



Transition and news from IBM z/VSE to 21CS VSEn 6.3

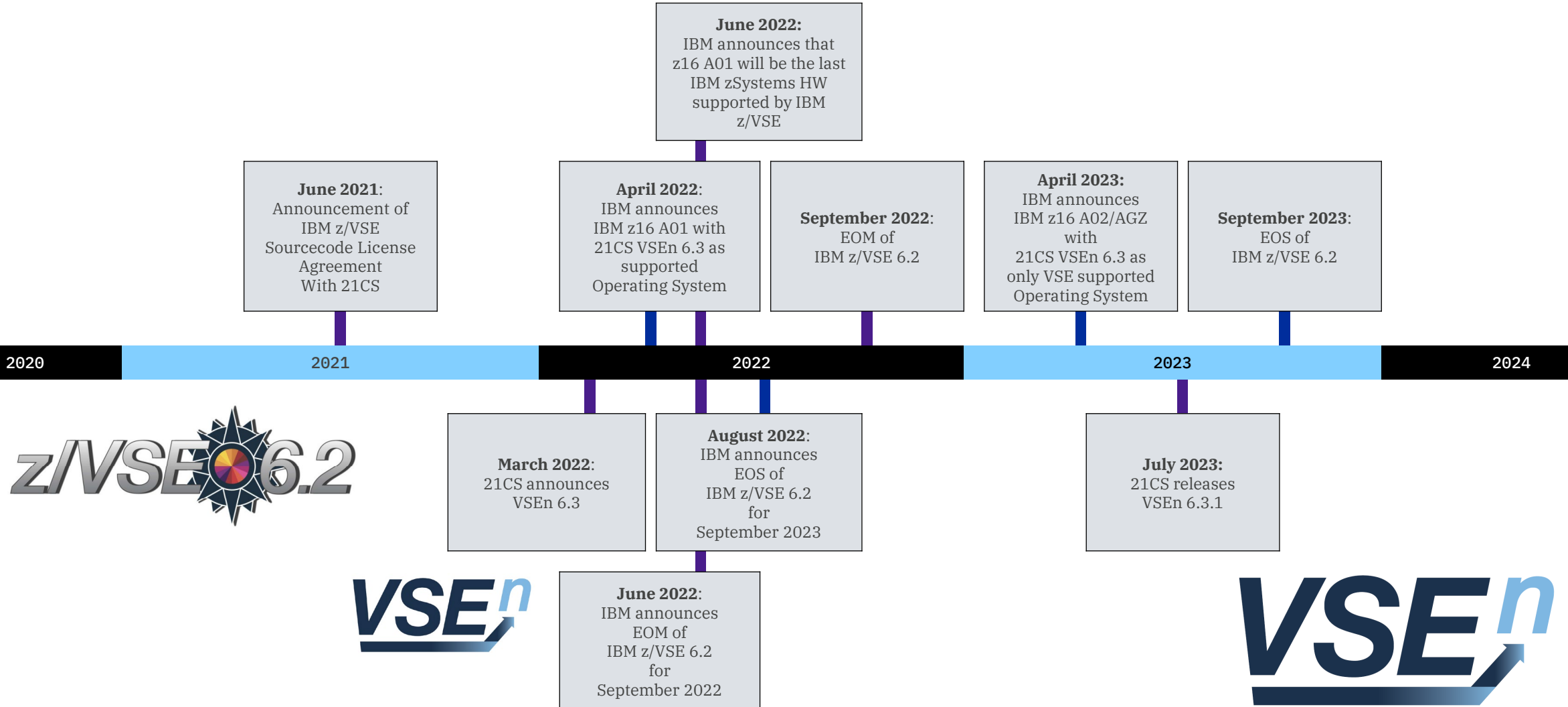
The future of VSE

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Agenda

- What happened with VSE, who is 21CS and news since last Event
- Planning for 21CS VSEⁿ 6.3
- Ordering and Pricing
- Support
- Installation considerations
- Roadmap

