

# VIDEO MANAGEMENT SYSTEM

The Sirius Video Management System converges Network Video and Analog Video Solutions for Surveillance, Command and Control System Applications into a unified system, and rapidly manages incoming video and data information into an easy interface.

Bridging across different makes and models of VMS currently within the market, our Cutting Edge Portfolio comprises of Network/IP Based Cameras, as well as video encoders that enables the most cost-effective migration to into the best of network video technology. We top it off with a comprehensive video management software solution and an entire full range of devices/accessories.

Our network video system provides everything that analog video has to offer, with a huge serving of innovative functions and features which are only possible with digital technology. Sirius VMS, the real-deal Video Management Sirius across all.





#### **OVERVIEW AND FEATURES**

Sirius VMS provides critical video distribution, viewing of IP-based videos over secured networks, coupled with a detailed, automated organization and management system which simplifies complex video management and monitoring for large systems, reducing the amount of headcount needed for daily operations. Designed to be integrated alongside other sub-systems, the Sirius VMS boasts a new level of integration capabilities that allows the Sirius to either be a standalone system, or be incorporated into a larger system for a true integrated experience.

#### **System Automation:**

Automation is the key. System Robustness is critical and that is what the Sirius VMS is purpose built for. Hardened Management and Distribution Systems were tested under extreme conditions and system loads to ensure that they will never fail when they are needed the most.

#### **Secured, Network Friendly:**

Often the IT administrator's nightmare, Sirius VMS were designed and built by network administrative professionals. The Sirius VMS is highly adaptable to a large variety of LAN/WAN/Public Internet topologies, and possesses a large variety of secured encryption protocols purpose built for security, reliability and manageability. Custom features can be requested and custom built into the Sirius VMS to handle unique IT Network requests, effectively addressing the IT administrators' concerns.

#### **Scalability and Sustainability:**

Scalability translates indirectly to cost savings and that's what the Sirius VMS possess. An innovative, unified workflow capability eliminates the need for separate client-specific encoders and servers, saving on capital investments and operating expenses. You do not need to be locked into a specific Video Player Client or Protocol Technology.

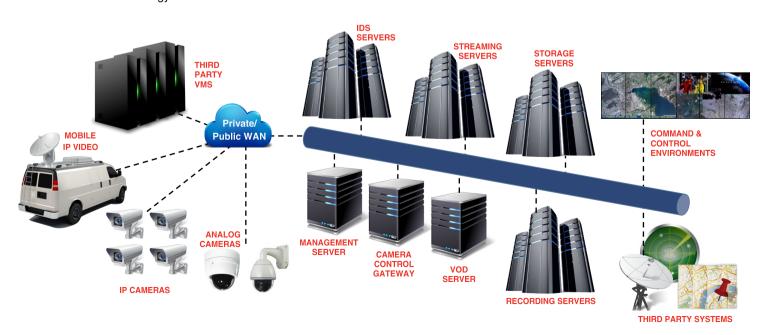
#### **The Real Sirius:**

In unique environments where different VMS are in place and operated concurrently, the Sirius VMS takes over as the single point of control across the different VMS engines currently in place. Our proprietary Camera Control Gateway System provides interfacing controls for various types of IP or Analog based cameras, and translates VMS generic controls into native camera controls specific to each and every VMS. The Sirius VMS unifies control into a single, simplified portal for efficient usage and operations.

#### Freedom and Flexibility:

Every different organization has their own operating preferences, and we recognize their workflow preferences. The Sirius VMS has both Web-based and Windows User Interfaces available for administrative usage.

The Windows based User experience can be installed in either remote or local workstations, effectively removing geographical boundaries. The Web-based user experiences offer "Anytime, Anywhere" access to the Video Management System. Not having access to that workstation is no longer a valid excuse.





# **COMPONENTS**

# **Management Server:**

- Video Management System Configuration
- Camera/Video Configuration
- User Administrative Management
- · Device Monitoring and Control
- Scheduling
- Video Effects and Enhancements
- Video Loss Detection
- PTZ Control of Remote Cameras
- Alert Triggers

# Video-on-Demand (VOD) Server:

- Recorded Videos Management
- On-Demand Service for Recordings

### **Recording Server:**

- Stitches pre-recording with actual recordings
- Upload Videos into VVOD

# **Digital Rights Management (DRM) Server:**

- · Secure distribution of multimedia content
- AES encryption
- Key management system

# **Video Analytic Server:**

- Loitering
- Perimeter intrusion
- · Abandoned object
- People counting
- Facial Recognition/Age and Gender Profiling
- Multi-Cam Tracking

# **Camera Control Gateway Server:**

- Interfaces with third party VMS
- Translates generic Camera Controls into Native Camera Control Protocols

#### **VMS Client:**

- Camera Control (where applicable)
- Video Selection
- Video Effects
- Recording/Playback of Videos etc.

