



Connection Manager for Mobile Devices

Linux Foundation – Moblin Seminar

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Who is Marcel Holtzman?



- Marcel Holtzman
 - BlueZ maintainer
 - OpenOBEX and Gnokii project
 - WiFi, Ultra-Wideband and WiMAX hacking
 - RFID and NFC research
 - Open Source CERT - www.ocert.org
 - ConnMan project
- Open Source Technology Center at Intel



Agenda

- History and ideas behind ConnMan project
- What has been done so far and what is coming in the future



Why bother at all?

- When looking into Network Manager, it was not to our satisfaction
- Start from scratch and see what can be done differently
- It is all about fast-boot anyway ;)

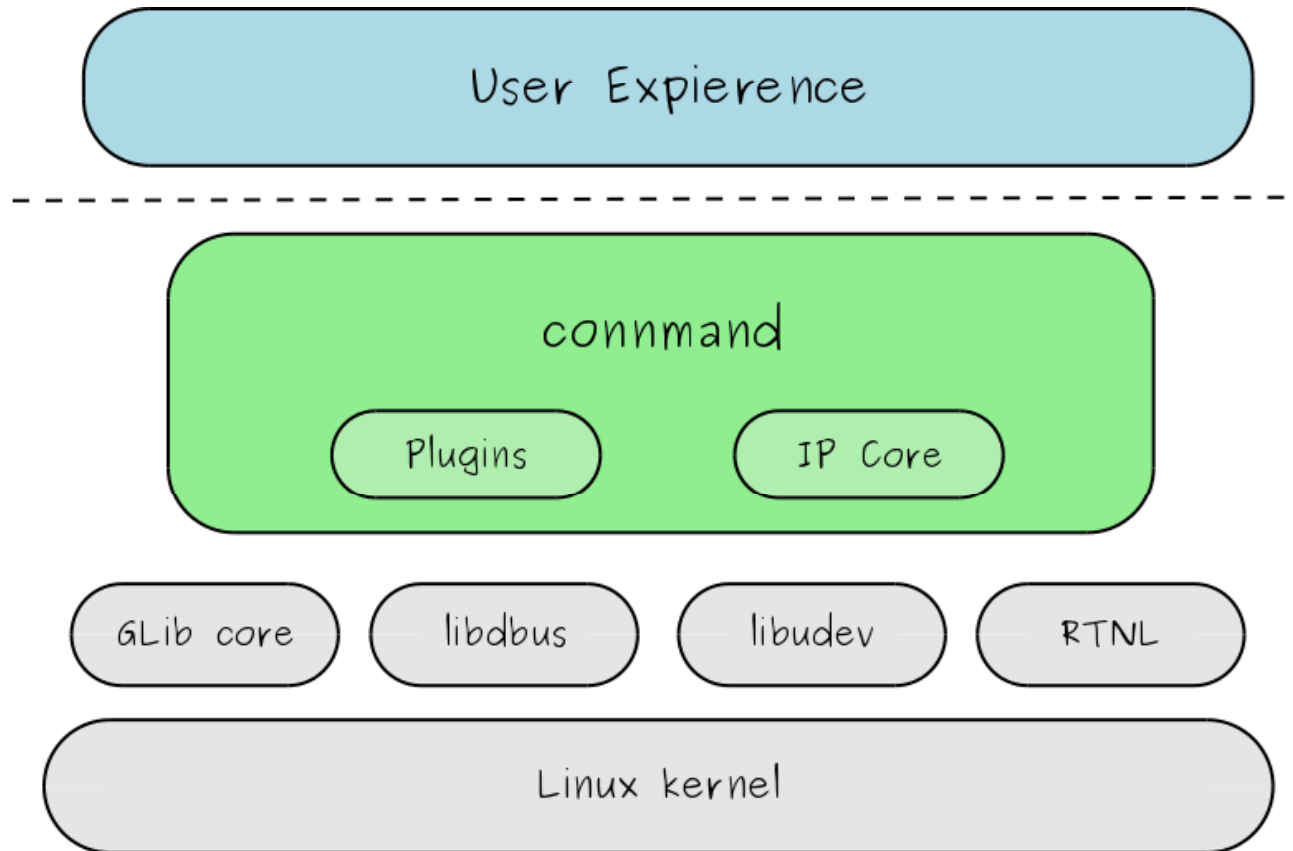


The different goals

- Target platforms are embedded systems down to mobile phones
- No tight integration with any UI framework
- Fully modular, flexible and extensible



