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# Apache Karaf



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ein OSGi Container

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# Agenda

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- Vorstellung
  - OSGi Konzepte
  - Karaf Container
  - Demo Karaf
  - OSGi application best practices
  - Demo Application
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# Vorstellung

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## Christian Schneider

Open Source Architekt bei Talend



Apache Karaf: Committer

Apache CXF: Committer und PMC

Apache Camel: Committer und PMC

OPS4j Committer

## Achim Nierbeck

Solution Architekt bei ISB AG



Apache Karaf, Committer und PMC

OPS4j Committer und Pax Web Projekt Lead

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# The Apache way

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## Community

Many of us are more effective than one of us

## Merit

Those who have proven they can do, get to do

## Openness

Technical decisions are made public

## Pragmatism

All ASF Projects use the Apache License

## Charity

The ASF core mission is providing software for the public good

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## Features

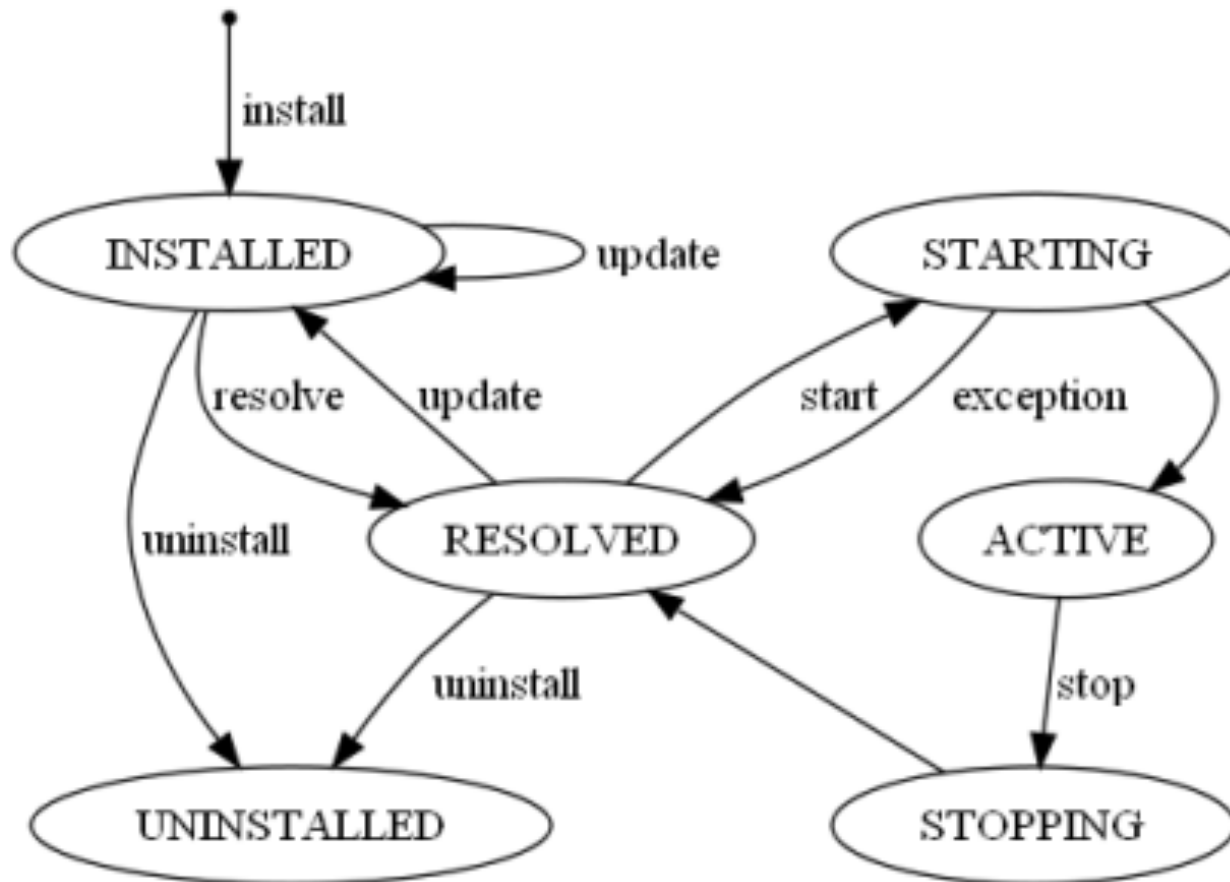
- Bundle Classloader (explizite Imports / Exports)
- Lifecycle
- Service Registry

