BROADVISION

Your personal IPTV/OTT business advisor

OTT: OVER THE TOP OF THE WORLD

SERVICE PROVIDERS MUST MAKE A CHOICE: TO IGNORE THE GROWING CONSUMER'S INTEREST IN OTT SERVICES OR TO ACCEPT THIS TENDENCY AND USE ITS AVAILABLE OPPORTUNITIES.

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OTT:
OVER THE TOP
OF THE WORLD

OTT services are becoming increasingly popular with consumers. Discover the possibilities of this growth in technology and the opportunities that it offers to traditional TV operators in the analytical report of BROADVISION experts.

Author: Tatiana Skiba

Content digitalization has removed virtually all obstacles on the way of a potential entrant to the content distribution industry, especially on the TV and video market. It means that any content can be delivered over the Internet. And all that matters is whether fiber-optical and mobile networks have the necessary bandwidth to allow digital content to reach consumers' screens.

Over the past five years, major players in the traditional broadcasting space, such as cable and satellite operators, have realized that the digital content provided by IPTV operators and OTT TV service providers accounts for as much as 10% of the market. In particular, the OTT TV service has shown significant growth over the past two years and is expected to grow further.

It's hard to question the value proposition of OTT services since they are spreading online at a steady rate. It means that any user can easily start consuming OTT content and services. Anyone connected to a digital screen can gain access to any digital content provided via an OTT application.

Content digitalization and the emergence of new, easy to download and configure OTT applications helped merge the two largest forces, technology, and content, and transformed the entire media distribution industry.

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Thanks to OTT TV and video services, subscribers can now access a broad range of entertainment and news content regardless of their cable, fixed broadband or satellite connection. Service providers are already connecting to the OTT TV and video market by launching their TV and VoD services provided over the cable or through apps. IPTV, OTT TV, and OTT video services are redefining the television experience. What's more important, it is becoming apparent that more and more telecommunication companies are expanding their presence on the TV and VoD markets.

On the one hand, households are abandoning traditional TV services in favor of video streaming on their smart devices; on the other hand, households are buying more and more streaming devices to watch online content not just on their phones and computers, but televisions as well.

Therefore, in spite of cable television and IPTV, consumers prefer paying more for access to more online content.

Today, media players enable users to use their broadband Internet access and their Wi-Fi connection for streaming OTT video content to their TV sets. Content providers, including broadcasting companies, are already providing access to online channels, where users can catch up with their favorite shows on the screen of their smartphones or tablets. As multi-screen technologies keep evolving, content providers and other players on the TV market offering OTT services can strengthen their cooperation to stimulate the consumption of OTT video services. This will allow everyone to start using new monetization strategies and leverage the advantages of the growing digital media market.


26% of American households own a streaming multimedia device, and over 1/3 of them own a SmartTV. On average, an American household spends over 6 dollars a month on subscriptions to online video services.

Source: Parks Associates

The predicted aggregate revenue from the worldwide OTT market will be over $105 billion by 2021. The highest growth rates will be located in Eastern Europe, the Middle East, and Africa. The most significant portion of the future revenue will come from the Asia-Pacific region.

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Forecast aggregate revenue from the OTT market in dollars

mln

Year	Value
2016	31%
2017	21%
2018	17%
2019	13%
2020	11%
2021	9%
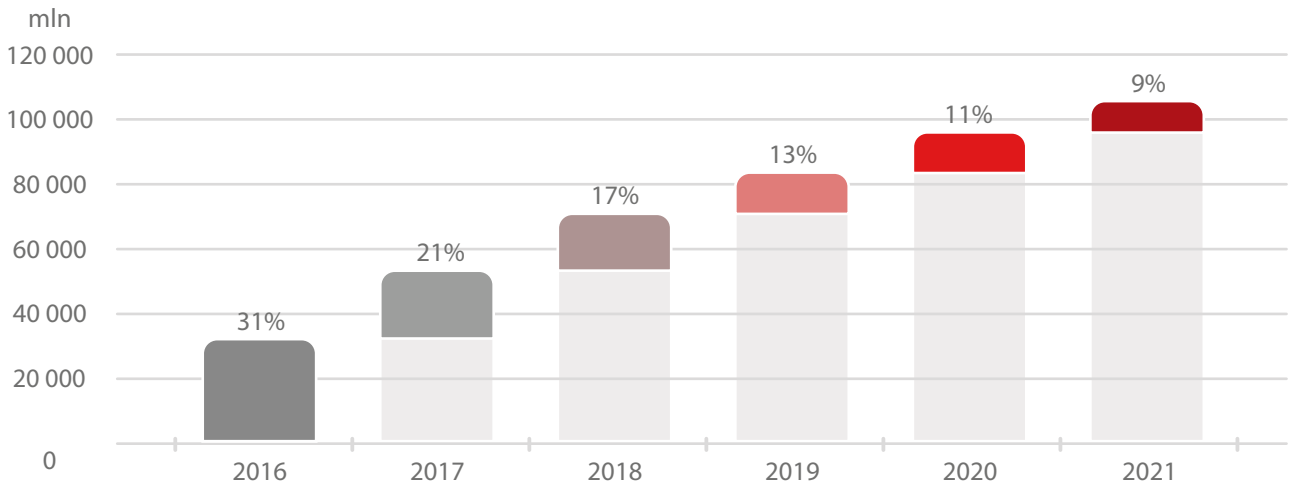
Source: OVUM

Of the predicted $105 billion the market will receive by 2021, almost $60 billion will be generated in the Asia-Pacific region. In Eastern Europe, OTT will earn over $16 billion, and in North American countries it will earn over $52 billion.

According to the terminology of "typical" VOD, there are three models:

Advertising video on demand (AVOD).

Subscription video on demand (SVOD).

Where by subscriptions are serviced for a particular period and the option to pay for each piece of content watched (TVOD).

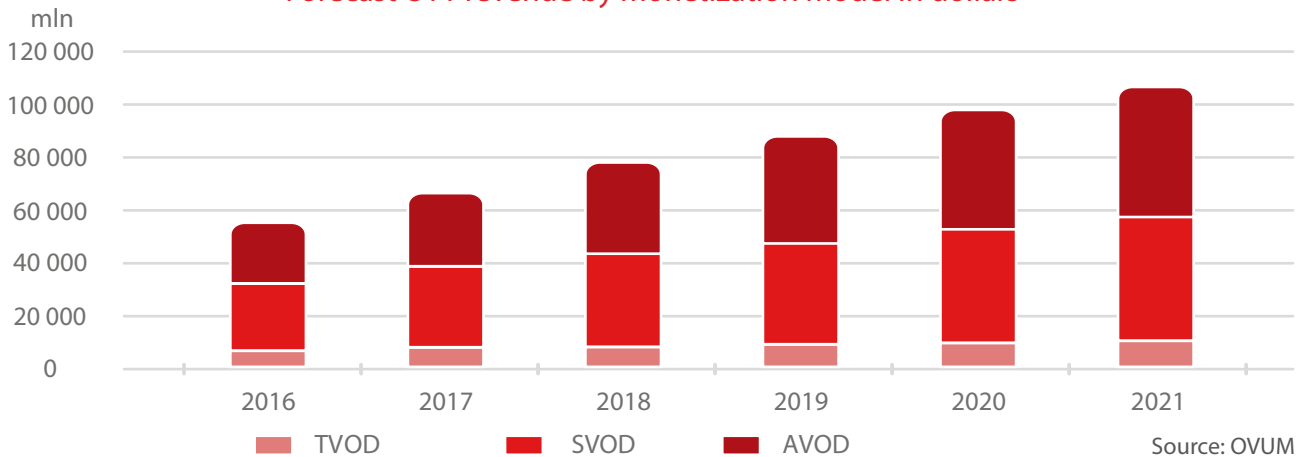50% of all views will be online in the future.

Source: Ericsson Consumer Lab

With SVOD convenience of use is key, and how the viewer finds and consumes content will have the decisive importance for increasing success and profits.

Offline viewing will also be important since it will serve situations in which streaming media is not an option or for those who live in regions with low bandwidth. Also important are contextual parameters surrounding content discovery. The content recommended to consumers will not be based only what their friends watching or what they have watched previously. Instead, when the best recommendations are accepted, other factors will also be considered for the consumer such as their mood and current activities.
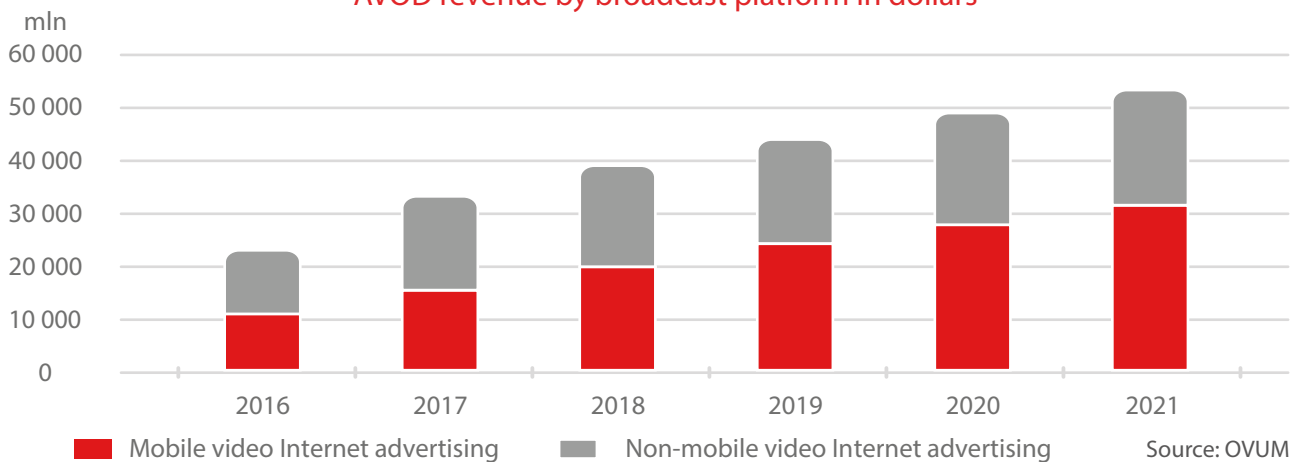
The most popular models will be AVOD and SVOD, which will make up over 90% of the OTT market.

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Forecast OTT revenue by monetization model in dollars

mln

120 000 —
100 000 —
80 000 —
60 000 —
40 000 —
20 000 —
0 —

2016   2017   2018   2019   2020   2021

TVOD   SVOD   AVOD

Source: OVUM

Paid subscriptions (SVOD) will be the primary source of OTT revenue until 2018, but by 2021 the dominant position will be occupied by an advertising model (AVOD). The revenue between the two models over the course of the next five years will be distributed in the following manner: $46.13 billion for subscriptions and $49.46 billion for advertising. The driver for advertising revenue will be the penetration of TV broadcasts, and an increase in the number of videos watched on mobile platforms.
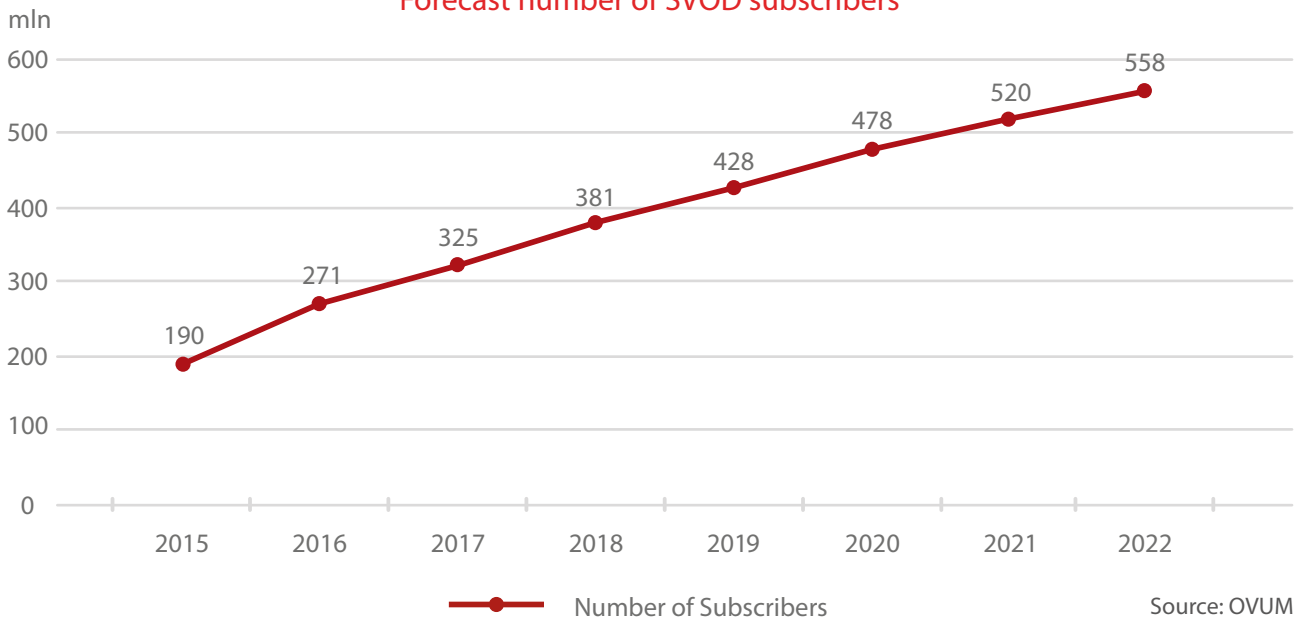
AVOD revenue by broadcast platform in dollars

