

# Achieving Success in Today's Video Entertainment Market



Rapidly changing consumer expectations, rising content costs, and increased competition from over-the-top providers create a difficult business environment for traditional Pay TV operators. Service providers face the challenge of simultaneously upgrading their entertainment delivery systems while also competing against content partners that are launching direct-to-consumer offerings.

How can service providers adapt and thrive in this challenging landscape? This paper highlights how traditional Pay TV operators can embrace next-generation entertainment delivery solutions while preserving the investment in their legacy infrastructure. With the right platform, operators will also be able to deliver new value to their content partners while enabling their subscribers to enjoy a unified discovery and navigation experience across all video sources.

## MARKET DYNAMICS

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The pay TV landscape is changing rapidly, driven by the evolving needs of consumers, content owners and service providers.

### Higher Consumer Expectations

The increasing number of cord cutters indicates serious dissatisfaction among users of traditional Pay TV services. In spite of the proliferation of content available via Pay TV, subscribers do not feel they are getting enough value from their escalating monthly fees. Instead they are flocking to direct to consumer services that offer a more personalized and flexible entertainment experience, enabling them to easily discover relevant content and enjoy it anytime, anywhere, and on any device.

Consumers, having quickly embraced OTT services, expect to be able to stream content on multiple devices for a great experience



**Personalization:** The advent of large, easily accessible on-demand libraries coupled with advances in big data analytics technologies have redefined how users find and consume content. Consumers, trained in all aspects of their lives in the use of personalized experiences, have come to expect targeted recommendations across Linear, VOD, Catch Up and DVR content sources.

**Time Shifting:** After the introduction of Digital Video Recorders (DVR) in the late 1990's consumers took little time to deeply embed them into their daily viewing habits. Today more than 60 percent of homes in the United States are equipped with a DVR, and subscribers in those households time shift more and more of their television viewing. Consumers are now looking for even better viewing flexibility as they expect to pause and restart (Restart TV) any live program. They also expect linear content to be immediately available on demand after it is broadcasted (Catch up TV).

## Rising Content Costs

Facing declining TV ratings due to an increase in time shifted and online viewing, broadcasters in the United States have relied on steep increases in retransmission fees to grow their top lines. While past content rights agreements only contended with the right to provide services onto televisions, content providers are now charging additional fees tied to device type, time and place.

Content owners and broadcasters are also launching their own direct-to-consumer pay TV services hoping to capture higher subscription revenue. Direct-to-consumer services offered by media companies radically change the relationship between operators and content owners, as operators must now compete with their most important entertainment partners.

## Declining Revenue

Escalating consumer expectations and rapidly increasing content fees are creating problems for operators. In addition, new virtual service providers such as Netflix and Amazon Prime are competing for share of wallet and viewing time. Combined, these trends result in higher churn and a decline in subscription and advertising revenue.

The prospects for legacy Pay TV services are clear: adapt or abandon.

## NEXT GENERATION VIDEO DELIVERY INFRASTRUCTURE

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- ✓ Minimize in home deployment costs
- ✓ Enable a highly personalized consumer experience
- ✓ Simplify content delivery to all connected devices
- ✓ Enable faster service innovation

In order to remain competitive and strengthen their relationships with both viewers and content providers, pay TV operators need to evolve their video delivery infrastructure to reach their subscribers on any screen, engage them with a compelling personalized experience, and better target and monetize their content offerings. In addition, operators need to innovate at “Internet speed” in order to stay ahead of new over-the-top competitors.

## MINERVA 10 SERVICE DELIVERY PLATFORM

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Minerva’s latest service delivery platform (Minerva 10) provides unique features and capabilities that enable operators to deliver advanced television services.

