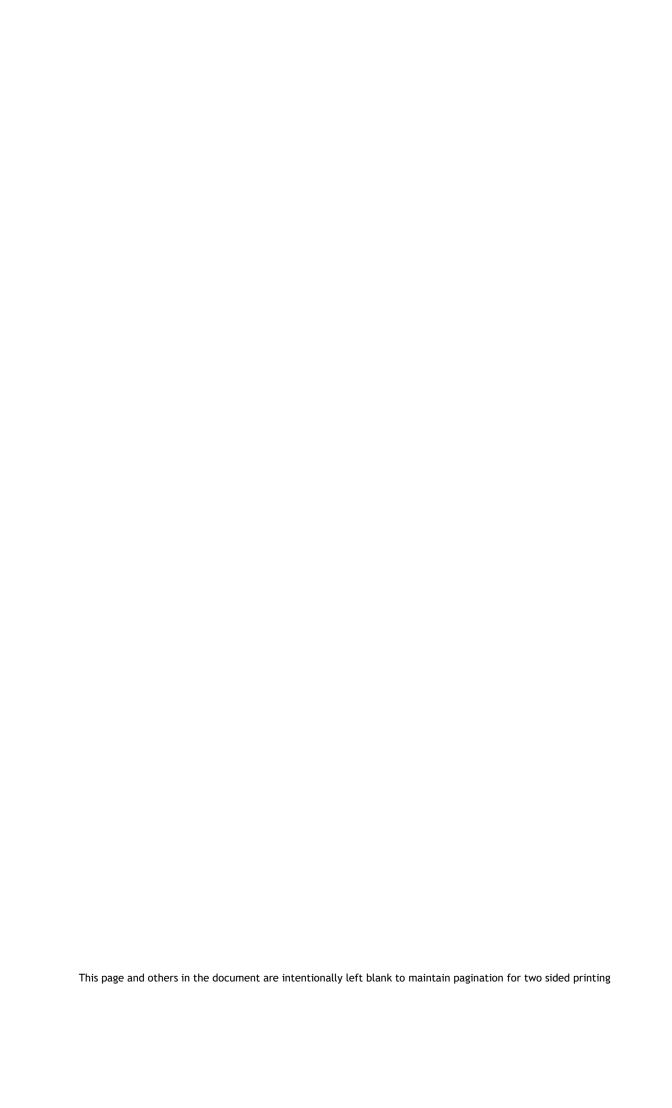


TR 046

BUSINESS ARRANGEMENTS FOR THE DISTRIBUTION OF PUBLIC SERVICE MEDIA CONTENT AND SERVICES

TECHNICAL REPORT

Geneva April 2020



Abstract

This document seeks to facilitate a discussion about future distribution of Public Service Media (PSM) content and services, both internally to PSM organisations and externally.

The PSM providers need to develop their future distribution strategies that will enable them to fulfil their remit in the face of fast-changing technology, audience behaviour, market situation and regulatory conditions.

In particular, PSM providers may seek to maximise their reach while minimising their distribution costs, given the continuous pressure on their budgets.

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Business Arrangements for the Distribution of Public Service Media Content and Services

EBU Committee	First Issued	Revised	Re-issued
TC	2018	April 2020*	

Keywords: PSM, Business arrangements, Distribution, Network, Partnership, OTT.

1. Introduction

Distribution of audio-visual (AV) content and services constitutes the link between production and consumption. In a broader sense distribution also includes additional elements such as encoding, caching and network access, content rights, DRM, security, audience analytics and personalization. To this end, either dedicated or general-purpose communications networks need to be employed. Building and operating a dedicated distribution network requires large investments and usually entails substantial operational costs. Therefore, content and service providers may be inclined to use general-purpose network infrastructure for the distribution of their content and services whenever possible, provided that certain conditions are met. These conditions normally stem from a set of technical and commercial requirements but may also result from broader strategic considerations and regulatory obligations.

