



VSEⁿ

Transition and News

From IBM z/VSE
to 21CS VSEⁿ

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Agenda

- Transition from IBM z/VSE to 21CS VSEⁿ
- IBM z/VSE and 21CS VSEⁿ News
- Q&A

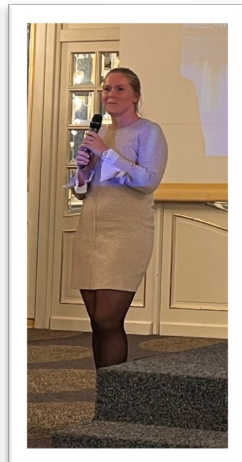
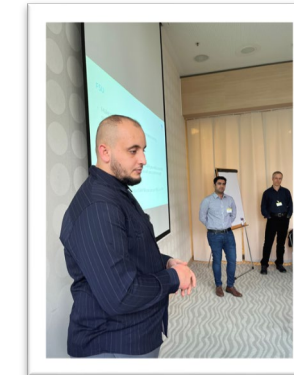
IBM & 21st Century Software Partnership with VSE

- IBM z/VSE 6.2 was released Dec. 2017. Since then, small enhancements via continuous delivery (as PTF in service stream) were provided
- 21CS has had a successful relationship with IBM for many years in the z/OS ecosystem, so this made 21CS the best candidate to take care of and invest in the VSE stack
- June 1st, 2021, 21CS announced entering on a source code license agreement with IBM, where 21CS licensed most of the z/VSE Stack source code and that Gonzalo Muelas Serrano would be responsible for the VSE R+D and Business within 21CS



21CS is investing in the future

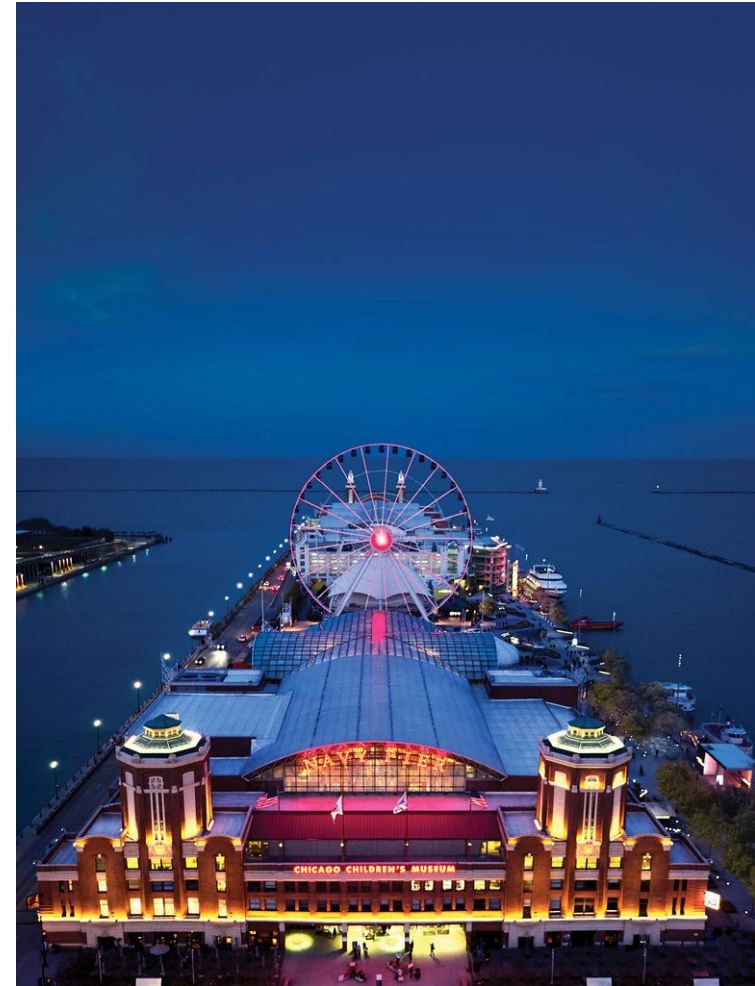
- A new Center of Excellence in Stuttgart, Germany :
 - Achieve global coverage of 21CS services on local time zones with 3 main locations (PA/NJ US, Stuttgart Germany and Perth Australia)
 - Build a team with skills on IBM zSystems, especially VSE, but also, z/OS
- The highly-motivated team, with a mix of very experienced z/VSE and z/OS developers and fast learning university hires, successfully achieved to build, "whitewash", and test our derivative product, VSEⁿ 6.3



