



IBM i Strategy & Features Overview

Steve Will – IBM i Chief Architect



IBM i Strategy



Power Solutions

- Delivering an integrated platform focused on leading industry applications
- Engaging with partner ISVs & MSPs for flexible solutions delivery options
- Enabling clients to transform their customer experience via mobile solutions



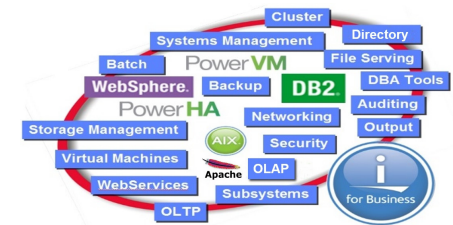
Open Platform for Choice

- IBM demonstrating commitment with continuing deliverables - IBM i 7.3 & TRs
- Providing new capabilities between releases based on user feedback
- Growing IBM i solutions options including open source languages and applications



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





Agenda

- “Strategy” Introduction
 - “Session within a Session” – What Kind of Game are You Playing?
-
- The IBM i Strategy – with Example “Features”
 - Summary & Cheerleading

Strategy =

Guiding Principles +

Actions

Designed to achieve a long-term

GOAL.



Identify the Goals



Know your Resources



and their Capabilities

Examine All Options



Recognize All Players



Many Kinds of Games



Video



Sport



Casino

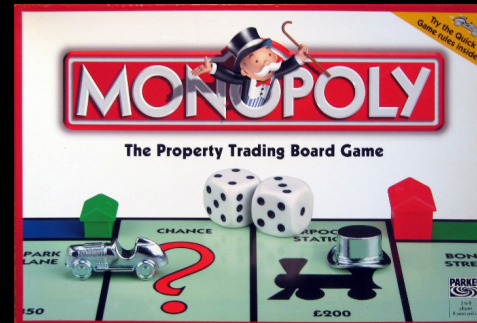
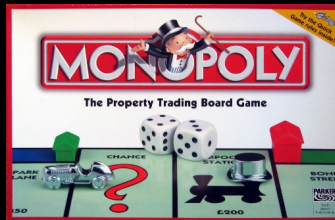


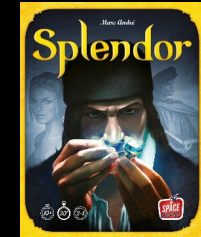
Table Top

Most Tabletop Games – You Against Opponents

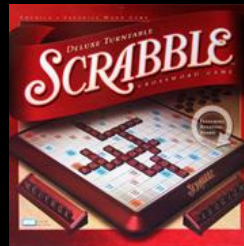
Remove the Opposition



First to a Goal



Highest Score



There's Another Kind of Game

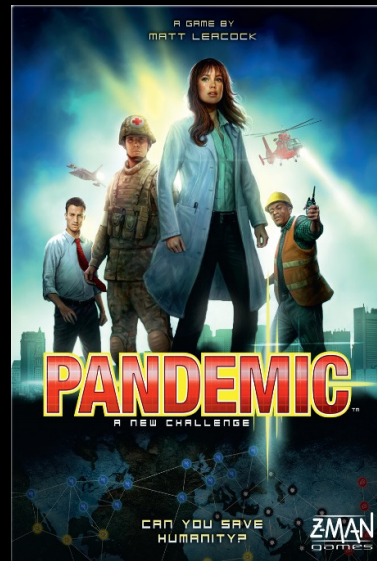
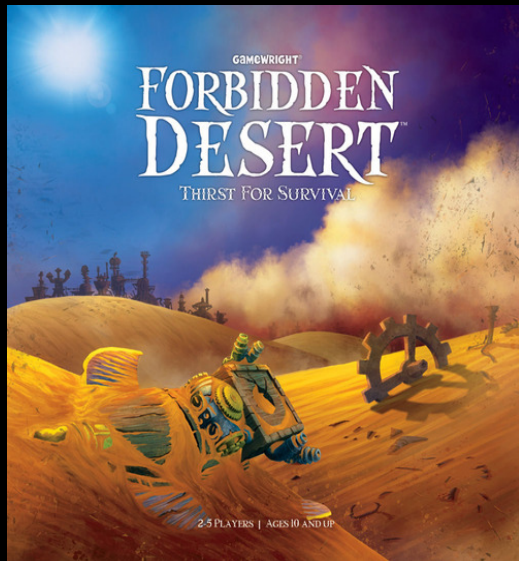
There's Another Kind of Game

It's Us

There's Another Kind of Game

It's Us

Against the GAME



Cooperative

Generally speaking, in a cooperative game

We ALL Win

or

We ALL Lose!

Game Type → Goals → Strategy → Actions

Game Type → Goals → Strategy → Actions

Competing:

Game Type → Goals → Strategy → Actions

Competing:

- Necessary if the Game is competitive,

Game Type → Goals → Strategy → Actions

Competing:

- Necessary if the Game is competitive,
- Harmful if the Game is cooperative.