Operators of public telecommunications networks both fixed and mobile are therefore key partners in content and service distribution. Content and service providers may consider a variety of different business arrangements with network operators with respect to how distribution is enabled and how the revenues are generated and shared. For network operators, however, there are in principle two main sources of revenue. The first source are the content and service providers who want to make sure that their products are delivered to their customers in a clearly defined way and under the regulatory and commercial conditions they have to adhere to. The other sources of revenue are the customers of the network operator who seek access to various types of audio-visual content and services.

A vast amount of AV content and services originate in the broadcasting sector where Public Service Media (PSM) providers exist alongside commercial media providers. Legal and regulatory conditions for PSM providers may differ from one country to another. However, PSM providers are in most cases publicly funded and have specific obligations regarding the type and quantity of content and services they are required to produce. With respect to distribution, PSM providers are usually required to make their content and services universally available, including on a free-to-air basis. In some countries they are also constrained in terms of business models they are allowed to adopt.

Some PSM providers can autonomously decide how to use their funds, while others are restrained to use the funds for selected well defined distribution options. The latter case means that shifting investments from one distribution form to another may imply a lengthy administrative process which limits the possibility of PSM providers to respond to the fast-changing market situation. As a consequence, PSM providers represent a specific type of market participant with a substantial regulatory oversight.

^{*} Figure 7 replaced by corrected version - no other changes.

Commercial media service providers do not have such constraints and are free to choose any business arrangements that they consider appropriate for their own objectives.

The issue of content rights has not been explicitly treated in this document. Whilst it is recognised that this issue is rather important, it is also complex and, therefore, it exceeds the scope of this document. For all discussed business arrangements it is assumed that content rights have been cleared according to the usual practice and applicable regulation.

OTT platforms for the distribution of content have emerged and developed into important distribution means for PSM providers. They mainly generate revenues based either on user subscriptions or on monetizing user data. OTT platforms offer benefits to PSM providers in terms of increasing the reach beyond traditional broadcasting distribution means. Depending on the model there may be additional substantial distribution costs.

Distribution of broadcast content and services is only one part of the PSM business activity, which starts with the production of content. This covers the whole range of programming areas, such as news, entertainment, sport, education and documentaries. Individual programmes are sequentially combined to become traditional linear radio and TV channels. In addition to these, new types of services are generated such as time-shifted, catch-up and other forms of on-demand offer. All this is accompanied by a corresponding presence in relevant social media platforms.

Nowadays, users are consuming content and services in many different ways, i.e. at home in the living room on large TV screens and high quality audio systems, but also on the move using personal devices such as smartphones and tablets.

The link between the two sides - the content production and the users - is established by the different types of distribution technologies and platforms¹. Different PSM providers have different requirements in terms of services they offer, the regulatory regime they have to adhere to and also the economic constraints under which they have to operate. As a consequence, different PSM providers may develop and follow different strategic objectives with respect to distribution of their content and services. This has direct bearing on the selected distribution options and the associated business arrangements with network and platform operators.

2. Must Carry rules

In many countries national regulators can impose obligations for the network operators to provide certain content and services to the users, for example PSM. In the EU, the telecom regulatory framework provides for such must-carry obligations to be imposed on selected network operators for some specific audio-visual services if the distribution networks over which they are offered are the principal way to receive these programmes for a significant number of consumers.

Must-carry rules can be applied to distribution options where subscription to a service is a prerequisite to get access to PSM content. In the past, must-carry obligations were applied primarily to cable and satellite TV providers with a significant market share. Application of must-carry rules does not necessarily mean that distribution is for free. Depending on the specific regulatory conditions, the scope of the obligations or the kind of service to which they apply, different models exist. In some cases network operators pay for the content they make available through their networks, in other cases the PSM service providers pay for carriage. There are also examples where there is no payment involved.

Must-carry rules have been developed in the context of delivery over broadcast networks. In principle, they could be adapted to broadband distribution as well. This refers in particular to managed services that are subscription based and that offer access to a bundle of linear programmes and/or nonlinear content offers. In this case, must-carry rules could be applied to simply impose the inclusion of PSM content in the portfolio of the managed service provider in the same way as in broadcasting networks.

