

**HbbTV**

Panasonic



HbbTV OpApp Webinar, March 2021

The manufacturer perspective

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Why?

Should an operator do OpApp

OpApp benefits

- Branding
- Visibility
- Resident application (in FLASH mem.)
- Launch on start-up
- Instant service launches
- Easy upgrades
- Flexibility (no hardware)
- No hardware business required
- Feels like part of the TV software
- Access to more keys on RCU
- Can substitute some TV UIs (e.g. EPG)



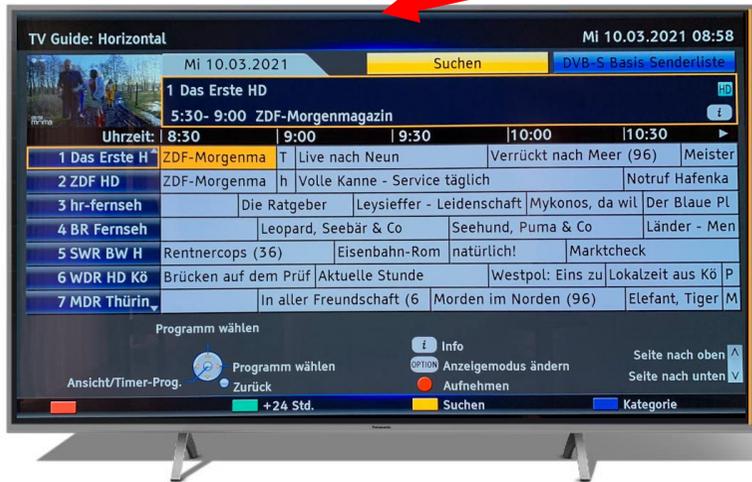
OpApp – Why?

One of the favorite features

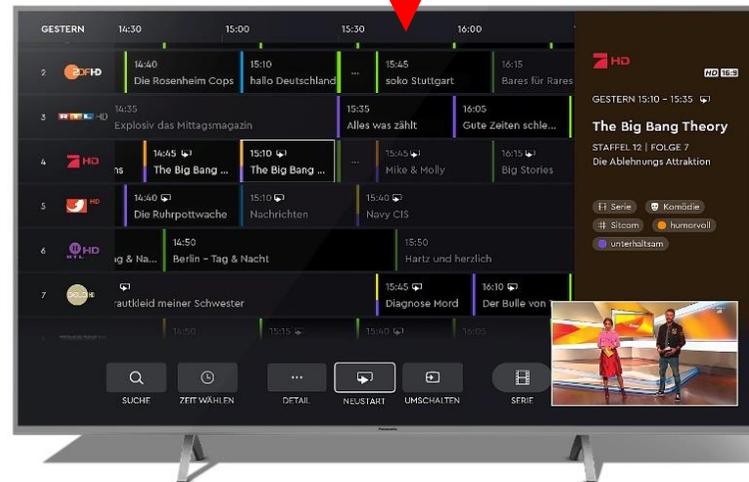


Branded EPG

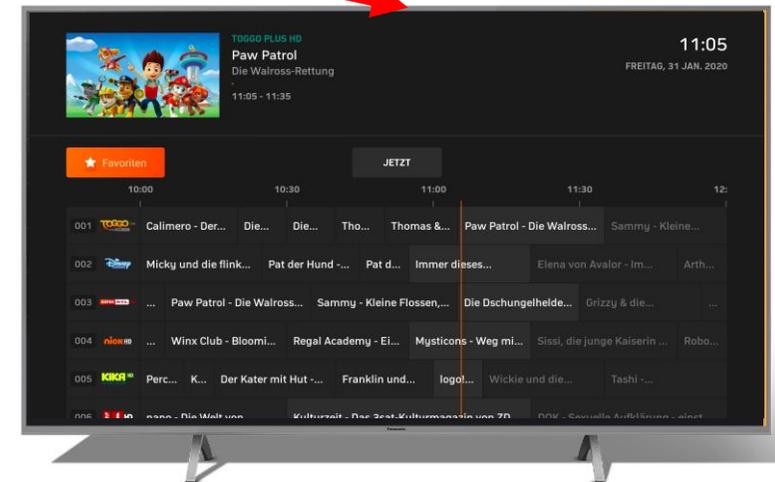
- Operator style
- Operator behavior



Original Panasonic Guide (EPG)



