

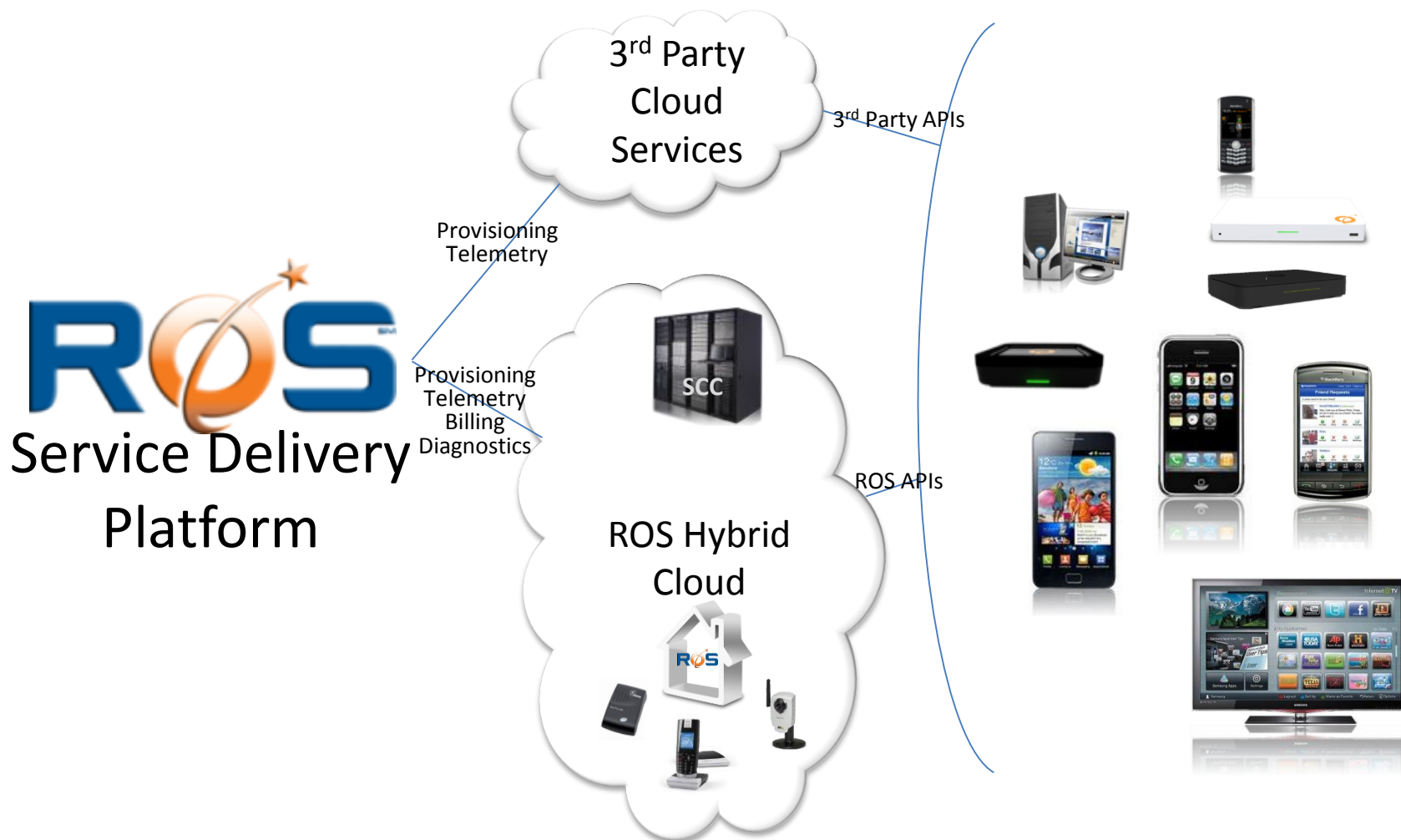


ROS Application Environment

May , 2013



ROS Application Environment



The ROS Application Framework Provides Access To ROS Hybrid Cloud Services, Home Devices, 3rd party Cloud Services and Device Capabilities To Create an Unmatched Application Creation Environment



