



Phoenix Software International

JES3^{plus}™

Special Presentation for GSE UK

November 6, 2019

Phoenix Software JES3plus™ discussed in this presentation is a derivative work of IBM®'s JES3 licensed sourced code.

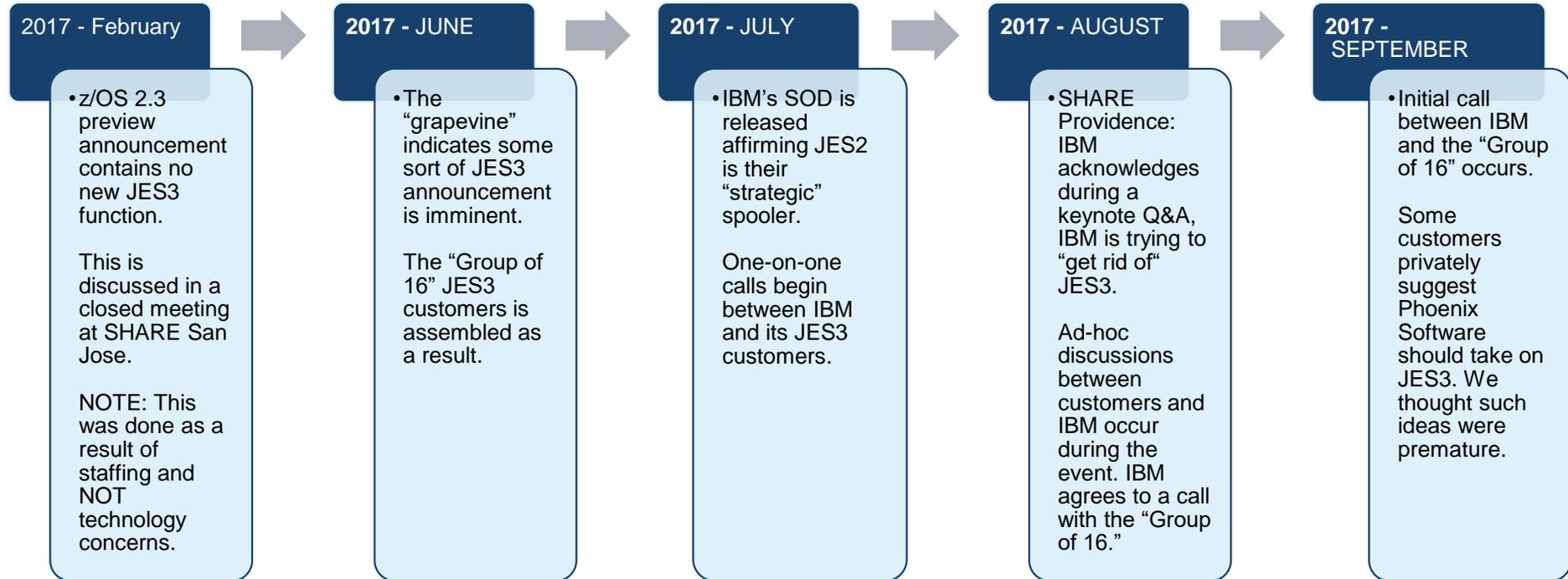
The logo for JES3plus™ is centered in a horizontal band. The text 'JES3plus' is rendered in a large, bold, white, sans-serif font with a slight 3D effect. The 'TM' trademark symbol is smaller and positioned to the upper right of the 'plus'. The background of this band features a complex arrangement of interlocking gears in various colors: gold, pink, purple, and teal. The gears are partially obscured by the text, creating a sense of depth and mechanical complexity.

JES3plus™

A grayscale photograph of a winding asphalt road through a dense forest. The road curves from the bottom left towards the center and then back towards the bottom right. The trees are tall and thin, with some foliage visible. In the bottom left corner, there is a blue digital graphic overlay consisting of glowing lines and dots, resembling a circuit board or data visualization.

The Journey

Timeline of Events 2017



Timeline of Events 2018

2018 - MARCH

- SHARE Sacramento: No on-site JES3 discussions. The “Group of 16” has been renamed to the SHARE JES3 Task Force by SHARE who now provides resources.

