



Customer Engagement Solutions

EngageOne® Video

Technology Overview



Overview

EngageOne® Video offers a comprehensive set of capabilities for the creation, delivery and management of high-impact, data driven, real-time, Interactive Personalized Videos.

EngageOne Video helps our clients:

- Acquire customers
- Grow the value of existing customers
- Retain customers
- Increase sales

The platform uniquely leverages up-to-the-second data along with real-time visitor interactions and data entry to present a customized video journey for each individual. Our industry-leading technology has been used to deliver tens of millions of interactive personalized videos for leading organizations in multiple industry sectors and geographies.

EngageOne Video is part of the Pitney Bowes suite of Customer Engagement solutions. It enables organizations to deliver relevant and engaging interactions across the customer lifecycle increasing real customer lifetime value.

EngageOne Video features

- Video experiences created on-demand in real time for each visitor
- Visitors can interact with the video and respond to calls to action during video
- Dynamic storylines based on business rules and visitor behavior
- Real-time, on demand dashboard for analytics: summary, individual visitor analytics, by campaign
- Cross-device support (desktop, mobile, tablet)
- Reduced video generation and storage costs



Security

By default, all video services run on the EngageOne® Video Cloud, a cloud computing platform that is built on the highly-secure, physical infrastructure provided by Amazon Web Services (AWS). This enables Pitney Bowes to provide a world-class, scalable and affordable software solution that does not make any compromises concerning the security of client data.

Pitney Bowes follows best practice in the configuration and management of its infrastructure in order to offer a secure and reliable platform that meets the requirements of the most security sensitive organizations.

Detailed information on the security of the EngageOne Video Cloud, the videos built and managed in the management portal and how data is used by EngageOne Video is available. You can download the Security White Paper from s3.amazonaws.com/pb-eov-docs-public/EOVSecurityWhitePaper.pdf.

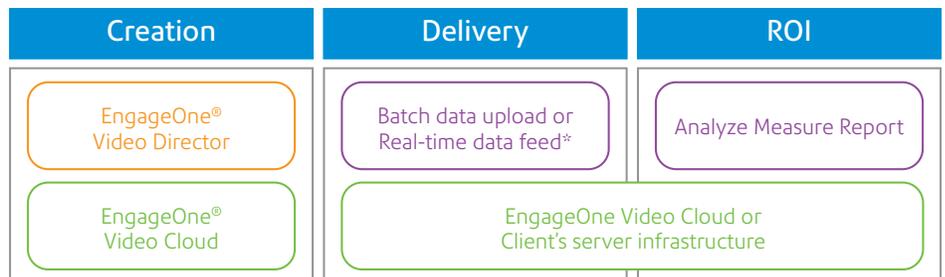
Creation. Delivery. ROI.

Video projects are created using the cloud-based EngageOne® Video Director. A project defines the branching storyline that addresses your target visitor types. It combines media files, with dynamic displays of relevant data, and interactions to which visitors respond as they watch the video. Depending on the responses, the storyline within the video changes thus creating a unique storyline for each visitor.

Completed projects can be deployed to servers on the EngageOne Video Cloud or hosted on the client's own server infrastructure.

The delivery component of the EngageOne Video solution is a highly-scalable and resilient configuration. It is built and optimized for high-volume, personalized video delivery in real time.

The cloud-based data management and reporting tools provide real-time performance analytics, and management tools. Clients upload the personalized data and campaign data used by the video player in advance. However, there is the option to retrieve data from the client's own datastores in real time. It is also possible to return data in real time to a wide range of back-end systems, such as ERP, CRM and billing platforms.



*Not template solutions

Figure: The three components of the EngageOne Video solution.

Creation

Pitney Bowes has considerable expertise in getting the most from personalized video. For this reason, many clients choose to have the Pitney Bowes professional services team or a Pitney Bowes partner create their project as part of a turnkey solution.

Other clients prefer to create their own video material, working with their preferred creative agency or production partner along with guidance and support from Pitney Bowes. In this case, Pitney Bowes will build the project using the video material supplied by the client. In some cases, a client or production partner may choose to produce the entire project themselves.