Open Application Platform

Consumer Interface

Industry Standard Development
Environments For Developing User
Interfaces



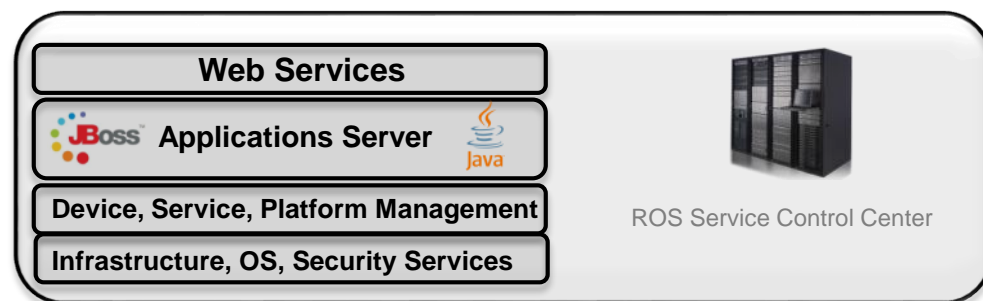
Home Server

Open Java (JVM) Environment To
Extend Home Server Capabilities



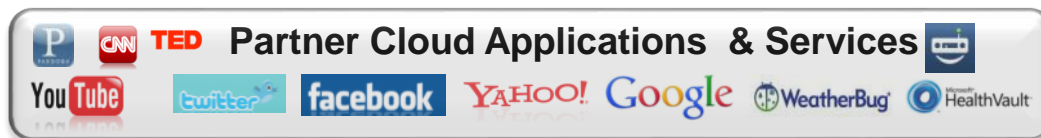
Distribution & Management

Reliable, secure, and controlled
application deployment and
execution environment



