

Managing The Business Of Content<sup>™</sup>

### Think Automation. Think CLEAR

Automation across the Content Supply Chain



## CLEAR<sup>™</sup> Media ERP

From creation to delivery with ONE Software for lowest Total Cost of Operations (TCOP)

### Think Automation. Think CLEAR

Automation across the Content Supply Chain

In recent times, multi-platform content has witnessed a meteoric rise; original content is being created at a pace never seen before, and getting it to domestic and worldwide viewers is topmost priority for content makers of all sizes. With multiple formats, versions and vendors at play, the challenges faced by content enterprises are many. Automation is the key driver to help solve these, as it reduces the amount of time, money and resources spent across the content lifecycle.

To conquer today's multi-platform universe, content creators need to partner with a single service provider who can take care of their technology needs from start to end – by supplying both technology that automates the supply chain, as well as Managed Services. They need to adopt centralization and look beyond the traditional approach of working with multiple solutions to manage content operations across various departments and locations. There is a pressing need to embrace automation across the supply chain, and leverage the untapped power of AI to achieve business goals. **Experience** the power of automation with CLEAR

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PFT's flagship product, CLEAR is the world's first, proven multi-cloud-enabled Media ERP Suite that automates the content supply chain. CLEAR helps M&E companies drive creative enablement, enhance efficiencies, realize new monetization opportunities and reduce Total Cost of Operations (TCOP) like no other.

With CLEAR, you get ONE Software for the enterprise that works across all departments and global sites, enabling you to manage end-to-end content operations from creation to delivery on a single software.

Unlike other offerings, CLEAR was not created for use within a services company. It was built on the back of innovation, ground up, for managing the business of content – from start to end, over a decade ago. With Work Order Management embedded in MAM, and our latest transformational AI-led Micro Services, CLEAR as a Media ERP software offers much more than any other MAM system.

To help customers solve specific business challenges, we offer CLEAR along with Managed Services. You can now leverage our automation-led solutions along with our wide array of technical, creative and new media services to achieve agility, scalability and speed like never before, with lowest TCOP.

## CLEAR Outcomes CLEAR Value CLEAR Results

## CLEAR Solutions on Cloud

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CLEAR Vision Cloud Al for Entertainment & Sports



### Centralization

Automated Content Operations for global enterprise, centralized



### **Content Acquisition Portal**

A central portal to manage Content Acquisition and associated processes



### Production Cloud Production supply chain automation



### **Promo Operations Automation**

Business process orchestration for promo creation, with auto assist versioning & delivery



#### **Mastering Automation**

Domestic and international syndication, automated

**CENTRALIZATION** Automated Content Operations for global enterprise, centralized

# a. CLEAR Ingest & Distribution for Station Groups

CLEAR Ingest & Distribution provides ONE Software to simplify end-to-end workflows for Satellite and Terrestrial distribution. It integrates and automates ingest, prep, QC and distribution workflows, while providing real time dashboards and notification alerts to operations teams. The solution enables users to review proxies of content, as well as manually transfer content to local affiliates via Signiant, Aspera or similar file transfer utilities. Leveraging CLEAR's in-built Business Process Management (BPM) engine, it automates file processing and generates real time dashboards to drive underlying distributed workflows within ONE user interface. CLEAR Ingest offers extensive interoperability and comes pre-integrated with systems like PitchBlue, CatchBlue, IDC-XD, CompuSat and Nexio.

### Key Features:

- ONE Cloud-based software to manage end-to-end workflows:
  - Satellite and Terrestrial ingest
  - Archive management
  - BMDN (browse/monitor/deliver/notify) workflows
  - Auto file QC
  - Cloud-based segmentation tools
  - Integration with file-based and Satellite delivery systems
  - · Review and approval
- Multi-cloud-based robust Disaster Recovery (DR) strategy to ensure business continuity even during extreme weather conditions etc.