21CS VSEⁿ Strategy together with partners

- Build a sustainable VSEⁿ skilled team
- Continue to focus on delivering value to customers aligned with IBM's 'P(rotect), I(ntegrate) and E(xtend)' Strategy and now we start the R(enaissance) – PIER. We are together the PIER in the harbor for your workloads*
- Identify jointly with customers, partners, and vendors which VSEⁿ areas need extra focus and investment based on customer's business needs

* Mike Riggs, Supreme Court of Virginia, USA, VSE Customer



21CS VSEⁿ Stack (base and optional) 1 of 2

IBM PID	IBM z/VSE Stack Product Name	21CS VSE ⁿ Stack Product Name
5686-VS6	IBM z/VSE 6.2 (including LE, LE DBCS, OS/390 APIs, REXX, z/VSE Connectors)	21CS VSE ⁿ 6.3 (including LE, LE DBCS, OS/390 APIs, REXX, VSE ⁿ Connectors)
5686-065	IBM ACF/VTAM VSE/ESA	21CS VCDD for VSE ⁿ
5655-VSE	IBM CICS TS for z/VSE	21CS OLTP for VSE ⁿ
5747-DS2	IBM ICKDSF	21CS ICKDSF for VSE ⁿ
5656-260	IBM EREP	21CS IDRP for VSE ⁿ
5686-CS1	IBM TCP/IP for z/VSE	21CS TCP/IP for VSE ⁿ
5686-BS1	IBM IPv6/VSE	21CS IPv6/VSE
5696-234	IBM HLASM	21CS HLASM for VSE ⁿ
5648-099	IBM DITTO (base and optional)	21CS SMDMU for VSE ⁿ (optional, in future part of base)
5686-VS6	IBM Encryption Facility for z/VSE (optional)	21CS Encryption Facility for VSE ⁿ (optional)
5696-234	IBM HLASM ToolKit (optional)	21CS HLASM ToolKit for VSE ⁿ (optional)
5686-068	IBM COBOL for VSE/ESA (optional)	21CS COBOL for VSE ⁿ (optional)
5686-069	IBM PL/I for VSE/ESA (optional)	21CS PL/I for VSE ⁿ (optional)
5686-A01	IBM C for VSE/ESA	21CS C for VSE ⁿ (optional)
5686-A02	IBM Debug Tool for VSE/ESA (included in „Full Function“ compilers) (optional)	21CS Debug Tool for VSE ⁿ (optional)
5746-RG1	IBM DOS/VS RPG II	21CS RPG II for VSE ⁿ (optional)
5746-SM3	IBM DFSORT/VSE (optional)	21CS SMCART for VSE ⁿ (optional)
5746-XE7	IBM VSE/ACLR (optional)	21CS AUDT for VSE ⁿ (optional)
5746-XX1	IBM DL/I VSE (optional)	21CS HDB for VSE ⁿ (optional)
5697-F42	IBM DB2/VSE Server	21CS SDB Server for VSE ⁿ (optional)
5697-F42	IBM DB2/VSE Client	21CS SDB Client for VSE ⁿ (optional)
5746-XXT	IBM SDF II CICS SCREEN DEF. VSE	21CS SCRDEF for VSE ⁿ (optional)

