



**Fun
with Remote Services**

ECF-Project

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ECF-Project

- 3.4 is out the door
- ECF Wiki
<http://wiki.eclipse.org/ECF>
- Come and join us
- ECF BOF 8-9 room 5



Buckle Up ..

- The 8 Fallacies and ECF
- OSGi & Service Architecture
- Remote Services
- Remote Service Discovery
- Demo
- Questions



1. The network is reliable.
2. Latency is zero.
3. Bandwidth is infinite.
4. The network is secure.
5. Topology doesn't change.
6. There is one administrator.
7. Transport cost is zero.
8. The network is homogeneous.



8 fallacies of distributed
computing

OSGi Services

- Well Known
- Reduce Dependencies
- Lightweight
- Dynamic



OSGi Services

- Well Known
- Reduce Dependencies
- Lightweight
- Dynamic



```
Properties props = new Properties();  
bundleContext.registerService(QuoteService.class.getName(),  
    new StarWarsQuotes(), props);
```

Code Example Service Consumer

```
Activator.getContext().addServiceListener(new ServiceListener() {

    @Override
    public void serviceChanged(final ServiceEvent event) {

        /*
         * Do only for registrations
         */
        if (event.getType() == ServiceEvent.REGISTERED) {

            Object obj = Activator.getContext().getService(event.getServiceReference());

            /*
             * If we know this service
             */
            if (obj instanceof QuoteService) {
                final QuoteService service = (QuoteService) Activator.getContext().getService(
                    event.getServiceReference());

                final String sLabel = service.getServiceDescription();
                final String sQuote = service.getRandomQuote();
            }
        }
    }
}
```


OSGi services are a lot of fun but so, uh...

Local?



OSGi Remote Service Specification

Call your mother!

OSGi Remote Service Specification

~~Call your mother!~~

OSGi Remote Service Specification

~~Call your mother!~~

OSGi Official Remote
Services Specification:



Define a service property,
let say, eehm:

`service.exported.interfaces`

Code Example Remote Service Provider

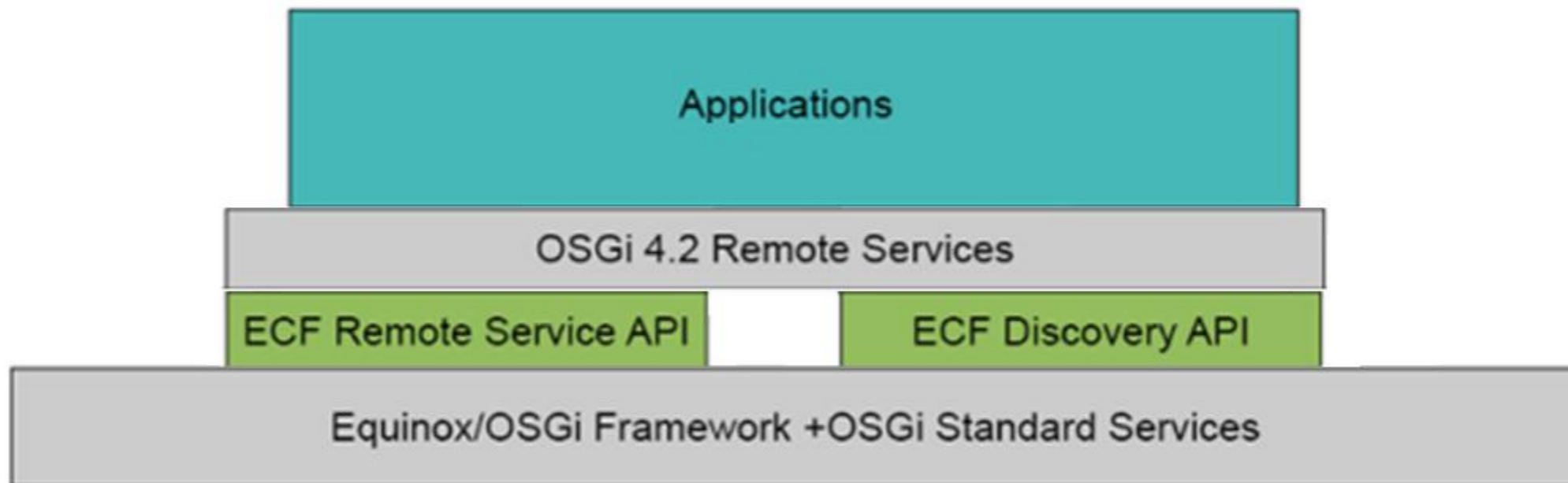
```
Properties props = new Properties();  
props.put("service.exported.interfaces", QuoteService.class.getName());  
bundleContext.registerService(  
    QuoteService.class.getName(), new StarWarsQuotes(), props);
```

Magic?



ECF Magic!

OSGi 4.2 Remote Services with ECF



ECF API



Standards-Defined
components



Application

Demo



References

The ECF Project

<http://www.eclipse.org/ECF>

OSGi Specifications

<http://www.osgi.org/Specifications/HomePage>

The Fallacies of Distributed Computing Explained

<http://www.rgoarchitects.com/Files/fallacies.pdf>