Company Profile

Wireless Expertise

GRACE System TechnologyLabs (India) Pvt. Ltd.

Technology Centric, Value Driven

Expertise on Wireless

Over the past few years we have been involved in many exciting Wireless Domain based projects.

Some of the Projects in which our Associates have been involved are listed below:

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Projects – Wireless Related

- On Linux-Java Platform Marvell-8686 WIFI Driver Support

- Android OMAP3430 TI-1271 WIFI Driver Support

- Keypad and Capacitive touch support on Qualcomm's MSM6246 based device

- Nucleus BSP and related drivers for a Cell phone platform based on TI Neptune Processor. This involved:
  - ❖ OS porting:
  - ❖ Driver/software for :
    - Interrupts,
    - watchdog timers
    - RTC,
    - External memory interface
    - IC Identification
    - ONE-WIRE
    - Keypad, captouch
    - Power Key,
    - Dedicated Lock(Touchscreen lock in pocket),
    - Accessory detection
    - I2C
    - Backlight support
    - Support for Cypress Antioch USB chip
    - Keypad light support using IO-Expander

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Projects – Wireless Related

- CMS key support
- ❖ HWCONFIG block (Part of Flash used to keep Phone configuration info).
- ❖ Smart Battery Charging Management for phone charger interface.
- ❖ Wifi Driver Support for TI chipset
- ❖ Qualcomm BSP support
- ❖ Touch screen driver support on Android based OMAP platform
- ❖ Datacard software development.

- ❖ **SIM Card Management**

  - The Hardware is replaced with the TI Board.
  - The Lower level modules are changed to support the New Hardware.
  - The Scope of work is to modify the SCSM and replace the existing tightly coupled driver with TI's SIM driver.
  - The TI's SIM Card reader Driver supports a BAT(Binary AT) interface.
  - The software is modified to send the BAT commands and receive the response.

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Projects – Wireless Related

- Maintenance of Bluetooth and USB stack for cell phones.

- Porting of Windows CE BSP for S3C24A0A to Windows Mobile 6.0 – The work involved modifications to the Ethernet Boot loader, development of the IPL and Configuring the Windows Mobile Image for the Image Update Model.

- Debugging of the Serial, USB Serial Driver and debugging the audio driver on Windows Mobile 6.0 for the S3C24A0A.

- Windows driver and related software for Wireless data card.

- Porting of Android to beagle board from TI

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Projects – WLAN/WIMAX/SECURITY *RELATED*

1. Design and implementation of Linux device driver for 802.11 a/ b / g chipset
2. Enhancements/Bug fixing for WHQL certification of 802.11 a/b/ g chipset driver on Windows.
3. Windows CE device drivers for Atheros USB WLAN chipset.
4. Windows CE device drivers for Atheros CF WLAN chipset
5. Windows CE device drivers for Atheros SDIO WLAN chipset
6. Windows device driver for PCMCIA/CF 802.16/WIMAX device with support for firmware download, ARP spoofing , IP mode/Ethernet mode operation and connection management.
7. Support for Quality of service in the form of priority queues and Leaky bucket algorithm.
8. 802.1x/EAP/AKA supplicant protocol on Windows for WIMAX device
9. Linux device driver for PCMCIA/CF 802.16/WIMAX device
10. Windows device driver for USB 802.16/WIMAX device.
11. ROHC header compression protocol software along with WIMAX driver
12. WLAN WMM (Cisco CCX version 3) implementation on WinCE
13. Development of 802.1x/EAPOL supplicant on Linux

