What's Web-based Signage?

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Digital Signage

- Digital signage is a service for showing advertisements or information by using display technology with high-growth expectations.

Two types of Digital Signage

Playlist Type

Show content sequentially such as video programs or still images. Audiences can get information only by watching a digital signage screen.
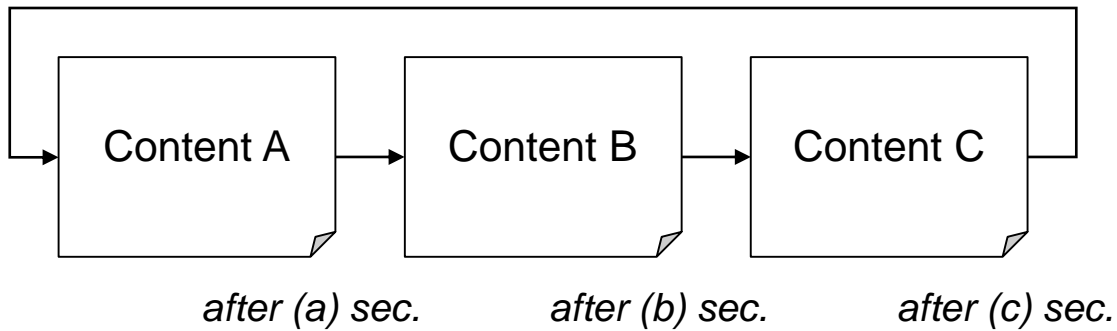
Interactive Type

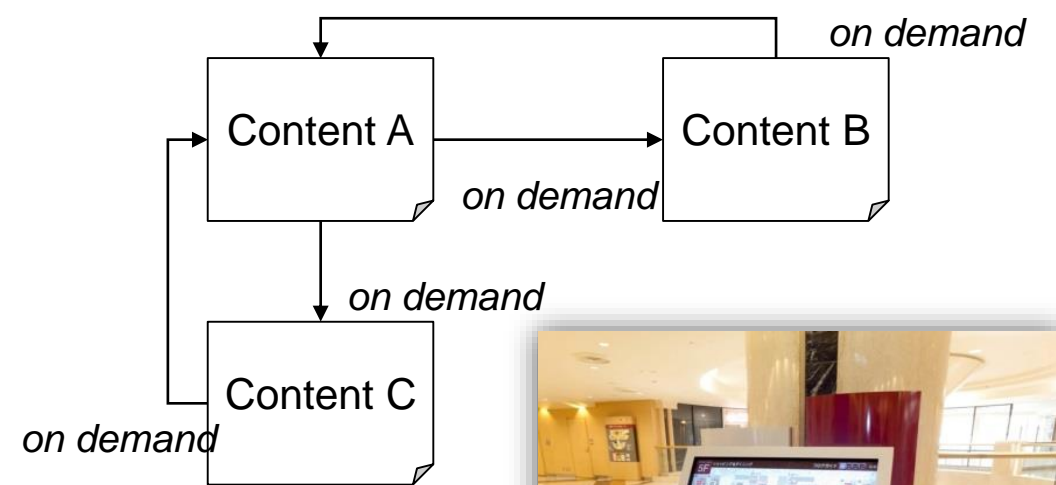

Show content in response to the audience's interaction, for example, by pushing a button indicated on the touch panel screen.

Content Presentation

Playlist Type

Content A → Content B → Content C

after (a) sec.   *after (b) sec.*   *after (c) sec.*

Interactive Type

Content A → Content B   *on demand*

Content A   *on demand*

Content C   *on demand*

on demand

Both types show a variety of content along the pre-defined <u>hyperlinks</u>.

Web has a high affinity for the Digital Signage!

What is Web-based Signage?

- The digital signage which uses Web technologies.
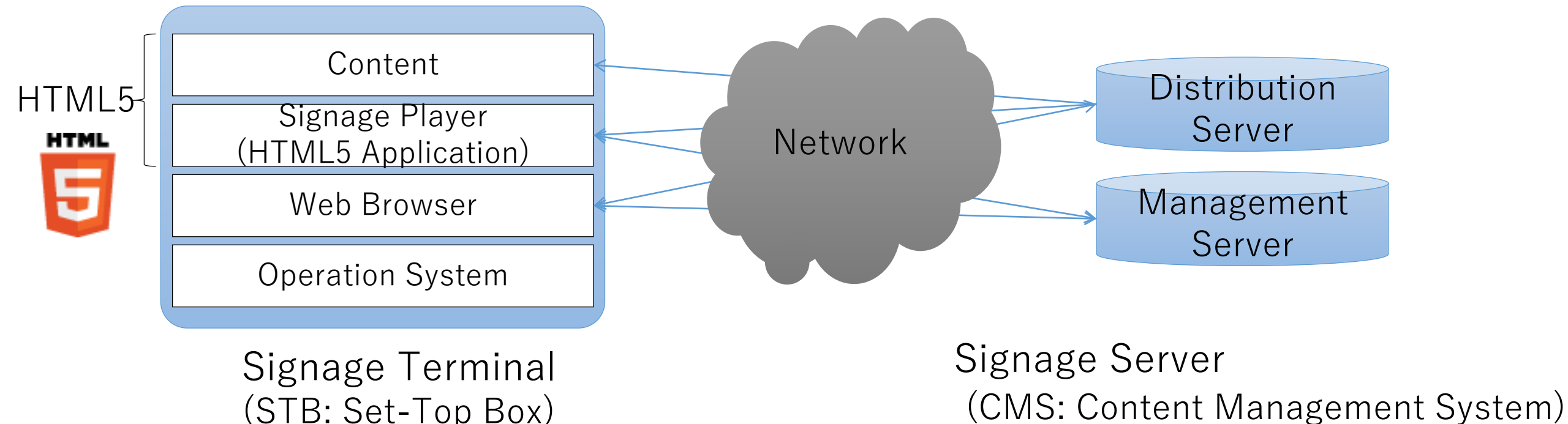- ✓ Definition in draft ITU-T HSTP.DS-WDS "Technical Paper of Web-based digital signage" (under the study)