Game Type → Goals → Strategy → Actions

Focusing on individual gain

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Focusing on individual gain

– Necessary if the game is competitive,

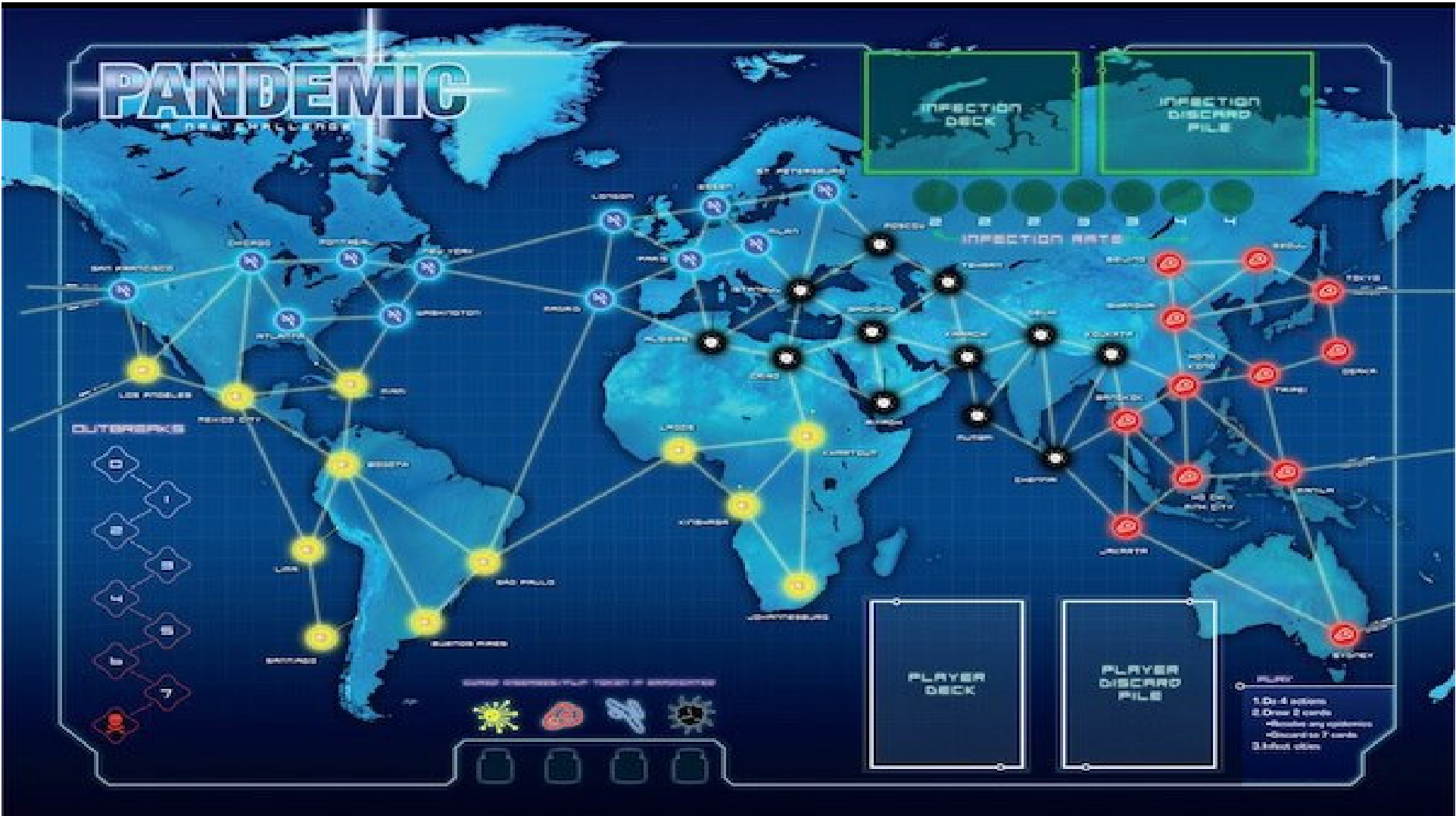
Game Type → Goals → Strategy → Actions

Focusing on individual gain

- Necessary if the game is competitive,
- Harmful if the game is cooperative

PANDEMIC

A 2-5 Player Game



OUTERSPACE



INFECTION DECK

INFECTION DISCARD FILE

INFECTION RATE

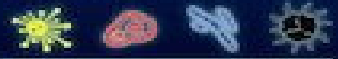
PLAYER DECK

PLAYER DISCARD FILE

PLAY

1. Do 4 actions
2. Draw 5 cards
3. Discard any epidemic
4. Discard 2 cards
5. Infect cities

YELLOW FEVER CHOLERA EBOLA PLAGUE



Specialists with Special Abilities

FIRST RESPONDER



- As an action, you may move to any city with a research station.
- Immediately after an Epidemic, you may – out of turn – move to the epidemic city and Treat Disease there (before Infections).



OPERATIONS EXPERT



- As an action, build a research station in the city you are in (no discard needed).
- Once per turn as an action, move from a research station to any city by discarding any City card.



In the Game of

Building



Strategy

RESEARCHER



- As an action, you may give (or a player can take) any City card from your hand. You must both be in the same city. The card does not have to match the city you are in.

FIRST RESPONDER



- As an action, you may move to any city with a research station.
- Immediately after an Epidemic, you may – out of turn – move to the epidemic city and Treat Disease there (before Infections).

SCIENTIST



- You need only 4 cards of the same color to do the Discover a Cure action.

QUARANTINE SPECIALIST



- Prevent disease cube placements (and outbreaks) in the city you are in and all cities connected to it.


DISPATCHER



- Move another player's pawn as if it were yours.
- As an action, move any pawn to a city with another pawn.


Get permission before moving another player's pawn.

OPERATIONS EXPERT



- As an action, build a research station in the city you are in (no discard needed).
- Once per turn as an action, move from a research station to any city by discarding any City card.

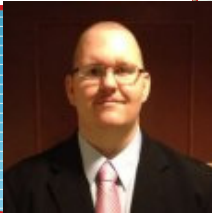
CONTINGENCY PLANNER



- As an action, take *any* discarded Event card and *store* it on this card.
- When you play the stored Event card, *remove* it from the game.


Limit: 1 Event card on this card at a time, which is not part of your hand.

PHARMACIST



- As an action, reveal a City card to Treat Disease (or Distribute Vaccine) there.
- As an action, remove 1 cube of a *cured* disease from any city to the supply.

EPIDEMIOLOGIST



- Once during *your* turn, you may (with permission) take *any* City card from a player in the same city with you. Doing this is not an action.



S WHAT?

With apologies to The Bard:

With apologies to The Bard:

All the world's a game, and all the men and women merely
players:

With apologies to The Bard:

All the world's a game, and all the men and women merely
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You choose whether to compete, or cooperate.

With apologies to The Bard:

All the world's a game, and all the men and women merely players:

You choose whether to compete, or cooperate.

A successful strategy requires knowing what kind of game you're playing.

And I am not just talking about
games.

