



‘Making the most of Magento APIs’

Ashley Schroder

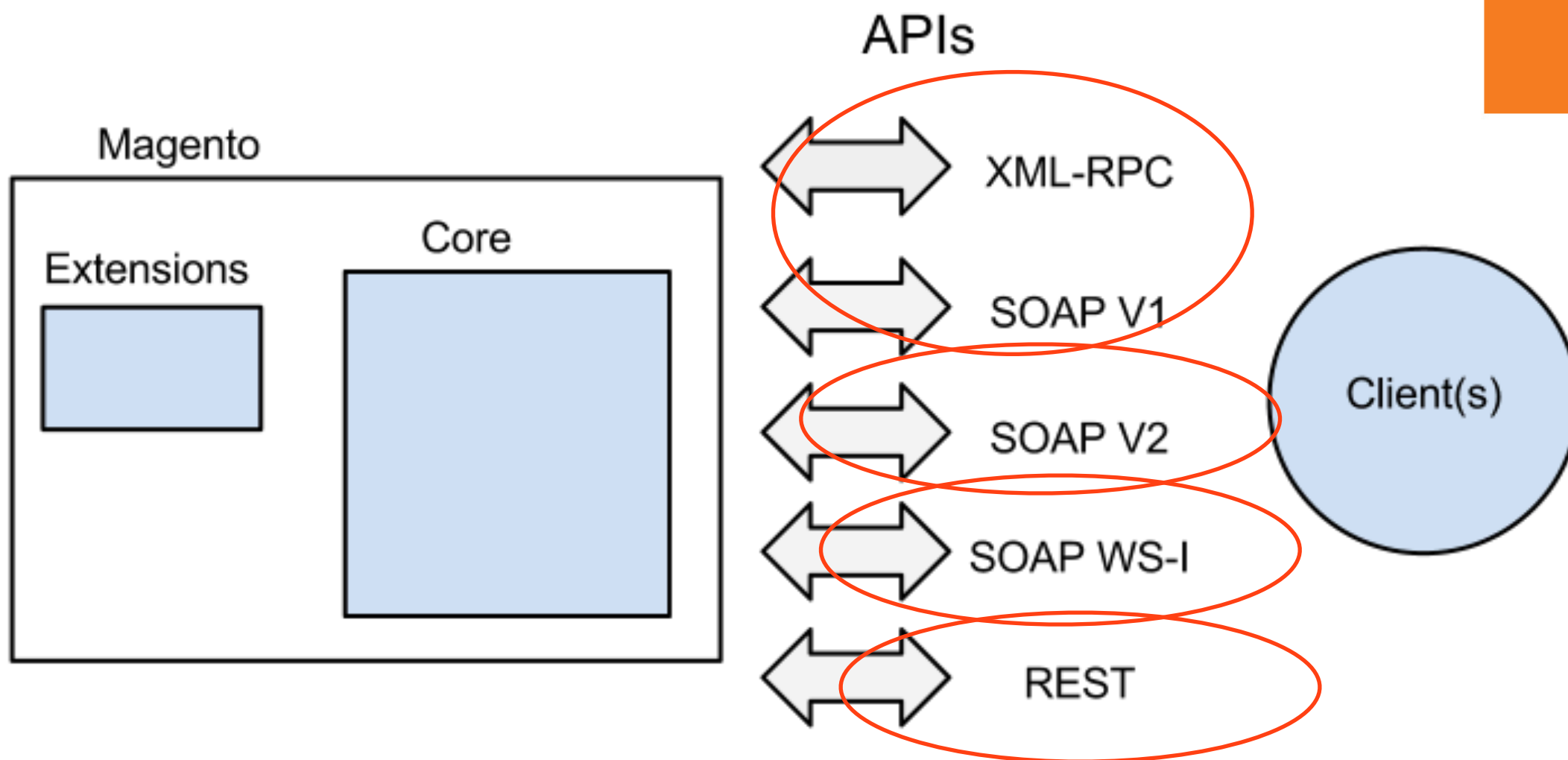
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OrderPipe.com



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Introducing the API



What's SOAP?

http://yourstore.com/api/v2_soap?wsdl=1

```
<?xml version="1.0" encoding="UTF-8"?>
<wsdl:definitions xmlns:typens="urn:Magento"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:soapenc="http://schemas.xmlsoap.org/soap/
  encoding/"
  xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
  name="Magento" targetNamespace="urn:Magento">
  <wsdl:types>
    <xsd:schema
      xmlns:xsd="http://www.w3.org/2001/XMLSchema"
      targetNamespace="urn:Magento">
      <xsd:complexType name="associativeEntity">
        <xsd:sequence>
          ...
        </xsd:sequence>
      </xsd:complexType>
    </xsd:schema>
  </wsdl:types>
</wsdl:definitions>
```



But, you don't care...

