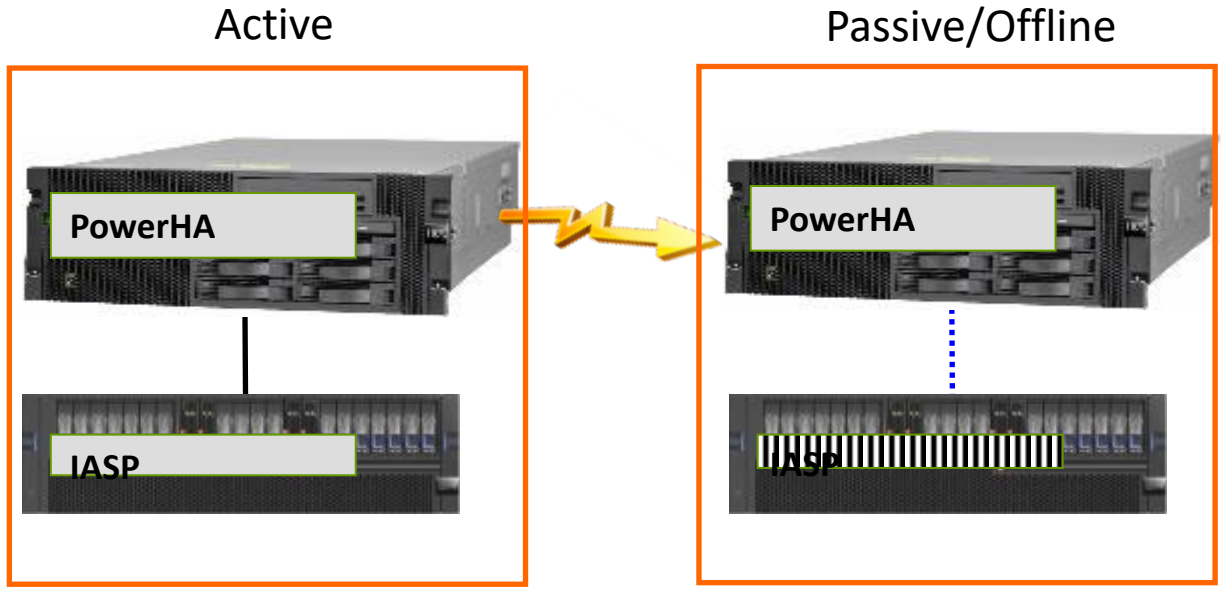
PowerHA System Mirror for IBM i
– Built on Physical (Storage) Replication



(IASP)
aka (volume group)



PowerHA SystemMirror creates and manages a shared storage cluster topology

- IASP volume group hosts the DB, IFS data
- Admin Domain manages the sysbas data
- Note that the foundational topology does not involve replication

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PowerHA for i 7.4 TR4 & 7.3 TR 10

Switchover monitoring and management

- The latest enhancements provide simplified node selection with automated recovery domain management
- Monitor detailed switchover and failover progress from a single node (7.4 only)

Short demo of switchover monitoring and managment

FlashCopy Automation, phase 1

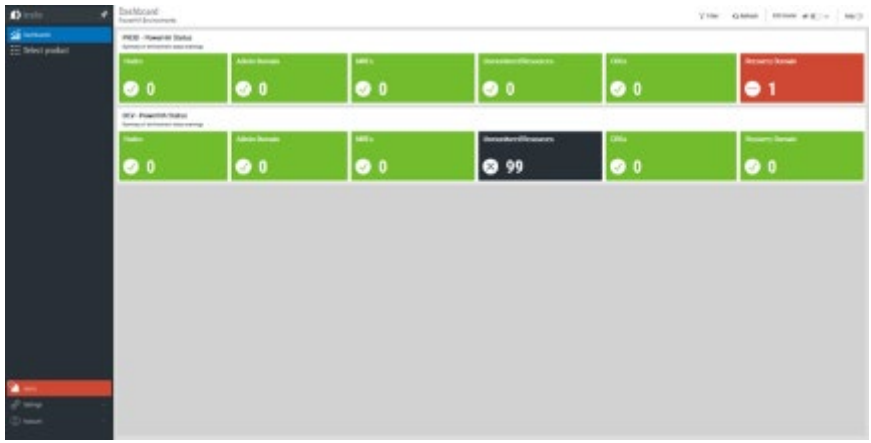
- The integration of IBM FlashSystem FlashCopy technologies is enhanced with integrated automation to simplify FlashCopy operations that previously required externally developed tools and scripts that performed multi-node operations

Additional Enhancements

- Additional enhancements include continued simplification of PowerHA commands with interactive prompting from work panels
  - Reduces the number of steps required to conduct an HA/DR operation
- For more information on these enhancements and to get started see the IBM PowerHA SystemMirror for i wiki page.

Planned availability date

- June 25, 2021



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IBM i 7.4 Security Enhancement Areas

- Authority Collection – Objects
- TLS
- SMB3
- DCM GUI

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Authority Collection by User Profile

IBM i 7.3

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Concept

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

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 7.3

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Authority Collection by Object

IBM i 7.4

IBM i Anywhere
IBM i Everywhere

Concept

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

Benefits

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- **Diagnose** authorization failures

Acquisition Cost

- None - included in IBM i 7.4

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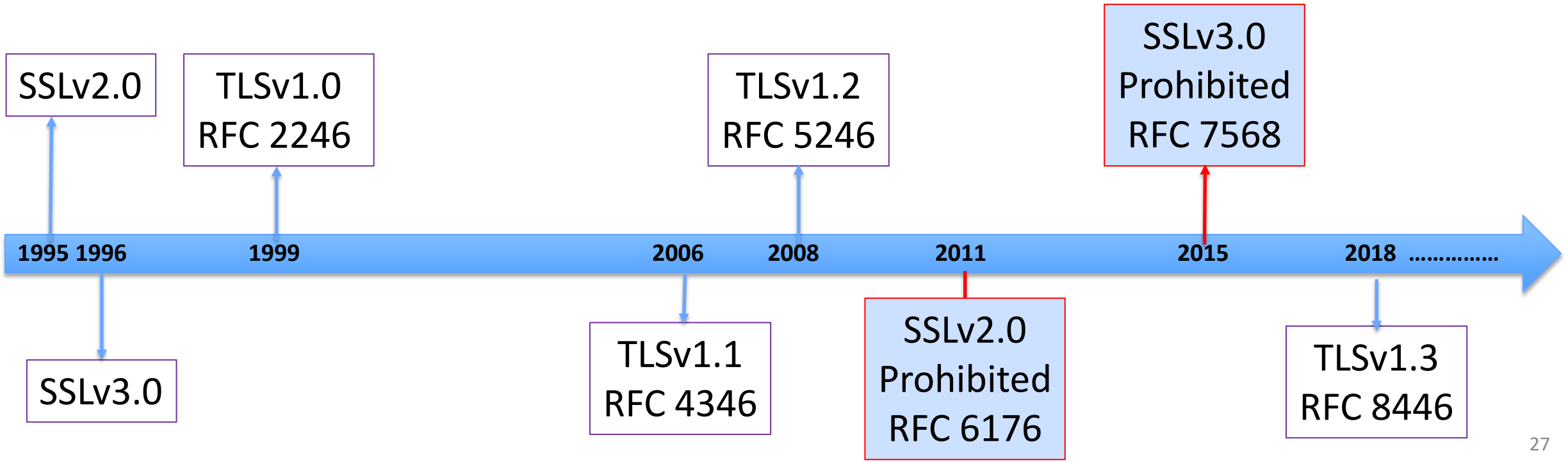
TLS - Transport Layer Security v1.3

- Newest and most secure version of the TLS/SSL protocols replacing TLSv1.2
  - All key negotiation protected by elliptical curve algorithms
  - Majority of handshake messages are encrypted
  - Fixed or removed features susceptible to existing named vulnerabilities
  - Used at IBM i 7.4 when QSSLPCL is set to *OPSYS