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¹ Visualisation of the value chain of media enterprises can be found in <u>EBU Technical Report TR041</u>.

3. Types of business arrangement in distribution

Taking into account the specific conditions and constraints under which PSM providers have to operate and which services they are offering, i.e. which use cases they are focusing on, four different broadly defined types of business arrangements between PSM providers and network operators have been identified. Some of these arrangements may be equally applicable to commercial media service providers.

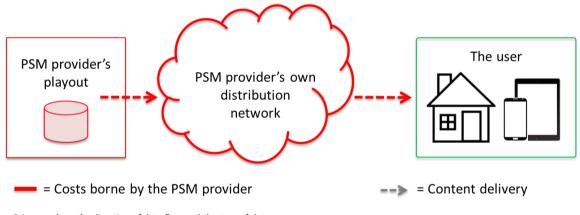
3.1 Network operation by PSM providers themselves

Historically, broadcasters deployed and operated their own terrestrial networks that were at the beginning analogue and later digital networks. In a number of countries, PSM providers still operate their own terrestrial transmission networks, although this model is nowadays less prevalent in Europe.

The costs for operating their own networks have to be borne by the PSM providers.

Network operation by PSM providers themselves does not necessarily call for direct business arrangements with other network operators, except in some cases for access to network infrastructure, e.g. transmitter masts, etc.

With respect to distribution of broadcast content and services over broadband networks, this model does not seem to be viable. Considering the practical hurdles and the huge investments involved it seems unrealistic that PSM providers would operate their own broadband distribution networks.



* Arrows show the direction of data flow and the type of data. Colours indicate who bears the costs.

Figure 1: Broadcaster owns the whole distribution network

3.2 Distribution as a Service

Distribution as a Service means that PSM providers commission one or more external network operators to carry out the distribution of their content and services. In a number of cases this model emerged as a result of the PSM providers' decision to outsource their own network operation.

The conditions and constraints for the distribution are laid down in a contract between the PSM provider and the network operator according to which the operator has to plan and design the network. From a PSM provider's point of view these conditions refer primarily to the envisaged coverage areas and the Quality of Service.

Traditionally, the *Distribution as a Service* approach has been widely applied for distribution over broadcasting networks, primarily terrestrial and satellite networks. When using ISPs and mobile networks, the content is normally distributed via CDNs. In these cases the PSM provider bears the CDN costs but normally does not have a contractual arrangement with an ISP or a mobile network operator. However, if eMBMS LTE or, eventually, 5G networks were to be used in the future to

deliver in particular linear radio and TV programmes, the *Distribution as a Service* approach may be a viable option to define a business arrangement between a PSM provider and a mobile network operator. This means that PSM providers would commission a mobile network operator to distribute their content and services.

Depending on a particular business model and on the market situation, users in fixed and mobile broadband cases are likely to have to pay for their own connection to the network. Therefore, different variants are possible.

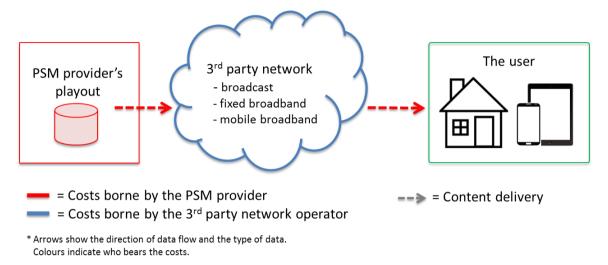


Figure 2: Distribution as a Service

3.3 Partnership based distribution

In the partnership approach a content provider may decide to place his content and services at the disposal of a network operator who incorporates them into his content packages.

The PSM provider will have a contractual arrangement with a network operator. The primary objective of the network operator is to monetize the content whereas the PSM provider seeks to extend the reach with a certain level of quality assurance. The operator has a contractual relation with the subscribers whereby revenue is generated. Various revenue-sharing models can be adopted between PSM provider and network operator. In any case, the distribution costs are to be borne by the network operator via a managed network. PSM content and services on a managed IPTV platform are an example of a managed partnership.

