

Web-based Signage Use cases

2016/11/22

SURVEY OF TPAC PRESENTATION

Use cases from presentation in TPAC

([These](#) are related to Remote Management API)

Presenter	Category	Use cases
NTT	Content distribution	Distribute contents to various terminal device
	Terminal	Recover immediately with an alternative terminal device in case of accident Power management for small shop use (power saving) System reboot (watch dog) Terminal ID check (registration of terminal)
	CMS	Operation without any additional software by multi-user and from multi-location, easy use for beginners
	Content	Automated distribution of real-time information Immediate display of information from various news sources Reuse of web pages on the Internet for signage Using other services such as language translation for foreign people Display and speaker control (on/off, volume, mute)

Use cases from presentation in TPAC

Presenter	Category	Use cases
Newphoria	Terminal Management	<u>Manage the terminals by Location, Model name, IP address, HW Serial number, etc.</u> <u>Push commands to terminals (Reboot, Updating contents, etc.)</u>
	CMS	Create playlists (Time schedule for each content) Upload contents (images, videos, etc.)

Use cases from presentation in TPAC

Presenter	Category	Use cases
LG	Presentation	multiple screen, using WebSocket for Sync.
	Terminal	Power Saving (Daylight Saving Mode, Holiday Mode) Fail Over Handling

Use cases from presentation in TPAC

Presenter	Category	Use cases
ACCESS	Authoring	<ul style="list-style-type: none">- Upload contents (image / movie / sound).- Create signage contents.- Create contents playlist.- Create play schedule.- Bind schedule on delivery destination.- Delivery signage contents to the delivery destinations. (scheduled / immediately)- Monitoring the delivery destinations.- And more management functions (User management / Contract management ..)
	Player	<ul style="list-style-type: none">- JS signage player delivered to the browser supported HTML5.- The player logged in the SIGNESS Server, then the contents will be downloaded, and start playing immediately .

Use cases from presentation in TPAC

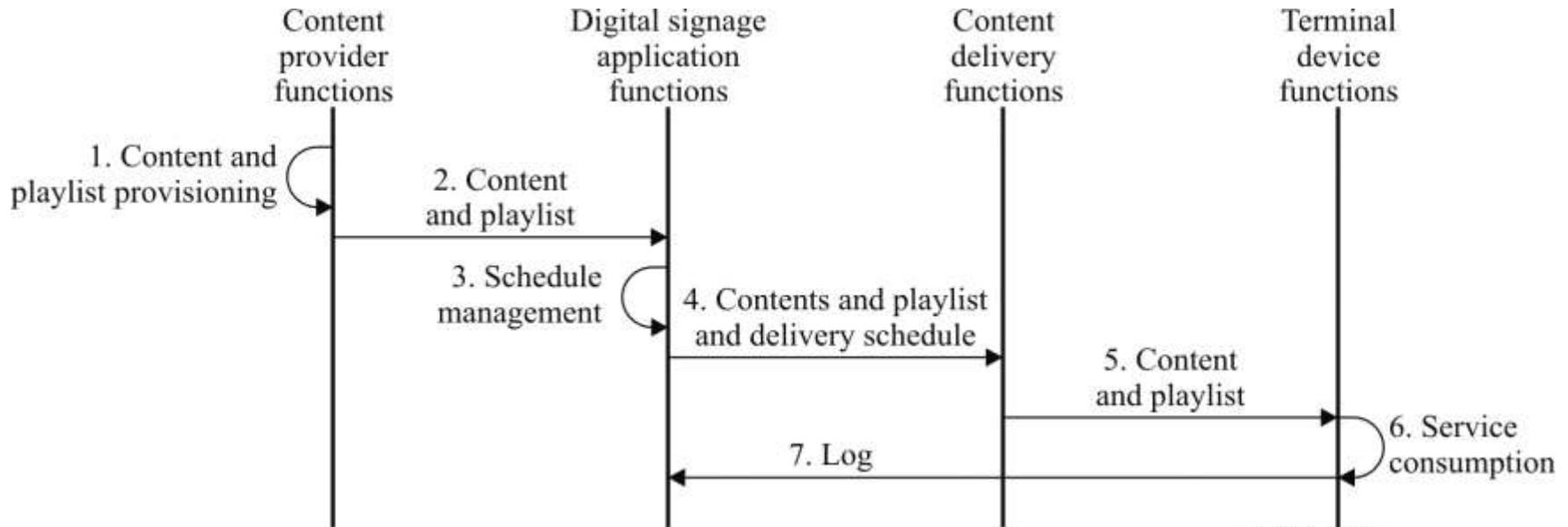
Presenter	Category	Use cases
TTA	CMS	Create and Customize DS contents Scheduling of Contents DS contents Monitor Networks Monitor and control remote devices
	Display	Information about display (ex: single, multi-wall), display layout information, etc.
	Devices	user interactions (touch, voice, etc.), smart device interactions, etc.
	Networking	multi-screen, information about networks (ex: network status), connectivity to sensing devices (ex: NFC, Beacon, IoT), etc.
	Contents	Contents synchronization, Contents scheduling, etc.
	Terminals	Power control, Remote control, information about DS terminals (ex: fault status), etc.
	Others	SW updates, Interface functions with CMS, supporting public services (ex: disaster information service), etc.

