Delivering next-generation OTT bundles: CSP integration challenges and opportunities

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1 Executive summary

Over the last few years there has been a proliferation of over-the-top (OTT) services that have disrupted the traditional content distribution landscape.

This report examines the move by telco and pay-TV service providers to bundle these services with their existing offers, and the commercial, technical and operational challenges this presents.

The benefits of integration are clear: for consumers, the desire for an integrated set of entertainment services, including single bill, discovery and playback interface. Telco and pay-TV providers can capture some of the value from these OTT services, defending their existing pay-TV offers from churn and average revenue per user (ARPU) erosion, or growing in new content domains without the demand for heavy investment. For the OTT provider, integration can drive growth in subscriptions through enhanced distribution and marketing.

However, the cost of integration threatens to outweigh the benefits for many telco and pay-TV providers, for a number of commercial, technical and operational reasons.

From a commercial point of view, popular OTT providers are frequently reluctant to share a significant proportion of their subscription revenues – for example, Netflix often shares only $1 of their $10 monthly subscription fee. In addition, the most popular OTT providers often demand minimum guarantees or considerable marketing spend commitments by the service provider.

The investment and time required to set up a bundled offer depends on the level of integration required. The lighter-touch partnerships, many of which simply provide zero-rate data traffic and direct carrier billing, require more limited integration. However, they have also proven difficult to monetize – customer adoption has been low, most likely because the sign-on process remains painful and the integrated offer delivers few benefits beyond a single point of billing.

Deeper integration can improve the customer experience by enabling single sign-on and a single point of content discovery and playout across multiple services – which may in turn lead to higher adoption rates. However, these integrations can take over six months, and cost millions of dollars to bring to market. The complexity of the integration is exacerbated by the number, age and type of legacy systems operated by the operator platforms – and by the number of vendors involved in the technical integration, and their levels of expertise.

As aggregation of OTT services becomes the new normal, telco and pay-TV service providers are increasingly seeking scalable and customisable multi-service integrations that can provide seamless customer journeys and flexible payment solutions across multiple OTT services. Some service providers have already developed an abstracted OTT integration layer that sits above core systems and allows new OTT providers to be “plugged in” via APIs. In addition, there is potential for technology vendors to provide third-party software-as-a-service (SaaS) platforms that sit between the telco/pay-TV provider and the OTT systems, and provide plug-and-play integration on both sides.

These solutions could prove cost effective as OTT providers will only need to be integrated into them once, meaning that in theory these SaaS solutions could be offered to telcos and pay-TV providers with a significant number of OTT services already “plugged-in” from a billing, subscriber and user management point of view.

