

# Linux and VM Program Opening

*Rick Barlow - Nationwide Insurance*

*Steffen Thoss, Richard Lewis – IBM*

*March 2, 2015*

*Session 16289*



SHARE is an independent volunteer-run information technology association that provides **education, professional networking and industry influence.**



# Welcome to SHARE in Seattle and to the Linux and VM Program

*Rick Barlow*

*Nationwide Insurance*



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# Agenda

- Introduction to the Linux and VM Program
  - What is LVM?
  - Information
    - SHARE – “It’s what we do”
    - LVM organization - what are the projects and brief description
    - LVM team; IBM reps & Special guests
  - How to Connect - Look for bears and penguins
  - This week...
    - Highlights and Grid
    - Program Dinner announcement
- Evaluations
- Survey
  - The survey of hardware and software versions

# Welcome to SHARE

## “It’s what we do!”

- A volunteer run organization.
- Dedicated to providing top-tier education on IBM and related technologies
- Networking with peers, sharing information and experience
- Industry influence – direct contact with IBM, vendors
- Trade Show – SHARE Technology Exchange (STE) – the latest in commercial offerings

# Understanding the “Program”

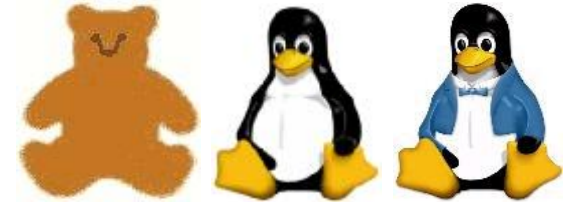
- Linux and VM Program -> **LVM**
- SHARE programs consist of “projects” dedicated to specific subjects or issues
- LVM Program has three projects plus the TSC:
  - Linux Project
  - VM Project
  - Virtualization Project
  - Linux and VM Technical Steering Committee

# LVM TSC

- Technical Steering Committee
- Small group representing SHARE LVM community
- Membership by individual, not company
- Works year round with IBM under CDA
  - Face-to-face meetings at SHARE Conferences
- Reviews, understands, and assesses certain IBM directions related to Linux and Virtualization
- Provides early feedback and guidance to IBM

# How to Connect – Around SHARE

- Many ways to connect
  - Look for the Bears and Penguins
  - SHARE Linux and VM Program web page  
<http://www.share.org/p/cm/ld/fid=44>
  - SHARE Linux and VM Program community  
<http://www.share.org/p/co/ly/gid=1832>
    - Requires member login



Complete your session evaluations online at [www.SHARE.org/Seattle-Eval](http://www.SHARE.org/Seattle-Eval)

# How to Connect - Communities

- Web sites
  - IBM z/VM web site - <http://www.vm.ibm.com/>
  - Linux for Mainframe web site - <http://linuxvm.org/>
  - IBM z/VM resources for Linux - <http://www.vm.ibm.com/linux/>
- E-mail Lists
  - IBMVM - <http://listserv.uark.edu/cgi-bin/wa?A0=IBMVM>
  - LINUX390 - <http://www.marist.edu/htbin/wlvindex?LINUX-390>



# SHARE doesn't happen without the Volunteers!



All of our Speakers and  
Session Chairpersons!

- Project Managers:
  - Linux: Mark Post (SUSE)
  - VM: Dan Martin (Rocket Software)
  - TSC Chair: Marcy Cortes (Wells Fargo Bank)
- Deputies:
  - Neale Ferguson (SineNomine Associates)
  - Openings available
- Scheduler:
  - Open
- Chair Wrangler:
  - Brian Jagos (Computer Associates)
- Program Dinner Host:
  - Brian Jagos (Computer Associates)
  - Planner: Jim Moling (Dept. of Treasury)

# Couldn't do this without them....

- IBM Representatives:

- Richard Lewis
- Alan Altmark
- Bill Bitner
- Jim Elliott
- John Franciscovich
- Romney White

- Special Guests

- Dan Griffith - IBM  
Product Development Manager for z/VM and Related Products
- Steffen Thoss - IBM  
System z Linux and Virtualization Product Development Team leader