In the Game of



In the Game of



It's Us

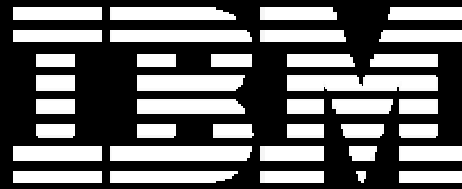
Against the WORLD

The Players

The Players



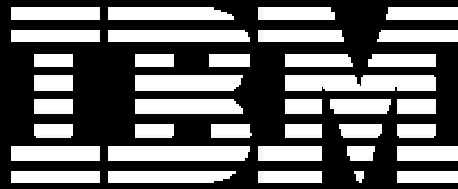
The Players



The Players



The Players



Each
has
Special
Abilities



The Special Abilities of the IBM i Team include



Defining Strategy

Strategic Planning

Communicating the Results



IBM i Strategy – Solutions plus Partners

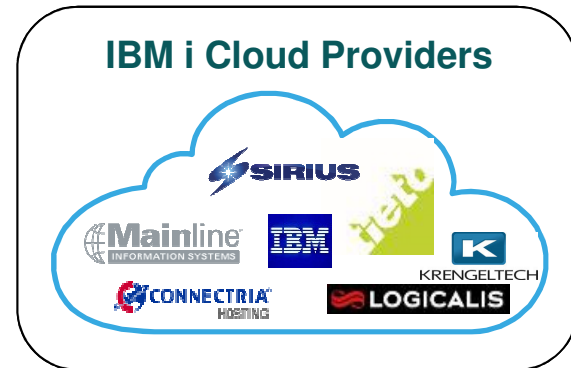
IBM i Solutions Providers



IBM i Modernization Partners



IBM i Cloud Providers



IBM i Strategy – Choices & Open



RPG



COBOL



WebSphere. software

PostgreSQL



Rational. software



Liberty

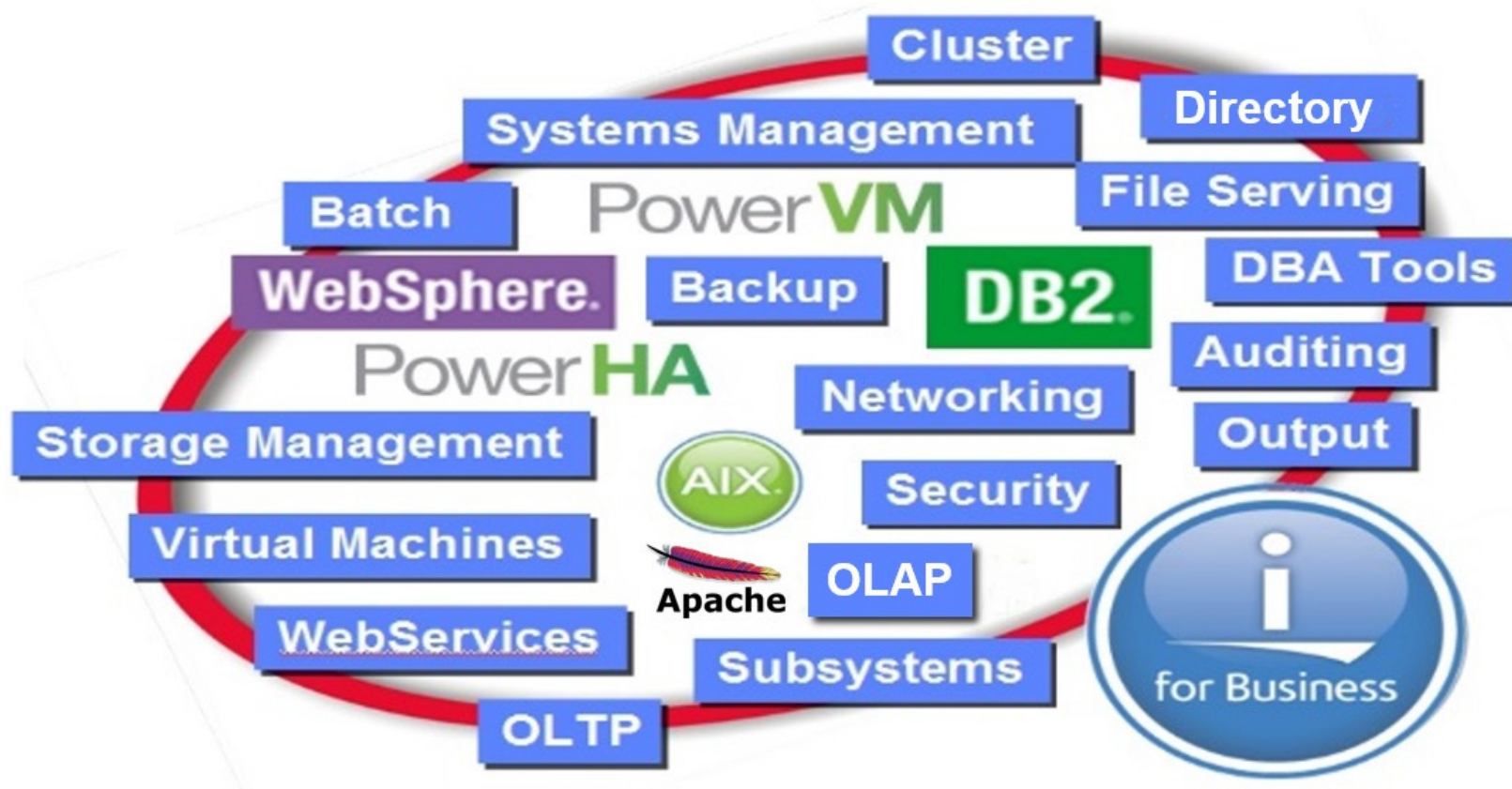


Apache

C/C++



IBM i Strategy - Integration



IBM i Strategy



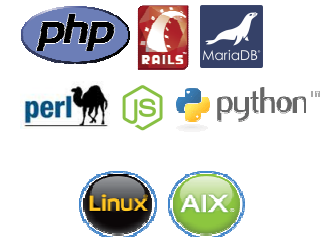
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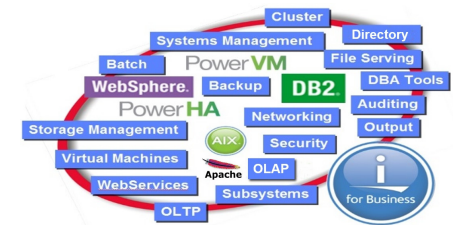
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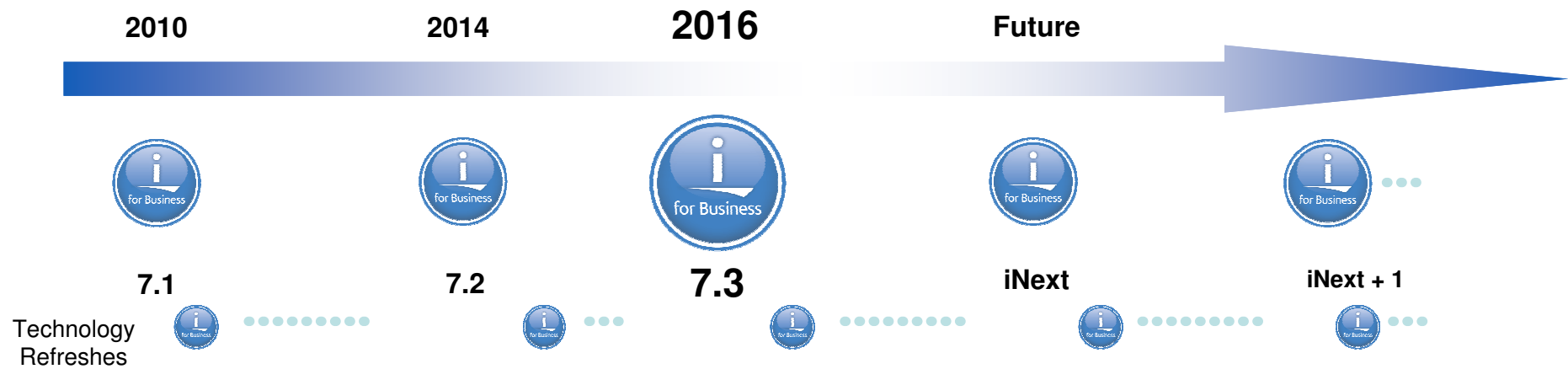


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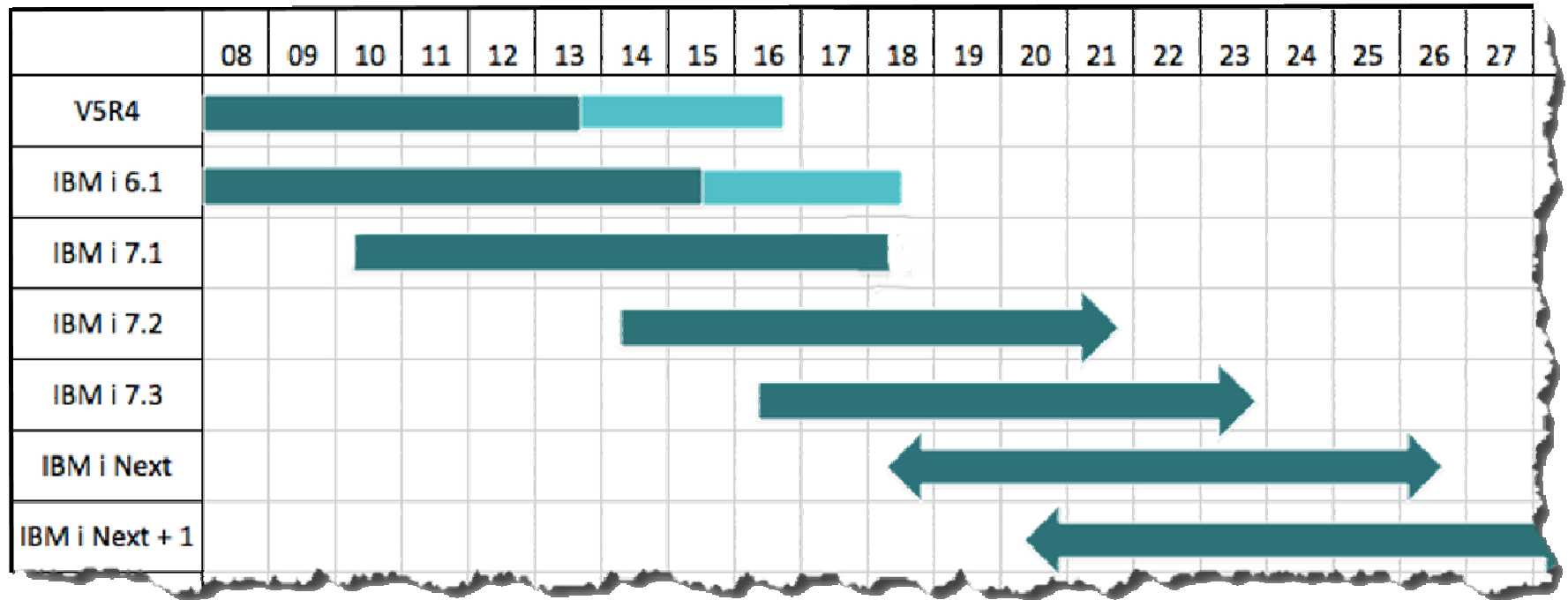
IBM i Release Roadmap



- Two or Three Major Releases supported.
- Two Future Major Releases under development.
- Semi-annual new function for the most recent releases.