2 Introduction

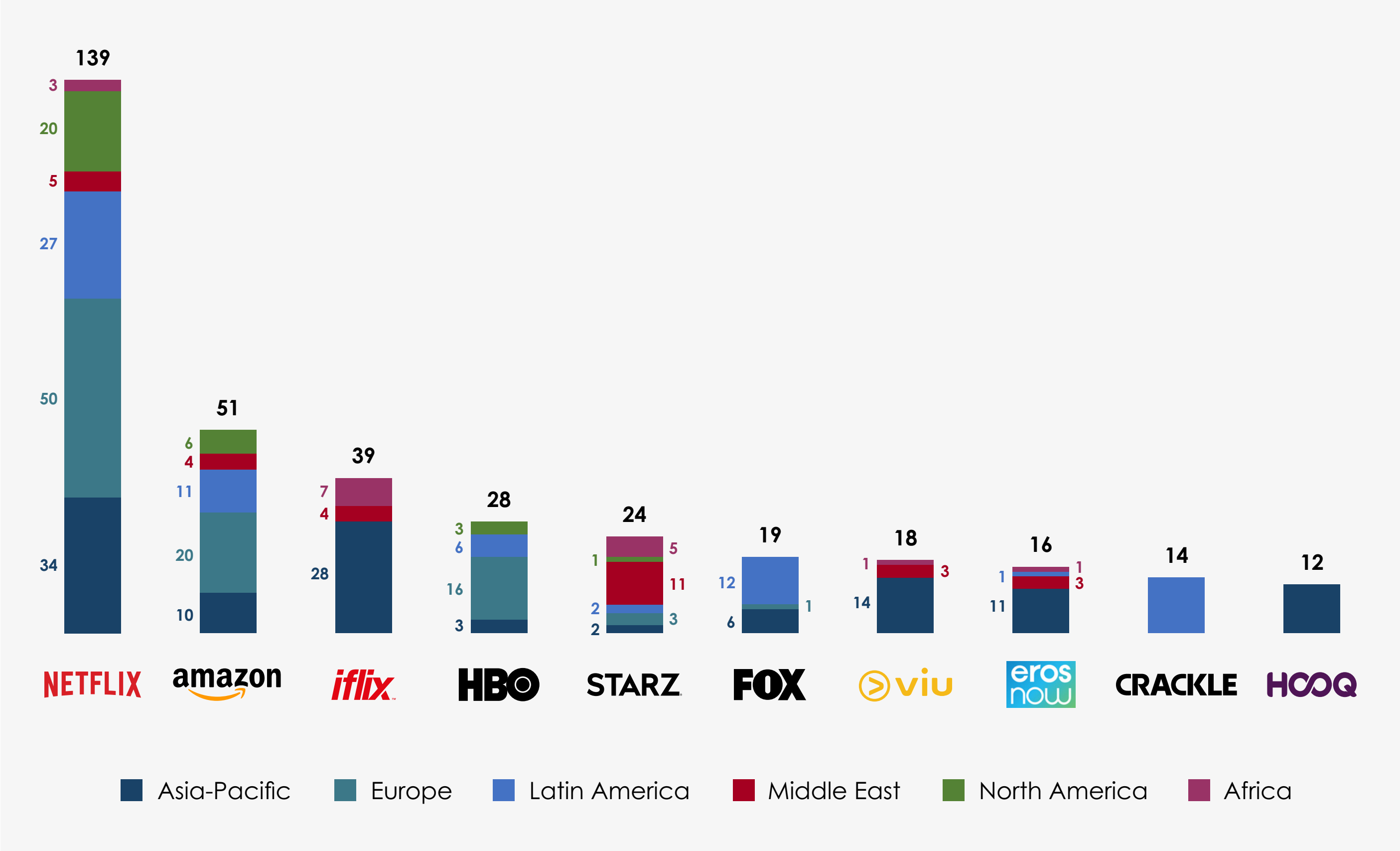
Over the last few years there has been a proliferation of OTT services – on-demand, internet-delivered digital services including video, music, live sports and, more recently, gaming – that have gained traction in markets around the world.

Many of these OTT services entered the market as direct-to-consumer (DTC) services, including global subscription services like Netflix and Disney+, and regional players such as iflix – a free and subscription-focused video on demand (VOD) service that operates across emerging Asian markets.

At the same time, there has been an increased move by fixed and mobile telcos and pay-TV service providers towards bundling these services with their offer – both as part of defensive strategies to prevent value erosion due to "cord cutting", and opportunistic strategies identified by telcos to capture value from digital services delivered over their networks.

As of Q4 2019, Netflix alone had over 140 partnerships with European and US telco/pay-TV service providers.[1]

Exhibit 1: OTT and telco/pay-TV partnerships by OTT brand and region (Q3 2019)[2]



1. Ovum, Global OTT Video Bundling Deals and Service Partnerships Tracker (2019)
2. Ibid

This report examines the move towards bundling third-party OTT services with telco and pay-TV services, with a particular focus on the key steps towards the development of OTT and telco/pay-TV provider partnerships, and the commercial, technical and operational challenges that the bundling of services presents.

The findings in this report were developed between January and March 2020 and are based on MTM research and interviews with 15 pay-TV, telco and OTT provider industry executives across Asia, Latin America and Europe. All interviews were completed under the Chatham House Rule (no attribution without prior permission). MTM would like to thank all those who have contributed.

Exhibit 2: Industry executives interviewed came from a range of telco's, pay-TV companies and OTT providers