- Faster time-to-market: Transparency of operations taking place across supply chain
- Greater creative control: Review proxies, transfer content to local affiliates via Aspera etc.
- Lower TCOP: Leverage your existing investments, SaaS model no CAPEX

## b. Centralization of International Broadcast Operations

For broadcasters with a wide international reach, 70-80% of the Play-list is typically common to all regions. Yet decentralized processes account for massive duplication of assets and effort, a phenomena which grows exponentially further downstream. CLEAR enables broadcasters to centralize Content Preparation tasks such as content acquisition, QC, house format creation, mastering (for linear & VoD) and archival. They can also centralize Compliance Mastering operations leveraging CLEAR's Compliance Data Model, which reduces tagging to a one time effort, and offers innovative features for automated caption re-timing, profanity check etc. With CLEAR, broadcasters get ONE MAM across all global sites, which unifies various departments, vendors and distributors across the content supply chain, along with native Work Order Management functionality.

### Key Features:

- Centralized repository for storage of source media and archival
- Work orders to create, assign, analyze and monitor tasks across all locations
- Unified dashboard for visibility of due dates and task status across all global sites
- Global super-set of metadata
- Integration with all 3<sup>rd</sup> party vendors for distribution
- Storage of Master Essence packages with all language dubs/subtitles etc.

- Enhanced efficiencies: Facilitates mastering & distribution from one primary location
- Lower TCOP: Eliminates duplication of effort & resources

## C. Centralization of Promo Operations

By adopting centralization, broadcasters can leverage CLEAR to make ONE set of promos centrally and distribute these globally, rather than editing a fresh set of promos in each territory. These can then be localized as required. Alternatively, broadcasters can embark upon consolidating promo creation in regional clusters which have similar cultural ethos. CLEAR enables broadcasters to manage all promo creatives along with subtitle and dub files (and all other versioning elements) needed for global playout from ONE location. CLEAR's Work Order Management functionality facilitates seamless collaboration with vendors across the globe, making it possible to review and approve content, and track task status easily. Further, different versions based on duration, telecast date etc. can also be created centrally and distributed worldwide. This is made possible by CLEAR's revolutionary Promo Operations Automation, which provides broadcasters end-to-end business process orchestration for promo creation including versioning automation.

### Key Features:

- End-to-end Work Order Management for Promo Operations
- Monitoring dashboards to oversee the progress of a creative and its versions from concept to final distribution across global territories
- A revolutionary appliance for automated Promo Versioning equipped with:
  - Promo Versioning Template Administration and Designer
  - Metadata driven dynamic templates
  - Metadata driven rendering of sponsorship logos
  - Cross channel promotion using multiple template selection
  - · Ability to re-version all or selected versions
  - · Localization support for special characters and multiple languages

- Faster Turnaround Time (TAT): Automated promo versioning
- Enhanced efficiencies: Prep once, distribute globally

## **Content Acquisition Portal**

### A central portal for managing Content Acquisition and associated processes

CLEAR Media ERP's Content Acquisition Portal provides a central, secure, work order managed solution for content acquisition and the associated processes – including evaluation, editorial, enrichment & archival.

The solution enables users to perform work order-based ingest, execute automated task breakdown, assign tasks to best-fit resources/vendors and track the status of all tasks conveniently through a unified dashboard. It can seamlessly integrate with other, existing IT systems like Rights Management, BMS, MAM etc.

### Key Features:

- Upload/download content directly via Microsoft Azure, leveraging Azure Event Hubs API
- Provides advanced tools for:
  - Ingest
  - Tagging Including manual cataloguing and AI-based auto cataloguing
  - Al-led metadata discovery
  - Auto QC Integrated with industry standard vendors like Baton & Cerify
  - Manual QC Integrated with Adobe<sup>®</sup> Premiere Pro
  - Archival Integrated with industry standard vendors like Diva/Masstech/S3
  - Work Order monitoring
  - Review For audio essences, language specific dub files and subtitles

- Optimal resource utilization: Assign tasks to best-fit resources based on skill, availability & cost
- Faster time-to-market: Schedule driven operations with reminder notifications
- Lower TCOP: Streamlines operational efficiencies manage assets, tasks and resources on ONE Software

## **Production Cloud**

### Production supply chain automation

Our online/SaaS collaboration suite allows all team members – from a small team to thousands of users – a secure, one-stop-shop for all their production needs. From pre-production location and test footage to scripts and prep documents to Dailies to VFX footage to every single cut to all marketing materials – easily and securely access and manage all your project assets in Production Cloud.

