

Creating and Consuming Web Services in PHP 5

Central Florida PHP

Creating and Consuming Web Services in PHP 5

- Web Service Basics
- Using Existing Web Services
- ~~Rolling Your Own Web Service~~

Web Service Basics

What are Web Services?

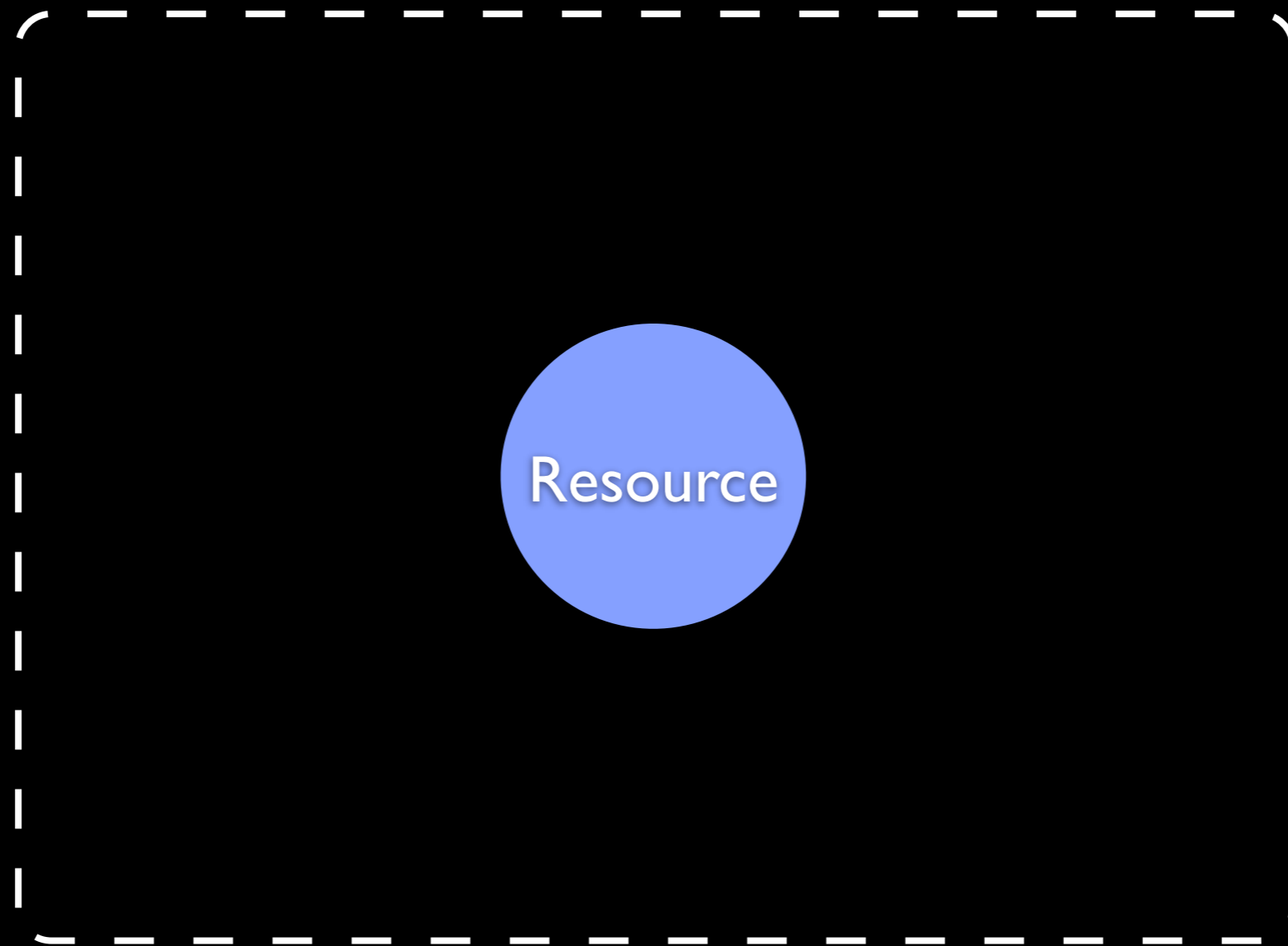
- According to Wikipedia
 - “Web Services are frequently just Web APIs that can be accessed over a network, such as the Internet, and executed on a remote system hosting the requested services”

What are Web Services?