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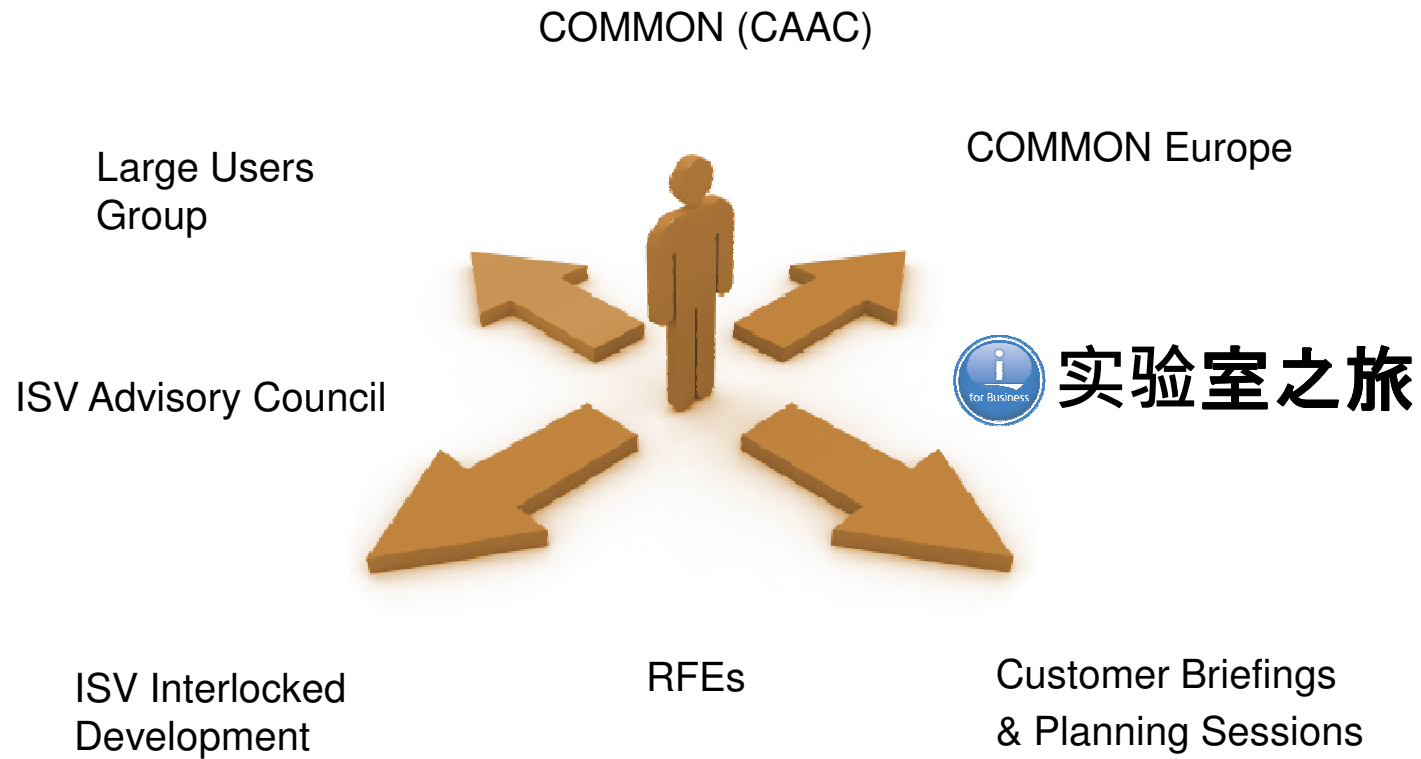
IBM i Support Roadmap



** Arrows indicate general timeframes, not specific dates.

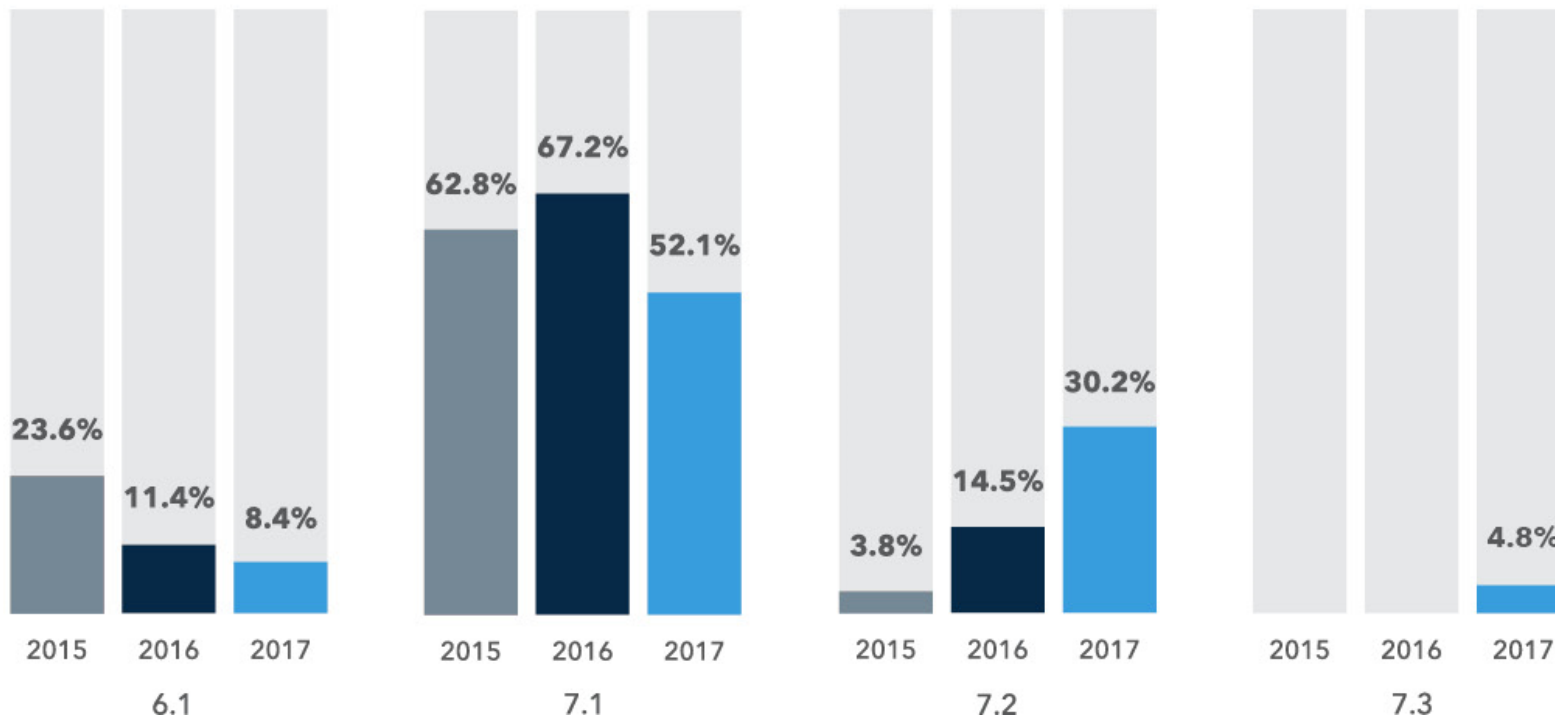
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The Players – Participating in the IBM i Strategy



The Community – Customers & Partners – Using Their Special Abilities

What version of IBM i is your primary operating system level?