All projects are created using EngageOne® Video Director.

There are a range of creation options: template, custom and self-service.

Template solutions

Customizable templates are available for many business sectors, such as insurance, telecommunications and financial services. The templates deliver best practice and fast time-to-value solutions to common business processes. For example, templates may contain:

- Storylines relevant to the business sector that address common business goals
- Voice-over to greet visitors by name and talk through the calls to action in the video
- Dynamic display of relevant data
- Interactions to prompt the visitor to leave feedback, request contact or download a document
- Choice of background treatment and artwork style

You can commission the Pitney Bowes professional services team or a Pitney Bowes partner to create the project.

Custom solutions using standard features and optional extensions

You can use any of the standard features of EngageOne Video to build a custom solution that meets the specific requirements of the project. It is possible to add extensions, for example, to use real-time data feeds or connect to back-office systems. Your design can incorporate any type of video material, whether a virtual presenter shot against a green screen, animation with voice-over, or live action.

You can commission the Pitney Bowes professional services team or a Pitney Bowes partner to create the project as a turnkey solution. We are experienced in getting the best results from Interactive Personalized Video, and we will work with you to write the script and storyboard that drives the storylines in the video.

Self service solutions

A client or media producer can produce and build the entire project by using the standard EngageOne Video features, either a new project from scratch or from one of our industry templates. This may require additional setup by the Pitney Bowes professional services team.

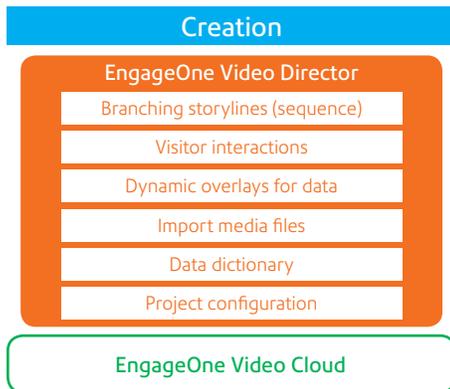
Note: Including visitor interactions in a project requires web development skills (such as HTML, jQuery, CSS and JavaScript).



Figure: View of a project in the EngageOne Video Director showing the scenes and sub-scenes that form the storyline.

EngageOne Video Director features

Story flow editing



- Define the branching storyline by creating scenes and sub-scenes
- Group video clips by dragging and dropping them onto the scenes and sub-scenes
- Set the business rules (conditional logic) used to trigger which scenes, sub-scenes and video clips are displayed for specific types of visitor
- Add background audio to enrich the experience

Media import and output

- Import video and audio clips from any media editing platform
- Check imports for resolution, aspect ratio, audio channels
- Add placeholders to efficiently select and manage the video clips for personalized greetings, special dates
- Define publishing profiles (to meet the needs of visitors with different devices and bandwidth)

Rich data presentation

- Present personalized data, or campaign data, over the video using dynamic overlays
- Set timing, position and font for dynamic overlays
- Use clickable buttons and images (PNG or JPG) as overlays
- Basic set of licensed web fonts
- Upload custom web fonts (font licenses required)
- Multilingual and extended character set support (including Arabic and Kanji)

Interactions manager

- Using HTML, CSS and JavaScript, define points in the video for interacting with the visitor:
- Find out what they are interested in
- Capture data
- Prompt call to actions
- Determine how the storyline branches based on how the visitor responds to the interactions
- Seamlessly display interactions inline while the video is playing

Personal templates

- Create your own templates
- Use all the features of a template or use it as a starting point
- Example visitor interactions, such as contact or follow up requests, send an email to share the video
- Template webpage with video player rectangle, side buttons, configurable timeline
- Example error cards, such as *Low bandwidth*

Data source integration

- Automatically generate the project data dictionary from a sample data file supplied by the client*
- Differentiate between data dictionary fields intended for use with personalized video and those intended for campaign videos
- Option to retrieve data in real time from external data sources, such as:
 - Client datastores*
 - Third-party data providers*

*Not Template solutions which predefine the data dictionary and requires preloaded data.

