



OpenVMS

# Rolling Roadmap

January 21, 2019

# Notice

**This information contains forward looking statements and is provided solely for your convenience.**

**While the information herein is based on our current best estimates, such information is subject to change without notice.**

# VSI OpenVMS Rolling Roadmap

2019

**Q1**

**SAMBA**

**New HPE StoreOnce Models**

**P441 SAS RAID Controller (12Gb SAS)**

**Enhanced Password Management**

**Q2**

**OpenVMS V9.0 x86-64 Early Adopters Kit**

- Selected ISVs, Partners & Customers
- New Licensing
- Selected HPE Servers
- Graphical Boot Manager
- Virtual Machine guest option – Oracle VM VirtualBox
- VSI TCP/IP
- Compilers – C, FORTRAN, Pascal, COBOL, BASIC, BLISS, XMACRO
- Compile/link on IA64, run/debug on x86
- Select Layered Products

**CRTL/C99 updates for IA64, Alpha**

**OpenVMS V8.4-2L1 Integrity Update Kit**

**Q4**

**OpenVMS V9.1 (x86-64 General Early Adopters Kit)**

- Available to All ISVs, Partners & Customers
- Additional Layered Products
- Additional Compilers - C++
- Additional Open Source Applications
- Additional Virtual Machine guest options - kvm
- Native build tools - compile/link on x86

2020

**OpenVMS V9.2**

**Production Release – x86-64, Itanium**

- Full Production Release
- Security
  - Signed OS executables
  - Stronger Password Encryption
  - OpenSSL V1.1.1x
- Additional HPE & Dell Servers
- Improved Network Performance
- OpenJDK
- Compilers - C, FORTRAN, Pascal, COBOL, BASIC, BLISS, XMACRO, C++
- Standards updates on 9.2/x86:
  - C
  - C++
  - FORTRAN

2021

**OpenVMS V9.2**

**Production Release –Alpha**

Similar software features on Alpha V9.2 as on x86 and IA64 with exceptions:

- No OpenJDK on Alpha
- Existing IO options on Alpha
- Alpha compiler front ends will not be updated

Based on current, best estimates. Subject to change without notice.

# x86 Server/IO Roadmap

	<u>OpenVMS V9.0 EAK</u>	<u>OpenVMS V9.1 EAK</u>	<u>OpenVMS V9.2</u>	
Server Models	<u>HPE servers</u> DL20, DL380, DL580 ML30	<u>HPE servers</u> DL20, DL380, DL580 ML30	<u>HPE servers</u> DL20, DL380, DL580 ML30 Blades – investigating	<u>Dell servers</u> Cloud, Modular, Rack, Tower – models TBD Blades – investigating
VM Hypervisor	Oracle VM VirtualBox	Oracle VM VirtualBox, KVM	Oracle VM VirtualBox, KVM	
SmartArray/RAID/HBA	P408	P408, P816, P824	P408, P816, P824 Dell Perc - investigating	
Fibre Channel	Qlogic 26601/2 - 16Gb single, dual port	Qlogic 26601/2 - 16Gb single, dual port	Qlogic 26601/2 - 16Gb single, dual port Emulex LPe16001/2 – 16Gb single, dual port (investigating)	
NIC	1 Gb – Intel I350, BCOM 5719 FlexLOM and add-in cards	1 Gb – Intel I350, BCOM 5719 FlexLOM and add-in cards 10 Gb – Intel XL710, X550	1 Gb – Intel I350, BCOM 5719 FlexLOM and add-in cards 10 Gb – Intel XL710, X550	
USB	USB 2.0	USB 3.1	USB 3.1	

## Notes

- VSI will test specific models in a server product line and will support architecturally equivalent server models (same CPU/chipset family)
- VSI will work with customers for specific server model support if not listed above
- IO card support will be a subset of what is available on x86 Windows/Linux servers
- USB device support will be for server oriented memory devices such as memory sticks and mass storage drives

