

IBM Systems & Technology Group Trademarks The following are trademarks of the International Business Machines Corporation in the United States and / or other counties. Virtual Image Facility CICS* IBM* DB2* IBM logo* VM/ESA* **DB2** Connect IMS **VSE/ESA** DB2 Universal Database **Intelligent Miner** VisualAge* e-business logo* Multiprise* VTAM* **MQSeries* Enterprise Storage** WebSphere* Server OS/390* xSeries **HiperSockets** S/390* z/Architecture SNAP/SHOT* z/VM z/VSE zSeries * Registered trademarks of IBM Corporation The following are trademarks or registered trademarks of other companies. LINUX is a registered trademark of Linus Torvalds Tivoli is a trademark of Tivoli Systems Inc. Java and all Java-related trademarks and logos are trademarks of Sun Microsystems, Inc., in the United States and

Java and all Java-related trademarks and logos are trademarks of Sun Microsystems, Inc., in the United States an other countries

UNIX is a registered trademark of The Open Group in the United States and other countries.

Microsoft, Windows and Windows NT are registered trademarks of Microsoft Corporation.

Intel is a registered trademark of Intel Corporation.

Abstract

Wellness and VSE - how you can improve the health of your VSE system

Your operating system behaves like your body: you should start to take care of it while it still enjoys good health. It will reward you with lasting health, robustness, and strength - resulting in less downtime, unplanned outages, and unpleasant surprises. This session will cover preventive and corrective service, and how you can make the best use of them to develop a preventive maintenance strategy which works for your shop. The recently formulated RSL (Recommended Service Level) concept will be covered in detail. Other pertinent topics include how to get the most out of the IBM service structure, plus the latest news from the world of VSE service.

Wellness and VSE ¹ how you can improve the health of your system



Content

- Ways to keep a VSE System up-to-date
- Preventive service corrective service
- Recommended Service Level and how to make best use of it
- Applying maintenance over the internet
- VSE service information on the internet
- ShopzSeries for VSE users and e-trends
- Working with the IBM VSE remote support team
- Frequently observed migration and other problems
- Hints and tips

For an updated version of this presentation visit the VSE Homepage: http://www-1.ibm.com/servers/eserver/zseries/zvse/

Wellness and VSE I how you can improve the health of your system

Priority One: Keep your System on a Supported Level

to make sure that support is available when you need it!





- Plan ahead sufficient time for release migration
- IBM announces end-of-service dates at least 12 month ahead
- Customers are informed by letter, and please check out the VSE home page
- From VSE/ESA 2.5 upward migration via FSU procedure possible
- Consult your software vendors for upgrades and specific information

IBM Systems & Technology Group

Wellness and VSE I how you can improve the health of your system

Wellness and VSE $^{-1}$ how you can improve the health of your system

End of Service Dates

	End of Marketing	End of Service
VSE/ESA 1.4	12/1999	01/31/2001
VSE/ESA 2.1/2.2	12/1997	01/31/2001
VSE/ESA 2.3	06/2000	12/31/2001
VSE/ESA 2.4	09/30/2000	06/30/2002
VSE/ESA 2.5	12/13/2001	12/31/2003
VSE/ESA 2.6	03/13/2002	03/31/2006
VSE/ESA 2.7	3Q 2005	tbd
z/VSE 3.1	tbd	tbd

VSE/ESA 2.6.3 as service option of VSE/ESA 2.7 has been withdrawn in November 2004



PSP Buckets & RSLs

Fast Service Upgrade

Release Installation

Wellness and VSE $^{oxedsymbol{1}}$ how you can improve the health of your system

IBM Systems	& Technology Group		A IBM
Recent VS	E Refresh	Levels	
VSE Level	PTF level	Available from	until
2.5.2.	06/18/2001	08/10/2001	12/11/2001
2.6.0.	10/13/2001	12/14/2001	06/13/2002
2.6.1.	03/12/2002	06/14/2002	12/12/2002
2.6.2.	10/21/2002	12/13/2002	03/13/2003
2.6.3.	06/30/2003	09/12/2003	11/16/2004
2.7.0.	12/13/2002	03/14/2003	09/11/2004
2.7.1.	06/30/2003	09/12/2003	03/19/2004
2.7.2.	01/26/2004	03/19/2004	11/16/2004
2.7.3.	09/20/2004	11/19/2004	tbd.
3.1.0	12/08/2004	03/04/2005	tbd.

execute <u>splevel.proc</u> or 'sir' command to display the installed refresh level

▶ Refesh level <u>VSE/ESA 2.7.3</u> or z/VSE 3.1.0 are current at this point in time

