

Outline

- Motivation
- The offline application cache
- The offline manifest file
- Offline events

Motivation

- Web apps traditionally require access to a web server to work
- But in many apps we don't need network access all the time

The Offline Application Cache

- First time visit:
 - All app files are downloaded to the offline application cache
- Subsequent visits:
 - Files in the offline application cache used unless the manifest file has changed (its content)
- It is all about the manifest file

The Manifest File (1)

- Stored in the app directory
- Must include a "file header":
CACHE MANIFEST
- Must be of content type
text/cache-manifest
- Must list all files required by the app
- Three groups of files:
 - **CACHE**: Files that will be cached
 - **NETWORK**: Files that should be loaded from the network
 - **FALLBACK**: Pairs of network and cached files; cached file used if network file fails to download

The Manifest File (2)

- Sample manifest file:

```
CACHE MANIFEST
```

```
index.html
```

```
images/icon.jpg
```

```
scripts/myscripts.js
```

```
styles/mystyle.css
```

```
FALLBACK:
```

```
images/ images/offline.jpg
```

```
NETWORK:
```

```
*
```

```
#most recent update 31.01.2012 20:50:24
```

Online vs Offline

- Difference in event triggering
 - Mobile browsers
 - when network connectivity changes
 - Desktop browsers
 - when user selects "work offline" mode
- Events:
 - **online** and **offline** events are generated
 - but **window.ononline()**/**window.onoffline()** methods are not widely implemented

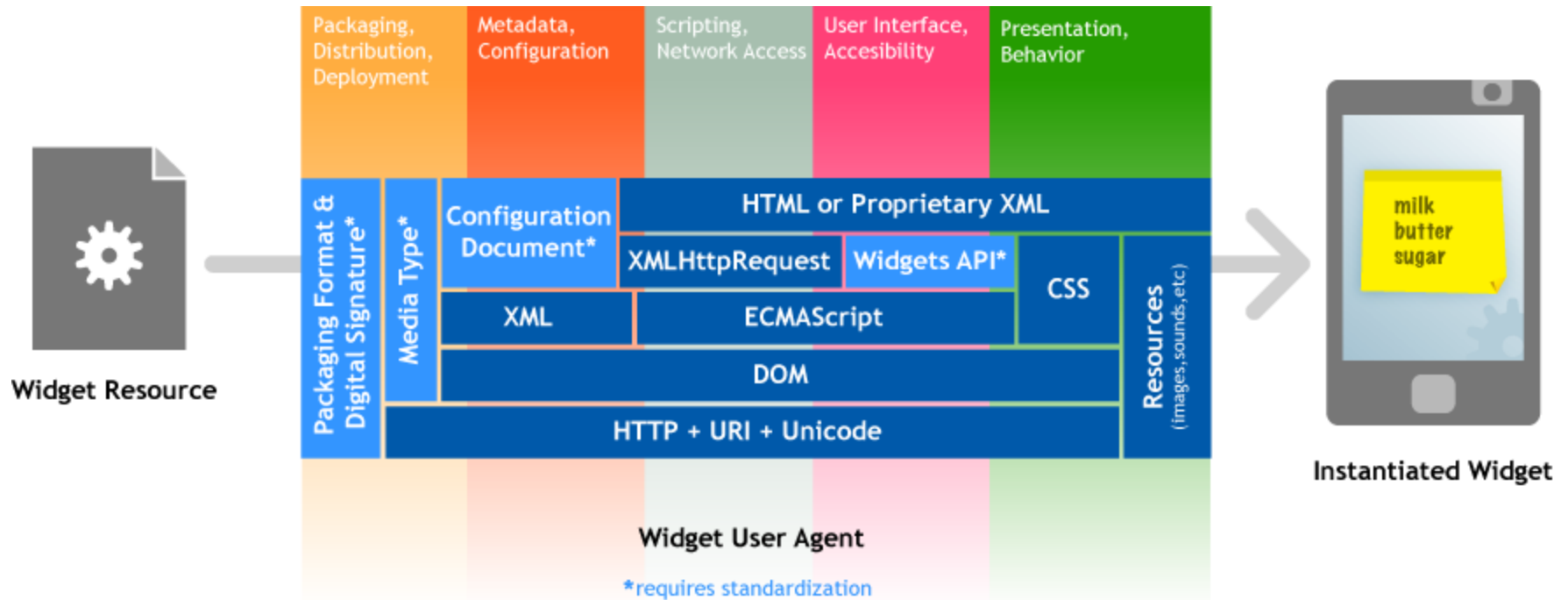
Cache Management

- When the cache has been updated:
 - The `onUpdateReady()` function is called:
 - may be used to force a reload of the application
- Once created – it is hard to get rid of the cache:
 - New manifest files only replace earlier files
 - Only end users can clear the cache in their browsers

Mobile Web Widgets

- Apps developed using Web technologies:
 - HTML5, CSS3, JavaScript, Web SQL Database
- But unlike offline application cache apps:
 - Distributed as an app package
 - May have extended platform access
 - Packaged with databases and meta configuration
- Standards are being developed:
 - Platform differences to be expected for some time

Widget Technology Stack



www.w3.org/TR/widgets-land/

Conclusion

- Offline web caching is here for now
- Mobile widgets are experimental