DIGITAL SIGNAGE USE CASES FROM ITU-T REC. H.780 AND H.781

(H.780) I.1 Screen for single content source

DS within an organization

Delivering contents is mainly used to inform events and status relates to organization activities, to a relatively small number of terminal devices.

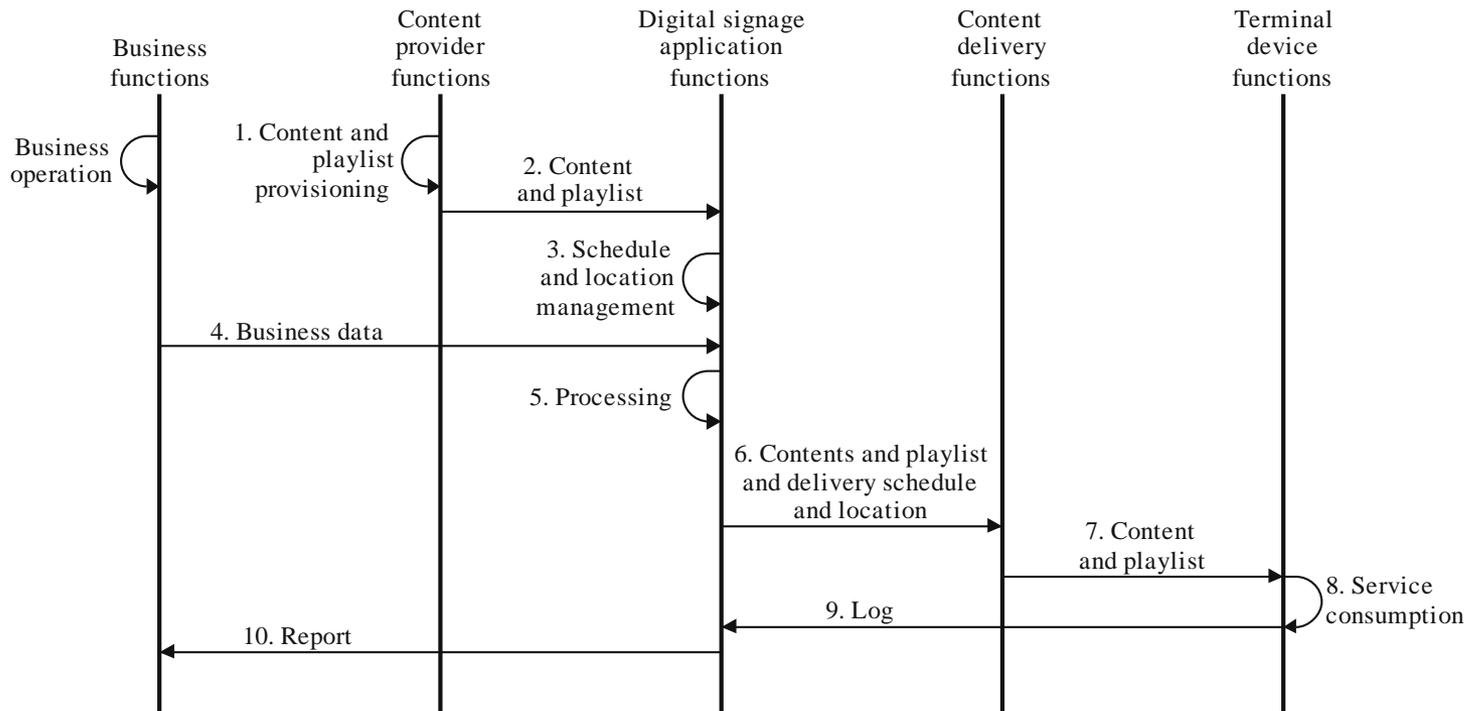


H.780(12)_FI.1

(H.780) I.2 Screen by using multiple content/data sources