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# OpenVMS Integrity Operating Environment

Released			Planned
BOE Components:		HAOE Components	BOE Components
<ul style="list-style-type: none"> <li>• V8.4-2L1 operating system</li> <li>• ANT V1.7-1B</li> <li>• AXIS2 VB1.0-1</li> <li>• CDSA V2.4-322A</li> <li>• CIFS V1.2ECO1A</li> <li>• CSWS V2.4-3G</li> <li>• CSWS_JAVA V8.5-4</li> <li>• CSWS_PHP V5.2-17A</li> <li>• DCPS V2.8</li> <li>• DECnet Phase IV V8.4-2L1</li> <li>• DECnet Phase V V8.4I</li> <li>• DECram V8.4-2L1</li> <li>• DECwindows Motif V1.7E</li> <li>• DCE (runtime) V3.2A</li> <li>• ENCRYPT V8.4-2L1</li> <li>• Enterprise Directory V5.8</li> <li>• Kerberos V3.2-260</li> <li>• GNV V3.0-2</li> </ul>		<ul style="list-style-type: none"> <li>• NOTARY V1.0</li> <li>• OpenSSL V1.02k</li> <li>• PERL V5.20-2A</li> <li>• TCP/IP V5.7-13ECO5F</li> <li>• The Data Collector V2.3-1220A</li> <li>• UDDI V1.0B</li> <li>• VSI Binary Checker V1.2</li> <li>• WBEM/CIM V3.0-B151019</li> <li>• WBEM providers V2.2-5D</li> <li>• WSIT 3.4-1</li> <li>• XML C++ 3.0-1-1</li> <li>• XML_JAVA V4.0-1</li> </ul>	<ul style="list-style-type: none"> <li>• Availability Manager Base V8.4-2L1</li> <li>• RMS Journaling V8.4-2L1</li> <li>• Volume Shadowing V8.4-2L1</li> <li>• OpenVMS Cluster Client V8.4-2L1</li> <li>• OpenVMS Cluster Software V8.4-2L1</li> <li>• RTR V5.3</li> </ul> <ul style="list-style-type: none"> <li>• CSWS additional modules</li> <li>• GNV Updates</li> <li>• <b>SAMBA (CIFS) 4.6.5</b></li> <li>• OpenSSL V1.1.x</li> </ul>

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# OpenVMS Integrity Layered Products

Released		Planned
<ul style="list-style-type: none"> <li>• ABS / MDMS V4.6</li> <li>• ACMS dev, remote, runtime V5.2</li> <li>• BASIC V1.8-4</li> <li>• C V7.4-1</li> <li>• C++ V7.4-6</li> <li>• COBOL V3.1-7</li> <li>• Datatrieve V7.4-1</li> <li>• DECforms dev, runtime V4.2</li> <li>• DECset V12.9-1 (CMS, DTM, MMS, SCA, LSE, PCA)</li> <li>• DFO V3.3</li> <li>• DEC DFS V2.5</li> <li>• FMS dev, runtime V2.6</li> <li>• FORTRAN V8.3-3</li> </ul>	<ul style="list-style-type: none"> <li>• Japanese VMS               <ul style="list-style-type: none"> <li>- DECforms V4.2</li> <li>- DCPS V2.8</li> <li>- FMS V2.6</li> <li>- DECwindows Motif V1.7E</li> </ul> </li> <li>• MRU V1.9</li> <li>• PASCAL V6.2</li> <li>• SSM V1.9-1</li> <li>• TDMS dev, runtime V2.1-1</li> <li>• T4 V4.4D</li> <li>• OMNI / OSAP</li> <li>• DQS V1.4</li> <li>• GKS V7.3</li> <li>• OMNI V4.1</li> <li>• OSAP V4.1</li> <li>• X.25</li> </ul>	<ul style="list-style-type: none"> <li>• C updates for C99</li> </ul>

