

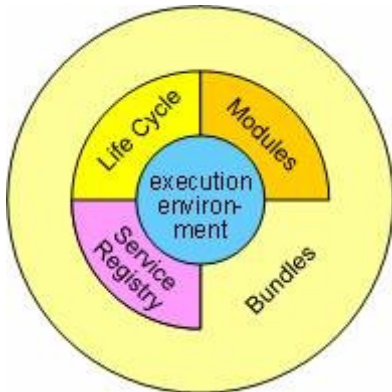
OSGi

OSGi

- OSGi stands for Open Services Gateway Initiative
- <http://www.osgi.org>
- Supported by IBM, Oracle, Red Hat, SAP, etc.
- Dynamic module (component) system for Java

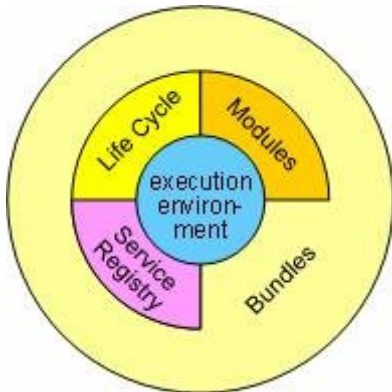
OSGi – Framework (1/2)

- Execution environment:
 - Corresponds to the Java runtime (Standard Edition, Mobile Edition, etc.)
- Bundle:
 - Corresponds to a packaged application/component, that is, a group of Java classes and additional resources
- Module layer:
 - Controls how the classes forming the bundle are being loaded



OSGi – Framework (2/2)

- Life cycle layer:
 - Allows to dynamically manage (install/update/uninstall, start/stop) bundles
- Service registry layer:
 - Provides a model for bundles to dynamically cooperate
 - Defines the notion of *service* (e.g. Log Service, Preferences Service)



OSGi – Implementations

- Implementations of OSGi Release 4 core framework:
 - Eclipse Equinox
 - OSGi-certified
 - Used by the Eclipse IDE
 - Apache Felix
 - Not OSGi-certified
 - Used by several Open Source application servers, such as GlassFish v3 or JOnAS 5

Which Java technologies allow building such a modular system?