PHP

```
<?php  
  
$client =  
    new SoapClient('http://www.yourstore.com/api/soap?wsdl');  
$session = $client->login('user', 'key');  
$result = $client->call($session, 'customer_group.list');  
var_dump($result);
```

Java*

*JAX-WS,
1.7rc patched

```
public class MagentoApiHelloWorld {  
  
    public static void main(String[] args) {  
  
        MagentoService service = new MagentoService();  
        MageApiModelServerWsiHandlerPortType port =  
            service.getMageApiModelServerWsiHandlerPort();  
        port.startSession();  
        LoginParam parameters = new LoginParam();  
        parameters.setUsername("user");  
        parameters.setApiKey("key");  
        LoginResponseParam loginResponse = port.login(parameters);  
  
        CustomerGroupListRequestParam request = new CustomerGroupListRequestParam();  
        request.setSessionId(loginResponse.getResult());  
        CustomerGroupListResponseParam customerGroupList =  
        port.customerGroupList(request);  
  
        List<CustomerGroupEntity> arrayOfCustomerGroups =  
            customerGroupList.getResult().getComplexObjectArray();  
        for (CustomerGroupEntity customerGroupEntity : arrayOfCustomerGroups) {  
            System.out.println(customerGroupEntity.getCustomerGroupCode());  
        }  
    }  
}
```

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New in 1.6: WS-I

- Enable in Admin

Magento Core API

General Settings	
Default Response Charset	<input type="text" value="UTF-8"/>
Client Session Timeout (sec.)	<input type="text" value="3600"/>
WS-I Compliance	<input type="text" value="Yes"/>

- WS-I compliance allows nifty tools to do all the hard work:

```
wsimport -d generated \
```

```
"http://www.yourstore.com/api/v2_soap?wsdl=1"
```

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New in 1.7: REST

- New RESTful API, supports OAuth!

ports	System
	My Account
	Notifications
	Tools
	Web Services
	Design
	Import/Export
	Manage Current
	Transactional E
	Custom Variable
	Permissions
	Magento Connect
	Cache Management
	Index Management
	Manage Stores
	Order Statuses
	Configuration

The screenshot shows the Magento admin interface. On the left, a sidebar menu lists various system components. A dropdown menu is open under 'Web Services', showing the following REST API endpoints:

- SOAP/XML-RPC - User
- SOAP/XML-RPC - Role
- REST - Roles
- REST - Attributes
- REST - OAuth Consumer
- REST - OAuth Authoriz
- REST - My Apps

The main content area displays the 'LOG IN AS A CUSTOMER' section, which includes a login form with fields for 'Email Address' and 'Password'.

The screenshot shows an 'Authorize application' dialog box. The text inside reads:

test request access to your account
After authorization application will have access to you account.

At the bottom, there are two buttons: 'Authorize' and 'Reject'.

When to use an API?

- Version Agnostic
- No installation required
- Less Magento know-how required
- Independent security
- Logic hosted away from store, closed source
- Supports SAAS business models, revenue

Why not use APIs?

- No UI, No Events - limits usefulness
- APIs don't expose all the available data
(though you can extend them)
- Adds complexity - more moving parts
- Slower - latency and overhead



Security

[Back](#) **OrderPipe Settings**

It looks like the Magento API Key you are using is weak. You should use more than 6 characters and at least a letter and a number. Everything will still work, but it'd be wise to change it to something more secure.

Order Source Added. Requesting 30 days of history.

Current Order Sources

  **Magento**[®]
www.weakpasswordstore.com



Roles/Authentication

- Extensions give full access to your store
 - can you trust the author?
 - can you audit the code?
- API's restrict 3rd party access through roles, grant smallest possible set.

