TriplePlay - Digital Signage, IPTV and Video Streaming

The Leading Single Platform solution for Digital Signage, IPTV and Video Streaming

https://www.tripleplay.tv/

Sonny Luyun
Technical Sales Director
www.macie-cooper.com
+65 8683 7494
IPTV & Video Streaming Platform is a full AV/IT software solution built onto HP enterprise class servers ensuring high resilience and reliability compared to black box alternatives. Our IPTV headend, which comes with a complete set of management tools, receives, encodes and distributes content across an IP network in digital format, securely to Set Top Boxes, Smart TVs, PC, Mac, Mobile Devices and Thin Clients.

Tripleplay’s IPTV headend captures and ingests content from a range of sources, including:
- DVB-T/T2 (with or without CI card) - SDI & 3G HD SDI
- DVB-S/S2 (with or without CI card) - ASI
- DVB-C (with or without CI card) - IP Multicast
- Analogue SD & HD - HDMI
- 3rd Party Encoders, IP Cameras, Headends

Tripleplay’s IPTV headend is designed as a server based solution using PCIe cards for the interfaces listed above. The majority are provided as QUAD input cards to maximise the number of interfaces available in one server; a standard server can host up to 9 interface cards.

This method allows Tripleplay to provide a single environment hosting all systems and services needed for the majority of solutions, removing the headaches of trying to integrate and support a number of receivers and encoders from different sources. All streams are output as multicast IPTV transport streams using either MPEG-2, H.264 or H.265/HEVC. We do not re-encode DVB sources so there is no degradation of the quality that is output by the broadcasters. All analogue encoders use hardware encoding chips so that the load on the server CPU is minimal.

Distribution & Delivery
Stream & Content Manipulation The Tripleplay headend provides a rich variety of stream manipulation tools, allowing system providers to inject images into audio only radio streams, switch between different sources depending on the time of day to manage part time channels, detect stream failure and switch to an alternative source. Live programmes can also be transcoded from one format to another, for example transcode H.264 to MPEG-2 to support legacy client devices, or from MPEG-2 to H.264 to optimise network usage. Multicast streams can also be transcoded to HLS for use with mobile devices both over the internal network and for remote streaming.

Recording Features
Live streams can be recorded for later use and to provide advanced PVR functionality for end users. On-demand recordings can be made on the server at the request of Media Portal user or by means of the management tools. When a user requests a recording the system makes intelligent use of the resources so that if multiple users request the same programme, only one copy is made, while ensuring only authorised users can view the recording. Live broadcast recordings can be managed on a show by show or series link basis using data provided by the broadcasters, ensuring that future programmes are also recorded without need for further user involvement. Recordings can also be used to provide time delayed channels, live trick play (pause, rewind, forward), whilst entire TV channels can be recorded with each individual programme being made available for later use.

Tripleplay HD Encoder
The Tripleplay HD Encoder distributes HD video quality over IP networks with an encoder latency of 100ms and a glass-to-glass delivery time of 250-450ms. Tripleplay’s HD Encoder delivers full 1080p quality, a low price point and simple integration into the rest of our solution. Tripleplay’s HD Encoder is designed for use in live entertainment, education and sporting environments.

Content Distribution
Our CMS solution allows users to distribute video content from a central server, across their corporate network to other Tripleplay servers, delivering content locally, alleviating network congestion and improving latency. Our platform also integrates with a leading Content Distribution Network (CDN) to deliver HLS streaming across the internet.

Mobile Media Application (MMA)
Tripleplay has been delivering video ‘off network’ for a number of years, using secure delivery methods and security encryption to stream live and recorded content to mobile devices. This facility is available via browser or through the Tripleplay Mobile Application (MMA), providing a variety of features including content download, upload and recording from TV. Available on iOS and Android.

Media Video Player (Tripleplay MVP)
Our IPTV and Video on Demand solution is available via a standard web browser, or via our own Media Video Portal browser. Our browser ensures we can manage and control the video quality you receive, securely owning the experience from start to finish.