▶ always apply newest PTF bucket (PSP) and/or RSL on top

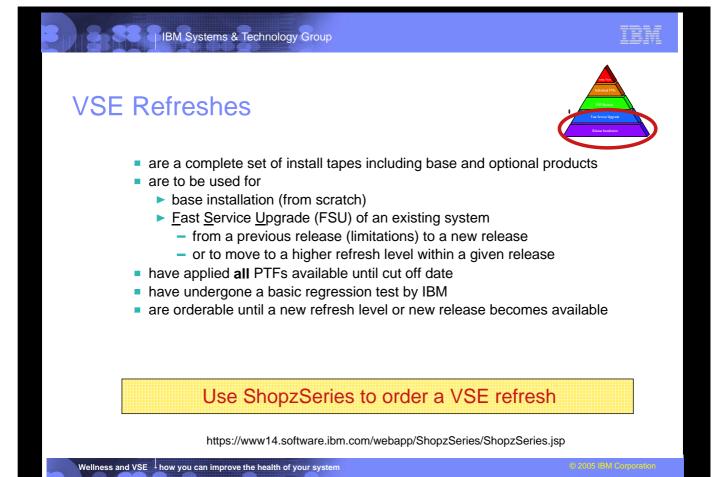
check out the VSE home page for up to date service related news

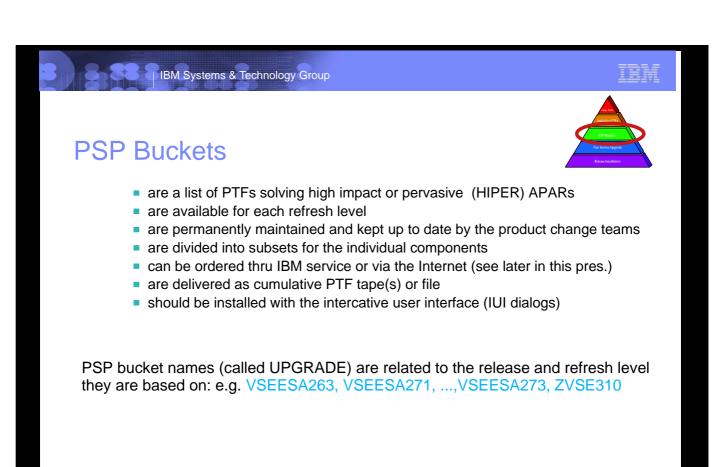
 $\scriptstyle \triangleright$ download the Program Directory from the VSE home page

Wellness and VSE \perp how you can improve the health of your system

frequency

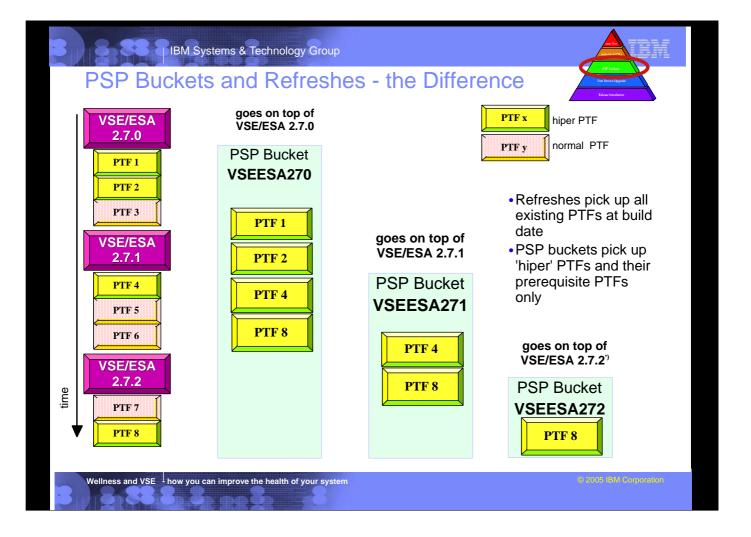
preventive service





PSP = Preventive Service Planning

Wellness and VSE I how you can improve the health of your system



IBM Systems & Technology Group

Structure of a PSP Bucket

There is a subset for each base- and optional product

Select the subset you want to view.

UPGRADE	SUBSETS	ABSTRACT
VSEESA272	chg/index	V. 2, R. 7, M. LEVEL 2 of VSE/ESA
VSEESA272	HLASM/489	HLASM V. 1, R. 4, M. 0
VSEESA272	ACCNTRL/H06	VSE/ACCESS CONTROL V. 1, R. 2, M. 1
VSEESA272	IBMLANG/75K	LE/VSE BASE V. 1, R. 4, M. 3
VSEESA272	CICS/B0P	CICS/VSE V. 4, R. 1, M. 1
VSEESA272	VSEESA/75C	VSE Central Functions V. 6, R. 7, M. 0
VSEESA272	DB2/2NN	DB2/VSE V. 7, R. 0, M. 0
VSEESA272	VTAM/FE6	ACF/VTAM V. 4, R. 2, M. 0
VSEESA272	BASESERVICE	a list of all PTFs already applied to the base products
VSEESA272	OPTPSERVICE	a list of all PTFs already applied to the optional products