21CS VSEⁿ Stack (optional to be ann. soon) 2 of 2

IBM PID	IBM z/VSE Stack Product Name	21CS VSE ⁿ Stack Product Name
5686-057	IBM GDDM/VSE	21CS GPSP for VSE ⁿ
5668-723	IBM GDDM-IVU	21CS GPSP-IVU for VSE ⁿ
5668-801	IBM GDDM-IMD	21CS GPSP-IMD for VSE ⁿ
5668-812	IBM GDDM-PGF	21CS GPSP-PGF for VSE ⁿ
5655-U97	IBM WebSphere MQ Server	21CS MQ Server for VSE ⁿ (planned for July 2023)
5686-040	IBM PSF/VSE	21CS PPF for VSE ⁿ (planned for 3Q 2023)
5688-190	IBM PPFA/370 VSE Feature	21CS PDCF for VSE ⁿ (planned for 3Q 2023)
5688-191	IBM OGL/370 VSE Feature	21CS EFM for VSE ⁿ (planned for 3Q 2023)
5648-B33	IBM AFP Font Collection for VSE	21CS AFP Font Collection for VSE ⁿ (planned for 3Q 2023)
5748-XX9	IBM DCF VSE Feature	21CS TPP for VSE ⁿ (planned for 3Q 2023)
5748-XXE	IBM DLF VSE Feature	21CS DSR for VSE ⁿ Feature (planned for 3Q 2023)

Requirements

Systems Management > PTHZS2

Partitions Adapters

Filter Tasks Views

Select	Name	Status	Activation Profile	Last Used Profile	OS Name	OS Type	OS Level	Recovery Boost
<input checked="" type="radio"/>	Z20A	Operating	Z20A		VSEn	VSEn 6.3	0950000000000000	✓
<input type="radio"/>	Z20B	Operating	Z20B	Z20B		Linux	4.18.0	—

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File Edit Settings View Communication Actions Window Help

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Your terminal is A000 and its name in the network is D0810001
Today is 05/24/2022 To sign on to DBDCCICS -- enter your:

USER-ID..... The name by which the system knows you.
PASSWORD..... Your personal access code.

PF1=HELP      2=TUTORIAL      3=TO VM      4=REMOTE APPLICATIONS
                10=NEW PASSWORD
  
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- Supports IBM z114/z196 or newer generations
- Supports LPAR and z/VM
- Supports FICON attached disk storage (IBM, Hitachi, Dell/EMC)
- Supports FCP/SCSI attached disk storage
- Supports FICON attached tape storage (real or virtual)
- A, B, C environments sizes remain with the same req. as IBM z/VSE 6.2 on CPU, Memory/Main Storage and Disk Storage
- Supports new installation and FSU from IBM z/VSE 5.2, 6.1 and 6.2 directly to 21CS VSEⁿ 6.3 – For more details check out sessions:
 - “Fresh installation of 21C VSEⁿ 6.3”
 - “Fast Service Upgrade from IBM z/VSE to 21C VSEⁿ 6.3”
- IBM z/VSE Middleware currently supported on IBM z/VSE and not yet available (its derivative version) from 21CS is compatible and supported by IBM on 21CS VSEⁿ 6.3

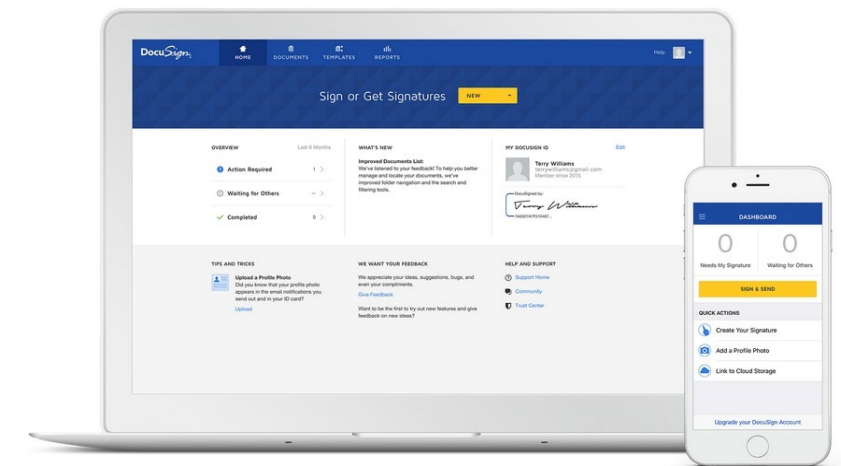
Ordering and Pricing

Pricing: like IBM z/VSE pricing but much simpler:

