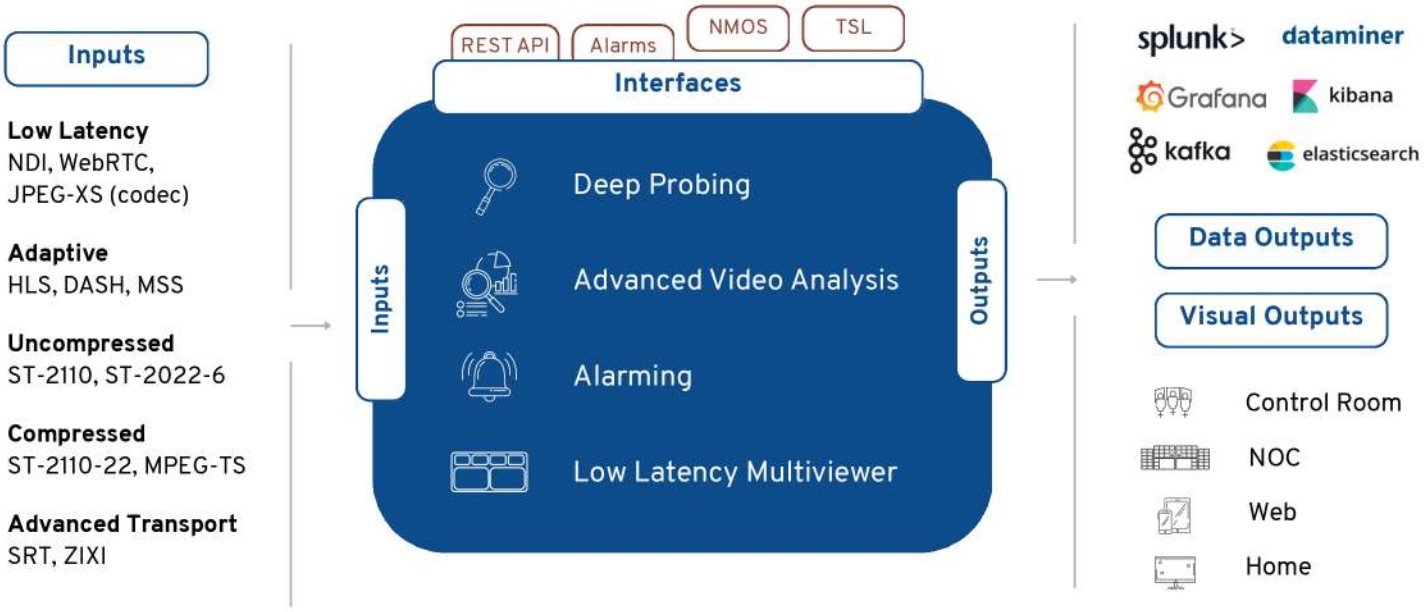
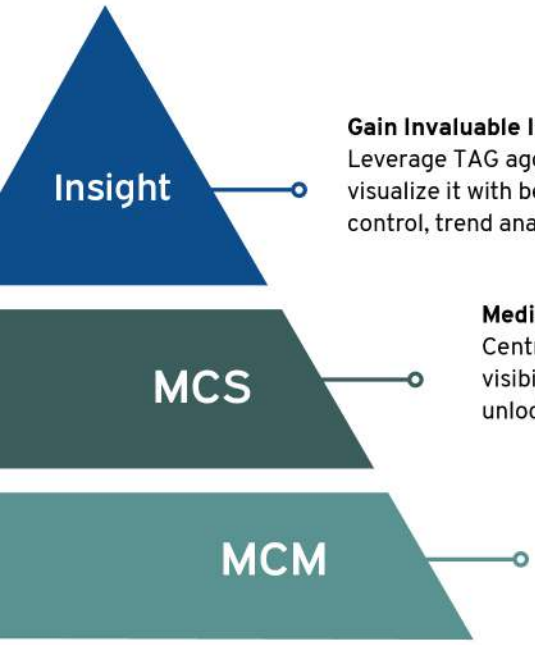
Realtime Media Platform

Probe. Monitor. Visualize. Analyze.

Core Functionalitiy



Platform Structure



Gain Invaluable Insight
Leverage TAG aggregated data across your operation and visualize it with best-in-breed 3rd party tools for real-time control, trend analysis and constnat workflow improvement.

Media Control System: The Focal Point
Centralized management, effortless scaling, unified visibility, advanced functionality, MCS enbales you to unlock the value of using multiple MCMs.

Multi-Channel Monitoring: The Engine
Processing, transcoding, deep probing and multiviewer mosaic creation, the MCM runs the platform's core functionality.