DATE APAR

Wellness and VSE $^{\perp}$ how you can improve the health of your system

Sample: PSP Subset for 'IBMLANG/75K' of VSEESA272

PTF VOLID COMMENTS



these 2 PTF, because PTFs 1-6 are already

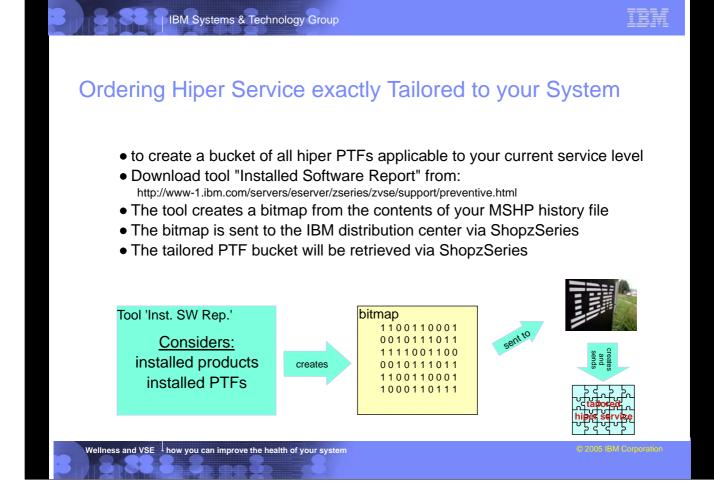
applied to the 2.7.3 base

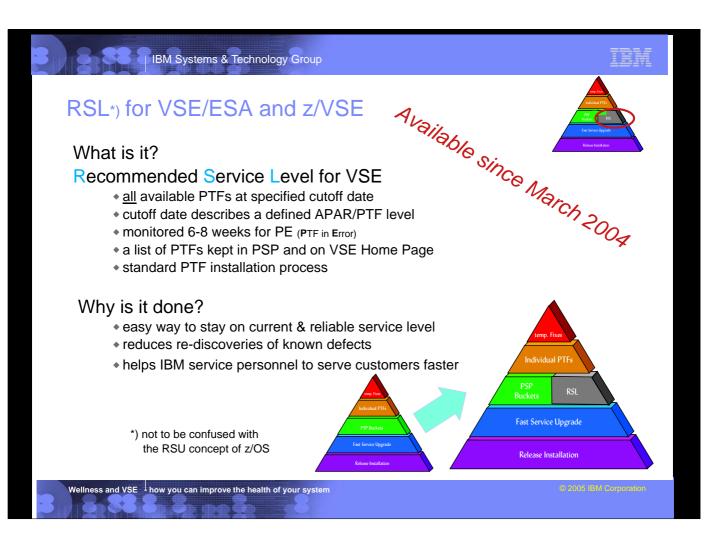
In PSP VSEESA273 this subset contains only 8 05/01/25 PQ96861 UQ95861 1000 HIPER MSGDFH0601 PROGCK WHILE -7 04/11/23 PQ94317 UQ93197 1000 HIPER OPEN IMPLICITLY DEFINED -6 04/08/16 PQ81913 UQ85741 1000 HIPER OVERLAY SYMPTOMS WITH CHAR 5 04/08/16 PQ84219 UQ85081 1000 HIPER UNEXPECTED INTERRUPTS 4 04/08/16 PQ84983 UQ85742 1000 HIPER INTRODUCE NEW CEE5PRML 3 04/08/16 PQ86577 UQ86884 1000 HIPER LOOP ON EIP WRITEQ-TD FOR 2 04/08/16 PQ87058 UQ87306 1000 HIPER ABENDASRA WITH 1 04/08/16 PQ88853 UQ89395 1000 HIPER SSCANF INCORRECT OUTPUT ON

Order your PSP bucket via the Internet, or call the IBM support center.

see: https://techsupport.services.ibm.com/server/390.psp390 (requires an id to sign in)

	M Systems & Technology Group		IBM
PSP Bucke	ets for Hardware	Support - Sample for a	z890 🔺
			Pol Backs
Select th	e subset you want to view.		Fair Service Upgrade Release Installation
2086DE 2086DE 2086DE 2086DE	DE SUBSETS ABSTRA /ICE chg/index Upgrade 2 /ICE 2086/ZOS DEVICE 2 /ICE 2086VSE/ESA DEVICE 2 /ICE 2086Z/VM DEVICE 2	2086DEVICE 1086 2086	
DATE	APAR PTF VOLID	COMMENTS	
6. 04/06/2 5. 04/06/2 4. 04/06/2 3. 04/06/2 2. 04/06/2	8 PQ85963 UQ87857 1000 8 PQ86795 UQ88156 1000 8 DY46075 UD52493 E272 8 DY45958 UD52320 1000	NEW FUNCTION D/T2084 - Z990 (z890) NEW FUNCTION D/T2084 - Z990 (z890) HIPER OSA/SF New Functions ADAPTER INTERRUPTION FACILITY HIPER SYSTEM LOOP AT TERMINATION HIPER HARDWAIT DURING IPL ON NEW FUNCTION	