- First contact triggered by the customer via email vse@21csw.com
- Only one license metric with option for full capacity or sub-capacity pricing
 - In case of sub-capacity, using VSEnSCRT native on VSEⁿ to generate, see and provide monthly 4HRA peaks reports
- Monthly License Charge includes support as long as the product is supported (5 years since GA, releases every 2-3 years)
- "Hosters" that have a license 21CS VSEⁿ are allowed to provide IT Services (including usage of VSEⁿ but not exclusive to it) to multiple users
- Up to 3 months test waiver (if not use for production before)
- Upgrade and consulting services also offered extra in regions where no VSE consultants are known

Contracts:

- First contact triggered by the customer via email vse@21csw.com
- Only three documents to review and sign via DocuSign:
 - 21CS Mutual NDA
 - 21CS CRA (similar to IBM CRA)
 - 21CS VSEⁿ Product Order License
- Upon signature (and Purchase Order receipt), the product is offered via Box folder invite



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21CS VSEⁿ 6.3 structure and delivery

- Available “base” and “optional” products
- Focus on compatibility with an easy upgrade (Fast System Upgrade) from IBM z/VSE 5.2, z/VSE 6.1 and z/VSE 6.2
 - New descriptive names (‘whitewashed’) only for messages and dialogs (no commands or APIs changes)
 - Increase internal and external release numbers
 - IBM z/VSE middleware not yet available is also supported by IBM on 21CS VSEⁿ
- Delivered via Box with intuitive subfolders:
 - Documentation, Base products, Extended Base, Optional Products and VSEⁿ Connectors. For more details check out session:
 - [“Using Box for getting 21CS VSEⁿ SW products, support and reporting SCRT”](#)



VSEⁿ



Technical Support

- Support:
 - Included in the MLC as long as the release is supported
 - 24x7
 - WW coverage
 - via email vse@21csw.com and telephone: +1 800-555-6845
- In case of dumps
 - Upload to Box to your folder (not shared with any other customer)
 - Option for regional Box servers (US or EU) in case of need that the data shall not leave your region
- APARs, PTFs and RSLs
 - Delivered via Box folder
 - Generated and installed with MSHP (like you are used to)



ISVs which we are already in contact with

Adaptigent	FIS	
B.O.S	H&M Systems	Rocket Software (including ASG)
Broadcom	Software	
BSI	Lattwein	SDS
Cincom	Log-on	SysperTec Virtel
CSI	MacKinney	Thigpen
C/Trek	MainstorConcept	Treehouse Software
Cyber Gent	Phoenix Software International	UNICOM Macro 4
Data 21	Precisely	Velocity
Eradani	Q Group	XPS

ISVs experience with 21CS VSEⁿ 6.3 SW Stack

- Most of the ISVs were involved in the validation before 21CS VSEⁿ 6.3 was general available to customers, with no issues on 21CS VSEⁿ
- Most of the ISVs have also a 21CS VSEⁿ 6.3 license to continue to enhance and support their solutions for 21CS VSEⁿ customer
- One case where changes were needed in the ISV product to enable it for 21CS VSEⁿ Stack new release, PIDs or CLCs, have been already implemented
- Driven by 21CS investment on VSEⁿ, also some ISVs are now investing more on their VSE portfolio