# OpenVMS Alpha – OS & Layered Products

Released			Planned
<ul style="list-style-type: none"> <li>• V8.4-2L1/V8.4-2L2 OS</li> <li>• CDSA V2.4-320A</li> <li>• DCPS V2.8-1</li> <li>• DECnet Phase IV V8.4-2L1</li> <li>• DECnet Phase V V8.4D</li> <li>• DECram V8.4-2L1</li> <li>• DECwindows Motif V1.7F</li> <li>• DCE (runtime) V3.2B</li> <li>• ENCRYPT V8.4-2L1</li> <li>• Enterprise Directory V5.8-2</li> <li>• Kerberos V3.2-152B</li> <li>• DQS V1.4</li> <li>• NOTARY V1.0</li> <li>• OpenSSL V1.02KA</li> <li>• TCP/IP V5.7-13ECO5F</li> <li>• The Data Collector V2.3-1220</li> <li>• VSI Binary Checker V1.1A</li> <li>• AM Base V8.4-2L1</li> </ul>	<ul style="list-style-type: none"> <li>• RMS Journaling V8.4-2L2</li> <li>• Volume Shadowing V8.4-2L2</li> <li>• OpenVMS Cluster Client V8.4-2L2</li> <li>• OpenVMS Cluster Software V8.4-2L2</li> <li>• RTR V5.4-1</li> <li>• T4 V4.4D</li> <li>• ABS / MDMS V4.6-1</li> <li>• ACMS dev, remote, runtime V5.3</li> <li>• BASIC V1.8-5</li> <li>• C V7.4-1</li> <li>• C++ V7.4-8</li> <li>• COBOL V3.1-7</li> <li>• Datatrieve V7.4-1</li> <li>• DECforms dev, runtime V4.2-1</li> <li>• DECset V12.9-3 (CMS, DTM, MMS, SCA, LSE, PCA)</li> <li>• DFO V3.3-1</li> <li>• DEC DFS V2.5-1</li> </ul>	<ul style="list-style-type: none"> <li>• FMS dev, runtime V2.6-1</li> <li>• FORTRAN V8.3-3</li> <li>• MRU V1.9-1</li> <li>• PASCAL V6.2-125</li> <li>• SSM V1.9-1-2</li> <li>• TDMS dev, runtime V2.1-2</li> <li>• AM Base V8.4-2L1</li> <li>• AM Data Analyzer V3.2</li> <li>• GKS V7.3</li> <li>• OMNI V4.1</li> <li>• OSAP V4.1</li> <li>• X.25</li> </ul>	<ul style="list-style-type: none"> <li>• OpenSSL V1.1.x</li> </ul>

# OpenVMS Integrity Open Source Products

Available	Investigating
<ul style="list-style-type: none"><li>• ActiveMQ V5.15.0A</li><li>• cURL &amp; libcurl V7.49.0A (OpenSSL 1.0.2h support)</li><li>• Lua V5.2.3</li><li>• Mosquitto V1.4.14 (MQTT broker)</li><li>• Paho-C V1.2.0 (MQTT client)</li><li>• PHP V5.6.10B</li><li>• Ruby V2.2.2I</li><li>• SCALA V2.11.8</li><li>• Subversion V1.8-13</li><li>• SWIG V3.0.5</li><li>• Vgit2 V0.8.5</li><li>• ZeroMQ V4.1.2</li><li>• gSOAP V2.8.32</li><li>• GNUplot V5.0-2</li><li>• Maven V3.3-9</li><li>• Syslog</li><li>• Redis 4.0.0</li><li>• PDF Viewer</li><li>• Gearman 1.1.17</li><li>• HAProxy 1.7.9</li><li>• LibMariaDB 2.1.0 (MariaDB and MySQL client API)</li></ul>	<ul style="list-style-type: none"><li>• Precision Time Protocol (PTP)</li><li>• Erlang</li><li>• Several Others Being Reviewed</li><li>• <b>SAMBA (CIFS) 4.6.5</b> (in progress)</li><li>• <b>PostgreSQL client</b></li><li>• <b>New IDE based on Visual Studio Code</b></li></ul>