Accessibility features

- Support for closed captions (subtitles)
- Control video player with keyboard
- Respond to visitor interactions with keyboard

Project life cycle

- Maintain a version history and revert back to a specific project version
- Test projects:
 - Single-click publishing to a test server on the EngageOne® Video Cloud for review and sign off
 - Test videos in real time with sample data for each visitor type
 - Test videos end-to-end with a placeholder for the web page that will embed the video player
 - Before publishing, see what has changed since last published
 - Give read-only access to reviewers
- Single-click deployment of completed projects to live production servers (administrators only)
- Manage system users and control who can:
 - Upload batch data files containing personalized data
 - View reports
 - Edit, publish and deploy a new version of a project
 - Add and edit campaign data and URLs

Extension points

Where EngageOne Video projects require functionality that is not available in the Director, projects can be customized by implementing extension points in PHP, JavaScript, HTML and CSS. This enables developers to, for example, connect to back-office systems and perform specific tasks such as sending email alerts.

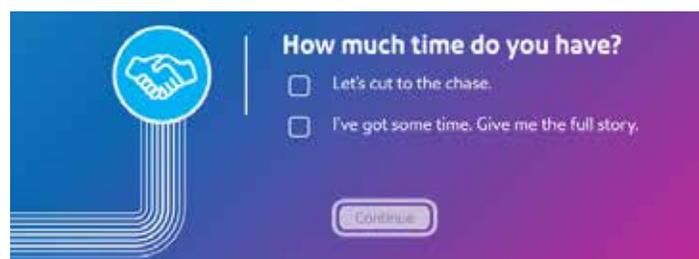


Figure: Example of an interaction that determines the next branch in the storyline.

Video production

There are a number of options for producing the video material for custom solutions. The Pitney Bowes professional services team or a Pitney Bowes partner can manage the video production as part of a turnkey solution. A production partner is used to shoot the video material.

Clients can also shoot their own video. We recommend working with a creative agency or production partner. In this case, the Pitney Bowes professional services team or a Pitney Bowes partner will build the project using the video material supplied by the client.

Pitney Bowes is on-hand to help throughout the production cycle. This includes advice on planning, production, implementation, testing and optimization of projects. We also provide a comprehensive Video Production Guide that covers creative planning and scriptwriting, video and audio recording tips and post-production editing. You can download this from s3.amazonaws.com/pb-eov-docs-public/EOV_Video_Production_Guide.pdf.