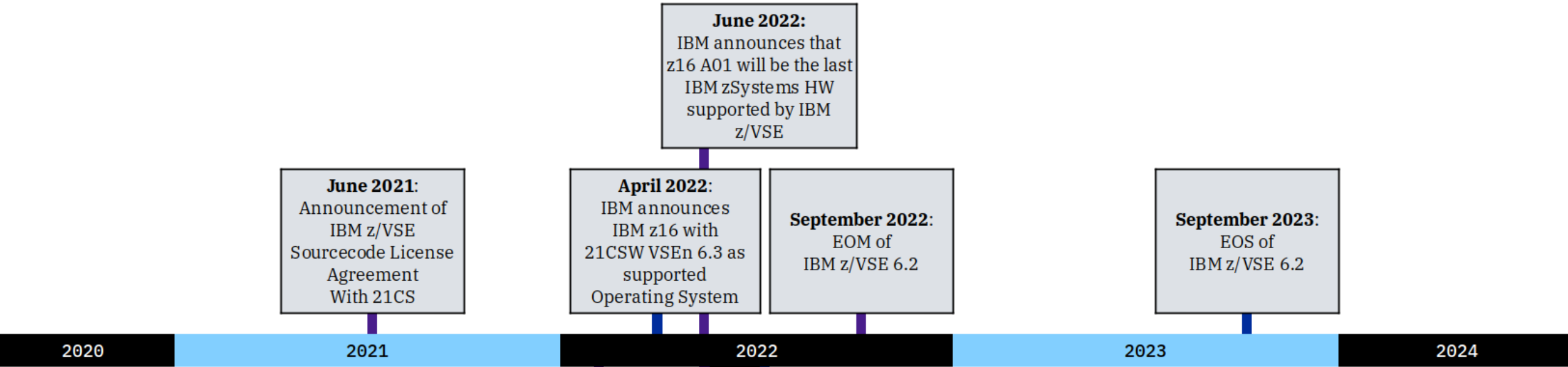
21CS VSEⁿ 6.3 customers' feedback

- Ordering and download via Box, no issues
- During setup of installation image on Tape server, the image was not correctly copied (not enough block and therefore incomplete), getting an error at FSU preparation step: After realizing with 21CS help where the issue was, the customer setup correctly and FSU was successful
- Missing enablement in one of the ISV product: after talking to ISV and applying the enablement, the ISV product worked fine
- Confusion around DITTO: currently is not part of 21CS VSEⁿ base tape but is provided as optional: After FSU to 21CS VSEⁿ 6.3, IBM DITTO is removed and needs to be installed 21CS SMDMU (based on IBM DITTO) for VSEⁿ from the optional products. In future it will be part of base again
- Customer wished to have a default SMDMU (DITTO) security profile instead of creating one tailored for his needs from the provided template: Provided via PTF
- Single APARs / PTFs vs. RSL: customer asked for an RSL to avoid loading and installing each PTF one by one: We provided instructions how to create an RSL and will directly provide RSL in the future
- Application testing did not show any issues
- Upgrade of Production environment successful
- Very satisfied with the quality and response

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IBM, 21CS, VSE Journey and Announcements