Linking different businesses

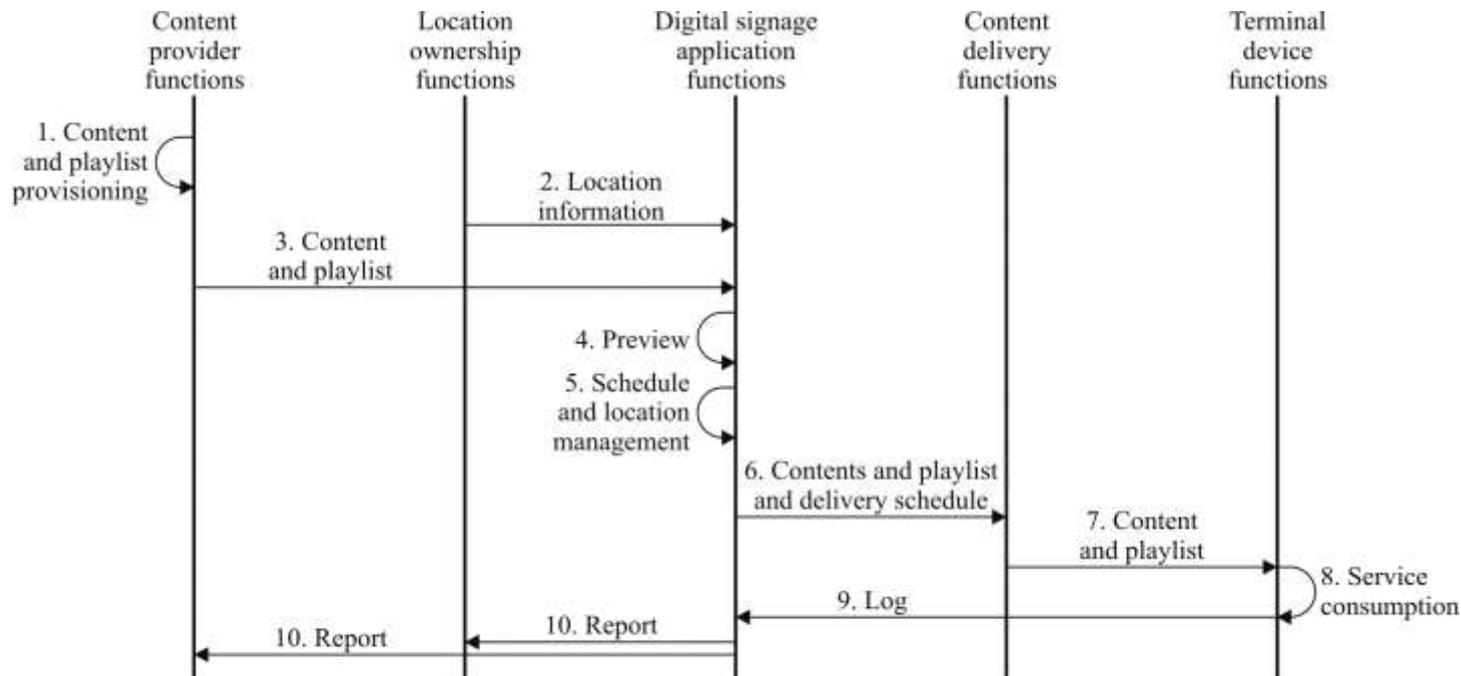
Digital signage system that works with independent business sources including business relevant systems, and delivers signage contents that relate to the business sources' activities (e.g., a display shows a waiting list in a reservation desk; and sales promotion contents are altered according to requests from each tenant in a shopping mall).