Virtual Desktops & Thin Client
For users looking to implement video and TV solutions in VDI environments, Citrix for example, Tripleplay has a market leading solution that delivers encrypted, full HD video and live TV to virtual desktops. Our solution is delivered via our MVP and streams content securely with low latency and no loss in quality.
Distribution & Delivery

High Density WiFi Streaming
Our patented High Density WiFi video streaming solution enables the efficient and high quality delivery of video content across heavily congested and low quality wireless networks. Using a complex method of forward error correction (FEC) and client statistical analysis we deliver multicast HLS video in the most robust, stable and time efficient way possible to enable access to video where it would otherwise be unavailable.

Smart TV
Tripleplay solutions can be delivered directly to H-Browser Smart TV screens from LG, Samsung and Philips for interactive TV portal services or to the Samsung Smart Signage Platform (SSSP) for Digital Signage and TV Portal. Both methods remove the requirement for use of a Set Top Box (STB) at the point of delivery, reducing cost of ownership and decreasing complexity for implementations.

Set Top Box (STB)
In environments without compatible Smart TV screens, or where such screens are deemed inappropriate, we deliver IP Television services via a supported range of Set Top Boxes (STBs) and Media Players. Our players include support for resolutions up to 4k, RS232 control, Power over Ethernet options, full remote monitoring and compatibility with our digital signage solution; TripleSign.

VOD Streaming
Stored content can be streamed over local networks using the TripleVOD feature which provides a load balancing RTSP streamer. Content for this is managed by the TripleCMS Content Management System. Multiple streaming servers can be used to provide standard streams for hundreds of concurrent users. Full reporting of which assets have been viewed, by whom, when and for how long is available using the reporting tools.

A HLS streaming solution is also available which scales to thousands of concurrent users, given suitable networks for the delivery. The HLS solution is suitable for local and private internet links as well as remote content distribution over the public internet where this is allowed by the content providers.

Electronic Programme Guide (EPG)
Tripleplay’s IPTV solution comes complete with a customisable electronic programme guide. Unique to our solution, we can combine the Meta data and programme listings from multiple sources including free to air, satellite, free sat and subscription based TV channels.

Digital Signage
Our single platform IPTV solution has its own integrated Tripleplay Digital Signage solution; TripleSign. Through implementation of our IPTV solution any organization’s investment will be future proofed; allowing Digital Signage to be delivered across the same IP network and screen network with a simple software upgrade rather than costly integration work.

System Management

Management
Tripleplay solutions are all managed using standard web browsers over HTTPS allowing management and monitoring from almost anywhere there is an IP connection to the server.

Monitoring & Reporting
The Tripleplay IPTV headend has a range of monitoring and reporting features designed to ensure continuous operation, and to alert operators when problems do occur. All incoming streams and all output streams are monitored for errors or drop outs and where possible the headend will attempt remedial action to try and recover the streams.

Clustering/High Availability
Catering to the needs of the enterprise market we have developed a high availability solution for our Digital Signage and IPTV platform, with mirrored and clustered servers allowing automatic failover and continuity of service in operationally mission critical deployments.

Content Management System
Our in-built CMS allows the management of a wide variety of file types, images, videos, live TV and streaming sources, HTML, audio and document, creating a single interface for management of content for IPTV, Digital Signage and Media Portal solutions.

Quickdrop
Our Quickdrop application allows content managers to quickly and easily ‘drop’ video and image files into our CMS, streamlining the process for users with large volumes of media files to add into their Tripleplay platform.

Property Management System (PMS) Integration
Tripleplay’s IPTV and Video on Demand solution can be integrated with most leading PMS. Enabling the ability to charge for content, create TV channel packages and personalise screens for the user, PMS integration creates an ideal platform for residential, hospitality and hotel environments.

Content Compatibility
Our TripleCare client management interface allows full control of all end points on your IPTV and Video network, allowing you to update, upgrade, health check and manage your entire network from a single point. TripleCare also allows you to run system diagnostics, manage LDAP permissions and control screens; a Tripleplay network manager’s essential tool.
TripleSign, one of the world’s leading Digital Signage and IPTV platforms, comes complete with an array of high quality standard and industry leading premium features; making it a complete AV and IT solution for content delivery.