March 2022:
21CSW announces VSEn 6.3

August 2022:
IBM announces EOS of IBM z/VSE 6.2 for September 2023

June 2022:
IBM announces EOM of IBM z/VSE 6.2 for September 2022



21CS VSEⁿ 6.3 announcement and following IBM announcements

- March 25th, 2022, 21CS [announced](#) the planned availability of 21CS VSEⁿ 6.3 platform on May 17th, 2022
 - With most of the VSE key vendors already working to support 21CS VSEⁿ
- April 5th, 2022 [IBM z16tm puts innovation to work while unlocking the potential of your hybrid cloud transformation](#) – IBM z16 announcement where IBM recognizes and lists 21st Century Software VSEⁿ 6.3 as an operating system supporting IBM z16
- May 17th, 2022 [VSEⁿ – 21CSW \(21stcenturysoftware.com\)](#) – Availability of 21st Century Software VSEⁿ 6.3 focusing on compatibility with IBM z/VSE customers and vendors, and commitment to support latest and newest HW like the IBM z16 and future generations
- June 7th, 2022 – IBM [Software withdrawal: Select IBM Z platform programs - Some replacements available](#) – Including withdrawal from marking announcement of IBM z/VSE 6.2 and related IBM z/VSE Middleware, showing that IBM, after 21CS VSEⁿ 6.3 availability, trusts that the customers are in good hands with 21st Century Software and if customers need VSE as a platform, they should order directly 21CSW VSEⁿ 6.3
- June 7th, 2022 – IBM [Statement of direction: IBM z/VSE 6.2 support for the IBM z16](#) – Statement of direction announcement stating that the IBM z16 A01 will be the latest IBM zSystems HW supported by IBM z/VSE, as a result of the commitment from 21st Century Software VSEⁿ to be the one choice supporting future IBM zSystems HW for VSE customers.
- August 2nd, 2022 – IBM [Software withdrawal and support discontinuance: Select IBM zSystems platform programs - Some replacements available](#) – Including the withdrawal from support effective Sept. 30th, 2023 of IBM z/VSE SW Stack, given that customer can upgrade to 21CS VSEⁿ and continue having support for their 21CS VSEⁿ through 21CS.
- April 4th, 2023 – [IBM z16 family adds embedded AI and quantum-level encryption into new single frame and rack mount options](#) - IBM z16 A02/AGZ announcement where IBM recognizes and lists 21st Century Software VSEⁿ 6.3 as the operating system supporting IBM z16 for VSE workloads, Aligned with the previous announced statement of direction, IBM z/VSE does not support this machine type, given that 21CS VSEⁿ is the OS of choice for VSE workloads.



NEW -IBM z16 A02 / AGZ supported with 21CS VSEⁿ 6.3

Sustainable in its core

21CS VSEⁿ 6.3, with its roots on a need for an OS that would need less HW resources, and IBM z16 A02 / AGZ with Data center modularity and flexibility, Specialty engines to offload I/O processing, perform on chip AI and encryption, and ability to sustain high CPU utilization,

make the perfect combination





- Accelerated AI at scale for insights at scale
- 21CS VSEⁿ 6.3 customers can take advantage of this feature via 21CS VSEⁿ Connectors extension to Linux on Z, where all the AI frameworks and solutions run natively.

- FICON Express32S
- 21CS VSEⁿ 6.3 supports FICON Express32S, also as FCP type for SCSI disk storage, transparently. This feature running at end-to-end 32 Gbps link speeds will provide reduced latency for large read and write operations and increased bandwidth.

- Quantum-Safe System
- Transparent to 21CS VSEⁿ 6.3, it helps protect IBM z16 firmware from quantum attacks through a built in dual signature scheme with no changes required.

- System Recovery Boost
- 21CS VSEⁿ 6.3 supports system recovery boost, providing full capacity for enable capped processors, for recovery system shutdown 30min and 1h during boot/IPL, helping also workout faster the backlog generated while recovering.

- Crypto Express8S 
- 21CS VSEⁿ 6.3  customers can take advantage of the new Crypto card for classical cryptography only. Enablement of Quatum-Safe APIs may come in the future depending on customer demand.

- Single frame vs. Rack mount
- 21CS VSEⁿ 6.3 customers will love the flexibility to either continue with classical standard 19" single frame, or order just the Rack mount and combine and consolidate with other rack mount HW, like disk storage and switches.

Yet to come

- Rest of the VSE Stack
- Public Cloud deployment options
- VSEⁿ Connectors cloud native (containerized)
- IBM zNext support
- Security enhancements
- Further customer requirements that bring customer value, help customers stay current and modernize their VSE environments – speak up, we are listening! 😊
- Engage with VSE vendors experts on certain areas, so that they can take best advantage of the VSEⁿ platform and as a result increase the value of your VSE asset
- Customer survey developed to guide us on the roadmap - [VSEⁿ Survey](#)

Q & A

**Call to action: if you are not
already in contact, please
write to vse@21csw.com**

Thank you!



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