(H.780) I.2 Screen by using multiple content/data sources

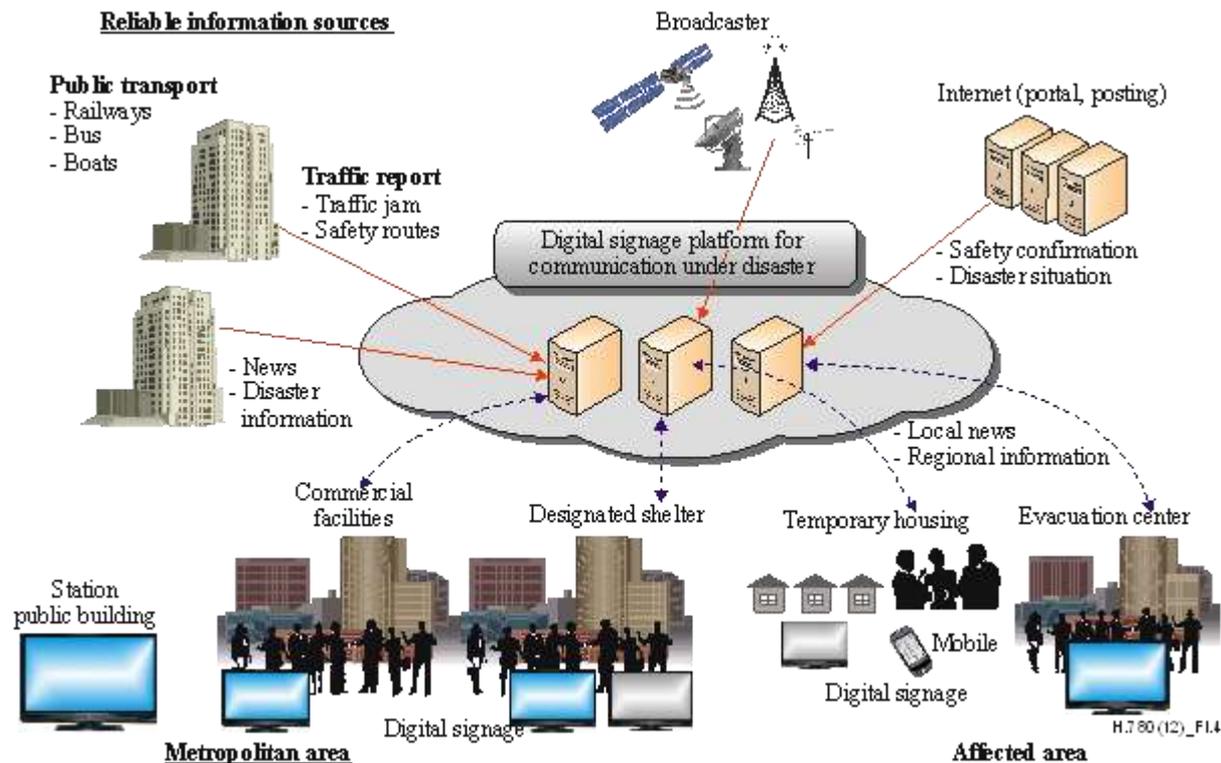
Advertisement services

Advertiser finds appropriate locations and makes a contract with owners of locations (e.g., a railway station managing company) [to get permission to set up the terminals](#). [Location information provided by the location owners](#) may contains a variety of attributes (e.g., physical address, type of location, demographic information of audience, etc.).



(H.780) I.3 Emergency communications

Digital signage services can provide a way to deliver such information (e.g., display particular local/regional information to displaced people at different evacuation places, etc.). It is important to consider aspects of widely-adopted and instantaneous information services.