Keep it simple

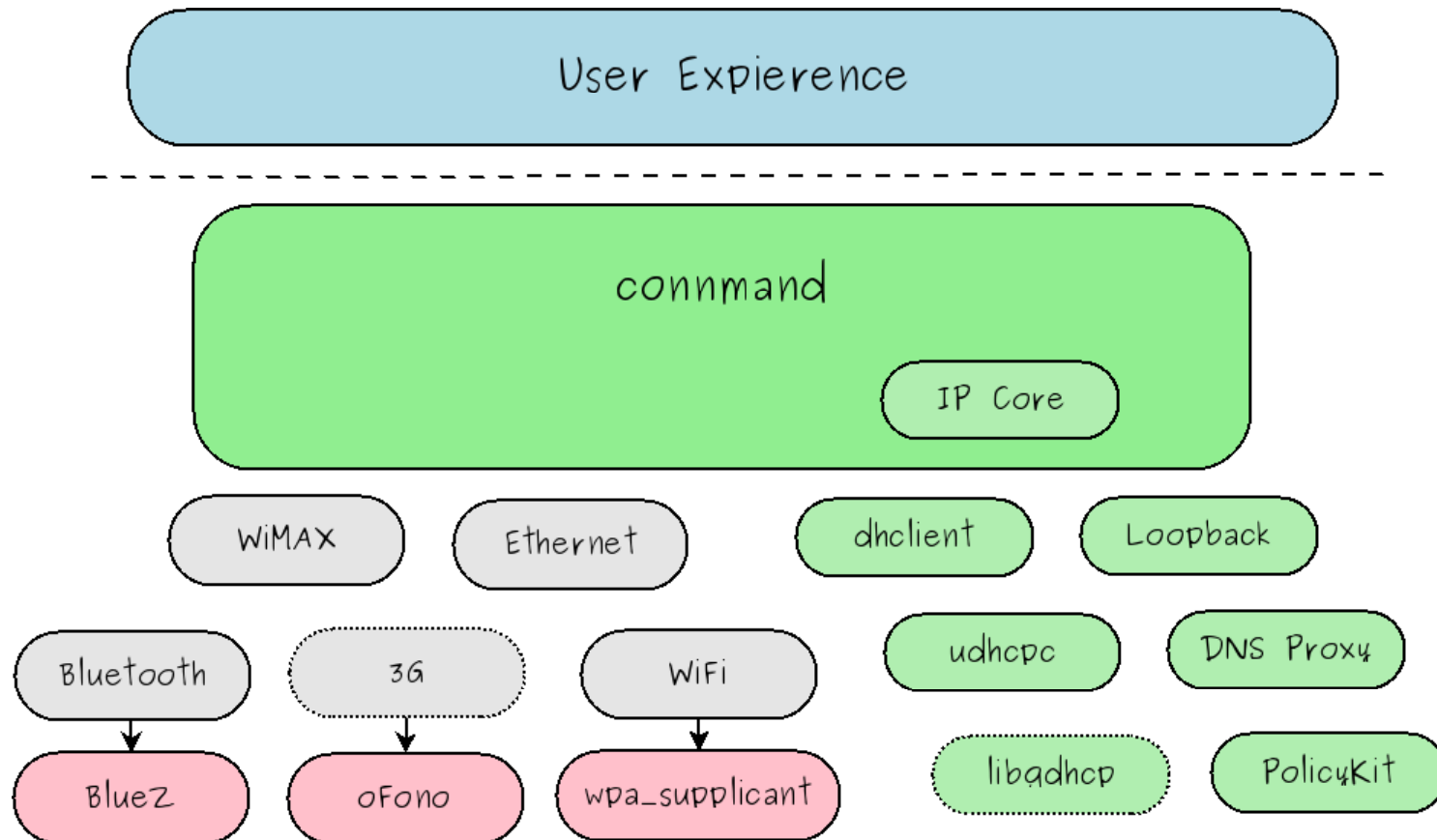


Usage of plugins

- Support for external and builtin plugins
- Separate plugins for Ethernet, WiFi, Bluetooth, WiMAX and 3G
- System specific plugins for things like PolicyKit, OSPM etc.



