

# OSGi Framework 2.0: The Modernization

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**“Ground Rules”**

**Fix "oldness" of the API**

# **Java 5 language features**

**Breaking changes allowed**

**Use versioning of org.osgi.framework  
package to determine behavior for bundle**

**Old and new bundles can run  
together in same framework**

# Change Ideas





**generics (also generify trackers)**

**don't return null**

**replace Dictionary w/ Map**

**services which can return multiple  
instances**

**replace array return value with  
collections (?)**

**replace int masks with enums (?)**

**expand filter operators:**  
**set ops, <, >, !=**

**remove case insensitivity from  
filter evaluation**



# **JSR 294 module support**

**InvalidSyntaxException becomes a  
runtime exception**

**Clearly split the layers of the framework into separate packages (module, lifecycle, service)**

# Radical Thoughts



**Exports have version ranges rather  
than imports**

**Separate the executable unit from  
the installation unit**

**No synchronous events to improve  
concurrency handling**

**Make Bundle.update() truly a two-step operation  
where the first step only prepares and "refresh"  
enacts it**





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