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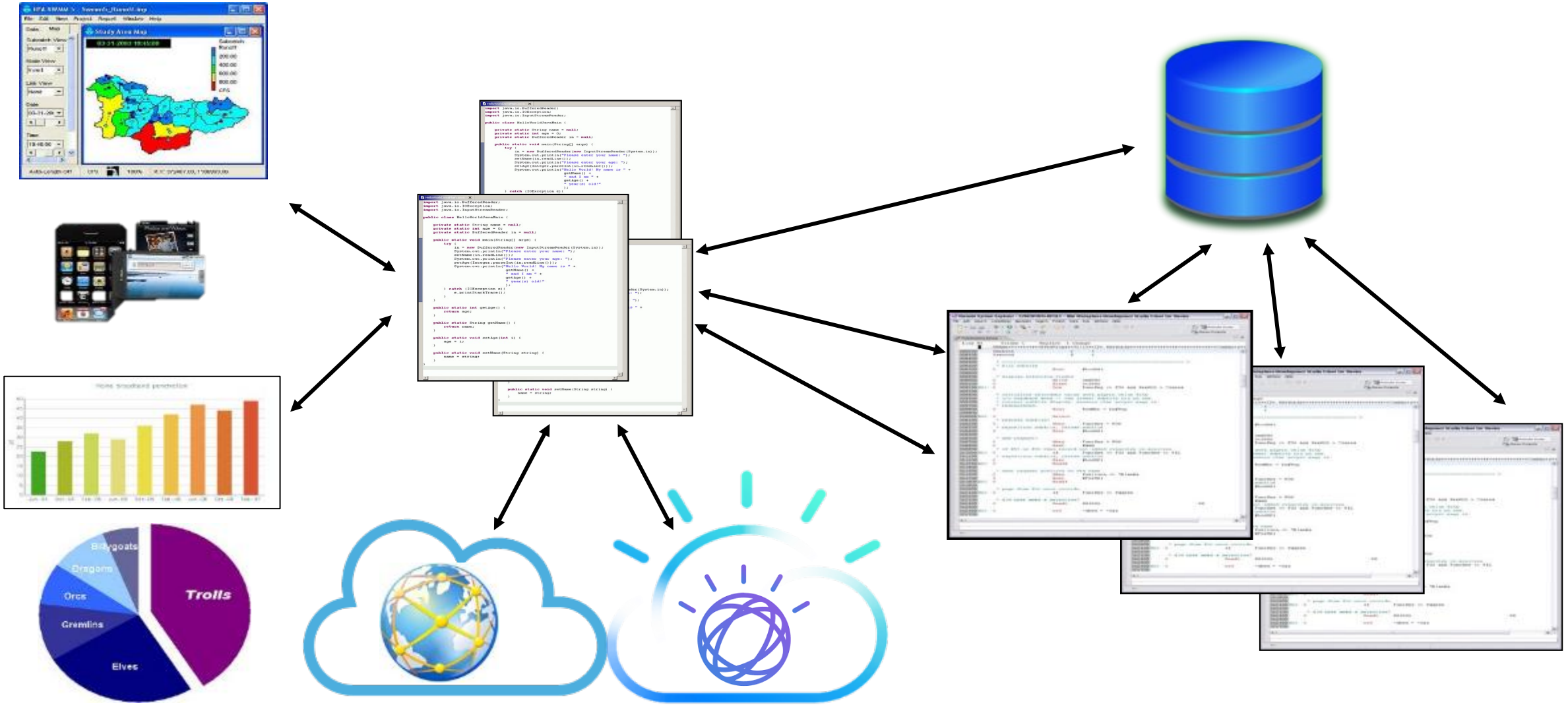
IBM i Next Gen Application Structure

IBM i Anywhere
IBM i Everywhere



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The IBM i Hybrid Application Development Strategy

IBM i Anywhere
IBM i Everywhere

IBM i

World's Best RDBMS

COBOL+RPG

Lowest cost of ownership (TCO)

Reliability, securability, efficiency

Protection of investment

Open Source

Enterprise Ready

Microservices / APIs

DevOps

Internet of Things

Web Technologies

Pathway to Innovation

Focus: **Integration, integration, integration!!**

Continued investment in:

- Language (Python, Node.js, PHP) integration libraries
- Various Message Queueing technologies
- Integration with cognitive and quantum technologies
- Db2 enhancements
- Db2 connectivity (ODBC)

Many technologies available in RPM form
Many many more available from the community

To learn about RPMs and get started, see http://ibm.biz/ibmi-rpms

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IBM i Strategy – Choices & Open

IBM i Anywhere
IBM i Everywhere

Goal: **Code what needs to be coded**
Integrate what needs to be integrated

Traditional Languages & Environments

RPG COBOL C/C++ Apache IBM WebSphere® Liberty

Open Source Language Runtimes

node mono python php

Tools

Rational. software yum yellowdog updater modified BASH rsync GCC

Open Frameworks

CherryPy hapi LoopBack

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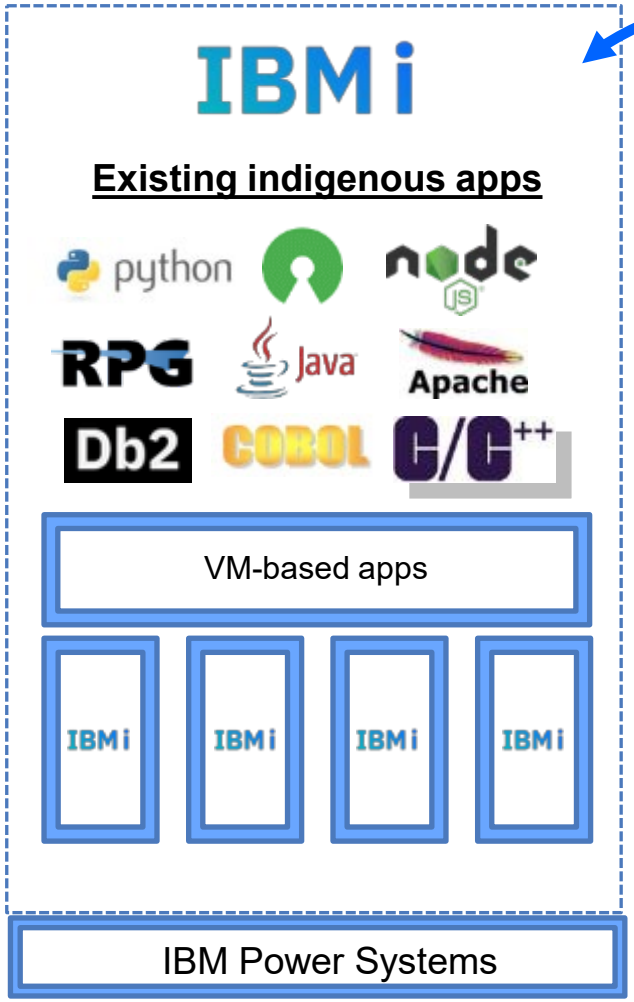
IBM i *and* Cloud – Modernizing to extend value, using Cloud & DevOps

IBM i Anywhere
IBM i Everywhere



The "Cloud" options on Power Systems allow container-based applications and native IBM i applications to provide value to one another.

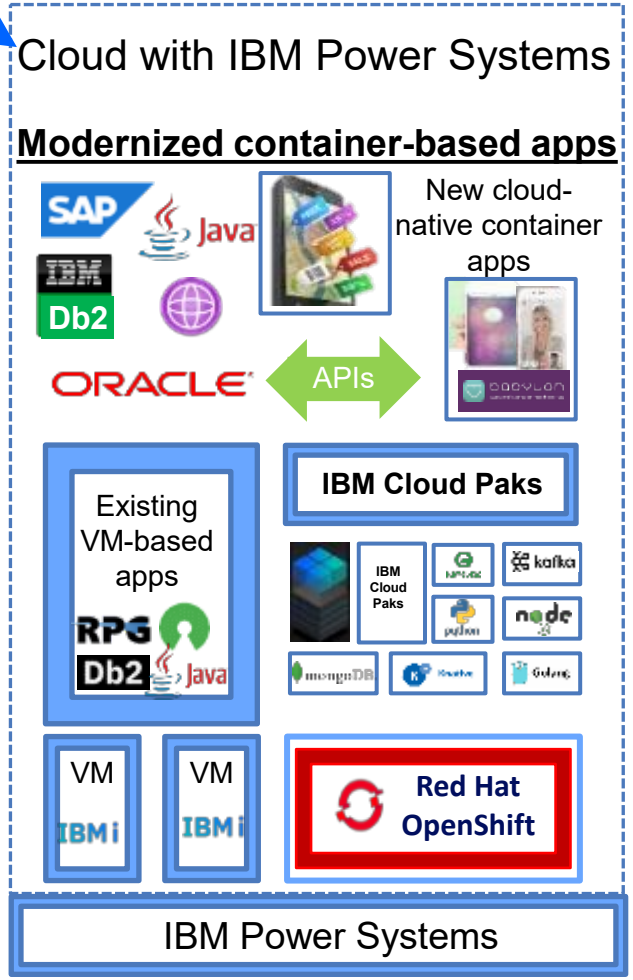
- In the same data center, treated as a cloud
- Outside the data center, in a public or partner cloud
- In both places – a Hybrid cloud

IBM i Next Gen Applications

- **DevOps & CI/CD enabled**
- Modular
- Robust/Highly Available
- Cloud-enabled

Clients have better results with modernization than re-platforming.