- ✓ Reduce churn
- ✓ Lower costs
- ✓ Improve experience
- ✓ Innovate faster



### The Personalized Experience

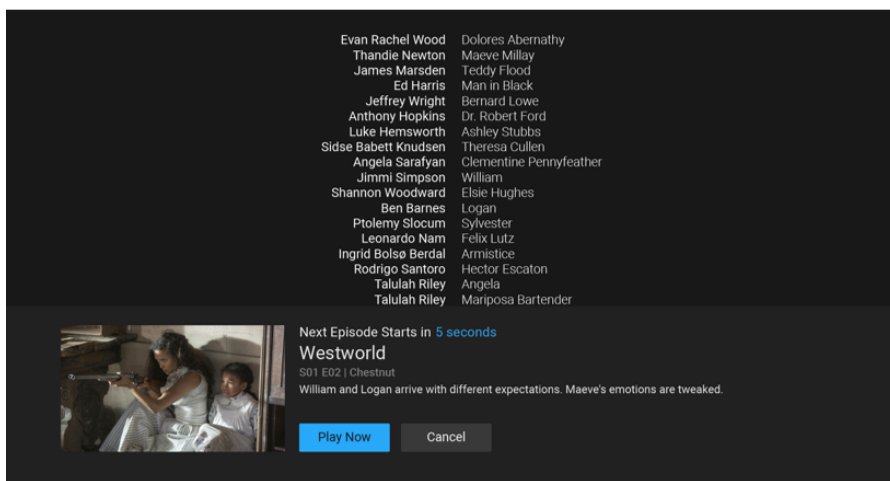
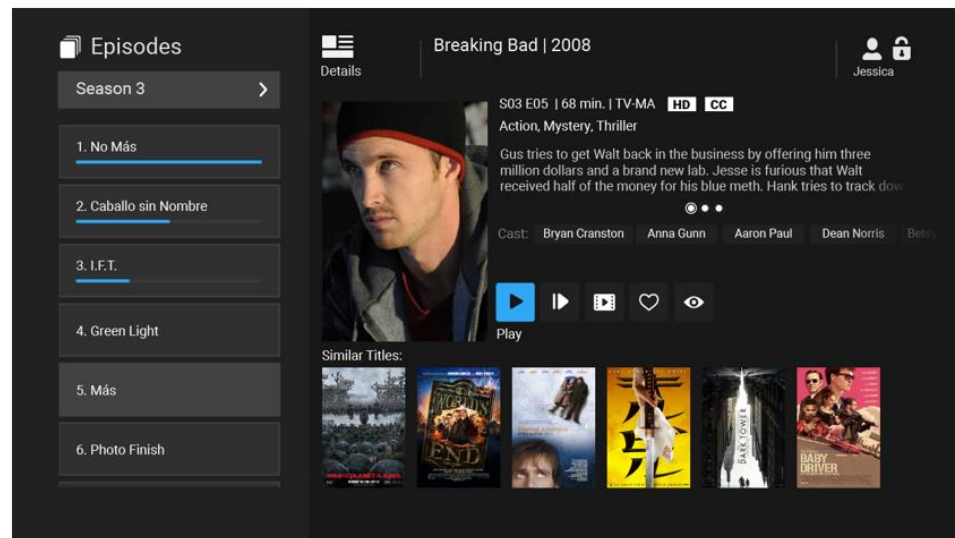
The user journey starts with a personalized landing page recommending live TV, VOD, currently trending content, as well as partially watched and rented programs. Users also have the option to scroll through and choose from personalized recommendations listed in the “Just for You” category based on previous viewing history.

Also, operators can control the content of the landing page in order to promote specific programs or movies. Promotional channels in the EPG enable on-screen purchases of premium channel packages and VOD, further extending an operators ability to highlight premium content within the UI.

Minerva platform supports multiple users per account to ensure highly personalized experiences catered to each individual regardless of which devices are used.

- ☐ LIVE TV
- ☐ VIDEO ON DEMAND
- ☐ RECORDINGS
- ☐ TRENDING
- ☐ JUST FOR YOU

- ☐ Easily search categories or series
- ☐ Quickly select a season
- ☐ Scroll through all episodes across all seasons



- ☐ Autoplay next episode
- ☐ Recommends similar content if no new episodes are available
- ☐ Discover new content from similar titles

Taking advantage of the surging popularity of binge watching, the Minerva platform makes finding and navigating through episodes convenient and automatically suggests the next episode or similar content.