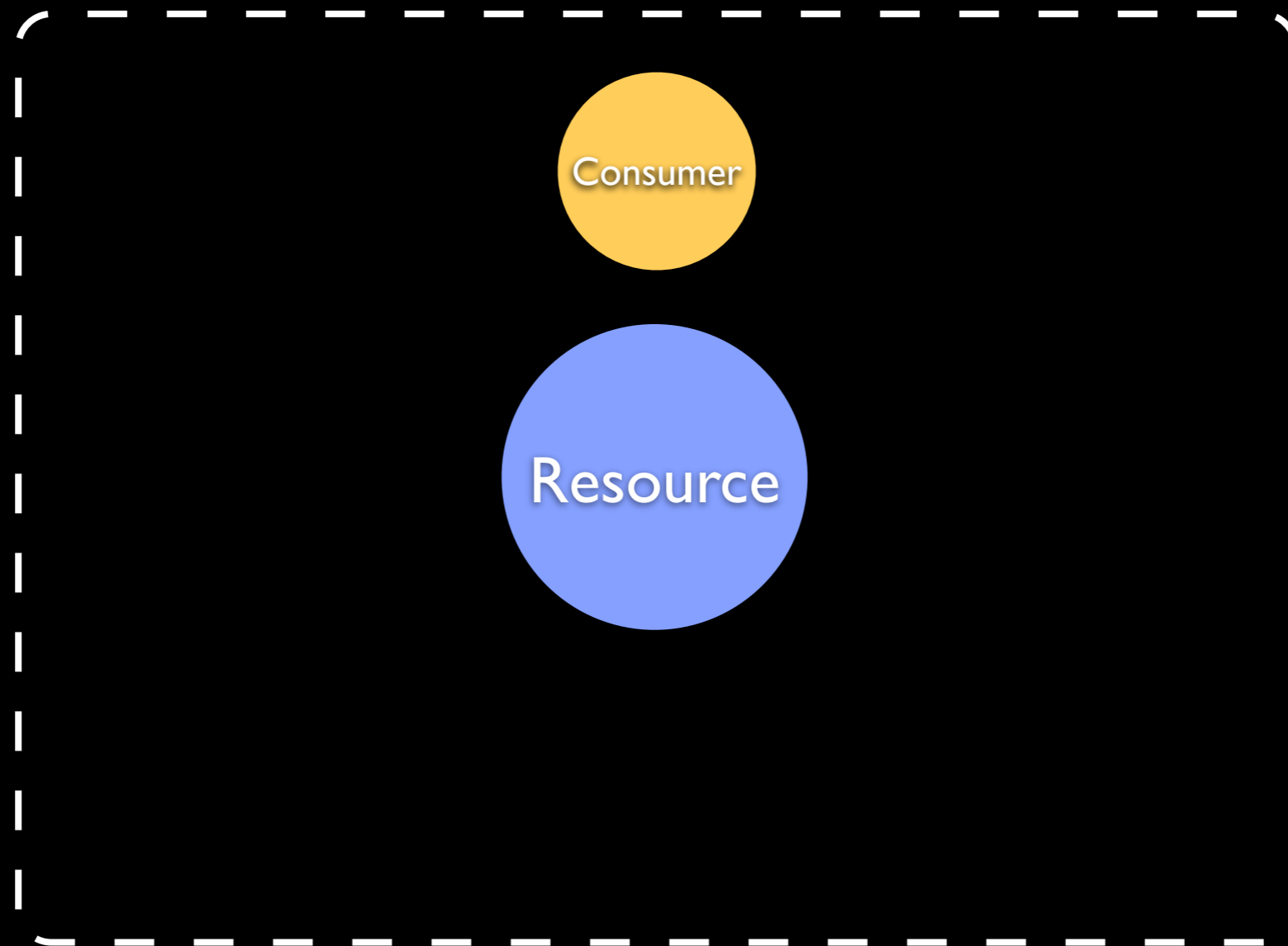
- ...in fewer words
 - “Web Services are a way to send and receive information between remote programs.”

What are Web Services Good For?