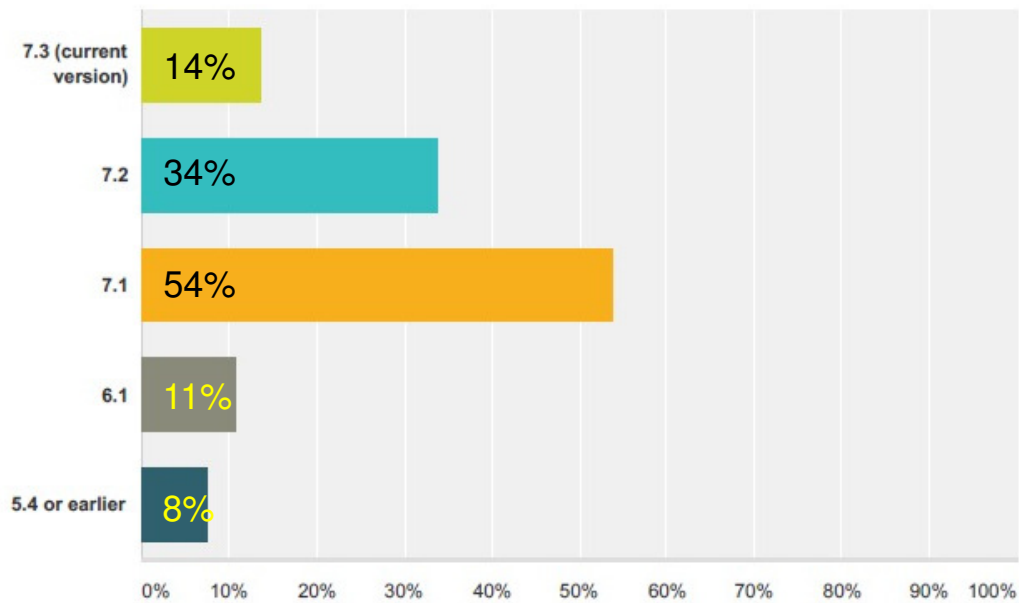


<https://www.helpsystems.com/resources/guides/2017-ibm-i-marketplace-survey-results>

2017 State of IBM i Modernization Survey

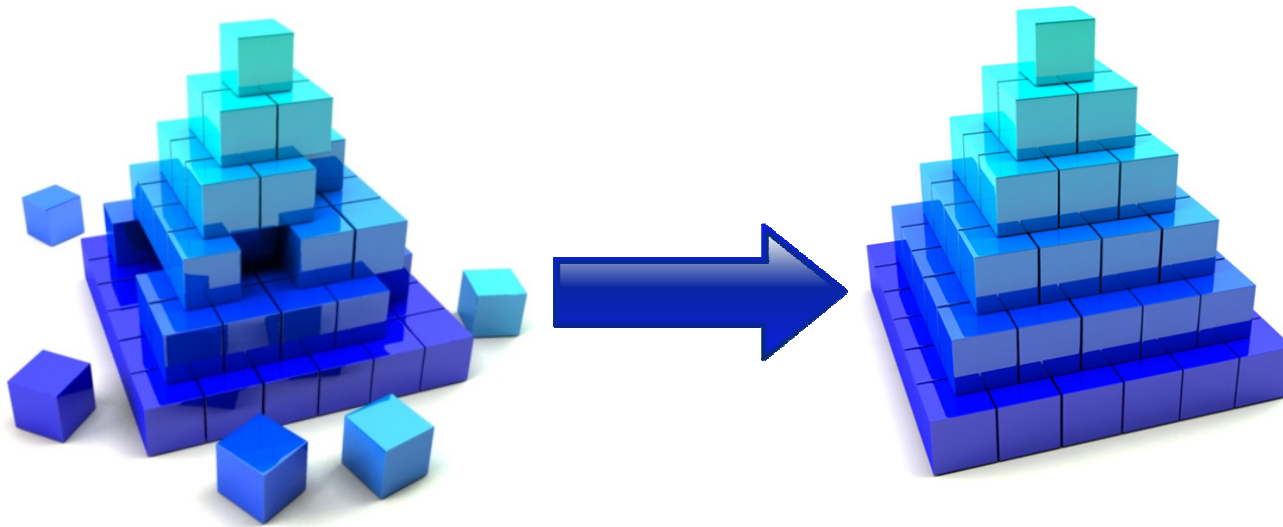
Q3 What version of IBM i are you using?

Answered: 463 Skipped: 38



Source: Profound Logic Survey

Supporting Strategies



Some Supporting Strategies

- Application Development
 - Modernization
 - Languages
 - Open Source
- Db2 for i
- Cloud & Virtualization
- Access & Management

RPG

#ibmiOSS

DB2®

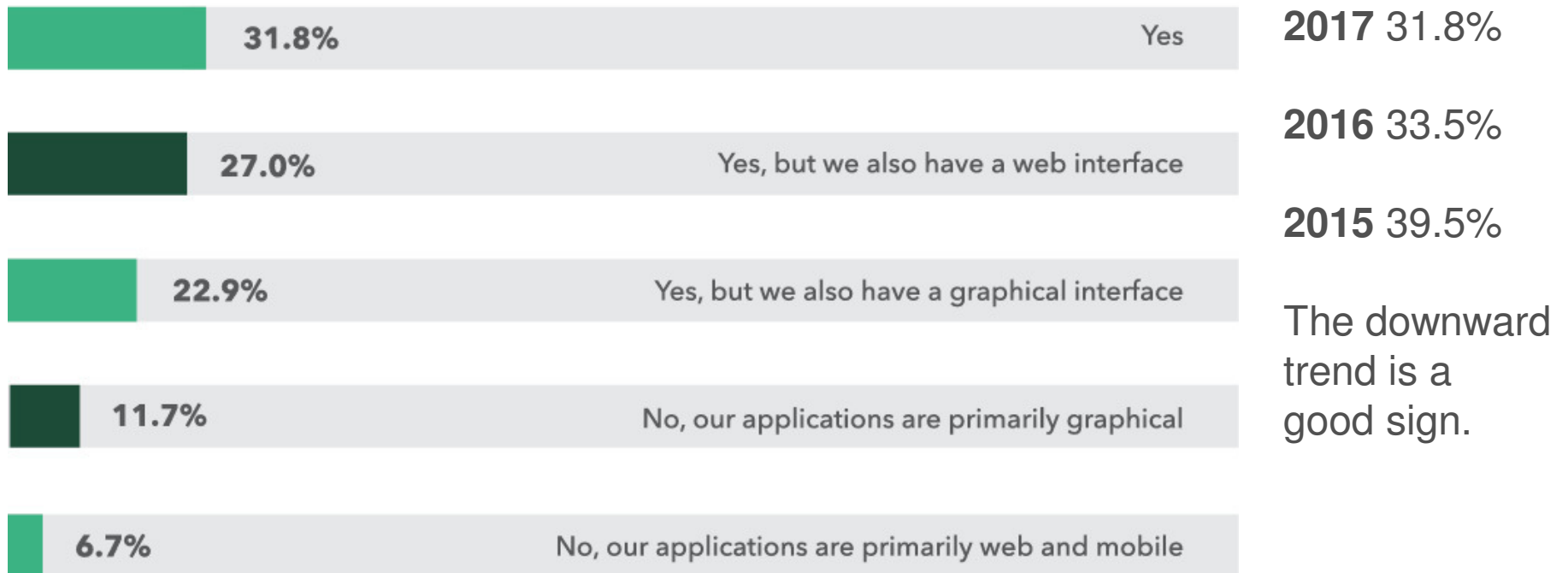


IBM i Application Development Strategy

- Modernization
 - User Interface
 - Languages
 - Methodologies
 - Tools
 - Data Access
 - Security



Is your main application still green screen (5250)?