IDC
ANALYZE THE FUTURE



https://idcdocserv.com/US46775720

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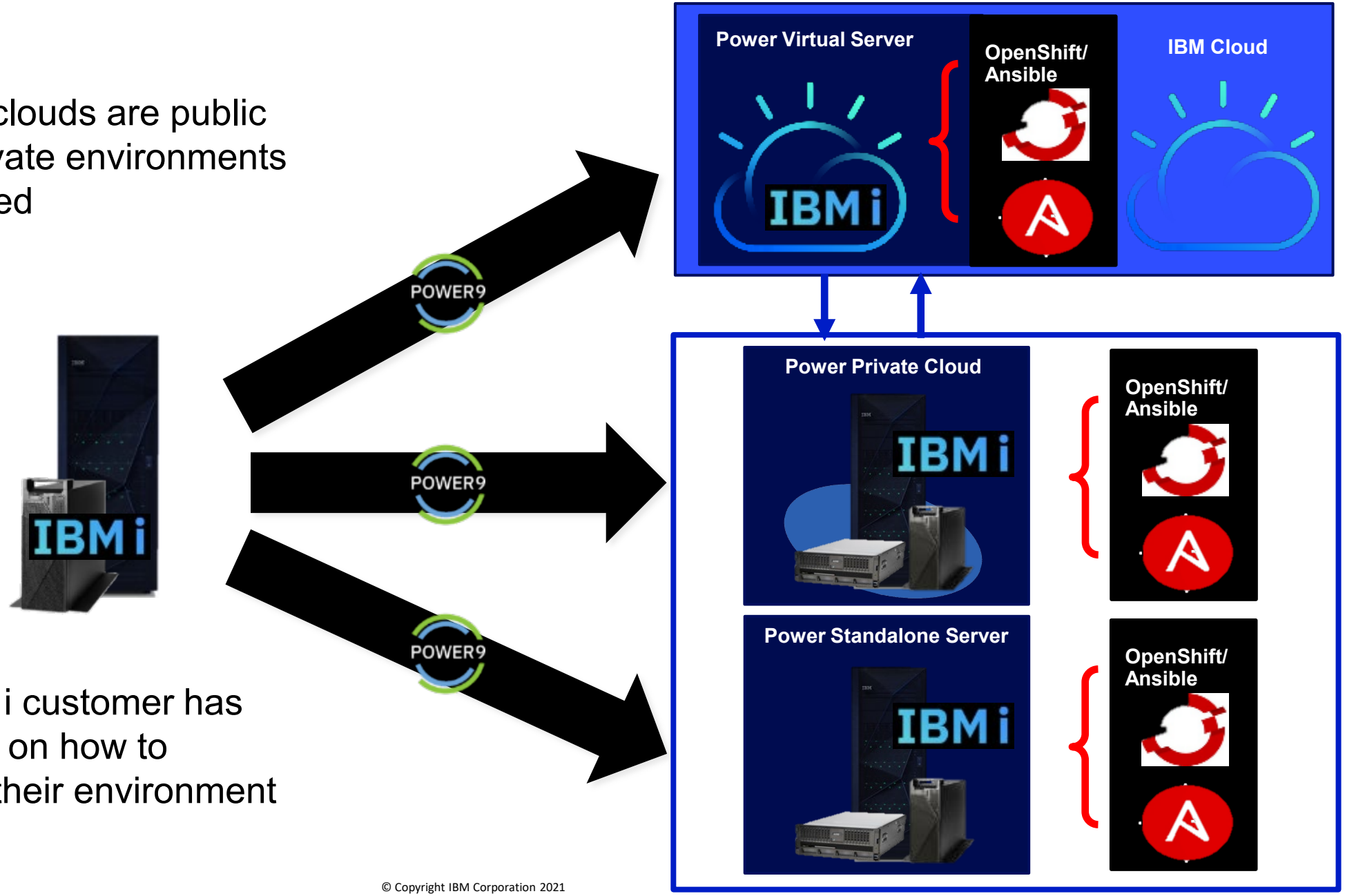
Hybrid Cloud Options for an IBM i Customer

Hybrid clouds are public and private environments combined



An IBM i customer has choices on how to deploy their environment

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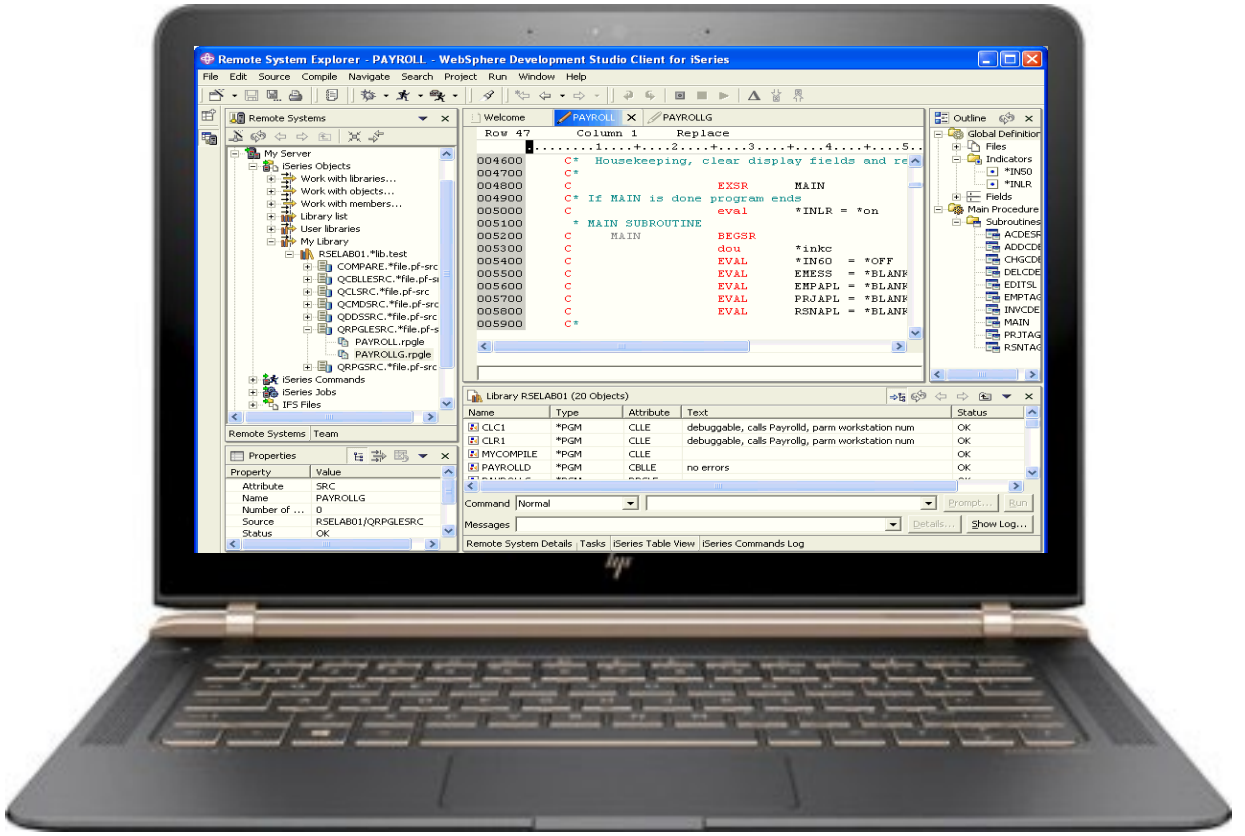
Ansible for IBM i

- Administrators can perform common IBM i tasks across multiple endpoints without needing to log in to individual instances directly, through a collection of Ansible modules.
- Administrators accomplish these common tasks without deep IBM i skills.
- Achieve complex automation workflow and tasks.
- All modules are openly available.
- Existing Ansible team in client organizations can be leveraged for IBM i.