Guide (EPG) from HD+ OpApp



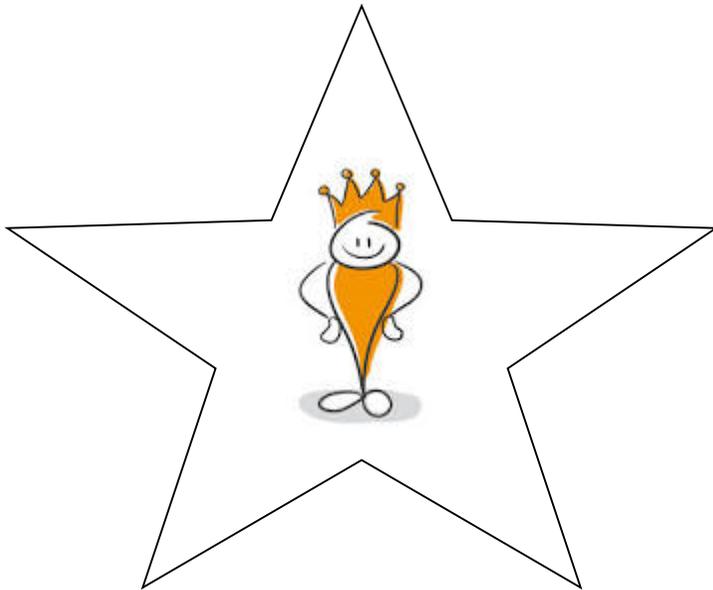
Guide (EPG) from Zattoo OpApp



And why is HbbTV OpApp attractive for manufacturers?

- Easily enables new business fields (IPTV) for SmartTVs
- Hybrid solution, serves broadcast and broadband
- Pay-TV / Subscription services without additional hardware
- OpApp enabled TVs are more attractive (marketing argument)

Manufacturers are user focused



Attractive for the end-user:

- **Single remote control (!)**
- Clean looking living room
- Easy installation (No confusion by wiring extra hardware)
- Perfectly integrated access to IPTV services
- Hybrid: Seamless integration of DVB channels, linear and non-linear IP content (Mediathek, Catch-up, ...)
- Easy feature-up possible (just install OpApp)



Some words from practice...

... also based on received questions



How about “ordinary” HbbTV, if an OpApp is installed – Does this work?



Operator
Application

Yes of course!



HbbTV from
Broadcast

- HbbTV OpApp is running in parallel in the background
- “Ordinary” HbbTV is not affected, and will function as normal!

IPTV only? – Yes!

OpApp can be purely IPTV

- Fully broadcast independent
- Not even a tuner needed
- Perfect solution for IPTV:
 - Get easily on the “big screen”
 - Low effort, no extra hardware
 - Standardized

No CableTV, DVB-T2 antenna, or satellite dish required!