RSL for VSE/ESA and z/VSE



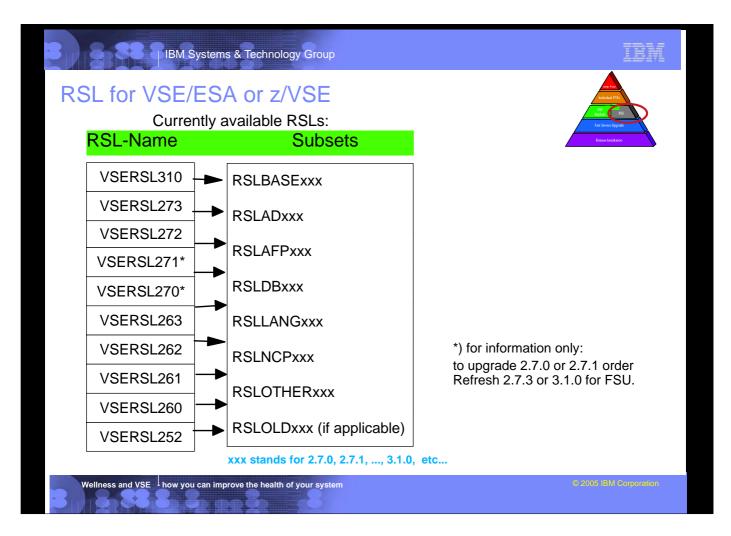
RSL - Rules

Define cutoff date **every 2-3 month** (sync. with refresh) Create RSL **for all releases in service** on latest refresh level Next refresh level = last RSL of previous refresh Create 'final' RSL at EOS of a given release

RSL - Ordering

Wellness and VSE $^{-1}$ how you can improve the health of your system

Order like a PSP from the IBM support center Order electronically via Internet, ==> get PTF list via VSE Home Page



RSL Subsets



EM

RSLBASExxx VSE Base Products	RSLDBxxx Database Products		
ACF/VTAM, CICS/TS, CICS/VSE, DITTO, EREP, HLASM,ICKDSF, LE/VSE, TCP/IP, VSE Central Functions	DB2 Server, Data Restore VSE, Control Center VSE, DLI/VSE, DB2 VSAM Transparency, QMF /VSE		
RSLADxxx Application Development	RSLLANGxxx Language & Compiler		
MQSeries for VSE, SDF/CICS, SDF II VSE Base	VAGen Server VSE, IBM C for VSE, IBM PL/I VSE, IBM COBOL VSE, RPG II, CCCA VSE, High Level Langauge Asembler Toolkit VSE		
RSLAFPxxx Adv. Function Printing	RSLNCPxxx Network Control		
PSF/VSE V2 Compatibility Fonts Base, AFP Font Coll. for VSE, PPFA/370, OGL/370	ACF/NCP VSE, ACF/SSP VSE, x.25 NPSI, EP V1 for ACF/NCP		
RSLOTHERxxx Other opt. Products	RSLOLDxxx		
IXFP/Snapshot VSE, DFSORT/VSE, GDDM/VSE, CICSVR/VSE, DITTO/ESA for VSE Japanese, ACLR/VSE	Products or product releases no longer distributed in the next higher refresh level (x.x.x+1)		

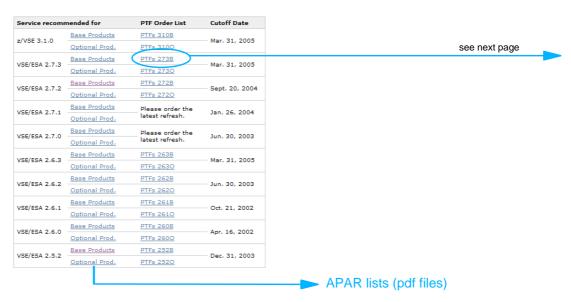
IBM Systems & Technology Group

Wellness and VSE how you can improve the health of your system

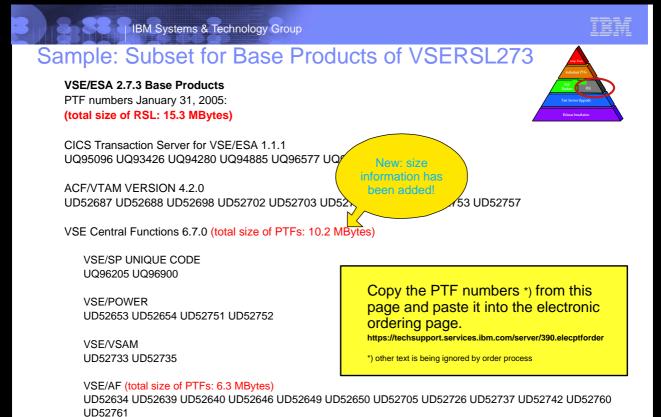
Wellness and VSE I how you can improve the health of your system

RSL for VSE on the Homepage

The VSE home page contains a table like this one with links to the individual listings.



see: http://www-1.ibm.com/servers/eserver/zseries/zvse/support/preventive.html#rsl



.