The downward trend is a good sign.

<https://www.helpsystems.com/resources/guides/2017-ibm-i-marketplace-survey-results>

Strategic Advancements in Mobile Access for IBM i

- RPG Open Access
- XML Services
- JTOpen Lite
- PHP – Zend Server for IBM i, Zend Studio
- JSON Support

+

- Access for Mobile
- Db2 WebQuery
- IBM Connections
- IBM Notes Traveler
- And more ...

+ PLUS – Tools from Industry Vendors



Mobile Strategy in Action – through Partners



IBM i Application Languages Strategy

- RPG is the most commonly used language on IBM i so
 - Enable RPG as a powerful, modern procedural language
 - Partner for tools which transform older RPG to modern RPG
 - Work with partners & schools to teach RPG to non-RPG developers quickly

RPG

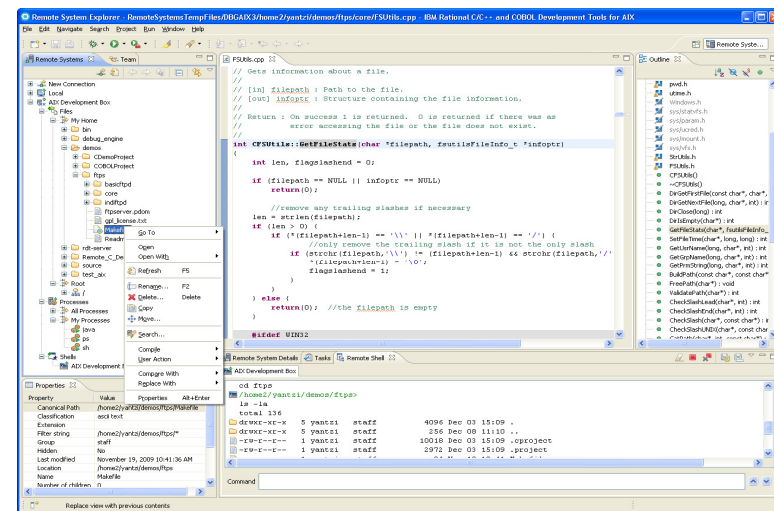
RPG Strategic Advances

- Open Access
 - Removes dependence on 5250
- No Column restrictions
- ‘Normal’ syntax
- Easy readability
- Modular & Re-usable
- Leverage Other Languages
 - XML
 - SQL
 - JSON

```
do while (not found);
  //Look up the custId in the file
  custName = %LOOKUP('custKey' : custArray
                    : 1
                    : %SIZE(custArray));
  custAddress = %SUBST(fullAddress :1 :50);
C  custAddress MOVEA fullAddress
  CHAIN custId custFile;
enddo;
```

Rational Developer for i V9.5

- Addition of a built-in 5250 emulator
- Removal of the 80 column restriction in RPG code editor
- Addition of Snippet Support in the Push-to-Client feature
- Enhanced ability to rearrange Remote System Explorer (RSE) Filters
- Improvements to free-form RPG formatting (indentation support) in the RPG code editor
- Improved RPG Content Assist
- **Eclipse-based, just like students use!**



Proof Points



Hear how Modern RPG and Tools allowed a
23 year old developer to be successful today!

<http://bit.ly/1WhM7uT>

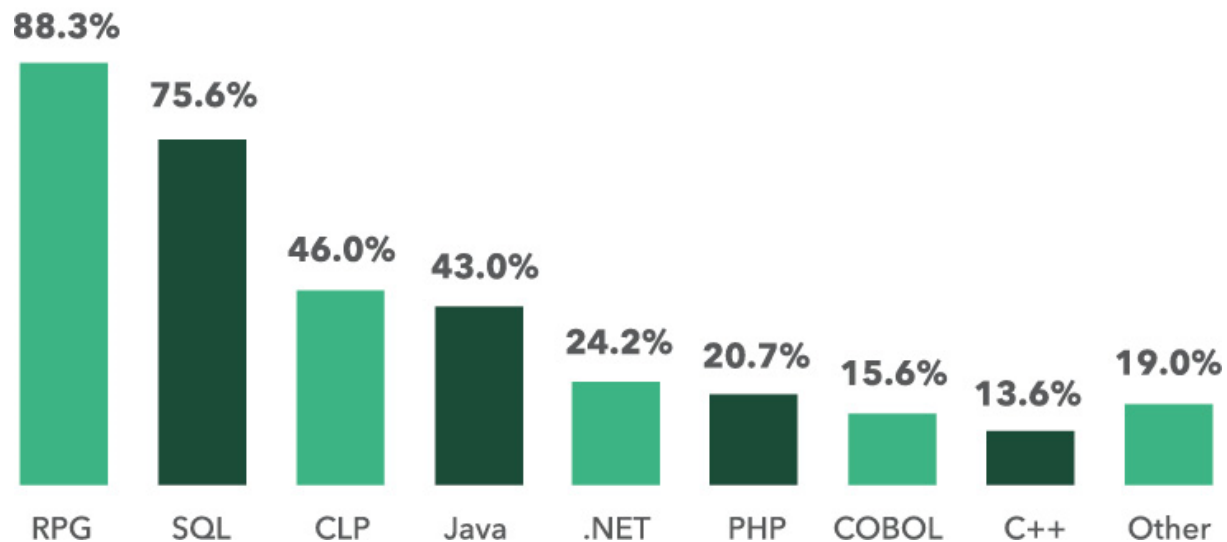
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- RPG is the most commonly used language on IBM i so
 - Enable RPG as a powerful, modern procedural language
 - Partner for tools which transform older RPG to modern RPG
 - Work with partners & schools to teach RPG to non-RPG developers quickly
- Extensive skills and catalogs of solutions exist for business in other languages
 - Support key industry languages and programming models on IBM i
 - Ensure those new approaches can integrate with existing IBM i solutions
 - Enable tools for development, debug, lifecycle – from IBM and from partners

RPG



What development languages do you use today for new development? Check all that apply.