## Voice Search and Content Filtering

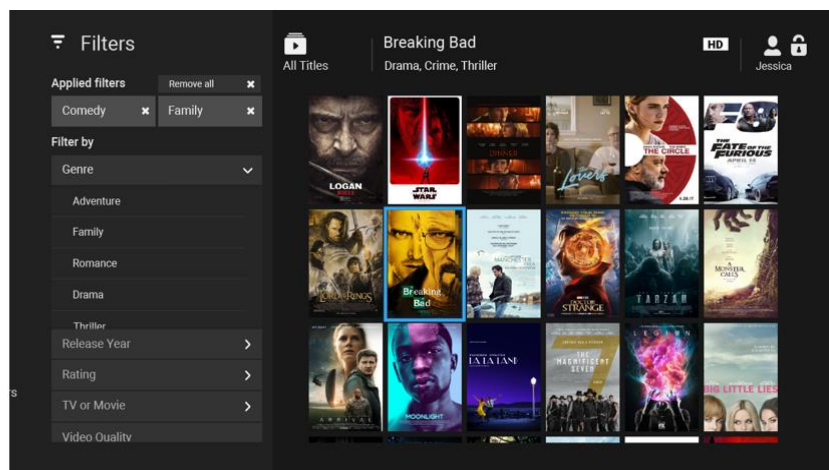
Voice has quickly become a desirable way to conduct searches. The Minerva 10 clients are designed to enable users to easily discover the content they want to watch. Voice search eliminates the tedious process of entering text via an onscreen keyboard. The Minerva 10 platform leverages the natural language and voice to text capabilities of Apple's iOS and Google's Android platforms. Users can perform a search, select content and play it on their iOS or Android mobile devices, or direct the playback to a STB or TV via Chromecast. Natural language voice search is also available on STBs running Android TV.

The proliferation of video sources has created a challenge for users to quickly find and access content. While personalized recommendations are very helpful, users still want a way to directly browse, filter and search content based on their mood. When viewing information on a program or movie, Minerva 10 allows subscribers to perform a single click search on actors or directly browse similar titles. Users can also quickly narrow down large on-demand libraries by stacking progressive filters for genre, production date, price, network source, TV/movie, or rating.

Testing performed against a VOD library containing over 20,000 titles showed that the application of just three filters reduced the assets presented to the user to 82 unique titles.

## User Selectable Filters

- ☐ Voice search, one-click search and filters make it fast and easy to find specific content
- ☐ Filter using Genres, Rating, Release Year, or TV/Movie
- ☐ Results in Seconds
- ☐ Less Looking, More Watching



## Broad Client Selection and Investment Preservation

The Minerva 10 experience is available on STBs, mobile phones and tablets, computers and popular media players such as Fire TV, Roku, Apple TV and Android TV devices. In addition to HTML5 Clients for high-performance STBs, Minerva 10 features a highly efficient, native Client that can run on a variety of legacy STBs. It provides a cost effective migration path for operators to deliver next-generation TV services to existing subscribers with legacy devices.

Minerva 10 also provides a compelling migration path for cable operators as it can seamlessly mix multiple linear content sources in a single channel line-up, including QAM, IP Multicast, and adaptive bit-rate streaming. Cable operators also have the option to deliver services to low performance legacy cable STBs using Minerva's Virtual STB client (VSTB). The Minerva VSTB solution, developed in partnership with Active Video, renders the Minerva 10 client interface in the cloud and delivers it as a video stream to legacy devices.



## Full Service Administration

The Minerva 10 modular back office comes pre-integrated with leading content protection systems, video on demand systems, origin servers, recommendations engines and OSS/BSS systems.

The Minerva Back Office enables operators to manage a full range of entertainment services, including linear TV programming, video on demand (VOD), subscription VOD (SVOD), pay-per-view (PPV), and Internet-based over-the-top (OTT) content as well as personal media. These content sources can be bundled with premium features such as Whole-home DVR, Network-based DVR, Catch-up TV, Restart TV and multiscreen delivery.