mln

60 000 —
50 000 —
40 000 —
30 000 —
20 000 —
10 000 —
0 —

2016   2017   2018   2019   2020   2021

Mobile video Internet advertising   Non-mobile video Internet advertising

Source: OVUM

OTT services that allow users to view content on mobile devices are developing actively in Asia right now. But in the long run, this segment will demonstrate significant growth rates in the Middle East and Africa. In many developing countries mobile broadband internet access has greater distribution than wired connections. The main thing the AVOD model requires is innovation. Today this model does not generate enough revenue, although volumes are growing exponentially.

The number of OTT services subscribers will exceed 558 million worldwide by 2022. The average increase in subscribers over the next five years will be 11.44%.

Source: OVUM

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Forecast number of SVOD subscribers

mln

	2015	2016	2017	2018	2019	2020	2021	2022
Number of Subscribers	190	271	325	381	428	478	520	558

Source: OVUM

> "We are talking about the total number of people who will become OTT subscribers. Some people will want to subscribe to two or more streaming video services — this behavior model is most frequently encountered in Scandinavian countries, the US, and the UK."
>
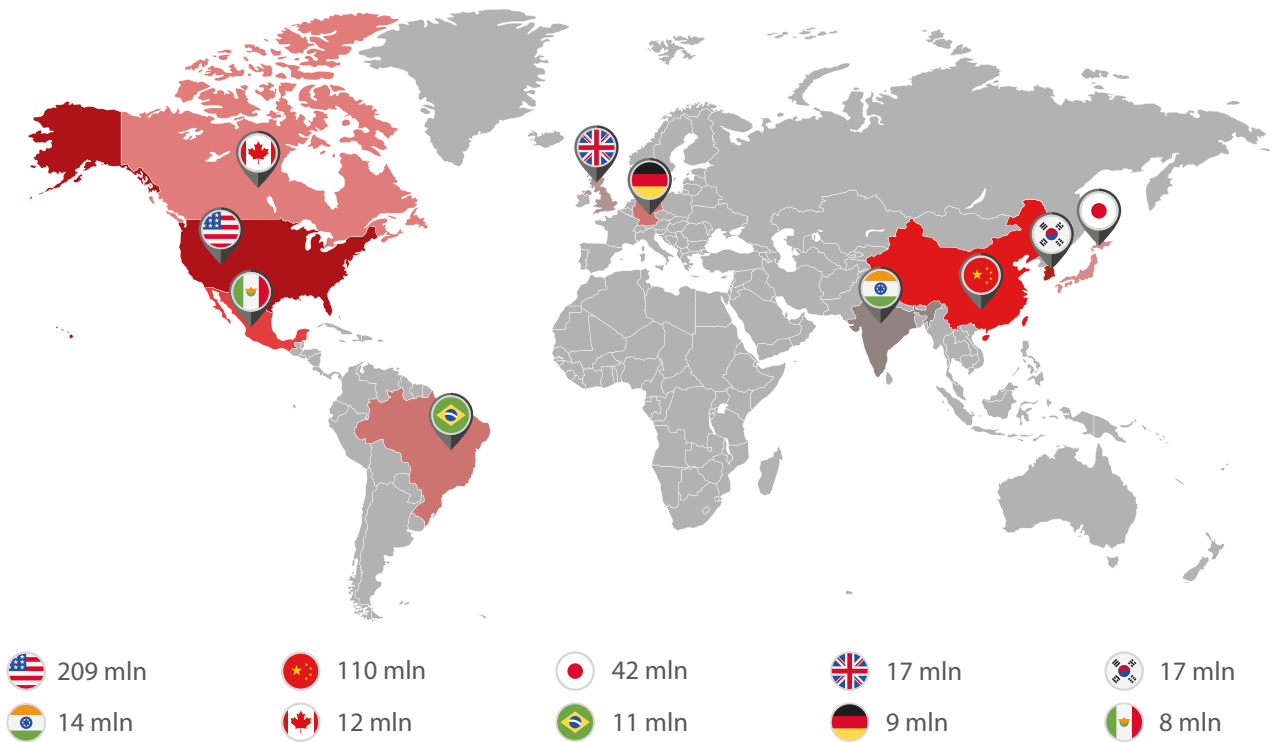> Simon Murray, the head analyst at Digital Research

The number of paid OTT video streams in Europe will still lag behind the US. For example, while 64% of broadband-connected households in the US subscribe to OTT video, this number is only 30% in the UK, and only 17% in France.

> "In many parts of Europe paid TV access is lower than in the US, but European consumers have been reluctant to pay for video in the past because so many "free" options are available such as BBC Player. However, since more and more paid options have been appearing on the market, and in some places, content is still unavailable, European video-watching culture is slowly changing."
>
> Brett Sappington, director of research at Parks Associates

As for predicted subscribers in the cross-section of individual countries, the uncontested leader is the US. All in all, the top ten countries have the following favorable factors: economic (services are primarily paid and are far from being a primary necessity), demographic (countries with large populations have correspondingly large numbers of potential consumers), and technological (OTT is a modern technology, and has a number of requirements to function properly, from high-speed internet access to devices that support the technology).
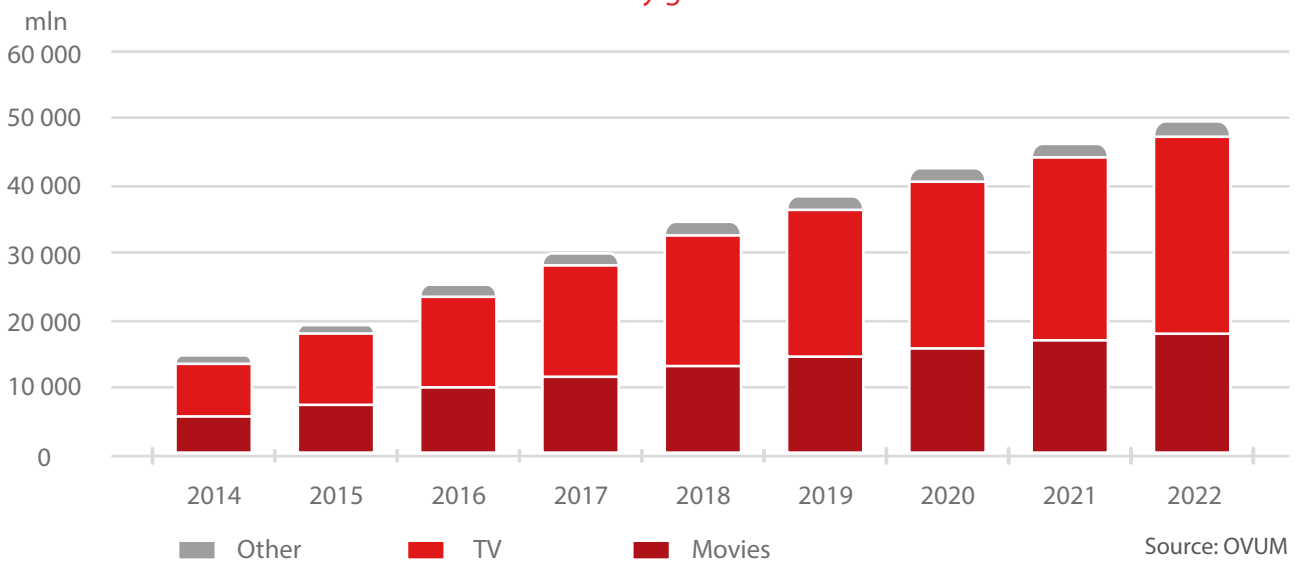
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Top 10 countries with the most OTT subscribers by 2021

🇺🇸 209 mln	🇨🇳 110 mln	⚪ 42 mln	🇬🇧 17 mln	🇰🇷 17 mln
🇮🇳 14 mln	🇨🇦 12 mln	🇧🇷 11 mln	🇩🇪 9 mln	🇲🇽 8 mln

Source: OVUM

Over half of SVOD revenue — almost $30 billion — will come from subscriptions to television channels. The revenue from movies be over $18 billion.
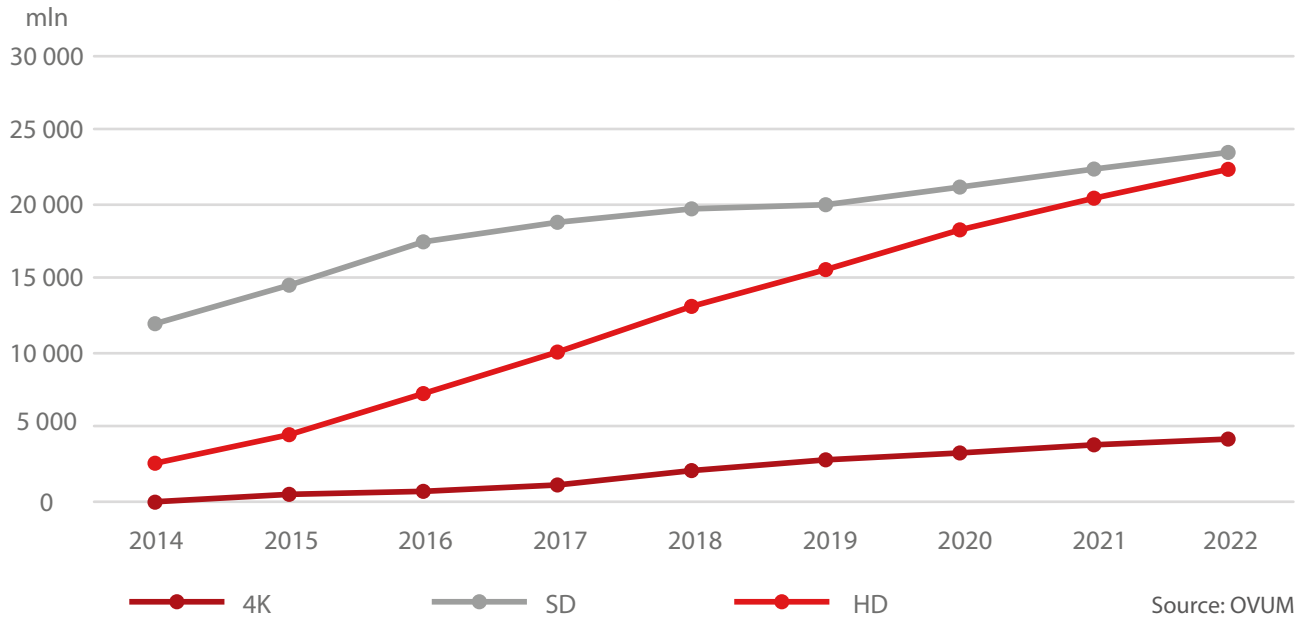
SVOD revenue by genre in dollars



Other   TV   Movies

Source: OVUM

HD content will enjoy stable popularity among subscribers, and its share will increase precipitously. At the same time, interest in SD content will demonstrate an unstable dynamic, although it will remain accessible. It will account for over $45 billion in profits. 4K's share will increase, and by 2022 it will be almost 10% (over $4 billion).