IBM z/VSE and 21CS VSEⁿ Announcements

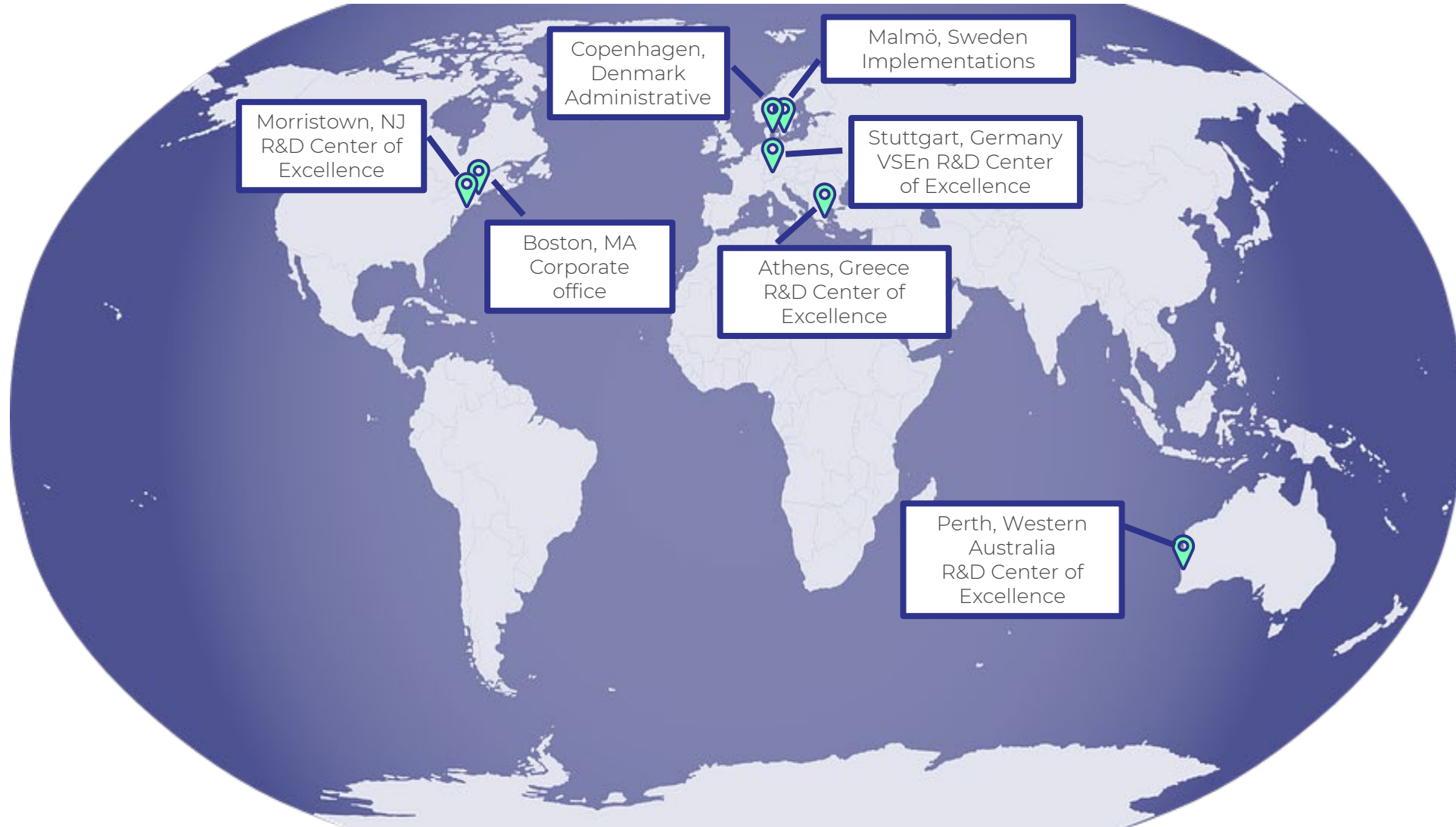


Who is 21CS and why did IBM choose them?



- Founded in 1992, 21CS is a global organization committed to providing its customers with solutions that deliver value to the zSystems ecosystem, while enabling them to benefit from world-class customer support.
- 21CS is 100% focused on the Mainframe software ecosystem, especially in the z/OS platform and now also VSE.
- 21CS has had a successful relationship with IBM for many years in the z/OS ecosystem, so this made 21CS the best candidate to invest in the VSE stack and drive it into the future
- June 1st, 2021, 21CS announced entering into 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

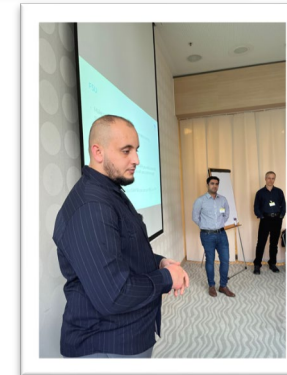
Global locations



21CS is investing in the future



- R&D Center of Excellence in Stuttgart, Germany :
 - Achieve global coverage of 21CS services on local time zones with 3 main locations (MA/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 and deliver our derivative product, VSEⁿ 6.3



21CS VSEⁿ 6.3 SW Stack

- Includes base and optional products
- Focus on compatibility with and 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
- HW requirements: IBM z114/z196 or newer, including support for the latest IBM z16 and commitment to support next HW generations



VSEⁿ



NEW -IBM z16 A02 / AGZ supported for VSE customers only 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.