Your producers and creative heads in Ireland, your executives in London, your worldwide marketing teams in New York, Paris and Sydney – all securely and seamlessly log into the same system.

Production Cloud supports both scripted and unscripted content.

### Key Features:

- Easy Access & Collaboration Mobile app (iOS & Android) to access & review content; with an Offline option to download videos and watch later
- Total Security Multi-factor authentication, Okta integration, bulk watermarking, burnt-in watermarks for downloads and more
- Digital Dailies<sup>®</sup> Easy access to Dailies, rough cuts, clips and more hours faster than any other solution with our advanced 'Scene & Take' player
- Secure Screeners Send out press, sales and awards screeners to large groups of reviewers with total security
- Virtual Playlist Editor Create custom playlists for all your teams compile selects, circle takes and promo/marketing clips and sizzle reels with a virtual NLE
- Asset Management Copy, move and manage all file types across your library
  with incredible ease

- Enhanced efficiencies: Enterprise-grade video management & collaboration
- Plan promotional campaigns with ease: Marketing teams get access to content
  faster than any other solution
- Faster time-to-market: Access content anytime, anywhere with watertight security
- Lower TCOP: ONE Software to collaborate, service and distribute media

## **Mastering Automation**

Domestic and international syndication, automated

CLEAR's Mastering Automation solution makes domestic and international syndication across linear and non-linear platforms more efficient and cost-effective.

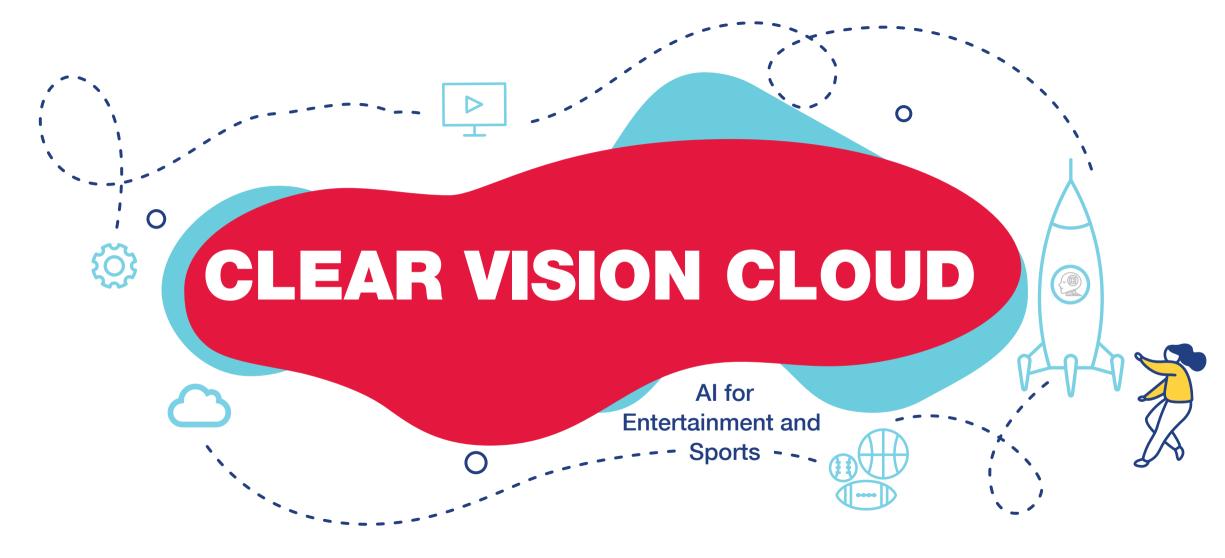
It leverages CLEAR's Caption Re-timing feature and smart tool for compliance auto QC for captions & subtitles, along with PFT's AI-led technology for Compliance cataloguing & editing.

The solution helps lower TCOP by reducing the cycle time and editorial effort used for mastering.