# **Streaming & Distribution Server:**

- Receives Video Stream Feeds from Remote Cameras/ Encoders and redistribute to clients upon request.
- Proxy provides segregation of zones (Trusted/Non-Trusted Sites)
- Pack Inspection against malicious IP Packets

# **VMS Gateway Proxy Server:**

- Integration with multiple 3rd party VMS
- Video transcoding and transforming
- Camera control
- Convert non-standard IP video to H.264 standard



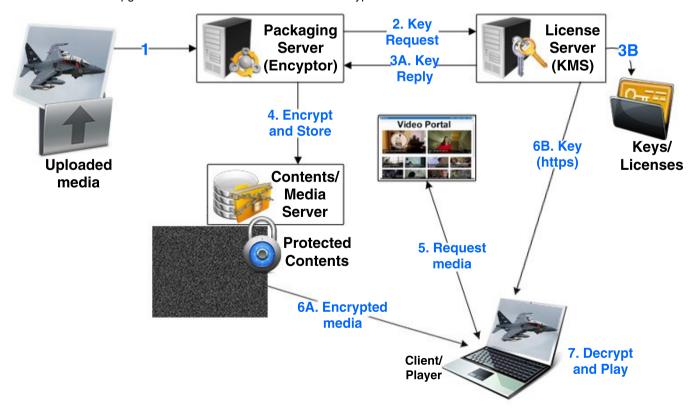


# **HIGHLIGHTED FEATURES OF SIRIUS VMS**

- Reliability Video Management System designed to work 24/7.
- Easy to install, configure, use/operate and manage.
- Based on the open platform (i.e. ONVIF) and industry standards (i.e. H.264, rtp/rtsp).
- It offers additional features such as image/video uploads, workflow customization, recording and so on.
- Scalability: flexible enough for the future needs of a company or enterprise. And flexible to incorporate new technology (injecting meta-data, DRM: Digital Right Management).
- Upgradable for DRM (Digital Right Management) .
- Upgradable for ArcGIS Map integration.
- Able to integrate with popular video analytic-systems.
- Flexible Licensing for adding new devices/cameras.
- · Access on mobile is supported.
- Able to integrate with popular VMS, such as MileStone, Pelco, Indigovision, etc.
- It supports authentication and authorization (ACL), provide reliable video delivery.
- It allows archiving and backup solution along with a failover technique.
- Enterprise Management and Multi-Sites Administration: Sirius offers a comprehensive set of applications for simplify system administration and operations. It can help ensure the efficient operation and up-time of the system and the continuity of live and recorded video distribution to client applications.

# **DIGITAL RIGHTS MANAGEMENT (DRM)**

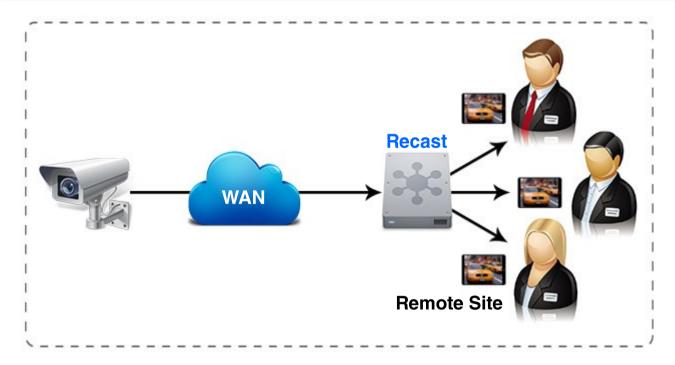
Sirius VMS can be upgraded for secure video distribution of encrypted Content.





- Sirius DRM is designed to work with MP4/h.264/AVC,AAC and others codec, on IP networks or devices.
- It is based on 128-bit AES algorithm. The proposed system aims to provide video data security on multimedia technologies for video applications using selective encryption for H.264/AVC.
- Sirius DRM is combined solution of "content encryption" and "key management system".
- It provides true end-to-end protection for multimedia content. Protected Content is never "in the clear," not even during intermediate storage or the transition between transport links.
- Media Protection standard of Sirius-DRM satisfies requirements for Internet streaming and copyright protection, it is appropriate for playing DRM-enabled digital contents on the Internet. (For both IP set-top box and personal computer).