Zattoo is a perfect example for a pure IPTV OpApp solution



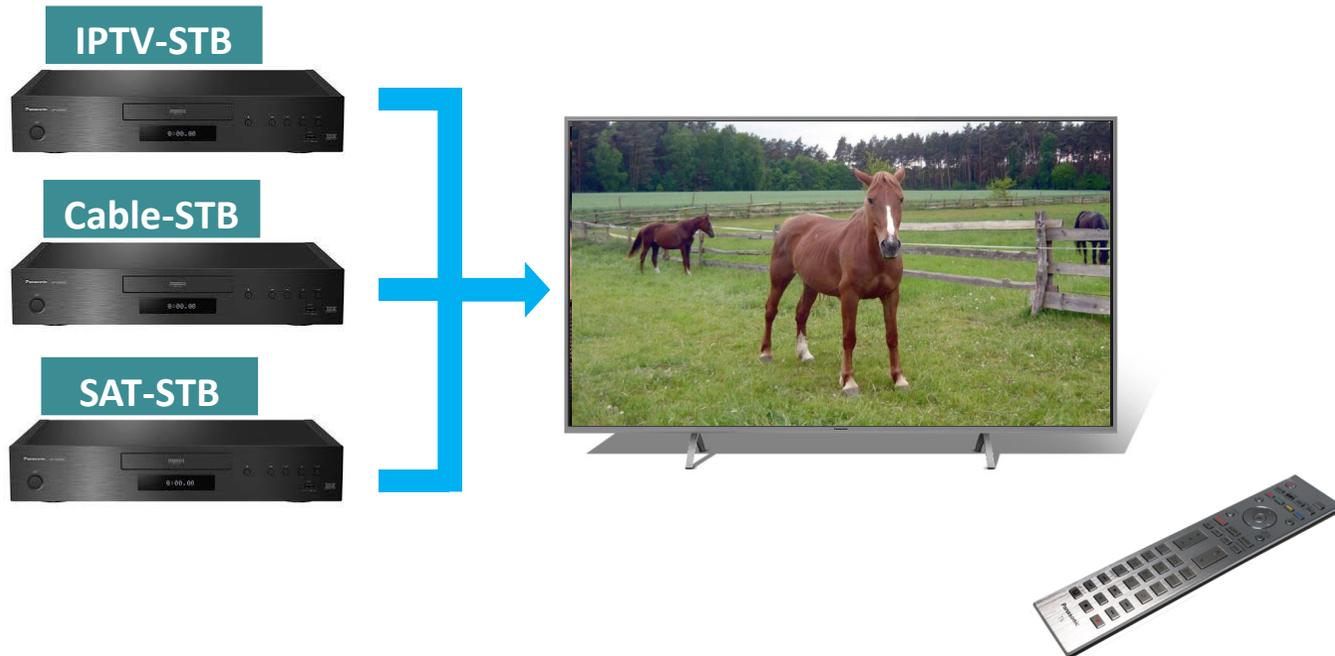
New usage scenarios: Enjoy IPTV in the garden if your WIFI is strong enough



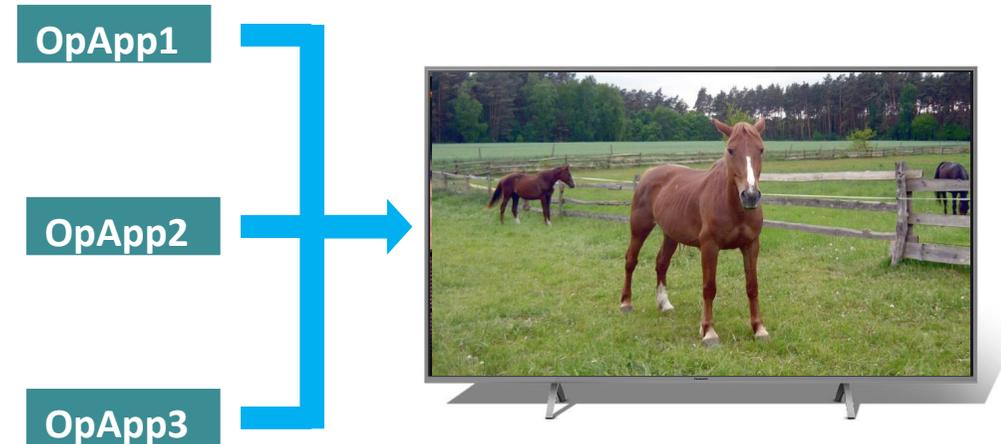
OpApps – Virtual Set-Top-Boxes

- Operator Applications behave like virtual Set-Top-Boxes
- The standard allows switching as if they were “real” STBs connected to a TV

Physical STBs



Virtual STBs (OpApp's)