## Erweiterungen - Compendium Dienste

- Blueprint
  - Configuration Adminservice
  - Http-Service
  - Web Application Bundle
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# OSGi - Life Cycle

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## Wichtigste Frameworks

- Apache Felix
  - Eclipse Equinox
  - Knopflerfish
  - ProSyst - Kommerziell
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Container ?

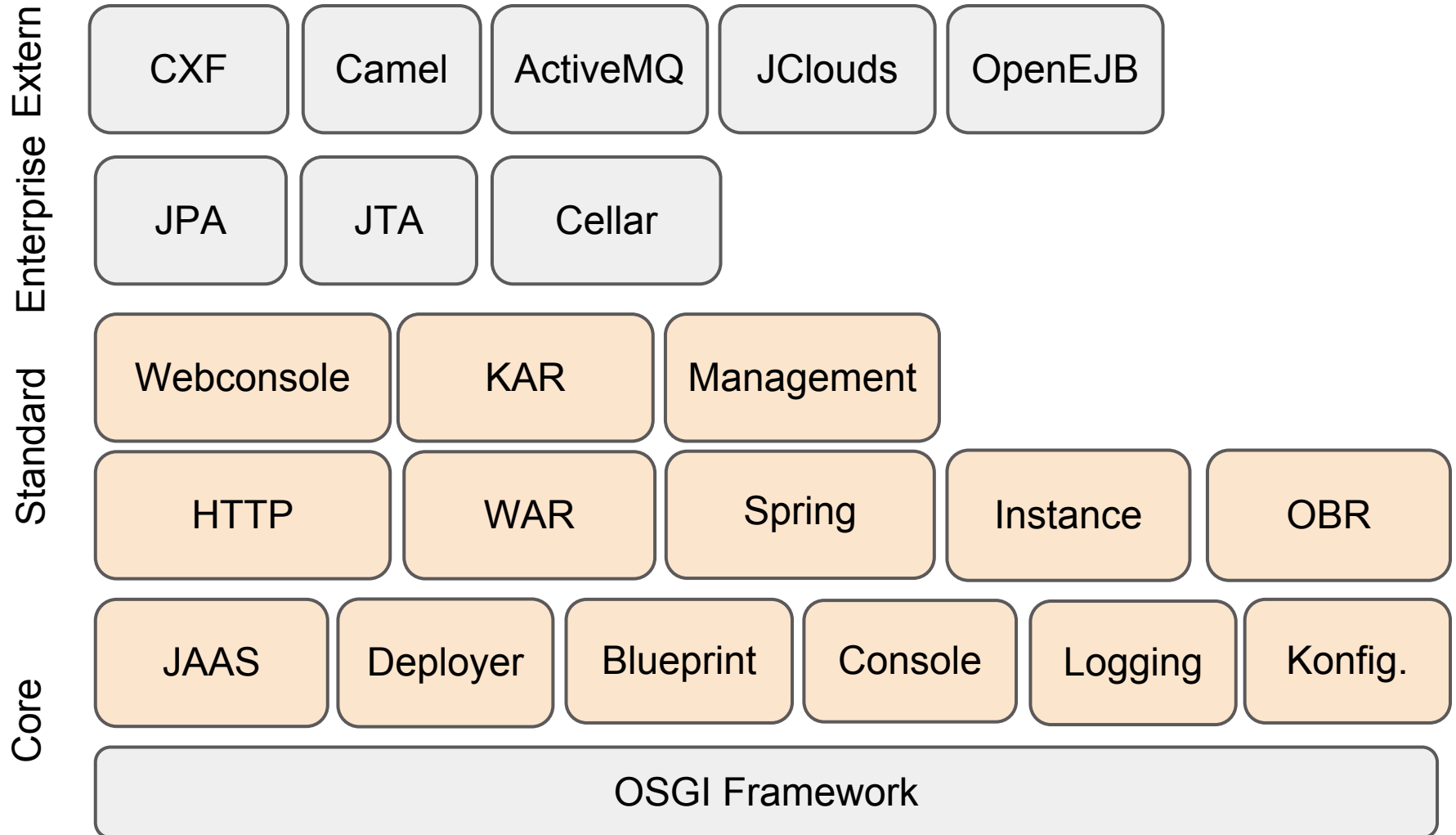
Framework ?

