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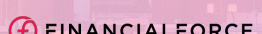

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Barcelona 2018

Using & Building Lightning Service Components

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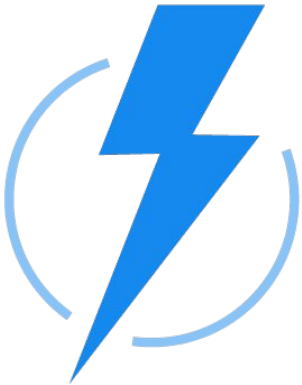
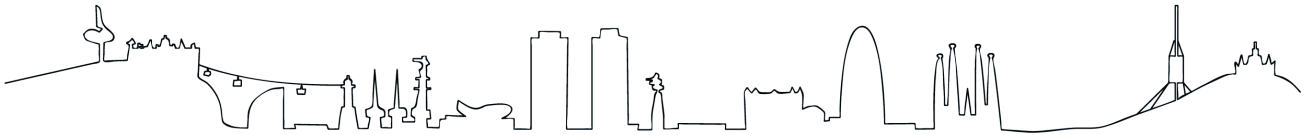
Agenda

Lightning service components

Base service components

How to build your own





Lightning Service Components

Provides services (API)

Generic & reusable

No graphical representation

Using Base Service Components

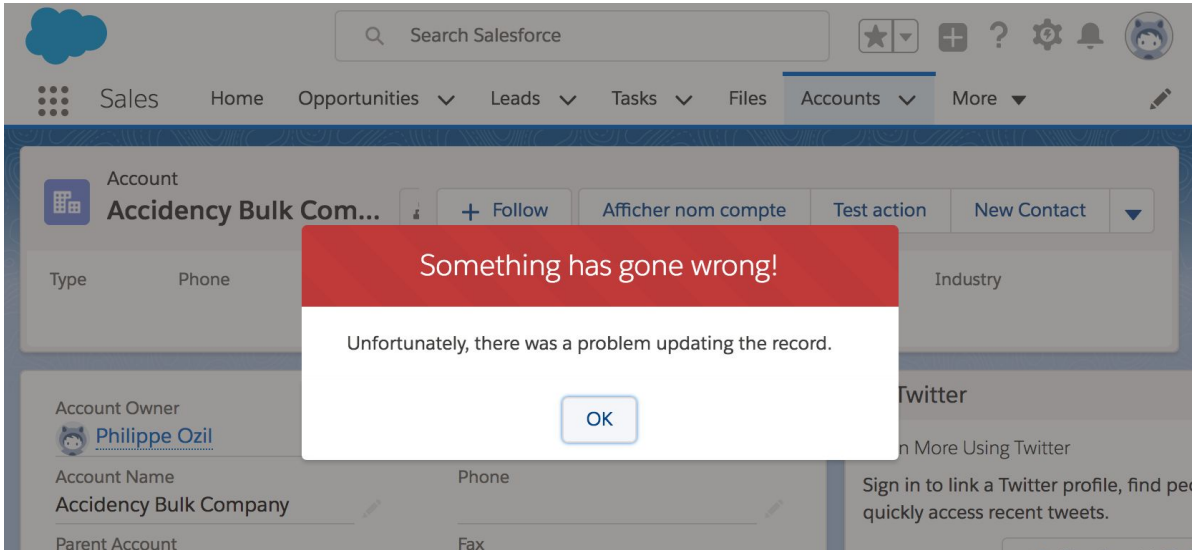
Base Service Components

As of Spring ’18:

- Lightning Data Service
- Notification library
- Overlay library
- Workspace API
- Omni-Channel Toolkit API (Beta)
- Utility Bar API

and more to come…

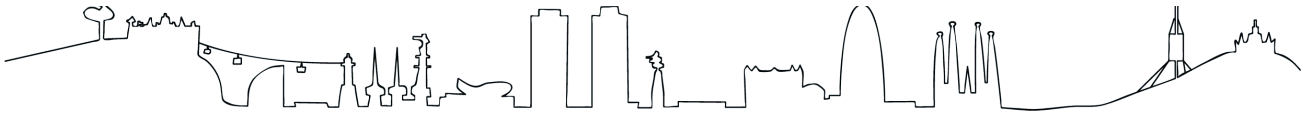
Example: Notification Library



Example: Notification Library

```
<aura:component>
    <lightning:notificationsLibrary aura:id="notifLib"/>
    <lightning:button name="notice" label="Show Notice" onclick="{!c.handleShowNotice}"/>
</aura:component>
```

```
handleShowNotice : function(component, event, helper) {

}
```



Building a Custom Service Component

Identifying a Custom Service Candidate

Can it be reused?