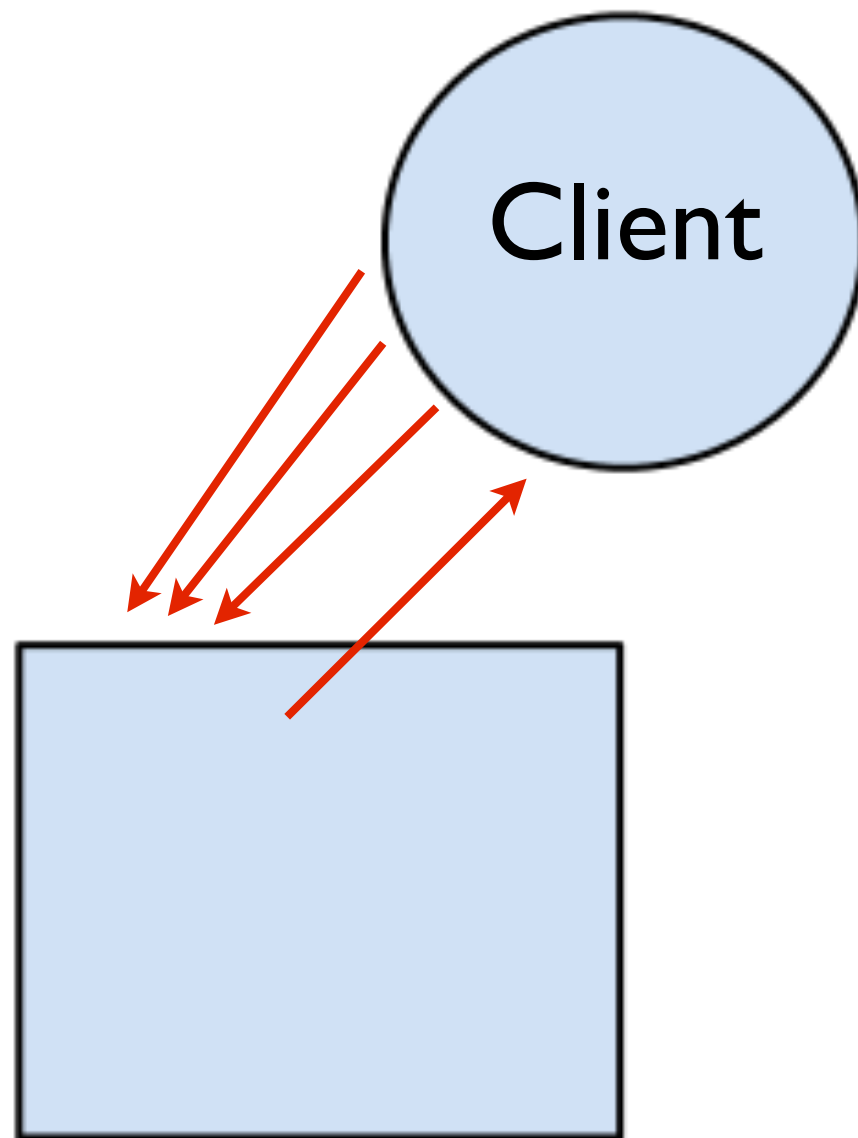
Performance

- Clients can run massive queries!
- No throttling (as there is with other APIs)
- Unexpected large responses can also bog down the client - detect and back off.

```
if (request.tooManyRetries()) {  
    if (getOrderRequestService().split(request)) {  
        return true;  
    } else {  
        return false;  
    }  
}
```