Extras ?

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# Apache Karaf



# Apache Karaf

in Action



- Apache Geronimo
- Apache Servicemix
- IBM Websphere
- JBoss SwitchYard
- Talend ESB - Kommerzieller Support
- Fuse ESB - Kommerzieller Support



# Apache Karaf

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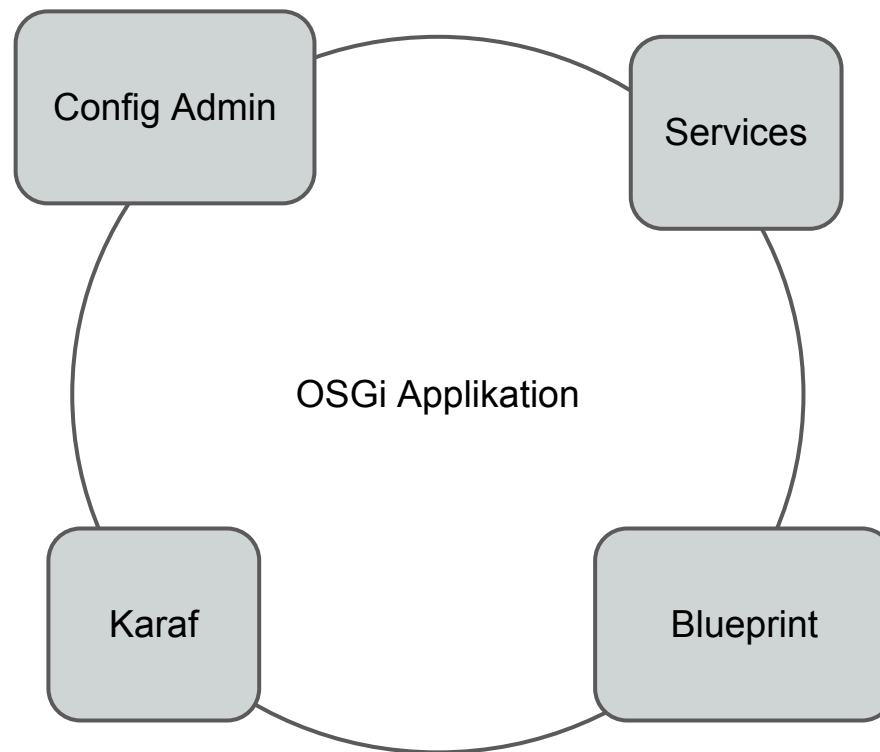