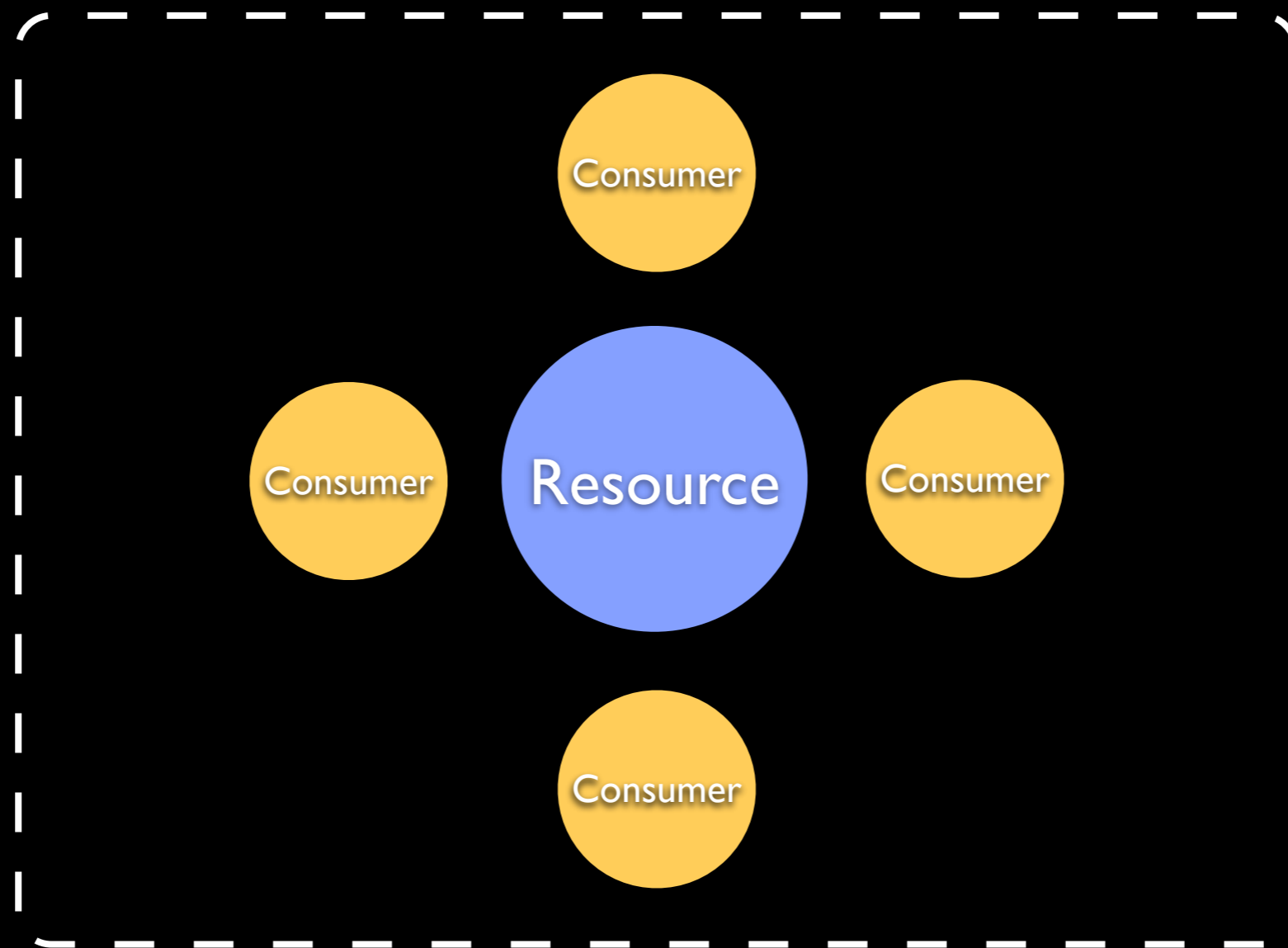
What are Web Services Good For?