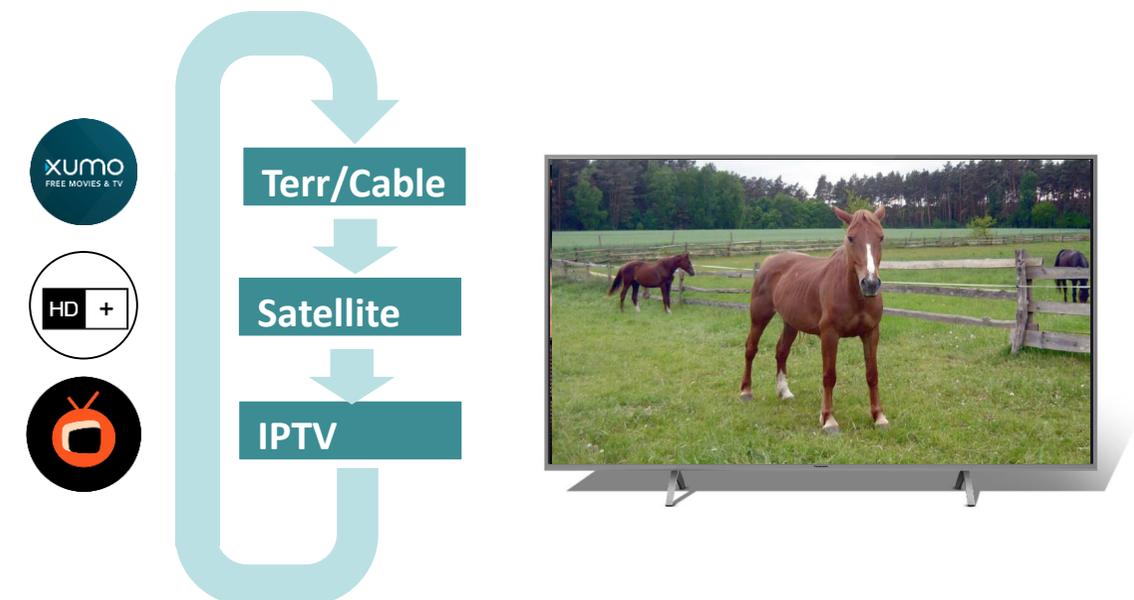
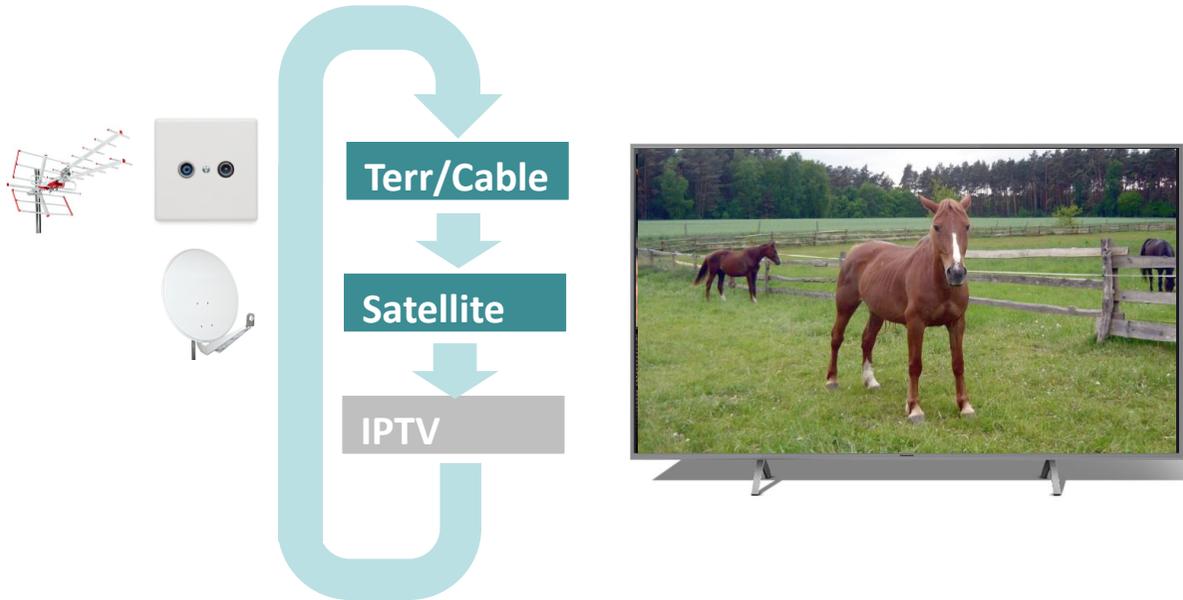
OpApps – Virtual Set-Top-Boxes



The Panasonic way of switching Operator Applications

Physical Inputs

Operator Applications (examples)



How does the OpApp come into the TV?