IBM continues one-on-one calls with its JES3 customers throughout the year and many are shared and re-capped among the group via periodic calls.

2018 - AUGUST

- SHARE St Louis: IBM z/OS Development leadership changes. New leadership agrees to participate in a conference call with the JES3 Task Force and bring along JES3 experts.

2018 - SEPTEMBER

- Another call between IBM and the “Group of 16” occurs. IBM assigns an offering manager for JES3 discussions. Customers attempt to communicate their business concerns to IBM.

Timeline of Events 2019

2019 - FEBRUARY

- IBM's SOD is released announcing the release following z/OS 2.4 will be last to offer JES3. This begins a 4.5 year countdown to a z/OS with no JES3.

2019 - MARCH

- SHARE Phoenix: Many customers reaffirm their hope/desire for Phoenix Software to take on JES3
- Phoenix Software executive management team send a letter to IBM entitled, "Possible JES3 Partnership Opportunity,". They agree to meet.

2019 - APRIL

- Initial conversations are held between IBM and Phoenix Software in Poughkeepsie.

2019 - MAY

- First proposal is presented to IBM by Phoenix Software team in Poughkeepsie and is well received. Both sides agree to proceed to the next steps.

Timeline of Events 2019 - 2020

2019 - JULY

- Revised proposal is presented to IBM by Phoenix Software team in Poughkeepsie based on completed due diligence and is well received. Both sides agree to proceed to the next steps.

2019 - SEPTEMBER

- Deal points are agreed to, contracts are presented and fully executed, and source code is transferred.

2019 - OCTOBER

- Phoenix Software International announces IBM JES3 licensing agreement.

2020 - MARCH

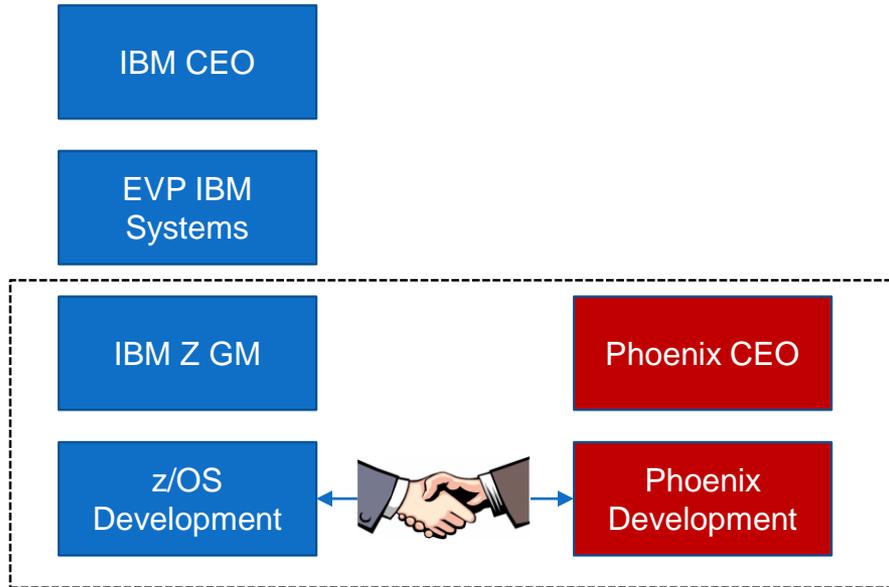
- General availability of V1R0 planned. (R0 implies functional equivalence to IBM JES3).

V1R1 will be the first PSI-enhanced release.

Marketplace Confusion

- ▶ We have found a surprising amount of confusion in the marketplace about the nature of our agreement, why it was done, and what customers can expect going forward.
- ▶ There are at least two third-party articles we know will be published soon in an attempt to bring clarity to the situation.
 - SHARE and Watson/Walker
- ▶ From what we can tell, most of the confusion seems to emanate from individuals that apparently didn't fully read the press release.
 - We spent considerable time with IBM “honing” the language to ensure the press release provided clear, accurate and complete information.