Application Development Enhancements

Traditional Language Updates

- RPG IV
  - Integration with Db2
  - “Normal” procedural functions
    - See related slides
- COBOL
  - COPY Enhanced
  - Conditional Compilation
  - FREE and ALLOCATE statements
  - INITIALIZE statement
  - EXIT statement
  - Inline comments



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RPG Enhancements

- Varying dimension arrays
- Same position subfields
- OPTIONS(*EXACT) for parameters
- "Overloaded" procedures
- DATA-GEN: generate data (reverse of DATA-INTO)
- %LIST built-in function
- FOR-EACH opcode
- Allow blanks for %DEC, %INT etc.
- Allow thousands separators for %DEC, %INT etc.
- Optionally require prototypes for exported procs
- Debug the return value from a procedure
- %LOWER %UPPER
- %SPLIT
- EXPROPTS(*STRICTKEYS)

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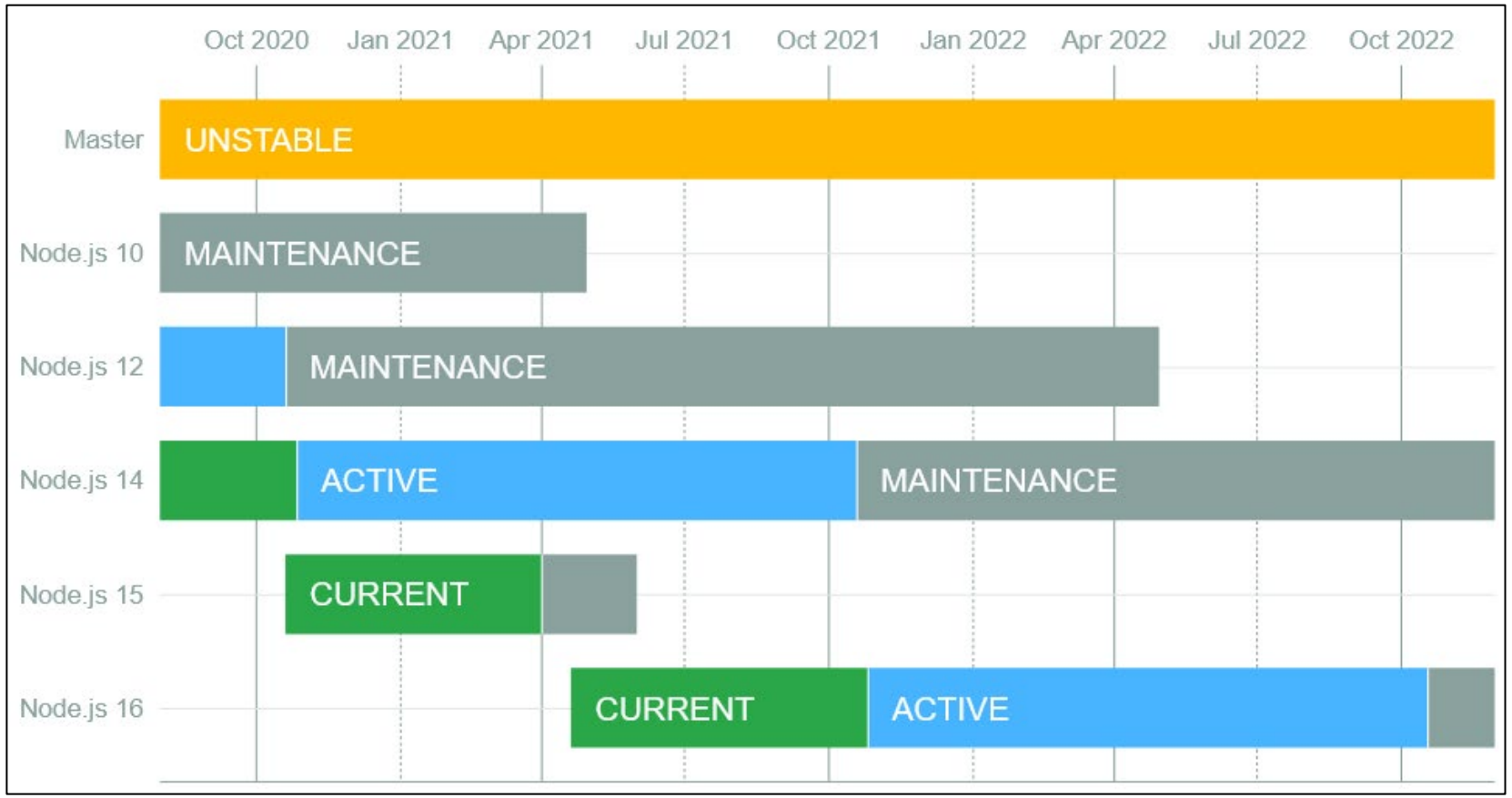
Node.js version 14 (available since April 2020)

- For Node.js release schedule, see: https://github.com/nodejs/Release



Buildable from community source

Anyone can use a tool like nvm to manage their own versions, including feature releases

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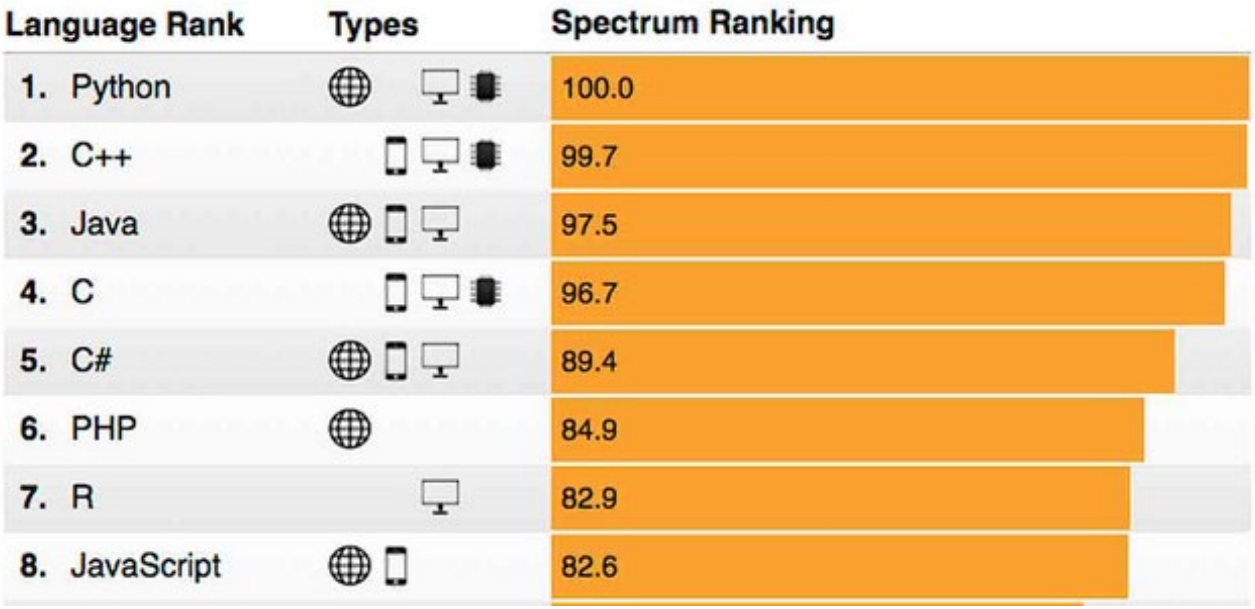
R: a new programming language on IBM i!

- Great for:
  - Data analysis
  - Statistical computing
  - Data mining
  - Big Data

- Ranked #7 by IEEE

https://spectrum.ieee.org/at-work/innovation/the-2018-top-programming-languages



Language Rank	Types	Spectrum Ranking
1. Python		100.0
2. C++		99.7
3. Java		97.5
4. C		96.7
5. C#		89.4
6. PHP		84.9
7. R		82.9
8. JavaScript		82.6

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Lots of other goodies

- **Utilities**
  - chsh - PASE shell control
  - logrotate – log file management
- **Security**
  - GNU Privacy Guard (GPG)
  - Curl with SSH and SFTP support
- **Compression**
  - zstd
  - pigz
  - p7zip
- **Connectivity**
  - autossh
  - Paramiko (One of several Python packages)

