



Working in coordination with the content delivery network, Velocix Personalization Platform's (VPP) intelligent session-based controls enable each video stream to be adjusted in real-time to satisfy a variety of business needs. Using consumer derived metrics and contextual data gleaned from the network, stream controls can be conditionally applied, in accordance with rules defined by the operator.

Example Personalization Applications

Ad Insertion / Replacement Insert pre-, post-, and mid-roll video advertisements that are tailored to the customer's specific interests.	Bandwidth Controls Dynamically adjust video quality in response to network conditions and defined business rules.	Alternate Content Insertion Replace native programming with alternate content to comply with negotiated content rights.
Content Blackout Prevent access to content based on a set of conditions such as customer geography and viewing device.	Emergency Alerts Insert applicable emergency alert messages into active streams based on operator defined conditions.	Content Protection Apply session-based encryption or watermarking to high value content as an added layer of security.

Addressable Advertising

Advertisers spend more than \$150 billion each year on video advertising. Video service operators can generate significant revenue by implementing addressable advertising to monetize live, VOD, and time-shifted video viewership. VPP connects ad decision systems and ad serving platforms to the content delivery network to place relevant advertisements into available inventory. Using published SCTE and VAST standards, VPP seamlessly integrates with a wide range of advertising solutions, including the latest programmatic ad sales platforms.

Bandwidth Controls

Subscribers expect the highest quality viewing experience from their video service provider, but growing demand for video streams can stress network architectures. Intermittent spikes in demand can create network congestion, negatively impacting stream quality and session start-up times. VPP features dynamic bandwidth controls to manage network congestion and ensure customers receive the highest quality of service. With its real-time traffic monitoring features, VPP can identify potential bottlenecks and proactively adjust streams to fit within available constraints using operator defined guidelines. Guidelines can include attributes such as customer tier or device type. Bandwidth controls also enable distribution costs to be managed, by limiting the amount of traffic sent over expensive links. Using bandwidth controls, operators gain more control over their service and can ensure that their most important customers receive the best possible service.

Content Rights Compliance

Gaining access to premium content means agreeing to control access to that content according to contractually negotiated terms. For programming such as sports and other live events, it is common for content owners to apply conditions on who can view the content. Restrictions may be placed on how and where a consumer can view the content. In these cases, features like alternate content insertion and content blackout become essential to managing compliance within a content delivery network. VPP automatically enforces contractual obligations by detecting the consumer's device, location, and other contextual information. This information is evaluated using operator defined rule sets to determine what content each consumer is allowed to watch. If the consumer is restricted from viewing, VPP can present alternate content during the blackout period to maintain session continuity. With VPP, operators can reassure content owners that consumer access will be properly controlled.

