



Switch on your TV and watch - no waiting, no searching

Like a personal TV concierge, Mioviu always serves you the best possible program

Benefit 1	Benefit 2	Benefit 3	Benefit 4
 <p>No commercials: Recordings of programs can be viewed without advertising</p>	 <p>TV On Demand: All your TV shows are automatically recorded</p>	 <p>All-in-One Experience: All relevant sources united in one user interface</p>	 <p>The right moment to present you with the appropriate content</p>

Mioviu sets precise markers in the recordings so that every show starts right at the beginning, goes to the end and even commercial breaks can be automatically omitted.

[More](#)

Mioviu automatically records all shows that might be of interest to you. You don't have to wait until the show is over, you can watch it only two minutes delayed.

[More](#)

Mioviu unites all your content: TV shows, recordings, Netflix, YouTube, various sports offers. All your exciting shows and videos can be played quickly and easily.

[More](#)

Mioviu presents you with the shows and videos you want to watch at that moment, whether live, recorded or from the Internet.

[More](#)

The Mioviu bundle:

- **Set-top Box**
(Digital video recorder)
- **Annual subscription** to the Mioviu TV concierge service with 1 profile

For further details please see the [technical specifications](#) and the [FAQ](#)

Content and Metadata:

- Markings of start of program and advertising in recordings for over 50 German-speaking channels ([see list](#))
- Standard program data (EPG) for the 300 most important channels in DACH¹
- Integration of the Netflix subscription, according the country of the subscriber (D, A or CH)
- YouTube curation in the languages German, English and French
- Integration von Abos für Sport-Angebote von Teleclub Sport (über Swisscom TV Air), Sky Sport, MySports Go, DAZ

¹ DACH = Germany (D), Austria (A), Switzerland (CH)

Requirements

TV signal:

Standard digital TV signal:

- Cable (DVB-C)
- Satellite (DVB-S2)
- Terrestrial (DVB-T2).

Examples for Switzerland: UPC, Quickline

Examples for Germany: Vodafone (DVB-C) or Astra (DVB-S2)

Pay-TV:

Pay-TV are fee-based, encrypted channels. Mioviu is compatible with existing CI module and matching smart card for decryption.

Fee-based Internet video content:

Mioviu works well without paid Internet video services.

In order to integrate the following services, the customer must provide a valid password:

- Netflix
- Teleclub Sport (through Swisscom TV Air)
- MySport Go
- Sky Sport, Sky Tickets, Sky Go
- DAZN

Free Internet video content:

No password needed:

- YouTube

HDTV-enabled television with HDMI connection

Internet connection mandatory. With at least 20 Mbps downstream and 2 Mbps upstream to include Internet video.

Technical specifications

Software & Services

Recordings:

- Profile-based automatic recordings of programs received through the DVB tuner
- Up to four concurrent recordings and simultaneous playback of one recording
- Automatic deleting and moving of recorded video files
- Mioviu Cloud Storage: 1 TB

Metadata:

- Marking of beginnings and endings of shows as well as of commercial breaks in recordings
- Integrated Metadata:
 - Mioviu super-Metadata (Markings and details regarding content) for over 50 German-speaking channels: [see list](#)
 - Movie review service: [tbd](#)
 - Series guide: [tbd](#)
 - Program data (EPG): For the 300 most important channels in DACH²

Recommendations:

- The recommendations focus on German-language content and (without Mioviu super metadata) on English- and French-language content
- Several profiles can be used on one box (one profile is included in the bundle offering)

Playback:

- Playback of running recordings with delay of only 2 minutes
- Links to recommended videos from online services
- For fee-based content services the customer needs to provide the access data

User Interface:

- The presentation of all content (recordings, live TV programs, online content) is performed using various forms of access available in the Mioviu user interface:
 - MioZapp: Easily switch from one running video to the next (they always start from the beginning)
 - MioGuide: Concise presentation of the best recommendations at the moment with many sorting and filtering options
 - MioSearch: Search for available content across all accessible sources by entering the search term using voice input