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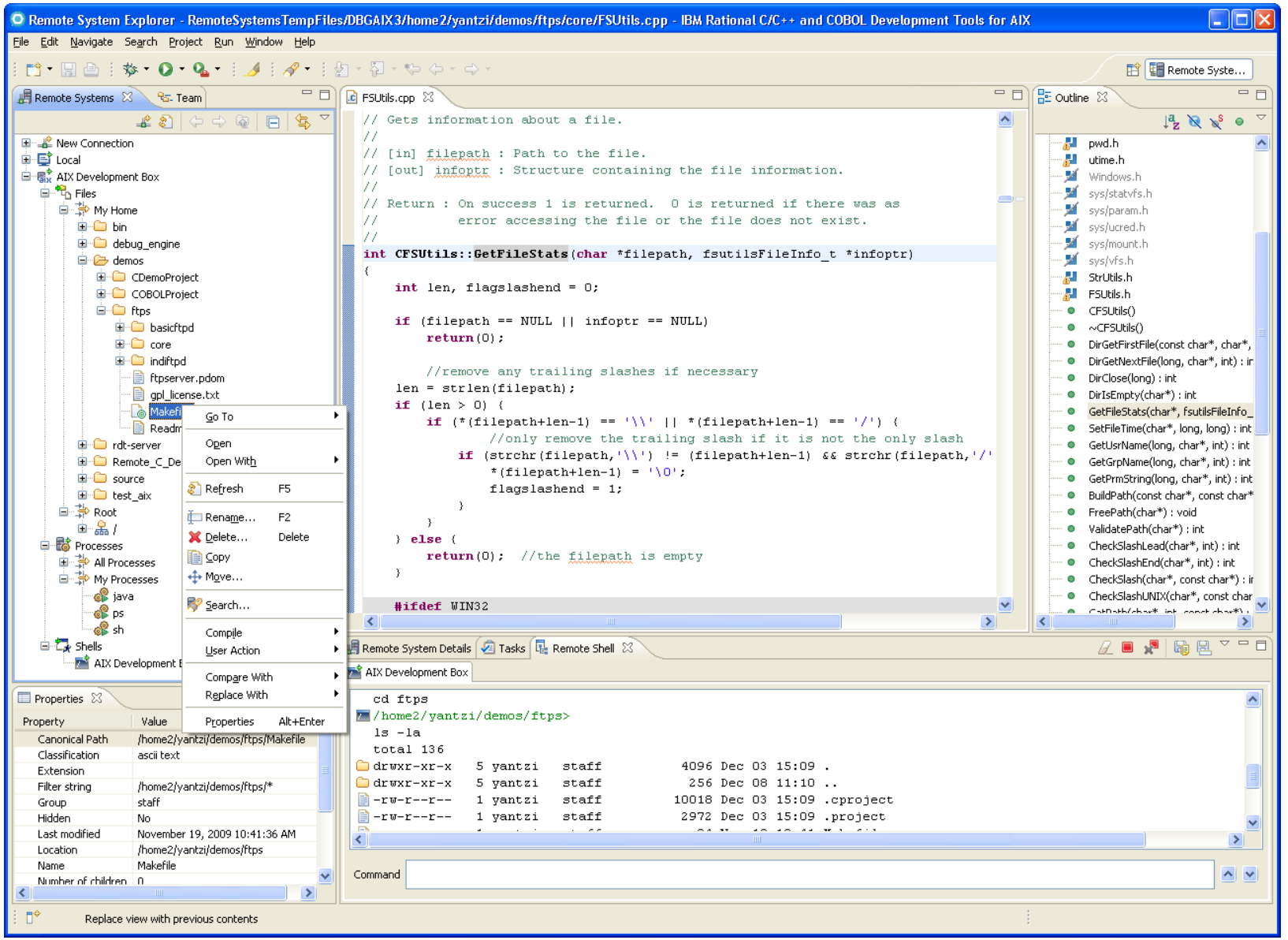
Rational Developer for i

IBM i Anywhere
IBM i Everywhere

- *Modern*
- Supports RPG, COBOL, CL, C, C++, SQL, DDM

What's New:

- New PDM View
- Refactoring Updates – extract constants
- Improved SQL Formatting
- 7.4 RPG & COBOL updates
- ILE Parser finds anomalies
- Quick Zoom with command keys
- Code Coverage updates



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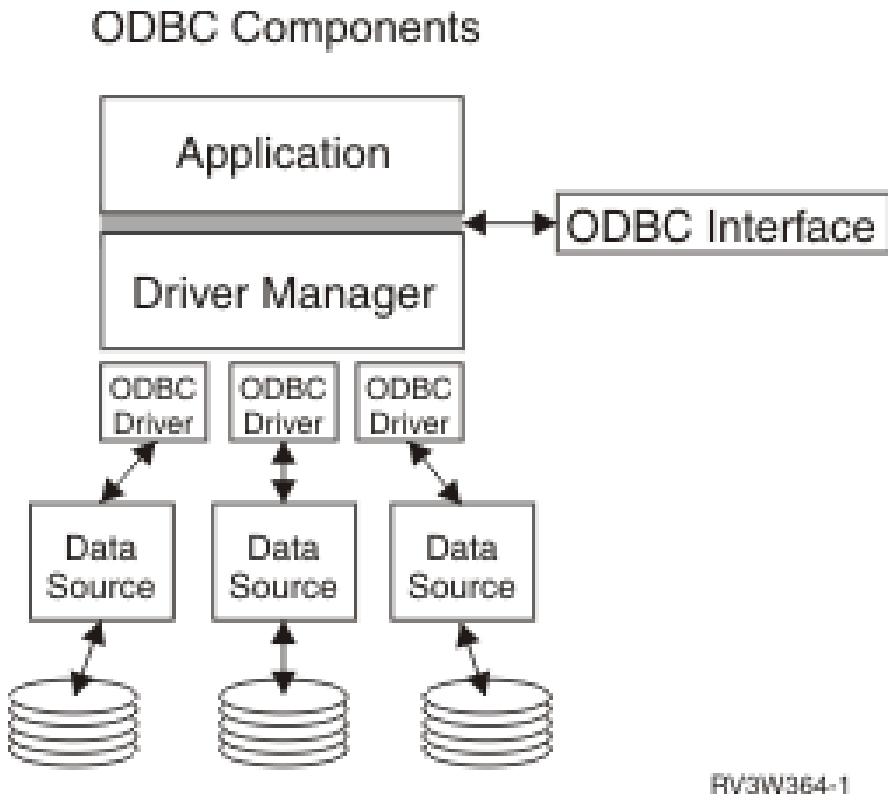
ODBC Driver

- IBM i Access ODBC driver now supported on:
  - Windows
  - Linux
  - IBM i

- Why ODBC on IBM i?
  1. Develop on Windows/Linux, deploy on IBM i
  2. Use standard ODBC libraries from various languages (PHP, Python, Node.js, Ruby, R, etc)



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IBM i Services – A Brief History

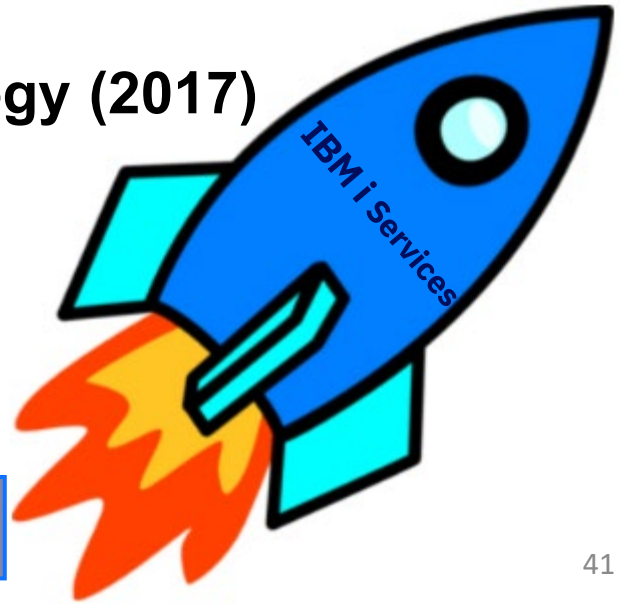
- **What:** Use SQL, SQL DDL and SQE to provide alternatives to IBM i APIs and CL Commands

- **Dawn of the 1st IBM i Service (2013) – QSYS2.PTF_INFO**
  - Alternative to the DISPLAY PTF (DSPPTF) command
  - Proof of concept that SQL Views paired with SQL UDTFs provide significant value, for low cost

- **IBM i Services take root (2015)**
  - Enhancements delivered with every Technology Refresh
  - Examples shift from IBM presentations into ACS's Insert from Examples

- **IBM i Services begin to be used as a modernization technology (2017)**

- **IBM i Services consist of 13 topical categories (2019)**
  - Significant ISV adoption
  - RFEs too numerous to count



http://ibm.biz/Db2foriServices

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Most Recent IBM i Services – New or Enhanced

New:

- NVME_INFO
- SECURITY_INFO
- USER_SPACE_INFO
- USER_SPACE
- USER_INDEX_INFO
- USER_INDEX_ENTRIES
- USER_INFO_BASIC
- QCMDEXC()
- MESSAGE_QUEUE_INFO()
- SEND_MESSAGE()

Enhanced:

- JOB_INFO
- ACTIVE_JOB_INFO
- SYSDISKSTAT
- USER_INFO
- OBJECT_STATISTICS
- IFS_OBJECT_STATISTICS
- DISPLAY_JOURNAL
- SYSTOOLS.FIRMWARE_CURRENCY
- CERTIFICATE_INFO

ibm.biz/Db2foriServices

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SQL Helper functions for managing an IBM i