API Patterns

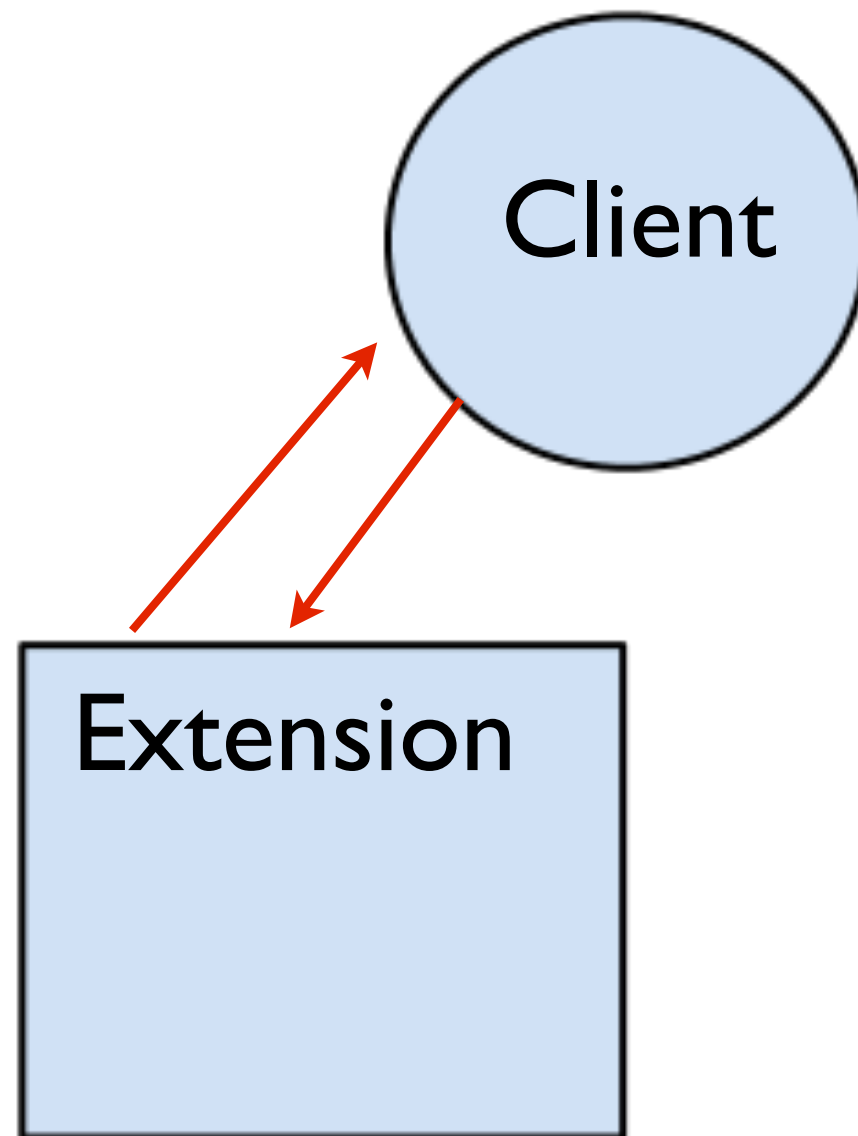
Polling



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API Patterns

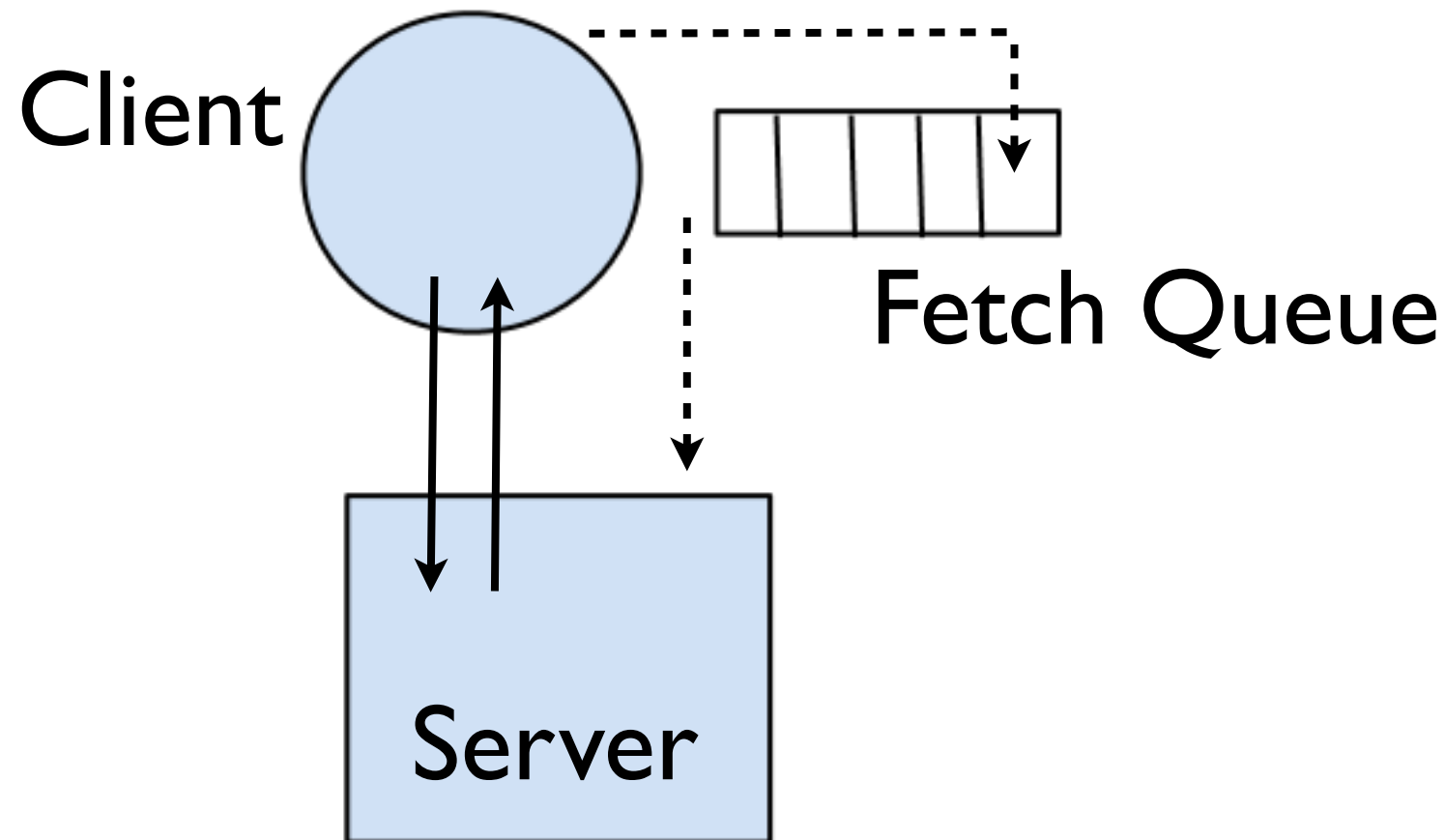
Pinging



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Asynchronous Fetch

- Use the API's to fetch changed keys
- Enqueue data fetches in batches



Real example: Daily Customer Export

```
$client =  
    new SoapClient('http://www.yourstore.com/magento/api/soap?wsdl');  
$session = $client->login('TEST_USER', 'TEST_PASSWORD');  
  
$since = date("Y-m-d", strtotime('-1 day'));  
$filters = array('updated_at' => array('from' => $since));  
  
$result = $client->call($session, 'customer.list', array($filters));  
  
$email = "New customers since: $since\n";  
foreach ($result as $customer) {  
    $email .= $customer["firstname"] . " ".  
             $customer["lastname"] . ", ".  
             $customer["email"] . "\n";  
}  
  
mail("customer-manager@yourstore.com", "Customer report for: $since", $email);
```



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Real REST example: List products as customer

```
oauth \  
  --verbose \  
  --query-string \  
  --consumer-key v484mnii2jyswedm6uo2cfcjay7uy49snws \  