- simplifies component's code
- avoids code duplication

Calling a server-side action is a great match!

+ tens of line of code

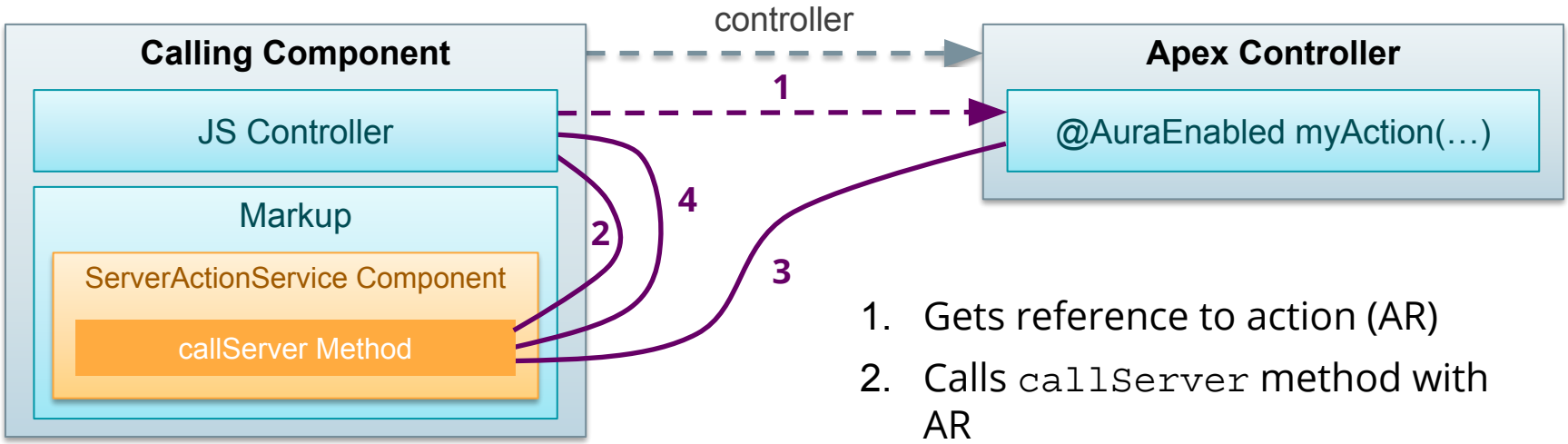
```
myServerSideAction : function(cmp, someParams) {
    var action = cmp.get("c.myAction");

    action.setParams(someParams);

    action.setCallback(this, function(response) {
        var state = response.getState();
        if (state === "SUCCESS") {
            // Do something with response
        }
        else if (state === "ERROR") {
            var errors = response.getError();
            if (errors) {
                // Handle errors
            } else {
                // Handle unknown error
            }
        }
    });

    $A.enqueueAction(action);
}
```

Introducing the **Server Action Service**
(~100 lines of JS)

Server Action Service

Architecture

https://github.com/pozil/server-action-service



1. Gets reference to action (AR)
2. Calls `callServer` method with AR
3. Executes action and gets response
4. Calls success or error callbacks + does error notification

Server Action Service

https://github.com/pozil/server-action-service

Using the service (<10 lines of code)

```
<aura:component controller="MyApexController">

    ...
</aura:component>

callMyServerSideAction : function(cmp, someParams) {

}
```

Architecture Bad & Best Practices (1/2)

When building your service…

⊗ Avoid inheritance

```
<aura:component extends="c:myParentComponent">
    ...
</aura:component>
```

✓ Prefer composition

```
<aura:component>
    <c:myServiceComponent aura:id="myService"/>

    ...
</aura:component>
```

Architecture Bad & Best Practices (2/2)

Expose services via...

⊗ Events

```
<aura:handler event="c:myServiceRequestEvent" action="{!c.doSomething}"/>
<aura:registerEvent name="myServiceNotificationEvent" type="c:myServiceNotificationEvent"/>
```

✓ Methods + optional callback functions

```
<aura:method name="doSomething" action="{!c.doSomething}">
    <aura:attribute name="params" type="Map"/>
    <aura:attribute name="successCallback" type="Function"/>
</aura:method>
```

Closing words

Overview of Lightning Service Components

Efficient and safe way to reuse code

Use them and build your own!

Q & A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