Security

- Table functions for specific Audit Journal entry types
  1. AUDIT_JOURNAL_AF (authority failure)
  2. AUDIT_JOURNAL_CA (authority change)
  3. AUDIT_JOURNAL_PW (password)
  4. AUDIT_JOURNAL_OW (ownership change)

- Table function for changing user profiles

Print

- Scalar function that takes a spooled file and produces a pdf in the IFS

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Audit Journal functions

```
--
-- Password Failures from today and yesterday
--
select VIOLATION_TYPE_DETAIL, count(*) as VIOLATION_COUNT
   from table(systools.audit_journal_pw())
   Group By VIOLATION_TYPE_DETAIL
   Order by 2 desc;
```

VIOLATION_TYPE	VIOLATION_COUNT
Profile swap error	3
Attempted signon failed because user profile is disabled	1

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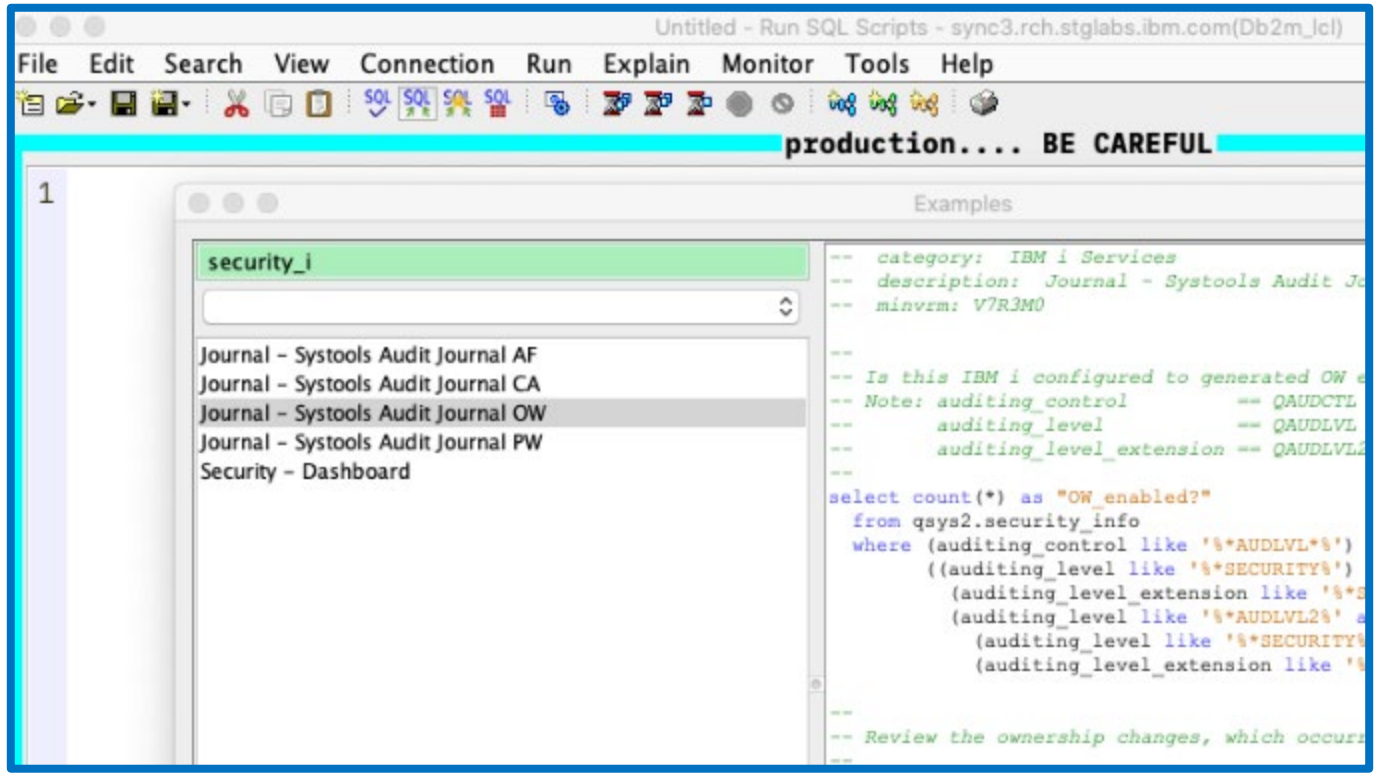
ACS 1.1.8.7 – Now Available!

Enhancements to:

- Run SQL Scripts
- Printer Output
- **Insert from Examples**
- And more…



ACS 1.1.8.7 details:

https://www.ibm.com/support/pages/ibm-i-access-acs-updates

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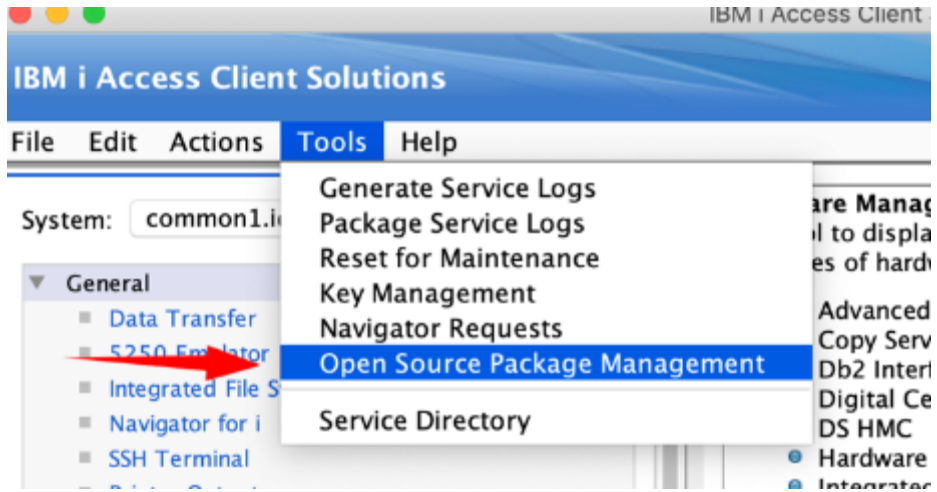
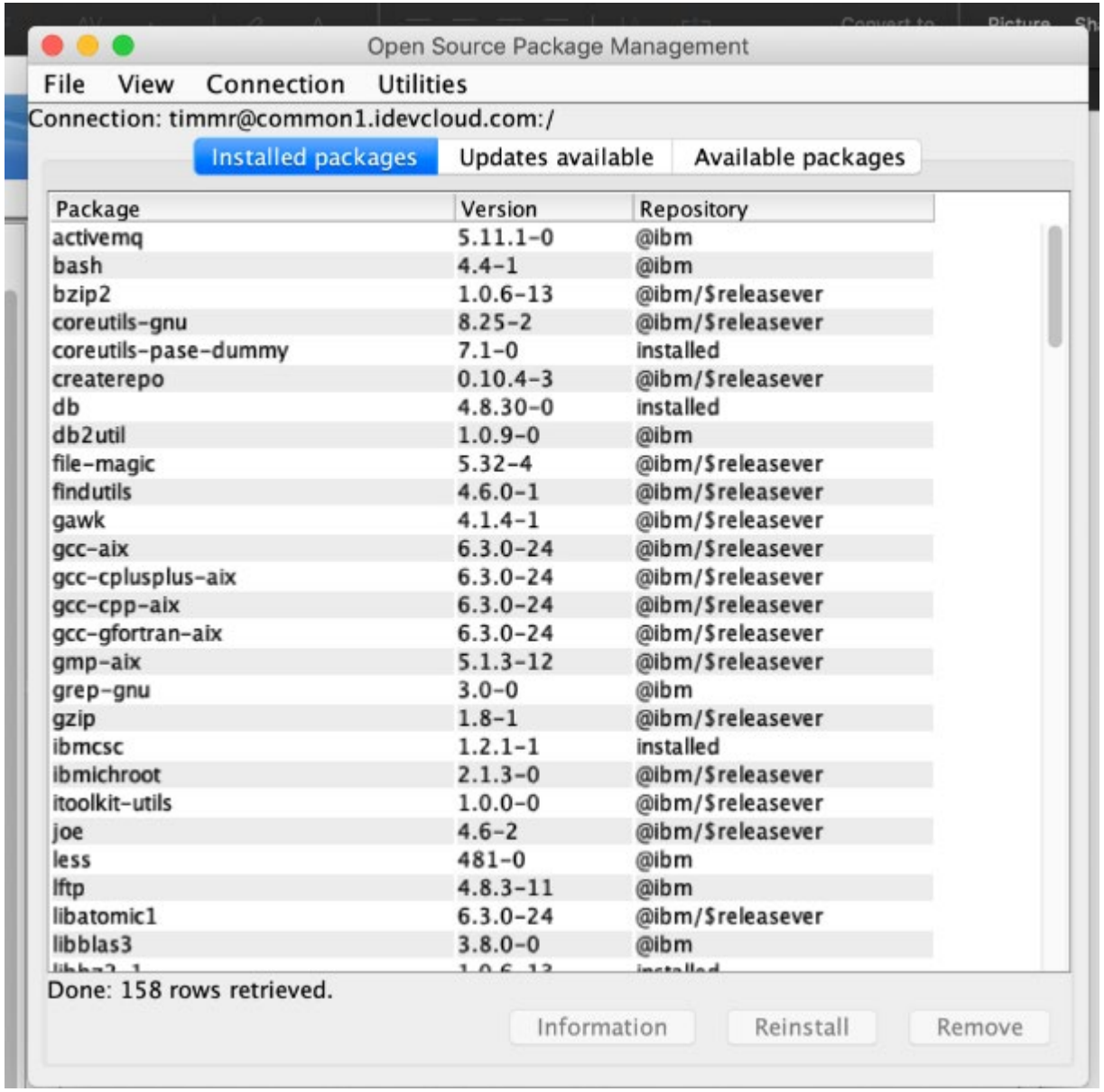
ACS – Open Source Package Manager