# DEMO

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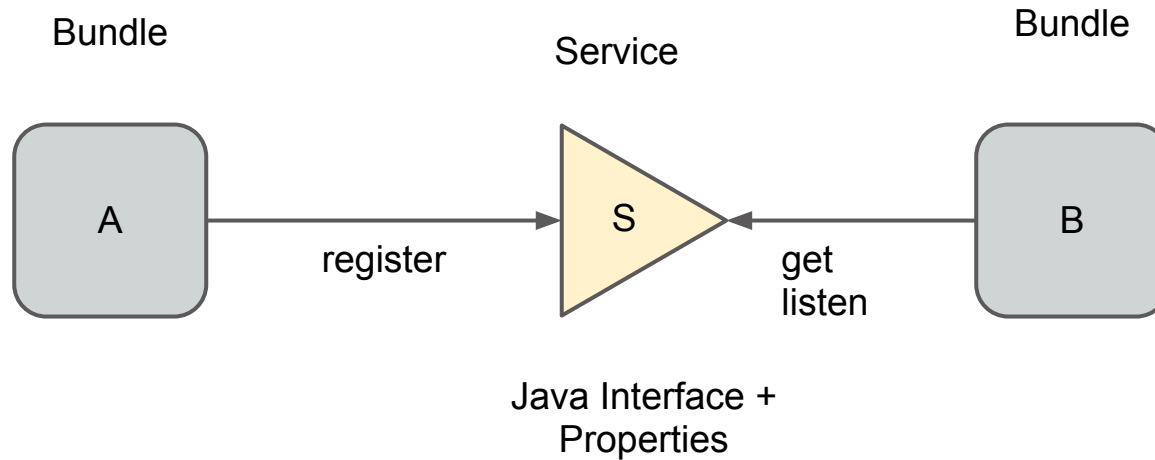
# OSGi Best practices mit Karaf

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# OSGi Services

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# OSGi Services

## mit Blueprint



## Provider

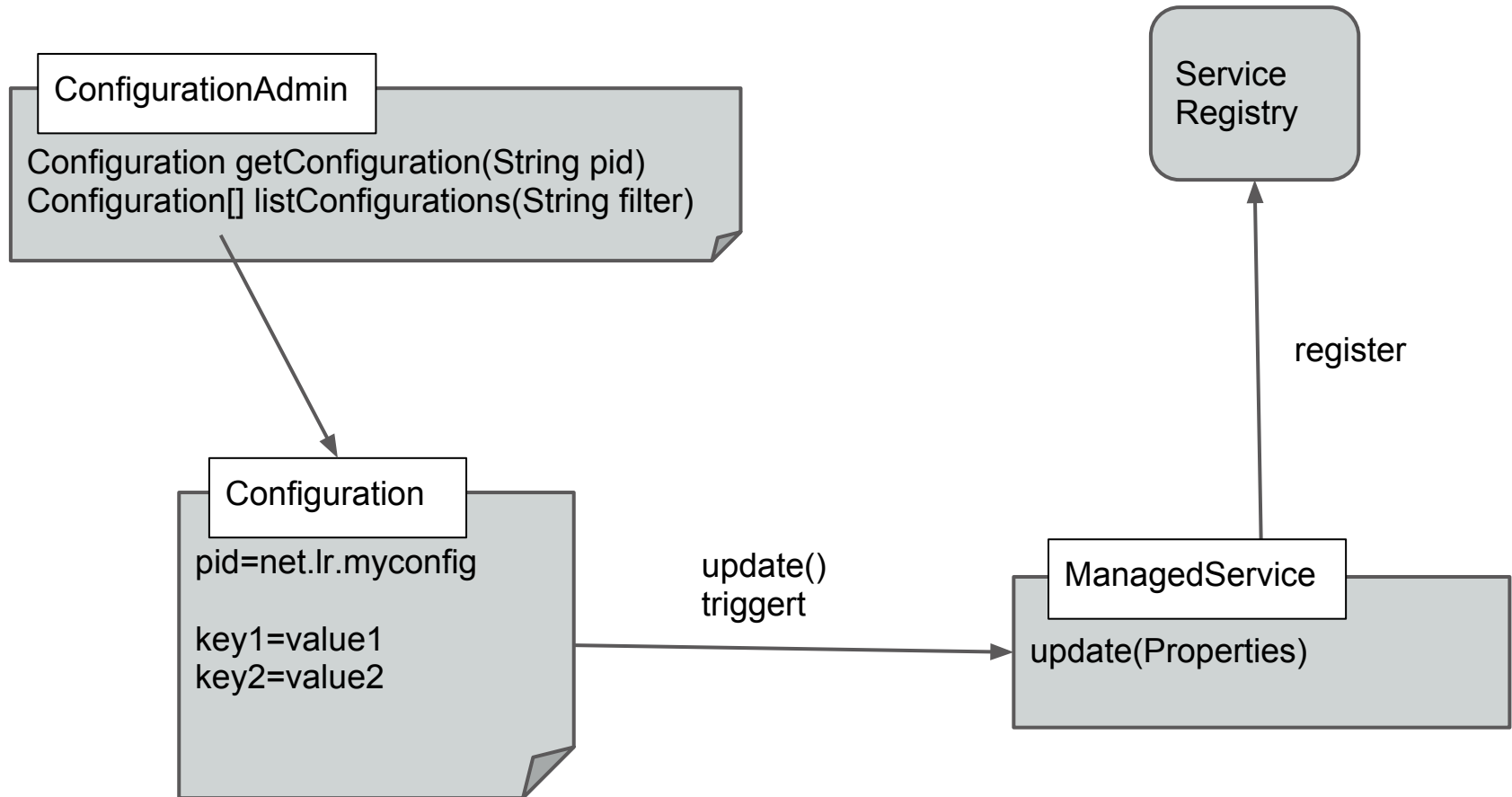
```
<bean id="taskService" class="net.lr...TaskServiceImpl" />  
<service ref="taskService" interface="net.lr.tasklist.model.TaskService"  
/>
```

