MeeGo 1.2 Harmattan Architecture Layers

This article explains the architecture layers of MeeGo 1.2 Harmattan

Introduction

- Understanding architecture of a system is important for developers cause this will help them know the in depth about the system for which they are developing application and thus will help them in creating seamless applications.
- And also can help them integrate the applications with system in most optimized way.

MeeGo 1.2 Harmattan Architecture Layers

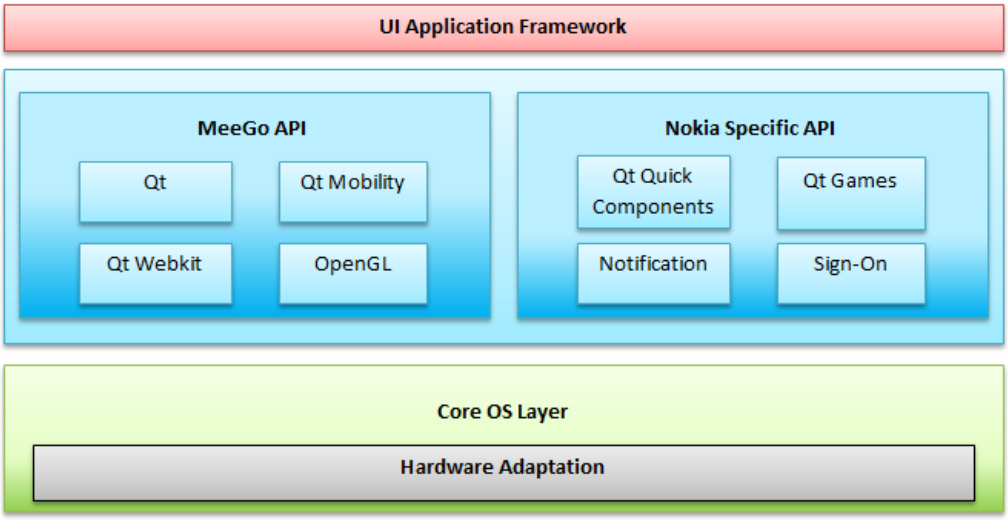
- MeeGo is a Linux-based open source mobile operating system.
- MeeGo 1.2 Harmattan by Nokia is a derivative of MeeGo and is a feature-rich software platform designed to fit Nokia's customized requirements.

Meego Architecture has following layers:

1. UI Application Framework
2. Application API
3. Core OS layers

UI Application Framework

This layer consist of all user experience application framework libraries. There are different libraries for different devices in this layer. Includes Touch Framework for mobile devices.



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Application API

This layer consists of libraries (API) for application development. These libraries can be viewed from service or library perspective. Service perspective groups the API as per functionality, while the library perspective group the API's as per the library dependency.

- **Service Perspective:**
  1. Application Frameworks – User Interface Frameworks
  2. Communications - Social networking.
  3. Graphics -2D and 3D graphics
  4. Location- Geographical location of the device
  5. Multimedia -Media
  6. Personal Information Management- Personal information of user
  7. System- Device/system resources
- **Library Perspective:**
  1. Common Meego Libraries:
  2. OpenGL ES 1.1 - 2D and 3D graphics

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3. OpenGL ES 2.0 - 3D graphics
4. Qt API - Qt is a cross-platform application and user interface development framework. You can deploy the application across Windows, Mac OS X, Linux/X11, embedded Linux, Windows CE and Harmattan platforms without rewriting the source code
5. Qt Mobility API - Cross-platform mobile application development
6. Qt Webkit – web browser engine

- **Nokia Specific Libraries:**
  1. Qt Quick Components – Building blocks for creating native UI.
  2. Qt Games API – Extension of OpenGL ES 2.0
  3. Notification API – Assist in application notification system
  4. Sign-On – Single authentication system
  5. Account – User account information

Core OS Layer

This layer specifies the core operating system libraries like:

- Kernel
- Security
- System
- Data Management
- Location
- Multimedia
- Graphics
- Hardware Adaptation –

This sub layer helps in plugin the software components based on the vendor hardware.
It is highly coupled with OS layer to provide the required hardware level services. Harmattan has customized this layer to gel well with the Nokia devices.

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