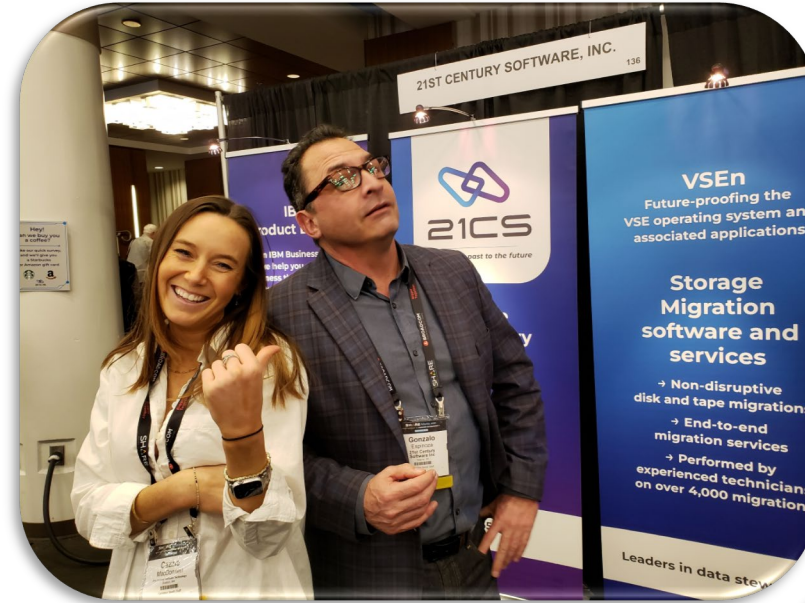
New deliverables since last VM Workshop

- 21CS VSEⁿ SW:
 - 21CS MQ for VSEⁿ 3.1 (based on IBM WebSphere MQ Server z/VSE)
 - 21CS PPF for VSEⁿ 2.3 (based on IBM PSF) – very soon
 - 21CS PDCF for VSEⁿ 1.2 (based on IBM PPFA) – very soon
 - 21CS EFM for VSEⁿ 1.2 (based on IBM OGL) – very soon
- Additionally:
 - 21CS VSEⁿ 6.3.1 (including SMDMU as part of the base and 1st RSL)
 - 2 additional RSLs (fix bundles)
 - Security fixes for 21CS VSEⁿ Crypto Services (OpenSSL) and SMDMU
 - SDAID Enhancements (support for all instructions, including z16)
 - OLTP SOAP Web Services fix and SDB OLTP fix
 - VSEⁿSCRT enhancements and fixes
- New People joined the team



21CS is investing in the future

- We now have VSEn customers across the globe
- Growth has enabled expansion in infrastructure support for Sales, Sales Operations, Technical Support teams and Development



Gonzalo Espinoza
Director of Sales

Cazzie MacDonnell
Field Marketing



Anupam Mandal
VSEⁿ R+D Manager



Liz Barnes
Technical Support Manager



Rose Guignard
Sales Operations

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 6.3.1 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 (more optional) 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
5686-040	IBM PSF/VSE	21CS PPF for VSE ⁿ
5688-190	IBM PPFA/370 VSE Feature	21CS PDCF for VSE ⁿ
5688-191	IBM OGL/370 VSE Feature	21CS EFM for VSE ⁿ
5648-B33	IBM AFP Font Collection for VSE	21CS AFP Font Collection for VSE ⁿ

Strong relationship with VSE ISVs

Adaptigent

Broadcom

BSI

Cincom

CSI

C/Trek

Cyber Gent

Data 21

Eradani

FIS

H&W Computer
Systems

Lattwein

Log-on

MacKinney

MainstorConcept

Mantissa

Phoenix Software
International

Precisely

Q Group

Rocket Software
(including ASG & B.O.S)

