Moblin Overview and Collaboration Summit Report about Moblin

mobin.org / MIRACLE LINUX CORPORATION
Mitsutaka Amano
mamano@miraclelinux.com/mitsutaka.amano@gmail.com
About me

• Mitsutaka Amano
• Joined to moblin.org about 1 year ago.
  – A maintainer of Moblin Image Creator from June 5th of 2008.
  – Technical support and discussion on Moblin ML.
• I work for MIRACLE LINUX CORPORATION.
  – Develop and Support the Linux OS for Intel(R) Atom(TM) Processor board.
  – Also for the ThinClient OS.
Agenda

• Moblin Overview
• Pickups from LFCS
  – librest, mojito (Integrate web service)
  – Connection Manager (connman)
  – Clutter (3D User Interface API)
  – Moblin SDK (MIC2, Projgen)
• In the future...
• Articles in Japan
Moblin Overview
What is moblin.org?

• The Open Source Software promoting a mobile Linux platform.
• moblin.org is focused on Mobile Internet Device (MID), Netbook, In-Vehicle Infotainment (IVI) and embedded board.
History of Moblin

• Jul 2007: Opened moblin.org.
  Jul 2007: Started to development Moblin v1 (based on deb).

• Aug 2008: Started to development Moblin v2 (based on RPM).
  – 01/24/2009: Moblin v2 Alpha1
  – 03/17/2009: Moblin v2 Alpha2
  – 05/20/2009: Moblin v2 Beta for Netbook, Nettop

• Apr 2009: Linux Foundation to Host Moblin Project.
Moblin v1 (an old story)

Moblin Stack Overview

Based on GNOME* Mobile and Embedded Architecture
- Plus additional services and components for MIDs
Hildon Application Framework for consistent app look and feel
Moblin v1 (an old story)

- kernel 2.6.24
  - Applied Poulsbo (US15W) patches
- X server 1.4
- Mesa 7.0.3
- Python 2.4
- GCC 4.2.3
- Based on Ubuntu 8.04
Moblin v2 (current)
Moblin v2(current)

- kernel 2.6.29
  - CONFIG_FASTBOOT=y
- X server 1.6
- Mesa 7.3
- Clutter 1.0
- Python 2.6
- GCC 4.3.3
- RPM 4.6
Fast boot

- sreadahead optimized for SSDs
- kernel
  - All system components built into the kernel image
  - `kernel-netbook-~.moblin2.i586.rpm`, `kernel-menlow...` etc
- Asynchronous initialization
- No initrd, No Boot Splash
- Sysvinit, not upstart
- `xorg-x11-driv-intel` is trimmed various “extra” delays
Other services

- Bugzilla: bugzilla.moblin.org
- Git: git.moblin.org
- Mailing List: moblin.org/community/mailing-lists – dev@lists.moblin.org
- IRC: #moblin on irc.freenode.org
Pickups from LFCS
Session 1st day

• Moblin 2: State of the Union
• Imad Sousou
  – Director of Open Source Technology Center, SSG, Intel Corporation
• http://video.linuxfoundation.org/video/1382
• Introduction of Moblin
Session 2nd day

- **Introduction**: Dirk Hohndel
- **Moblin Overview**: Paul Cooper
- **Porting to Moblin 2.0 and Beyond**: Rob Bradford
- **Connection Manager**: Marcel Holtmann
- **Clutter Tutorial**: Emmanuele Bassi
- **Moblin SDK**: Bob Spencer
- **Cooking with Moblin Core Technologies**: Rob Bradford
librest, mojito

• Integrate the social networking service and GUI apps
• Mojito can fetch from Flicker, Last.fm, and Twitter.
Connection Manager

- New network manager for mobile systems
- Pointed out existing Network Manager is...
  - Not easy to extend
  - Patched by Linux distributions
  - too much GNOME like source code
- Starting from scratch as one of the Moblin projects
- Expandable via plugins
- Ready for embedded usage
  - Fast network connection
  - Internal DNS

Support multiple technologies
Clutter

- 3D User Interface Library
- Integration with other libraries
  - clutter-qt, clutter-gtk, clutter-media, mozilla-clutter, clutter-box2d(physics)
- Fast and visually rich interfaces, 3D effects and animations
- Developed in C with bindings for Python, Perl, C#
Moblin SDK

- Development Environment
  - KVM, VMWare, FS images

- Tools
  - Moblin Image Creator 2
  - Linux Project Generator (projgen)

- Documentation
  - Developer Guides
  - API References
In the future...
In the future...

- Moblin v2 GA for Netbook, Nettop ('09/Q3)
- Moblin v2 for MID ('10/Q1)
- Moblin v2 for the next generation of Netbook, Nettop...
- Next version of Moblin...?
Articles in Japan
Articles in Japan

• 日経Linux 2008年9月号（Moblin 1.0）
  – AtomでモバイルLinuxに挑戦

• 日経Linux 2009年7月号より連載予定
  – Moblinの概要、イメージの作り方等
Articles in Japan

• ITPro LFCS現地リポート
  – MicrosoftもSunも実はみんな仲良し？
  – Moblin普及にかけるIntelの“本気度”を見た
  – 地球にやさしい「グリーンLinux」は実地検証のフェーズに移行
  – Linuxの明日は晴れか曇りか？「Linux天気予報」セッションが開催
Web sites: moblin.org / moblin.jp
Thank you!