# HTML5Apps



In contrast to native "apps", HTML5-based "apps" are platform and device agnostic and easy to move apps between devices. However, today, HTML5 lacks functionalities important for "apps" (rich APIs to interact with devices, payment support). The goal of the HTML5Apps project is to close the gap between native and HTML5 apps through standardisation.

## AT A GLANCE

**Project title**
HTML5 for Apps: Closing the Gaps

**Project number**
611327

**Project coordinator:**
Dr. Philipp Hoschka
Deputy Director for W3C Europe
GEIE ERCIM (W3C)

**Partners**
GEIE ERCIM (W3C)

**Duration**
From October 2013 to September 2015

**Total cost**
649.487€

**Programme**
**FP7 ICT *Call 10***

**Website**
http://html5apps-project.eu/

## Context

The demand for "apps" is growing quickly – they are becoming one of the primary ways to deliver internet and cloud-based services to consumers. However, the technologies currently used for developing apps have a number of drawbacks.

First, today's apps are "native apps": they require development using programming languages that are specific to a particular platform (Apple iOS, Google Android,). For developers, this means that every platform requires a separate development effort, increasing development cost. For consumers, this means that not all apps are available on all platforms, because developers may choose to only target one platform due to cost issues. A final drawback: none of the dominant app stores used to distribute and sell apps are provided by European companies.

HTML5-based "apps" developed using a combination of HTML, CSS and Javascript can solve many of the issues of native apps. This is because HTML5 is platform and device agnostic, making it easy to move apps from one platform to another and also from one device to another (e.g. mobile to tablet to connected TV to connected car).

As a result, developers are increasingly moving from "native apps" to HMTL5

apps, and are completely dropping out of the popular proprietary popular app stores in some cases. However, today, HTML5 cannot be used to fully replace native apps. This is because it is lacking a certain number of functionalities such as rich APIs to interact with devices (e.g. to launch a phone call from within an app) or support for handling of payments.

## Technical Solution

The goal of the HTML5Apps project is to close the gap between native and HTML5 apps through the standardisation of missing HTML5 functionality.

### STANDARDIZE OS LEVEL APIS FOR HTML5 APPS

In order for HTML5 apps to realize their full potential as non-proprietary, open alternative to today's native app environments, further functionality needs to be added to the relevant standards, in particular operating system level APIs. The project will support ongoing work on this in the W3C System Applications WG.

### LAUNCH NEW STANDARDIZATION EFFORTS TO CLOSE GAPS BETWEEN NATIVE APPS AND HTML5 APPS

Identify opportunities for future standardization that will close the gaps between native apps and HTML5 apps, e.g. in the area of payment support or increased interoperability.

### INCREASE EUROPEAN SOFTWARE STANDARDIZATION EFFORTS IN SOFTWARE ENGINEERING, SERVICES AND CLOUD COMPUTING

Strengthen the European positioning in the area of "'apps" and beyond (Software Engineering, Cloud computing, Services) by coordinating and encouraging standardization efforts of projects in the "Software Engineering, Services and Cloud Computing" Objective.

## Impact

By enabling non-proprietary, standards-based development of apps using HTML5, the HTML5Apps project will liberate developers from the constraints of native app stores and make it easier for consumers to run an app on any device they would like.

The HTML5Apps project will develop HTML5 into full-fledged app development environment, creating an alternative to today's app stores. This will liberate researchers and developers from the limiting rules of proprietary app stores. With HTML5, app developers are not tied to a particular app store, they can chose any app store that supports HTML5 apps, or even distribute the app without going through an app store by just making it available on the Web. HTML5 apps will also be able to avoid revenue sharing with today's native app stores.

By helping to leverage all these advantages of HTML5 apps for a wider set of apps than today, the HTML5Apps will increase the ability to design and deliver innovative services for SMEs and individual researchers/developers.

The project is lead by GEIE ERCIM, the European Host of the World Wide Web Consortium (W3C), an industry consortium of currently more than 380 members from research and industry which is directed by Sir Tim Berners-Lee, the inventor of the Web.