

Samsung LYNK™ REACH and REACH Server

Convenient guest room content management solution for hospitality providers



Enhance control of multiple TV environments with integrated solutions.

Upgrade services and edit TV content from one centralized location

Digital TV (DTV) displays enhance a hotel or resort's reputation for uncluttered, relaxing guest rooms. Hospitality businesses want to improve guests' experience by providing convenient, on-screen hotel information and user-friendly electronic program guides accessible by remote control. Yet, hospitality managers need efficient ways to manage multiple TV sets and their displayed content, without having to update or adjust each unit individually.

Typically, property managers enlist personnel to visit every guest room to perform system upgrades, set changes and other maintenance. Manually updating each TV throughout the property consumes valuable labor and operational costs. A manual process requires additional equipment and maintenance, contributing to continually rising costs associated with DTVs on properties.

Samsung LYNK™ Remote Enhanced Active Control for Hospitality (REACH) is a software and hardware solution for better managing and maintaining room display content. The solution comprises two integrated hospitality options that can be tailored to meet individual property requirements:

- **LYNK™ REACH.** Designed for ease of use, LYNK™ REACH is a software solution provided with REACH Server that helps hospitality properties manage and deploy content on guest room TVs.

- **REACH Server.** REACH Server and the remote controller enables the updating and adjusting of DTVs over radio frequency (RF) signals.

LYNK™ REACH is designed exclusively for hospitality businesses to help create more cost-efficient room display management. LYNK™ REACH can help hospitality facilities:

- Eliminate the manual labor involved in room-by-room visits to each guest room by using a single-location remote solution that saves resources.
- Offer guests a way to rapidly access content with an intuitive interface.
- Deliver information automatically with a headline-style ticker.
- Lower total cost of ownership (TCO) by eliminating the need for extra equipment and staff.

Perform upgrades and edit display interfaces remotely from one centralized location.



Figure 1. Property managers can customize and manage interface and content remotely with LYNK™ REACH and REACH Server.

Avoid the labor involved in room-by-room updates of guest TVs.

Manage multiple TVs simultaneously from a central location with REACH Server

Typically, properties must upgrade TV firmware and deliver updates and channel mapping changes by deploying personnel throughout the site. Staff members use cloned USB devices to update each room display one at a time.

LYNK™ REACH is designed so that property managers and technicians can manage multiple TVs from one central location. REACH Server delivers updated firmware and other settings to TVs through RF signals.

With remote upgrades using REACH Server, staff members can eliminate service limitations and interruptions, leaving them more time to deliver customer services.

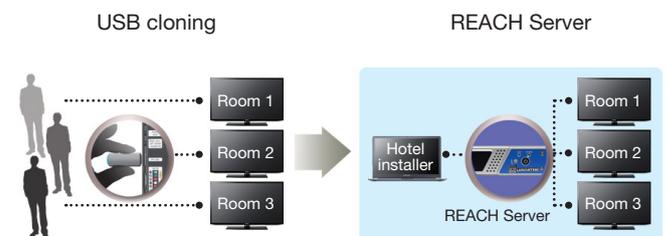


Figure 3. Replacing a room-by-room updating model with REACH Server can reduce staff time and resources.

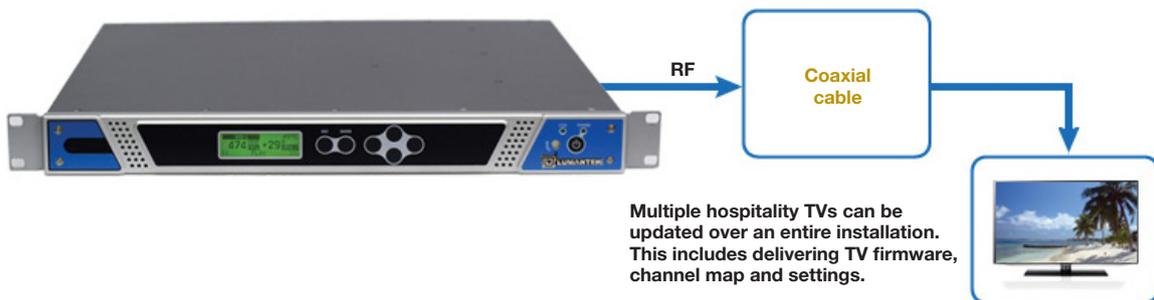


Figure 2. This diagram illustrates how the REACH Server solution simplifies multiple TV management.

