



Personal TV

Solution briefing



What is Personal TV?

The shift to digital TV and the rise of new forms of over-the-top (OTT) services has started a consumer revolution that is massively impacting the TV industry.

From linear, to catch-up and on-demand, consumers expect video content to be always available, on any device from their cable, satellite and IP based TV service provider. The multi-device, internet enabled world offers an opportunity for pay-TV operators to break out of traditional subscription and advertising led business models and explore new options that mix premium and free services as they forge closer relationships with the viewers. With TV services offering exciting new consumer features such as cloud DVR, multiscreen and recommendations, alongside revenue generating possibilities including targeted-advertising

insertion, pay-TV operators are exploring new ways to increase subscriber satisfaction and ultimately, profitability.

What consumers want

- **Ultra High Definition (UHD)**
Higher quality video up to 4k provides a richer experience for the viewer
- **Catch-up TV**
Up to 7 days of content available on demand via cloud based services
- **Local/Cloud PVR**
Record multiple channels simultaneously locally or in the cloud with full EPG integration
- **Intelligent content recommendation and search**
Find relevant content quickly and easily across live, recorded and on-demand sources
- **Seamless experiences across Multiscreen/Multiroom**
Watch content on the large TV screen, tablet or smartphone with integrated second-screen features such as remote-

control, search, value added content and interactive TV apps

- **Smart STB with TV apps**
Instant access to personal OTT services such as Netflix and Spotify via your TV

How Personal TV operators can respond

- **Flexible service delivery**
Fully personalised from broadcast pay-TV, down to targeted single user online subscriptions
- **Ready for any network**
Optimised for satellite, cable, IPTV, broadband and mobile content delivery
- **Single platform supporting every device**
Support for light & heavy STB's and pure OTT service delivery within a single platform
- **Native multiscreen UX**
Reduce complexity and increase user engagement with a unified UX across all device options

- **Open and standards-based middleware**

To allow seamless integration with service delivery elements such as CA, DRM and billing

- **Individual viewer preferences and engagement**

Per viewer personalisation and data capture for relevant content recommendations, marketing communication and advertisement

- **Seamless ad-insertion**

Full support for SCTE-35, allowing seamless ad-insertion capabilities

- **Scalable business model**

Flexible enough to meet the CapEX/OpEx needs of subscription and freemium use cases

- **Operational flexibility**

Cloud middleware to meet the needs of online video providers across all screens and devices

Delivering winning Personal TV

Successful Personal TV means offering viewers high-quality, easy to use, fast and reliable services across every desired device and in any feasible location. Personal TV, whether it is delivered in a

browser or via a set-top box, needs to offer a granular set of features that meets the technical capability and features desired by the customer at a competitive price point. Yet, the velocity of change within the TV industry means that any solution needs to be able to adapt to new trends by embracing flexible software platforms and potentially the cloud. For success in this competitive space of IP based Personal TV, a service must meet the three key attributes of **flexibility**, **reliability** and **cost**.

Flexibility

With subscribers opting for shorter duration contracts while operators face stiff competition to secure the rights to premium content, it is vital that pay-TV service providers offer the widest variety of service packages to attract an increasingly cost conscious customer. Through a mix of flexible customer premise equipment (CPE) and new cloud-based delivery, operators can create compelling new offerings at enticing price points that can win new customers and keep them entertained. To do this, operators need flexibility within their TV platforms to adapt quickly to the latest new trend and hot features, without major hardware upgrades or lengthy software development cycles.

ADB Solution

ADB's Personal TV solution is ready to help pay-TV operators quickly meet subscriber demands in a multiscreen connected

world. ADB's graphyne2 is the result of more than 20 years of continuous development serving cable, satellite, IPTV and new OTT service providers across the globe. Built on a stable and proven platform, graphyne2 goes further by embracing the cloud, allowing rapid adoption of new consumer demands including personal recommendations and interactivity to enable new revenue drivers such advertising insertion and targeted marketing. As both a software and hardware company, our expertise extends past the product stage and into the development of personal TV designed for every operating environment with the flexibility to quickly adapt, with just a software upgrade, to the demands of the future.

ADB graphyne2 is:

- A flexible platform with a range of appliance and software options for cable, satellite, IPTV (multicast and unicast) and

OTT providers of any size

- Ready for every subscriber with a set-top-box (STB) UX, HTML5 UX and multiscreen UX including iOS, Android and AndroidTV
- A Personal TV platform with a full set of selectable TV features, demanded by both basic and premium subscribers
- Pre-integrated with pay-TV operators' existing service delivery platform, and able to stream content between STBs in a multiroom environment, as well as to mobile devices allowing Pay-TV operators to offer premium content to multiple devices within the home
- Includes a full subscriber relationship platform for recommendation, advertisement, audience measurement and marketing



Proven Reliability

In an age of always-on accessibility, subscribers expect appliance-like reliability from personal TV devices and services. With so many rival services on offer, pay-TV operators need to be able to deliver STBs that offer comparable performance to other consumer devices such as smartphones and tablets, along with simple to understand user interfaces that win customer loyalty. In some cases, consumers want to use their smart TVs and other smart devices to watch content, yet expect the service provider to overcome any technical problems. Where users run into technical issues, complexities and failures, operators in turn end up losing customers and damaging their respected brands. At a time where social media can convey dissatisfaction in an instant,

reliability is a key driver for both customer retention and growth, and service provider profitability.

