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# OpenSolaris for System z

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# Overview

- Why OpenSolaris for System z?
- Why not Linux?
- Current Port Status
- Experiences So Far
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- Current POC and Pilot Schedule
- How to Engage



# Why OpenSolaris for System z?

- Combines System z reliability and stability with best known enterprise Unix
- Immediately leverages existing customer operations and system management expertise
- Provides access to development and management technology not available in other System z operating systems
- Manages scalability and operations costs via more effective virtualization
- Familiar environment
- Familiar tools and management systems
- Designed to consciously exploit z/VM features
- Open to evolving management tooling from Sun, IBM and others
- Delivers greater value for specialty engine investments



# OpenSolaris and Linux

- Complementary capabilities:
  - Coexist in the same z/VM
  - Exploits IFLs
  - Permits reuse and optimization of existing process and procedures
  - Run some Linux executables directly (still experimental)
- Delivers technology not available in Linux
  - ZFS
  - Dtrace
  - Microvirtualization (zones, etc)
  - SPARC/Intel binary emulation (need z10, still under development)



# Current Port Status

- Latest currently available for download (build 100)
- Complete system and compiler array
- Complete install image in System z formats  
“DDR and Go”
- Includes Sun IPS package support
- Includes large library of open source tools and packages
- Java runtime in discussion with Sun and IBM
  - Zero-assembler OpenJDK
  - Sun Java, not IBM Java
- All source and object integrated into opensolaris.org
- Full services and training support available



# Downloads



Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2008	0	0	0	0	0
Feb 2008	0	0	0	0	0
Mar 2008	0	0	0	0	0
Apr 2008	0	0	0	0	0
May 2008	0	0	0	0	0
Jun 2008	0	0	0	0	0
Jul 2008	1	1	18	27	234.61 KB
Aug 2008	8	18	66	80	17.22 GB
Sep 2008	170	247	495	510	1.45 GB
Oct 2008	2391	2886	4413	4426	517.72 GB
Nov 2008	663	899	1559	1559	237.89 GB
Dec 2008	340	456	919	919	184.25 GB
<b>Total</b>	<b>3573</b>	<b>4507</b>	<b>7470</b>	<b>7521</b>	<b>958.52 GB</b>



# Who's downloading it?

Visitors domains/countries

Domains/Countries			Pages	Hits	Bandwidth	
	Commercial	com	1160	1166	75.68 GB	
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	Network	net	930	930	83.07 GB	
	USA Educational	edu	120	120	2.08 GB	
	Netherlands	nl	116	116	2.07 GB	
	Germany	de	115	115	6.22 GB	
	Russian Federation	ru	88	88	70.34 GB	
	Canada	ca	74	74	8.15 GB	
	Non-Profit Organizations	org	62	62	5.26 GB	
	Brazil	br	59	59	4.14 GB	
	Belgium	be	59	59	9.23 GB	
	United Kingdom	uk	51	51	2.08 GB	
	Australia	au	45	45	4.14 GB	
	France	fr	39	39	2.07 GB	
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	Switzerland	ch	16	16	194.12 KB	
	Norway	no	16	16	2.07 GB	

# Prerequisites

- System z9 BC/EC, z10 BC/EC
  - Does not support z900/990, z800/890, 9672
- z/VM 5.3 or 5.4 with network support SPE (VM64571 for 5.3, VM64471 for 5.4)
- Layer 2 VSWITCH
- 2 3390 mod 3 ECKD or equivalent FBA/EDEV



# Experiences

- Base system install time: 45 minutes from start to finish
- Solaris admins able to immediately log in and configure the system without additional z/VM or System z knowledge
- System has proved extremely resilient to user misbehavior
- Most C/C++ apps require only updates to `config.guess/config.sub` to build
- Only one customer app so far required source changes (compiler pragmas)
- Some applications 45-55% faster on z9 EC than SPARC



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# Partial List of Downloaders

- BancoMexico
- Mayo Clinic
- Lockheed Martin
- EDS
- Vicom Infinity
- US Postal Service
- Russian Institute for Particle Physics
- Deutsche Bank (12 downloads!)
- Sun Microsystems/STK
- IBM (30 identifiable sites)



# How to Engage?

- Best fit:
  - Customer with C/C++ app with few commercial app dependencies
  - Currently deployed on G2 or G3 SPARC (Later systems possible if on z10)
  - Need to replace hardware, but isn't ready or willing to do Linux
  - Need to manage environmentals
  - Need to work closely with Linux or z/OS already on Z



# How to Engage?

- 6-8 week POC
  - Fixed price
  - Support provided by SNA
  - Includes 2 day startup workshop, installation assistance and 24x7 support
  - Customer provides app and system resources
- SNA Services
  - Training
  - Custom Engineering
  - Application Assessment
  - Support (OS and app)
- Can be IBM branded if IBM wishes
- Can be delivered world-wide



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