ROI

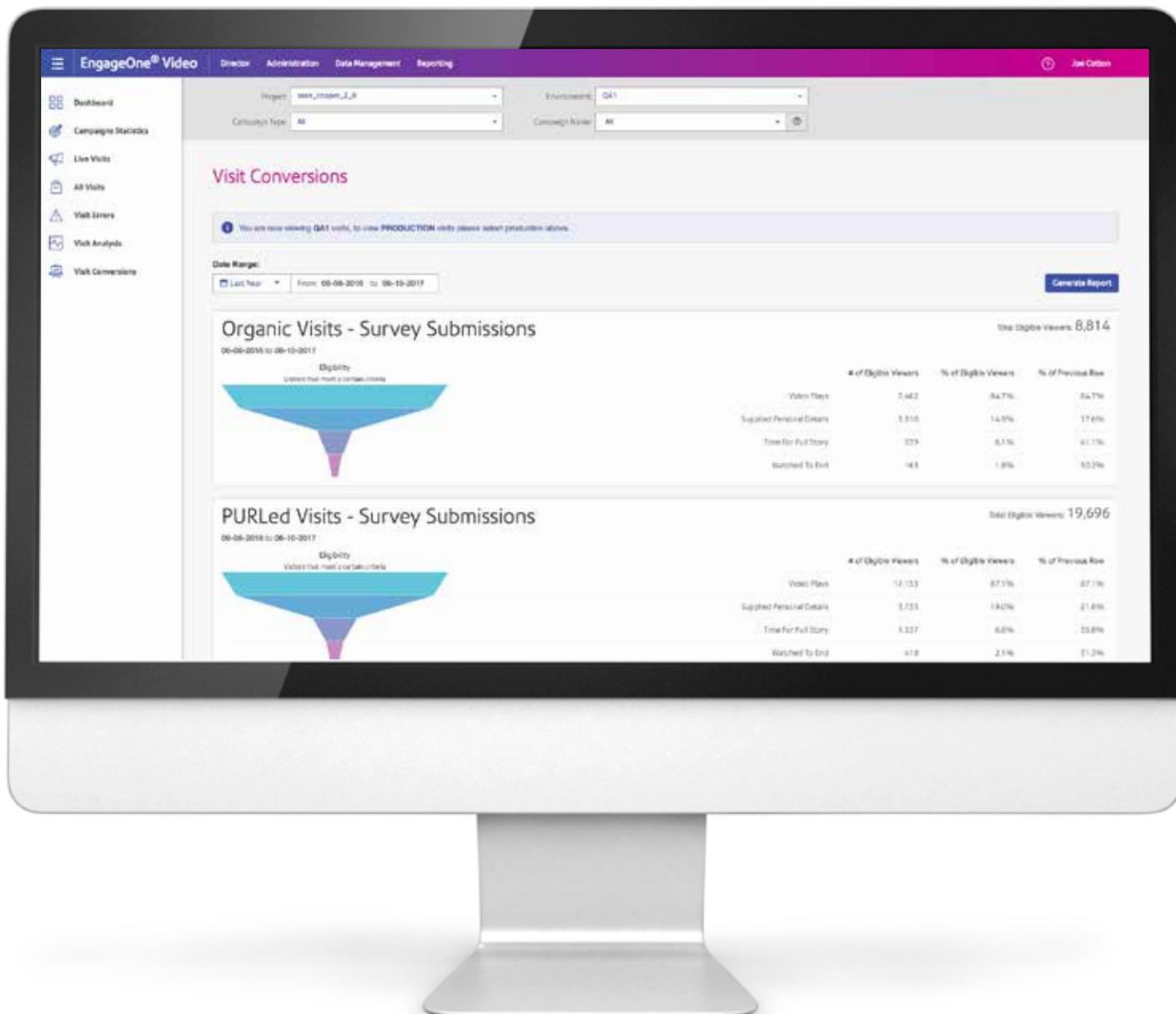
You can access performance analytics and reports, upload batch data files containing personalized data for use by the video player, and manage campaigns through the cloud-based management portal. The reporting tools display historic and live user data which can be exported as a CSV file for further analysis offline. The online reporting tools also include high-level summary statistics of video views and dynamic charts summarizing viewer progress.

The effectiveness of individual interactions, even of individual video clips, is reported in table and graph format to allow easy identification of the creative elements which work best. Using this information you can, for example, update campaigns in real time to improve the effectiveness of the video. Detailed information about each visitor is also available including access time, progress through the video and details of interaction responses.



Figure: EngageOne® Video overview report showing live visit data.

“The online reporting tools also include high-level summary statistics of video views and dynamic charts summarizing viewer progress.”



“Conversion funnels enable you to visualize the percentage of visits to your video that achieved the goals of the project.”

Management features
Reporting tools



*Not template solutions

- Access results in real time, using our secure online management portal
- Drill down into detailed visitor information
- Track service performance against key metrics – such as sales orders, bill payment
- Measure success of the video against your goals for the project using conversion funnels
- Secure authenticated user access
- Extract data into your offline processing systems in CSV format

Campaign management

- Create campaign URLs for use with emails, direct mail, web and print advertising
- Create data for use with a marketing video, such as promotions and incentives, and associate it with a specific campaign by using a campaign URL
- Edit the data associated with a campaign URL to improve the effectiveness of a video
- Analyze the success of these URLs through the reporting tools
- Track visits from specific campaign URLs against visitor information
- Track visits from ad-hoc URLs created outside of the management portal

System integration

- Real-time data integration with leading platforms including Google Analytics, Adobe Analytics, HubSpot, Salesforce.com, Marketo, Eloqua

Data management tools

- Data File Uploader for manual batch uploads of personalized data
- Generate single personalized URLs as needed and, if required, associate these with a new or existing campaign
- Maintain the list of customers who have unsubscribed from emails sent in connection with your video

User management tools

- Create user accounts for access to the reporting and data management tools
- Assign users to roles
- Roles include administrator, developer, data management, reporting and read-only
- Set access at company and project level

Delivery

EngageOne® Video delivers personalized videos in real time. Each unique Interactive Personalized Video is generated on demand from the project, using customer or marketing data, in response to visitor choices made while watching the video and combined with automatic data (such as device information and time of day). Performance metrics, visitor choices and data entered are also captured in real time while the visitor watches and interacts with the video.