Realtime Media Platform

Specifications

Probing

- **Uncompressed:** ST 2022-6, ST 2110 with AMWA NMOS IS-04, IS-05, IS-06
- **Video codecs:** MPEG2, H.264 (MPEG4), H.265 (HEVC), JPEG2000, JPEG XS, NDI
- **Resolutions:** Up to 4K UHD
- **Frame rates:** 23.97, 24, 25, 50, 59.94, 60
- **Audio codecs:** PCM, AES 67, MPEG2, HE-AAC, A52, AAC (AC3, E-AC3, AC-4), Dolby E, Dolby Atmos
- **Metadata:** AFD, HDR, SCTE 35/104, subtitles, captions
- **Transport:** MP2TS ST 2022-2 and ST 2022-3, RTP, RTMP push and pull, CDI (AWS), unicast and multicast, ZIXI, SRT, WebRTC
- **Failover:** ST 2022-7 seamless switching on uncompressed and TS
- **OTT:** HLS, LL-HLS, MPEG-DASH, LL-DASH, MSS, CMAF
- Automatic source input scanning
- Monitoring of all variants in OTT ladder
- **Encryption:** Verimatrix, Huawei; KMS: Supports methods, including CPIX, Axinom, KalturaUDRM, buyDRM, more)
- **Simulcrypt, AES-128-CBC:** (Verimatrix, Irdeto, MPEG-TS DVB-BISS-2)
- **Subtitling:** DVB, ID3 subtitles, Closed Caption, CEA-708, WebVTT
- **Multi-language support:** Up to 16 PIDs
- **Latency Measurement:** Precise latency measurement using Content MatchingTechnology (TAG CMT)

Monitoring

- Over 500 probing parameters
- **Pragmatic Alarming:** actionable events, not vague metrics
- **ETSI** TR 101 290 priority 1, 2, 3
- **Video:** freeze/black/macroblock detection
- **Video Quality:** Structural Similarity Index Measure (SSIM)
- **Audio** loudness per EBU R-128, ITU-1770, ATSC A/8
- **Configurable Notifications:** email, SNMP, Syslog, Kafka, Redis, API, Logstash
- **Source template** profile-matching for compliance
- **Monitoring Flexibility:**
  - Adaptive monitoring (automated, 3 levels)
  - Monitoring by Exception
- **Logging:** external NAS/syslog
- Forensic source record to file on error with continuous pre-record for TS and OTT sources
- **SCTE** 104 | 35 message monitoring, logging; XML & Binary

Multiviewer

- Multiviewer with ultra-low latency real-time monitoring and headless operation
- Up to 100 inputs (tiles) per mosaic output
- Up to 16 independent mosaic outputs/server per MCM instance
- Up to 32 independently assignable audio pairs per mosaic TS output
- Full-customizable sized tiles per mosaic Side-by-side splitscreen visualization
- **Mosaic background:** from video or image
- Audio tracks per tile: 16 | UMDs per tile: 8
- Custom tile layout configurations
- **Output resolutions:** SD, HD, UHD
- **Output:** simultaneous uncompressed, compressed(TS) and HLS with audio
- Unicast and multicast output
- On-screen clocks and count up/down timers
- Tallies and UMD (TSL protocol, TAG API)
- Streamed JPEG thumbnails for each input
- Carousel and Penalty Box display modes

Platform

- **Topology:** dedicated COTS hardware, VM and cloud (AWS, Azure,Oracle, Tencent, GCP, Alibaba)
- **Server:** dual Intel Xeon or AMD EPYC CPU
- **GPU:** not required
- **Storage:** none required
- **Network:** Mellanox C5/C6 series for uncompressed SMPTE ST 2022-6; -7 / ST 2110 inputs
- **OS:** Linux Ubuntu/Rocky
- **VM:** VmWare ESXi 6/6.5, KVM
- **AWS:** c4, c5, c5n, c5dn, m6i instance types
- **Full JSON API** integration of all capabilities
- TAG MCS system manager option
- **Network capacity:** up to 4x 100GB ports / server
- **Input capacity:** up to 96 HD uncompressed sources per server
- **Scaling:** server stacking, TAG Bridge and MCS to enable large-scale systems
- **PTP and NTP** time synchronization
- Web-based configuration
- Role-based user management
- **Single Product for All Applications:** Includes all formats and can be used anywhere for any TAG functionality (Zero Friction®)

ISO-27001 certified

TAG's platform is ISO 27001 certified, ensuring it meets the highest standards for information security management. This certification assures sensitive data is protected through rigorousrisk management processes and compliance with best practices in cybersecurity.