IBM Systems & Technology Group

Wellness and VSE $^{\perp}$ how you can improve the health of your system

RSL Update Dates

time

RSL	RSL Cut-Off	RSL Available	Comments
263, 273, 310	03/31/2005	05/13/2005	
263, 273	01/31/2005	03/04/2005	GA 3.1.0
263, 273	11/30/2004	01/14/2005	
263 272	09/20/2004	11/19/2004	GA 2.7.3
263, 272	07/31/2004	09/15/2004	
263, 272	05/31/2004	07/15/2004	
263, 272	03/31/2004	05/15/2004	
252, 260, 261, 262, 263, 271	01/26/2004	03/19/2004	GA 2.7.2

This table shows the updating principle:

A certain RSLs is being updated until a new refresh level for the given release comes out. The final RSL of a certain level contains the same service level as the new refresh. When a release goes out of service, a final, frozen RSL (e.g. 2.5.2) stays available. Availability is about 6-8 weeks after PTF cut-off.

Single PTFs and APAR Fixes - Corrective Service



Single PTFs....

 to correct an actual defect or problem permanently

IBM Systems & Technology Group

- solves one or multiple APARs
- PTF numbers are for one release only
- order via Internet or by opening a PMR with IBM
- come on a tape or electronically
- could require requisite PTFs as well
- Installation via MSHP/IUI

APAR fixes

- temporary correction of a defect
- provided by an IBM support ctr while a PTF is not available
- usually being replaced by a PTF at a later time.
- format is zap or user module
- installed by use of MSHP/IUI
- are customised for individual PTF levels
- APAR = Authorized Problem Analysis Report (description of an individual defect)
 PTF = Program Trouble Fix (solution to an APAR consisting of a module or phase replacement unique for an individual release)