SVOD revenue by resolution in dollars


Source: OVUM

As for the TVOD monetization model, the most popularity, and thus the greatest profitability, will be enjoyed by so-called content purchasing (EST) rather than used for a specific period (digital rental).

TVOD revenue by usage type in dollars

Source: OVUM
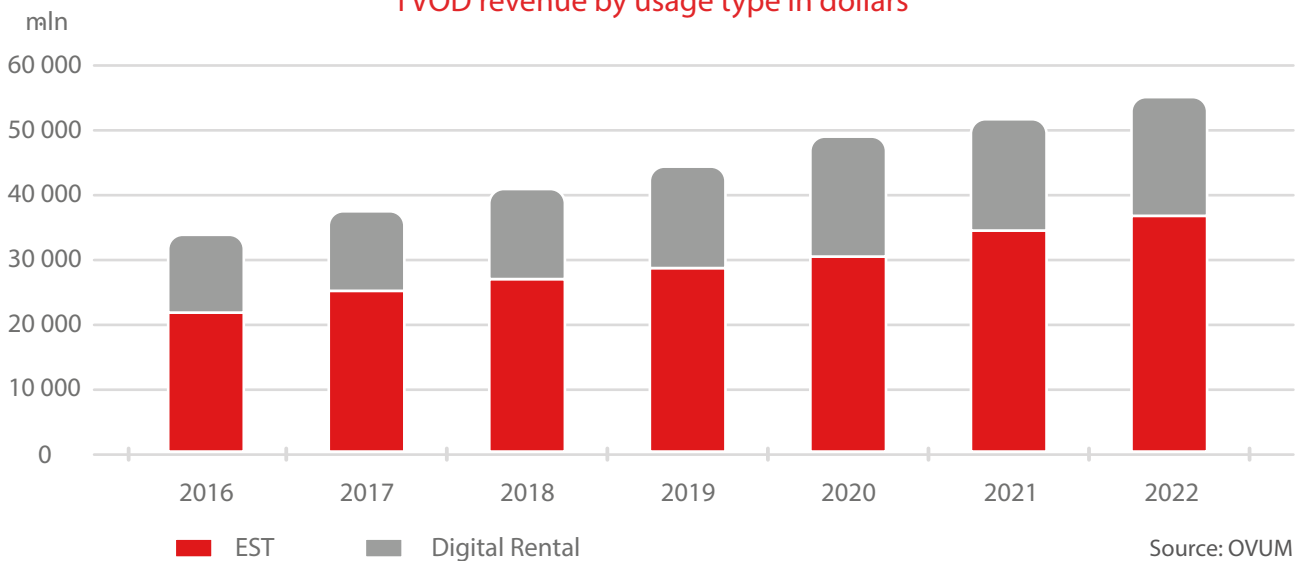
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As for the predicted revenue from TVOD by genre, here the situation will be the opposite of the subscription model. If television enjoys the greatest popularity among subscribers, then among users who pay for specific content the most in-demand content will be movies, which have a predicted revenue of $10.5 billion — twice the revenue from TV.

TVOD revenues by genres

mln

Source: OVUM
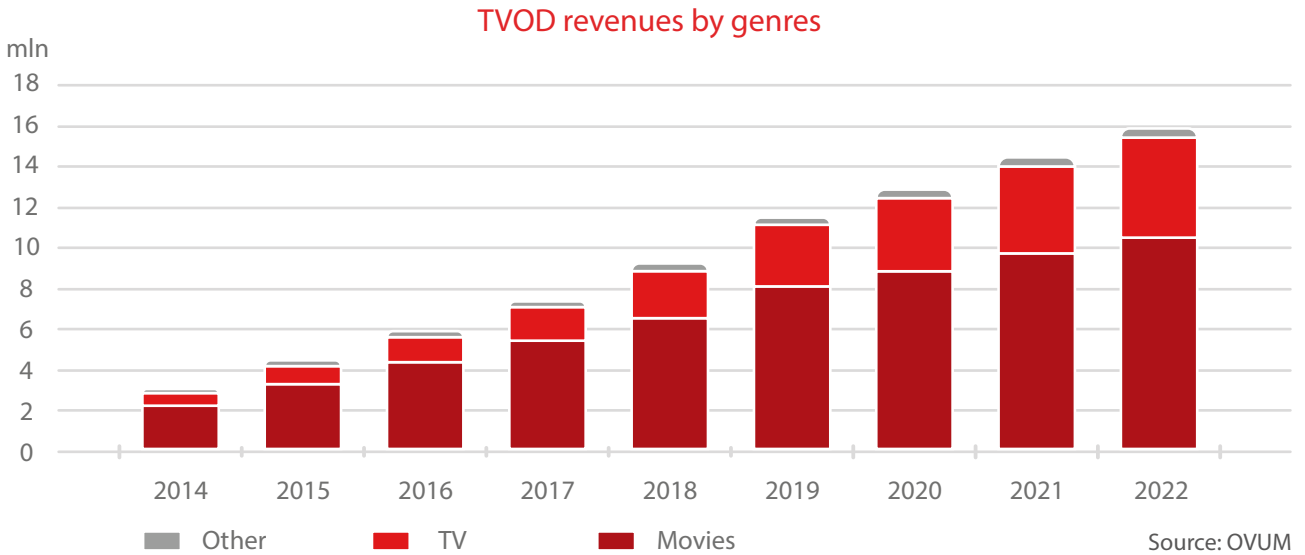
It should be noted that in comparison with subscribers' requests, SVOD has a totally different picture, since this type of OTT consumption is selective by nature and the customer pays for particular content. At the same time, the client does not just seek specific content, but also wants to consume this content in higher quality, which is clearly observed in the forecast: by 2022, HD and 4K will demonstrate substantial growth. Over the next five years, TVOD 4K revenues will double, while HD will become a runner-up.

TVOD revenues by type of resolution

mln

Source: OVUM

SUBSCRIBE
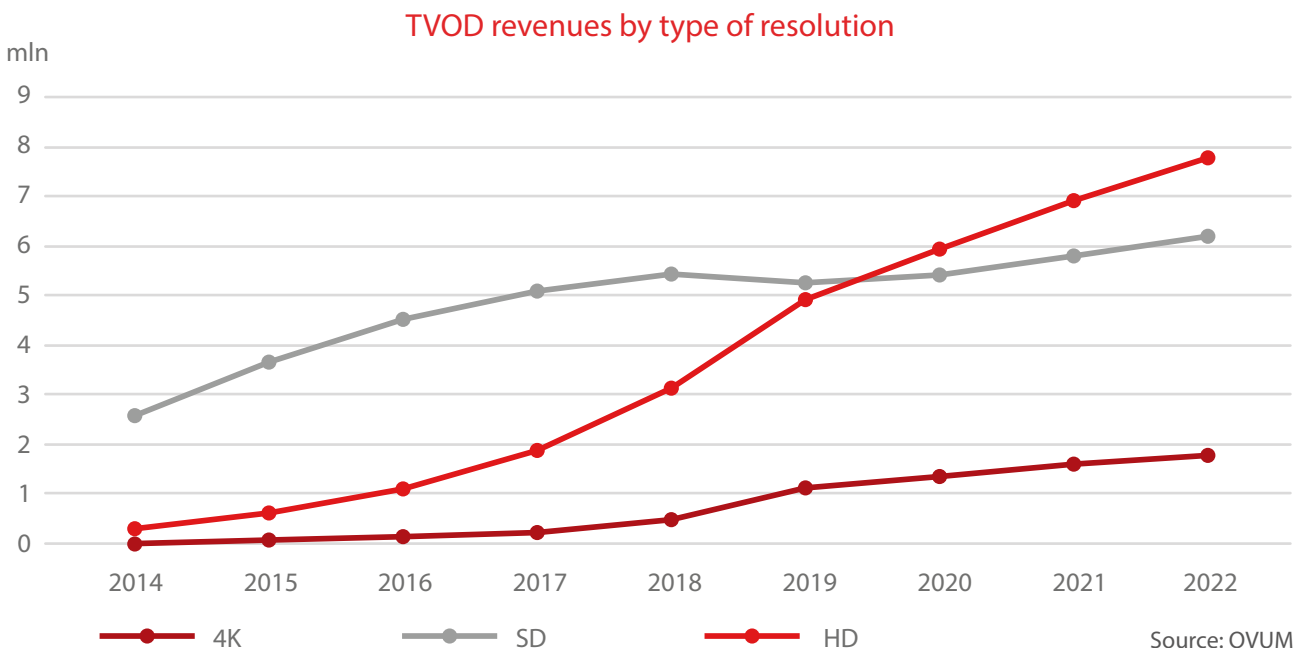
Service providers must make a choice: do they want to ignore the growing interest of consumers in OTT services or are they ready to accept this tendency and use some of the available opportunities while the television industry strives to restore their hierarchy.

OTT services are becoming increasingly popular with consumers, because they offer a variety of choices and, theoretically, ease of access to the necessary content. However, the television industry continues providing entertainment content and will continue doing it in the foreseeable future. There is certain value in the relation of content with growing relevance to the interests of its consumers.

1 Traditional suppliers of TV services have many key advantages over upcoming OTT service providers: first of all, reputation, reliability and their lasting nature. These qualities are important for the consumer.

2 Implementation of OTT technologies will enable operators to offer true multi-screen experience and meet the needs of their customers, even if they are outside of the managed network.
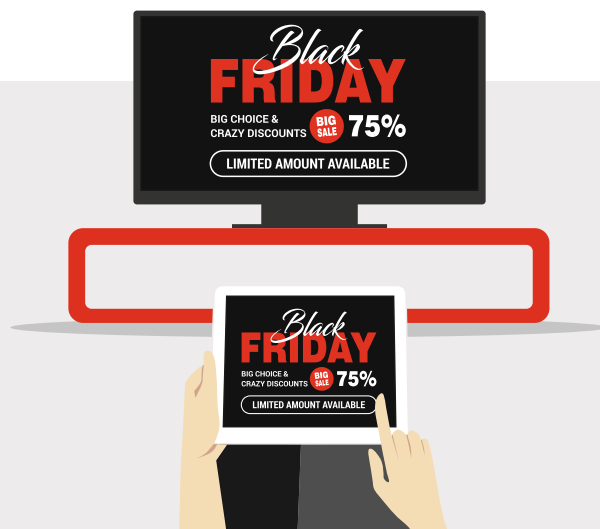
Apart from this, by taking part in OTT services and including them in their service package, they will be able to use additional content developed special for OTT. All of this makes an operators' suggestion a more attractive for user.

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Existing ecosystems are too static and not aligned with the expectations of future consumers. Evolution will be fast, and the key functions of direct television and the apps with the largest added value surrounding premium content will be key to understanding the new services.

In many countries, broadband capabilities are not sufficient for replacing the well-established TV delivery ecosystem. It will take the additional technology time to catch up with consumers' demand, so operators can now work on stepping up the delivery of OTT content and offering more value on their.

The initiative to develop paid television packages featuring a large number of online services increases the perceived value and permit third-party OTT providers to cooperate with traditional distributors of paid television, thus serving their programming to better audiences. OTT providers and network operators can leverage the growing demand for additional SVOD services by tightly integrating them into paid TV or broadband packages. Other participants of the OTT market should take a closer look at the improved capabilities of OTT UX for finding more advanced audiences (OTT audiences are more advanced, selective, progressive – we were talking about merging the traditional viewership and the more advanced OTT audience) by means of alliances which will make it possible to provide services via operators' STB or media streaming devices.

The most successful operators will be able to identify the most valuable capabilities offered by OTT and implement them into their own service offers.

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Flagship Android TV™ device

with Google Assistant, Google Play Store and Chromecast built-in

4K and HEVC support

Quad-core ARM Cortex-A53 CPU

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Meet a high-performance Android TV media player supporting 4K 60 fps playback, HDR, HEVC, and eight-channel Dolby Digital Plus™ sound.