Choose and pick



Simple interfaces for the user

- Writing a new user interface from scratch should be as simple as possible
- The embedded world has more than two major interfaces
- Customization and branding is important



Design the interactions

- Avoid technical details that most people don't even understand
- Don't expose things that are not available
- If the users intention is clear, don't make them tell you twice

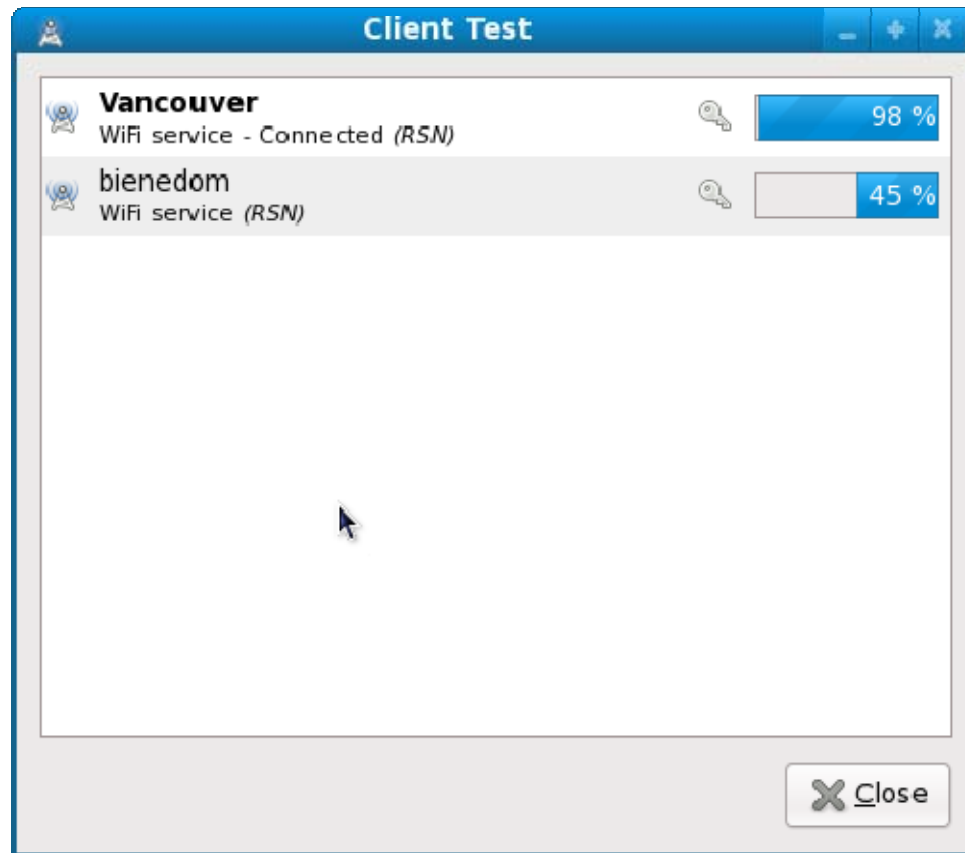


The really simple API

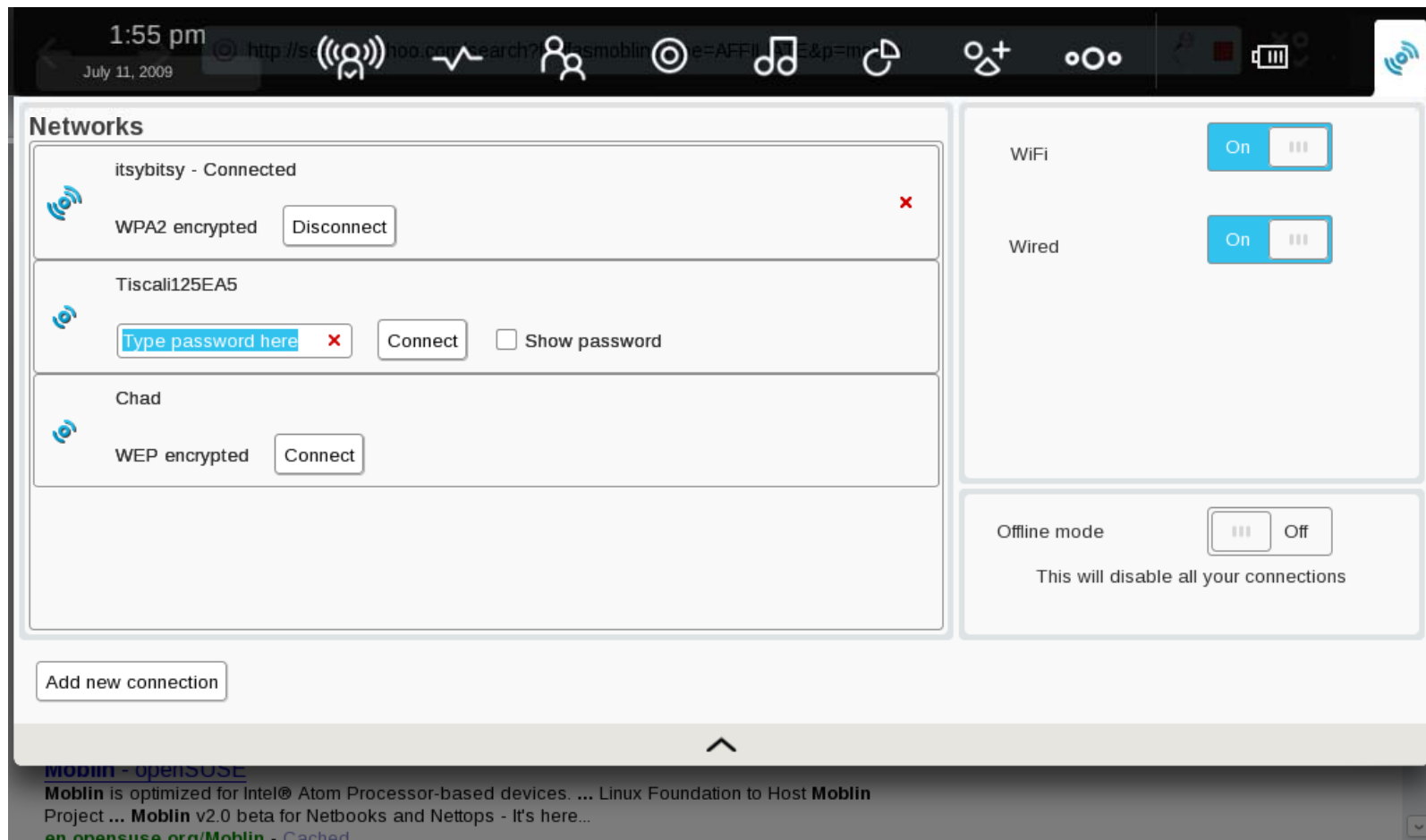
```
+-----+
| Ethernet                               |
+-----+
| Bluetooth phone                        |
+-----+
| Guest          (strength 90, none)    |
+-----+
| My WiFi AP    (strength 80, wpa2)     |
+-----+
| Clear WiMAX   (strength 70)           |
+-----+
| Other AP      (strength 70, wpa2)     |