View and Update packages easily

Easily update packages in a CHROOT



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Query Supervisor

SQL

Native DB Query

SQL

SQE

The **Query Supervisor** watches the real-time consumption of resources

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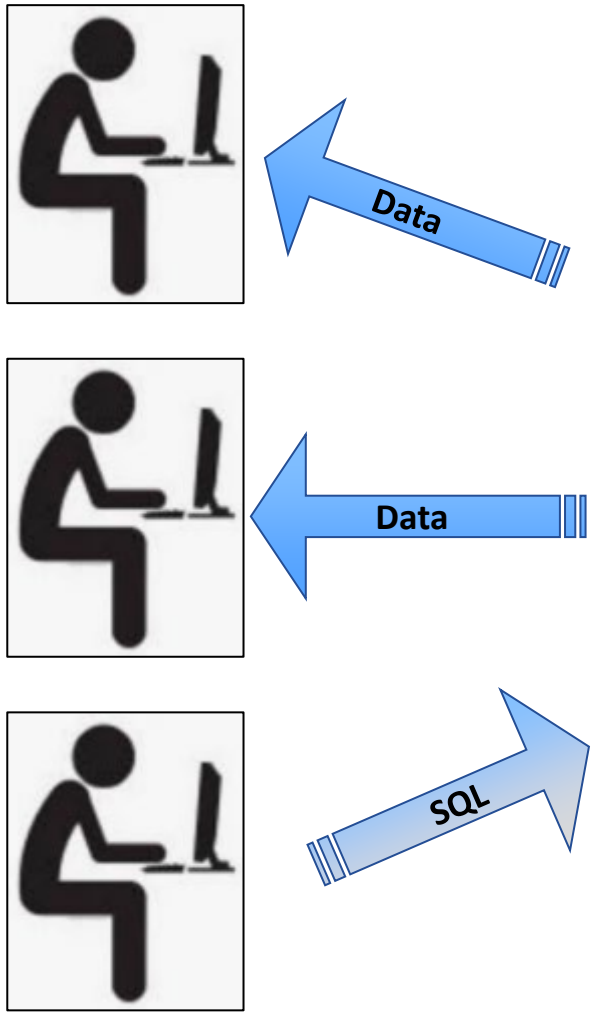
Query Supervisor



SQE

QIBM_QQQ_QRY_SUPER
Exit Programs

SUPEREXIT1

- Log
- Alert
- Terminate
- Slack
- Gather
- …

If thresholds are exceeded, the query processing is interrupted, and a user supplied exit program is called

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Query Supervisor

Threshold Types:

CPU TIME

The total query execution time, in seconds.

ELAPSED TIME

The total clock time, in seconds.

TEMPORARY STORAGE

The amount of storage, in megabytes (MB), that the query uses.

TOTAL IO COUNT

The total number of I/O operations.

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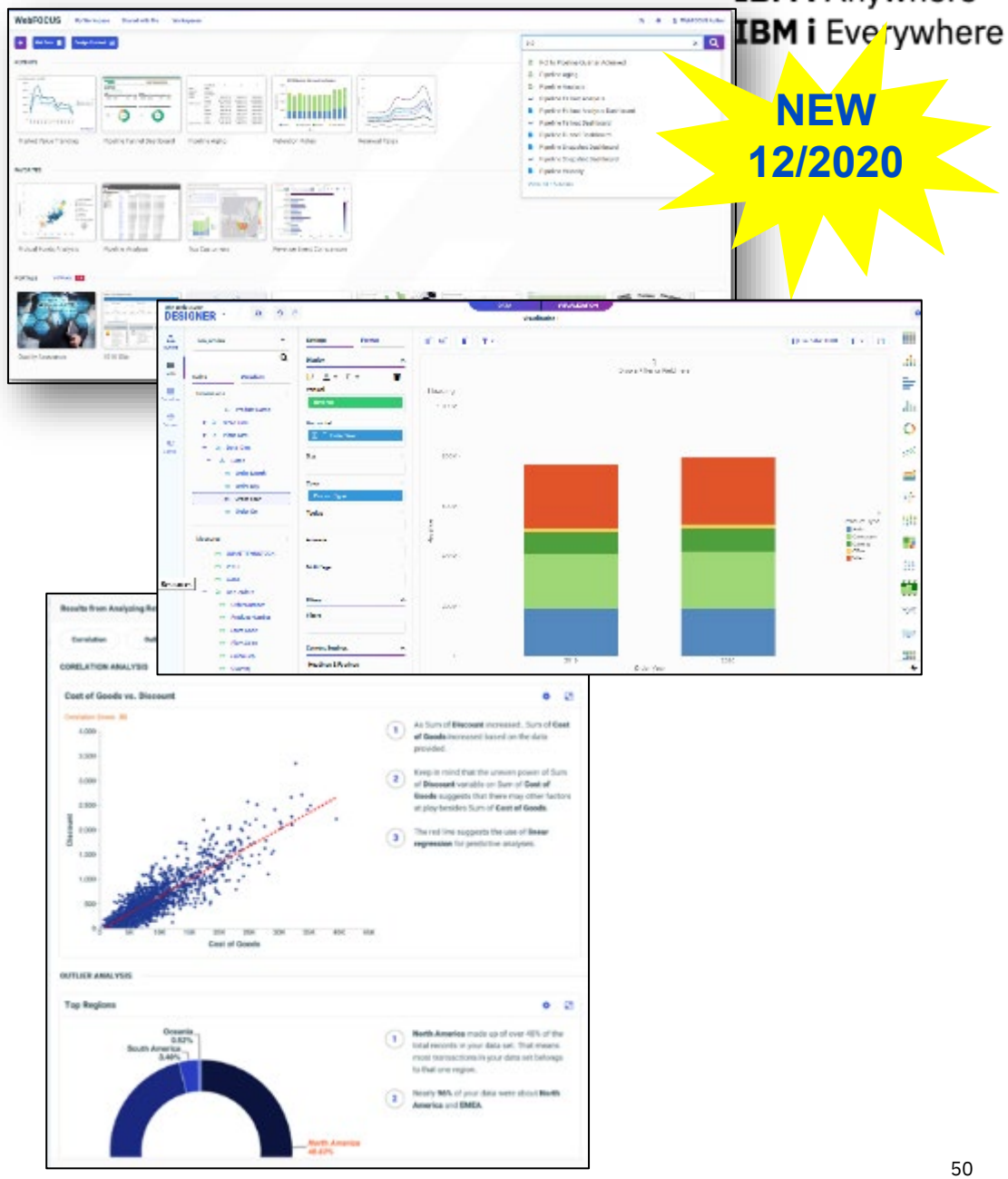
Db2 Web Query Version 2.3.0

IBM i Anywhere
IBM i Everywhere



- **Significant** upgrades in ease of use and navigation
- **New Home Page** simplifies organization of content
  - Complements legacy BI Portal
- Powerful **New Designer** for creating content
  - Complements legacy InfoAssist authoring tool
- Data Preparation facilities to **"work with data"** for building of extracts or "wrangling" data to use for visualizations
- **New "Insights"** brings packaged AI/ML models to Web Query to auto generate additional data relationship charts and information

IBM Db2 Web Query - INSTALL with EZ-Install

- EZ-Install is **HIGHLY RECOMMENDED** for installing webquery or upgrading from previous versions
  - Request it by sending an email to QU2@us.ibm.com, including name, company name, and s/n
  - It provides **VALUE ADD** way beyond just restoring the license program products
    - Sample Reports, Tutorials, Utilities to help you get a **FAST START**
      - Query/400 Discovery Tool
      - Create Date Dimension Table (really cool)
      - **Sample Reports for the Systems Administrator**
      - Business oriented sample reports backed by tutorials
  - Tutorials and additional “how to” documentation provide guides to show you how the sample reports were built

HELP us help you – make sure your IBM Business Partner is using EZ-Install to install or upgrade!