ADB solution

ADB Personal TV solutions are designed for 'always-on' reliability to keep TV services running across the connected world without any downtime. graphyne2 is the 5th generation of a platform that has continually evolved to serve the needs of operators that deliver pay-TV services to hundreds of millions of subscribers across the world. Combining expertise from ADB experts in TV, networking and user experience along with award-winning ADB technologies, graphyne2 is powering innovation at some of the world's largest cable, satellite, and IPTV and OTT providers. By designing and building our own software stack along with specifying and verifying hardware, we provide complete quality control over

every element. With built-in High Availability (HA) features and over-the-air updates, every graphyne2 platform is always ready to meet the next wave of innovation. To further ensure quality of service, we provide tools that allow our customers to easily integrate with back-end device provisioning and fault diagnostic platforms to seamlessly maintain optimum performance, and quickly react if an issue arises. By having expertise in-house across all areas of the connected device space, ADB is able to meet the proven reliability demanded by our customers to serve their subscribers.

ADB graphyne2 is:

- Designed to meet the unique requirements of each customer installation through a rigorous design, testing and quality assurance program

- All functions, including video and metadata delivery, recommendations, marketing management and analytics, are available via the cloud with no need to install any additional complex hardware at the operator's premises.
- Ready to integrate with existing multi-service delivery platforms and key standards such as Docsis 3.0
- Third party services are integrated at the head-end side removing the need to modify the device software while exchanging the head-end components and services.
- Fault tolerant design and implementation by industry experts with continual development and updates to meet ongoing feature enhancements

Cost effective

With over 1 billion people watching some form of pay-TV service each month; operators are increasingly forced to make careful pricing decisions to win over subscribers. Successful business models for pay-TV services vary greatly around the world, requiring different yet equally enticing combinations of content and accessibility at affordable price points. Yet the cost-per-month or pay-per-view is only half the story. Pay-TV operators must consider the OPEX of new hardware and software and the value of different deployment methods such as cloud in terms of longer term benefit. This cost conundrum is a complex challenge to overcome, and without good partnership, can lead to unfortunate compromises and more inherent risks.

ADB solution

ADB Personal TV solutions provide a range of appliances and software modules allowing our customers to balance features and costs to create a compelling pay-TV service, which is suitable for every market. The graphyne2 solution is designed to scale from entry level hardware such as simple HDMI sticks, all the way to feature-rich smart STB's with built in PVRs and support for the next generation of HD

content. graphyne2 is also the first platform in the industry to offer a fully featured multiscreen UX to help pay-TV operators transition to a more connected role, through seamless user experience between mobile devices, tablets, PCs, smart TVs, STBs, and a roadmap for the TVs supporting operator apps. Our operator clients can choose from the widest range of third party hardware options with the assurance that ADB can deliver a graphyne2 solution that meets every cost and operating requirement without sacrificing reliability.

Alongside a range of competitive on-premise appliances, graphyne2 includes middleware and cloud based services that can further reduce cost and complexity while quickly scaling in line with demand and budgets. In addition, with ADB's ability to provide a complete end-to-end design, build and implementation service, working closely with content and third party services providers, our customers reduce both operational complexity and risk.

ADB graphyne2 is...

- The only Personal TV platform ready for every price point within Digital, Satellite, Cable, Terrestrial, IPTV, HBBTV and OTT deployments
- Provides a complete end-to-end solution including

on-premise hardware, software, cloud and hybrid capability from a single vendor

- Offers great flexibility regarding hardware design and software integration to deliver a highly bespoke product suitable for any service delivery model
- A modular design that allows the customer to specify the optimum feature mix needed to meet critical cost considerations
- Ready for the future with built-in multiscreen UX that allows the operator to extend audience reach with a new immersive experience
- A high value marketing management solution, including advertising for live and on-demand video content, and audience measurement in real time for optimal marketing and content acquisition
- An innovative second-screen application supporting private data-casting, allowing legacy STBs over 5 years old to handle new content services, saving operator hardware CAPEX and OPEX on the development of new content services



ADB is your Personal TV partner

ADB has more than 20 year heritage, successfully delivering over 60 million devices to service provider customers across the world. We deliver connected

solutions that marry the technical challenges of TV, interactive media, IP connectivity and consumer experience to meet the industry specific requirements of our customers within hospitality, healthcare, education, stadia, retail and a whole host of business sectors. ADB is embracing the future of the connected world.

Alongside our proven graphyne2 family, our Broadband platform provides a complementary set of products to delivering TV services across both residential and commercial customers while enabling exciting new services and improved operational efficiencies.