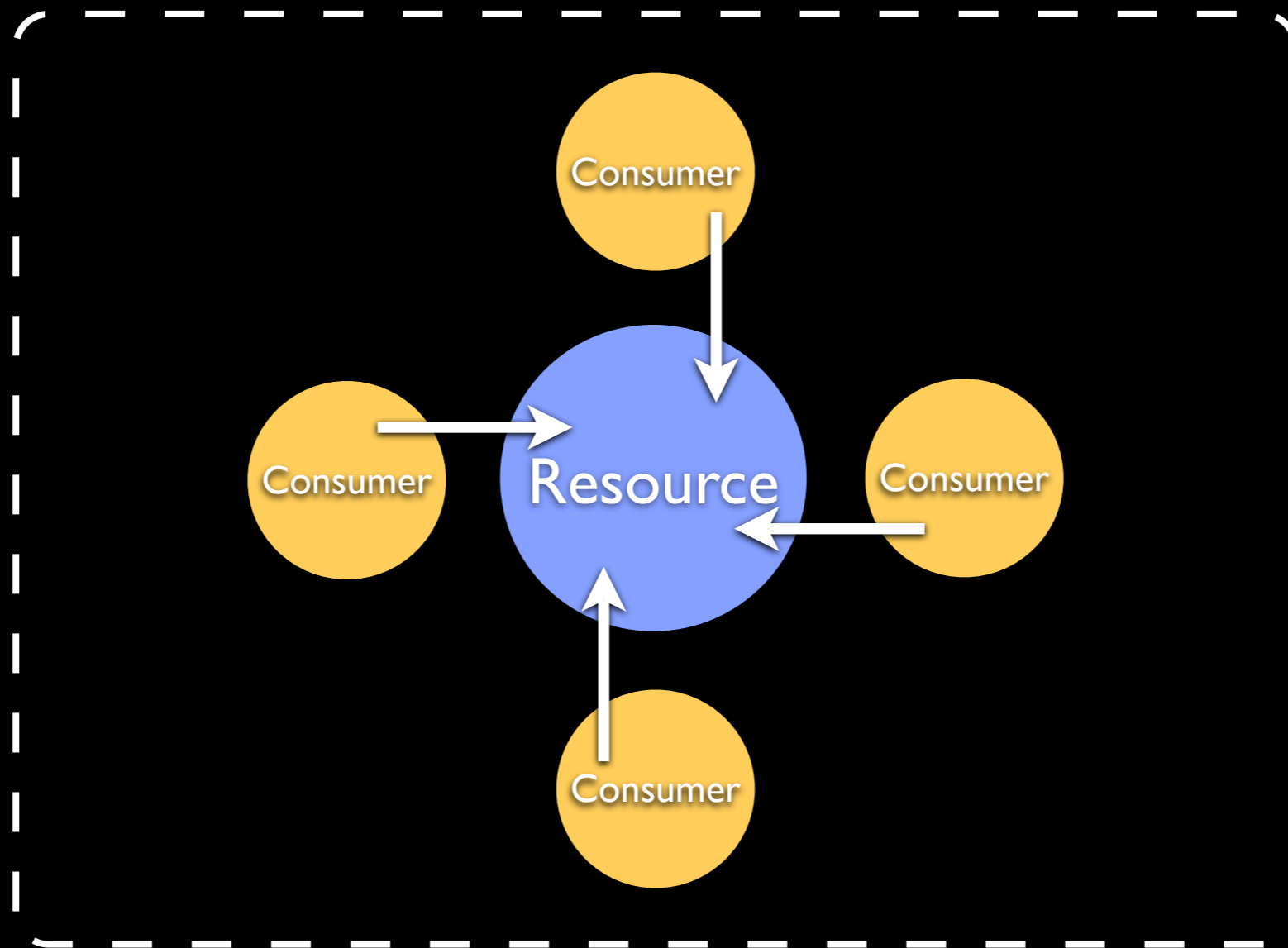
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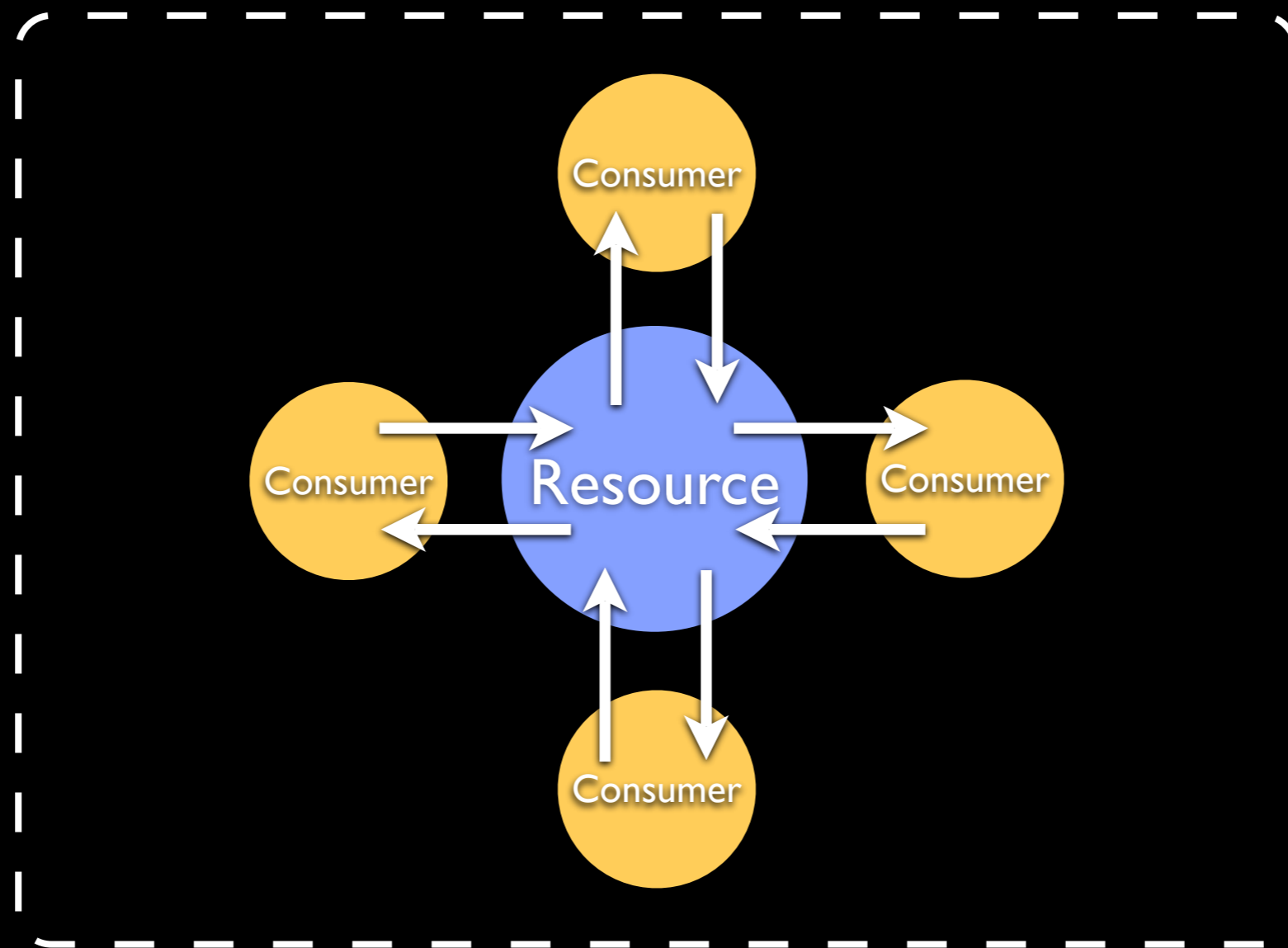
