Proposed requirement for feeding of live contents in web-based signage

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R xx : Feeding of live contents

Digital signage can be used to provide live information such as headline news, weather, and stock quotation. This information tends to change as the time elapses and is critical to display the most recent information.

Use cases

[Investment information]

Lily is in the bank planning to withdrawal money from her savings account which has matured. As she waits for her turn, she goes to the digital signage terminal to get information on the new savings plan, investment tips, exchange rates, and stock quotation to find out if there is any good plan that she could invest. As her turn comes up, she goes to the teller with the next investment plan for the money from her savings account.

[Live news feeding]

Michael woke up late in the morning and did not have time to check the morning news. On his way to his office, he sees the digital signage display installed on the exterior side of the bus. The display shows weather forecast, headline news, local news, and various events in form of a simplified text.
In the subway train, Michael watch the signage display installed inside the train which shows the news video streaming of the regular broadcast in the morning rush hour. Michael can get live news and information from various signage devices on his way to his office.

Motivation

Digital signage can use to provide live contents such as news, weather, and financial report. The importance of these contents tends to be inversely proportional to the elapse of time. Therefore, it is very important to retrieve live information to be displayed in real-time.

Gap Analysis

Live information in text-style such as weather broadcast and stock information can be retrieved via WebSocket API(http://www.w3.org/TR/websockets/) and

Server-Sent Events(http://www.w3.org/TR/eventsource/).

For live video streaming, HTML5 video tag can be used. HTML5 video tag does not specify any particular real-time streaming protocol, but it allows the use of any protocols such as RTSP(Real-time Streaming Protocol, RFC2326), HLS(HTTP Live Streaming, https://developer.apple.com/library/ios/#documentation/NetworkingInternet/Conceptual/StreamingMediaGuide/StreamingMediaGuide.pdf), and MPEG-DASH.