The device features Integrated Widevine L1 and Microsoft PlayReady SL2000 DRM systems, Wi-Fi and Ethernet connectivity for accessing the internet, and 16 GB of internal storage for additional apps.

With MAG500A, even local providers can offer top of the line user experience complete with a catalog of over 7,000 apps and games, advanced voice control, and personalized recommendations.

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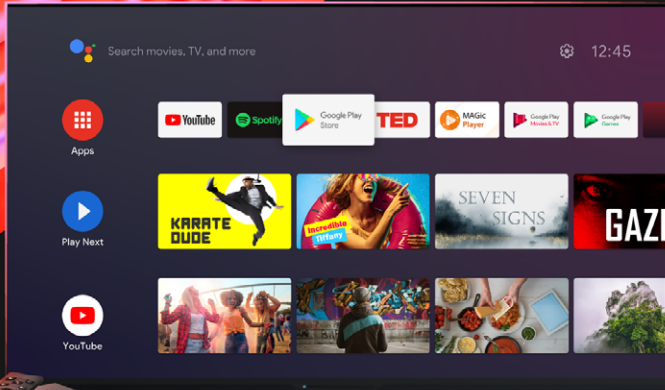
Android TV capabilities

Android TV offers a better user experience, integrated Google services, a modern launcher, voice-controlled remote, personalized recommendations, and an app store.

Google Assistant

The voice assistant that controls playback, finds answers to your questions, fetches weather forecasts, looks up content across all apps, and finds channels, films, and TV shows on your users' favorite subscription services. All easily accessible with just a push of a button on the included voice-enabled Bluetooth remote.

Widevine L1 and Microsoft PlayReady SL2000

Widevine L1 and Microsoft PlayReady SL2000 DRM systems enable operators to protect their content and have an easier time negotiating with copyright holders.

Learn more

MAG5000

CLIENT SERVICE:
A TICKET TO A BETTER FUTURE

Interview with Victor Artyushchenko, commercial director of the Infomir, about the fundamental principles of modern client service.

Interview by Denys Gorbunov

SUPPORT

In highly competitive market conditions, the factor of relationships between companies and their customers plays a crucial role. Victor Artyushchenko, Commercial Director for Infomir, shares his experience and gives some recommendations that will be useful to company management when it comes to implementing comprehensive customer service.

Victor Artyushchenko,
Commercial Director of the
Infomir

Could you assess the significance of client service in the IPTV/OTT business?

Client service used to be something like a particular form of love, that not all firms were able to show. But even those who could express such an attitude did so only in relation to their key clients. Every year the market demands more, and any chance to stand out from the backdrop of other companies becomes enormously significant. You can expend serious funds in developing a new form factor design, but the client remains unhappy — because after purchasing the product, he may have to wait a week for an answer to his question about how to configure it. The question 'to provide it or not to provide it' is not relevant any longer, nowadays literate managers understand the importance and the mutual benefits of service. For the client, it is first and foremost the convenience, and for companies, it is the chance to build a long-term relationship with customers and to stand out in the highly competitive rivalry with other firms.

What do existing companies and online stores face, when trying to integrate highly qualified service into their business?

The answer is right there in the question. They have a lot of difficulties to face, but the hardest thing is to find highly qualified staff. Service is a relationship. It exists between the client and the brand. But the brand is something ephemeral. A brand cannot be rude to the client, but an incompetent staff member can. It is not just skills and product knowledge that matter when you're recruiting and training personnel, but also personal qualities. You can hire a bad tempered IT expert, as long as your company's employees are going to be the only victims of his temper. But a tech support specialist who insults a client may cost you a lot. I don't make this rhetorical retreat for no reason: I think that 50% of a support specialist's success lies in his communication skills.

As for the other 50%: that comes down to professional competence. Of course, the more complex a field is, the longer the training process will take. I could recommend you to hire trained professionals with experience in your field — but that would be Utopian.

The bigger your company is, the more specialists you will need. The likelihood to find 20 tech support specialists who have an experience of working with OTT services is fairly low. So you need to get ready to teach the people you hire.
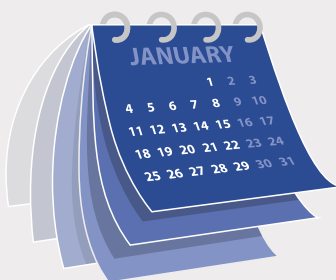
For example, at Infomir it takes between three and six months to teach and train a tech support specialist. To be able to help clients, the specialist needs to be completely immersed in the process, to study the product line, the documentation, the manuals, etc.

All this takes time and costs the company significant funds. Take all this into an account at the initial stage, when you are setting up the service. And there's more to it than staff. Even the very best specialists turn out to be useless if you don't devise an optimal procedure for integrating them into your company before you hire them. It's also important not to forget about the consequences. If client service is integrated properly, it can be a cornerstone of your company: if not, it will become the fifth wheel.

What advantages can a company's management look to obtain during the launch of client service?

First of all, a higher degree of loyalty. If you want clients to love your brand, you need to love your clients. For example, in the field of internet retailing, good-quality service reduces the number of refusals during purchasing and helps to convert one-time buyers into repeat customers. It is much more profitable to retain a client you already have acquired than to attract a new one.

Increased loyalty will lead to favorable testimonials — the famous 'word of mouth' that people call the cheapest and most effective means of promotion. I agree that it is the most effective, but not that it is the cheapest. Integrating client service into your company isn't cheap: but the positive effect of reviews from satisfied clients is priceless. There is a big difference between a satisfied client and an enthusiastic one. You should always keep in mind some basic psychological principles. A client is more likely to share his review if he is not just satisfied with the service he has received, but impressed by it. This means not only anticipating clients' wishes and expectations, but also being able to exceed them.

## RECOMMENDATIONS ON HOW TO IMPROVE CLIENT SERVICE:
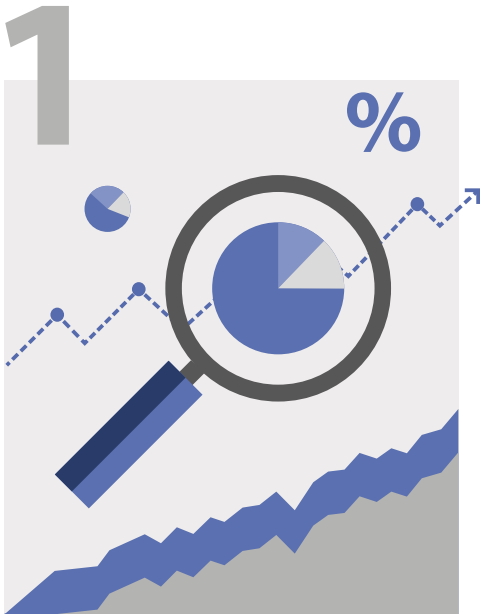
1. Mind the client.

Client orientation must be the foundation of your company. The times when people produced goods without regard to the demands of the market are over. Today, before developing a new product, the requirements of various target audiences are carefully analyzed. In our case, service is an integral part of the product. When clients buy a set-top box from Infomir, they are paying not just for the device but also for guaranteed servicing and tech support that they can rely on. The client will never be left on his own with the product or with a question. A specialist will always be there to help.

2. Get feedback.

This means being open: offer clients the chance to leave reviews. Don't be afraid of negative comments: it's better to find out what bothers a client and to fix the problem than to lose him. You should be glad that the client has told you about the issue: there may be masses of others who are dissatisfied with the same thing. In that case, you are obliged to respond — otherwise, the consequences can be catastrophic. It's not worth trying to guess what your clients need. Even if you put yourself in their place and try to model their possible requirements, your conclusions will still be subjective. If you want to know which aspects of your service need improving, just ask your customers. There is a myth that client satisfaction surveys are beneath the dignity of a large company. I think there is no place for arrogance when we are talking about the interests of the client. But bear in mind that responding speedily to the feedback you receive is of critical importance. Otherwise, the client will draw negative conclusions about how important his pain is to your company.

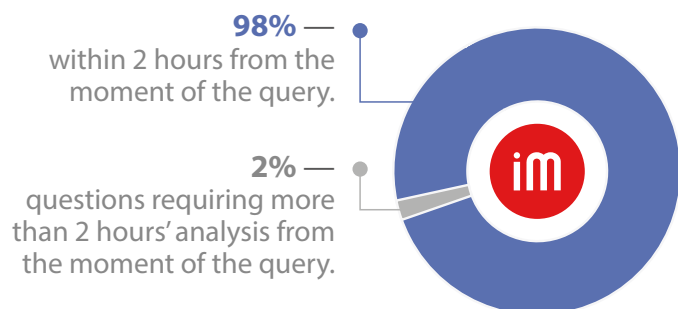SUBSCRIBE
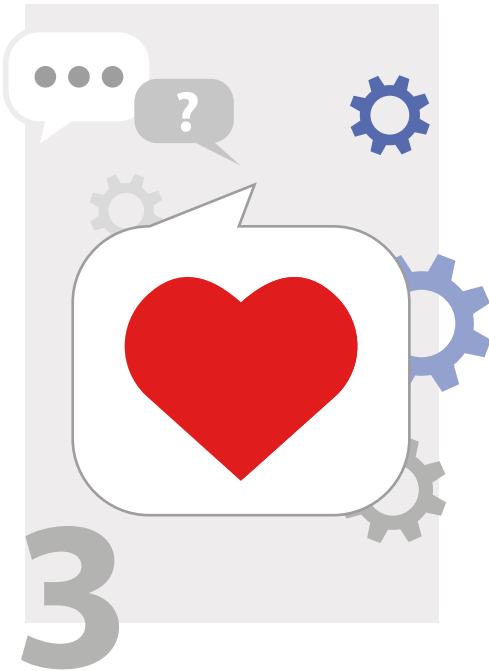
3. Build a relationship.

The client may forgive you a minor failure if his attitude towards you is a good one. It is important to make him feel a particular attitude from you. Be flexible, react not only to mass demands but also to individual requirements. Make sure that your staff cultivates a welcoming relationship with clients. Service needs to be personalized. As a rule, the client thinks he deserves more respect the longer he stays with the company. Some incompetent employees, on the other hand, may make the mistake of thinking that a client is tied into the company for good. This is wrong. The client's patience may have a limit, so you should never neglect clients' requirements — even if these are your repeat customers.

4. Respond quickly.

The positive impact of your answer to a query depends directly on how long the client has to wait for it. Organize the feedback procedure in such a way that the client knows exactly how many time it will take to receive an answer. For example, Infomir tech support representatives respond to queries within two hours.

Speed of answering queries addressed to Infomir tech support

98% — within 2 hours from the moment of the query.

2% — questions requiring more than 2 hours' analysis from the moment of the query.

Rapid feedback lets you show the client that you respect his demands highly. The promptness of your answer is also a good chance to exceed the client's expectations, since many services offer support within a 48-hour period which is quite a long time to wait nowadays. In situations where the client is unsatisfied with the product and wants to return it, your reaction should be as fast as possible: as long as a client is angry, he may become a source of negative reviews.

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2 hours average time to solve a problem submitted to Infomir tech support

5. Pick a channel of communication.

Mind the clients' requirements and the specifics of your business. Try to choose a form of the client-company communication that will allow the most productive interaction. For example, at Infomir we have created an online Support Service portal. Be prepared for the fact that when you have chosen a particular channel of communication, some clients may object that it would be easier for them to get a quick answer over the phone or in an online chat window. But the top priority is to grasp the specifics of the field, as I mentioned before. A phone call is a good way of freezing your account at the gym, and an online consultant can help you find out when the movie theater is changing its screening times. If you are reading these lines, I'm sure you understand that these questions are much easier to answer clearly than a question about how to configure a set-top box or an internal portal. That's why we settled on a more visual and structured means of communication. And time has shown that we were not mistaken.

