Web Feeds

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Web Feeds

• Provides users with frequently updating data
• Users can subscribe via web pages or applications
• Set up to periodically pull data from the provider
• Content is typically links to other pages that have just updated or structured markup within the message itself
Web Feeds – Benefits

• Pull-based – no username/password needed
• Standard format (typically XML)
• Support in most modern browsers
• Some Content Management Systems (CMS) support
• Easy to program the fetch. Most languages have modules for Web Feeds (e.g. Perl’s XML::Feed module)
RSS

- Rich Site Summary (among other things)
- XML formatted text
- Example:

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<rss version="2.0">
  <channel>
    <title>RSS Title</title>
    <description>This is an example of an RSS feed</description>
    <link>http://www.someexamplerssdomain.com/main.html</link>
    <lastBuildDate>Mon, 06 Sep 2010 00:01:00 +0000</lastBuildDate>
    <pubDate>Mon, 06 Sep 2009 16:45:00 +0000</pubDate>
    <ttl>1800</ttl>
    <item>
      <title>Example entry</title>
      <description>Here is some text containing an interesting description.</description>
      <link>http://www.wikipedia.org/</link>
    </item>
  </channel>
</rss>
```
RSS - Limitations

• Set range of available metadata (publish date, link, description, ttl, etc)
• Can put data in the “description” element
• Example:

<description>
  <![CDATA[ <strong>March 24, 2013 1:36 pm HAST</strong><br />
  <strong>Location:</strong> 20.037N 155.829W or 0 nautical miles N of search location of 20.037N 155.829W.<br />
  <strong>Wind Direction:</strong> NW (310°)<br />
  <strong>Wind Speed:</strong> 8 knots<br />
  <strong>Wind Gust:</strong> 9 knots<br />
  ...

...
NOAA Web Feed Example

This feed shows recent marine weather observations from NDBC and its partners within 100 nautical miles of 20.037N 155.829W.

- **Station KWHH1 - 1617433 - KAWAIHAE, HI**
  
  March 24, 2013 1:36 pm HAST  
  Location: 20.037N 155.829W or 0 nautical miles N of search location of 20.037N 155.829W.  
  Wind Direction: NW (310°)  
  Wind Speed: 8 knots  
  Wind Gust: 9 knots  
  Atmospheric Pressure: 29.95 in (1014.3 mb)  
  Air Temperature: 76°F (24.3°C)  
  Water Temperature: 79°F (26.0°C)

- **Station NDBC1 - NDBC GLIDER #1**
  
  March 24, 2013 23:40 UTC  
  Location: 20.033N 155.833W or 0 nautical miles SW of search location of 20.037N 155.829W.  
  Wind Direction: E (80°)  
  Wind Speed: 10 knots  
  Wind Gust: 12 knots  
  Atmospheric Pressure: 29.94 in (1013.9 mb)  
  Air Temperature: 75°F (24.1°C)
Atom

- Created as an alternative to RSS
- Describes sections better than RSS
- Larger variety of payload options (e.g. XHTML, encoded binary, etc)
- XML language options and non-ASCII characters
- Syntax allows reusability in other feeds
- Freely extensible
<?xml version="1.0" encoding="utf-8"?>
<feed xmlns="http://www.w3.org/2005/Atom">
  <title>Example Feed</title>
  <subtitle>A subtitle.</subtitle>
  <link href="http://example.org/feed/" rel="self" />
  <id>urn:uuid:60a76c80-d399-11d9-b91c-0003939e0af6</id>
  <updated>2003-12-13T18:30:02Z</updated>
  <entry>
    <title>Atom-Powered Robots Run Amok</title>
    <link href="http://example.org/2003/12/13/atom03" />
    <link rel="alternate" type="text/html" href="http://example.org/2003/12/13/atom03.html"/>
    <id>urn:uuid:1225c695-ct8-4ebb-aaaa-80da344efa6a</id>
    <updated>2003-12-13T18:30:02Z</updated>
    <summary>Some text.</summary>
    <author>
      <name>John Doe</name>
      <email>johndoe@example.com</email>
    </author>
  </entry>
</feed>