Trigger points within the video can be used to connect to back-office processes such as orders, contact requests or billing events. They can also be used for sending outbound emails. For example, to notify a salesperson of an order or to allow visitors to share their video.

Interactive and personalized videos can be embedded in an existing website or on a dedicated video landing page. Pitney Bowes supplies the necessary code snippet to securely embed the video player. The Pitney Bowes professional services team or a Pitney Bowes partner can design and build the landing page if required.

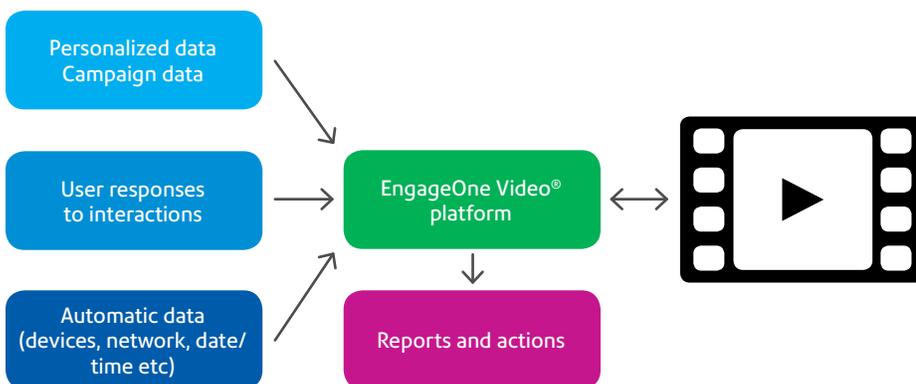


Figure: The Delivery component of the EngageOne® Video Solution.

How personalization works

Videos are accessed using a personalized URL which associates a video URL with the personalized data for the viewer. There are several approaches to handling the data.

A personalized URL is not always required. Visitors can still experience a video where personalization is limited to information supplied by them while watching the video or collected automatically (such as time of day).

Devices, browsers and OS

An interactive, personalized video is a series of MP4 Interactive Personalized Video files, with the visitor interactions and dynamic overlays for data as HTML displayed over the video. Optionally, multi-track audio is used, one track for the video audio and one for any background audio. Video, HTML and multi-track audio require the device to run separate players. Different devices, browsers and operating systems handle this differently. Where multiple players aren't supported then either the HTML or background audio are rendered into the video. As an example, desktops and laptops support full multi-track audio but mobile devices and tablets don't.

Our videos are designed to display optimally on the later versions of Chrome, Safari, Firefox and Internet Explorer. They also display on older versions but viewers using these browsers may have a slightly different experience. Generally we recommend that when planning a new project, clients consider which devices and browsers are in common use within the target geography and industry sector.

For the most up-to-date information on this topic, download the EngageOne Video Release Notes from s3.amazonaws.com/pb-eov-docs-public/EngageOneVideoReleaseNotes.pdf