# Distinguished Guests

- Daniel Griffith  
Senior Software Engineer – z/VM

# Distinguished Guests

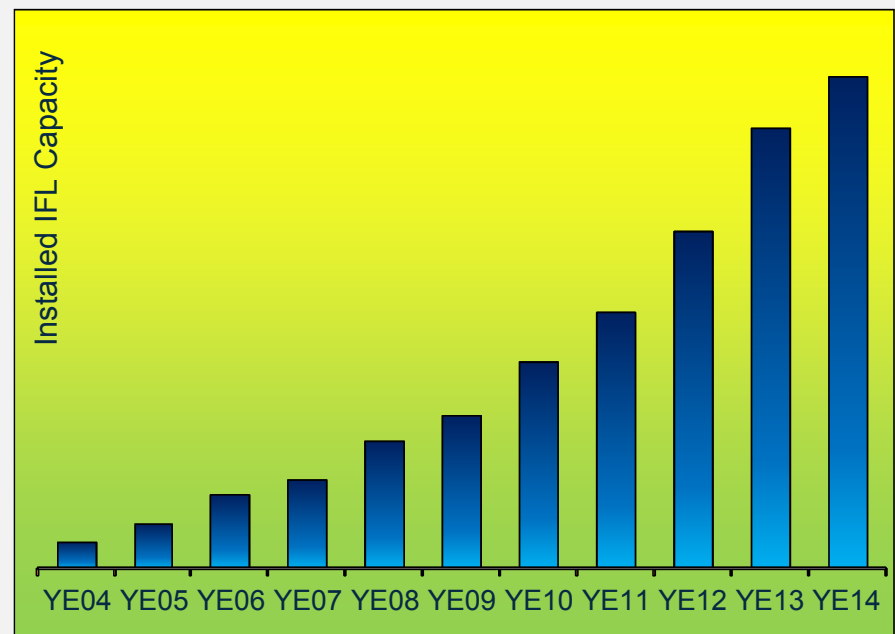
- Steffen Thoss  
Product Development Team leader

# Linux on IBM z Systems in 4Q2014

*Installed Linux MIPS at 45% CAGR\**

- 27.3% of Total installed MIPS run Linux as of 4Q14
- Installed IFL MIPS increased 12% from 4Q13 to 4Q14
- 39% of z Systems clients have IFL's installed as of 4Q14
- 82 of the top 100 z Systems clients are running Linux on the mainframe as of 4Q14 \*\*
- 35% of all z Systems servers have IFLs

## Installed Capacity Over Time



- 60% of new FIE/FIC z Systems accounts run Linux



\* Based on YE 2003 to YE 2014 \*\*Top 100 is based on total installed MIPS

# Linux is Linux, but are all Linux infrastructure solutions identical?

**No**, while Linux is Linux, the underlying infrastructure (hardware and infrastructure software) directly affects the Linux workloads.



Easy Workload Integration



High Flexibility, Scalability and Manageability



High Productivity



High Resource Utilization



High levels of Quality of Service



The **enterprise grade Linux solution on z Systems** is designed to bring unique business value in the areas of *operational efficiency, scalability, workload management, reliability, disaster recovery and security.*

**Up to 10TB**  
RAIM Memory  
delivers up to 50% better response times

**Up to 141**  
Processor Cores  
with 5GHz performance and unprecedented scale for data transaction growth

**Accelerated Analytics**  
for Numeric-Intensive Workloads  
with new Single Instruction, Multiple Data (SIMD)

**Up to 320**  
Separate Channels of Dedicated I/O  
for massive data and transaction throughput

**30%**  
Better Performance for Linux® and Java  
with new Simultaneous Multi-Threading (SMT)

**Up to 17x**  
Faster Analytics than the Competition  
with IBM DB2 Analytics Accelerator

**Specialty Engines:**  
zIIPs, IFLs and ICFs

# 2015

**New Machine  
New Brand Name**

**IBM z Systems  
Linux on z Systems**

- Linux updates
- z/VM 6.3 SPEs
- IBM WAVE updates
- zKVM (SOD)
- IBM GDPS Virt. Appl.
- IBM Spectrum Scale\*
- IBM's "Hadoop"\*
- IBM DB2 BLU\*
- *more to come*

**Additional Investment  
in Linux on z Systems  
Stack and Eco system  
including z/VM**

# Steffen Thoss

System z Linux and Virtualization PDT lead  
[steffen.thoss@de.ibm.com](mailto:steffen.thoss@de.ibm.com)