Wellness and VSE $box{1}$ how you can improve the health of your system

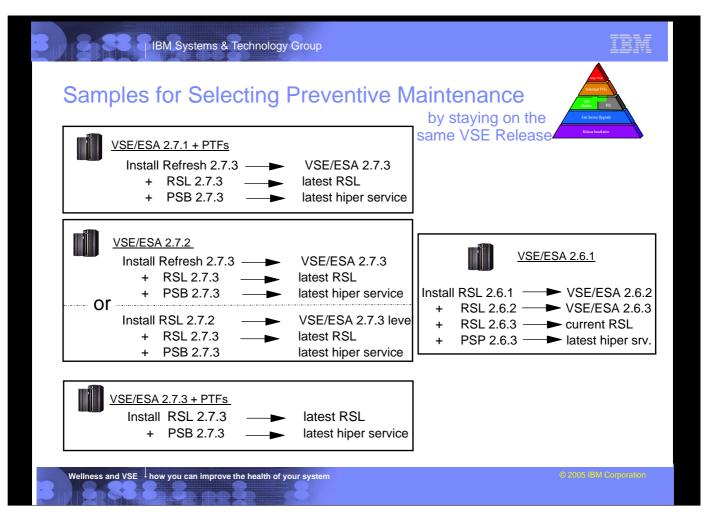
IBM Systems & Technology Group

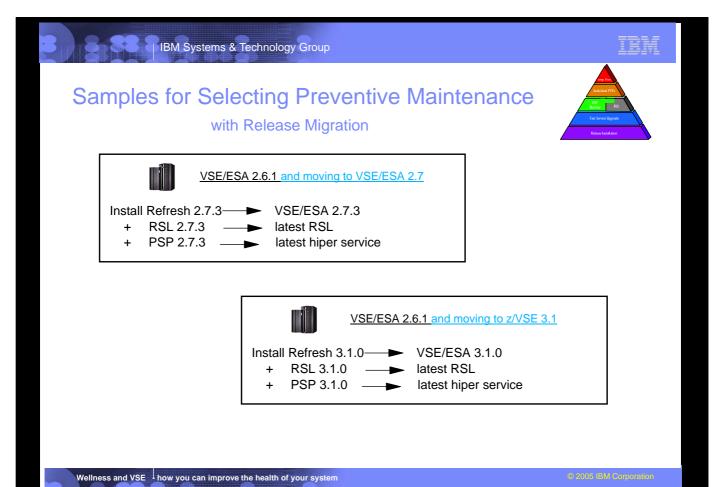
Comparison of VSE Service Deliverables

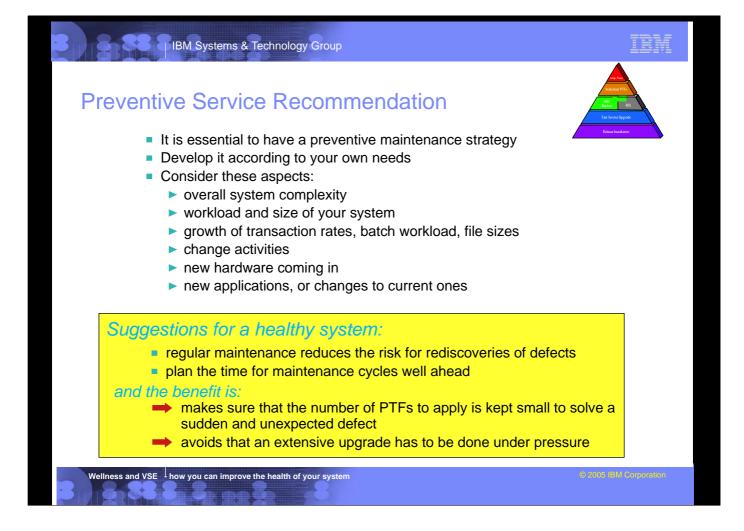
	Refresh	RSL	PSP	PTF
What is it	complete product with integrated PTFs; level documented in the system	List of all PTFs available at cutoff date; monitored 6-8 weeks for PE, level identified by date of list	selected PTFs mainly for HIPER APARs; changes continuously	'official' fix for a code defect documented in an APAR
When is it available	every 6-12 month; usually for the newest release	every 2-3 month	continuously	continuously
When to order/install	for base install or level upgrade (FSU)	preventively to stay current between refreshes, avoid know problems	after refresh installation and preventively to avoid HIPER problems	to fix a certain problem

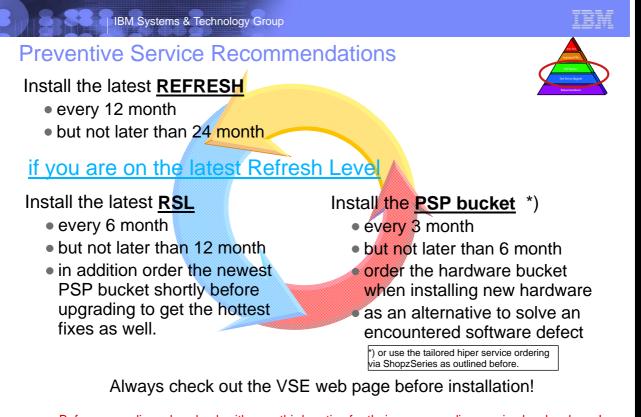
Wellness and VSE how you can improve the health of your system

IEA





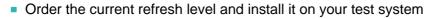




Before upgrading, also check with your third parties for their corresponding service levels, please!

Wellness and VSE $\frac{1}{2}$ how you can improve the health of your system

Recommended Steps when going to a New Release



- If there is already an RSL for that refresh then order and install it as well
- Also order and install the latest PSP bucket
- Check with your third parties for their corresponding service levels
- Have a testing period to make sure everything runs well as it did before
- Order and install the newest PSP bucket again 2-3 weeks before production cutover and check with your software vendors again
- Check out the VSE web pages *) for newest service information
- Regression testing

sequence of activities

- Before production cutover have a fallback plan in place
- Production cutover

Wellness and VSE $^{oxedsymbol{1}}$ how you can improve the health of your system