Marketplace Confusion – The Parties Involved



- ▶ Fundamentally this is an agreement between two development organizations (z/OS and Phoenix) with full support, buy-in, approval, and sign-off from one management level above – where the “buck” stops.
- ▶ Crisp, clear messaging will come from the four entities inside the dashed box.
- ▶ All others are speculating.

Marketplace Confusion – Intended Messaging

▶ From the PSI Press Release

“As a founding member of what eventually became the SHARE JES3 Task Force, Phoenix Software has been working since mid-2017 with customers and IBM to find **a simple, no-cost alternative to a JES2 conversion**. Today we’re proud to announce an agreement with IBM to provide JES3 customers with exactly that,” said Ed Jaffe, Chief Technology Officer at Phoenix Software International. “Phoenix Software’s offering is based on IBM’s JES3, is fully supported, has **a road map for enhancements**, and can be implemented by existing IBM JES3 customers through a trivial migration and at no additional cost.”

“We are excited about the opportunity to license a component of the z/OS operating system and provide **a solution to support customers wishing to remain on JES3**. Having worked with this technology for approximately 30 of the 40 years that Phoenix has been in business, we have a long-standing heritage that positions us to take on this initiative,” said Fred Hoschett, Chief Executive Officer at Phoenix Software International.

“We are pleased Phoenix Software chose to license JES3 as IBM exits this space. They have decades of experience as an IBM business partner, and **this provides a path to clients who choose to remain on JES3**.” said Ross Mauri, General Manager for IBM Z.

From the Upcoming SHARE Article

Jeffries said, “By licensing Phoenix Software the JES3 source code, it **enables Phoenix to offer clients a path to remain with JES3, independent of IBM's offering. IBM is committed to our clients’ success on the mainframe whether they use JES3 or JES2**. We have always looked at ways to simplify the process of moving from [IBM] JES3, whether it be through services from IBM or from a third party.”

“Phoenix has a strong history as a developer in IBM’s business partner program, and decades of experience with JES3 code and clients,” said Jeffries. “**For clients choosing not to move to JES2, this should be a solid alternative.**”

Where Do Things Stand?

- ▶ We have acquired a source code license for IBM V2R4 JES3 for the purpose of **extending that product's life indefinitely**.
- ▶ We will make available a fully-supported, **derivative work** named JES3^{plus}[™] with a roadmap for enhancements, and offer it to existing IBM JES3 customers as a migration path at no additional cost.
- ▶ We cannot speak for IBM, but they have publicly stated that the z/OS release following z/OS 2.4 will be the last to offer the JES3 feature.

Where Do Things Stand?

- ▶ We believe IBM's decision to sunset JES3 is not about technology.
 - Since the 1980s there have been voices at IBM suggesting staffing/budgetary concerns do not justify maintaining two JESes.
- ▶ It has been 4 ½ years since JES3 was enhanced in any way by IBM.
 - Since at least first quarter 2015 when z/OS 2.2 was being tested for ESP.
- ▶ Despite JES2's efforts to catch up over that time, JES3 technology remains superior in many areas.
- ▶ Therefore, we see ourselves starting from a position of strength – not weakness.

Why Phoenix Software International?

- ▶ Phoenix is the industry's best positioned organization to be able to take on this initiative because we are acknowledged experts in this space.
- ▶ Phoenix has 30+ years of experience working with this technology and we maintain IBM and customer trust and support for this concept.
- ▶ Phoenix has JES3 developer/support resources and we are hiring more.
- ▶ We “eat” our own “cooking!”