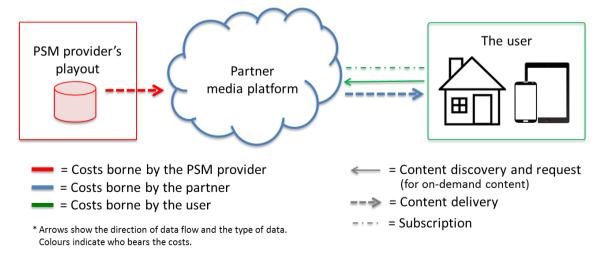


Figure 3: Partnership based distribution

This type of business arrangement between a PSM provider and an operator could be applied where a network operator is offering access to audio-visual content and services in addition to

connectivity. The network operator offers for example access to the Internet and in addition bundles a set of audio-visual services stemming from different sources into different service packages. Access to these packages is usually enabled by means of subscription.

3.4 Over-the-top distribution

Over-the-top (OTT) means distribution over the open Internet and it does not have an equivalent in the traditional broadcasting ecosystem. In the OTT model audio-visual media content and services are made available on the open Internet and can be accessed only by users with an adequate Internet connection, whether fixed or mobile. The users need a subscription for the Internet access and, depending on the model, may need an additional subscription for access to AV content and services.

The OTT model is currently the prevailing approach for online distribution of AV media services and it allows the media content and service providers to quickly reach potentially large, indeed global, audiences without investments in broadband network infrastructure.

A potential downside of the OTT model is that the service is delivered to the users on a best-effort basis. Furthermore, network operators can generate revenues only through customer relations with users and not with content providers. Their opportunities to offer added-value services in connection with the AV content are limited.

The OTT business arrangements are broken into four broad sub categories to help distinguish the different business arrangements.

3.4.1 PSM provider's own portal

Here the PSM provider offers an online portal that the users access either via a website or an application, e.g. the BBC iPlayer, ARD/ZDF Mediathek, YLE's Areena, NRK.TV, etc. To this end, a PSM provider usually has business arrangements with one or more ISPs for its own connection to the Internet and/or with one or more CDN providers for distribution and caching. For these services the PSM provider bears the associated costs. However, the PSM provider does not enter into business arrangements with the ISPs that provide Internet access to the members of the audience. For the delivery of on-demand content in HbbTV services this model is normally used.

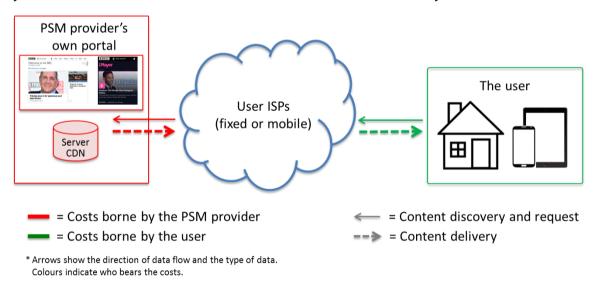


Figure 4: OTT - PSM provider's own portal

3.4.2 Syndication

Here the PSM provider has a contractual arrangement with the syndication partner to provide access to content and services. This does not necessarily imply payment. The contractual arrangement is normally about making PSM content available on the syndication partner's portal but it could also be about prominence. Examples of this partnership are contracts between PSM

provider and smart TV manufacturers or service aggregators.

Access to the PSM provider's services is provided via a deep link from the syndication portal. Therefore, the content delivery cost is shared between the PSM provider who bears i.e. the CDN costs and the user in the form of their ISP costs.

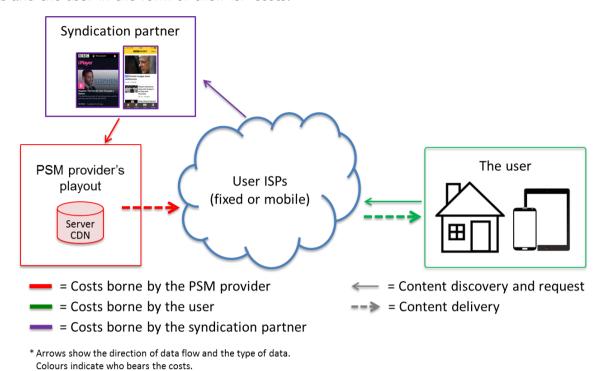


Figure 5: OTT - Syndication

PSM providers are often challenged with this sort of partnership model because they have to compete with large commercial platforms, such as Netflix and Amazon Prime that buy prominence. There is currently no regulation related to the prominence of PSM provider's applications.