(H.780) I.4 Interaction amongst audience and terminals

Service interactivity between mobile and digital signage

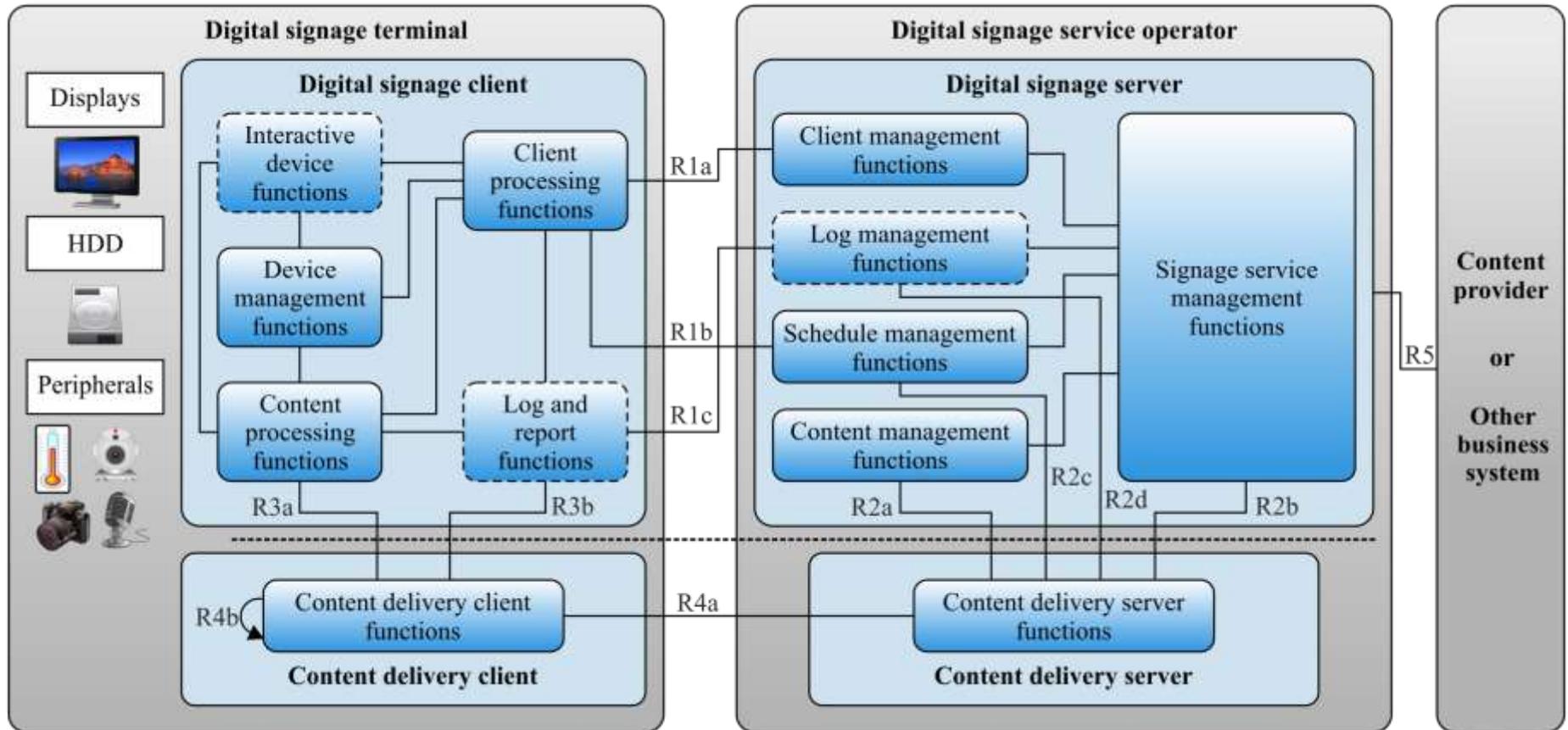
Mobile interactivity allows network operators to deliver promotional material to users' mobile phones when they send their text message to the screen.

i.e. To send text to a digital signage screen and text to vote. These applications allow viewers to send a text message or vote on a poll or question from their mobile phone to a digital signage screen.

(H.781) R1: Digital signage client and digital signage server

Reference point	Category	Operations
R1a	Terminal registration	When a DS terminal is booted, it performs terminal registration procedures for accessing a DS server. The terminal registers its current status information after terminal authentication, if needed.
	Remote control of terminal	The DS server needs to control the operation of terminals such as turning off the display or speaker remotely .
R1b	Delivery of playlist schedules	The DS server sends playlist schedule information to each terminal.
R1c	Reporting of system/service maintenance information	If the terminal detects particular events, it reports the event information to the remote signage server. The report can be sent immediately or periodically, depending on the urgency of the events. In addition to system maintenance events, the terminal also reports service events such as play of content, completion of content download, etc.

(H.781) Reference points between related entities



USE CASES RELATED TO BROWSER API

Use cases (tentative)

Item	Function	Use case
Power Management	Power control	Remote control for trouble shooting
	Power scheduling	Scheduled maintenance of terminal power consumption
Prompt Control	Remote Prompting	Prompt control for avoiding malfunctions of reused contents
	Prompt Suppression	
Contextual Information	Device Information	Terminal identification for ensuring number of terminal license
	Location	Location verification for terminal installation Information filtering for broadcasted content
	Network Information	Trouble shooting of NW matters
	Display Setting	Rich presentation with display and speaker control
	NTP Server Setting	Time alignment of content presentation
	Ambient environment	Rich presentation with sensor information
Interaction with other devices		Enabling interactive services combined with other devices such as smart-phones