Distributed Cloud Architecture

Highly scalable, secure, and
economical deployment and
operation



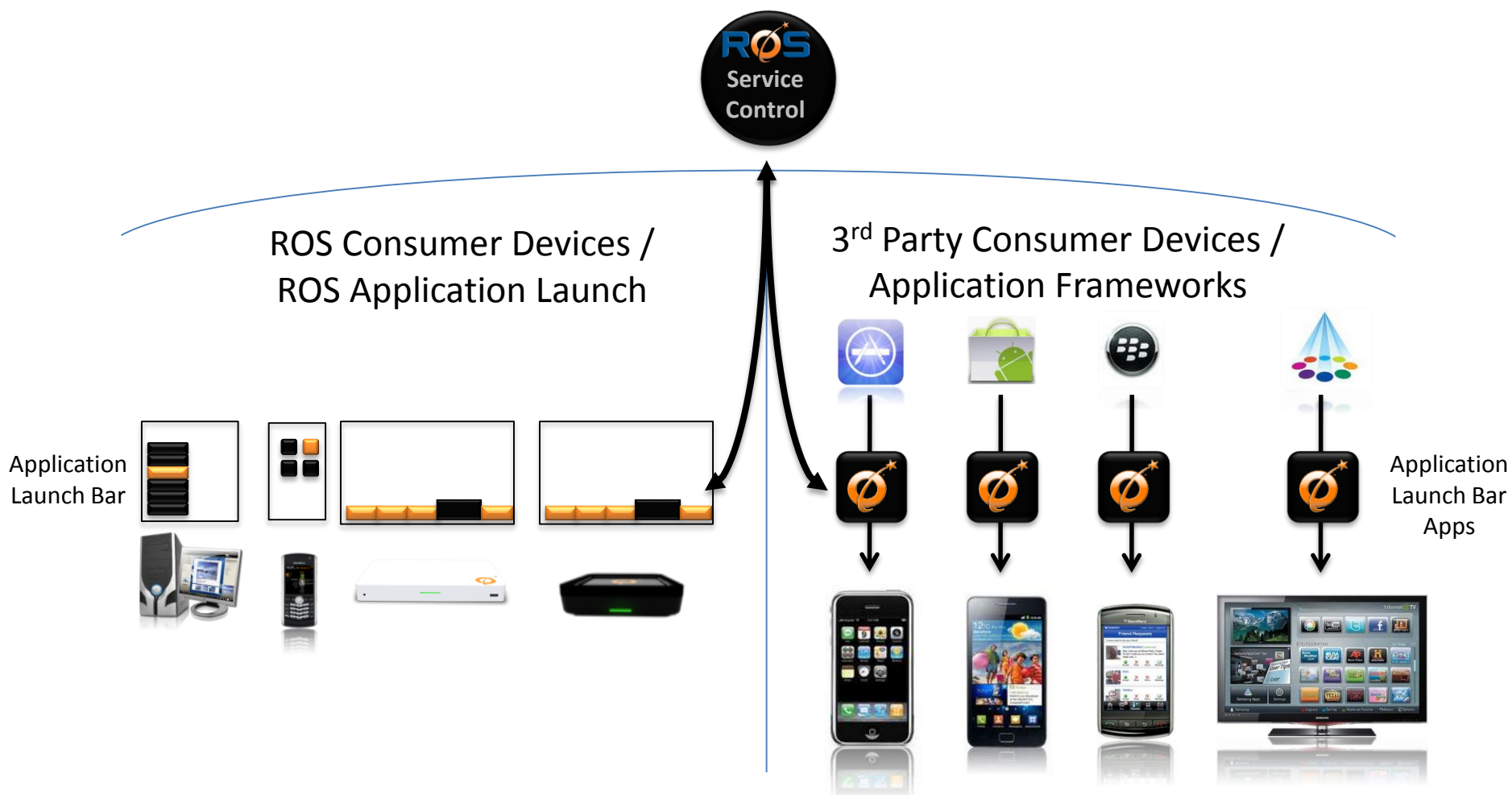


Application Types

- Imbedded Applications
Prodea engineered and integrated applications that are optimized into the base infrastructure of the ROS Platform (e.g. Voice)
- Configurable Applications
Prodea built applications that allow customization via external data feeds controlled by a 3rd party. (e.g. VoD)
- Renderer Based Applications
Applications that utilize the core capabilities of the RHC and ROS Platform through a define web services interface back to the ROS Infrastructure. (e.g. Simfy)
- RHC Server Extensions
Distribution and run-time environment to place additional application logic on the RHC (e.g. Home Controls)



