## Open Source Promotion and Adoption: Current State



Surendra Reddy CTO, SIOS

#### **About Me**

- Chief Technology Officer of SIOS
- Head of Yahoo Cloud and Virtualization R&D (Lead Y!'s FreeBSD to Linux/Cloud/Virtualization strategy)
- 8 years at Oracle Database R&D Management(Head the corporate wide Solaris to Linux switch/infrastructure)
- Built first SCM as a Service and sold to GXS
- 4+ years Founder & CEO, Grid Computing company















#### **Topics**

- 1. IT & Open Source
- 2. Technology Trends driving Open Source Adoption
- 3. SIOS: Driving Open Source Adoption in Enterprises
- 4. Q & A



#### **How Big is IT Spending?**

- Worldwide IT spending is at \$1.6 trillion dollars
  - will grow at 5.7%
- Emerging Markets
  - Emerging markets will drive 27% of IT spending and 54% growth



IDC predicts that organizations will spend about \$12.7 billion on standalone open source services by 2013, representing a growth of over 17.6% from 2008.



#### Worldwide Operating Systems and Subsystems Revenue by Operating Environment, 2009–2014 (\$M)

	2009	2010	2011	2012	2013	2014	2009 Share (%)	2009–2014 CAGR (%)	2014 Share (%)
Mainframe	1,316.5	1,265.8	1,227.8	1,197.1	1,161.2	1,114.8	5.3	-3.3	3.5
Unix	2,121.1	1,997.0	1,877.2	1,764.6	1,641.0	1,476.9	8.5	-7.0	4.7
Linux/other open source	644.0	761.2	913.4	1,096.1	1,304.3	1,539.1	2.6	19.0	4.9
Windows 32 and 64	19,669.1	20,684.9	21,926.0	23,351.2	24,752.2	26,237.4	78.6	5.9	83.1
Other	1,280.3	1,251.9	1,230.7	1,221.5	1,214.6	1,204.4	5.1	-1.2	3.8
Total	25,031.1	25,960.8	27,175.2	28,630.4	30,073.4	31,572.6	100.0	4.8	100.0
Growth (%)	-4.7	3.7	4.7	5.4	5.0	5.0			



## Linux: New Subscriptions (in thousands)

	2009	2010	2011	2012	2013
Linux (paid)	1,368	1,397	1,454	1,528	1,589
Linux(Unpaid)	1,100	1,132	1,200	1,285	1,385



### Linux: Worldwide Installed Base (in thousands)

	2009	2010	2011	2012	2013
Linux (paid)	3,744	3,882	4,007	4,143	4,281
Linux(Unpaid)	2,363	2,419	2,605	2,874	3,058



## Technology Shifts driving Open Source adoption



Mobile Devices and Explosion of Smart Phones => New Server Workloads => New Computing Techniques => Open Source based Open Innovation



Big data is forcing changes in server deployments to support analytics workloads. Almost every big data project is being built around open source technologies.

{The amount of "data" created, stored, and managed will grow to 1.8 ZB in 2011 and 7ZB by 2015}

Unix to Linux Shift is happening more rapidly mostly driven by economics of virtualization and cloud.



Emerging Software delivery and licensing models driven by Cloud driving more SaaS delivery, more appliances, and more open source software.



#### Technology Refresh, War-on-Complexity, and Software to Service Shift



## Open Source & Enterprise Computing



#### Enterprise collaboration.

{Open source collaboration tools include Open-Xchange and Zimbra for email, Openfire and Jabber for instant messaging, WordPress for blogging, and TWiki and MediaWiki for wikis.}



#### Rich User Experience.

{Dynamic languages, such as PHP, Python, and Ruby play an important role in Web 2.0, along with open source Ajax frameworks and open source tools from suppliers such as Adobe and Laszlo Systems.}



#### Service-oriented architecture.

{open source ESBs, such as Mule, OpenESB, and JBoss ESB, there are many other SOA-enabling technologies from Apache Software Foundation, including ServiceMix, Synapse, and Axis.}