Web Technologies

Digital Signage

- Hyperlink mechanism
- Web content
- Web application
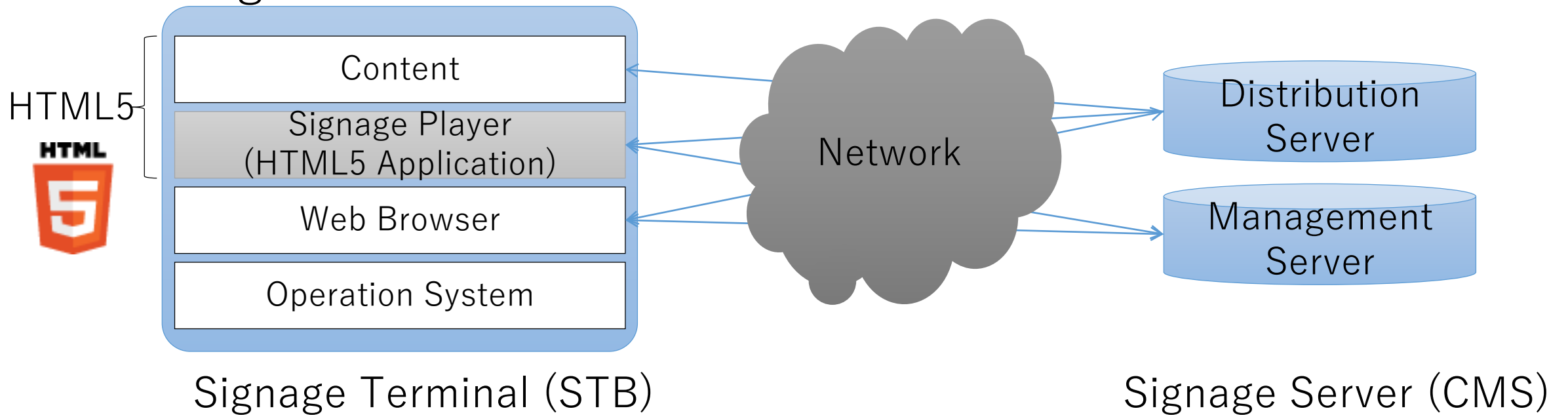- Web API
- …

HTML
5

Web-based Signage Architecture

- The terminal software consists only of the Web browser and the signage player (HTML5 application).
  - The browser fetches the signage player and contents from distribution server.

HTML5

Content
Signage Player (HTML5 Application)
Web Browser
Operation System

Network

Distribution Server

Management Server

Signage Terminal
(STB: Set-Top Box)

Signage Server
(CMS: Content Management System)

Signage Player

- HTML5 is now not only a layout description language, but is also used as middleware on a Web browser.
- The signage player provides the digital signage service with controlling the content presentation and the terminal management.

HTML5

Content

Signage Player
(HTML5 Application)

Web Browser

Operation System

Network

Distribution
Server

Management
Server

Signage Terminal (STB)

Signage Server (CMS)

What's the Benefit of Web-based Signage?

Why is Web-based Signage Good? (1)

- Reason 1: Enable the general system configuration with the standard technologies and applications by using the Web browser

Reason 1: Web Browser Terminal

- The Web browser have been equipped in a variety of terminals (not only PCs but also tablets or TV sets).
- Many types of terminals can be used for Web-based signage.

Benefits for the Location Owner

- The location owner (the terminal manager) requests
  - Small space for STB (no space for the additional equipment)
  - Distribution to various terminal device
  - Immediate recovery with an alternative terminal device in case of accident

- Using browser-ready consumer devices (TVs) as signage terminals is the possible solution.

Why is Web-based Signage Good? (2)

- Reason 2: Enable the content creation, making the best use of a variety of digital assets on the cloud such as the Web APIs and the open data, because of HTML5

Reason 2: Content Creation

- HTML5 is widely used for content creation by many creators.
- HTML5 is efficient because if one source of HTML5 is provided, it can be used for the multiple terminals.

Benefits for Content Creator

- The content creator can use the mechanism of
- Automated distribution of real-time information
- Immediate display of information from various news sources
- Reuse of the Web pages for the signage services
- Distribution even to smart-devices
- Using other service APIs such as the foreign language translation

Why is Web-based Signage Good? (3)

- Reason 3: Enable the content management functions implemented on the Web server. The operation methods via the Web browser may be conducted.

Reason3: Web-based Operation

- The signage server can be operated not only from a desktop PC, but also from a tablet or a smart-phone.
- The operation is enabled at anytime and from anywhere.

Benefits for the Signage Service Provider

- The signage service providers can operate servers
-     Only with a browser (without any additional software)
-     By multi-user and multi-location
-     With easy operation even for the beginners