3 The development of next-generation OTT bundles

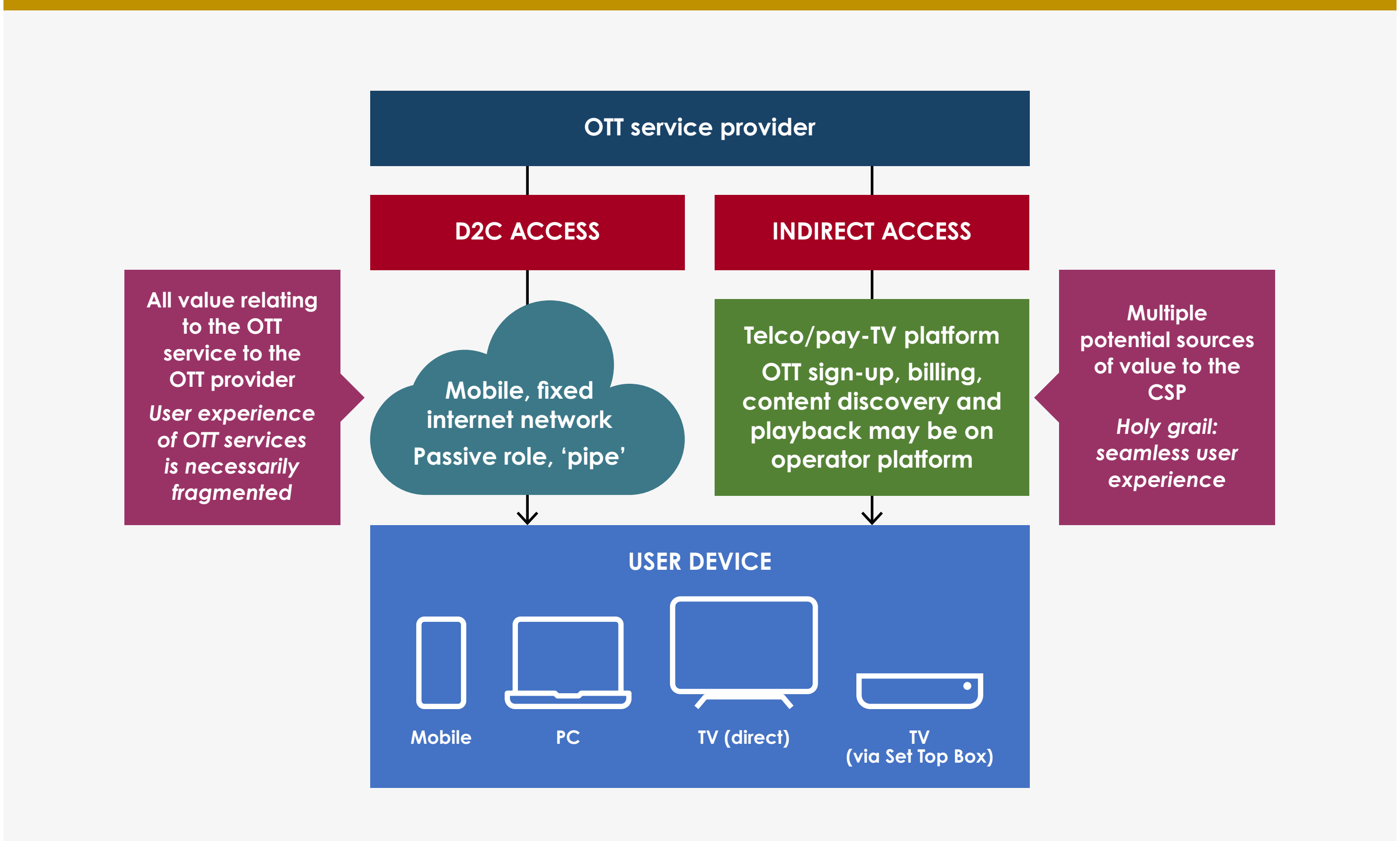
3.1 Drivers of OTT partnerships

In theory, partnerships between OTT and telco/pay-TV service providers should be a win-win for all involved.

From a consumer point of view, bundled services reduces the need to maintain separate billing relationships with each OTT service and can result in a more integrated and seamless experience, whereby they can discover and view content in the same interface rather than toggling between services.

For the telco or pay-TV service provider, aggregating third-party OTT services enables them to capture some of the value offered by these services. Pay-TV providers in markets where subscriptions are declining see bundling as an opportunity to defend ARPU and reduce churn by playing a "super aggregator" role, and mobile telcos who have not previously offered entertainment services can enter a new market and (in theory) move up the content value chain.

Exhibit 3: Discrete/direct to consumer vs. integrated OTT and telco/pay-TV provider partnerships



3.2 The partnership process

There are typically three distinct stages through which partnerships between OTT providers and telcos/pay-TV service providers are developed: commercial terms, technical and operational integration, and on-going operation and maintenance.