Short-Term Expectations

- ▶ Trivial migration path. Just point to a different set of libraries.
 - Regardless of customer implementation/environment complexities
- ▶ One release that coexists with all IBM-supported z/OS BCPs.
 - Easy to do since no changes have been made since z/OS 2.2 JES3.
 - This goes back to common practice prior to just a few years ago.
- ▶ Initial release (JES3^{plus} V1R0) will GA in March 2020 followed by an annual September release schedule beginning in 2021.
 - This aligns with our existing software release schedule and positions us for “Day #1” support of all new z/OS releases going forward

Short-Term Expectations

- ▶ Release V1R0 will function identically to z/OS JES3 V2R4 in virtually every respect. This means:
 - User exits should continue to work unchanged
 - Source modifications (if any) should continue to work unchanged
 - Message automation should continue to work unchanged
 - Operator commands should be unchanged
 - Job, device, and tape high-watermark setup should continue to work unchanged
 - NJE and RJP partner interactions with your systems should be unchanged
 - DevTest and production JCL should continue to work unchanged
 - Production control procedures should continue to work unchanged
 - Output post-processing scripts should continue to work unchanged
 - JES3's often superior performance characteristics should be unchanged
- ▶ **All JES3 subtleties will remain. NO SURPRISES!**

Short-Term Expectations

- ▶ The operational and business risks associated with JES2 conversion disappear.
- ▶ Use the time, human resources, and hard-dollar savings to focus on your business, not your infrastructure.
- ▶ Relax. You are in good hands.

Support Expectations

- ▶ Our support is top rated: 5 out of 5

- Our customers tell us every year that ours is among the very best support organizations in the software industry.
- In fact, on June 19, 2019 one of our UK customers wrote in an email:

“ [We] talk frequently how Phoenix have set such a high standard that we compare all ISVs and IBM with you. You'll be pleased to know that no one rates higher 😊

”

- American translation: for this customer, our support is the "gold standard" against which all other ISVs and IBM are measured.

- ▶ Phoenix Software has been in business 40 years and has been serving JES3 customers since 1990.

Support Expectations

- ▶ Today customers can securely search for fixes to known problems, open new problems (or “how to” questions), and download service PTFs.
- ▶ Additionally, we intend to create a secure portal that provides:
 - Interactions with support staff without email
 - Improved search that can find the answers to “how to” questions
 - Creation and download of personalized x.509 identity certs
- ▶ **RECEIVE ORDER Server**
 - Automatic, secure, and continuous service download while you sleep...
- ▶ **Continue “special” development and support relationship with IBM**
 - IBM PartnerWorld members since 1992 (Vendor Council, S/390 DA, PWD, etc.)
 - We already receive both formal and informal support help from IBM