User commands

- Through keys on the remote-control unit
- Voice commands in German through the provided remote-control unit
 - Commands and search terms
- Smartphone / tablet app: [tbd](#)

Online account

- Web or app: [tbd](#)
- Profile creation
- Inspection of profile
- Modification of profile
- Account management

Box

- Dimensions: [tbd](#)
- DVB-Tuner: Quad tuner
- CI: 1 Slot for module
- Processor: [tbd](#)
- Storage: 512 GB (plus Cloud Storage, see „Software & Services“)
- Connectors:
 - HDMI
 - Ethernet
 - Power
- Wireless:
 - WLAN: [tbd](#)
 - Bluetooth: [tbd](#)

Box functionalities

- Video
 - UHD/4K and HDTV
- Audio
 - S/PDIF
 - Dolby Digital

Remote-control unit

- Dimensions: [tbd](#)
- Keys: [tbd](#)
- Microphone
- Transmission: Bluetooth

² DACH = Germany (D), Austria (A), Switzerland (CH)

Benefit 1: No commercials

You want to see only the best shows, only the program you want, without advertising in between and before. Mioviu makes it possible. The service marks all the parts of the recordings that are of value to you. During playback, these markers control the rendition. Programs always start exactly at their beginning, last to their end and commercial breaks are omitted.

Mioviu makes the markings almost in real time. With about 1 minute delay compared to the broadcast, the contents are marked. To skip advertising interruptions, it is usually necessary to wait a little longer, as these interruptions often last around 5 minutes. To be able to skip this time span - also from several interruptions - it must first have been broadcast.

Thanks to this approach, you can jump from show to show or recording to recording if you want, and never get interrupted by commercials. This is the completely new dimension of watching television.

Mioviu does not record streaming video and therefore cannot spare you advertising shown before the content, advertising breaks or other forms of advertising.

Benefit 2: TV on Demand

Mioviu knows you like a personal concierge. Mioviu knows what you are watching. The service searches the current and future programs of the television stations and automatically records all these programs. Whether news programs, series episodes, feature films etc. Everything you might be interested in will be available.

And you don't have to wait until the show has been aired: After two minutes the show is already available for playback. And of course, Mioviu shows you live events as live transmissions such as football matches.

Mioviu also manages the recording storage. The service automatically deletes obsolete programs, such as the news program from the day before yesterday, or recordings that you have already watched. On the other hand, it keeps programs that may be of interest to you for longer, such as serial episodes and movies. You can also delete them yourself or choose a show to archive.

Mioviu manages storage space so well that it seems virtually unlimited to you: the set-top box has a large storage space built in, and archived, less recent recordings are automatically moved by Mioviu to the cloud memory, where they can still be accessed at any time. Taken together, memory is available for over 300 hours of HDTV-quality programming. When the space is taken up with recordings, Mioviu constantly replaces the content with more up-to-date content or content you'll probably appreciate even better.

Benefit 3: All-in-One Experience

TV channels are no longer the only sources of good, interesting content. For example, Netflix has thousands of movies and episodes on demand. If you're a subscriber, Mioviu will integrate this offer into your personal program. And YouTube offers tens of thousands of hours of high-quality, interesting videos worth watching on TV. From these, Mioviu selects exactly those videos that are of interest to you.

What about the sports channels? Mioviu allows you to integrate your subscribed sports channels.

One example is football: In Switzerland, you can integrate the Swiss Super League and the UEFA Champions League via Swisscom TV Air, the German Bundesliga can be integrated via Sky Sport and the Champions League and many other leagues can also be integrated via DAZN. In Germany you can integrate Sky Go or add live broadcasts with Sky Tickets.

Or Swiss ice hockey: Do you have access to MySports Go? Then Mioviu can also take that into account for your program.

Mioviu brings it all together, on one screen, in one user interface.

Benefit 4: The right content at the right time

What you want to see at a certain moment is not a random coincidence. Your expectations, your choices are influenced by the offer that is available to you, but above all by your habits, your preferences, your interests and what you have already seen. Mioviu takes all this into account. The service can reliably predict when you value what content.