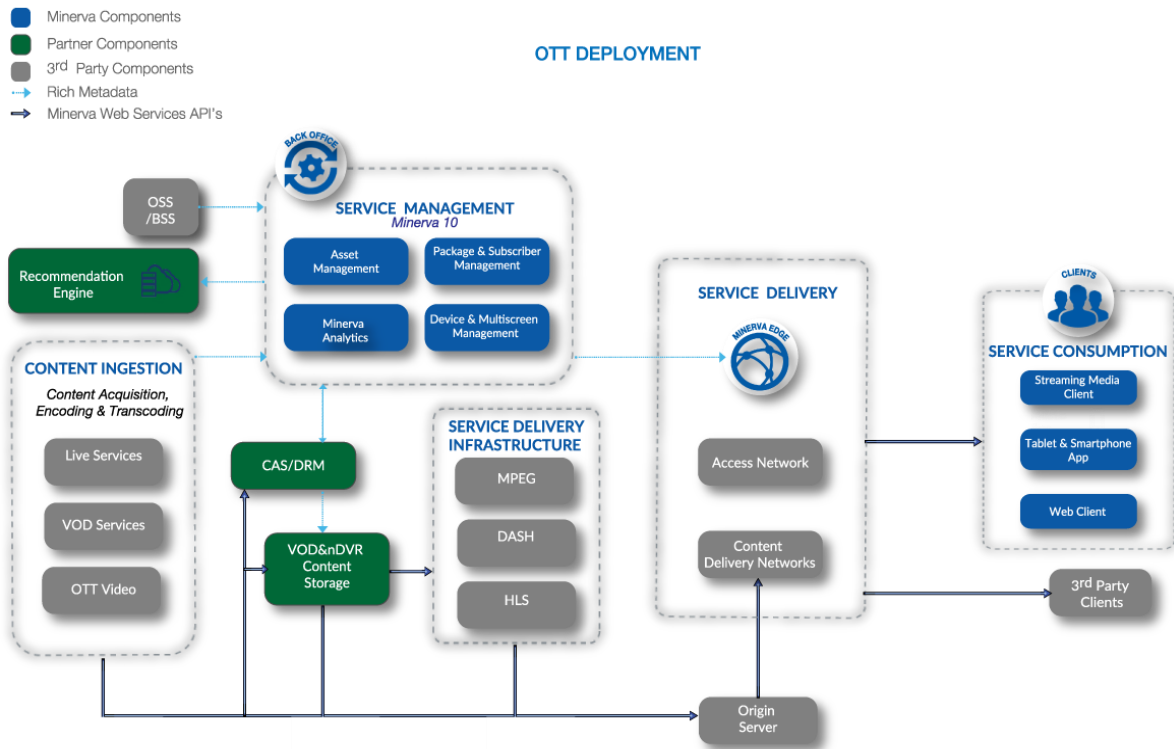


## Analytics

Minerva's powerful Cloud based analytics sub-system enables operators to mine usage data to gain deeper insights into their subscribers' behavior to better segment their customer base and optimize their offerings. Minerva Analytics track which channels subscribers watch and when, what programs are the most and least popular and even what search terms subscribers are using. The system tracks and aggregates user behavior to help operators increase the value of their service and grow revenue. User analytics data is also pushed directly into the content recommendation engine to generate the personalized recommendations for each user.

The solution includes a powerful set of reports that gives operators actionable, near-real time intelligence about their service offering. Insight into content consumption makes it possible for operators to quickly identify areas of their service offering that can be optimized such as low-performing channels and what content is actually driving the most demand. Minerva Analytics leverages the Tableau reporting portal to enable easy report distribution, so the right people get the right reports on a regular basis, as shown below.





This distributed architecture makes the Minerva platform ideally suited for Cloud deployments. It also fits well for large scale systems serving geographically dispersed areas.

## SUCCEEDING TOGETHER

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Whether deployed in the Cloud or on premise, the Minerva platform centralizes the management of content and metadata ingestion, VOD and DVR systems, channel line ups, services packages, client devices, content recommendations, analytics and subscriber management.

Minerva's goal is to enable service providers worldwide to offer an engaging entertainment experience to their subscribers on any device, across any network and at any time. We enable operators to transform their legacy pay TV systems into a next generation video delivery solution fast and cost effectively.

Today more than 300 operators worldwide are delivering compelling television services, powered by our award winning platforms, to millions of subscribers.