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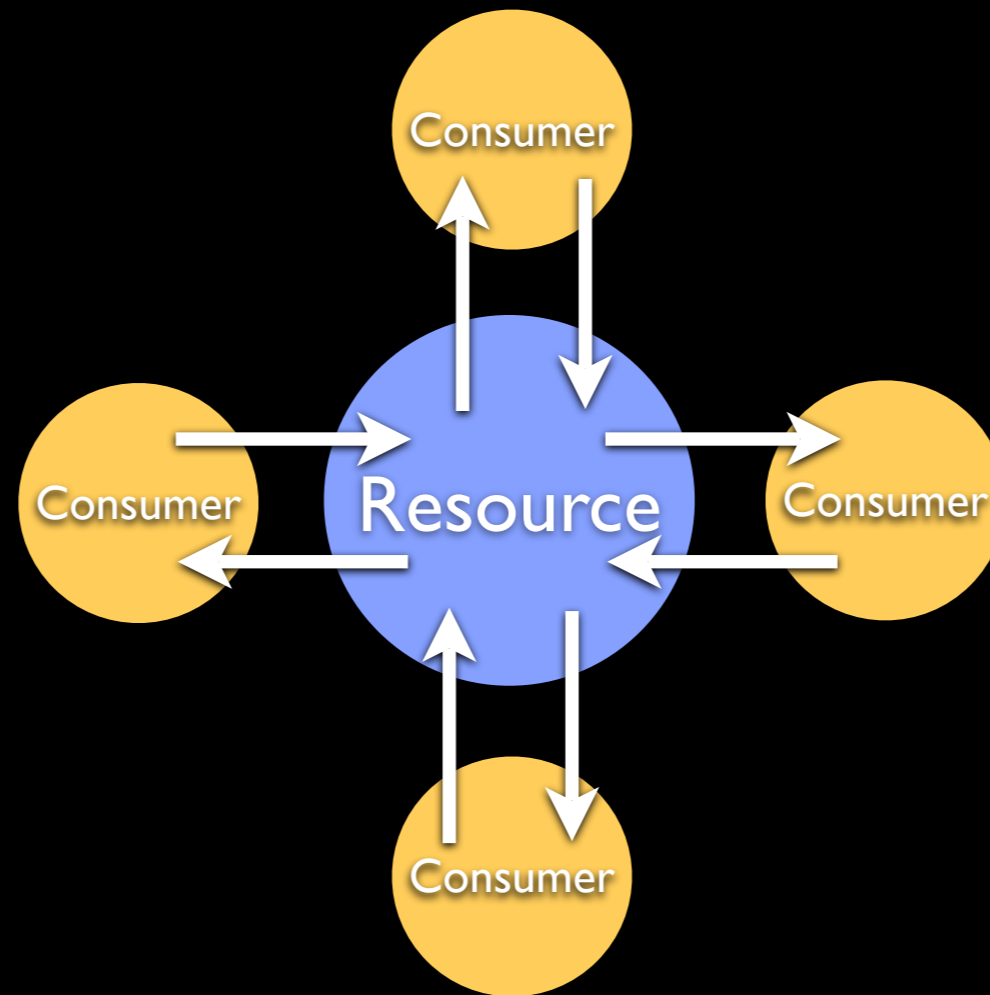