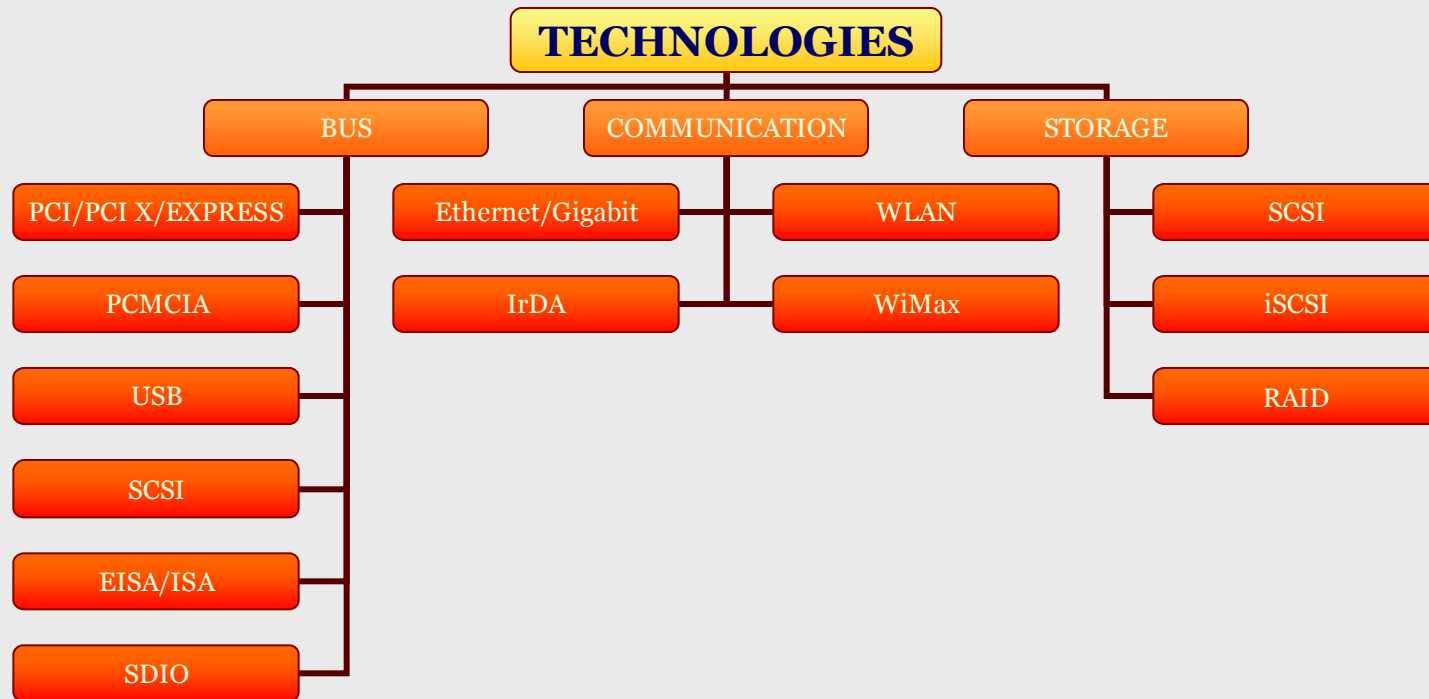*Gracelabs*

Projects – WLAN/WIMAX/SECURITY RELATED

14. Apple MAC driver for WIMAX device
15. Design and implementation of Wireless LAN driver and protocol for PCI based PRISM chipset on Linux and Windows. It implements a basic host based Access point based on PRISM chipset.
16. Design and implementation of USB Wireless LAN driver for Linux, Windows and Windows CE.
17. Development of File system filter driver for encryption on Windows 2003
18. Development of an NDIS intermediate filter driver that would block/unblock packets for WLAN device when an Ethernet device is connected/disconnected.
19. WinCE WLAN SDIO driver for WLAN IP evaluation board.
20. USB WLAN driver for the ZD1211 device on WinCE
21. Design and implementation of Nucleus driver and protocol modules (802.1x, WPA, WMM) for Ralink USB WLAN chipset.
22. Windows SDIO WLAN driver development