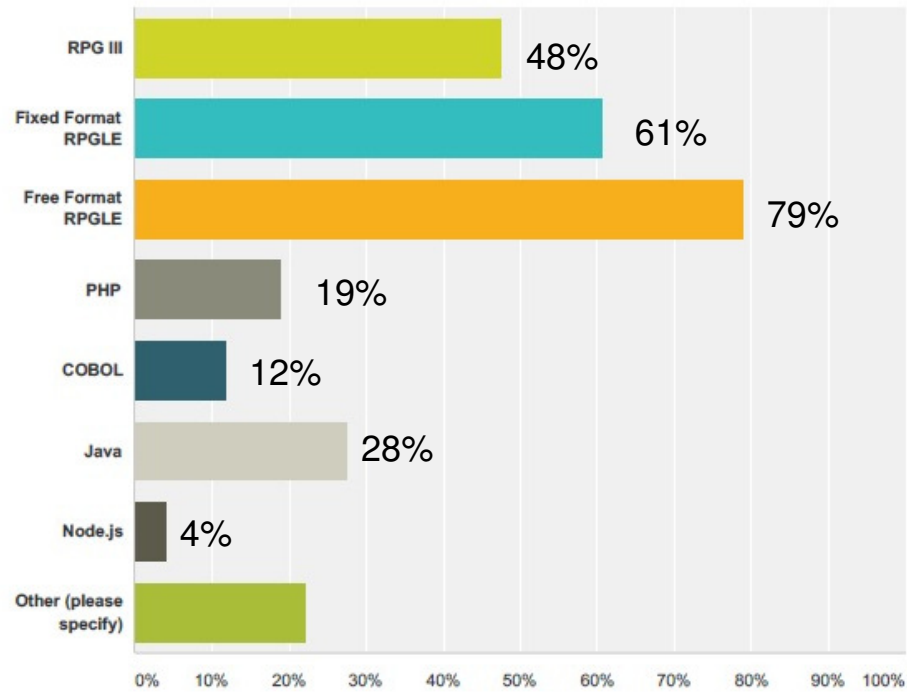


RPG is still popular, but it's fair to say that we have a good mix of others.

<https://www.helpsystems.com/resources/guides/2017-ibm-i-marketplace-survey-results>

Q4 Which programming languages are you currently using in your development? (select all that apply)

Answered: 461 Skipped: 40



Source: Profound Logic Survey

Open Source on i

- Languages
- Tools
- Ecosystem
- Build
- Ease of Use



[#ibmiooss](https://twitter.com/ibmiooss)

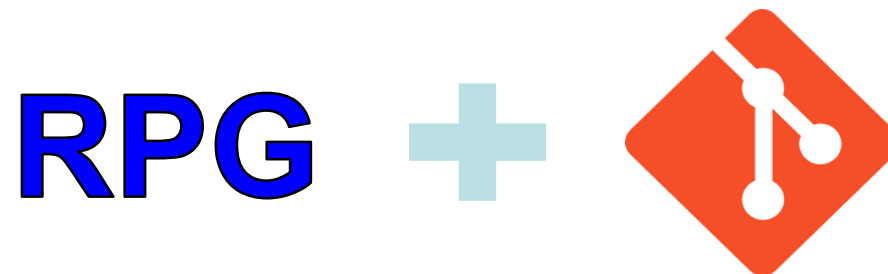
IBM i Open Source



Git – Source Control Management

Git

- Support RPG source stored in IFS
- Provides an alternative to other source control
- Would allow the same source control for both open source and RPG



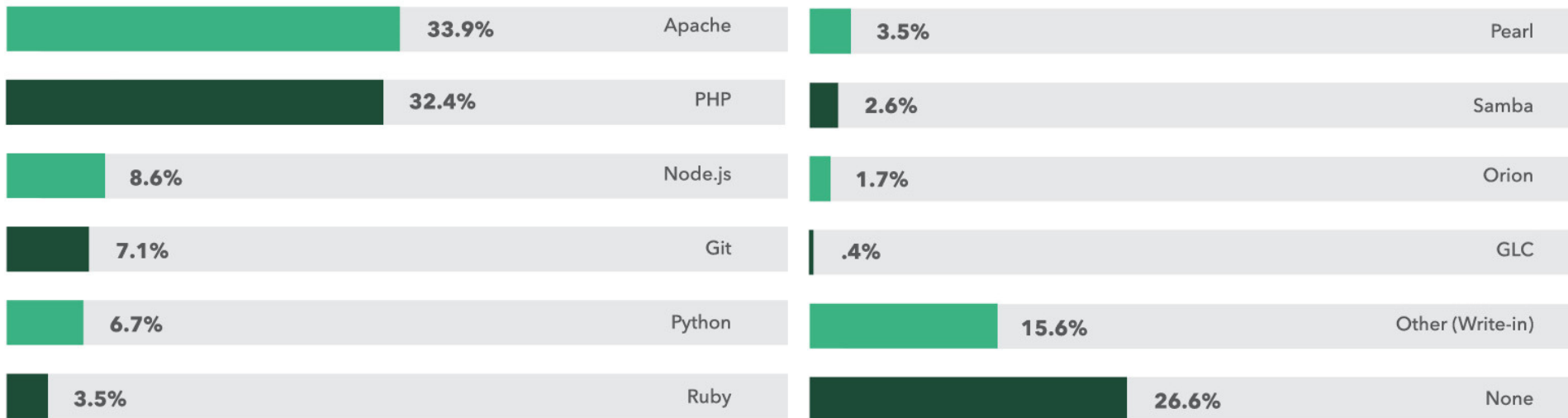
Orion - Web Based IDE

- Orion
 - Open Source Development Environment
 - Based on Eclipse
 - Browser based development environment
 - Free
 - Always there
 - Node, Python, others

- RPG ? YES!
 - Access RPG source from IFS Files



What open source development tools are you using for IBM i apps? Check all that apply.



<https://www.helpsystems.com/resources/guides/2017-ibm-i-marketplace-survey-results>

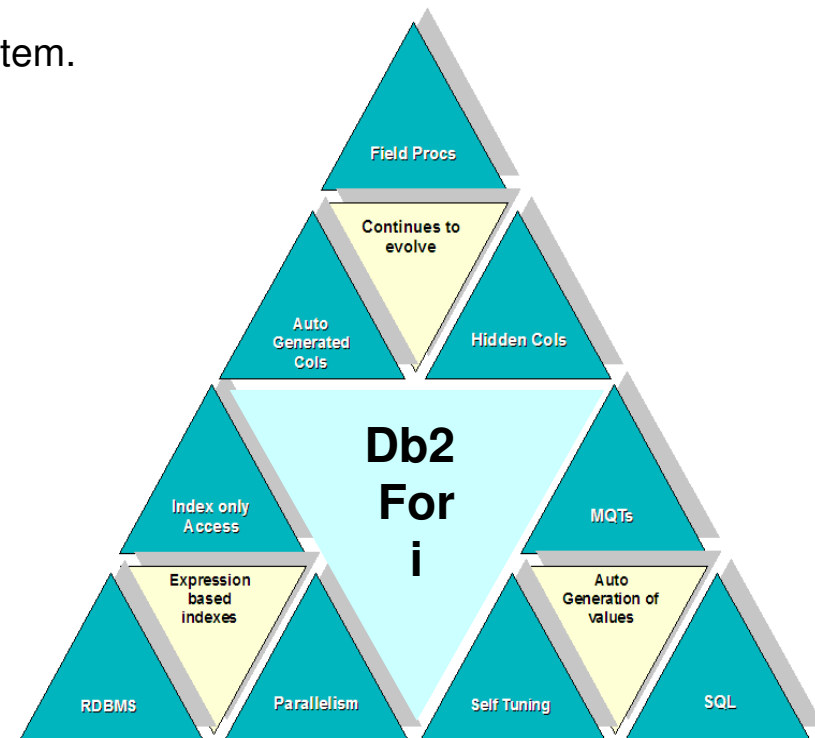
Db2 for i – Strategic Value Pillars

- Standard compliant
- Secure
- Scalable
- Functionally Advanced
- Excellent Performance
- Easier to use
- Easier to maintain



Db2 Strategic Focus: Data Centric Programming and Scalability

- Goal: Drive work into the DB management system.
- Define business rules as part of the database
 - Rules will apply to all application interfaces
- Take advantage of SQL only capabilities
- Database evolves to:
 - Meet new requirements
 - Take advantage of new technology



Db2 Recent Strategic Enhancements

- Db2 XML & JSON Support
- Adaptive Query Processing
- Db2 Row & Column Access Control
- Authority Collection
- Integrated Analytics Functions
- EVI Only Access
- SQL Services

IBM i and Cloud



Strategic Cloud & Virtualization Advances

- Virtualization functions since 7.1
 - Network Install through Live Partition Mobility
- Backup to a Cloud with BRMS
 - Softlayer repository announced 4Q '16
- IBM & Industry infrastructure
 - PowerVM & PowerVC
- Cloud & Managed Service Providers
 - New IBM Services offering

- + Virtualization of networks and storage
 - for “as a Service” and HA

SOFTLAYER[®]
an IBM Company

Power**VM** Power**VC**



IBM provides a complete CMS for IBM i solution that includes these components.