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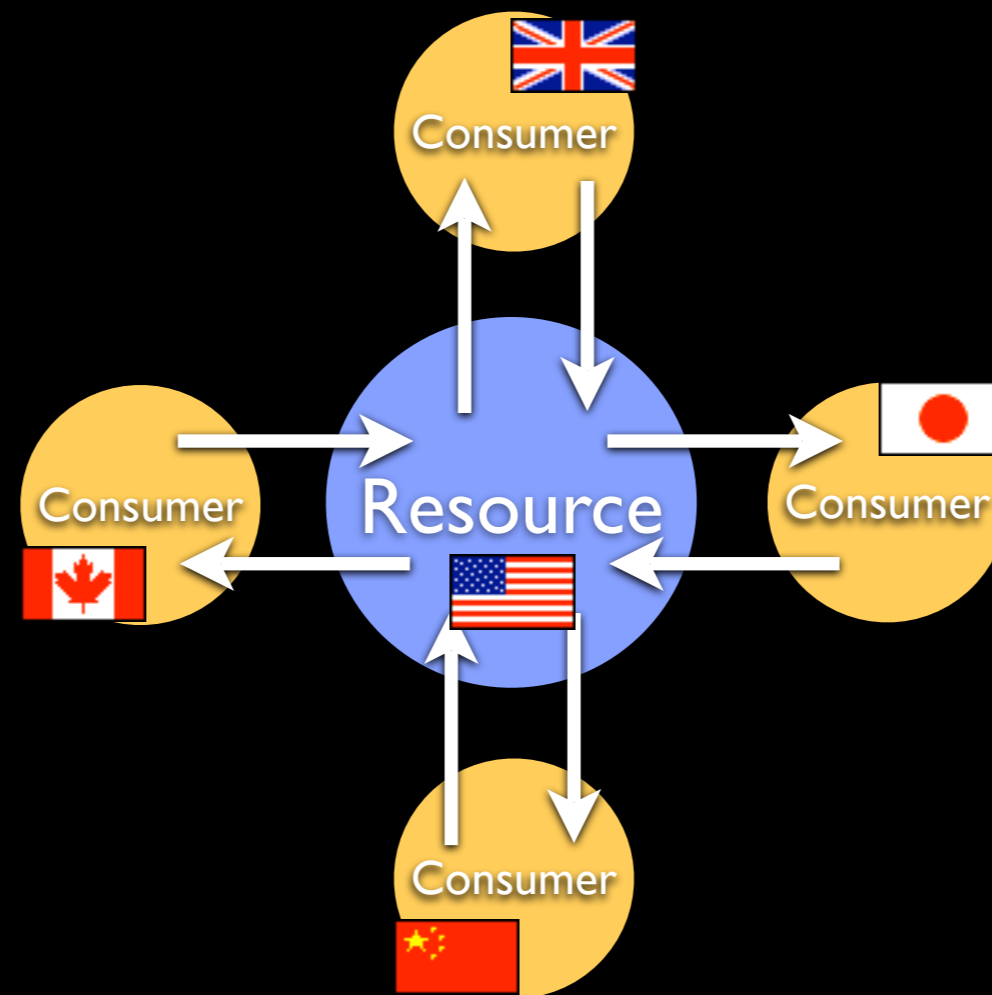
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