3.4.3 Uploading or streaming content via third party media platforms

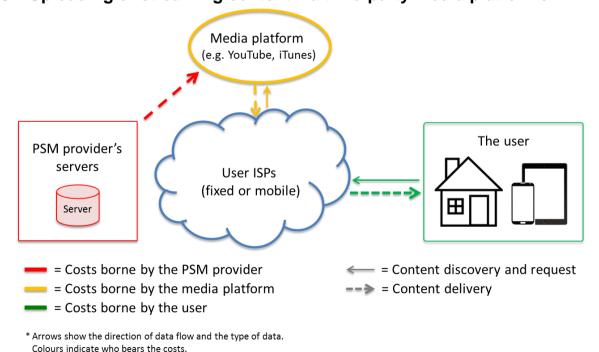


Figure 6: OTT - Uploading or streaming content via third party media platforms

A common method of making content widely accessible is via Internet media platforms, such as YouTube, Spotify, iTunes or Facebook Live. Here a PSM provider will upload their content or provide it for live streaming via a third party media platform where it is accessible for the users, usually subject to standard Terms of Service defined by the media platform.

The PSM provider only bears the cost of the upload onto the media platform as the CDN costs will be borne by the media platform itself and the users cover their own ISP costs.

Such platforms are normally designed to provide access to discrete pieces of content, rather than services. A PSM provider can normally create their own defined space on the platform and users can "subscribe" to that space. The main monetary model is normally by linking content to adverts and monetising user data. Revenue sharing between content provider and media platform operator are common. This model is not normally aligned with PSM organisation policies.

3.4.4 Selling content

If a PSM provider wishes to monetise some of its content, it may choose to sell it to a third party platform e.g. Netflix or other VoD providers. Like the arrangement above, the PSM provider will upload the content to the 3rd party platform provider. The distribution costs will be borne by the 3rd party media platform, while the user normally pays for both their own ISP and a subscription to the 3rd party platform. The PSM provider will have a limited say on how or where their content is displayed on the 3rd party platform.

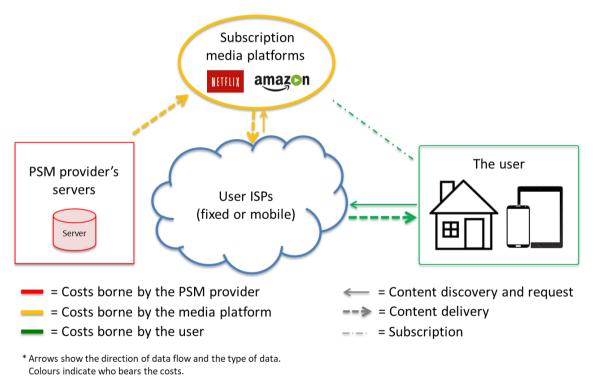


Figure 7: Selling content

4. Discussion

The approaches described above may substantially differ from each other in various ways. In practice a PSM provider will utilise various different business arrangements, depending on the type of content, their commercial objectives, regulatory obligations, content rights, or other considerations associated with the service or targeted market segments. Elements of different arrangements could also be combined as the PSM providers seek the flexibility to respond to the user demand.

Whatever business arrangement PSM providers may select for the distribution of their content and services, any decision will quite likely be guided by some fundamental considerations, including but

not limited to:

- Quality of Service provided to the users;
- control of distribution costs borne by the PSM provider;
- costs for users to access PSM content and services;
- PSM provider's unconstrained access to the audience
- PSM provider's unconstrained access to user data;
- attribution of PSM content, i.e. ensuring that the origin of the content is retained throughout the distribution chain;

Table 1 provides a comparative qualitative assessment of different distribution arrangements from the PSM provider's perspective.