Phase 1:

Set up to run in IBM i cloud
Move from client environment to IBM i cloud

(Transition and transformation services)

Phase 2:

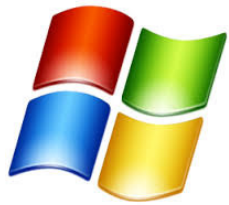
Daily operations

- **IBM i cloud infrastructure** (CPWs, disk and tape storage gigabytes, software stacks)
- **Operations and management** (IBM support, help desk, account management, security, disaster recovery / high availability support services and more)
- **ISV software** (client owned or IBM provided, licensed to run in a multi-tenant IBM i environment)
- **Network services** (client to IBM i cloud, infrastructure and managing network)

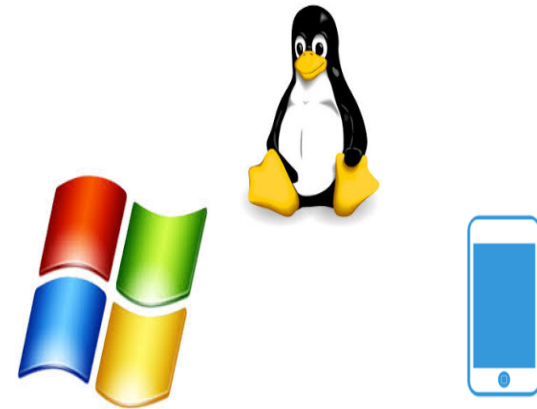
Munish Gupta – munishg@ibm.com

Nicolas Le Van De – N.LeVanDe@ibm.com

IBM i Access and Management



Limited to
Windows
Install

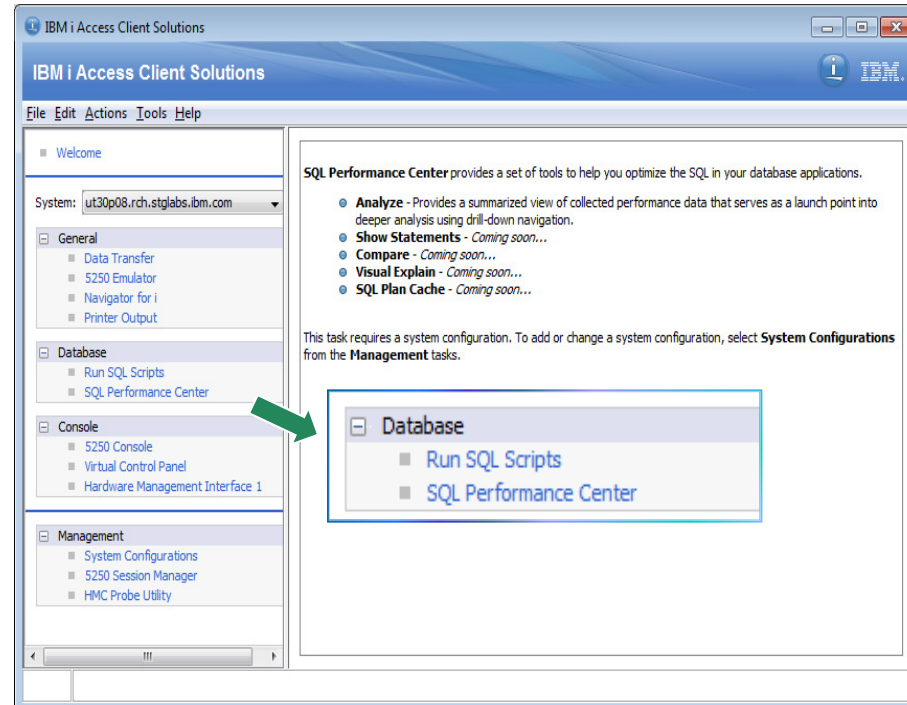


Any Device

Access Client Solution



- Run SQL Scripts
- SQL Performance Center
- Direct Connect to Navigator
- Improved 5250 Emulator
- Full Windows 10 Support
 - Plus Mac & Linux



IBM i Priorities

- **Solutions for Today and the Future**
 - Focus on solutions integration with new technology
 - Invest in Db2 and language features for strategic solutions
 - Enable Mobile Device Support
- **Systems On-Site or In the Cloud**
 - Exploit future POWER system technology
 - Deliver advanced virtualization of system & storage
 - Provide resiliency, availability & flexibility
- **Simple & Integrated, Secure & Available**
 - Simplify management of systems and high availability
 - Broaden storage area network integration
 - Extend industry-leading integrated security



IBM i Strategy



Power Solutions

- Delivering an integrated platform focused on leading industry applications
- Engaging with partner ISVs & MSPs for flexible solutions delivery options
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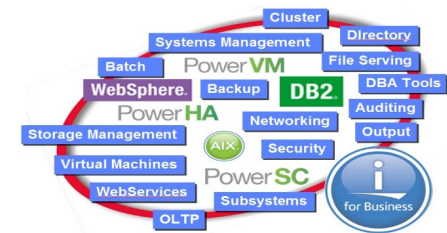
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IBM i Strategy - Implied

Communicate

- Continually create honest material describing the strong value & future of IBM i.
- Share the material widely with those who need to hear it.
- Work with others in the community to spread the material.

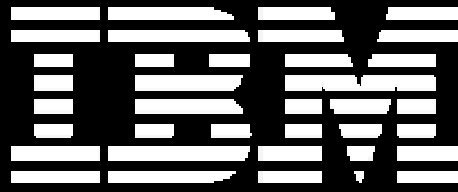
Invest

- Technology for existing core workloads – Db2, Languages, POWER, Performance, integrated i
- Emerging technology which will be “table stakes” in 5 to 10 years – open source, cloud, cognitive
- High-value requirements from customers – with advice from advisory councils

Partner

- With ISVs who will apply new technology to solutions
- With Business Partners who will engage and serve clients reliably
- With Customer Advocates who will help guide the future of IBM i

The Players



Each
has
Special
Abilities



Customer Advocates who will help guide the future of IBM i



Executives Reinvesting in IBM i

Summary

- The IBM i strategy is built based on cooperation and partner relationships.
- This approach allows the entire community, including IBM i itself, to remain strong.
- All the “players” in the IBM i community can use their “Special Abilities.”
- We, the members of the IBM i team, sincerely thank you for your business.
 - That’s one of your special abilities!
 - But it’s only ONE of them!
 - We thank you for ALL of them you use on behalf of the future of IBM i!

You and



are in this together!

ithankyou

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<https://twitter.com/IBMPowerSystems>



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