ROS Renderer Access





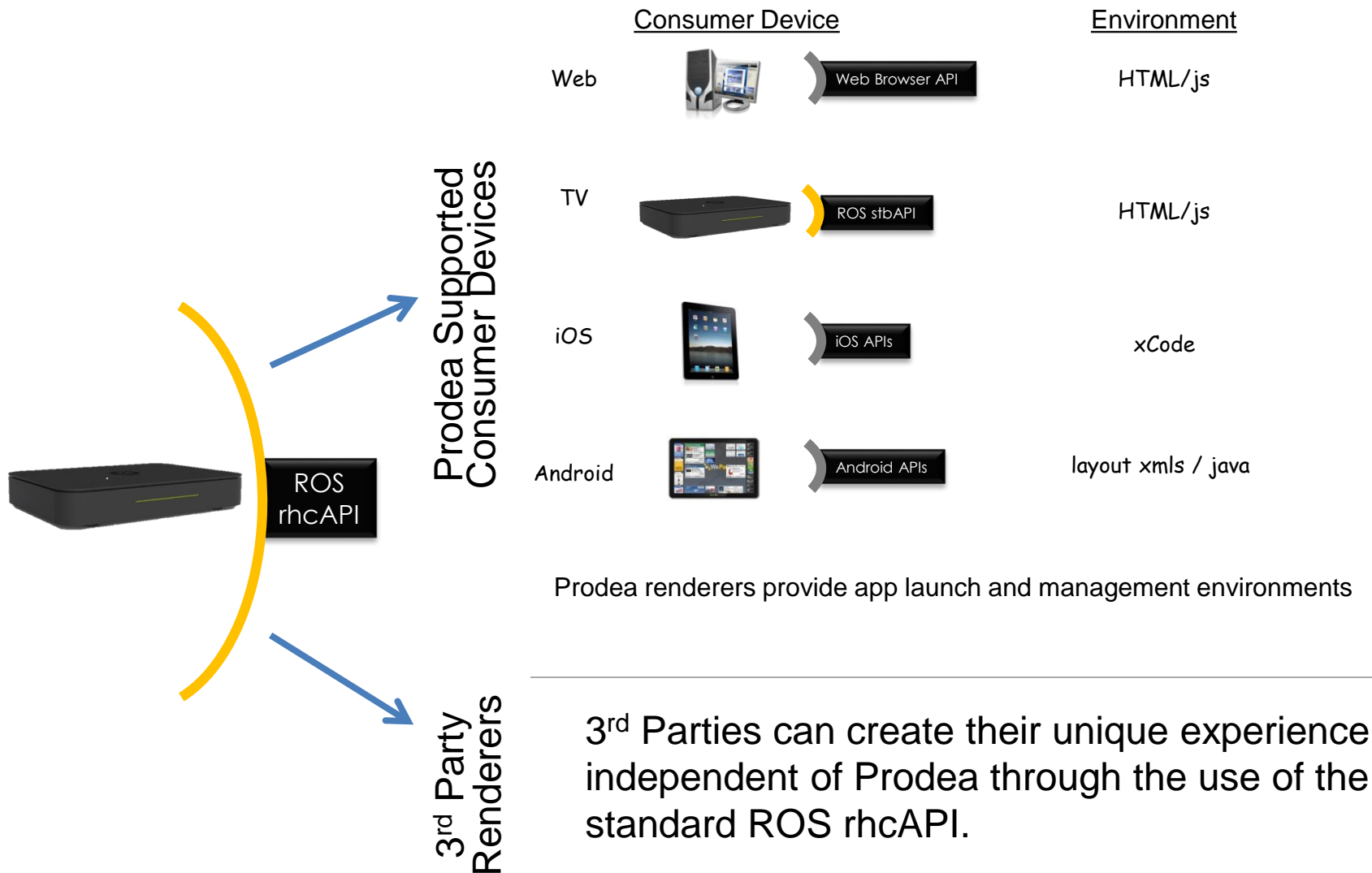
Application Ingestion & Distribution



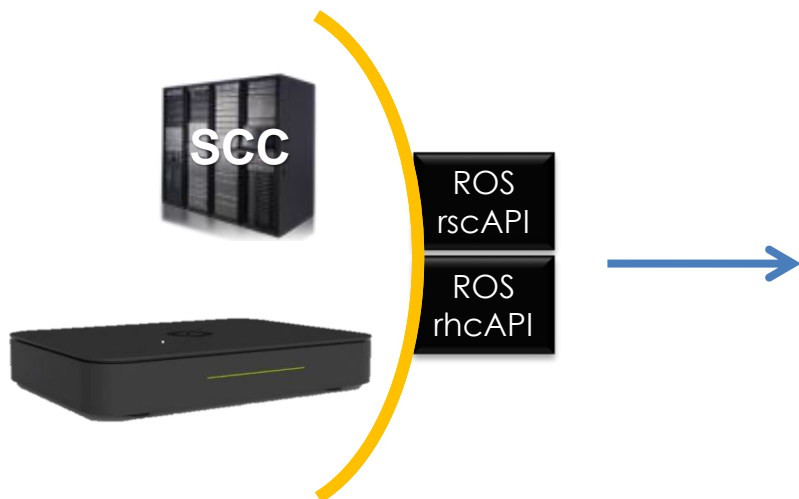
1. App Package is Ingested into SCC
2. Operator enables application availability to the consumer.
3. Application distributed to home
4. Application Visible to Consumer
5. Consumer can consume application



ROS API App Framework



Flexible Integration Points Based Upon Operator Desire



- Security APIs
- Application Framework APIs
- Connected Home Devices
 - Cameras
 - Phones
 - Home Automation Devices
 - Home Security Devices
- Media APIs
 - Personal media
 - Premium media
 - Internet media
 - Metadata
- Voice APIs
 - Call control
 - Voicemail
 - Logs
- VoD APIs
- Supportability APIs
- Whole home router APIs
- Internet Services APIs