6. Embed your corporate culture.

Opinions on your company are shaped by a large number of components. You may have an excellent website, a relevant product and a convenient delivery system, but your sales manager may have an unpleasant manner that strikes clients with its rudeness. In that case, the positive effect of all the other components is multiplied by zero. So it is important that all staff members who are involved in external communication have a clear understanding of what their task is. The best of you can do is a set of instructions that will describe the rules, the norms, and the taboos. With sufficient experience, you can develop this document yourself, or you can get specialists recommendations. This can make the process of integrating new staff members significantly easier. Another thing that can have a positive effect on your group is holding company training sessions and inviting communication experts. We have held events like these for the Infomir team for several times. You can assess the results by yourself, for example, by getting in touch with the specialists from our sales department.

7. Share news.

Don't forget to inform your subscribers about company news. An introduction of a new item, a change to your pricing, new products in stock, any updates being released: all these matters are important enough to share them with your clients. Don't misinform your clients. To make sure, you will need an official information channel. This could be social media, an email newsletter, or instant messaging. But if you use several such channels, try to keep them synchronized. And the most important thing is to keep up your presence: the client needs to hear the news from your company, not from third parties. That way you can build a closer mutual connection, and rule out the possibility that information will be corrupted with false promises made in your name.

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8. Keep your word.

This simple rule has been familiar to all of us since we were children — but it can be very hard to stick to in the dynamic world of business, where many different people are responsible for the success of each operation and where a mistake on any level can lead to problems. Even so, this is the basis on which clients' confidence in your company rests.

> **"**
>
> If you are not sure you will be able to fulfill an obligation, do not declare you can and hope that things will work out. Sometimes you have to take business risks but not in this case. If this idea seems obvious, you should make sure it is just as clear to your staff and subordinates. The client does not distinguish between the company and its representative.

If a manager from the logistics department promises the product to be delivered on time, but fails to keep his word, the client may conclude that this is typical for the whole company. Imagine yourself visiting a new restaurant: you place your order, and then you have to wait for an hour before the food arrives. It turns out that the waiter has never passed your order to the chef. Will you go back there again? Perhaps; but it's doubtful. Will you tell your friends about your bad experience? You probably will, if that restaurant comes up in conversation. This is an example of how incompetent actions by one person can undermine the loyalty to a whole company.

9. Start from the inside.

Respect for the client has to be more than just a public slogan: it has to be your company's whole lifestyle. Don't let the group include people who publicly express dissatisfaction with clients, or truly insult or mock them. This kind of criticism poisons the atmosphere in the group and lowers other employees' motivation. Even if the client has caused staff members to do additional, more difficult, or more urgent work, this is no excuse for expressing hostility towards them. It is better to find a way of emphasizing the importance of this work and motivating your staff members.

What would you say to companies that have not yet decided whether it's worth integrating client service into their structures?

They probably haven't done it because they underestimate its importance and its direct influence on the business success. I have made quite a few arguments in favor of integrating it. The only thing I have left to say is that the most loyal and reliable clients are the ones whose problems have been successfully resolved — not the ones who have never had a problem. To those who haven't yet decided to integrate client service, I would say: be decisive.
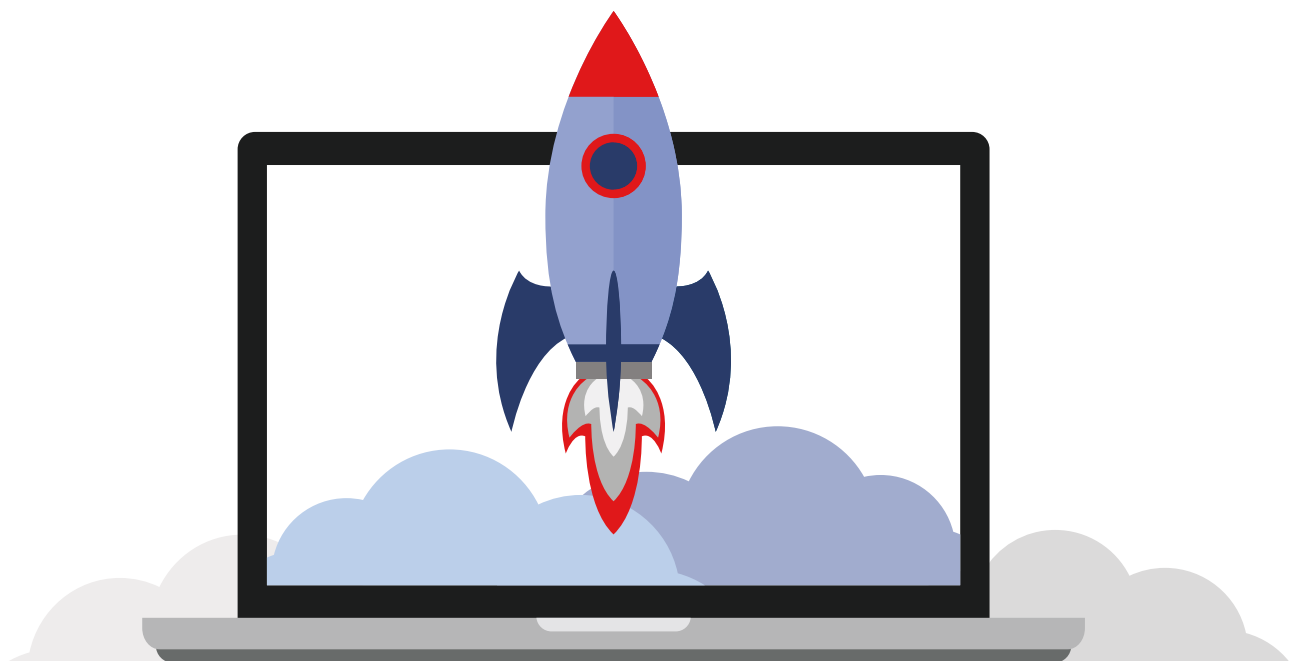
STALKER MIDDLEWARE
HAS BECOME MINISTRA

Irina Tischenko, Brand Manager of Ministra,
presents the new multiscreen TV platform by Infomir.

Written by Maria Kovalenko

In 2007, Infomir created software for television service management called Stalker Middleware.

For 10 years, this product has helped thousands of internet providers, hotels, schools, universities and medical institutions in 80 countries quickly and easily launch projects based on the MAG series of set-top boxes. We are proud of this product.

Consumer demand for internet TV dictates the market rules for major television brands. Sales of Smart TVs and streaming devices are growing and it is expected that, by the end of 2017, every fifth family in the world will be watching a smart TV connected to an IPTV service.

Sales of Roku, Google Chromecast and Amazon Fire TV streaming devices reached 112 million in the US by 2017, and they are actively gaining popularity in the western market.

We understand the trends and are pleased to present a multiplatform solution.

We have worked very hard to create a product of a distinct level and quality with new capabilities and methods of monetization.

Over the past year, the Stalker Middleware product has changed in its functionality and its ideology.

| Android | iOS | MAG Boxes | Fire TV | Android TV | Apple TV | Smart TV |
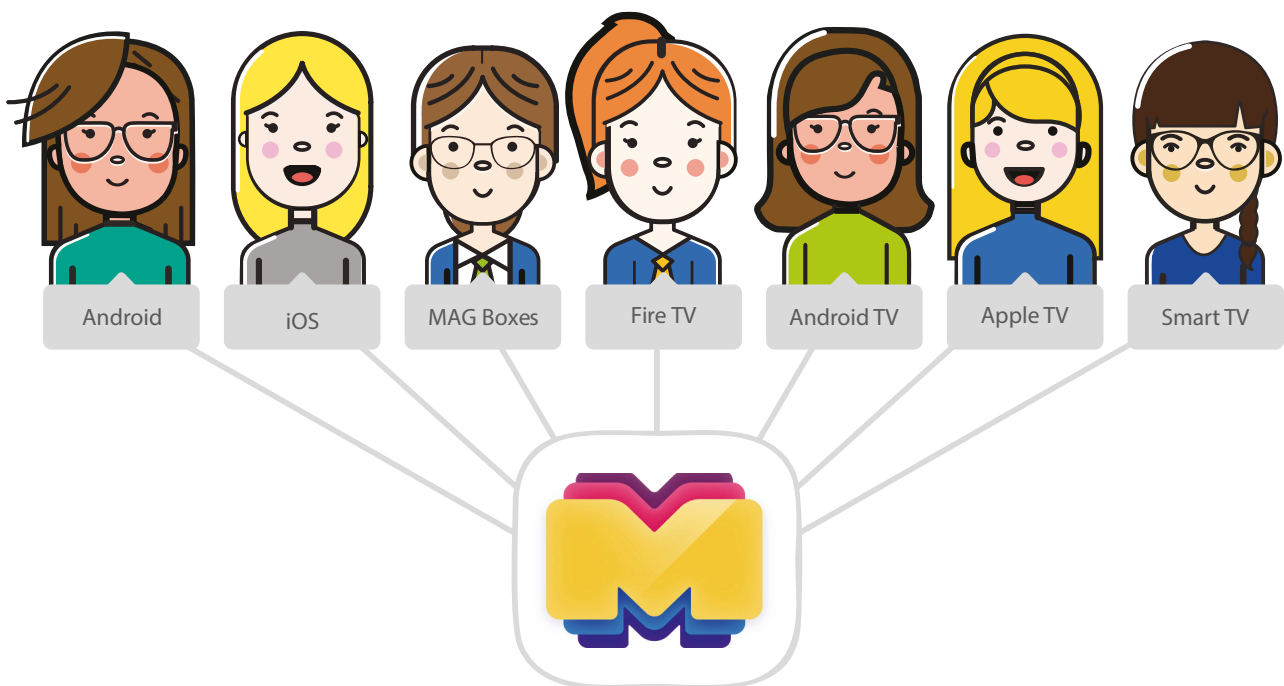
STALKER MIDDLEWARE HAS BECOME MINISTRA

Meet Ministra!

The Ministra multiscreen TV platform is a software package for a quick and easy launch of an IPTV/OTT project. It is ideal for services with up to 50 000 subscribers. An attentive assistant for your media service.

With Ministra you can offer subscribers modern and unique interactive television.

Ministra will be good for

Internet providers
to introduce modern interactive television services in order to increase the average return from every user.

OTT projects
to launch interactive TV services in the shortest time span and at minimum cost.

System integrators
to launch projects to provide IPTV, OTT and VoD services.

Launching a television service based on Ministra will not require large expenses — the TV platform is available for free.

All you need is quality content and virtually any multimedia device from the user's side.

The user interface on all devices is in the same style, creating an additional advantage for users who have more than one screen in use.

You can request installation and configuration of the «turnkey» system from Infomir specialists, as well as technical support with the necessary SLA.

It is a continuation of previous versions of Stalker Middleware, so Ministra starts as version number 5.3.

As of today, the following platforms are supported:

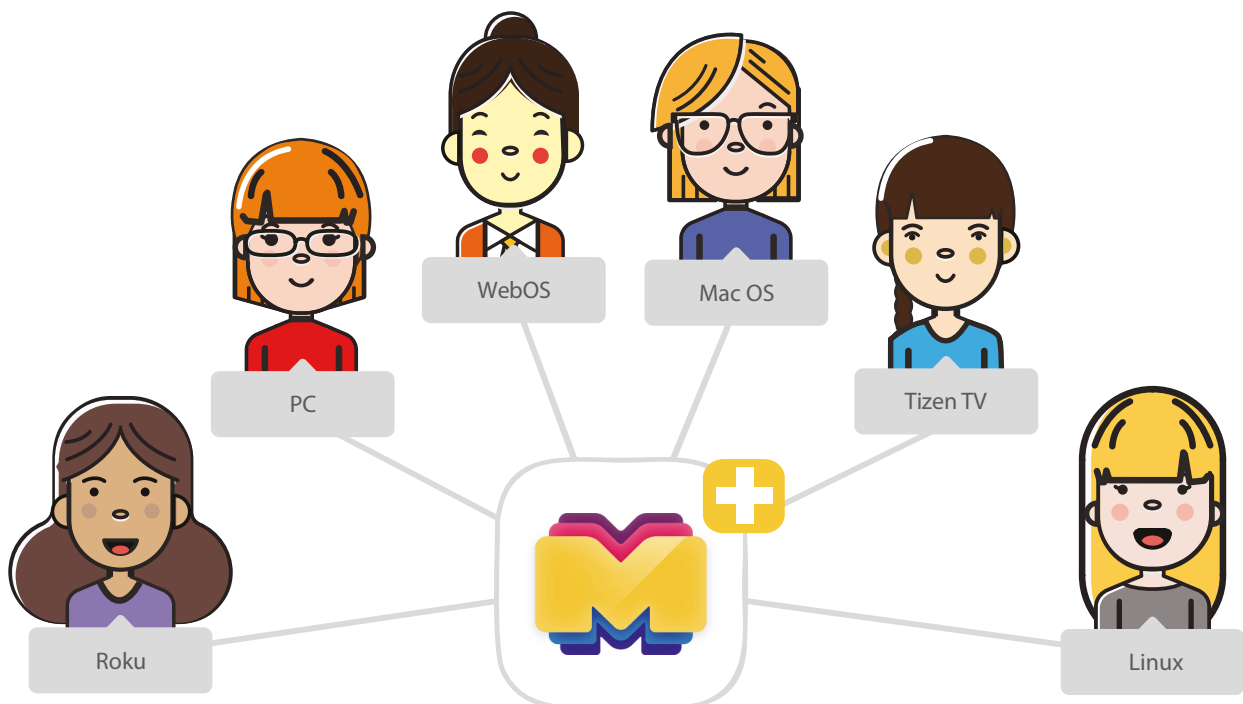Set-top boxes and streaming devices: MAG, Apple TV, Android TV, Amazon Fire TV.