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# OpenVMS Alpha Open Source Products

Available	Coming Soon	Investigating
<ul style="list-style-type: none"><li>• CIFS V1.2ECO1C</li><li>• CSWS V2.4-3O</li><li>• CSWS_JAVA V6.0-47A</li><li>• Mosquito 1.4.14 (MQTT broker)</li><li>• Paho-C 1.2.0 (MQTT client)</li><li>• Redis 4.0.0</li></ul>	<ul style="list-style-type: none"><li>• <b>SAMBA 4.6.5</b></li></ul>	<ul style="list-style-type: none"><li>• ZeroMQ 4.1-2</li><li>• Redis 4.0.0 (beta available)</li><li>• <b>New IDE based on Visual Studio Code</b></li></ul>

# Prior VSI OpenVMS Releases

May 2015

## OpenVMS V8.4-1H1

### Itanium® Processor 9500 series

- New CPU architecture
- Vastly improved performance

### HP Integrity System Support

- rx2800
- HP Integrity Server Blades
  - BL860c
  - BL870c
  - BL890c
- Blades FlexFabric LAN support
- 9300 series blades and rx2800

### Software

- Quality Enhancements
  - Operating System
  - Layered Products
- Product Rebranding

March 2016

## OpenVMS V8.4-2

### HPE Integrity System Support

- Full BL890c Support
  - 64 Cores (hyperthreads off)
  - 1.5 TB Memory
- AUTOGEN (large memory)
- UEFI 2.3
- Network Boot for i4 Blades
- WBEM for i4
- rx7640 / rx8640

### Performance

- More alignment faults eliminated
- Tunable BACKUP Compression

### Software Component Updates

- Enterprise Directory 5.7
- CSWS (based on Apache 2.4.12)
- LDDRIVER 9.7
- Latest Time Zone Definitions
- I18N (for localized language support)
- Digital Signing 2.0
- Rebranding 2.0

August 2016

## OpenVMS V8.4-2L1

### Limited Software Release

- Updated SSL to 1.0.2h
- Updated key exchanges
- 0.9.8/1.0.2 coexistence mechanism
- VSI and HPE libraries and shareable images are compatible
- 0.9.8 no longer supported

### SSL-Related Capabilities

- Updated for compatibility with 1.0.2: TCP/IP, ENCRYPT, NOTARY, LDAP, ACMELDAP, Enterprise Directory, WBEM services, WBEM providers, CSWS

### Patch Kits

- Includes contents of patch kits issued through June 15, 2016

# Prior VSI OpenVMS Releases

2017

## Q1

- Alpha V8.4-2L1 Operating System
- Itanium
  - JAVA 1.8
  - Digital Signing for ISVs
  - OpenSSL 1.0.2j