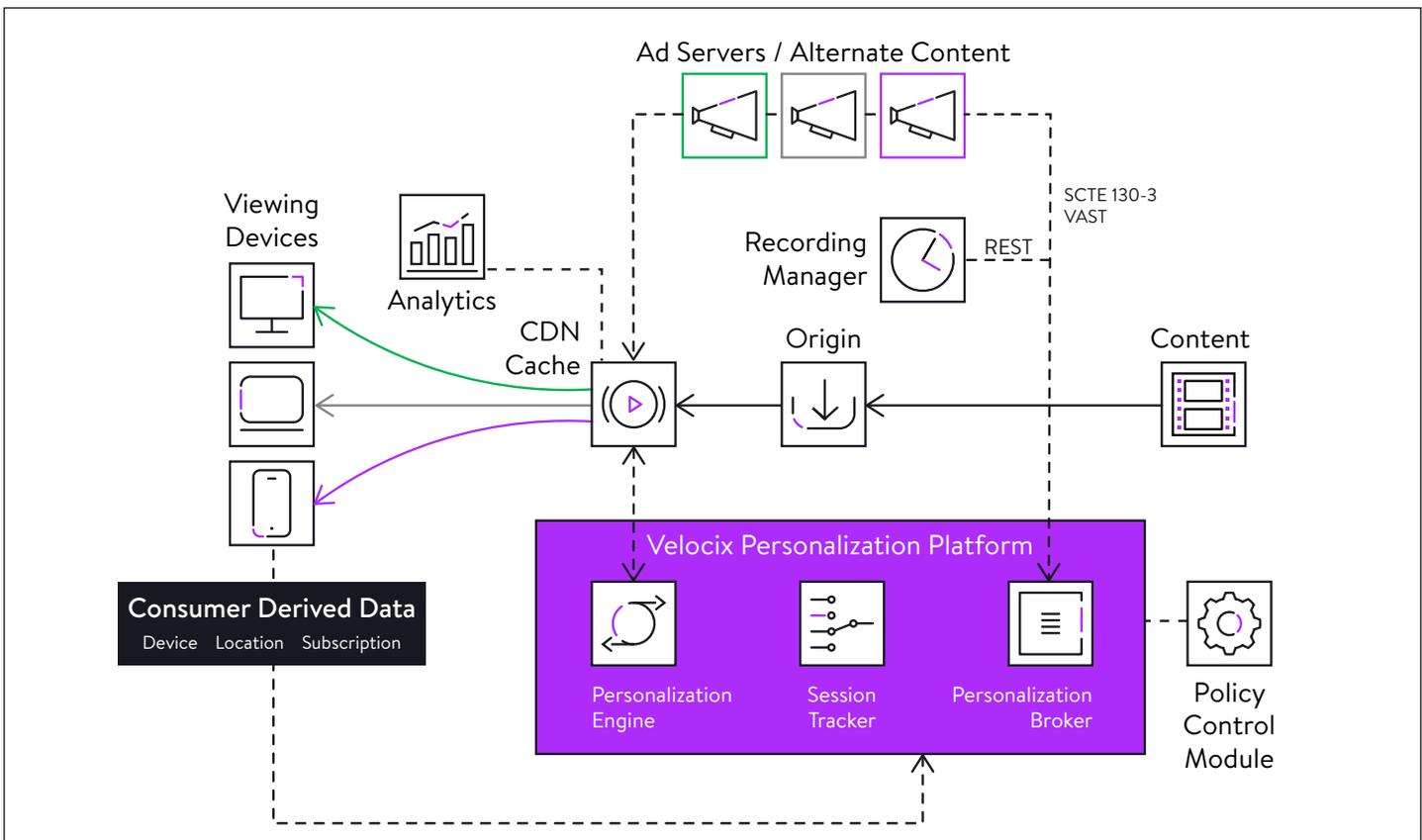
Emergency Alerts

Video service operators are sometimes required by law to support emergency alerts. VPP offers the capability to insert emergency alert notifications into individual streams based on consumer attributes, including geography, device type, and other contextual factors. Emergency alert capabilities ensure that consumers are made aware of urgent and relevant information as soon as it is available.

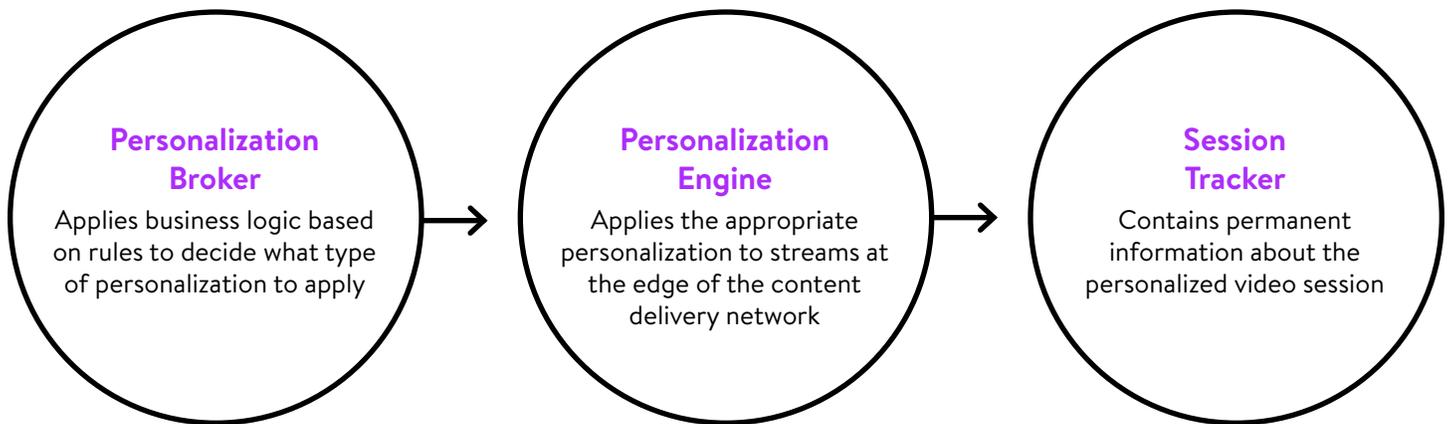
Content Protection

Content owners may request content assets be encrypted or watermarked using session-based techniques as a anti-pirating measure. This is common for assets like first-run movies or other highly valuable content. VPP integrates with session-based encryption and watermarking technologies, applying protection to individual streams as they are being played. This gives video service operators the ability to access better content by putting content owners at ease that their programming will be safely protected.

Solution Diagram



Solution Design



100% Software

VPP is fully virtualized and agnostic to the foundational hardware platform. Reference hardware platforms are provided for customers interested in qualified performance metrics.

Modular SOA

Featuring a modular service-oriented architecture, VPP is designed with decoupled business logic and a persistence layer that provides a high degree of flexibility.

Open, Standards-Based

Leveraging industry standards, VPP provides seamless integration with external components such as middleware systems, advertising platforms, and recording engines.

Operator Friendly Design

VPP is built with video service operators in mind, with focus placed on ease of deployment, operations, and maintenance.

Independently Scalable

Personalization broker, personalization engine, and session tracker components scale independently to support a wide range of application scenarios.

Fully Resilient

N+1 redundancy is standard for all modules of the personalization platform to ensure seamless operation of the platform.

In Summary

The Velocix Personalization Platform enables operators to generate more revenue per stream, while delivering a higher quality service to every consumer. When used in concert with a content delivery network, such as the Velocix CDN, VPP powers a more personalized viewing experience that supports a wide range of business circumstances.

Contact a Velocix salesperson to learn more.