The service not only knows what you expect, it also knows exactly what is shown and said in the programs, recordings and videos. How it can set markers for the beginning of broadcasts and advertising breaks, it analyzes in detail the contents of the broadcasts.

Of course, you still decide what you want to watch. Mioviu only makes recommendations for TV shows and online videos. These recommendations present themselves in different forms:

- **MioZapp:** Just tune in to the best recommendations, also for zapping through.
- **MioGuide:** The recommendations, sorted according to your criteria. For example, these can be genres and categories or names of programs or actors. From here, you can filter according to your mood. Further information can be viewed for programs, skillful ratings are also integrated for feature films and the series guide gives you a total overview.
- **MioSearch:** You know exactly what you want: Enter the search term (voice command) and watch your show – all sources comprised.
- **Zapping:** Experience linear television just like you used to. Change the channel list up and down! Sometimes some people like to feel taken back to old times.
- **Program Guide (EPG):** The program of the TV stations as a table. Stations from top to bottom, the time axis from left to right.

Mioviu is not a black box: Mioviu shows you what and how you watch TV, statistics on channels, genres, topics, etc. You can view your profile and it will be explained to you.

Mioviu is not a "black hole" either: the data you generate, and the profile are yours. Mioviu does not share any personal information about you, your usage, or the calculated characteristics of your profile with anyone or give anyone access to it to directly influence you, whether through advertising or TV and video content.

Mioviu is for you only and doesn't function like Facebook, Google or other free online services that earn their money by making you the product to sell for advertisement.

The Mioviu Technologies

Mioviu will revolutionize the television experience with a whole series of innovations.

These are the key building blocks of the Mioviu platform:

Mioviu TV Ontology

The core of Mioviu. In this knowledge database, the most important aspects of the world of television are mapped and related to each other. Thanks to this database, Mioviu understands what the programs and videos are about and how they fit you.

Mioviu uses hundreds of descriptions to understand the world of television, for example:

Channels and content providers: country, language, programming schedule and many more

Content: categories, genres, subject, persons, places and many more

User: demographics, lifestyles, interests, viewing history and many more

Mioviu Super Metadata

Metadata are descriptions of content. In addition to the usual metadata published by broadcasters and providers, Mioviu creates its own metadata. Markers of important parts in recordings of programs are set and the parts are described according to different criteria, for example, which person is in the picture.

Mioviu Profile

You can specify your TV preferences to Mioviu in different ways. There will be few specific questions, there will be a kind of game like Trivial Pursuit for your TV knowledge, and how you choose which content will also influence the development of your profile.

Mioviu Recommendations

Your Mioviu profile and the Mioviu super metadata are brought together in the Mioviu TV ontology for specific, personalized recommendations. In the case of feature films, however, ratings from film critics or the popularity of programs are also taken into account. It also considers what other users watch, who often watch the same content as you.

Mioviu Recording Manager

Mioviu will record on your box according to your profile. Therefore, the box is permanently connected to Mioviu via Internet. Mioviu also manages the recordings: Old, already seen recordings are deleted, exciting, not yet seen recordings are kept. In order to use the space on the box for the most exciting content, certain recordings are automatically moved to cloud storage.

Mioviu User Interface

Whether it's live shows, recordings or Internet content, Mioviu recommendations from all sources will be presented to you in one interface. But there will be different presentations that fit the different forms of access you can have when you turn on your TV, for example:

- **MioZapp:**
«I just want to turn it on and see what pops up, maybe I'll get stuck somewhere».
The currently fitting recommendations for zapping.
- **MioGuide:**
«Let's see what recommendations I got today».
Your recommendations neatly arranged and easy to rearrange and filter.
- **MioSearch:**
«I'm looking for something specific».
Your search for titles, names, subjects etc. across all sources.