Smartphones and tablets: iPad, iPhone, iPod touch, Android.

Smart TVs: Samsung Smart TV.

Get ready for the release of applications for Roku, Samsung Tizen TV, LG WebOS, Mac, PC, and Linux.

The first public presentation of the product under its new name will take place in Amsterdam at the IBC 2017 exhibition from September 15-19.

Multiplatform Ministra Player

TV and EPG	Delayed viewing (PVR, Time Shift)
Video on demand	Parental control
Music on demand	Picture in Picture
Radio	Apps and Games
Karaoke	Internet browser

Ministra Back Office

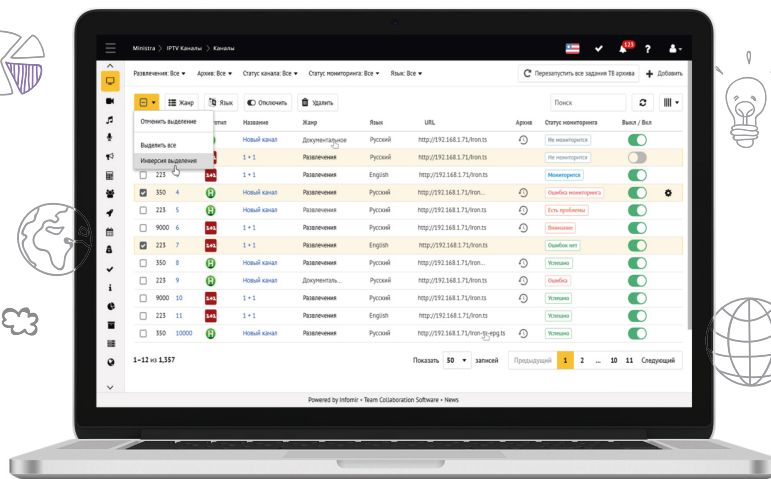|	
Content protection	Delayed viewing (PVR, Time Shift)
Scheduled publication	Parental control
Auto-complete for metadata	Picture in Picture
Statistics and analytics	Apps and Games
Automatic source monitoring	Internet browser

THINK
LIKE A USER

How the look of your service affects the decision-making of your users? What you need to do to ensure that they decide in your favor.

Authors: Kristina Usova, Marina Popovichenko

When you are working on an IPTV/OTT project, sooner or later the question about how the user interacts with your service will come up. Whether you gain a new satisfied customer or whether they will move on in their search for a more convenient resource depends on whether you have created a practical and intuitive interface. Sometimes this can be quite difficult since it can require a specialist who has a lot of experience in designing and visualization. At this stage, concepts such as UX and UI design come into play.
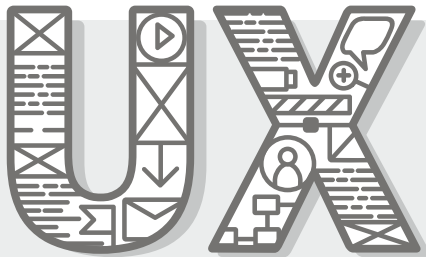
UX stands for User Experience. It determines what experience/impression the person gets from working with your interface. The person's satisfaction depends on how easily and quickly they are able to achieve their goal.

UI stands for User Interface, which is responsible for the look of the interface, its color scheme, the design of key elements, readable text, etc.

UX and **UI** are inseparable concepts and therefore are often stated together, separated by a forward slash. They are relevant to more than just WEB or interactive TV. UI/UX design considerations are relevant to the design of any interfaces in which convenience is just as important as appearance.

Whether you are pressing buttons on a calculator, working behind a lathe, or swiping across the screen of your smartphone, in all of these cases you are interacting with devices to achieve a specific purpose. By designing the user interaction effectively, you can logically and quickly lead the user to the final result, such as subscribing or making a purchase.

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Why is this necessary?

The objective of UX design is the same for any business to solve the user's question by successfully selling your product or service to them. In the digital era, the interface performs a function that is similar to what a sales consultant in a store or a sales manager in an office does. Based on personal experience of interaction with the interface of your site or service the user makes a decision — to be or not to be? To like it or not to like it. To buy or not buy.

Just as carefully as we choose staff, we need to assess the appearance and capabilities of an internet service. You need to know which interface functions will attract the users, and which ones will prompt users to seek out the services of competitors. The success of your business largely depends on this.

We prepared a selection of basic rules that allow you to evaluate the "professional qualities" of your virtual sales tool. We hope they will help you better understand your users and become a couple of steps closer to them.

1 PEOPLE DON'T READ, THEY SCAN

This is the first rule that anyone who communicates with customers through the device screen should remember. When users visit your website or application, they will not read through all of your content as they make comparisons and decide on which action to take. They will click on the first thing that seems suitable to them. In other words, even if they think for a moment that a certain element will help them find the information they need, then it is likely that they will click on it.

Each of us has probably been fooled at least once by the big "Download" button that took us to an ad.

The Gutenberg Diagram

The Gutenberg Diagram schematically shows where users direct their attention when browsing content on any device, whether it is a smartphone, laptop or TV.

When we look at a page, we divide it into 4 areas:

1

The upper left area is the priority browsing area.

This is the area that the human eye is naturally drawn to. This is where you should place the most important information about your company, including the logo and slogan. If this is textual content, then this is where the first 2 to 3 words of the headline should be visible.

2

The right upper area is a well-visible zone.

When we pass our eyes over the page, we move them horizontally from the first left area to the right one. It is not as important as the upper left area, but the user still concentrates a lot of attention on this area. Therefore, other important elements should be placed along this line of sight and in the very center of this upper right area, including: contact information, feedback form, address, and your offer. Or it should contain the entire headline of the article if you are posting textual content.

3

The lower left area is the least studied area.

We only look at this area for a split second. We pay almost no attention to the information in the lower left corner.

4

The lower right area is the last place our attention alights on before leaving the page.

This is where the most important thing happens: the user performs target action continues to read, or leaves the site. Therefore, you should place a call to action or an order button in this right area.

The Gutenberg Diagram also works in countries where the script moves from right to left, but in mirrored form.

A successful example of the correct use of the Gutenberg Diagram is the Facebook user registration page.

2 THE KISS PRINCIPLE

KISS is an acronym that can stand for several things. The most popular of them are "keep it simple, stupid" and "keep it short and simple". This principle is considered one of the key rules of UI/UX design. It emphasizes that the interface should be simple and intuitive, that the meaning of the elements should be obvious, and that the user should be able to achieve their goals with a minimum number of actions.

KEEP IT SIMPLE

The drag'n'drop method is a good illustration of this principle. This is an absolutely natural action that is performed using one mouse movement.

The application should help the user accomplish their objective. It is not the end in itself. If the navigation and structure of the site are not intuitive, this will cause users to have more questions and it will be more difficult for them to understand how the system works and how they can get from point A to point B. This will make them uncomfortable on a subconscious level, and they will want to leave your site.
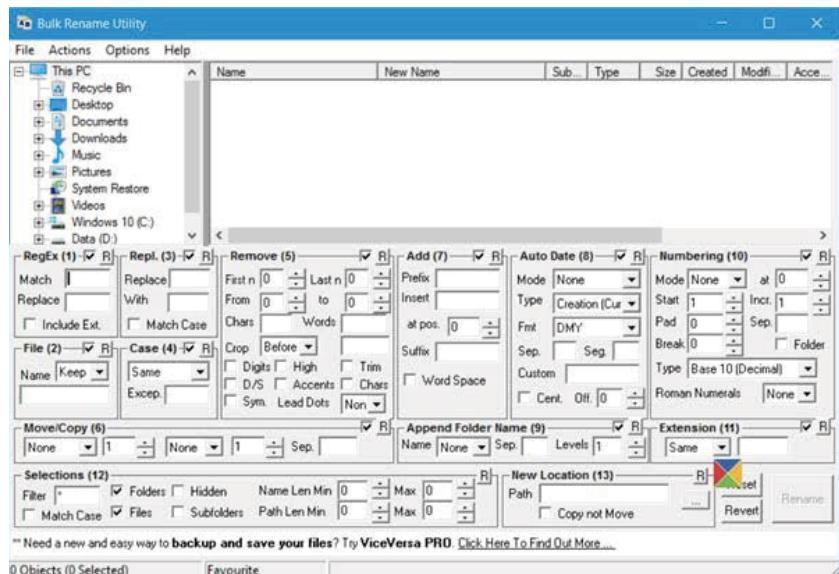
An example of an overloaded interface, even for advanced users

A clear architecture, correct visual prompts, and easily recognizable links will help the user find the path to their goal, and these same tools, in turn, will help you reach the user.

It's just like in warfare

We borrowed this principle from the U.S. Air Force. The acronym was coined by Clarence Johnson, lead engineer at Lockheed Skunk Works. Johnson explained his idea by saying that all military equipment must be designed so that it can be repaired by a person with only basic mechanical skills, a minimum of tools, and in the field. Otherwise, it will quickly become unsuitable for combat operations. The same idea applies to interfaces: excessive complexity makes them unsuitable for achieving the user's goals.

Clarence Johnson

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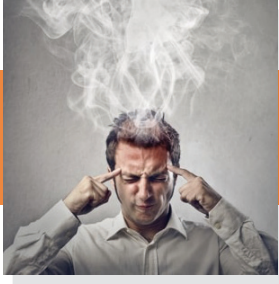
3 DON'T MAKE THE USER THINK

Do not require a lot from the user. The fewer the number of actions that need to be taken to try the service, the more likely it is that the visitor to your site will actually do it. People who are exploring your site for the first time are not interested in filling out long forms to create an account that they may never need again. Give the potential client the opportunity to use the product without forcing them to provide a lot of personal information.

Why is simplicity important? →

When a user selects between several applications with the same functionality, they will prefer the one that is easier and more enjoyable to use. Therefore, out of thousands of similar applications, only a few will become popular. The most striking example of this is WhatsApp.

WhatsApp

"On the Internet, just a single click can constitute a competitive advantage. If you disappoint users, they will go somewhere else".

Steve Krug, "Don't make me think"

We take away the complex elements, what is left are the necessary components.

You can achieve simplicity just by using some well thought-out abbreviations. If you hide some of the advanced features, the interface will become more compact. A product with fewer buttons is not necessarily less functional. It's just better thought out.

The main thing is not to overdo it.

While pursuing simplicity, it is important to preserve the necessary functionality that is fundamental to your product. For example, professional cameras are more complex than those in our smartphones, because in their case such additional complexity is necessary. Therefore, do not simplify for simplicity's sake. Simplify to make the product more convenient for the user.