End user

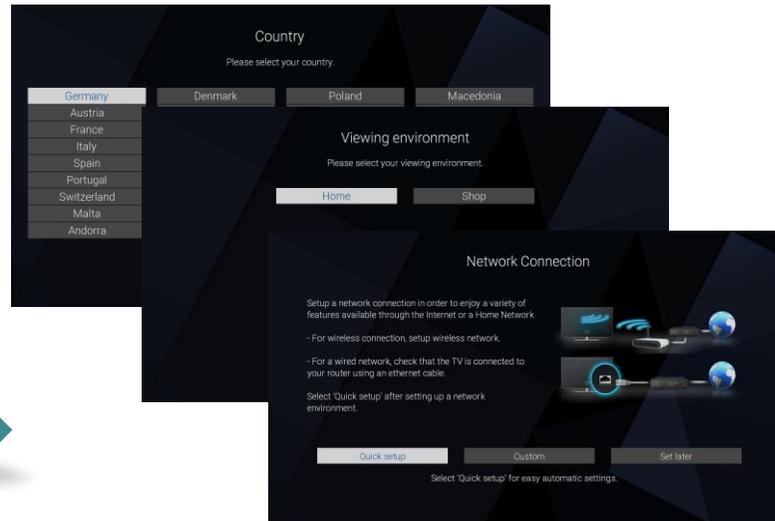


How does the OpApp come into the TV?

1



Initial Setup



OpApps can be already selected at the set-up

Select your OpApp and install it.

OpApp successfully installed. Some hints might be shown

You are done! Enjoy the new services!



How does the OpApp come into the TV?

2

Somehow later...



You may also install an OpApp at any time later...

Select your OpApp and install it.

OpApp successfully installed. Some hints might be shown

You are done! Enjoy the new services!



Operator Applications – Increasing popularity



World first OpApp market-deployment in spring 2019 (HD+ / Panasonic)



Examples of popular OpApps

OpApp is meanwhile gaining increasing popularity
Has been proven as reliable, robust, and flexible



Pure IPTV OpApp solution by Zattoo

Resident application

Start at device power-on

Always active, like device software

Advanced control over a device

Access to more buttons on the RCU

Substitute parts of device's UI (re-branding)

Operators and manufacturers are moving closer together:

Operator

Manufacturer

Partnership!



Partnership - Example Panasonic

Technical partnership:

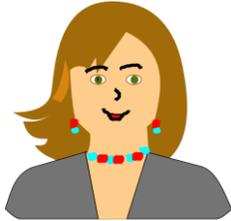
- Close technical cooperation
 - Optimal OpApp development
 - Discuss eventual special requirements
- Technical support later / afterwards
- By PBSEU-PLDC, in Langen / Germany

Commercial partnership:

- Joint marketing
- cross promotion
- Enhanced marketing reach
- New cooperation models

Main partnership advantages:

- It really works as intended
- Strong together



Consumer

- Single remote control
- Easy installation
- No extra hardware
- Clean looking living room
- No confusion with wiring
- Seamless integration in existing device (SmartTV)
- Easy feature-up possible



Operator

- Service visibility
- Easy market enabler
- Easy test of new services
- No extra hardware require
- No HW maintenance costs
- Faster service deployment
- More flexibility (all SW)
- Universal solution thanks to ETSI standard
- Brand experience to customer, consistent customer support



TV Manufacturer

- OpApp enabled TVs are more attractive (marketing argument)
- OpApp is a service enabler
- Enables TV set for new business segments (IPTV)
- New marketing and collaboration opportunities

Thank you for your attention!

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