+-----+
| Friends AP   (strength 70, wep)       |
+-----+
| Other WiMAX  (strength 50)            |
+-----+
```



Simple GTK version



The Moblin experience



Additional features

- Integrated DNS proxy to speed up of browser experience and have central control over the resolver
- Simple notification API for interaction with other components



Future work

- Generic Provider framework with VPN as first user
- WPS integration and WPA/WPA2 Enterprise support
- Internet sessions with application policies

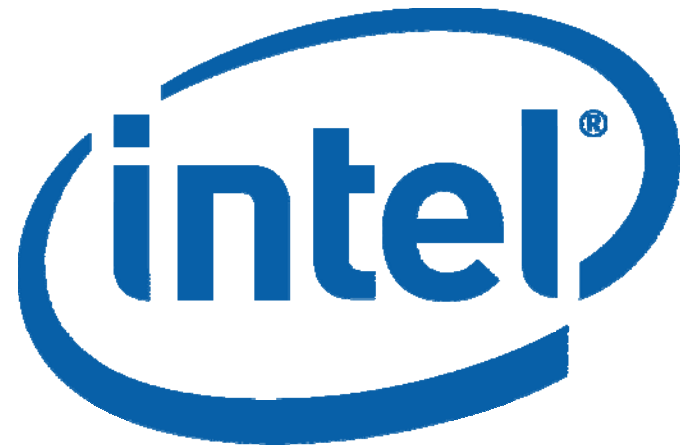


Questions?

- Website
 - <http://www.connman.net/>
- Releases
 - <http://www.kernel.org/pub/linux/network/connman/>
- Mailing list
 - connman@connman.net
- [#connman](#) on [freenode.net](#)



Thank you



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