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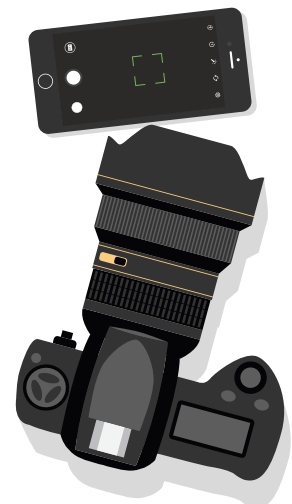
4 FITTS'S LAW

Fitts's Law describes the relationship between the amount of time required to move to a target, the size of this target, and the distance to it. It goes like this: "**The easier it is to find a target and the shorter the distance to it, the faster and easier it will be to move to that target**".

We can draw 2 conclusions from this law:

1 Make your targets larger

If the target is large enough, then it will not get lost against the background of the rest of the content and it will be easier to reach. This target will facilitate user interaction with your site and intelligently fill the space.

Increasing the size of the button is a favorite technique of designers, since it easily identifies the main elements of the interface, attracts attention or serves as a reminder of the target action that the user must take. For example, a bright button on the control panel for Stalker Middleware encourages you to download the update.

2 Shorten the cursor movement distance

The closer the target, the faster the visitor will reach it. If you distribute the related elements so that they are not that far apart from each other, then users will be able to use the interface of your site more quickly. At the same time, all elements must be put in their own proper places. For example, the visitor is used to looking for the site's menu in the upper right part of the screen.

TV subscribers will appreciate the updated keyboard, which is full-scre... ...ers can also choose an alphabetic, numeric, symbolic version of the ke... PIN keyboard to enter the password.
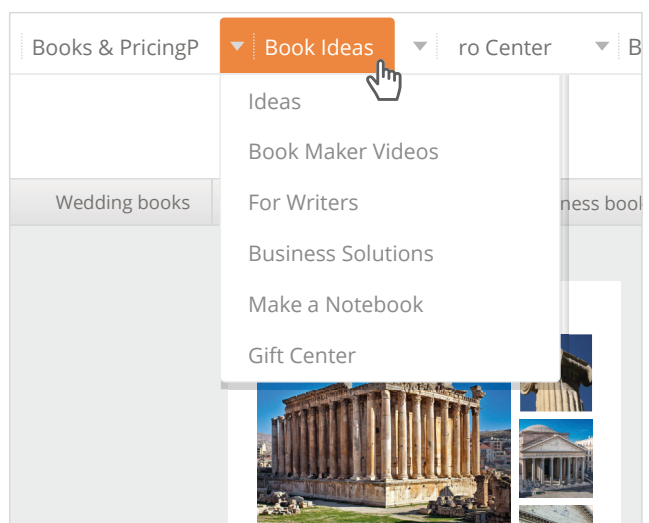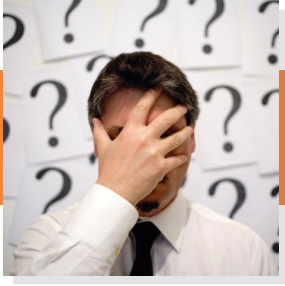
Update Stalker Middleware

Download Update 5.2.0

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Ideas

Book Maker Videos

For Writers

Business Solutions

Make a Notebook

Gift Center

Wedding books

5 HICK'S LAW

This law says that the greater the number of choices, the longer and more difficult will be the decision-making process.

In other words, if we complicate the decision-making process, then we raise the person's level of stress and make them more nervous. A variety of options can cause an emotional reaction, as a result of which a person may feel that none of the solutions is suitable. Just remember your last trip to the supermarket: it is much easier to choose from two varieties of one product than from ten.

By moderating the number of buttons, panels, and alternatives, you will ensure that the visitor has a positive experience. They will be more likely return to your site and start actively using it. The wider the range of choices, the greater the headache. If you limit the number of choices, then you increase the likelihood that the user will understand you correctly.

6   SIGNAL TO NOISE RATIO

A signal is the information that you would like to communicate.

Noise is extraneous information that blurs the signal.

In order to create an effective design, you need to find the optimal ratio between these indicators. Removing unnecessary or highlighting important elements will help you to correctly place the emphasis and communicate the necessary information.

Full "noise insulation"

A minimalistic design will maximize your signal-to-noise ratio. But is it always appropriate? You will often make the appearance of your site less attractive by removing secondary elements. Therefore, a little "background noise" does not hurt. The main point to remember is that it should not block the signal. In other words, minimalism is good, but sometimes simplicity is enough.

7 EFFECTIVE COMMUNICATION + CORRECT COPYRIGHTING

Aaron Markus, the founder and president of AM+A, one of the world's leading experts in the field of design and usability, identifies three fundamental principles governing the use of "visual language" content in his works on how to effectively present visual information:

1 Organization:

give the user a clear and coherent structure. The placement of logical blocks, their interconnection, and the ability to move between them are important aspects of organization. The same rules should be applied to all elements on all screens of the application.

Take the Stalker Smart Launcher, for example. You can see how the interface is laid out: the left section of all apps contains the launcher, the filter and a "Logout" button, and the right section provides extended information about the menu items depicted in the middle.

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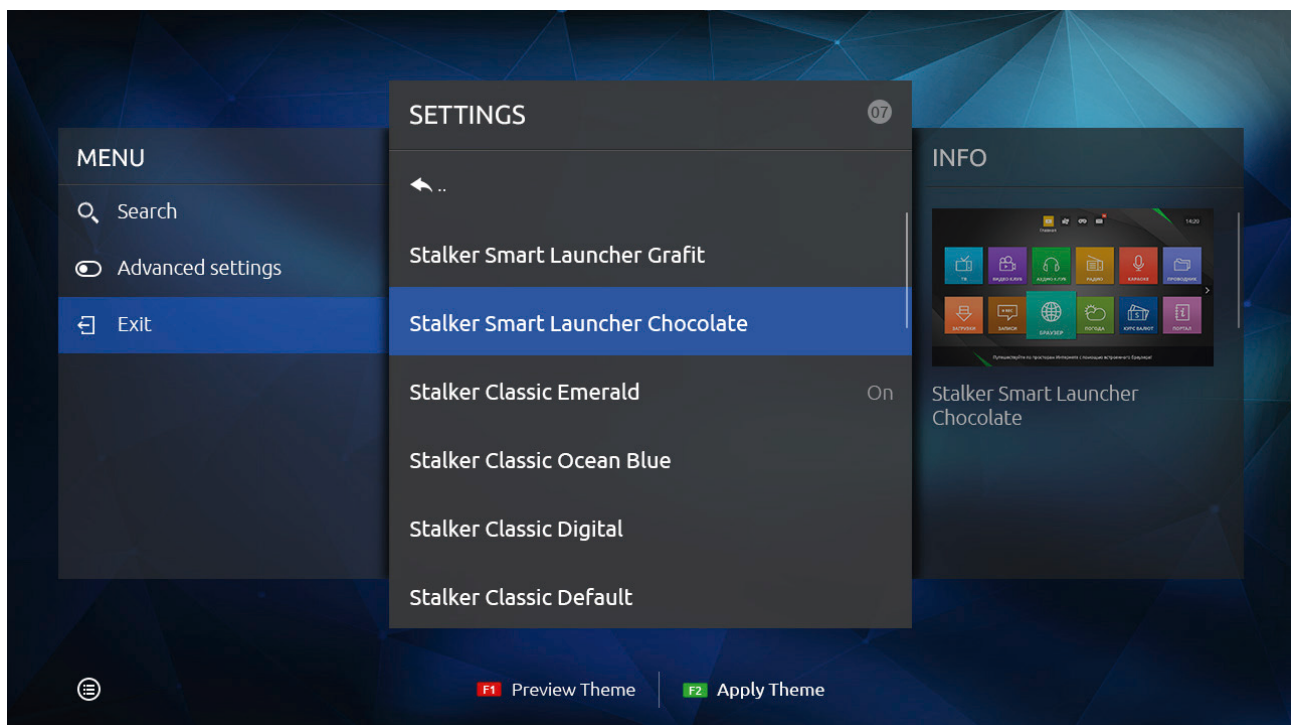
2 Economize:

do as much as possible with fewer visual elements. Use only those elements that are the most important for effective communication. Habitual visual images clearly communicate to the user what the functionality of elements is. You will agree that we all know what these symbols mean:
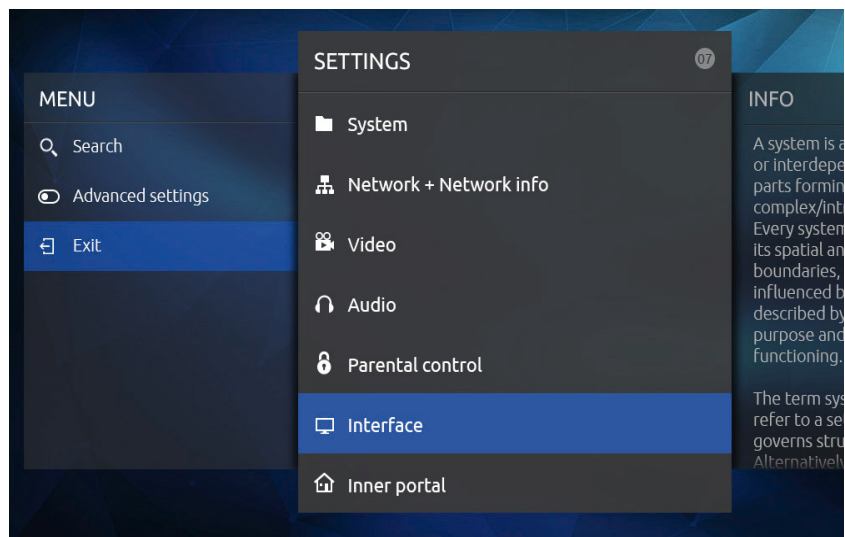
3 Interaction:

the site must be understandable, readable, and have the correct typography and suitable colors. Use no more than 3 fonts with 3 different sizes. Avoid more than 18 words or 50–80 characters of text per line.
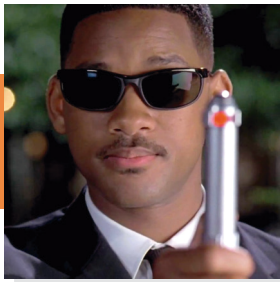
8 "MILLER'S PURSE"

It is well known that the abilities of the human brain are not unlimited. In 1956, American psychologist George Miller determined that short-term memory, as a rule, cannot store more than seven pieces of information (+/- two). This is the so-called "purse" of items that are available for mental recall.

The settings in the Stalker Smart Launcher are categorized and marked with icons that allow for the quick scanning and recall of information.

MENU
Search
Advanced settings
Exit

SETTINGS 07
System
Network + Network info
Video
Audio
Parental control
Interface
Inner portal

INFO
A system is a or interdepe parts formin complex/int Every system its spatial an boundaries, influenced b described by purpose and functioning.

The term sys refer to a se governs stru Alternatively

SUBSCRIBE

At the same time, we do not perceive the full meaning of elements, but only their general outward characteristics. In other words, what is contained in the "purse" is not that important. What is important is that it cannot hold more than seven items. If the number of pieces of information increases, then our memory splits the information into subgroups consisting of five to nine elements.

This provides some takeaways that are directly relevant to web designers. For example, do not create a menu that is too big. If you need to create a menu with many items, use categories. Group similar pieces of information together: this rule can also be classified under Hick's Law, which we mentioned above.
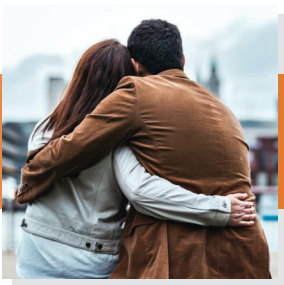
9 THEORY OF PROXIMITY

Grouping together components that are semantically related is a simple way to make it easier for customers to use a resource. Many of us are familiar with the "Open" and "Save" functions (that are like a fork and knife), and they are grouped together in one place. Similar functions are located nearby. They follow a certain logic while reducing the time needed to comprehend what they are.

Four principles should be considered when grouping elements on a page:

1 **The general area:** the user should be able to perceive the site or application screen as a unified whole. Most often this is achieved by creating a common background.

**2** **Connections:** components that are graphically linked together are also perceived as constituting a whole.

3 **Similarity:** site elements that share the same color, shape, and size create a sense of similarity and affinity.