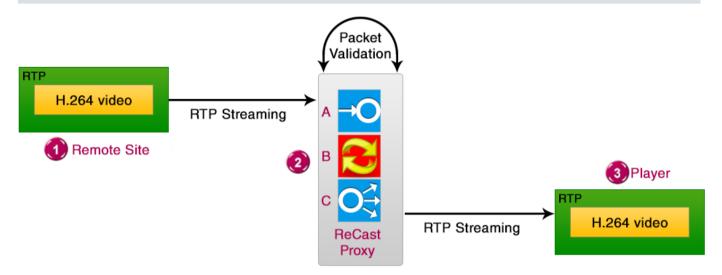
# VIDEO STREAMING/DISTRIBUTION WITH RECAST (WAN OPTIMIZATION)



- Single live stream from Encoder.
- Split into multiple streams by Recast.
- All packages will be inspected/validated by Proxy modules of Recast.
- Proxy modules does not allow external stream to go through directly to clients.
- Support for RTP & RTSP Video Streaming Protocols.
- Sirius' Re-Cast Server is WAN optimization solution for Live-Video Distribution. Organizations that use video applications across their network need to optimize video delivery over their WANs.
- Deploy Sirius VMS and caching Proxy together for saving of Bandwidth usage & Video caching for Acceleration and optimization on VOD (Video on demand).

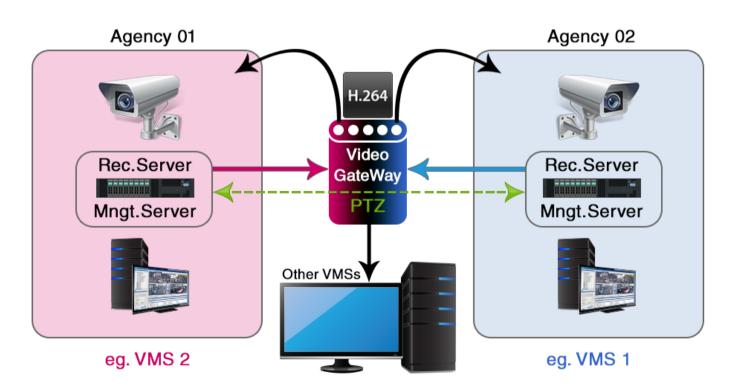


# SECURED DISTRIBUTION OF VIDEO STREAMS FROM CAMERA (REMOTE) TO VMS CLIENT



- 1. RTP/RTSP Stream coming from remote site(s)
- 2. Recast-Proxy
  - A. Stream Receiver
  - B. Packet Validator
  - C. Stream Distributor
- 3.Player/VMS Client

# **VIDEO GATEWAY WITH PTZ CONTROL FOR INTEGRATION WITH OTHER VMS**





# SIRIUS VIDEO MANAGEMENT SYSTEM



#### **Benefits:**

The Sirius VMS provides a entire suite of goodness all packaged into one. The Digital network video management system offers the benefits and advanced functionalities that cannot be provided by an analog video system. The advantages include remote accessibility, high image quality, event management, intelligent video capabilities, integration capabilities with third party systems. Scalability, system and usage flexibility in a cost effective design, allowing the Sirius VMS to truly stand out by itself.

# **Application Possibilities:**

**Command and Control - Nete2Asia** offers a complete line of Video Management System and control room video wall displays for your mission critical command and control center and tactical operation center.

**Emergency Operation Centers -** Our video wall projection cubes offers a common overview display for information sharing in your emergency operation center or Fusion Center.

**Security & City Surveillance -** Nete2Asia has developed an innovative way to monitor surveillance cameras and access control within your security operations center. Network video is one of the most useful tools for fighting crime and protecting citizens.

**Tele-Communications -** Whether you are in call center operations or manage a network operations center, a display wall with video management system can provide a common information sharing platform.

**Transportation (traffic monitoring) -** Nete2Asia recognizes the video management & display needs of today's modern traffic management center.

**Retail Stores -** Network video systems in retail stores can significantly reduce theft, improve staff security and optimize store management. A major benefit of network video is that it can be integrated with a store's EAS (electronic article surveillance) system.

**Education -** From childcare centers to universities, network video systems have helped deter vandalism and increase the safety of staff and students. In education facilities where an IT infrastructure is already in place, network video presents a more favorable and cost-effective solution than an analog system because new cabling is often not required.

**Healthcare -** Network video enables cost-effective, high-quality patient monitoring and video surveillance solutions that increase the safety and security of staff, patients and visitors, as well as property.

**Industrial -** Network video can be used to monitor and increase efficiencies in manufacturing lines, processes and logistic systems, and for securing warehouses and stock control systems.

**Government -** Network video products are used to secure all kinds of public buildings, from museums and offices to libraries and prisons. Cameras placed at building entrances and exits can record who comes in and out, 24 hours a day. They are used to prevent vandalism and increase security of staff.

**Banking and finance -** Network video is used in security applications in bank branches, headquarters and ATM (automated teller machine) locations. Banks have been using surveillance for a long time, and while most installations are still analog, network video is starting to make inroads, especially in banks that value high image quality and want to be able to easily identify people in a surveillance video.





# **Matadox Pte Ltd**

152 Paya Lebar Road #06-06, Citipoint Industrial Complex Singapore 409020 ⟨ (65) 6723 6363 | ☐ (65) 6723 6333 ☑ contact@matadox.com | ⋈ www.matadox.com