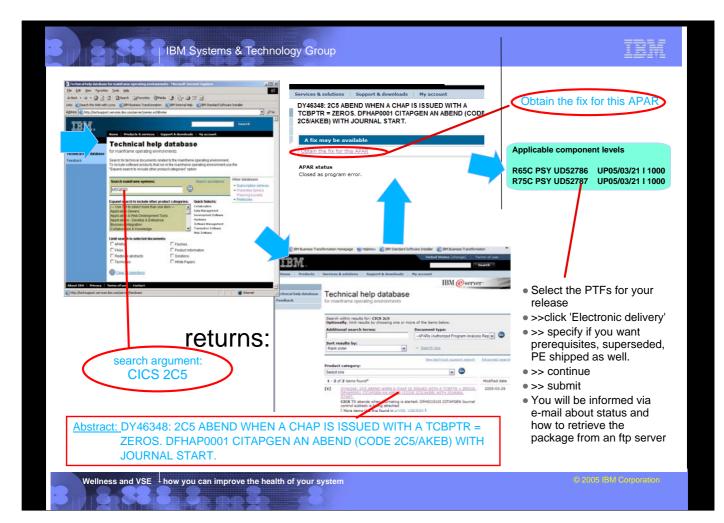


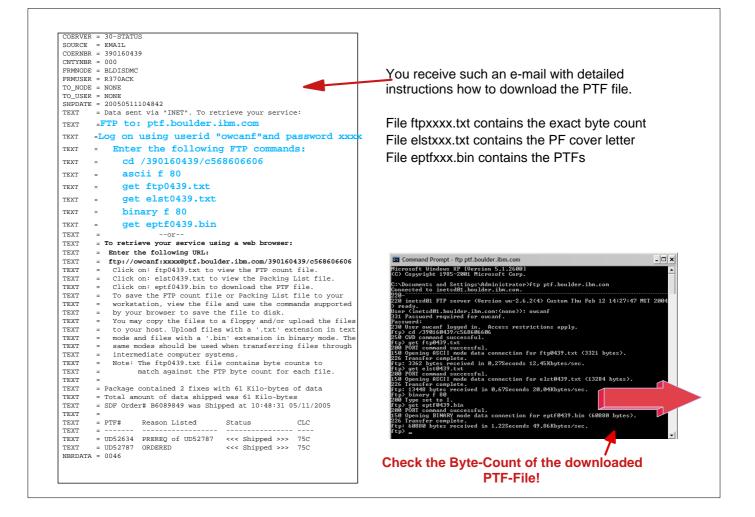
*) http://www-1.ibm.com/servers/eserver/zseries/zvse/

Betrieving ADADe (DTTEe ever the laterne

Retrieving APARs/PTFs over the Internet

http://www-1.ibm.com/servers/eserver/support/zseries/index.html or via: www.ibm.com >> Support & downloads >> Support by product - Servers >> Mainframe servers IBM 0 226 ----IBM@server zSeries Support Resolving Problems 0 0 336) @ Q.B 151 IBM@server'zSeries'Support System Programmer Portal **APAR with PTF ordering zSeries System** Programmer Portal For most functions a log-in is Select 'Service' under 'Planning' to view PSP required. The id can be created **Resolving Problems** online. Buckets Wellness and VSE ¹ how you can improve the health of your system





Transfering and Installing the PTF into the VSE System

via TCP/IP (recommended)

• from the PC via TCP/IP ftp to VSE into a VSAM file

- the VSAM file has to be defined in TCP/IP:
 - DEFINE FILE, TYPE=ESDS,IJSYSPF,PUBLIC='IJSYSPF'
- transfer using parameters 'binary', 'quote site recfm f' and 'quote site Irecl 80'
- install the PTFs via the IUI dialogs
 - service medium is 'disk'

alternatively:

<u>via a VTAPE</u>

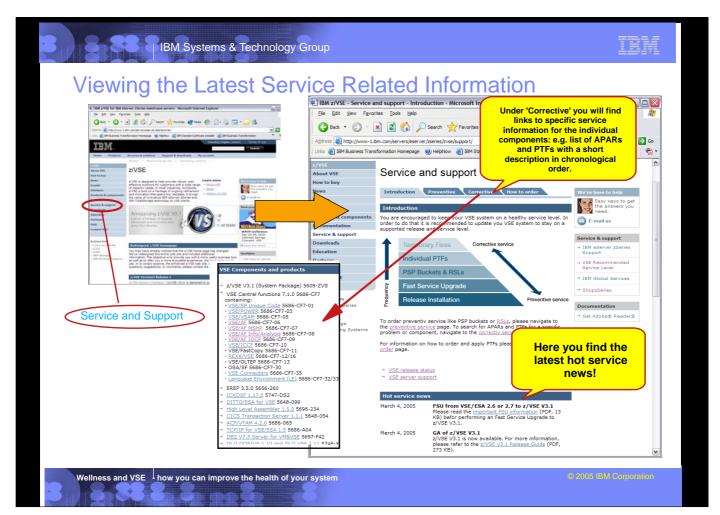
or via Host Transfer File (HTF), or into a library member

Warning!

- Ioading PTF files directly into the POWER reader gives fatal results:
 - PRE and CO requirements are not necessarily fulfilled due to any sequence
 - PTF data containig POWER-JECL will be interpreted by POWER
 - indirect PTF installation is not possible

find detailed instructions in: http://www-1.ibm.com/servers/eserver/zseries/zvse/documentation/edelivery.html#ftp or via VSE home page >> Service&Support >> How to order >> How to apply PTFs from the Internet

Wellness and VSE $^{\perp}$ how you can improve the health of your system





- Order VSE/ESA and z/VSE Operating System Package (03/2004)
 - for Base install
 - Fast Service Upgrade (FSU)
 - ShopzSeries will check for existing Licenses

IBM Systems & Technology Group

- Order Optional Products for VSE/ESA and z/VSE (03/2004)
 choose from a large product catalog
- Order VSE/ESA and z/VSE Service Packages (new 02/2005)
 - Individual PTFs
 - PTFs for individual APARs
 - PSP critical Service (Hiper/PE Fixes)
- View your License Inventory

Visit the ShopzSeries Web site at: http://www.ibm.com/software/shopzseries (Requires an ID to sign in)