Mioviu AI

With Mioviu AI, recommendations are constantly improving (AI stands for Artificial Intelligence). The Mioviu system is based on showing the user the content that is most likely to satisfy him. Satisfaction is measured by various indicators. To improve satisfaction, all data are constantly examined for known and new potential patterns. Accordingly, the relationships in the Mioviu TV ontology, the Mioviu super metadata and the Mioviu profiles are further refined and the Mioviu recommendations improved.

Tbd

„Tbd“ stands for "to be defined", not decided yet.

With this project many things are not yet certain. But we have spent about two years researching our ideas and developing the service design and hardware and software specifications. And we have years of experience with the development of such services and the implementation of such projects.

Where we give specific details in the specifications, we know that these are feasible. This is due to the fact that we have already seen them in use somewhere.

Concerning the following elements from the specification, we do not want or cannot commit ourselves, but we can present to you our intentions that we pursue:

Dimensions of the box: The smaller, the better. However, mass storage and signal tuners do not allow the box to be kept as small as pure streaming devices, e.g. the Apple TV Box.

Processor: We want to offer an attractive, fast and fluid user interface, but we also want to keep costs within a certain range.

Bluetooth: The latest Bluetooth 5 standard offers fundamental advantages, but the interaction with the hardware used must be reliable.

Remote control unit: Should work without line of sight to the box and support voice control.

Movie reviews service: An important help for the selection of films. Which service will be integrated and how has not yet been decided.

Series guide: We think it would be great if a guide could give you information about the series regardless of the broadcasts.

List of channels: [The list](#) is not binding. For the first version, we want to consider the 50-60 most important German-speaking channels for the Mioviu super metadata.

Smartphone App: We consider this an optimal way to interact with Mioviu. For settings, profile management and account administration there will be at least a website.

You can also find further information on more detailed questions in the [FAQ](#).

FAQ – Frequently asked questions

Can several profiles be created? Are there profiles for children? Group profiles?

Yes, Mioviu allows to use multiple profiles on one box. One profile is included in the basic price. The profiles take into account the age, which also results in children profiles. Group profiles are intended for a later phase.

Can the recordings be downloaded?

No, access to the recording files is currently not planned.

Can I integrate my own video files?

No, it is not currently planned that own video files can be integrated into Mioviu.

How is my profile created? How can it be changed?

See the information under "[The Mioviu Technology](#)" in this document.

Do you need a line of sight for the remote-control unit?

No. The remote-control unit will work via Bluetooth, so no line of sight is required.

Does the box work without Mioviu subscription?

Yes, without a Mioviu subscription, the box is an average digital video recorder (DVR).

What can the user see of his profile? Where can he do this?

A summary of the personal profile is shown in the password-protected online account.

How are different languages integrated in different areas?

Mioviu is initially focused on the German-speaking region. The user interface is in German. The Mioviu super metadata are created for German-speaking channels. The language preferences of the users are taken into account for automatic recordings and recommendations. English and French online content is tracked to a certain extent in Mioviu TV ontology (see "[The Mioviu Technology](#)").

For which channels are exact markings available?

[See the channel list.](#)

Are markings also planned for other channels?

The list of channels is to be extended. When and by which channels is not yet clear.

For which channels are conventional program data (EPG) available?

For the 300 most important channels in German-speaking countries, channels in other languages included.

How long does it take to get good recommendations?

One to two weeks before the delivery of the box you will be able to create and modify your profile via the website (or app). It is planned to deliver the box already with certain recordings based on the personal profile, which corresponds to the taste of the user.

What's a series guide supposed to do?

This is not clear yet. Please see [«Tbd»](#).

How much power does the box draw?

This is not clear yet. The real power consumption will depend largely on the habits of the user. The Mioviu service will be optimized to be as energy efficient as possible.

Can the box be switched off? What happens if the box is switched off?

The box can be switched off and disconnected from the power supply. No new programs will be recorded. Mioviu services are re-activated when the box is turned on.

Does the box have to perform a channel scan? What happens if new channels are broadcasted in the signal?

If you can tell Mioviu from which DVB provider you get the TV channels, the box comes preconfigured. A channel scan can also be triggered manually. New channels in the signal should be integrated automatically.

