amino

MULTISCREEN VIDEO

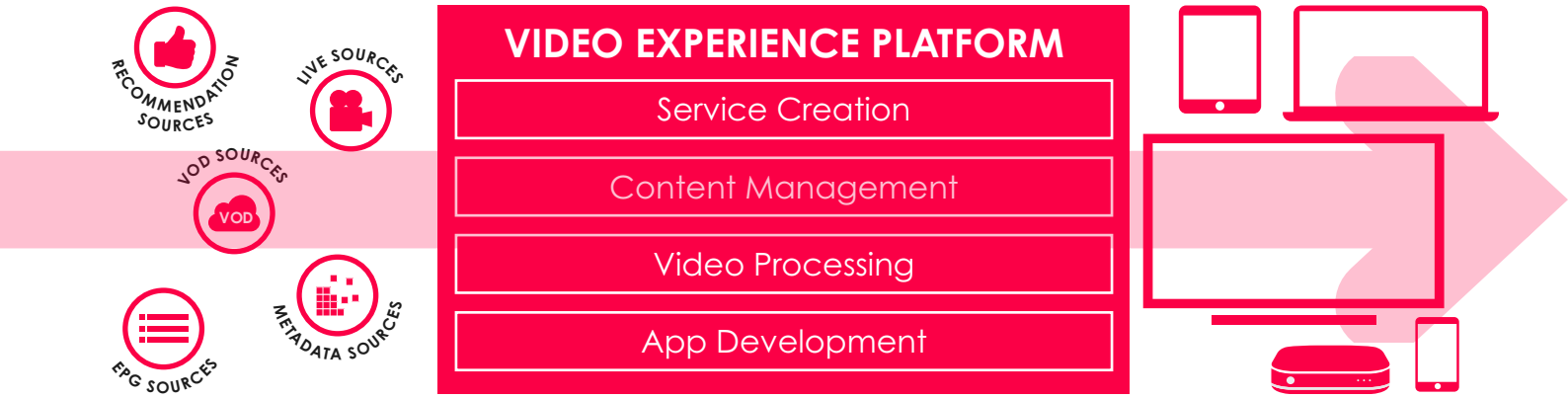
Consumers have more power than ever before to influence the future of TV – and multiscreen video is just the beginning. The demand for live and on-demand consumption, on the most convenient device, presents new opportunities and new challenges for content owners and aggregators.

Opportunity is represented by access to incremental revenue and subscriber data. Content owners are now able to monetize content via direct relationships with consumers. Legacy revenue models can be augmented or replaced by subscription, transactional and ad-based monetization. These newfound relationships with subscribers give content owners greater insight into what motivates consumers and can influence programming, content development and branding.

The challenge is in capitalizing upon the ongoing technology evolution that has put cloud and networking technologies front and center. It is no longer necessary to own and manage a headend. Monolithic and proprietary products are fading into obsolescence as efficient, right-sized platforms deliver the agility to launch, manage and grow modern video services.

END-TO-END VIDEO DELIVERY EXPERTISE

Creating a true multiscreen experience requires an understanding of consumers and their expectations for video consumption on their terms. This means providing consumers with the choice to consume content on the device of their choice. It must be a seamless experience, regardless of consumption device, delivery network, business model or content source.



Our heritage of serving the needs of both Pay TV providers and OTT streaming providers brings unique capabilities to help video service providers understand the co-dependencies between the back-end, front-end and consumer premise equipment.

The multiscreen solution provides the technologies to ingest, upload, manage, secure, monetize, deliver and consume a consumer centric multiscreen video experience. Leveraging 24i's Video Experience Platform, multiscreen video provides operators with flexibility through:

- A cloud-based model designed to take advantage of an operator's existing infrastructure
- Options for on- or off-premise deployment of relevant workloads (e.g. service creation, video processing)
- Modular design allowing operators to license the complete platform or only those features needed to enhance existing service

OPERATIONAL AGILITY

Even when a platform is able to address the complexities of video processing and content management, if it is not easy to deploy or manage, it is a non-starter. Amino's multiscreen video solution incorporates a modular design designed that makes it easy for video service providers to determine which services they require to deploy new services or enhance existing ones. What's more, they can decide whether to offer and package services to all, or just some of their subscriber base. This flexibility provides the opportunity for increased revenue, as offers are defined based upon subscriber interests.

Amino's multiscreen video delivers a modular backend experience. Leveraging the power of a microservices architecture, the solution provides granular functionalities that can be added, updated and scaled as needed to fulfill customer requirements. This allows customers to only pay for the type or volume of functionality their service requires.

Video service providers benefit from new-found operational agility in the form of:

SCALABIITY

Each functional module can be scaled up or down, meaning the service provider can expand capabilities to address the needs of a special event without having to invest in infrastructure that may lie dormant during off-peak times.