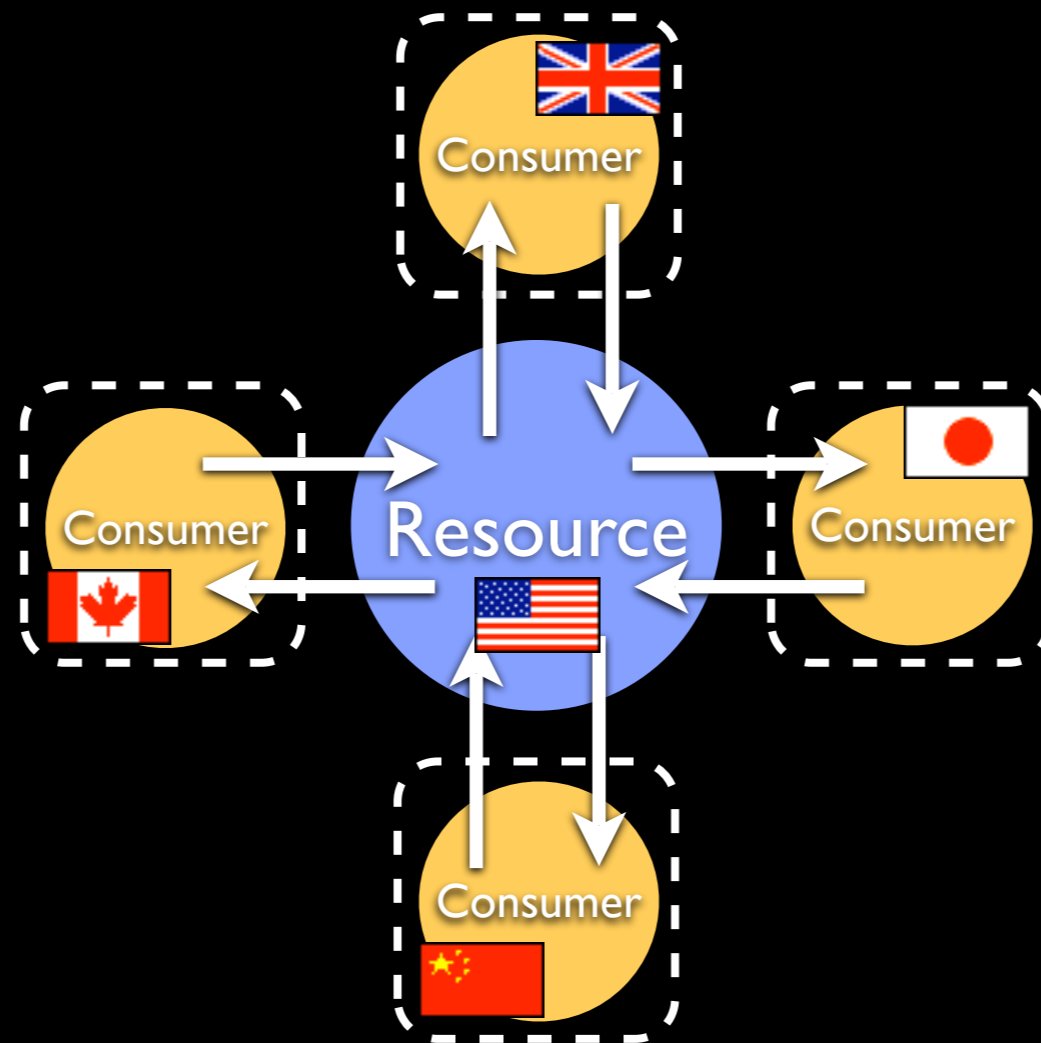
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What are Web Services Good For?