## Q2

- Alpha Layered Products
- Alpha V8.4-2L2 Operating System
- OpenSSL 1.0.2k

## Q4

- 16Gb Fibre Channel for rx2800
- Itanium i6 Support Announced

2018

## Q1

LTO-8 Tape

## Q2

OMNI

OSAP

GKS

DQS

## Q3

VSI TCP/IP V10.5

## Q4

JAVA 8 Update

HPE MSA2050 support

3PAR FW V3.3.1

# VSI OpenVMS

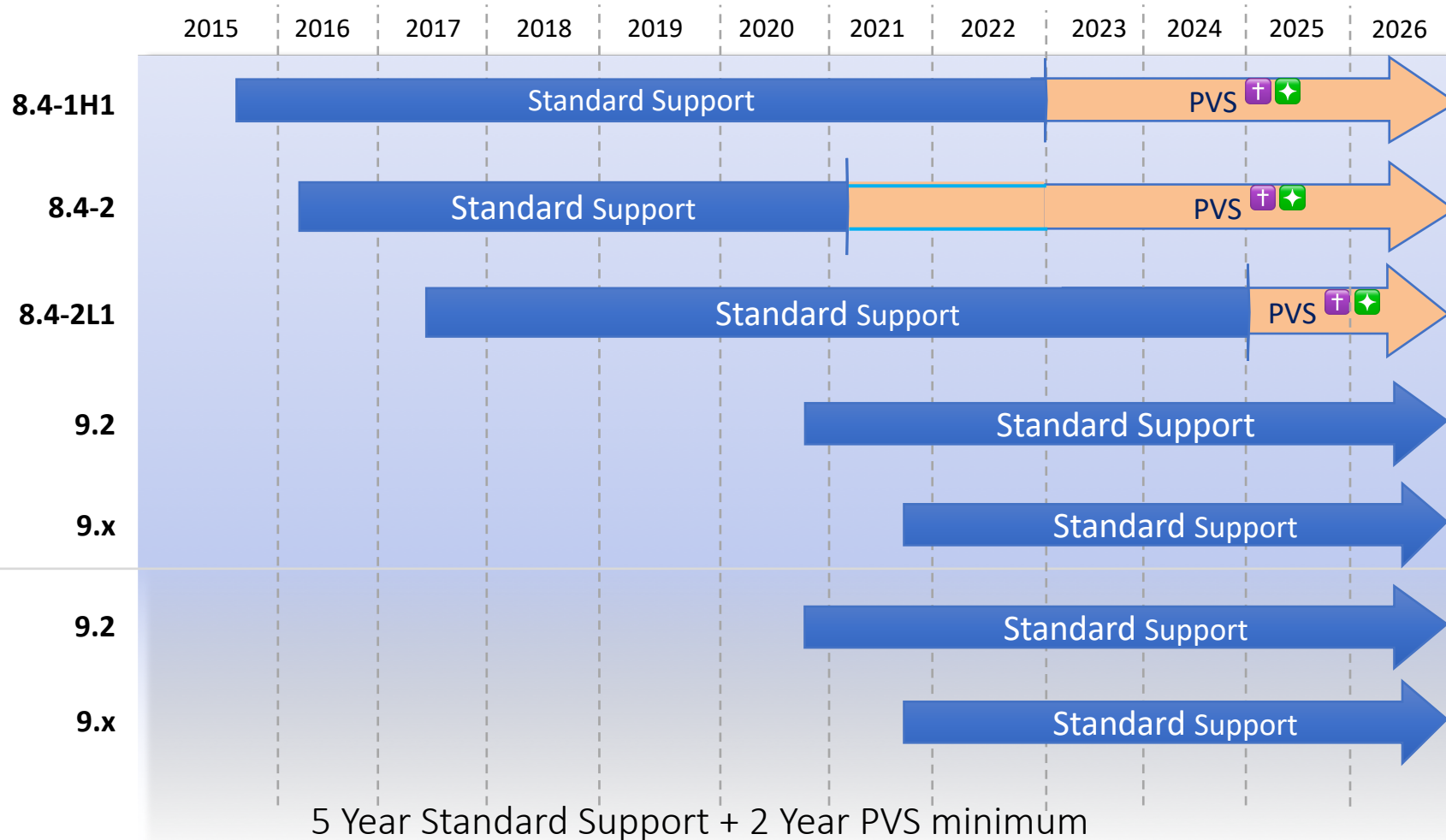
# Support

## Roadmap

# VSI OpenVMS Integrity & x86 Support Roadmap

Integrity

x86

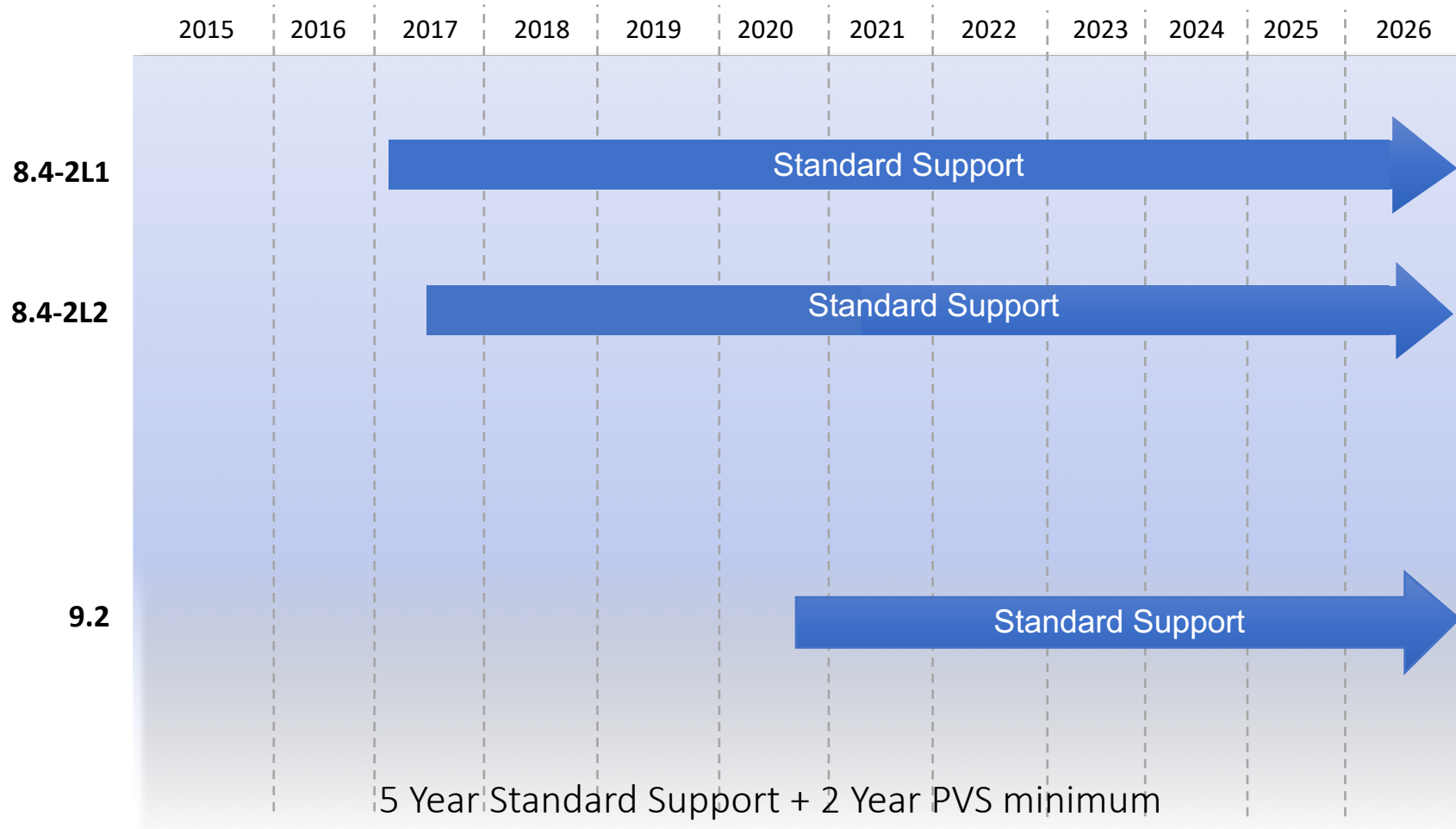


- † PVS – Prior Version Support without Sustaining Engineering  
24 Month notice will be provided before support is ended
- ★ Extended Engineering Support (EES) contract is available

Based on current, best estimates. Subject to change without notice.

# VSI OpenVMS Alpha Support Roadmap

Alpha



- 24 Month notice will be provided before support is ended
- PVS – Prior Version Support without Sustaining Engineering will be provided at that time (EES contract also available)

Based on current, best estimates. Subject to change without notice.

# Thank You

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