  --consumer-secret koay6845che7giy5lr17gnrhckkbhf8h5 \  
  --access-token-url http://www.yourstore.com/magento/oauth/token \  
  --authorize-url http://www.yourstore.com/magento/oauth/authorize \  
  --request-token-url http://www.yourstore.com/magento/oauth/initiate \  
  authorize
```

```
oauth \  
  --consumer-key v484mnii2jyswedm6uo2cfcjay7uy49snws \  
  --consumer-secret koay6845che7giy5lr17gnrhckkbhf8h5 \  
  --token aqvlfv9tuexn0mqiydgkaff4ixxg8743c \  
  --secret g9kyz8c7zv868d58eav1muih3gxvq763 \  
  --uri http://www.yourstore.com/magento/api/rest/products \  
  debug
```

```
curl \  
  -H "Accept: application/xml" \  
  "http://www.yourstore.com/magento/api/rest/products?  
oauth\_consumer\_key=..."
```

API missing?

- Easy to create your own APIs
 - ...but requires 3rd party install
- Check out Alan Storm's Mercury SOAP API
 - adds several should-be-in-core features
 - highlights: pagination
- Fabric - combined API with eBay

Questions? Comments?

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 - aschroder.com
 - orderpipe.com
 - [@aschroder](https://twitter.com/aschroder)
- Slides/Notes/Code
 - aschroder.com/presentations
 - github.com/aschroder/API-presentation2012

