Web services in a Web company

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• Web company

• Various platforms & tools:
  – C/C++, PHP, Perl, some Java
  – Open-source

• Several POVs about services
Web services flavors

• Anything which exposes an API
• Several flavors:
  – HTTP-based (i.e. not SOAP)
  – SOAP-based
• Each have their advantages and issues
SOAP-based Web services
Advertiser Web Services

Sponsored Search

Connect with customers searching for what you sell.

Sponsored Search places ads for your business in search results on the Web's most popular destination*, enabling you to reach more customers.

- Manage your spending with flexible budgeting options and the freedom to experiment with different approaches.
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- Save time with easy account management and reporting features.

Sign up and get a $50 credit.*
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- Pricing
- Key Statistics
- Why use Sponsored Search
- See Sponsored Search Demo

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Sign up for our free newsletter and special offers. Enter your email address:

[Submit]
Yahoo! Mail: 2B+ SOAP messages / week
What pushes people towards SOAP

• Mainly: code generation
• Who our customers are
• Other reasons: historical, etc.
Issues with SOAP

• Interoperability: when the code generation dream becomes a nightmare
• WS-* support poor; typically, not used at Y!
• Complexity
HTTP-based services
Most of our external services

Create Applications Using Yahoo! Search
Yahoo! Search Web Services allow you to access Yahoo content and services in your favorite programming languages. This means you can now build Yahoo directly into your own applications. Get more ideas for what you can build by playing with the applications and mashups featured in our Search Application Gallery.

How do I get started?
1. Online Documentation
   Read the online documentation and FAQs.

2. Get an Application ID
   To access Yahoo! Search Web services, you will need to get an application ID. Like a browser’s User-Agent string, the Application ID uniquely identifies your application and has no effect on rate limiting.

3. Download the SDK
   The development kit includes BSD licensed examples and libraries for various languages: Perl, Python and PHP, Java, JavaScript, and Flash.

What Search Web Services does Yahoo! offer?
You can write applications with Yahoo! Search Web Services using data from:

- Audio Search
- Content Analysis
- Image Search
- Local Search
- MyWeb
- News Search
- Site Explorer
- Video Search
- Web Search
Why?

- Developers familiar with the Web
- No special tool or library needed
- Audience:
  - Web developers doing PHP, Python, JavaScript, etc.
Description and code generation

- People want to write code fast
- Big draw towards SOAP
- However: beware of interoperability issues
- Description language:
  - Documentation
  - Code generation
Authentication headache

1. User
2. Partner
3. Application
4. Cache
5. Service 1

Web application

Service 1

Service 2

Yahoo!
Limitations of existing HTTP authentication schemes

- Limitation of the number of entities identifiable
- Cross-host in a domain
- Basic auth:
  - Poor security
- Digest auth:
  - Not widespread implementation
  - Chatty
- Not to mention browser-side issues
Real world work-arounds

- Cookies
- In-URL credentials
- Custom authentication schemes
- Custom headers
- Main challenges:
  - Tool support
  - Caching
Major issue

• Some requirements
  – Support for multiple credentials
  – Support for both browser & tools
  – Cross-host
  – Support for custom login interface

• SOAP not much better: WS-Security not widespread
SOAP-based services

- Stop doing more extensions!
- Make the basic stuff work in an interoperable way first
- XML Databinding: saddened by lack of vendor recognition of the issue
- WSDL 2.0
- Focus on interoperability
HTTP-based services

- Tools
- Recognize the use of cookies for authentication
- Interest in HTTP auth in various places (e.g. IETF)
  - Put down requirements
  - Work with the community at large