Exhibit 4: Stages of partnership development (telcos/pay-TV and OTT providers)

Commercial terms

Establish commercial agreement, including;

- Revenue sharing or re-seller arrangements
- Minimum guarantees
- Marketing spend commitments by platform operator
- Billing arrangements (direct or indirect)
- Level of UX integration (seamless or separate OTT app): on-boarding, playback, content discovery

Tech/op integration

Technical integration:

- Integrate back-office functions: e.g. billing, user ID, subscription management
- Player compatibility and integration onto STB (where relevant), DRM
- User interface and customer journey design and functionality
- Content discovery and search integration

On-going operation

Subsequent phases of ongoing operation and maintenance:

- Operation of back office services and customer support
- Updates (e.g. driven by changes to APIs)
- Potential roll-out across new platforms/devices

Negotiation over commercial terms determines financial viability of a given integration, the key dimensions of which will be the extent to which the OTT provider allows the platform operator to take a share of revenue, and whether the platform offers minimum guarantees, marketing spend commitments and direct carrier billing. The negotiation will also determine the level of service integration (which in turn drives the depth and nature of technical integration required).

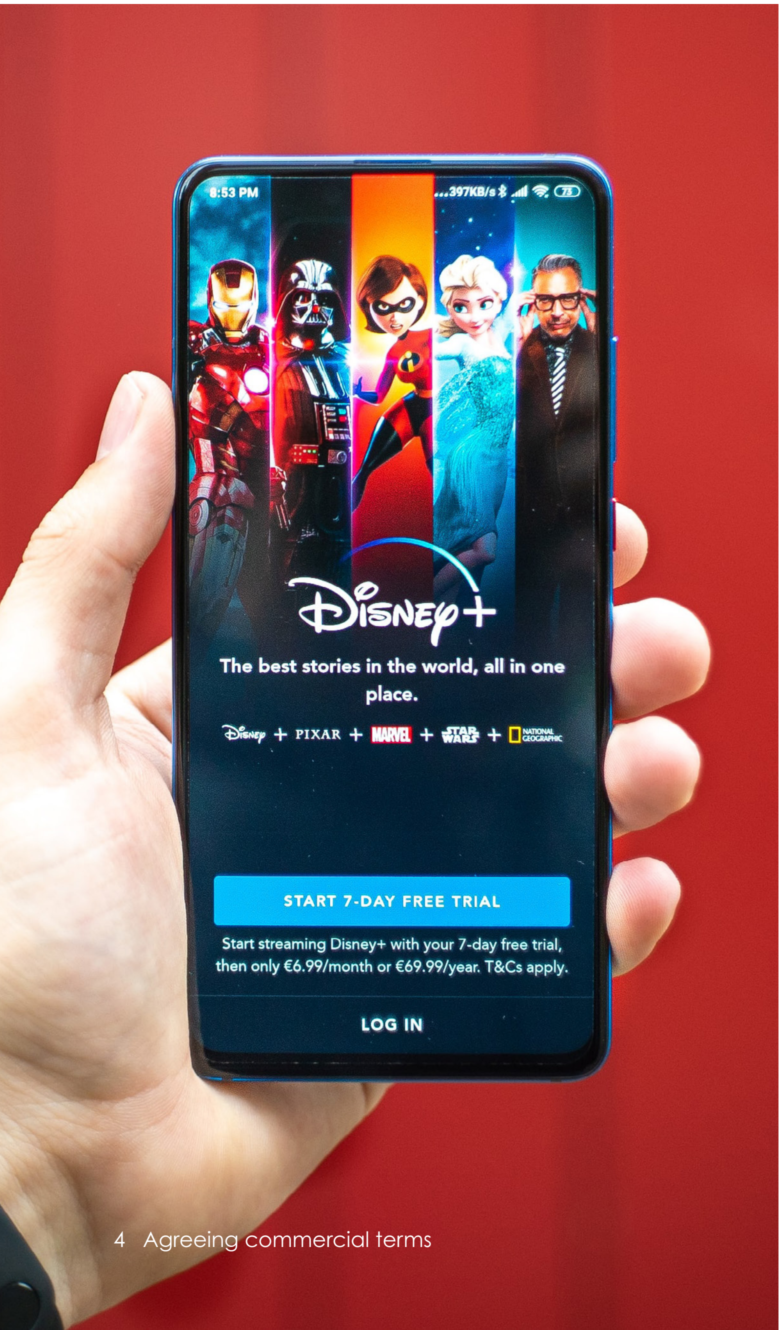
The onboarding of a new OTT service onto the telco or pay-TV provider platform presents a range of systems and process integration challenges, including billing, and user journey challenges, including the development of integrated content discovery and search and playback functionality.