4 **Proximity:** the closer the components are to each other, the more interrelated they seem. Even if there are radical differences between them, they will be visually perceived as being related because they are next to each other.

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Proximity creates a semantic connection between elements and increases their significance. Visitors to your resource will perceive logically grouped elements to be more important than if they were presented separately.

The rule of the internal and external proportions

This is a special case in the theory of proximity. Linked items should not be merged with each other. In order for an object to have independent value, its internal distances should be less than its external ones.
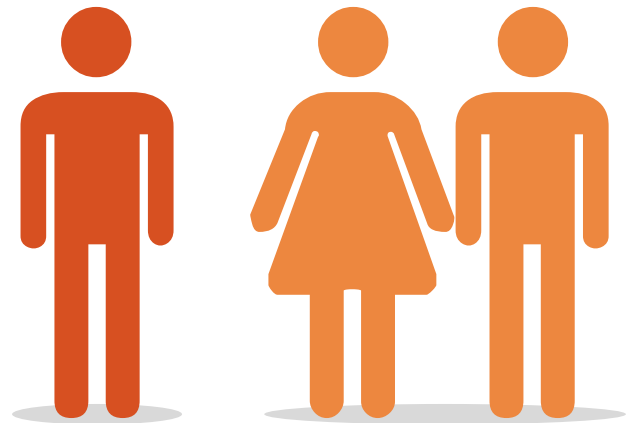
10 PRINCIPLE OF BRIDGE RAILINGS

Another word for this principle is "foolproofing". This is a very simple rule that is often overlooked: protect the user from actions that he cannot or should not do. For example, if the picture is not clickable, it should not be highlighted as an active element when the user hovers their cursor over it.

The advanced settings in Stalker Smart Launcher are hidden by default so as to prevent the user from accidentally changing a setting.

Advanced settings

Order or feedback forms commonly do not comply with this rule. The best practice for such forms is to prevent the "Send" button from becoming active until the user correctly fills in all of the required information. The e-mail and phone number fields should verify that information has been entered in the correct format. Otherwise, the visitor either has to fill out the form several times, or they will submit the wrong information and then proceed to forget about your site.

SUBSCRIBE
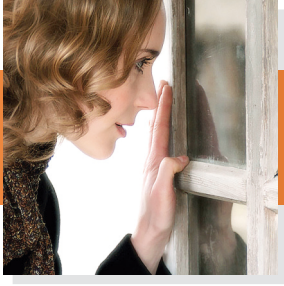
11 PRINCIPLE OF INTELLIGENT BORROWING

There is no point in reinventing the wheel. If a ready-made solution is suitable, it can be borrowed and adapted to your product. The borrowing of successful ideas from the creators of similar programs reduces user learning time and makes them more comfortable using our product. That's because they can use the skills that they have already acquired when working with your application.
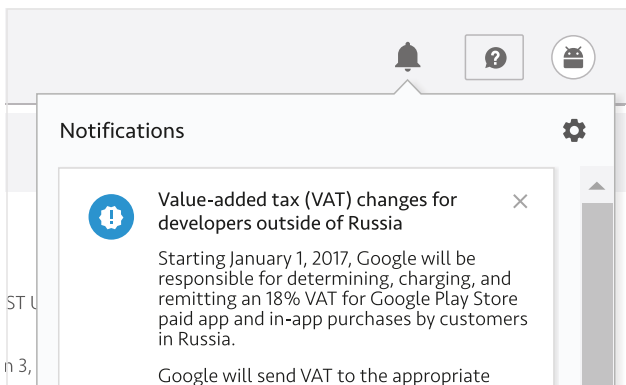
Google Play Developer Console notification bar
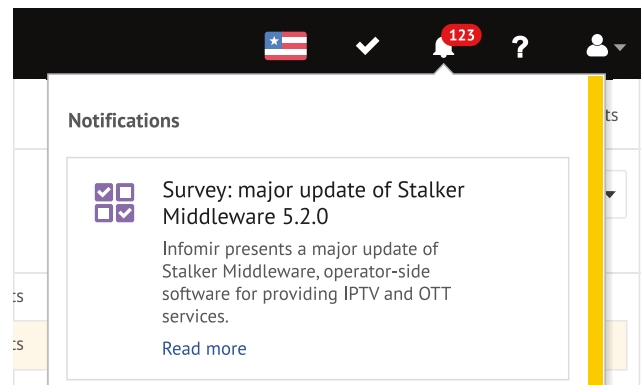
Stalker Middleware notification bar

There is nothing to be ashamed of about borrowing from other people's interface elements. The leading programs on the market can be a source of inspiration for developers of products with smaller audiences.


12 TRENDS OR VERIFIED SOLUTIONS

Some trends are started to address a special need (for example, the hamburger menu) or in response to changes in the industry (background videos). Be ready to adapt to anything. This is great advice, especially in web design, where new trends are constantly emerging.

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There is nothing wrong about following these trends. However, when it comes to new «features», it is worthwhile considering how copying them into your app will affect usability. Do not get too carried away and blindly follow the fashion without looking at the needs of your audience first. In the end, your product must satisfy your user base. It was for their benefit that you created your product. Invent something new only if you are sure that this idea is really good. Otherwise, it is better to use a traditional solution.


Flat Design iOS7

Metro Design Windows 8

Flat Design 2.0
Material Design
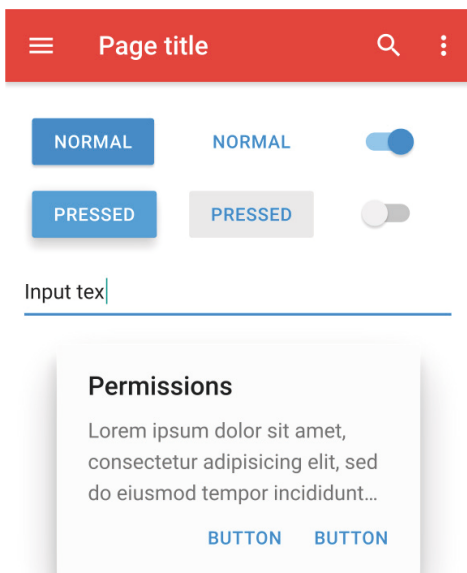
As an example of the problems that can develop as the result of blindly following trends, let's look at the frequent use of flat elements (so-called "Flat Design"). This concept appeared with the introduction of Metro Design in Windows. As a result, users encountered difficulties in finding buttons and clickable elements in the interface. Given such difficulties with UX, Google has created a new ideology: Material Design representing a new generation of flat design (Flat Design 2.0). In it, objects are given a volume that can be seen from the light shadow they cast. This approach has greatly improved the ability of users to interact with the interface.

Traditional element design for websites does not mean boring design. In fact, the familiar forms are useful, because the user does not have to learn how to work with your interface from scratch. Design should be fresh and new while remaining familiar to the user at the same time. If the user is already accustomed to something, he will quickly learn new items and will get more pleasure from working with your program or site.

Follow the expectations of users and you will easily gain their trust.
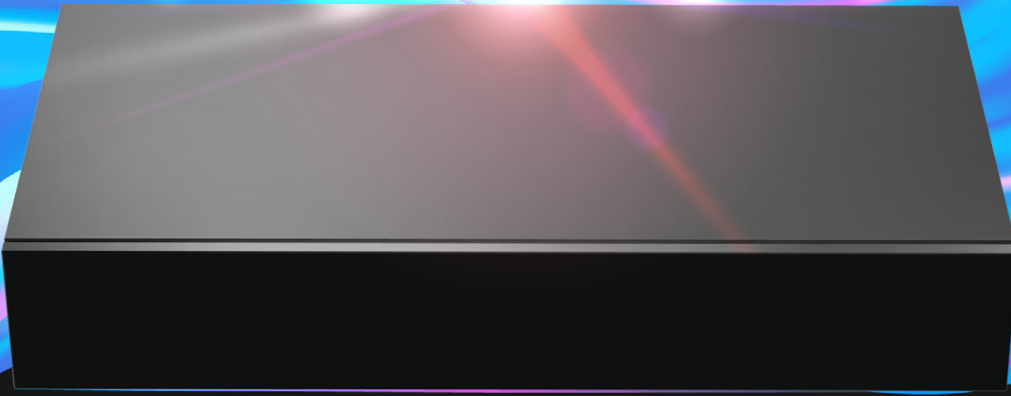
MAG520 MAG520 w3))

4K and HEVC-enabled Linux set-top boxes

Fast integration with your middleware

4K and HEVC support

Quad-core ARM Cortex-A53 CPU

4 GB eMMC

1 GB RAM

User-friendly IR remote

Linux 4.9

Dual-band Wi-Fi 2.4 and 5 GHz
(MAG520w3 only)

Qubic design

MAG520 and MAG520w3 are high-performance Linux set-top boxes that feature an Amlogic S905X2 chipset, a 25% more powerful ARM Cortex-A53 CPU, and a better GPU. It enables smooth 4K 60fps content playback.

With MAG520, operators can guarantee uninterrupted service. Infomir's API ensures easy integration of the device into any project already using MAG set-top boxes. The integration of MAG520 and MAG520w3 with third-party middlewares and DRM/CAS is available upon request.

The best user experience on Linux 4.9

MAG520 is a reliable high-performance device designed to run for months on end without rebooting. Operators can easily customize its UI and develop apps for it.

Application and integration API

Infomir has created an API to facilitate integration with CAS/DRM and app development. The apps for the Linux-based MAG Linux set-top boxes are developed using HTML, CSS, and JavaScript. Infomir provides extensive documentation for developers' convenience.
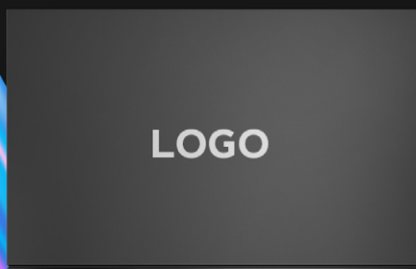
White-label UI, body, packaging, and remote control

We can customize the interface and software, and apply your branding to the set-top box body, remote control, and packaging. Companies can get UI with their logo and brand colors or even create a unique one.

Learn more

MAG520 MAG520 w3
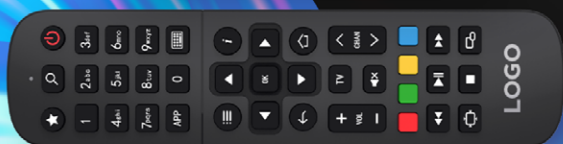
MEET INFOMIR IN PERSON!

The Infomir's Team appreciates live communication and is eager to share the experience and to establish new partnership relations. We annually take part in professional exhibitions and forums all around the world. We'll be happy to invite you to one of our stands at the major events of the industry.

NABShow NY'2017

18 - 19 October 2017

New York, USA, Jacob K. Javits Convention Center

Stand #1063, Zone: Connected Media and IP

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EDITORIAL

BROADVISION is a quarterly online magazine created by the Infomir Group. Developed by our marketing specialists, it is dedicated to IPTV/OTT industry and modern technologies. This is our third edition, so it is very important for us to learn what you would like to see in the following publications.

If you have any suggestions, comments or ideas for the new articles, or if you work for a company we should write about, please don't hesitate to email us at **broadvision@infomir.com**.

We really hope you enjoyed reading our magazine just as we enjoyed working on it. Subscribe to our email newsletter or share it on Facebook and Twitter — it will be a positive sign for us that we are doing everything right.

Help us make BROADVISION even better!

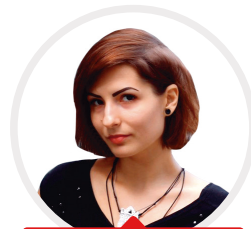# THE ISSUE WAS CREATED BY:

Project manager: **Editors:**   **Design:**

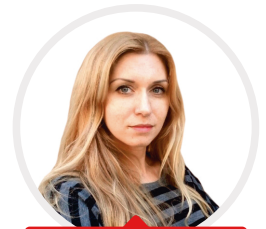Igor Oklander   Anna Novikova   Maria Kovalenko   Alla Senko

Authors:

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Special thanks to **Victor Artyushchenko** and **Alexander Sazhyienko** for sharing their knowledge with us.

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