Speed access to content with intuitive interfaces.

Access content more quickly through interfaces designed for ease of use

LYNK™ REACH comes equipped with familiar, intuitive user interfaces (UIs) for hotel staffers and guests. The REACH solution contains a simplified tree hierarchy of settings that resembles a desktop folder system.

Enhanced visual contrast between the list of settings and the working window helps employees find the setting or element to be modified without delay. The UI provides a live preview of the element to confirm the setting has been adjusted as desired.

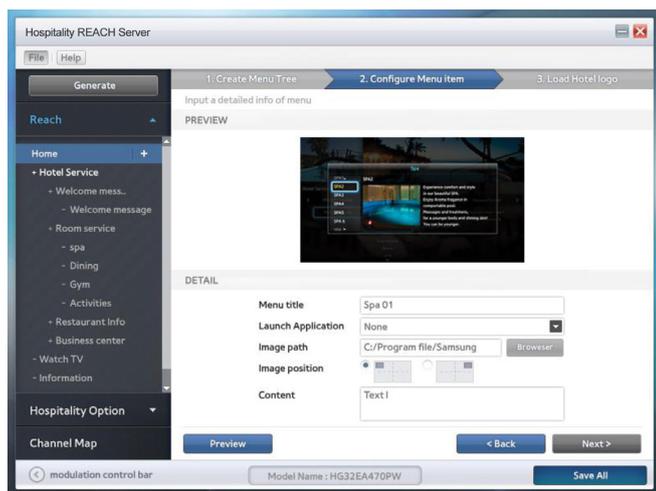


Figure 4. Employees use the intuitive REACH UI to edit and update elements of the in-room guest display.

An attractive, intuitive UI helps guests find services, information and entertainment.

Display a seamless view of a property's brand

LYNK™ REACH simplifies the process of customizing and applying designs on TVs to match brand images, locations, amenities and audiences. When design and content are applied, menus are displayed transparently on top of an editable background image. The UI can include welcome and other messages based on events occurring on or off the property, nightly restaurant specials and other communications.

Help guests find property services and information

Guests can access services and find information with a UI that fills the DTV screen and functions like displays in most in-home large-format TVs. Using the service and information menus is straightforward so that guests can more easily access the resources they need.

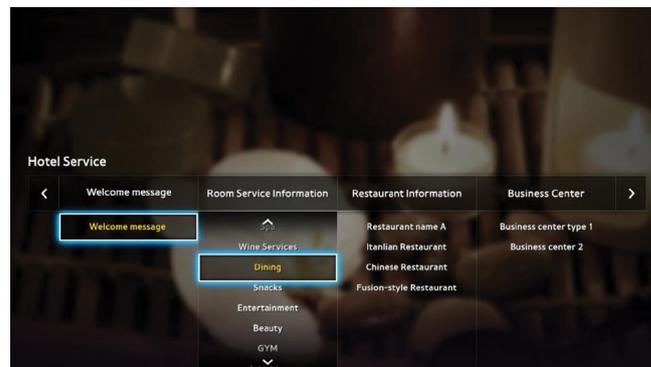
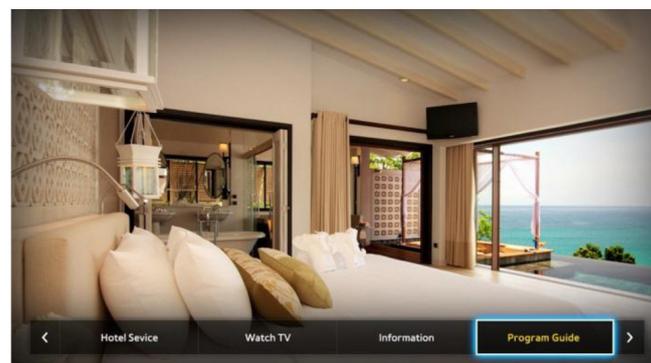


Figure 5. Guests can locate specific services and information using familiar scrolling menus that float transparently over editable background images.