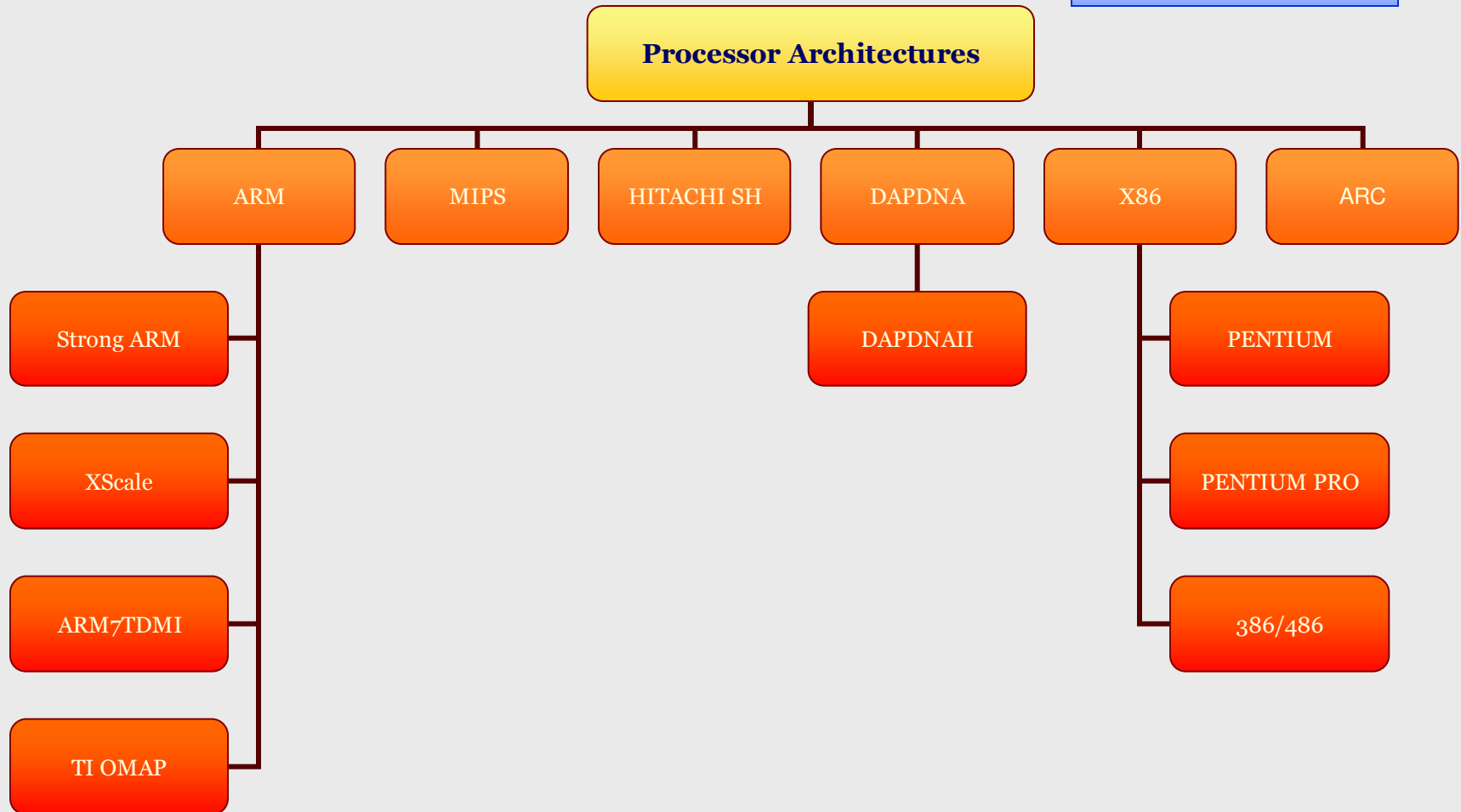23. Configuration utility for WLAN on WinCE

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Case Studies

For case studies please visit :

www.gracelabs.com/case_study.html

Domain Expertise – *TECHNOLOGIES*


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                        TECHNOLOGIES

          BUS          COMMUNICATION        STORAGE

   PCI/PCI X/EXPRESS   Ethernet/Gigabit    WLAN      SCSI

   PCMCIA              IrDA                WiMax      iSCSI

   USB                                               RAID

   SCSI

   EISA/ISA

   SDIO
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Domain Expertise – *ARCHITECTURES*

Processor Architectures

- ARM
  - Strong ARM
  - XScale
  - ARM7TDMI
  - TI OMAP
- MIPS
- HITACHI SH
- DAPDNA
  - DAPDNAII
- X86
  - PENTIUM
  - PENTIUM PRO
  - 386/486
- ARC

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Domain Expertise – *OPERATING SYSTEMS*