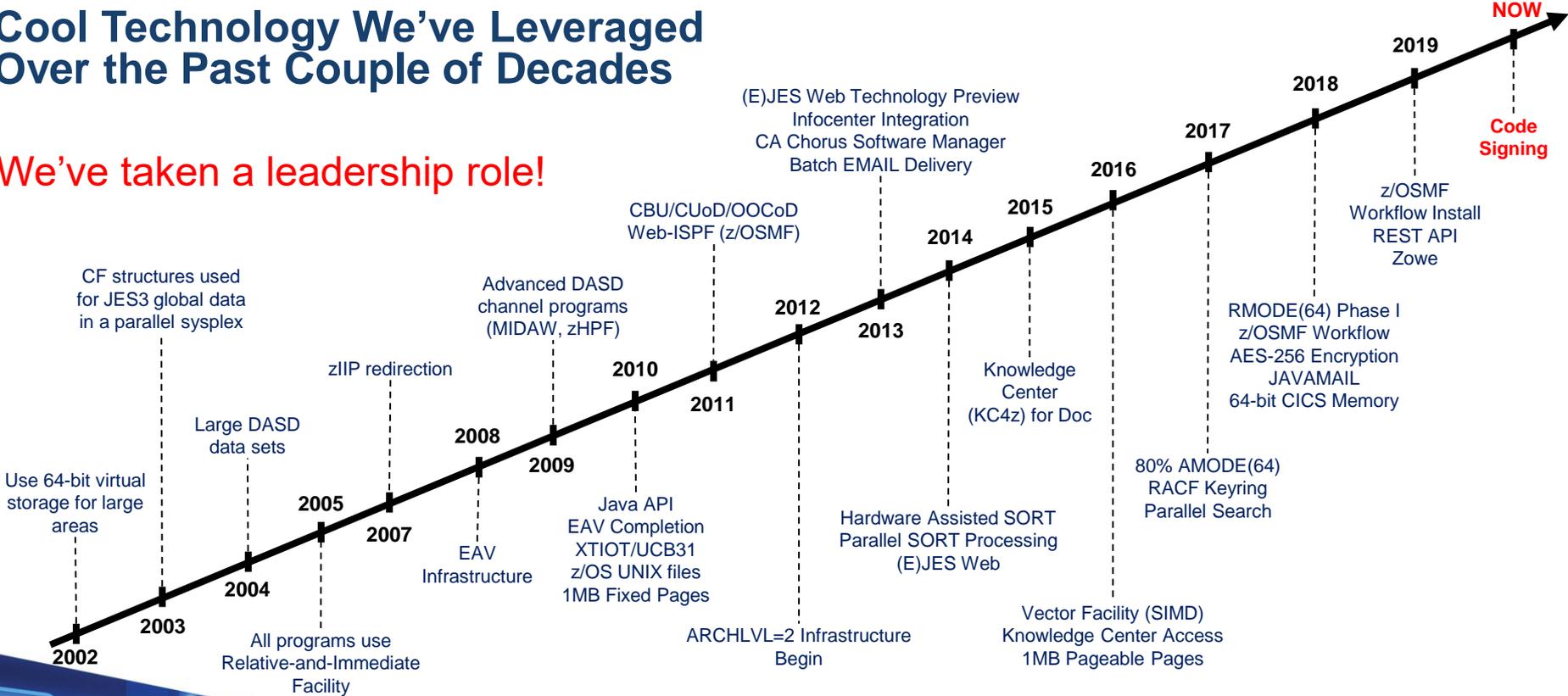
Future Development Expectations

- ▶ One of the three pillars that guide our software development philosophy is to always leverage the latest hardware/software technology. Why?
 - We care about performance. The latest technology is usually better performing.
 - We care about reducing customer costs. The latest technology usually helps to reduce those costs.
 - We care about the z/OS platform! Leveraging the latest technology helps our platform compete against emerging alternatives and remain viable.
 - Technology is just plain cool!
- ▶ This unique philosophy has kept us in lock-step with IBM Z hardware and the z/OS operating system (and their predecessors) as they have evolved over time.
- ▶ We don't have “cash cows.”

Future Development Expectations

Cool Technology We've Leveraged Over the Past Couple of Decades

We've taken a leadership role!



How Do We And Other Responsible ISVs Keep Up?

- ▶ Leverage IBM's vendor enablement infrastructure within PartnerWorld
- ▶ On-site Technical Disclosure Meetings (TDMs)
- ▶ Off-site Technical Disclosure Teleconferences (TDTs)
- ▶ Interface Change Notifications (ICNs)
- ▶ ISV Advocate
- ▶ Early Test Programs (local in-house systems or remote in Dallas)
 - We get the upcoming z/OS release ten months before GA
 - (Approximately 6-7 months before ESP)
- ▶ There are similar early test programs in Dallas for hardware

Bottom Line...

Wherever the technology goes...

We are going with it!

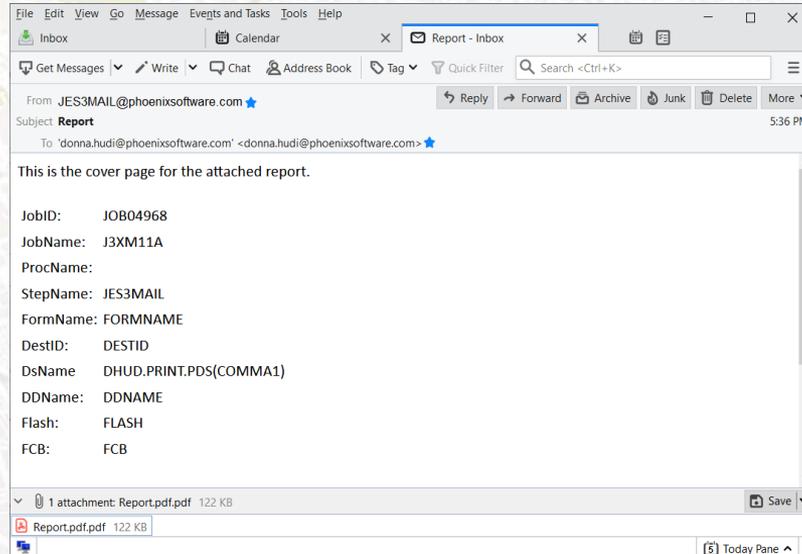
Just like we have done for decades!