Can the box be used in a different cable network?

Yes, but it is not currently clear what reconfigurations will be required and what restrictions this will have for the Mioviu service.

Can the box be used offline?

Yes, but the Mioviu services from the Internet will then not be available.

Can the box be used without a DVB signal?

Yes, but then no live signals can be received and no more recordings can be made. Existing recordings and streams from the Internet can be viewed.

Is Mioviu legal?

Yes, the box corresponds to a standard digital video recorder, the Mioviu services are mostly typical online services, the recordings of broadcasts as private copies is fair-use, and online content is accessed through a browser, where necessary, with the subscriber's password. At most, the terms and conditions of certain signal and content providers want to dictate the user's access method. The providers do not notice that you are accessing with Mioviu.

Can Mioviu also be used with a tablet or smartphone? (in-home, on the road)

Mioviu is currently designed for use with a television set.

Can the order of the DVB channels be set individually?

Yes, in the configuration of the online account.

Will 300 hours of video be enough to keep everything available that I expect?

The storage capacity allows recordings of approx. 300 broadcast hours in HD. Tens of thousands more hours of video content are available on the Internet, some free of charge.

Research from media science has shown that the average viewer watches 1-2 hours a day of programs that are "obsolete" within 24-48 hours of broadcasting. A certain amount of storage space will be reserved for such programs. The same applies to programs that become obsolete after 1-2 weeks and 1-2 months. Finally, storage space is provided for recordings that potentially remain "current" for one year or longer. Depending on the viewer type, the intended storage allocations vary from one program type to another. Individual usage also influences the distribution of memory. If a storage space for certain program types is full, those recordings are automatically deleted which Mioviu classifies as least interesting for the user, thus creating space for even more interesting recordings.

Can other fee-based video services also be integrated than Netflix?

Various fee-based offers for sports content can also be integrated if they can be accessed via the Internet (see "[The requirements](#)"). Further fee-based video services are to be integrated in the medium term.

Why is it not possible to integrate channels that are encrypted with CI+, e.g. HD+ channels?

CI+ is an encryption technology that gives content providers more control over how their programs are recorded. For example, a broadcaster can completely prevent the recording of certain shows, delete recordings after a certain period of time or deactivate the fast-forward functions. CI+ is used for DVB broadcasting for certain pay TV channels in HD. In

Germany, the HD channels in the HD+ offer are encrypted accordingly. However, most channels can be freely received in digital SD quality and are integrated by Mioviu. The Mioviu-Box is not certified for CI+.

Does Mioviu work with less bandwidth?

A constant bandwidth of at least 20 Mbps (downstream) is required if streams are to be viewed in HD and UHD quality, such as Netflix. If no streams are viewed and only live signals from channels and recordings are viewed, a connection of 10 Mbps is sufficient to transmit control commands and metadata.

Channel list for Mioviu super metadata (provisional):

3 Plus TV, 3sat, 4 Plus TV, 5 Plus TV, Anixe, ARD-alpha, Arte, ATV, ATV2, Bloomberg Television, BR Fernsehen, Das Erste, Disney Channel, DMAX, DRF1, DW-TV, Euronews, Eurosport 1, Family TV, hr-fernsehen, kabel eins Doku, kabel eins, KiKA, MDR Fernsehen, N24 Doku, n-tv, NDR Fernsehen, One, ORF eins, ORF 2, ORF 2 Europe, ORF III, ORF SPORT +, Phoenix, ProSieben, ProSieben MAXX, Puls 4, Puls 8, Radio Bremen TV, rbb, RTL II, RTLplus, RTL Television, S1, Sat.1, Sat.1 Gold SD, Servus TV, sixx, Sport1, Sky Sport News, SR Fernsehen, SRF 1, SRF zwei, SRF info, Super RTL, SWR Fernsehen, tagesschau24, Tele 5, TLC, TV24, TV25, VOX, WDR Fernsehen, Welt, ZDF, ZDFinfo, ZDFneo.