

eCinema: The Possibilities



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Cinema Group, Ltd.

...a long time ago



New Technologies



- Electronic projector
- Electronic storage of the image
- Networks

Potential Benefit



- Electronic projection brings new forms of entertainment to the cinema

Benefit: Electronic Image



- “Pay per view”
 - sports
 - music
 - live entertainment
- Interactive games and movies
 - audience votes on outcome

Another Benefit



- The electronic storage format will bring new features

Benefit: New Features



- Special effects
 - controlled outputs can trigger lasers, smoke machines, etc.
- More audio channels...

...And More Benefits



- Networks brings new tricks

Benefit: Networks



- Networked equipment brings 1990's computing into the cinema
 - PC-based scheduling using network control
 - Remote maintenance through networked monitoring and control
 - Can improve quality of the presentation

eCinema: The Potential



- To realize the full potential of eCinema, systems need to be *interoperable*
- *Interoperability* promotes product competition
- *Interoperability* requires industry standards

Audio & Video Sources



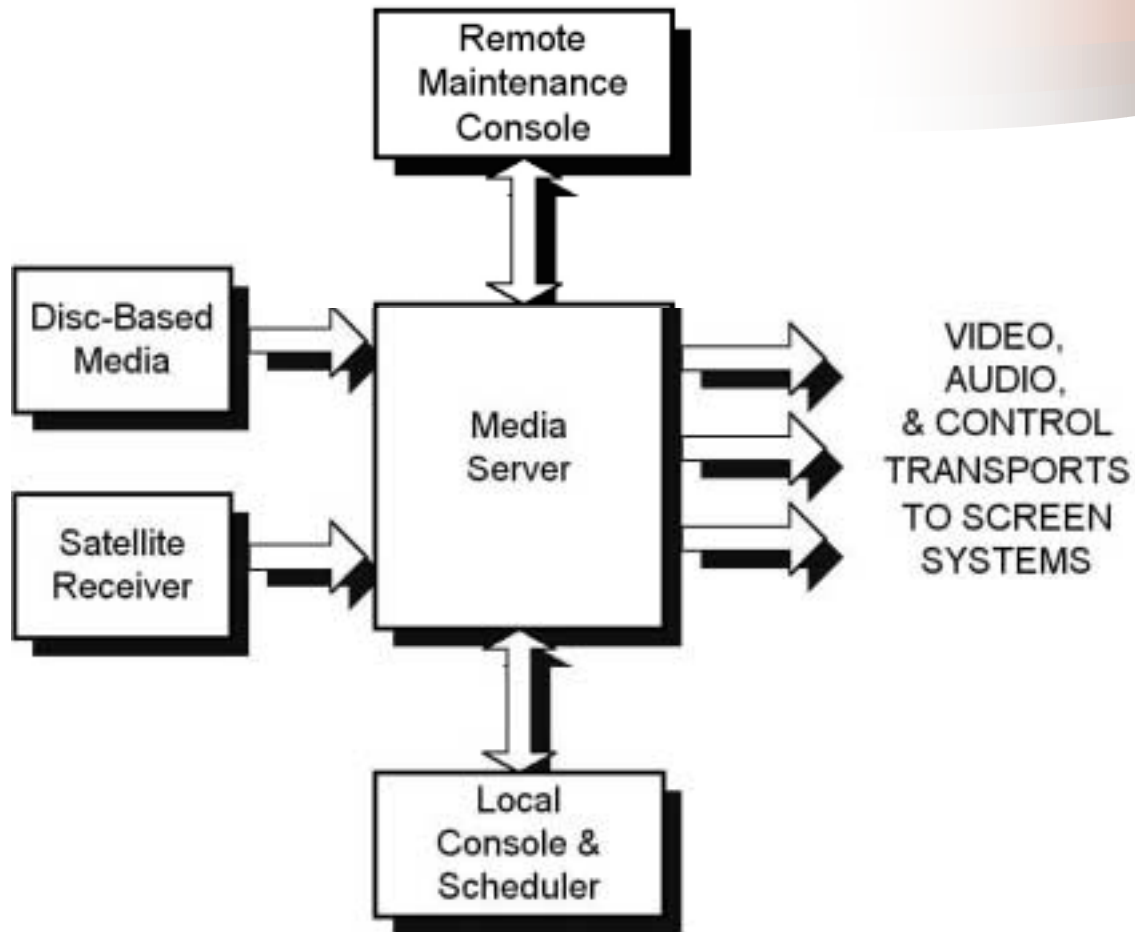
- Local-based
- Server-based

The Server



- In a server-based system, the server is the hub of the complex
 - media files
 - scheduling
 - transmission to the projector and sound system