Once the OTT service is onboarded, on-going operation and maintenance of the integrated offer will require management focus, including customer support, service upgrades and potential roll out across new platforms.

4 Agreeing commercial terms

All interviewees described establishing commercial terms as a challenging process, with major OTT providers such as Netflix able to demand exacting commercial terms (Netflix, for example, typically shares just 10% of its monthly subscription fees with platform operators).

The typical commercial negotiation is based around four key components: revenue share, minimum guarantees, level of marketing spend commitment and pricing and promotion flexibility.



1. Revenue share

Telco/pay-TV provider seeks to capture a sufficient share of OTT subscription revenue to make the partnership financially viable. However, major OTT providers are unlikely to concede to large margins.

> ***"Netflix typically allows platforms to keep €1 of a €9.99 subscription"***
> Tier 2 telco

> ***"Our negotiations with Netflix were tricky. We bring distribution. They bring content. We wanted a discount or revenue share"***
> Tier 3 telco

2. Minimum guarantees

The telco/pay-TV service provider buys a minimum number of subscriptions in return for a discount on retail price and sells to customers at a margin or passes on the discount – this is often unviable for smaller service providers.

> ***"Disney wants you to commit to 10% of your user base, in exchange for a discounted rate"***
> Tier 1 telco

> ***"The bigger media players like Netflix demand huge minimum guarantees, which we're not willing to give"***
> Tier 3 telco

3. Marketing spend commitments

OTT service providers can also seek to secure a significant commitment of marketing spend from telco/pay-TV service providers to promote the OTT service.

> ***"Netflix wanted us to invest millions marketing them!"***
> Tier 2 telco

> ***"They demand unrealistic marketing spend commitments. The OTTs have no idea how we run our marketing"***
> Tier 3 telco

4. Pricing and promotion flexibility

Major OTT providers can deny telco/pay-TV service providers the freedom to determine service price and to set permanent or temporary discounts or bundling offers.

> ***"We wanted to be free to discount flexibly. Not getting this was the main reason we didn't arrive at a deal"***
> Tier 3 telco

> ***"Each provider has different rules about charging and pricing (charge per platform, per execution... no charge at all)"***
> Tier 1 pay-TV provider

The outcome of the negotiation will set the limits of the financial returns a platform operator can expect from a partnership with an OTT provider and how much money and time the platform will be able to invest in delivering the integration.

5 Challenges of technical and operational integration

5.1 Levels of integration

Each partnership between telco/pay-TV and OTT provider has its own requirements in terms of level and type of integration required.

At a minimum, a "light" integration might only require zero-rated data allowances for use of a particular OTT service. Such an arrangement can be up and running in weeks, costing only five figure sums, but necessarily providing fewer benefits than a deeper integration (e.g. lower take-up).

With the more extensive integrations, OTT services are signed-up to, discovered and consumed seamlessly on the telco/pay-TV providers' platforms. This can deliver higher take-up and a superior customer experience but can be challenging to deliver technically and operationally. It can take six months plus to complete such an integration, and cost millions of dollars to bring to market – and can then be expensive to manage on an on-going basis.

Exhibit 5: Levels of OTT integration with Netflix (illustrative)

Integration area	Lite integration	Intermediate integration	Deep "full fat" integration
User onboarding – user logs in with ID provided by the platform, or even sign up and log into the service via the platform provider's User Interface (UI)	✗	✗	✓
Billing – where the OTT service is billed for by the telco/pay-TV platform operator	✗	✓	✓
Content & service discovery – where all content is searchable and discoverable seamlessly within the platform's UI	✗	✓	✓
Playback – the user plays content within the platform's UI, rather than having to use the OTT app	✗	✗	✓
Data capture – the platform operator has full visibility of the OTT content searched and accessed by the user	✗	✗	✓
	Beeline (Kazakhstan) zero-rated traffic for Netflix use	vodafone (Spain) Netflix withheld key strategic elements from integration	sky (UK) full integration of Netflix (and Disney+, to come)

5.2 Challenge and considerations by OTT integration area

Each area of technical and operational integration presents its own challenges.

Integrated user onboarding can be challenging as the telco/pay-TV service provider must authorise each legitimate user on the third-party platform, which requires integrated subscriber management, user ID and authorisation systems. In addition, service provider must build separate customer journeys for each service, because each is unique – causing delays in go-to-market and resulting in poor user experiences as service provider struggles to manage multiple journeys.