### Key Features:

- CLEAR Compliance Data Model: A feature that enables one time cataloguing on the Source Master, thereby reducing S&P (Standards & Practices) efforts as well as edit time
- Caption Re-timing: Auto re-sync of captions/subtitles and dub files for new edit versions of an asset, thereby eliminating the process of manually captioning and dubbing content repeatedly
- Compliance auto QC: Automated Profanity Check for masking out of objectionable text from captions/subtitles

- Enhanced efficiencies: Easier, smarter distribution to multiple geographies/airlines
- Faster Turnaround Time (TAT): Automates Compliance driven Mastering
  operations



## **Al that** complements you, not completes OU



Al for Sports



Al for Conformance



Al for Playout Monitoring



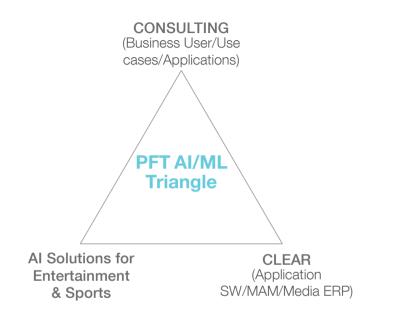
## CLEAR Vision Cloud

Al for Entertainment and Sports

PFT's native media recognition AI engine, CLEAR Vision Cloud leverages Machine Wisdom\* technology to deliver automation and data that is highly accurate, relevant, contextual and actionable.

Vision Cloud's Al-led solutions have been custom made for solving strategic Media & Entertainment (M&E) business use cases. They draw on collective intelligence of the industry's most sophisticated Al solutions and PFT's homegrown models, as well as the company's decade long experience of collecting, curating and annotating content (400 million tags to date). Vision Cloud helps M&E enterprises drive speed, scalability, reduce Total Cost of Operations (TCOP) and unlock new revenue opportunities like never before.

The engine's API offerings are efficient, modular, scalable and easy to integrate within any application software. Our AI-led solutions are also pre-integrated with CLEAR Media ERP as a searchable data repository and workflow engine component.



### What's in it for you?

- New monetization opportunities
- Enhanced decision making
- Faster time-to-market
- Scalability

\*Patent pending

## **AI for Sports**

PFT's Al-led technology is equipped to build specific, custom made sports models for customers. It automatically tracks sports action and creates highlights in near real time to engage with fans like never before. Powered by Machine Wisdom technology, the model recognizes each unit of sporting action with extremely high accuracy and extracts a wide variety of tags from a live feed. It helps sports producers cut down the time and effort involved in highlight creation by 40%, and enables them to swiftly create a wide variety of highlights for engaging viewers. OTT platforms can leverage this technology to deliver high levels of interactivity and personalization for consumers with a create-your-own-highlights experience and a powerful live search option. The model is available out of the box for cricket, and its capabilities can be extended for any other sport, including e-sports.

### Key Features for Cricket Model:

- Recognizes cricketing scenes ball-by-ball, with high accuracy
- Recognizes cricket ball segments, run score per ball, replays, celebrations, wickets, bowling type, batting type, striker, wagon wheel, batsman's striking pose etc.
- Reads on-screen score graphics, analyzes in-stadia sounds and discerns commentary
- Auto generates packages & user configurable highlights, tracks the high points of a match just like a human editor
- Adds transitions and audio smoothening between scenes to provide finesse to the final highlights
- Allows users to auto publish live to VoD
- Provides auto in-app event notifications and Video Scorecards
- Measures brand placements (roadmapped)

- Increased monetization: Enhances viewer engagement (through Video Scorecards etc.) to boost viewership, drives better ad monetization
- Enhanced efficiencies: Helps achieve greater speed and scale of production during live events
- Faster time-to-market: Creates instant highlight packages to engage fans

## Al for Playout Monitoring

PFT's highly scalable AI-led Playout Monitoring solution enables broadcasters and monitoring bodies to identify and measure ads, promos and program segments directly from playout. It features an innovative AI-led hybrid workflow, where AI identifies the content and human operators perform Quality Check (QC) on these results.