## Consumer

```
<reference id="taskService" availability="mandatory" interface="net.lr.  
tasklist.model.TaskService" />
```

**mandatory:** Context Startet erst wenn Service gefunden wird  
Stoppt wenn Service verschwindet

# ConfigAdmin Service

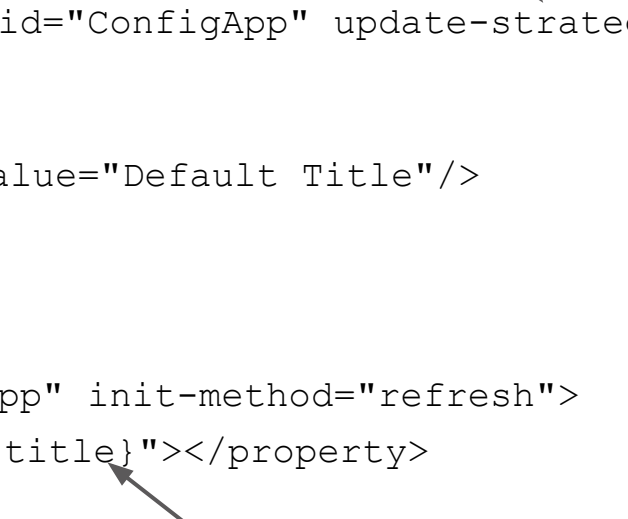


# ConfigAdmin Service in Blueprint

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Kontext Restart bei Config-Änderung