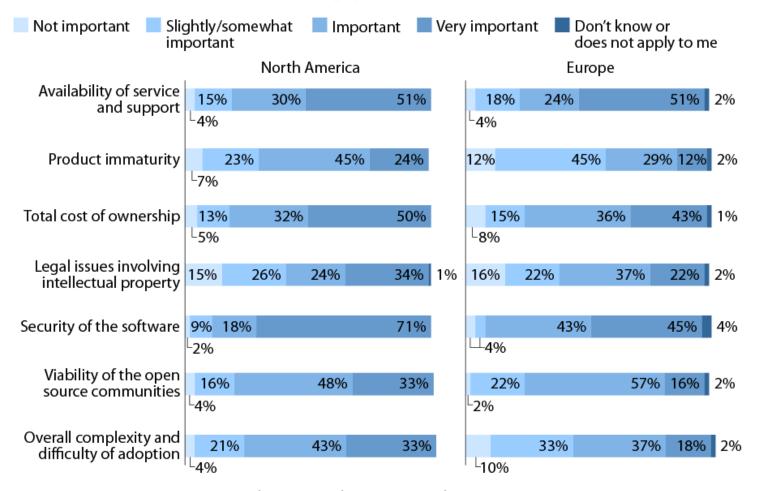


# Business Critical Infrastructure ???

{Guess who dominates: Oracle, SAP, IBM, HP, CA, BMC. Why?}



#### "How important to your organization are each of the following concerns around adopting open source software?"



Base: 131 respondents at North American and European enterprises

Source: Enterprise And SMB Software Survey, North America And Europe, Q3 2007



## How is SIOS Helping Linux Adoption in Enterprises?



#### **About SIOS**

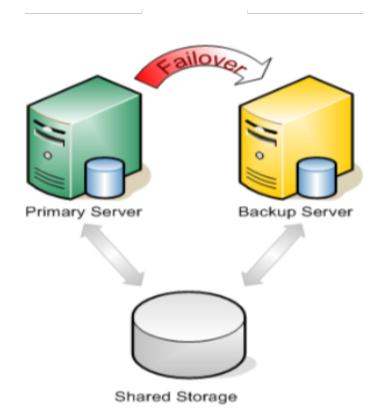
- Founded 1999 and Headquartered in San Mateo,
  CA
- Profitable division within a profitable, publicly traded organization in Tokyo, Japan
- Provides Best-In-Class High Availability, Data Replication and Disaster Recovery solutions
- Remote Offices throughout the US, UK and Japan
- Over 35,000 licenses installed worldwide
- RedHat, Novell, and HP certified solutions



#### Case #1

#### Large Telco & Cable Provider: Content Distribution Service

- "Classic" Shared Storage Cluster: leveraging Fibre Channel SAN storage.
- Customer deployed 17-node clusters across approx. 48 different content distribution locations
  - Protecting Application Servers and Database in each cluster
- SCSI reservations provide I/O fencing to ensure data integrity – prevent "rogue operator" scenario
- Provides Cascading and prioritized failover of services
- Note: many types of storage and multipath solutions supported.

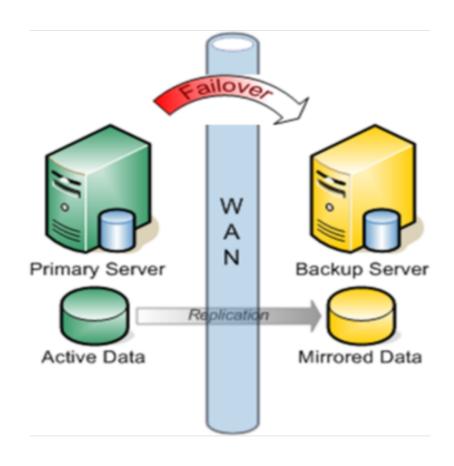




#### Case #2

#### **Central Bank Protecting and Replicating Payment Processing**

- "Shared Nothing" Cluster using SteelEye Data Replication
- Hundreds of remote sites aggregating data back to a central location
- Protecting Oracle Databases and Custom Applications
- Eliminates the expense and single point of failure of shared storage
- Ideal for Disaster Recovery configurations:
  - Automated failover protection of replicated data between datacenters

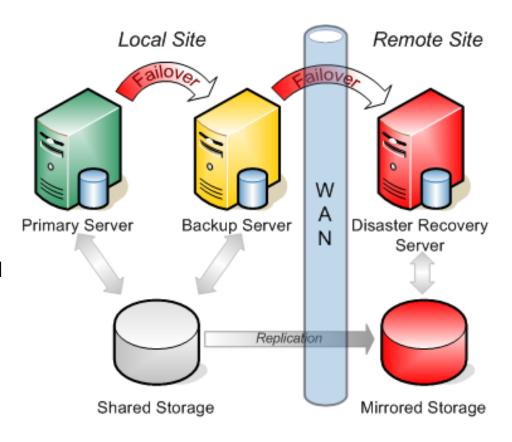




#### Case #3

## Government customer protecting onboard combat systems

- Customer deployed a "Multi-Site"
  Cluster Best of Both Worlds:
  - Robustness of a classic shared storage cluster
  - Efficient data replication to a disaster recovery site.
- Protecting NFS services mission-critical combat systems depend upon.
- Supports cascading/prioritized failover with replication redirection
- Less expensive and more flexible than storage-based replication solutions.
   Customer needed to re-use existing mixed hardware/storage.





## So, What is Your Enterprise Architecture Strategy for OSS?



## Assess the degree of pain you have with the status quo.

{How satisfied is the business with IT's ability to rapidly deliver the solutions? What do your metrics reveal about the costs and risks of your current approach? }



## Assess your cultural fit to open source software.



# Assess your application portfolio, project portfolio, and application strategy for open source adoption.



# Document your existing tactical use of OSS products, frameworks, and languages.

{ Engage in "management by walking around": Talk to your developers and architects about where they are already using OSS, even if it's only in development. You're likely to gather allies and examples that will support your case.}

# Have your cost model and opportunities well thought out in advance.

{Sell cost-avoidance first, but don't discount OSS flexibility}



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## Thank You.

#### Surendra Reddy

@sureddy // supercio.com

