

Cloud-based 3D Menu Generation and Provision of Digital Broadcasting Service on Thin-client

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Abstract— The types of digital broadcasting such as IPTV or smartTV may include terrestrial broadcasting, content broadcasting, real-time broadcasting, bi-directional service and Video on Demand (VOD). A user menu is required to provide a user with these types of content systematically. Without the user menu, it is difficult to find a desired content among such abundant content. The user menu has been developed from a simple text-type menu into a sophisticated one using graphics. In particular, demands for three-dimensional (3D) content which looks more real and stereoscopic than two-dimensional (2D) content are increasing recently.

We provide a method and an apparatus for providing a cloud-based user menu to flexibly process the user menu in a digital broadcasting system.

A method for displaying a user menu in a broadcast receiving terminal in a digital broadcasting system includes receiving a user menu configured through a cloud server and rendering the user menu received from the cloud server in a digital TV.

A method for providing a user menu in a cloud server includes configuring the user menu in a cloud using a menu behavior pattern and providing the user menu for a broadcast receiving terminal connected to a digital TV.

The cloud server includes a menu configuring unit configured to configure the user menu in the cloud using the menu behavior pattern and a menu providing unit configured to provide the broadcast receiving terminal with the user menu configured through the menu configuring unit.

The digital broadcasting system includes the cloud server configured to configure the user menu using the menu behavior pattern, the broadcast receiving terminal configured to receive the configured user menu from the cloud server to be rendered in the digital TV and a resource server configured to provide resources necessary for the cloud server to configure the user menu and for the broadcast receiving terminal to render the user menu.

The cloud-based 3D menu system may maximize the flexibility of a method for processing a menu, resulting in those for easily providing a personalized menu, conveniently replacing a menu and configuring an independent menu on a terminal.

Keyword— Cloud, thin-client, UI, UX, 3D, menu



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