Similarly, direct carrier billing requires the integration of the carrier and OTT provider's billing and payments workflows and systems. Operational efficiency requires a robust set of processes for partner management, including provisioning, settlements and reporting – yet we came across service providers who still manage settlements through manually created Excel spreadsheets that sit outside core systems. While these solutions have proved manageable when there is just one OTT partner in the frame, they will not scale efficiently to an ecosystem of OTT relationships.

From a content point of view, integrated content search and discovery is challenging as OTT providers offer different levels and types of metadata, and catalogues are refreshing constantly, while integrated playback of OTT provider content on the telco/pay-TV provider platform's UI requires deep integration of video workflows and players, and can be challenging on legacy STBs.

Exhibit 6: Challenges and considerations by OTT integration area

Area	Lower level of integration (OTT managed service)	Higher level of integration (Telco/pay-TV provider managed service)
User onboarding	**Onboarding on the OTT app UI using unique credentials:** causes customer inconvenience and still requires some integration of user ID and set up of partner management processes	**Seamless onboarding on the platform UI:** requires a complex integration of subscriber management, user ID and authorisation processes and systems
Billing	**Direct Carrier Billing only:** requires integration of billing systems to enable user to pay for service via telco/pay-TV provider services	**Flexible, CSP-managed:** flexible payment options, including credit card, Apple Pay, across multiple providers. Requires full integration of billing, payments and settlements workflow
Content & service discovery	**Separately within each OTT service (the most common approach):** no integration required, but limits the appeal to the customer	**Within the UI of telco/pay-TV provider's platform:** challenges due to inconsistent metadata for non-exclusive assets from different catalogues, lack of metadata, and high rate of catalogue refresh
Playback	**Playback within the OTT app:** requires relatively straightforward linking of content	**Seamless playback within the platform's UI:** requires deep integration of video workflows and players. STB integration can be especially challenging, especially when dealing with a suite of legacy STBs
Data capture	**OTT service's consumption data is not shared (the most common approach):** no integration required, but the provider can typically only see the overall time spent	**OTT service's consumption data is shared:** from OTT provider sharing some consumption data through to service provider having full visibility on purchase, search and viewing if OTT service is deep linked into their platform

> ***"Integrating search is highly complex; you need to manage many different providers with different levels of quality, different CDNs"***
> Tier 3 pay-TV

> ***"Developing and testing [playback] for multiple STBs is painful and expensive – especially as I will sunset most of them in the next five years"***
> Tier 1 pay-TV

5.3 Operational and technical context

Integration challenges are frequently complicated by the operational and technical context in which they are undertaken.

The range of devices (e.g. STBs) and platforms are compounding factors, with several interviewees described integrating playout of OTT content onto their STB player and digital rights management (DRM) system as particularly challenging.

Similarly, the range and age of back office systems (billing, user ID, subscription management, etc.) have a major impact on the time and resource required to set up core billing and partner management services. We came across telco/ pay-TV service providers operating multiple billing and subscriber management systems, some of which were old, poorly documented and supported by specialist vendor teams who were poorly equipped to support the OTT integration.

