



Veterans Affairs
Canada

Anciens Combattants
Canada

Veterans Affairs Canada

zOS
Oracle

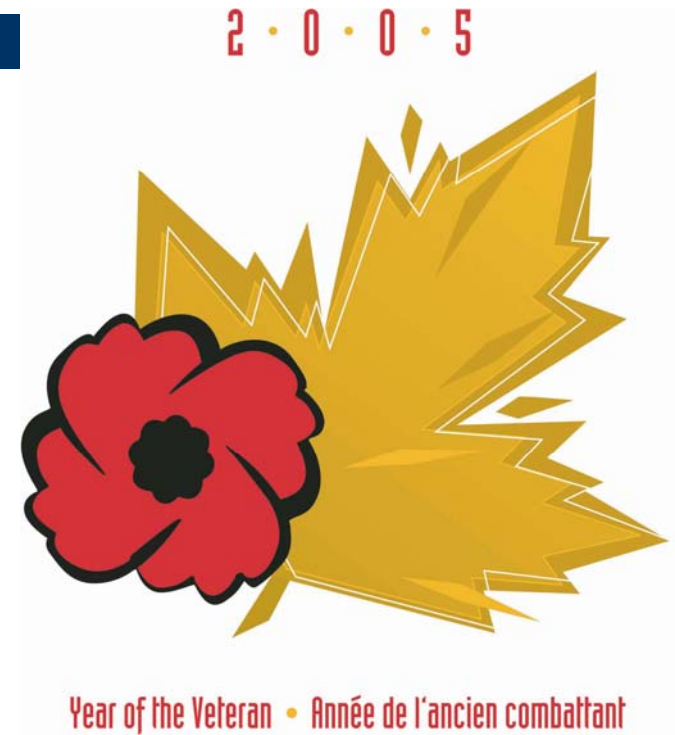
www.vac-acc.gc.ca

Information and Technology Services



Our Vision

To provide exemplary service which honours the sacrifice and achievements of our veterans and clients.





Our Clients

- **Total Veteran Population and other VAC Clients in Canada is about 800,000**
- **Which Include:**
 - War Veterans
 - Merchant Navy
 - Active Duty Areas
 - RCMP



VAC Work Environment

- Canada
 - Population is 32,040,292
 - 9,984,670 square kilometres
 - 5,514 kilometres across
 - Staff 3,985
- HO, DO and RO - 34 Offices
- VA Hospital
- Maintains battlefield memorials in Europe
 - Most Notably Vimy Ridge France



Historical Infrastructure 80s

- IBM 370/168
- 2 MIPS
- 2 MB Memory
- 5 GB DASD
- CICS / COBOL / S2K



Historical Infrastructure 90s

- IBM 3081K
- 16 MIPS
- 48 MB Memory
- 35 GB DASD
- CICS / IDEAL / DATACOM



Modernization late 90s

- SNA to PC WAN
- Unified Client / Server App
- Powerbuilder (CSDN)
- Windows / Powerbuilder / Oracle
- 3.1 to 95



Server Consolidation

- Centralized vs. Decentralized
- Security – High Availability – Total Cost
- Scalability
- Work Load Manager (WLM)
- Government on Line (GOL) by 2005
- Browser / Websphere / OS390 / Oracle



The Fun Begins 2001

- IBM 9672 - R52
- 2 CPUs 30 MIPS
- STK 50 GB DASD
- MPM 8.0.4
- Meet Phil Veal (CBO bug)
- So slow it was unusable
- IBM 9672 – R25
- 1 CPU 60 mips
- Useable



Oracle 8.1.X OSDI

- z800 zOS.e 1.3
- 192 MIPS
- 8 GB
- DASD 350 GB
- Looks like “real” oracle
- Very Buggy .1 .2 .3 .4
- Patches ever other day
- Websphere 3.5
- WLM troubles Orphaned enclaves
- Listener disconnects
- Lost ability to import / export across platforms reliably
- USS OEM nightmare
- STK snapcopy bug
- Phil Veal best friend



Oracle 9.2.X

- z800 zOSe 1.3
- 2 CPUs 192 MIPS
- 1.5 Terabyte shark
- Gig link
- Working level 9.2.0.5
- WLM actually works
- Spool stops working
- USS OEM, almost works
- MS 9026 client sqlplus bug Z/OS



VAC Today – April 2005

- Websphere 5.0
 - 14 server instances in 3 cells
 - 4 PROD, 5 IFT and 5 DEV
- MQSeries and LDAP (DB2)
- Oracle 9.2.0.5
 - 25 Databases
 - 12 Production
 - 5 high availability (Hot backups)
- 5000K WAN
- Windows 2000 NAL



VAC tomorrow

- Port of CSDN
 - 200 gig 1500 dedicated users
 - On hold for 64bit
 - 2 gig address limit killed port
- GOL Modernization



VAC In practice 1

- **Division of Production and TEST/DEV**
 - **Highly level qualifier**
 - DVU10 is production
 - DVU06 is TEST/DEV
 - DVU07 is unmanaged DASD
 - **Same LPAR but WLM works well**
 - Except small repeat units of work do not drop down



VAC In practice 2

- Generated consistent database container tools set
 - **TSO DBCLONE xxxx**
 - **Creates a CNTL and Parmlib**
 - **CNTL has normal DBA functions**
 - **Create (Create standardized shell database)**
 - **Startup**
 - **Shutdown**
 - **Analyse**
 - **Shrink**
 - **SQLPLUS**
 - **Backup**
 - **Export**



VAC In practice 3

- Hot backup for high availability bases
 - Start Hot backup mode
 - File level flash copy to unmanaged disk (2 mins)
 - End Hot backup
 - Archives copied to unmanaged disk
 - Copy everything to GDG Tape
- Hot Copy for test bases



VAC Internal Applications

- **Frics (Federal Records Inventory Control System)**
 - VB / CS / Oracle 9205
- **Ammis**
 - Automated Material Management Information system
 - PB /CS / Oracle 9205
- **Freebalance (Pay System) Test / Dev / Reporting**
 - Not production vendor will not support on zOS
- **In house log and scheduler application replaced CA**
 - Brower / Websphere / Oracle 9205



VAC External Applications

- **CVWM (Canadian Virtual War Memorial)**
 - <http://www.vac-acc.gc.ca/remembers/sub.cfm?source=collections/virtualmem>
 - Browser / ColdFusion / Oracle 9205
- **GTS (Graves Tracking System)**
 - Browser / Websphere / Oracle 9205
- **ODPS (Online Disability Pensions Submissions)**
 - Browser / Websphere / MQSeries / Secure Channel / HP ORACLE
 - Pubic
- **EHFS (Electronic Health Care Forms Submissions)**
 - Browser / Websphere / MQSeries / HP ORACLE
 - Nurse and Client workers



VAC Wish list

- Not more versions of oracle, but Better versions
- 64 bit
- Import / export across platform without FTPing
- Spool to work
- LDAP
- OEM working on / with USS
- USS “real support”
 - Links to pdfs
- Better Docs for zOS and USS
- SIG members to use forums more



Questions



Vic Douse

Application Support Leader

Database Management

Information and Technology Services Division

Address: 97 Queen Street, PO Box 7700
Charlottetown PE, C1A 8M9

Email vic.douse@vac-acc.gc.ca

Telephone 902-566-8227

Facsimile 902-566-7475