Types of Web Services

- XML-RPC
- SOAP
- REST
- Free-form

XML-RPC

- RPC = Remote Procedure Call
- The “Grandfather” of XML-based RPC services
 - Hence it's name
 - Since 1998
 - A precursor to SOAP

XML-RPC Libraries

- <http://php.net/xmlrpc/>
 - Native PHP support since 4.1.0
 - Not enabled by default
 - Documentation Sucks
- <http://phpxmlrpc.sourceforge.net/>
 - Useful, Inc (Who also brought you XML-RPC)

XML-RPC Libraries

- http://pear.php.net/package/XML_RPC/
 - The classic, tried and true library
 - PHP 4
 - Last Update 28 Oct 2006
- http://pear.php.net/package/XML_RPC2/
 - PHP 5 Only

SOAP

- Developed, Maintained, and Recommended by W3C
 - <http://www.w3.org/TR/soap/>
- Originally “Simple Object Access Protocol”
- Now it is just “SOAP”
 - Probably because it is not very simple...

SOAP + WSDL

- **WSDL = Yet another W3 Standard**
 - “Web Service Description Language”
 - <http://www.w3.org/TR/wsdl/>
- **Used to expose SOAP web services**
 - SOAP w/o WSDL means more typing
 - SOAP w/WSDL means less work

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Consuming Soap Services

```
$clientOptions = array(  
    'uri' => 'http://host/server/',  
    'location' => 'http://host/server/MathServer.php'  
);  
  
$Client = new SoapClient(NULL, $clientOptions);  
  
$method = 'add';  
$params = array(  
    new SoapParam(12345, 'number1'),  
    new SoapParam(98765, 'number2')  
);  
  
echo $Client->__call($method, $params);
```

SOAP Libraries

```
$Client = new SoapClient('http://host/Math.wsdl');  
echo $Client->add(1234, 5678);
```

REST

- REST = “Representational State Transfer”
- Is *not* a standard
- ... but it does *use* standards
 - HTTP, URI, XML
- REST puts “Web” back into “Web Services”
 - The Internet is a REST system

REST + URI

- REST puts the focus back into a URI rather than obscuring it behind an API
 - <http://some-store.com/categories/>
 - <http://some-store.com/products/widget>
 - <http://some-store.com/search/gadgets>

Real Life Examples

del.icio.us

- Most popular social bookmarking utility
 - <http://del.icio.us>
- A property of Yahoo!
- Wicked simple REST API
 - <http://del.icio.us/help/api/>

The del.icio.us API

- Update
 - <https://api.del.icio.us/v1/posts/update>
- Tags
 - <https://api.del.icio.us/v1/tags/get>
 - <https://api.del.icio.us/v1/tags/rename>

The del.icio.us API

- Simple API = Simple Documentation
- <http://del.icio.us/help/api>
- Uses HTTP Authentication
- Still under development

The del.icio.us API

- Posts
 - <https://api.del.icio.us/v1/posts/get>
 - <https://api.del.icio.us/v1/posts/recent>
 - <https://api.del.icio.us/v1/posts/all>
 - <https://api.del.icio.us/v1/posts/dates>
 - <https://api.del.icio.us/v1/posts/add>
 - <https://api.del.icio.us/v1/posts/delete>

The del.icio.us API

- Bundles
 - <https://api.del.icio.us/v1/tags/bundles/all>
 - <https://api.del.icio.us/v1/tags/bundles/set>
 - <https://api.del.icio.us/v1/tags/bundles/delete>