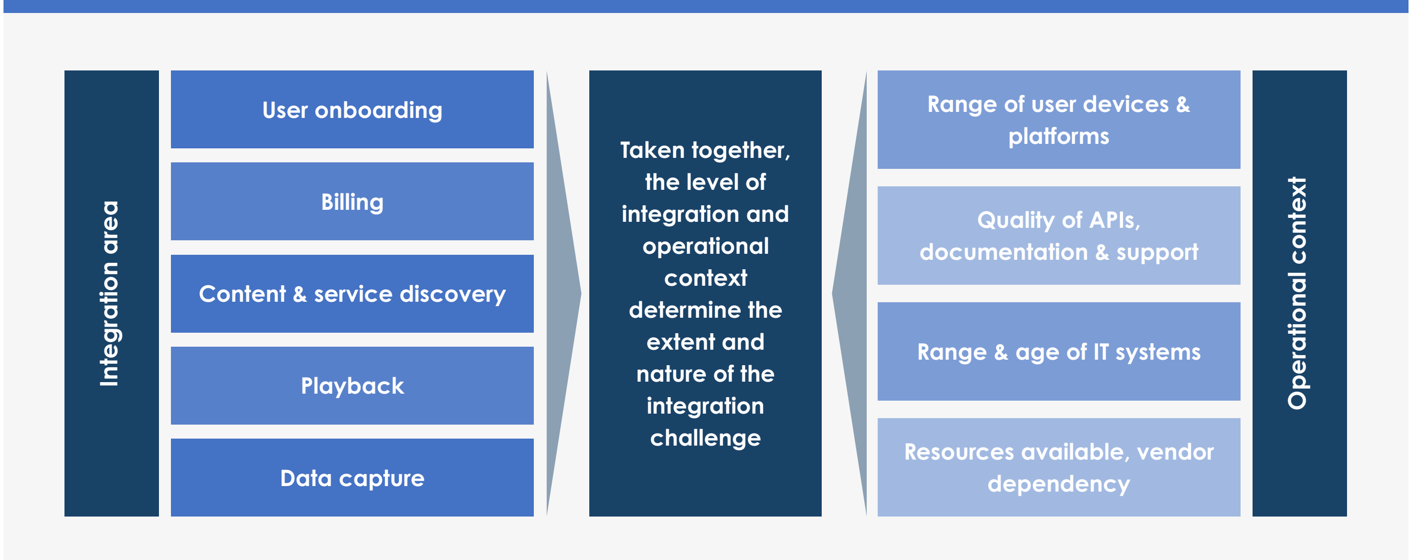
The result for some was billing and partner management workflows and systems integrations that took many months to develop and presented security and stability challenges. In contrast, the OTT providers typically operate relatively simple "single use" systems, built on the latest technology, and are thus easier to develop on/with.

In addition, the quality of the OTT provider's systems and support, and the development and technical resources that an organisation has available will all affect the complexity of the integration.

> ***"It took us 18-24 months to integrate these OTT on-demand services, using mainly third-party vendors, working on each of our separate IT systems: not ideal, now we are moving all systems in-house where possible"***
> Tier 3 telco

> ***"We've had the Netflix integration for four years. The DRM, their APIs; everything was a nightmare"***
> Tier 1 pay-TV

Exhibit 7: Factors influencing integration complexity



6 Conclusions

As aggregation of OTT services becomes the new normal and new large-scale services, such as HBO's Max and NBCUniversal's Peacock, enter the market, telco and pay-TV service providers are likely to re-evaluate their approaches to OTT partnerships. This is important in order to ensure the commercial viability of offering bundles of OTT services that include multiple third-party video, music, games and other services, as many will not justify the high six and seven figure investments currently required to deliver deep integration.

From a commercial point of view, it is possible that the increasing levels of competition amongst OTT providers will lead to an adjustment in the balance of power, with telcos and pay-TV providers able to demand less exacting terms once Netflix and Amazon (and sometimes a major regional provider) are no longer the only services with mass appeal.

From a technical and operational point of view, service providers are keen to move beyond the bespoke, one-off integrations often seen to date, to create solutions that can be scaled across multiple provider integrations.

One service provider described building an abstracted OTT integration layer that sat above core business support systems (BSS) (e.g. billing, subscription management) and allowed new services to be "plugged in" via APIs. This enables generic OTT solutions for key areas such as billing, user ID and onboarding, content discovery and playout to be developed once, with the partners then integrating into these during partnership set up.

Importantly, these scalable solutions extend beyond core business services to front-end and video workflow solutions – one interviewee described how they had created a clear set of requirements for tagging content libraries, so that tier 2 providers could ensure that their content was tagged to the standards of their search solution.

In theory, these solutions offer a number of important benefits to the service provider:

- Cheaper and quicker to bring to market – important in a fast-changing space where consumers love and demand an ever-increasing number of services, and increasingly seamless experiences