IATINTK

Enhancement Candidate #1

- ▶ Email notification is one of two features IBM specifically listed in their 2017 SOD as potential justification for a JES3 to JES2 conversion
- ▶ We would like to put this function into JES3^{plus}



Enhancement Candidate #2

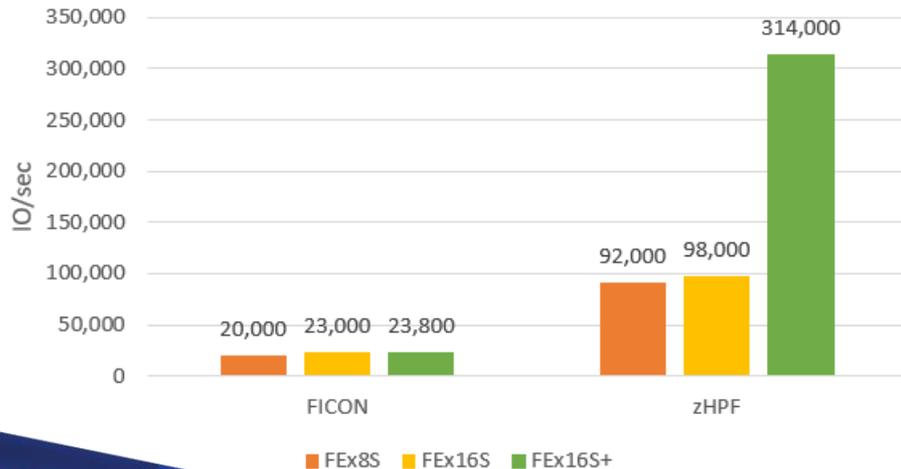
- ▶ The second feature listed in IBM's 2017 SOD was SPOOL encryption
- ▶ IBM's JES2 developers are hoping to deliver this via SPE in 1H2020
- ▶ Our proprietary PSI file systems have been AES-256 encrypted in the field using z/OS ICSF services since our 2018 GA
- ▶ We would like to do the same for JES3^{plus}



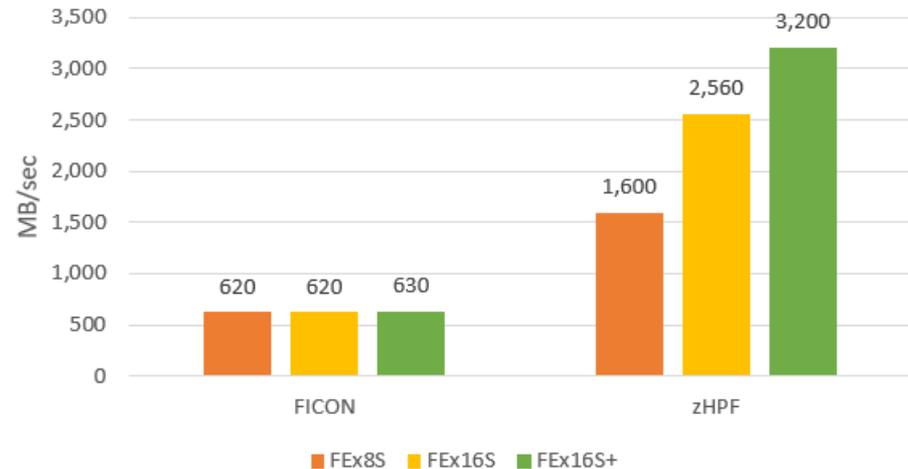
Enhancement Candidate #3

- ▶ Our proprietary I/O driver (used with (E)JES and other products) has supported zHPF for over eight years.
- ▶ We would like to integrate that technology into JES3^{plus}