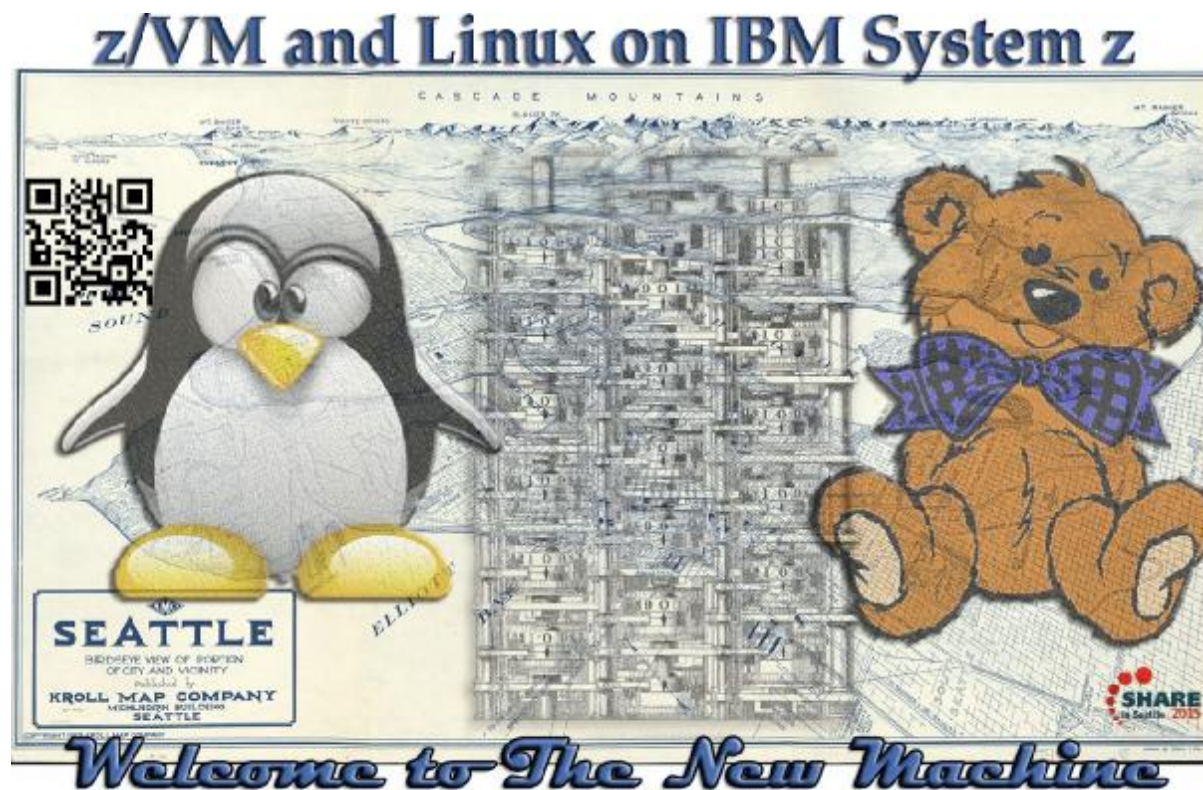


# Welcome Attendees

- We're glad you're here
  - New to SHARE?
- Session content intended to meet needs of IBM customers
  - Did you come with needs?
  - Please use the evaluations to tell us what you need
- We want to help
  - Communities
  - Mentors
- We would like to hear your story
- Volunteer
  - Session chair

# Program for Seattle

- “Grids” – All of the LVM sessions and some other session of interest
  - <http://tinyurl.com/SHARE124lvm>
  - Cards available with QR code



Complete your session evaluations online at [www.SHARE.org/Seattle-Eval](http://www.SHARE.org/Seattle-Eval)

# Highlights for LVM in Pittsburgh

- Interact with IBM leadership
  - z/VM Product Dialogue & Feedback(Metropolitan A)  
Thursday 5:30
- Customer experience sessions –  
What’s happening at your site?
  - Customer panels:
    - Experiences With IBM Wave Customer Panel Tuesday at 4:30
    - Experiences With Linux and System z – Customer Panel Thursday at 11:15

# Highlights for LVM in Pittsburgh

- Direct, “hands-on” experience
  - Traditional labs
    - 16434: Linux for Beginners Hands-on Lab (3 parts) (Virginia) Monday 10:00
    - 16492 z/VM for Beginners Hands-on Lab Monday 3:15
    - 16763 Hands-on Lab: JavaScript with the IBM SDK for Node.js Wednesday 12:30
    - 16484: z/VM Installation *or* Migration *or* Upgrade Migration Hands-on Lab (3 Parts) Wednesday 1:45
    - 16472: Hands-on Lab: Automation and Backup/Recovery Scenarios for z/VM and Linux on System z Using IBM Solutions Wednesday 4:30
  - “BYOC” labs (Metropolitan A)
    - 16474: Introduction to REXX Workshop (2 Parts) (BYOC) Tuesday 10:00
      - For “BYOC” – make sure you have a TN3270 emulator installed and fully charge your laptop

# Linux and VM Program Dinner

## Eat, Drink and Be Merry



- Wednesday 7:00 at we will gather in the Sheraton Lobby to go to the *Steelhead Diner*
- Have dinner; unwind; meet other Linux and VM people
- See Brian Jagos to sign up

Complete your session evaluations online at [www.SHARE.org/Seattle-Eval](http://www.SHARE.org/Seattle-Eval)

# Evaluations are Important!

## Tell us how we are doing...

- LVM planners really use information from evaluations to determine what to offer
  - Which sessions are in demand?
  - Which are not?
  - What is missing?
- SHARE uses evaluations to determine best session awards. All speakers are volunteers, so this is recognition is important.
- Evaluate sessions:
  - [www.SHARE.org/Seattle-Eval](http://www.SHARE.org/Seattle-Eval)
  - Online and via smart device



# The Survey!

*Richard Lewis - IBM*

*Official Statistician and Triviaologist*



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# Have a great week!



*Seattle*  
WASHINGTON

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