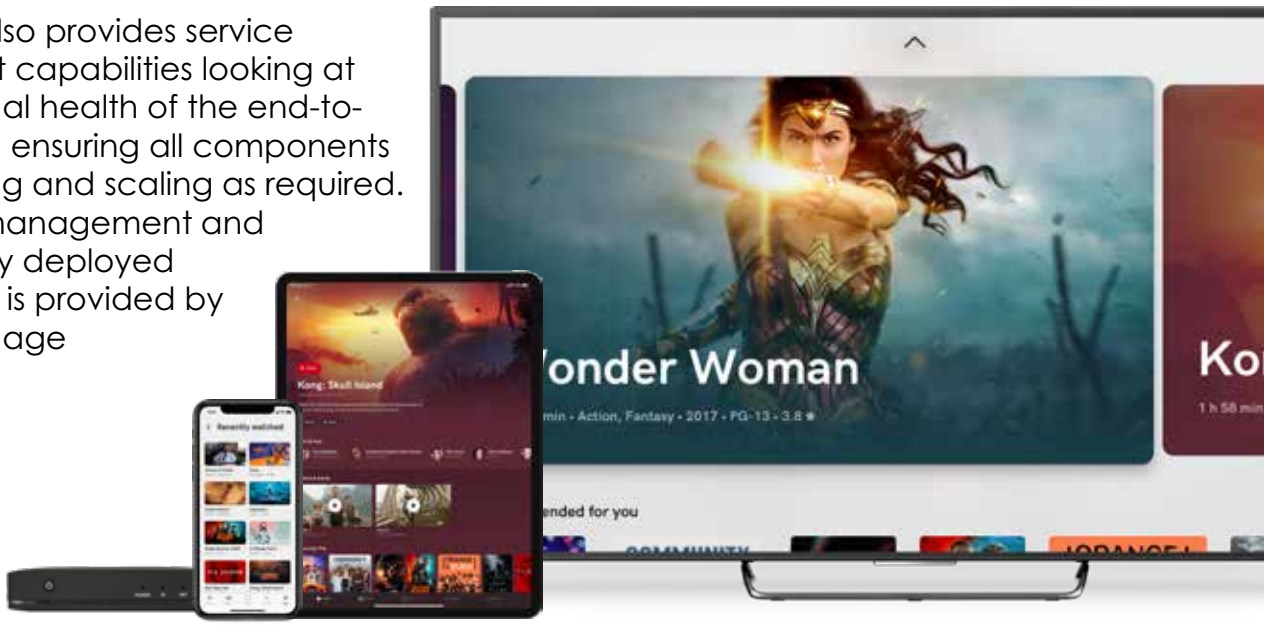
RESLIENCE

Platforms designed as microservices are a suite of fine-tuned, narrowly focused and independent services, This means that an issue with a specific microservice doesn't impact the entire architecture and can be repaired quickly. Essentially, it protects organizations from losing complete service capabilities.

CONTINUOUS INNOVATION

The departure from monolithic applications allows engineers to pursue rapid innovation. Specific services can be updated independently of other services so new features can be released more readily, enriching the overall value of the platform.

Multiscreen also provides service management capabilities looking at the operational health of the end-to-end platform, ensuring all components are performing and scaling as required. Centralized management and support of any deployed set-top boxes is provided by AminoSM Engage



ENABLING THE INTERACTION OF TOMORROW

The multiscreen solution combines the any source to any device capabilities of 24i's Video Experience Platform with Amino's expertise in video delivery to managed devices. Understanding the consumer's expectation for a consistent experience regardless of devices, is where 24I's Smart Apps capabilities provide incremental and unique value. Continuing to leverage a microservices architecture, the frontend app development framework streamlines delivery of a branded user interface on connected TV platforms, media players, mobile devices and set-top boxes.

The React Native cross-platform framework is based on a single codebase allowing providers to develop an app once, while easily and quickly deploying it on any device.

The internal framework creates an abstraction layer for each device that will run the application. By incorporating known device limitations, our developers are able to extrapolate the application design for successful deployment on any device.

Video service providers benefit from the flexibility required to easily expand and customize functionality or integrate with existing infrastructure and third-party technologies as needed. Third party metadata feeds Smart Apps standardized data model, creating a centralized set of enriched, aggregated data. Smart Apps shares the normalized data across all services and third-party platforms, reducing dependencies between components and allowing for continuous, structured expansion of Smart App's data set.

The frontend focus on usable content-centric UI's and data normalization prepares video service providers to deliver the usability expected by consumers

MAXIMIZE SUBSCRIBER LIFETIME VALUE

Multiscreen consumption has emerged as the driving force behind the modern TV experience. It is a trend that no pay-TV operator or OTT streaming provider can afford to ignore. In a marketplace gripped by rapid and constant technological advances, it should come as no surprise that consumer attitudes and behaviors are changing with them. Providers know a successful video service must fulfill consumer expectations for choice and convenience.

Our multiscreen video solution is:

- **Modular and open** – giving video service providers choice in selecting the technologies they require while simplifying end-to-end integration
- **Flexible** - enabling modules to be deployed in the cloud or on -premise
- **Scalable** – providing predictable performance even during sharp upticks in demand
- **Agile** – enabling growth while aligning costs to resource utilization
- **Extensible** – delivering a UI development framework and cross platform support
- **Reliable** – providing confidence through monitoring of operational health

Amino is uniquely positioned to help video service providers cost-effectively deliver multiscreen video. Indeed, Amino's scalable platform design, incorporating microservices, open source technology and APIs simplifying integration of partner technologies, fulfills today's requirements while anticipating future enhancements or replacement technologies. The result arms video service providers with the capabilities to deliver services that sustain and attract active users - and positions their services for the interactions of tomorrow.