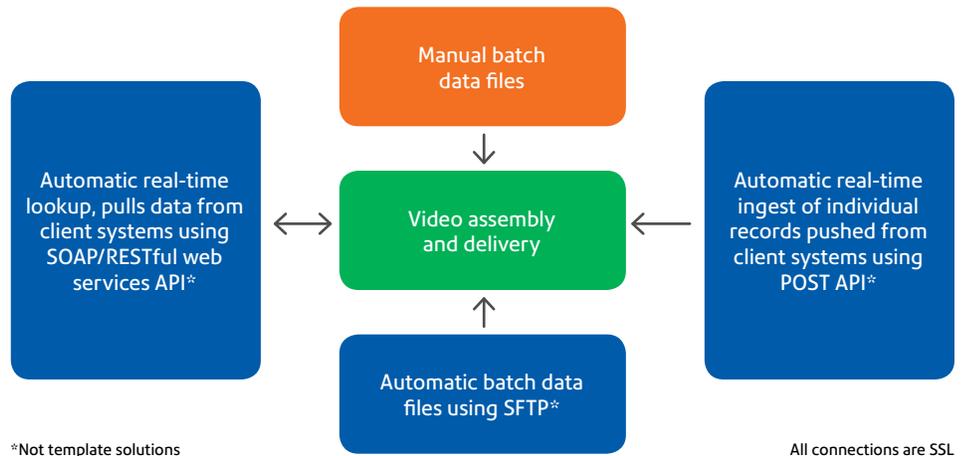


Figure: How personalization works

Hosting options

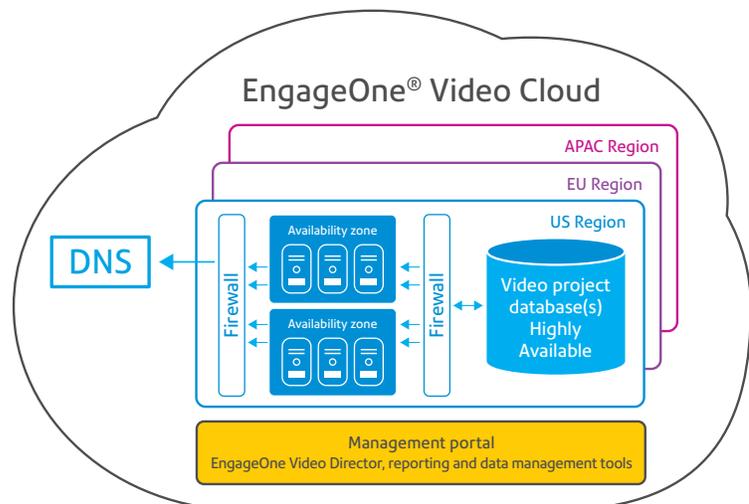
Pitney Bowes provides a fully managed service that runs on secure global infrastructure known as the EngageOne Video Cloud. The delivery component of the solution is designed to scale both horizontally and vertically to support any anticipated load and provide high availability. Alternatively, clients can choose to host the delivery component on their own premises or on a private cloud.

Note: Projects created from industry templates can only be hosted on EngageOne Video Cloud.

EngageOne® Video Cloud deployment

The EngageOne Video Cloud is a computing platform that comprises servers, databases and reporting and data management tools (the management portal) in a resilient and secure globally-distributed configuration.

We manage the infrastructure for you. This includes capacity planning and monitoring to ensure service continuity, responsiveness and performance. Additional servers are automatically brought online as load on the service increases.



Data belonging to each Pitney Bowes client is stored in separate secure database instances on the cloud and can be securely connected to back-end client systems.

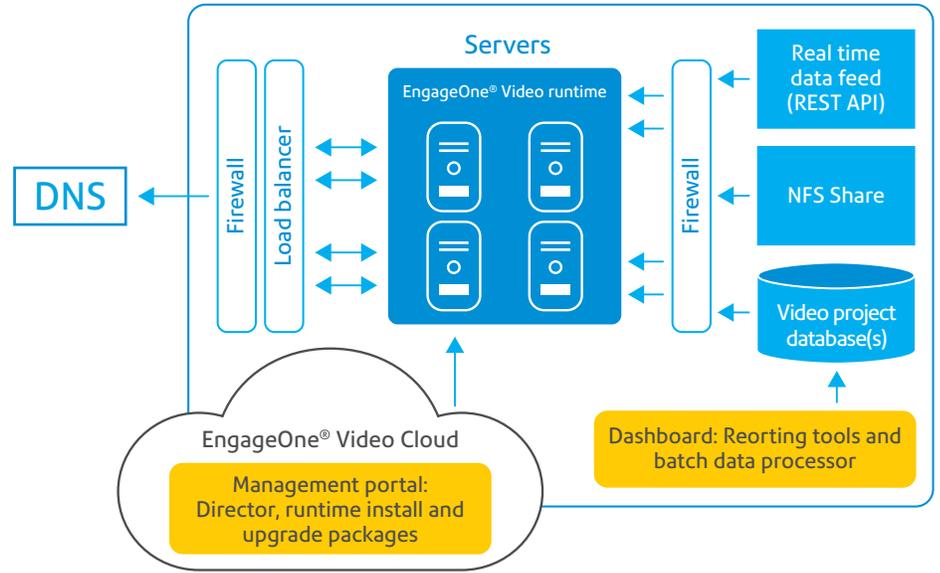
Different server clusters (environments) are used for project development, pre production (test) and production (live) services. Production servers are situated in the US, EU and Asia Pacific regions. Each delivery environment is a Linux-Apache platform running in a high-availability configuration.