OPERATING SYSTEM

EMBEDDED	SERVER		DESKTOP
Embedded Linux	Windows 2000	Linux	Linux
Windows CE	Solaris	Sco Openserver	Windows XP
VxWorks	Novell Netware	Windows NT	Windows 98
MQX			Mac OSX
Nucleus			Windows Vista
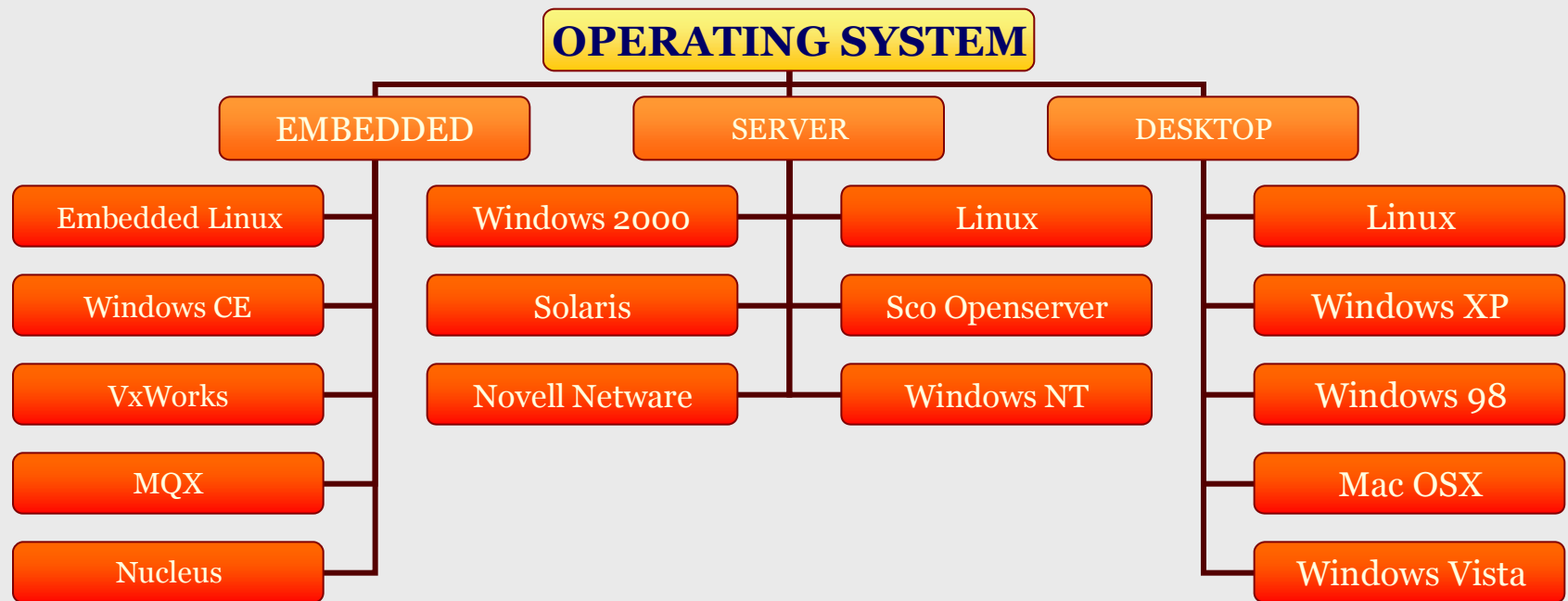
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Contact Info

**GRACE SYSTEM TECHNOLOGY
LABS (INDIA) Pvt. Ltd.**
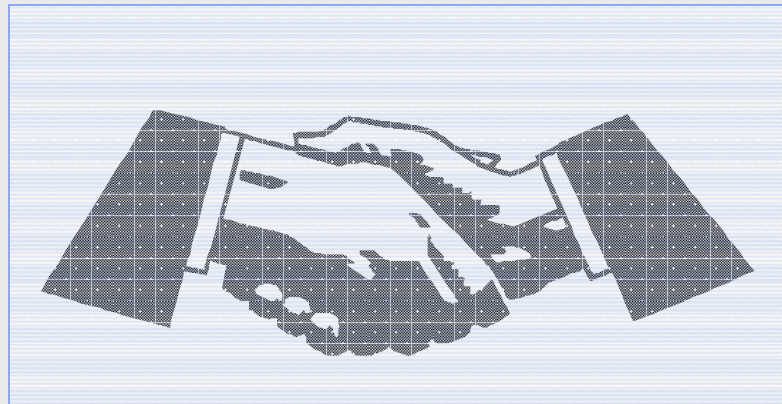#3274, 11th Main
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Looking Forward to a mutually Beneficial relationship...

THANK YOU