

# Addressing Cultural Barriers Faced When Deploying Linux on z/VM

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SHARE 9324

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# Outline



- My perspective
- The need for the two worlds to accept each other
- What each world thinks of the other
- What you can do to ease the pain

# My Perspective



- Experience with a product that deploys Linux on z/VM instances
- Exposure to both VM and Linux folk
- Roots are with the Linux world, particularly with Linux on different architectures
- I have learned some lessons the hard way

# A note about generalizations



- Grouping people isn't an exact science, but can help you identify patterns
- We can all identify exceptions to these generalizations

# The need for Integration



- Linux on z/VM really is a great platform!
- Typically adopted in one of three ways:
  - VMers using Linux for the first time (most likely)
  - Linux people using z/VM for the first time (rare, access to hardware is difficult)
  - VMers and Linux people coming together (true consolidation, still rare)

# Prejudices



- Human beings are naturally xenophobic
- learning something new and different is normally difficult

# The Value of Community



- Community is vital when there are significant obstacles
- both z/VM and Linux communities are driven by technical goals, although those goals are different

# z/VM Community



- Right here, at SHARE
- VMers do it at work, then take it a step further
- lots of appreciation on software vendors



- Young people and a young community
  - often inexperienced
  - can learn a lot from the z/VM community
  - little experience with software aging, few backward compatibility problems
- myth: everyone in the Linux community understands open source and software licensing

# Types of Linux Communities



There's now two different communities:

- Community of Developers
  - programmers who created Linux
  - often don't understand software vendors
- Community of Users
  - people trying to do real work
  - often sys admins with a history with other UNIX platforms

# Both Communities have had Tough Times



For better... or worse:

- VMers: decline of IBM support for z/VM in the 90's
- Linux: hurt by failed startups and tech market slump (eg. VA Software)

# The Worlds are Different



Don't sweat the small stuff:

- terminology is different
  - disk vs. DASD
  - memory vs. storage
  - operator vs. sys admin
- editors
- terminals

# The Important Differences are in Values



- The big stuff is what matters: values
- The two communities are used to different things

# Things VMers Value



- Process and structure
  - many groups each responsible for one part
  - “process leads to predictability” is foreign to the young ones
- Control and reliability
  - used to running mission critical systems
- Total utilization
  - expensive hardware and shared systems
  - need for efficiency
- Backward compatibility

# Values of Linux Community



- Enterpreneurial spirit: “let’s see if this works...”
- flexibility, Linux everywhere
  - embedded and appliances
  - small and big IA32 servers
  - multiarchitecture (Sparc, PPC, MIPS, m68k, etc)
- knowing a little about a lot
- interoperability
- open source
- free (like beer) software

# Typical complaints from Linux folk



- “This platform is too slow”
- “This process is too slow”
- “How could you not know about TCP/IP?”
- “These guys do not understand security”



# Typical complaints from VMers



- “These punks know nothing about software development”
- “There’s no measurement tools”
- “Who do I buy Linux from?”
- “These guys do not understand security”

# A Bit about Networking...



- Networking is far more difficult than you'd expect
- Hipersockets are truly great, but:
  - still poorly documented (there's no “Hipersockets HOWTO”)
  - closed source Linux drivers mean the Linux community can't help
  - poorly tested and integrated by Linux distribution vendors
  - new to both VMers and Linux folk

# Management Problems with Networking



- Typical mainframe shops have a separate group for networking
- That group often doesn't understand either Linux or z/VM

# Improvements to Linux on z/VM



- There's a lot of room for improvement
  - faster (scheduling, memory management, etc)
  - better drivers
  - more reliable
  - better cross-platform management tools
  - more applications

# Improved Documentation



- More z/VM newbies are to be expected
- IBM documentation likely to get better
- Linux HOWTOs need to be written

# Linux on z/VM Community



- This community will grow through both Linux and z/VM communities

# Easing the pain



- What you can do
- Try it!
  - VMers: install Linux on a cheap PC and play around
  - Linux folk: use the LCDS
- Grow the community

# Some suggestions



- Expect some culture shock
- Expect networking problems
- Don't sweat the small differences
- Spend time and play before deploying
- Be patient with people without your experiences
- Contribute back to the community



# Questions



- Please, fill out the evaluations! Session 9324
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