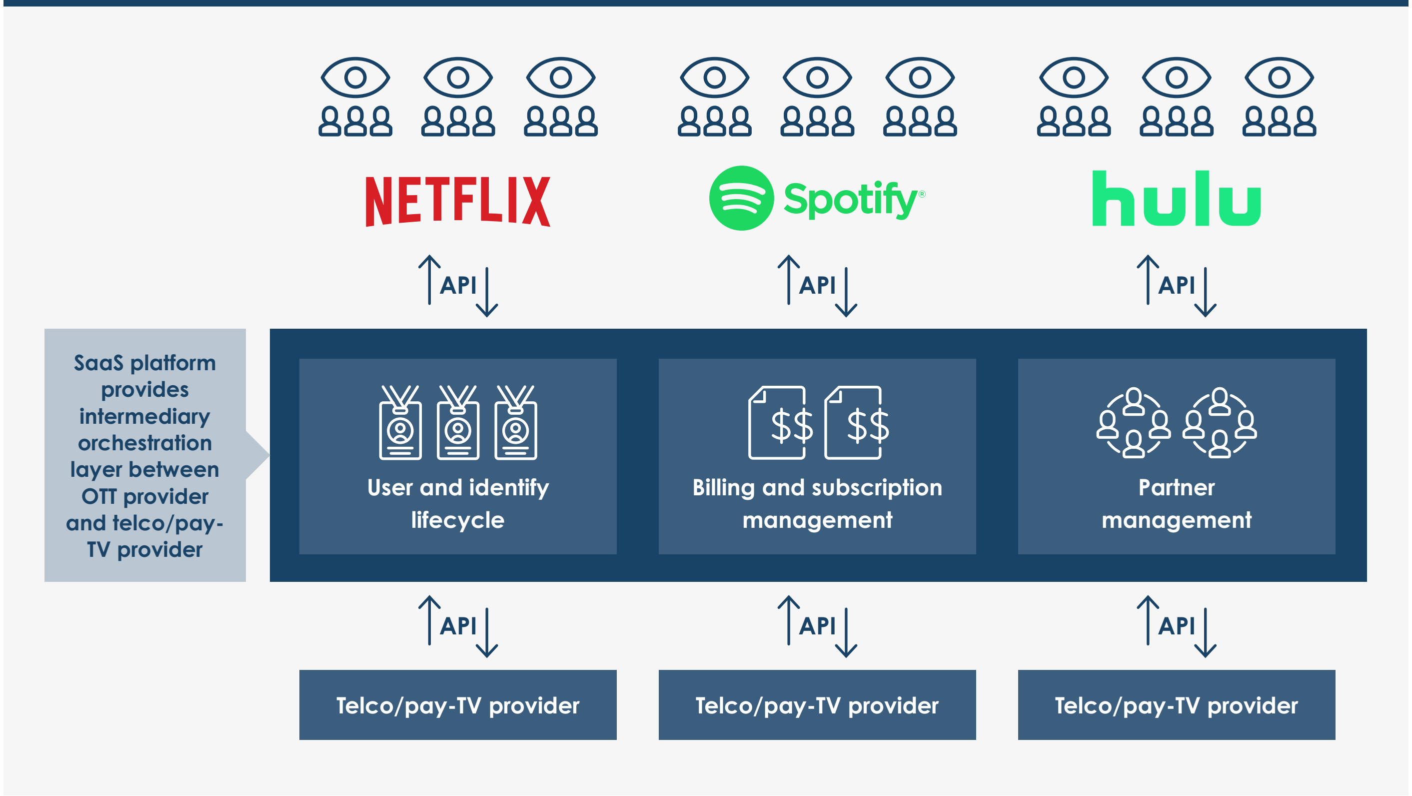
- BSS are largely isolated from the OTT provider integration process, as they only need to be integrated with the abstracted layer once – limiting development time, complexity and (often) the number of vendors involved in the process

- Assuming that the partner-facing APIs and related business processes are well documented, the OTT provider developer teams can deliver significant portions of the integration on their side with minimum support from the service provider

- Cheaper to manage and upgrade, not least because significant portions of the portfolio of partner integrations can be completed once for all solutions

These best-in-class solutions have the potential to significantly reduce development complexity, time to market and costs, while also enabling an on-going evolution of the entertainment offering in a fast-changing market.

Exhibit 8: OTT Provider and telco pay-TV service providers integrate via APIs into SaaS OTT integration layer



In addition, technology providers have developed third-party SaaS platforms that can sit between the telco/pay-TV provider and the OTT systems, and provide similar plug-and-play integration on both sides. In theory, these third-party solutions can deliver additional economies of scale, because telco and pay-TV platform operators only need to integrate with – or "plug into" – the third-party platform once. The OTT providers too only have to be plugged into these systems once, so as a result, once the telco/pay-TV provider adopts the third-party SaaS platform they have far easier access to any OTT services that are already plugged into the platform.

MTM London Ltd
62-65 Chandos Pl
London
WC2N 4HG
+44 (0)20 7395 7510
www.mtmlondon.com

Richard Ellis
MANAGING PARTNER
E: richard.ellis@wearemtm.com

Conrad Roeber
CONSULTANT
E: conrad.roeber@wearemtm.com

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