Standard APIs Allow for Applications and Cross-Domain Mashups



Additional APIs Available on
Prodea TV Consumer Devices

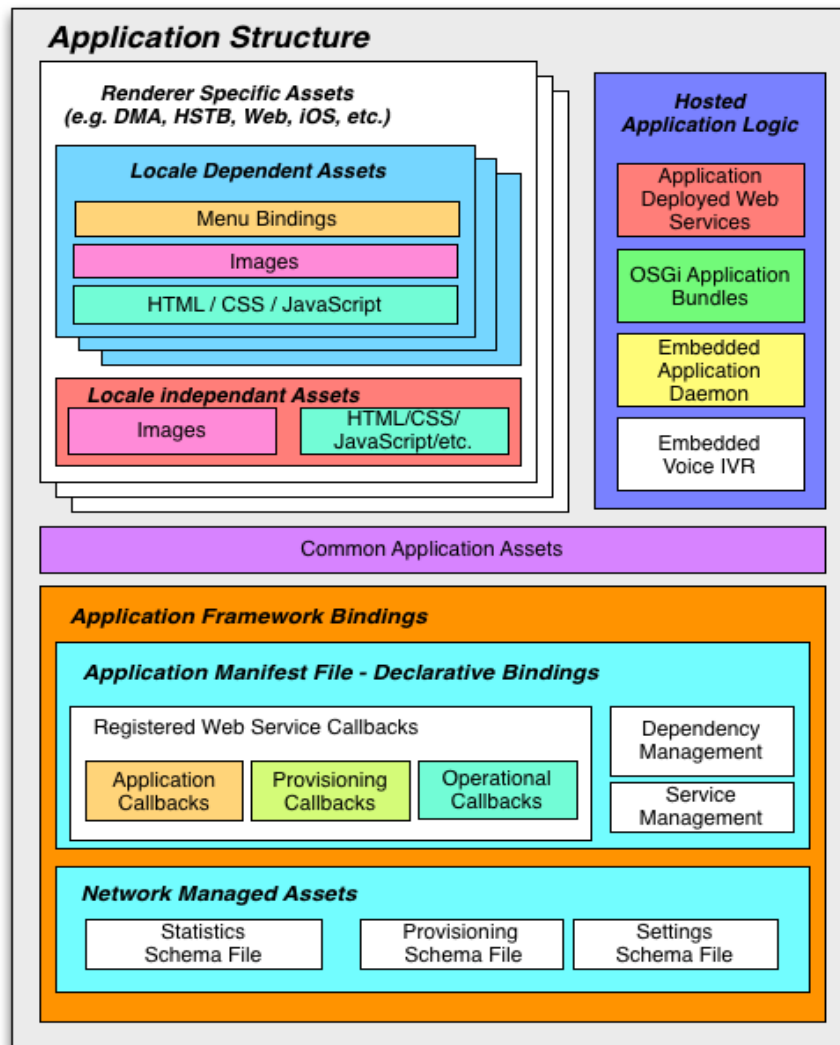
- Language APIs
- Platform APIs
- Audio/Video Control APIs
- Remote Control APIs
- Supportability APIs
 - System Settings
 - Log
 - Firmware upgrade
 - Statistics
- Media Player APIs
- Notification APIs
- Linear TV APIs (only on hybrid STB)
 - General Setup
 - Time Settings
 - Language
 - A/V
 - Dolby Digital
 - DVBS
 - Channel Management
 - Program Info
 - Teletext
 - Closed Caption
 - Parental Control
 - CI+ Encryption
 - EPG
 - PVR
 - Time-shift

Application Bundles

ROS Application Bundles Contain All the Necessary Components to Deploy An Application Into the ROS Service Delivery Platform

The bundle contains

- Administrative Information (name, version number, version requirements, dependencies)
- Consumer Device Availability Information
- Menu information (renderer specific representation, naming)
- Default Persistent Data Information
- Statistic Configuration Information (specifies the statistical information the ROS System will collect for the application)





ROS SDK Overview

	TV	iOS	Android	Web	Home Server
3 rd Party Build environment	Yes	Yes	Yes	Yes	Yes
Emulation / Debugger	Chrome/ Firebug/ Weinre	Apple Emulator	Google Emulator	Web Browser	Eclipse IDE
IDE (rcmd)	Aptana/ Eclipse	XCode	Eclipse	Aptana/ Eclipse	Eclipse
Language	HTML/ JS	Objective-C / HTML	Java / HTML	HTML / JS	Java
Device APIs	HTML5 + JavaScript 1.8.5 + Prodea + jQuery 1.8	Standard iOS	Standard Android	HTML5 + JavaScript 1.8.5 + jQuery 1.8	ROS Web Services + OSGI
Documentation	Avail	Apple Docs	Google Docs	Avail	Avail



Thank You
ProdeaSystems