The diagram consists of two text labels with arrows pointing to specific parts of the XML code block. The label "Kontext Restart bei Config-Änderung" has an arrow pointing to the `update-strategy="reload"` attribute in the `<cm:property-placeholder>` tag. The label "Keys als Placeholder verfügbar" has an arrow pointing to the `${title}` placeholder in the `<property>` tag.

```
<cm:property-placeholder persistent-id="ConfigApp" update-strategy="reload">
  <cm:default-properties>
    <cm:property name="title" value="Default Title"/>
  </cm:default-properties>
</cm:property-placeholder>

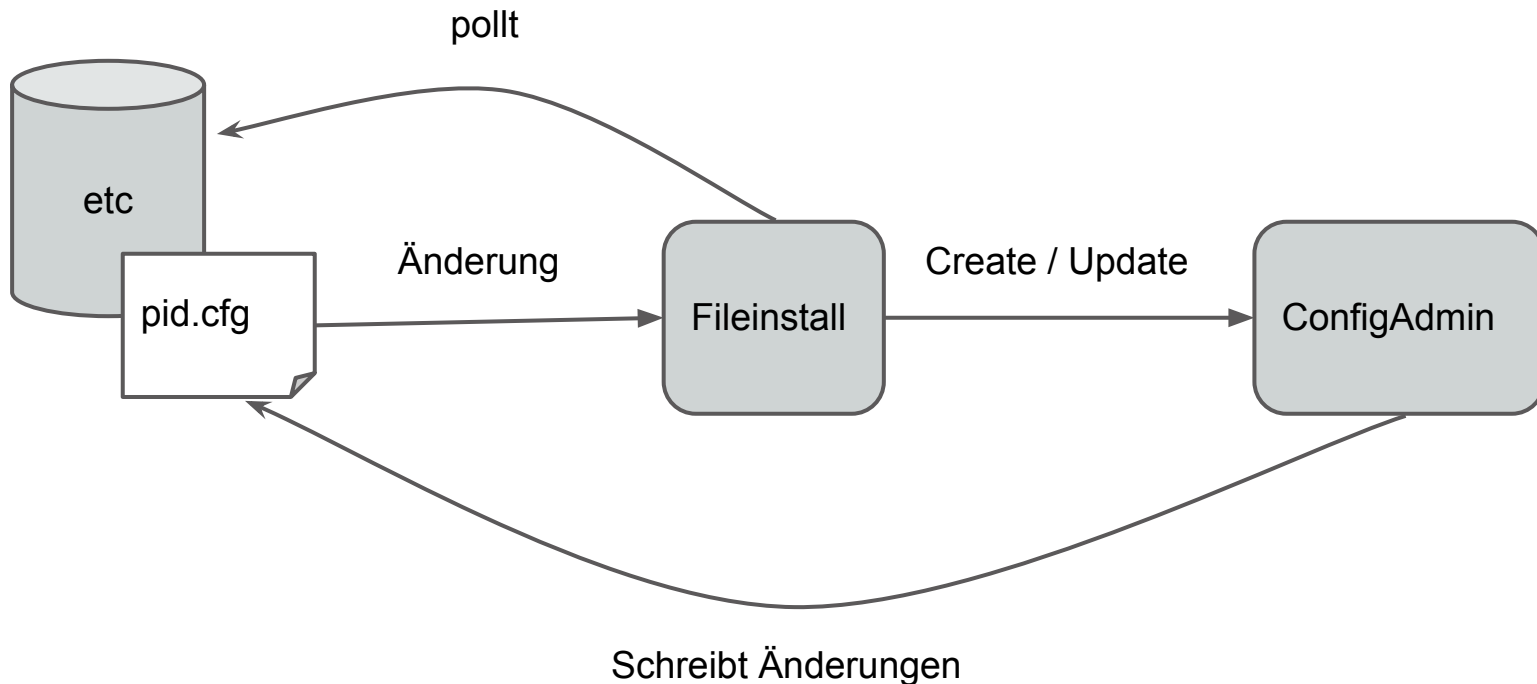
<bean id="myApp" class="net.lr...MyApp" init-method="refresh">
  <property name="title" value="${title}"></property>
</bean>
```