Deployed across the globe in a wide variety of environments, TripleSign is the perfect solution for highly secure enterprise, government, banking and finance deployments, high demand stadia, arena and sporting locations and in higher education, hotels, hospitals and off-shore locations.

Distribution & Delivery

Samsung SSP/STB/4K/PC Player
Tripleplay's digital signage and IPTV solution can be delivered to a wide variety of devices and platforms including Amino STBs for SD, HD and 4K using HEVC, Intel NUC for high-performance applications such as touchscreens and video walls, Samsung's Smart Signage Platform for digital signage, secure LYNK DRM multicast IPTV and touchscreen integration in signage player-free environments.

Hosted Digital Signage
Our Digital Signage system is available as a hosted solution, TripleLite, allowing the quality of Tripleplay’s TripleSign product for a low start-up cost accessed via our cloud management interface. TripleLite has fewer features than TripleSign but is a great first step into digital signage. Available on Amino STB and Samsung SSP.

Playlist Management & Scheduling
Create and select default playlists to ensure content is always playing on digital signage screens or, by use of our intuitive scheduling tool, distribute timely and relevant content to the exact screens you want, at exactly the right time, allowing you to pre-manage and plan events and announcements, whilst ensuring screens stay fully synchronised.

Content Creation

Integrated IPTV
Unlike many of our competitors, our Digital Signage and IPTV solutions are one and the same solution, delivered from the same single management platform. Having native IPTV capabilities reduces implementation time, removes integration concerns and enables seamless use of live TV and live streams in digital signage layouts.

Simple Content Creation
TripleSign comes complete with two content creation interfaces. Our traditional interface allows for greater accuracy and a more scientific approach to creating templates and layouts, whilst the Visual Layout Editor is an easy to use, single interface tool for creating impacting, professional and impressive digital signage.

Content Compatibility
Digital Signage content can be created in both landscape and portrait mode, in SD, HD, 4K or any other bespoke layout configuration, using a wide mix of content including JPGs, PNG overlays, animated GIFs, live TV and Video Streams, recorded VOD content, RSS feeds, text, calendars, XML and much more. The Tripleplay platform can also display HTML content from Authenticated Webpages.

Content Tagging
TripleSign’s tagging feature allows an administrator to tag individual layouts to play only in specified locations, allowing a global playlist to play at all sites containing tagged specific local content which will only play on display devices appropriately tagged. Tagging enables an ability to create master playlists which contain centrally controlled, regionalised layouts.
System Management

Clustering / High Availability
Catering to the needs of the enterprise market we have developed a high availability solution for our digital signage and IPTV platform, with mirrored and clustered servers allowing automatic failover and continuity of service in operationally, mission critical deployments.

Event Management
Instantly override any individual screen, group of screens or all screens at the press of a button or through a pre-determined trigger. Our Event Management interface allows integration into alarm systems for automatic triggering, creates a personalised web browser for manual ‘push’ of content to enable moments of exclusivity, broadcasts or promotions or, through RS232, automatically switch on screens at a precise moment.

Content Management System (CMS)
Our in-built CMS allows the management of a wide variety of file types, images, videos, live TV and streaming sources, HTML, audio and document, creating a single interface for management of content for digital signage deployments and Media Portal solutions.

Content Playout Reporting
Reporting to advertisers is a key part of many digital signage deployments and through our Data, Reporting and Logging system any administrator can create, run and export reports on digital signage use; where, when and how long layouts and playlists were played.

EPOS Integration
Through integrating into Electronic Point of Sales (EPOS) systems we can enable the power to display live pricing and availability information through our digital menu boards, allowing intelligent queue management systems to be deployed and ad-hoc special offers and deals to be easily displayed.

Workflow Management
Our platform comes with the capability to deploy full workflow management control on a digital signage network allowing you to assign administration and approval steps into digital signage creation, adding a level of security not available in many solutions and creating a true business solution and platform.

Quickdrop
Our Quickdrop application allows content managers to quickly and easily ‘drop’ presentations and image files into our CMS, streamlining the process for users with large volumes of files to add into their Tripleplay Digital Signage platform. Quickdrop also enables single drag and click updating of content.