Client-hosted deployment

With an on-premises deployment, Pitney Bowes will provide support to help get the solution up and running quickly. Clients are responsible for the provision, security and ongoing management of all infrastructure and underlying databases.

Clients will need to install the EngageOne Video Runtime environment and associated software dependencies (the underlying Linux, Apache, MySQL and PHP server build and associated open-source software libraries) on their servers.

When commissioning infrastructure for an on-premises installation, we recommend that you build a system with sufficient capacity to meet anticipated traffic levels. This is because the system may need to scale rapidly to meet demand. The following table shows typical figures for simultaneous video views based on a processor running an Intel Xeon E3-1220 @ 3.1 GHz.



For reference, 150 simultaneous views for a typical two minute video duration equates to 750,000 video views per month based on typical traffic profiles.

Due to the variability between client environments, the above figures are indicative and not guaranteed.

For further information on the on-premises hosting option, request a copy of the *Installation Guide*.

Table: On-premises capacity requirements

Inline video with HTML overlays using our video player	~ 150 simultaneous video views
Device's native video player with overlays rendered as part of the video (iPhone with iOS 9 and earlier)	~ 16 simultaneous video views

Summary of client-hosted deployment

- Locally installed dashboard for batch data processing, reporting, analytics and managing system users
- EngageOne Video Runtime license allows unlimited number of servers
- Mandatory license maintenance package includes software updates and 24/7 software support
- Client is responsible for the provision, management and security of the infrastructure and databases
- Optional user accounts for pre-production (test) servers on the EngageOne Video Cloud
- Runtime installer and upgrade packages are downloaded from the EngageOne Video Cloud
- Pitney Bowes supplies a detailed operations guide

Note: Projects can only be created in the Director, which is available from the EngageOne Video Cloud.

Product comparison

Creation

Feature	Notes
Storyline (sequence)	Defined to meet project requirements
Media files	Recorded to meet project requirements
Data Dictionary	Defined to meet project requirements, including support for campaigns
Visitor interactions: Insert links to pages on your website Trigger emails*	Defined to meet project requirements
Dynamic overlays for data*	Can be retrieved from a URL or saved in the project
Use data from third-party providers	Data format must be compatible
Connect to back-office systems*	Defined to meet project requirements

ROI / Management

Feature
Upload personalized data using: Manual batch data upload using management portal Automatic batch data upload using SFTP
Reports (analyze visit data, drill down into details)
Conversions*
Edit existing campaign URLs
Campaign statistics
Export visit data to CSV file

Delivery

Feature
Custom domain name supported
Video player resolution (1080p and below)
Closed captions
Real-time data feeds*
Campaigns: Campaigns supported Add campaign-specific data

* Not available for Template solutions

United States

3001 Summer Street
Stamford, CT 06926-0700
800 327 8627
pbsoftware.sales@pb.com

Europe/United Kingdom

The Smith Centre
The Fairmile
Henley-on-Thames
Oxfordshire RG9 6AB
0800 840 0001
pbsoftware.emea@pb.com

Canada

5500 Explorer Drive
Mississauga, ON L4W5C7
800 268 3282
pbsoftware.canada.sales@pb.com

Australia/Asia Pacific

Level 1, 68 Waterloo Road
Macquarie Park NSW 2113
+61 2 9475 3500
pb.apac@pb.com

Visit us online: pitneybowes.com

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