



Promoting,  
Protecting, and  
Standardizing  
Linux

# The Linux Foundation Japan Symposium Closing Statement

March 13, 2007



Promoting,  
Protecting, and  
Standardizing  
Linux

## Summary

- **Speakers**
  - Andrew Morton
  - Christoph Lameter
  - Takashi Sato
- **Panel Discussion**
  - Tsugukazu Shibata
  - Andrew Morton
  - Randy Dunlap

## Technology Forecast



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- DCL Technology Forecast
- Linux Foundation Weather Report
- This is not a roadmap!
- Track progress in the following categories
  - RAS
  - Resource Management
  - File Systems
  - Security
  - Device Drivers
  - Hotplug
  - Interoperability
  - Virtualization
  - Scalability

# RAS Forecast Highlights



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- Application Reliability
  - 2007
    - User-page migration (1H)
    - Memory pressure (2H)
  - 2008
    - Kernel-page migration

## RAS Forecast Highlights



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- Multipath IO
  - 2005
    - Basic functionality
  - 2006
    - 4K Luns/4 Path
  - 2007
    - Load balancing (1H)
  - Future
    - SAN boot

## RAS Forecast Highlights



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- Crash Dump
  - 2005
    - Kdump for x86, x86\_64, ppc64
  - 2006
    - Kdump ongoing work
  - 2007
    - Kdump for IA64 (1H)
  - 2008
    - Kdump for Xen
- System Tap
  - 2006
    - System Tap first availability
  - 2007
    - Application performance analysis

## Management Forecast Highlights



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- Class-based Kernel Resource Modules
  - 2007
    - CPU resource control (2H)
    - Memory resource control (2H)
  - 2008
    - IO resource control
- Containers
  - 2008
    - Containers
    - Application virtualization

## Filesystem Forecast Highlights



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- Filesystems
  - 2006
    - Clustered filesystem support (2H)
  - 2007
    - Basic functionality for ext4 (1H)
    - Expanded functionality for ext4 (2H)
    - Improved ext3 reliability (2H)
  - 2008
    - Improved Reiser4 reliability
  - Future
    - fsck scalability for ext4

# Hotplug and Interoperability Forecast Highlights



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- Memory Hotplug
  - 2007
    - Memory remove (2H)
- Interoperability
  - 2006
    - Basic NFSv4 (1H)
    - Basic SAMBA 4 (2H)
  - 2007
    - Active directory server (1H)
  - 2008
    - NFSv4 Migration and replication
  - Future
    - Fix Automount
    - NFS v4 disconnected operaton
    - NFS v4.1 – Parallel NFS (pNFS)

## Virtualization Forecast Highlights



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- 2007
  - Paravirtualization – mainline support for Linux as a guest on any VMM

# Linux Foundation Japan Symposium

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Thank You