Use tickers to send promotional messages and information to rooms.

Deliver information automatically with the screen crawl feature

The LYNK™ REACH ticker feature gives properties an additional way to deliver messages and other information. The ticker feature provides a crawl of data of special interest to guests, such as local weather or event information. In addition, property managers can create and update targeted promotional content or marketing messages that display in the ticker's scrolling text interface.

For example, a resort or hotel known for its cold-weather amenities might display slope conditions, available spa times and discount ticket packages. A hotel with on-site restaurants can advertise new menu options, or special local promotions, such as food or event discounts that are available to guests. These messages can be scheduled to run at certain intervals to increase guest attention.

Property owners can increase revenue by providing and servicing paid ticker advertisements and information about neighborhood shopping, restaurants and attractions.

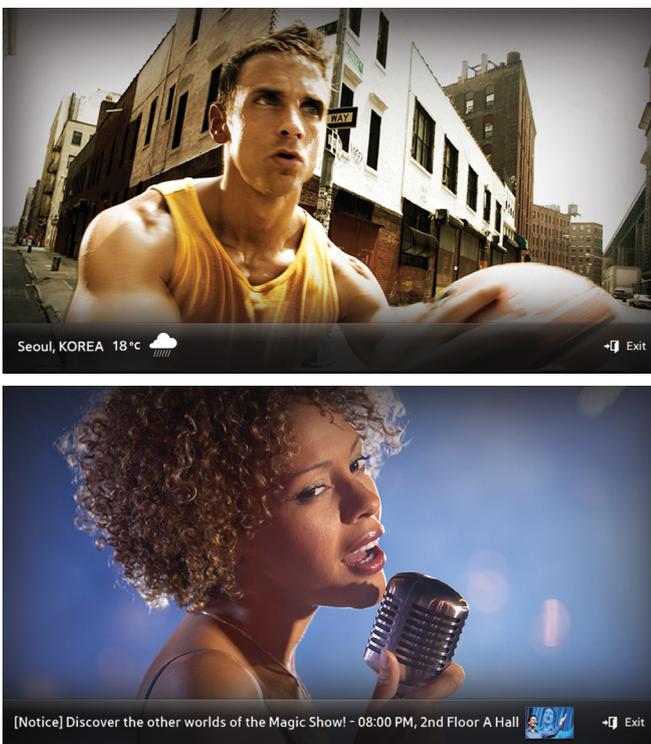


Figure 6. Tickers can be set to show local weather or marketing messages.

Optimize TCO by reducing the need for extra equipment and staff hours

Many hospitality businesses already receive conventional analog and digital TV programming using RF signals. For those establishments that have RF infrastructures in place, LYNK™ REACH is an ideal way to provide TV content more efficiently. With LYNK™ REACH, these establishments can provide advanced features without the expense of purchasing additional set-top boxes (STBs) or installing IP networks.

Room-by-room updates are unnecessary, because employees can upgrade firmware and software from one place. Information can be customized and refreshed using desktop PCs. This flexibility enables employees to conveniently edit content in near-real time as conditions change. For example, if an on-site restaurant runs out of a special dish, a property manager can delete or change promotional messages relating to the menu item. Hotel information, logos, images and more are updated to each TV with customized templates.