### Key Features:

- Downloads content from the playout and leverages AI to automatically discover ads, promos and programs
- · Automatically marks time-in, time-out as well as ad variants
- Automatically recognizes different types of segments after a human operator marks them once
- Human operator-led QC to ensure high accuracy
- Provides timely digital reports of the insights unearthed

- Increased monetization: Unlocks new revenue streams through ad playout reports
- Enhanced efficiencies: Greater speed and scale in playout monitoring operations,
  along with uncompromised quality
- Faster time-to-market: Provides brands and advertisers accurate, reliable ad deployment data

## Al for Conformance

With the increase in multi-platform content, there is a pressing need to reuse content made in the pre-HD era for tapping new revenue opportunities. Our AI-led technology automatically identifies time-in/time-out from original footage and detects the clips used in the final edit. It matches source content to destination content and creates highly accurate EDLs which can be imported on to an NLE timeline. This reduces the time and effort spent on Conformance, making the process of Remastering pre-HD era content in newer resolutions like 4K/8K faster and more cost-effective.

### Key Features:

- Iteratively matches the final cut with the source footage to identify clips used in the final edit
- Generates highly accurate EDLs from the source footage which can be imported on to an NLE
- Drastically reduces the time and effort spent on Conformance
- Helps efficiently Remaster pre-HD era content in 4K/8K

- Increased monetization: Helps deliver content in latest resolutions to boost viewership
- Faster turnaround time (TAT): Identifies clips used in the final edit from original footage at lightning speed
- Lower TCOP: Reduced number of edit systems and resources

## Al for OTT Traffic Operations

PFT's content segmentation technology automatically identifies unrequired segments like blacks, recaps, pre-caps, ads, montages and credits from long-form content, promos and spots, with frame accuracy. It removes the segments which are unrequired for OTT platforms, making OTT Traffic Operations more efficient.

In addition, our AI-led Scene Description technology automatically catalogues library content and identifies scenes as well as searchable clips. It also helps deliver interactive B2C viewing experiences.

### Key Features:

- Powerful home-grown engine to identify and remove unrequired segments like blacks, recaps, pre-caps, ads, montages, credits etc. with frame accuracy
- Most accurate, comprehensive, contextual AI-led cataloguing of content with additional customer specific models and options for manual curation
- Enables OTT consumers to conduct deep searches and discover content of interest, using natural language
- Powers immersive OTT viewing experiences lets viewers click on the video and go through the associated data & trivia

- Increased monetization: Helps deliver highly engaging viewer experiences to boost viewership
- Enhanced efficiencies: Helps streamline OTT Traffic Operations
- Faster time-to-market: Leverages automation to reduce turnaround time (TAT)

## MANAGED

## SERVICES

## Managed Services

As a Cloud solutions provider with a global delivery model and the world's largest digital media services Cloud infrastructure at its disposal, we deliver a range of technical, creative and new media services on Cloud with defined SLAs. Our best-of-breed talent pool, spread across the globe with an average experience of 20 years in the media industry, is key to exceptional client service.

#### Asset Management

Archiving, Centralized Library, IMF Ready MAM, Metadata, AI Tags

### Technology

#### Work Order Management

Assets with associated metadata and essences; Resources including 3<sup>rd</sup> party vendors; Tasks including generation, timeline estimation, scheduling, assignment and execution; Orchestration of content workflows Rights Integration, Centralized Acquisition Process; IMF Package Creation, QC, Ingest

Automation

Acquisition

Services

### OTT Services

QC, Metadata, Compliance Edit, Localization, Transcoding, Digital Packaging, Live Streaming and Live VoD

#### Creative Services

Promo Creation, Promo Packaging, Versioning, Short-form & Long-form Content Production

Library Services Digitization, Restoration and

Upconversion, 4K Remastering, Metadata Services

## CLEAR Benefits.







PFT works with some of the largest broadcasters, studios, sports outfits and service providers across the globe.



They have embraced automation. Have you?

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## The CLEAR Advantage



We manage **1.5M** hours of content annually



Over 50% of US primetime scripted network television production use our product

5 patents for Production technology



has been deployed for the last 11 years





Saves 30% costs









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