Defined Quality of Service

Costs for PSM provider

Cost for users

Unconstrained access to the audience

Unconstrained access to user data

Attribution of content

Table 1: Comparative assessment of different business arrangements

Note: The colours in Table 1 indicate to what extent a business arrangement in a given column is considered to be favourable for the PSM provider in comparison with other business arrangements, with respect to a requirement in a particular row, as follows:



A quantitative assessment would need to take into account the specific circumstances in which a particular PSM provider operates.

In addition, the degree of control that the PSM provider retains over the technical and commercial aspect of the distribution is another important factor when selecting a business arrangement. However, the details of this aspect vary significantly depending on the circumstances and may have to be considered on a case by case basis.

Furthermore, it is noted that content owners increasingly require services providers and network operators to implement digital rights management (DRM) mechanisms. In some cases this may limit the choice of the distribution option or a business model. For instance, if signal encryption is required, this would preclude free-to-air distribution.

² These business arrangements are currently prevalent in conventional broadcast distribution where the possibilities for gathering user data are rather limited, hence the assessment 'not favourable'.

The distribution costs could be borne either by the PSM provider or by the network operator, or it could be split between the parties involved.

The PSM provider bears the costs of their own distribution infrastructure and the costs of *Distribution as a Service*, which also applies to free-to-air (FTA) distribution. One distinctive aspect of FTA distribution is that the end users have access to content and services free of recurring charges. The distribution costs are traditionally borne by PSM providers.

There is often a trade-off between the costs for the PSM provider and the degree of control that it can exercise over the Quality of Service. In a simplified way, the less control on Quality of Service and the design/implementation of the technical infrastructure the content provider has, the cheaper the solution. The *Partnership* approach is a potential middle ground between cost/quality/attribution and access to audiences but will likely need to be supplemented by some of the other models. For the time being, collecting user data seems to be most easily facilitated by using an OTT portal operated by the PSM providers themselves.

5. Conclusions

PSM providers need to develop content distribution strategies that will enable them to fulfil their remit while keeping pace with fast changes in technology, audience behaviour, market situation and regulatory conditions. In particular, PSM providers may seek to maximise their reach while minimising the distribution costs and safeguarding a direct access to the audience and user data.

Network operators are key partners in distribution. There is a range of different business arrangements that content providers, including PSM organisations, may adopt when engaging with network operators. This document outlined four broad categories of business arrangements:

- content and service providers operating their own network infrastructure
- Distribution as a Service
- partnership between a content provider and a network operator
- the OTT model, which itself comprises a variety of possible approaches, such as:
 - PSM provider's own internet portal
 - syndication
 - uploading content onto third party's platforms
 - selling content to a third party

Whatever business arrangements a PSM provider may adopt, a decision would need to take into account some fundamental elements, such as:

- the desired Quality of Service to be provided to the users;
- control of distribution costs for PSM providers;
- costs for users to access PSM content and services;
- PSM provider's unconstrained access to the audience;
- PSM provider's access to user data;
- attribution of PSM content, i.e. ensuring that the origin of the content is retained throughout the distribution chain;
- the degree of control that the PSM provider retains over the technical and commercial aspect of the distribution;

The above mentioned business arrangements may substantially differ from each other in terms of their ability to meet PSM requirements. For example, there is often a trade-off between the costs for the PSM provider and the degree of control that it can exercise over the Quality of Service. Furthermore, the distribution costs could be borne either by the PSM provider or by the network operator, or it could be split between the parties involved.

In the non-IP domain, the different distribution platforms such as DTT, satellite, cable are largely independent from each other and PSM providers are normally able to utilise a single business model per platform. In the IP environment, however, a PSM provider will most likely use multiple business arrangements at the same time, depending on the type of content, the commercial objectives, regulatory obligations and other considerations. As a consequence, the challenge for PSM providers is to balance the cost, Quality of Service, access to the audience etc., across an aggregated set of content delivery mechanisms and business arrangements.