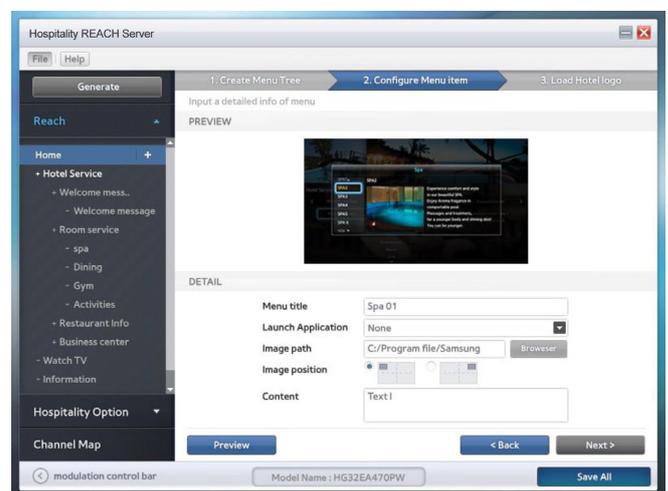


Figure 7. Staff can access REACH software for convenient, near-real-time updates to content.

Serve guests in-room information and entertainment.

Features and benefits

| Features | Benefits |
|---|---|
| Remote TV management | Companies save labor costs by eliminating the need to visit each room individually to perform firmware and software upgrades. |
| Intuitive interfaces designed for ease of use | Property staff members and guests can access content in near-real time. |
| Ticker crawl | Hotels and resorts can deliver marketing messages and weather information to guests without interrupting TV content. |
| Embedded server and software solution that works with existing infrastructure | Hospitality companies can reduce TCO with lower equipment and labor costs. |

Guests can access TV content and information through an interface that matches a property's brand image, location or amenities.

Choose a content delivery solution developed exclusively for hospitality

LYNK™ REACH and REACH Server enable hospitality property managers to manage multiple TV sets remotely and efficiently.

LYNK™ REACH and REACH Server help hospitality providers:

- **Control content on hundreds of DTVs at once.** Remote control management eliminates the excess labor involved in conventional firmware and content upgrades.
- **Offer ease of access.** Intuitive user interfaces provide fast access to content for guests and near-real-time updating for hospitality managers.
- **Deliver information to in-room guests rapidly.** The scrolling ticker enables automatic information and messaging delivery.
- **Optimize TCO.** The integrated solution uses existing infrastructure assets, lowers labor and operating costs and eliminates the need for STBs and other components.

Samsung LYNK™ REACH and REACH Server

Specifications

| Item | Feature | Detail |
|--|--------------------|---|
| System | Embedded PC board | Intel® ATOM® D510 (dual core), 1GB DDR, 40 GB SSD HDD |
| | OS | Embedded Microsoft® Windows XP® |
| | Remote control | 1,000/100 Base-T |
| | Front panel | GLCD, 6-keys control |
| RF | Frequency | 50 – 970 MHz |
| | Frequency accuracy | ± 5 ppm (approx. ± 2 ppm) |
| | Output power | 29 – 56 dBmV |
| | Level accuracy | ± 1 dB |
| | Spurious | < -55 dBc (approx. < -60 dBc) |
| | Phase noise | < -95 dBc at 10 kHz (approx. < -98 dBc) |
| | Return loss | > 15 dB |
| | Group delay | < 20 ns |
| Output impedance | 75 ohm | |
| Modulation: DVB-C (Europe) | Standard | < -55 dBc (approx. < -60 dBc) |
| | Constellation | 16 QAM, 32 QAM , 64 QAM, 128 QAM, 256 QAM |
| | Symbol rate | -10 MS/s |
| | MER | > 36 dB (without EQ) |
| | Channel BW | 5, 6, 7, 8 MHz |
| | Roll off | 0.15 |
| Modulation: Open cable (North America) | Standard | ITU-T J.83 annex A/C |
| | Constellation | 64 QAM, 256 QAM |
| | Symbol rate | 5.057 MS/s or 5.38 MS/s |
| | MER | > 36 dB (without EQ) |
| | Channel BW | 6 MHz |
| | Roll off | 0.13 or 0.18 |

Legal and additional information

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For more information

For more information about Samsung LYNK™ REACH and REACH Server, visit www.samsunghtv.com.



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