SDS

SVA

SysperTec Virtel

Thigpen

Treehouse Software

UMB

UNICOM Macro 4

Velocity

XPS

Ordering and Pricing

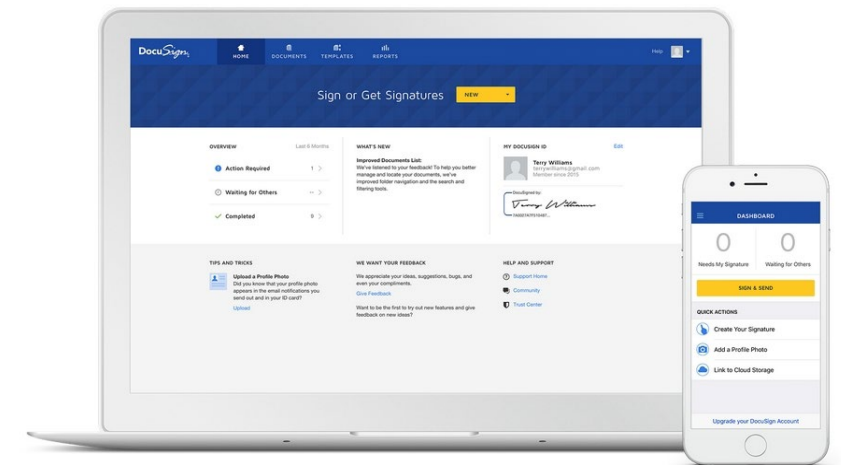
Ordering and Pricing: like IBM z/VSE pricing but much simpler (and cheaper):

- First contact triggered by the customer via email vse@21cs.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 MSUs peaks reports
- Monthly License Charge includes support as long as the product is supported (5 years since GA, releases every 2-3 years)
- Commercial hosting pricing: "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@21cs.com
- Only two documents to review and sign via DocuSign:
 - 21CS CRA (similar to IBM CRA, including NDA)
 - 21CS VSEⁿ Product Order License
- Upon signature (and Purchase Order receipt), the product is offered via Box folder invite



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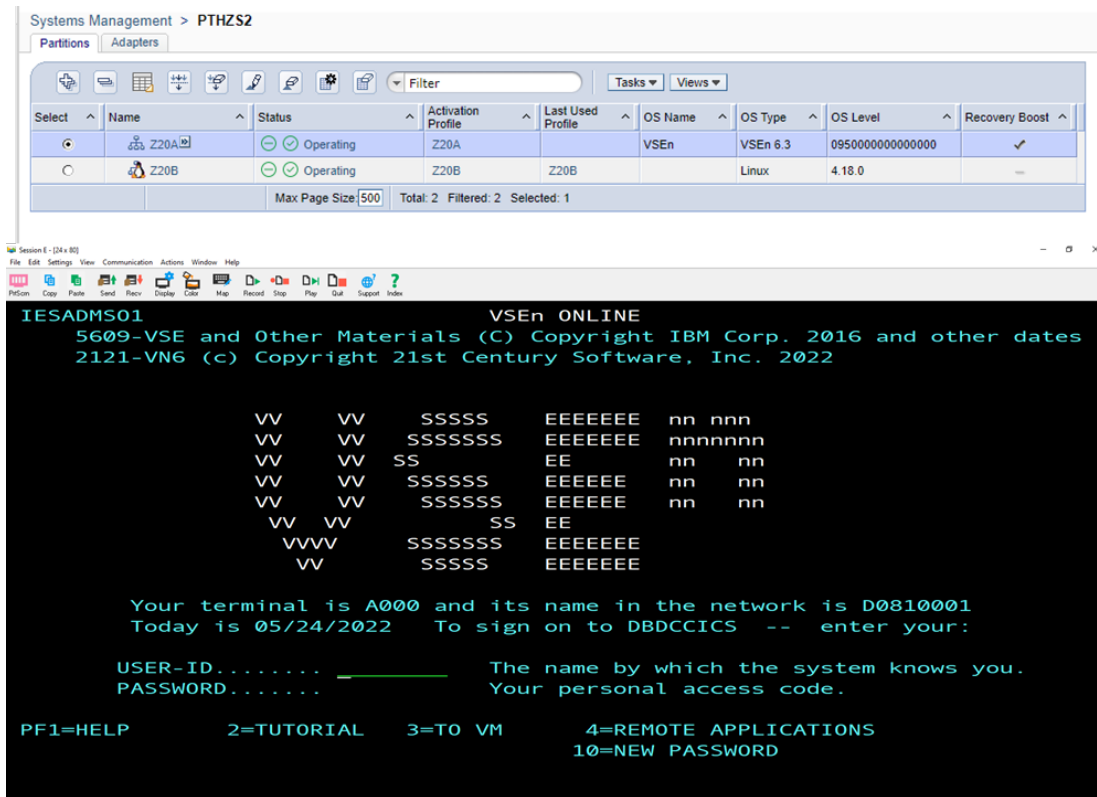
Technical Support

- Support:
 - Included in the MLC as long as the release is supported
 - 24x7
 - WW coverage
 - via email support@21cs.com and telephone: +1 978-451-1010
- 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)



Installation considerations

- 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
- Using Sub-Capacity Pricing? Remember to have the CMT Task running in ALL VSEn systems!
- Apply preventive service (before installing 21CS Optional products): first RSL Base, then HLASM, then TCPIP and then install optional products (backup IBM, delete IBM, install 21CS)



The screenshot shows the Systems Management console for PTHZS2. The 'Adapters' tab is active, displaying a table of VSEn adapters. Below the console, a terminal window shows the VSEn ONLINE login screen.