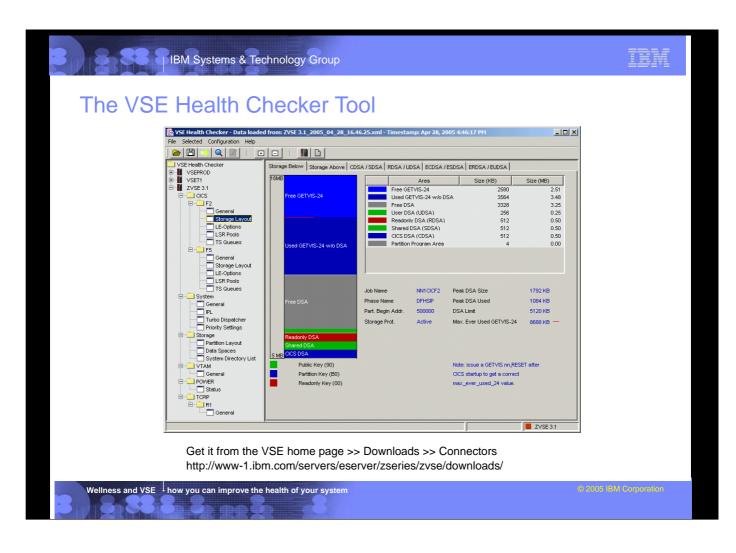
Wellness and VSE $^{
m I}$ how you can improve the health of your system

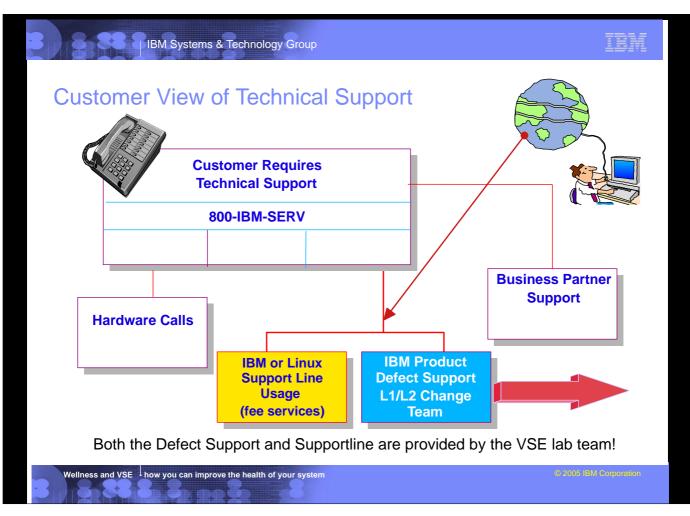
IBM Systems & Technology Group

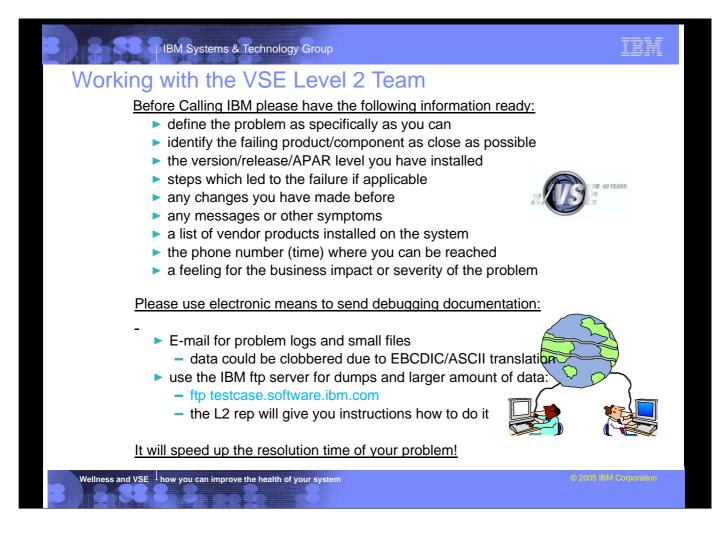
Trends towards e-ordering and e-delivery

- Reduce/eliminate hardcopy shipments, go e-books
 - VSE shipments contain a CD with documentation
 - manuals on website are up to date with short lead time
 - follow 'Documentation' link on VSE home page
- Move away from tape shipments to complete e-delivery
 - order zSeries software products and product updates online
 - get service (corrective/preventive) as e-service without delay
 - ShopzSeries is the strategic way of ordering zSeries Software

IEM







IBM Systems & Technology Group

IBM Defect Support Statement and more



Program Services support for most zSeries (S/390) products includes problem support for suspected defects in IBM code and publications via telephone (voice), and electronic access. This support is available until such time as it is withdrawn with at least 12 months notice via an IBM announcement letter. IBM will provide remote technical specialists necessary to resolve defects in the majority of our mainframe products at no additional cost to you. Support for high severity problems is available 24 hours a day, 7 days a week.

Download from:

http://techsupport.services.ibm.com/guides/handbook.html