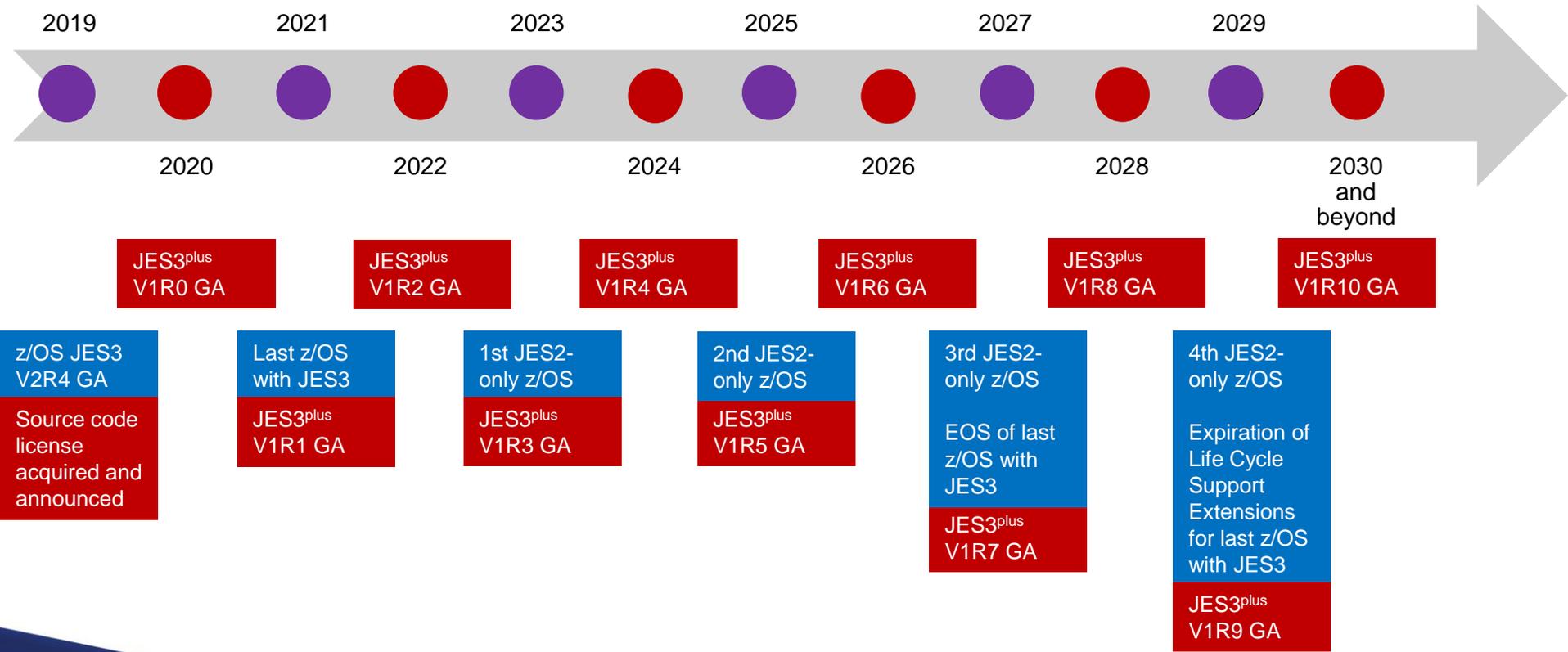
Small Block Size



Large Block Size



Release Schedule



Pricing Pledge

- ▶ JES3^{plus} is fully supported, has a road map for enhancements, and can be implemented by existing IBM JES3 customers through a trivial migration and **at no additional cost**.
- ▶ Initial contract cost will closely match what customers are currently paying for IBM JES3
- ▶ Any subsequent price increases will be in line with the percentage price increases implemented by IBM
- ▶ Annual licensing in place of MLC





THANK YOU