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

```

IESADMS01          VSEn ONLINE
5609-VSE and Other Materials (C) Copyright IBM Corp. 2016 and other dates
2121-VN6 (c) Copyright 21st Century Software, Inc. 2022

      VV   VV   SSSSS   EEEEEEE   nn  nn
      VV   VV   SSSSSS  EEEEEEE   nnnnnnn
      VV   VV   SS      EE         nn  nn
      VV   VV   SSSSSS  EEEEEEE   nn  nn
      VV   VV   SSSSSS  EEEEEEE   nn  nn
      VV   VV   SS      EE         nn  nn
      VVVV  SSSSSS  EEEEEEE
      VV   SSSSS   EEEEEEE

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.

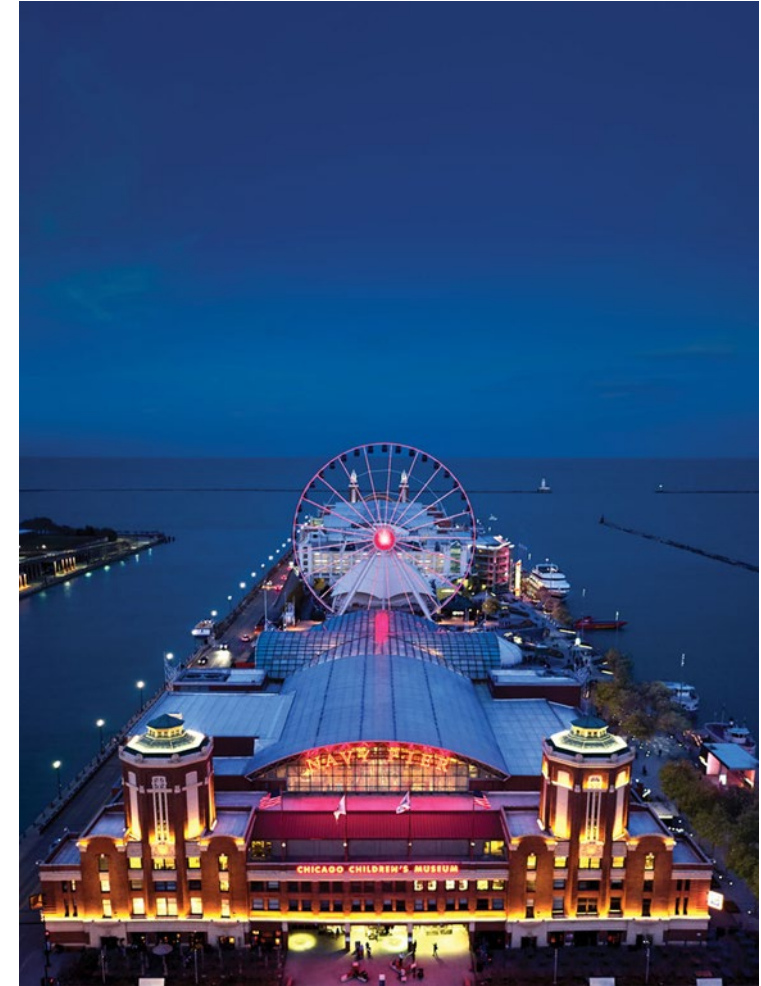
PF1=HELP      2=TUTORIAL    3=TO VM      4=REMOTE APPLICATIONS
                10=NEW PASSWORD
  
```


Roadmap

- Rest of the VSE Stack
- Public Cloud deployment options
- VSEⁿ Connectors cloud native (containerized)
- IBM zNext support
- Security enhancements: openssl currency, OpenJDK / JRE currency
- Further customer requirements that bring them value, help them 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](#)

21CS VSEn Strategy together with IBM and partners

- Build a sustainable VSEⁿ skilled team
- Continue 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 the **PIER** in the harbor for your workloads*
- Identify enhancement opportunities based on customer feedback and business needs
- Continue to strengthen partnerships with IBM and ISVs to offer investment protection for customers and future innovations



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



Thank you!



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