The Server

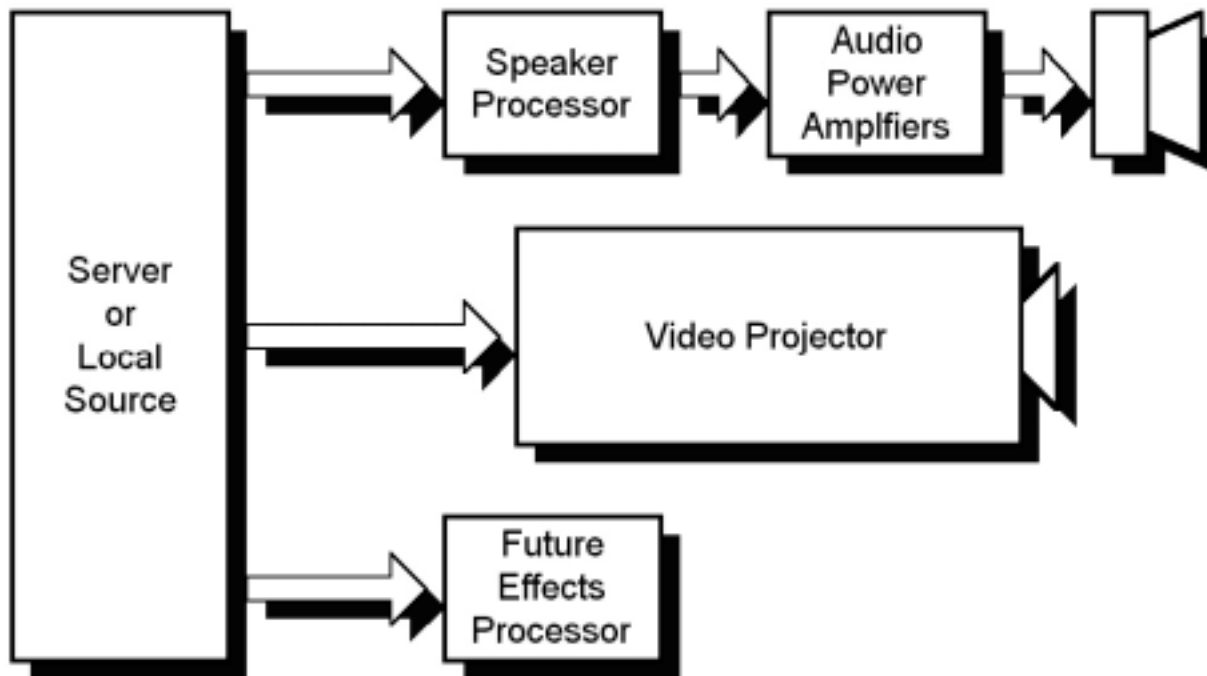


Screen System



- Projector
- Sound system
 - speaker processor
- Effects

System View: At The Screen



Interoperability



- Common media file format
- Networks tie the elements together

Security is a Requirement



- The media file must be encoded with a security key
 - The media file can be transferred as data, but a key is required to view or listen to it
- “Video to the projector cannot be RGB”

A Word About Security



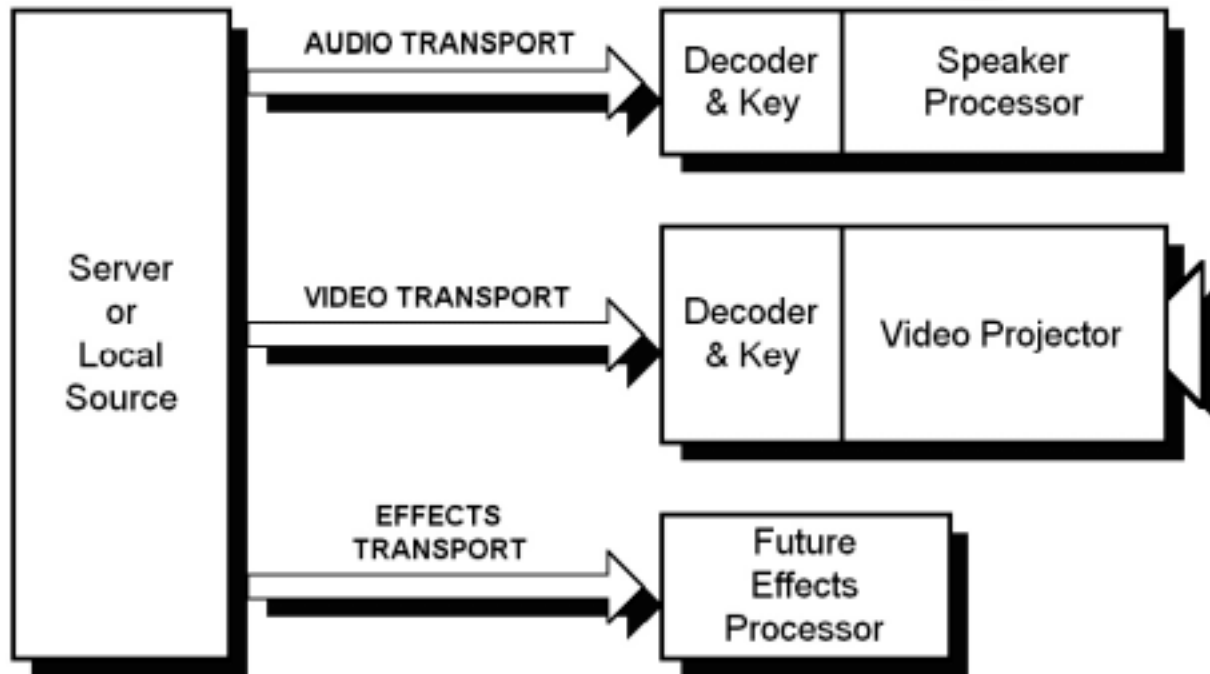
- The system itself has to be inherently secure
 - The cinema owner should not have to be concerned about media security issues
 - Media must be unreadable in the wrong hands

Network Security



- The media file will be transmitted across the network to the projector and sound system for real-time playback
- Projectors and sound systems will have the keys to unlock the files

Network and Security



The Real Key



- The key to bringing these technologies into the marketplace in a unified manner is *standards*

Where Standards Apply



- Media file
 - Encryption method
 - Security key

- Network
 - Technology type
 - How data is transported

Unified Format



- Standards = interoperability
- Interoperability = competition
- Competition = performance and value

Conclusion



- eCinema has the potential to bring new business to the cinema
- Standards are needed to ensure interoperability among components, encouraging competition and performance

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