Keys als Placeholder verfügbar



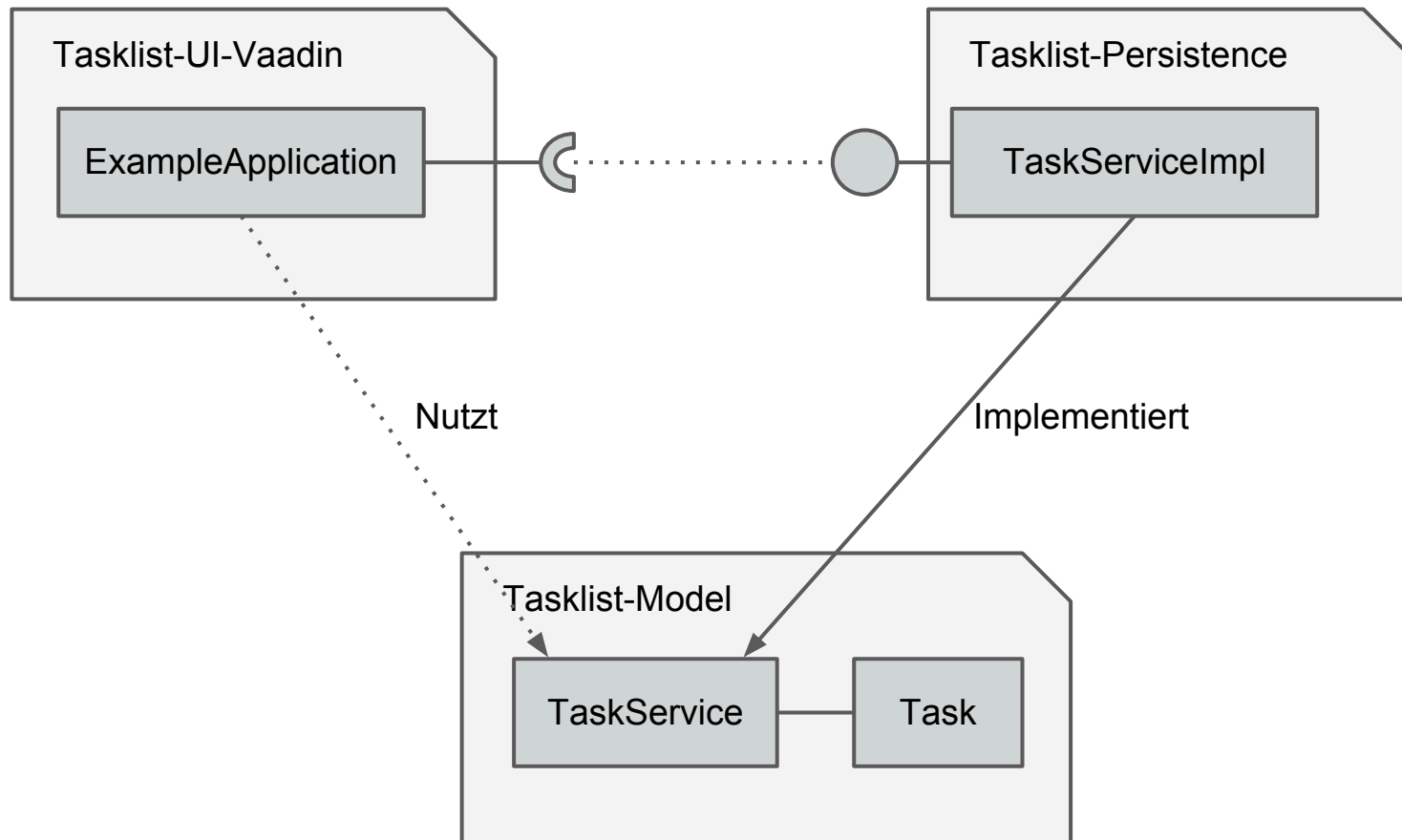
# ConfigAdmin in Karaf

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# Tasklist Beispiel

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# DEMO

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# Fragen?

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(c) Damian Navas

# Links

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Christian Schneider

<http://www.liquid-reality.de>

[@schneider\\_chris](https://twitter.com/schneider_chris)

<https://github.com/cschneider>

Achim Nierbeck

<http://notizblog.nierbeck.de/>

[@anierbeck](https://twitter.com/anierbeck)

<https://github.com/ANierbeck>

Apache Karaf <http://karaf.apache.org/>

Apache Felix <http://felix.apache.org/>

Apache Aries Blueprint <http://aries.apache.org/modules/blueprint.html>

OSGi - Alliance <http://www.osgi.org>

The Apache way <http://theapacheway.com/>

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