Request EZ-Install by emailing QU2@us.ibm.com. Include name, company name, serial number and OS level (ex. 7.3)

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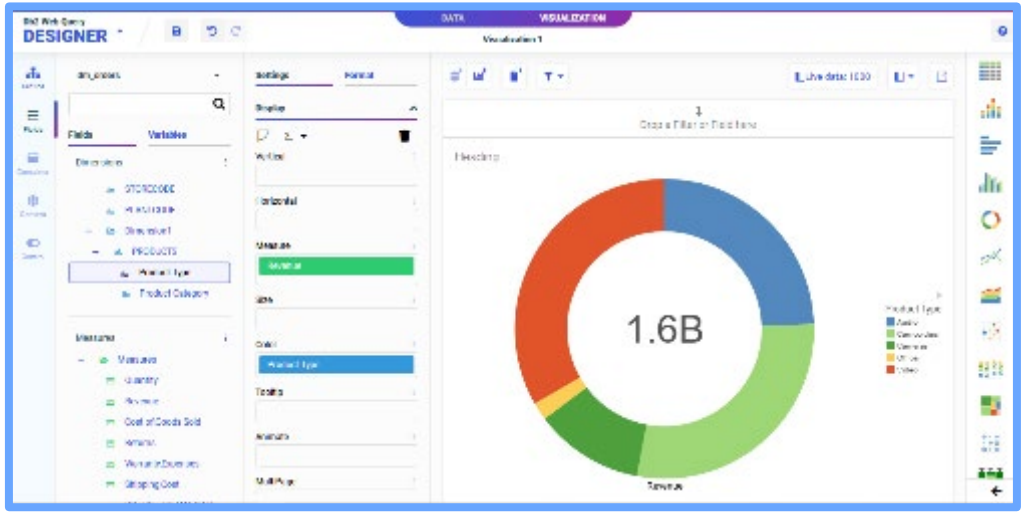
New IBM Db2 Web Query Editions

IBM i Anywhere
IBM i Everywhere

Db2 Web Query **Scheduler Edition 5733-WQB**

– **Express + Job Scheduling**
– Unlimited report “consumers”
  - Distributed via email, FTP, or placed on network drive
  - Users can work with data offline
  - Support Mobile or At Home Workers



Db2 Web Query **RunTime User Edition 5733-WQR**

– **Express + RunTime Licensing**
– Users can run interactive reports with live data

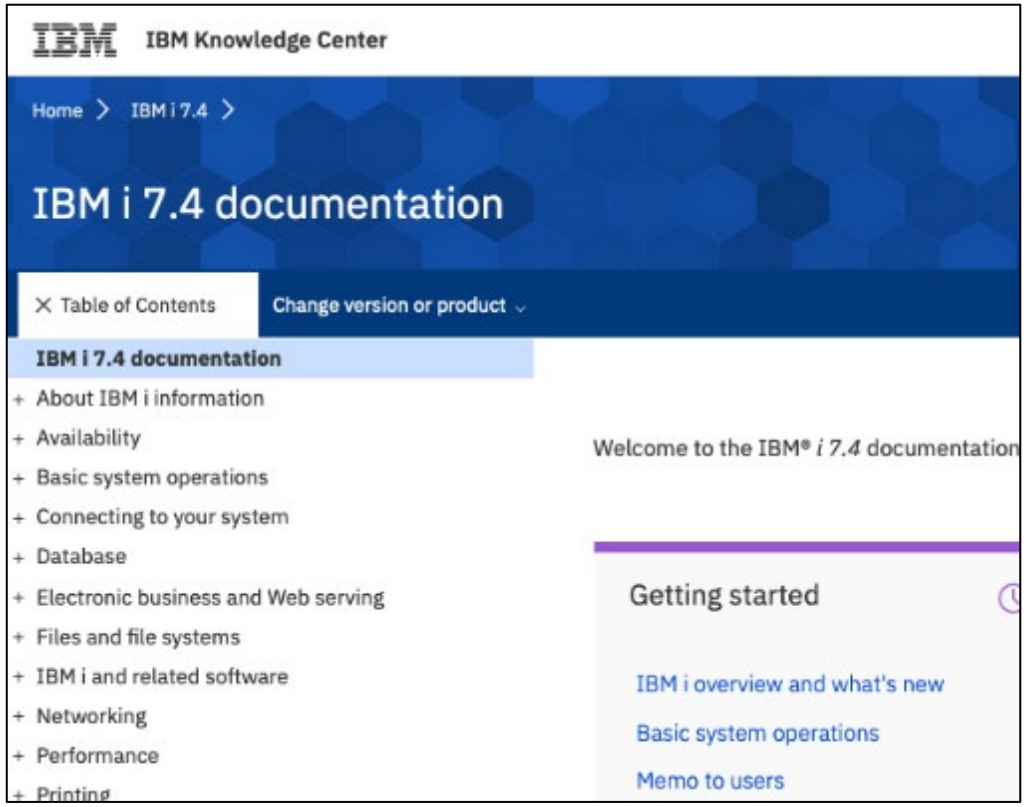
OVER 50% Savings for 20 user system
OVER 75% Savings for 50 user system

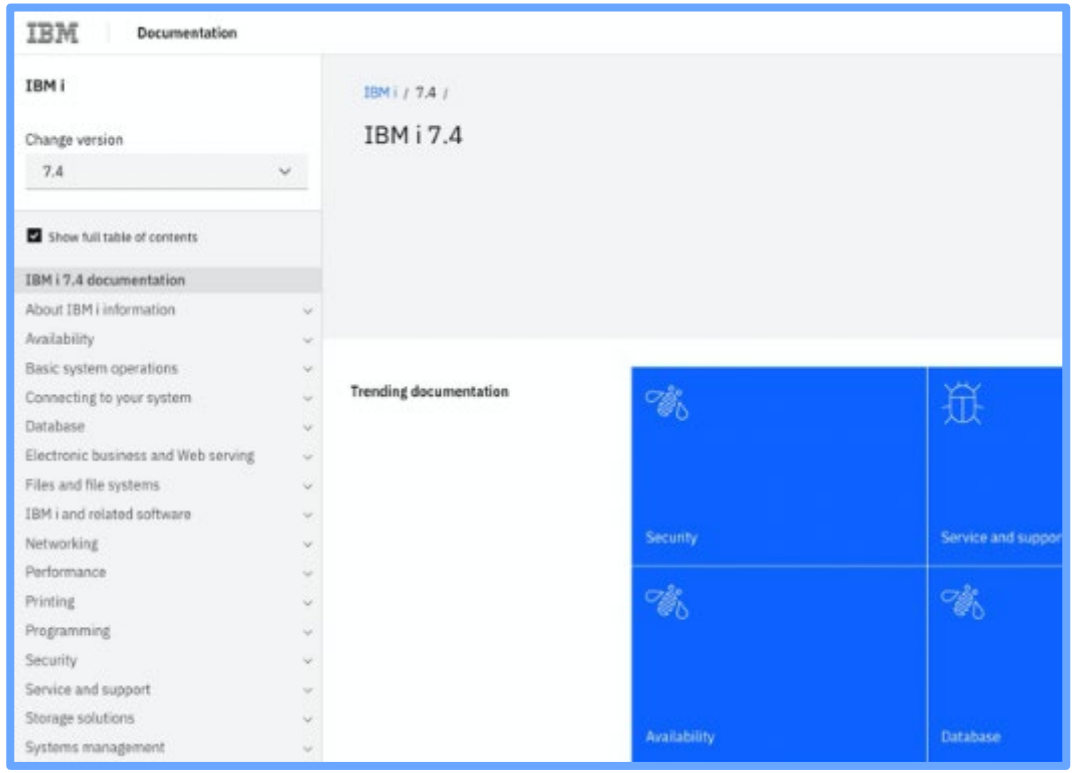
ibm.biz/db2wq-blog-neweditions

Savings compares adding user licenses to Express vs. Upgrading to new Edition
Calculated using U.S. List Prices and includes SW Maintenance
Assumes you already own Express Edition + 2 user licenses

IBM KC replaced by IBM Documentation

- IBM Knowledge Center is replaced by IBM Documentation
- KC URLs are automatically mapped to IBM Docs





www.ibm.com/docs/en/i/7.4

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Thank you

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