



Central Canada Broadcast Engineers

September 18, 2010

Understanding the File-Based Transmission Process

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Information Technology and Broadcasting

TV Technology - June 23, 2004

“A new technology appears, revolutionizes its particular area, becomes a 'de facto' standard and promptly disappears into the background while being universally disseminated.”

TV Technology - February 22, 2006

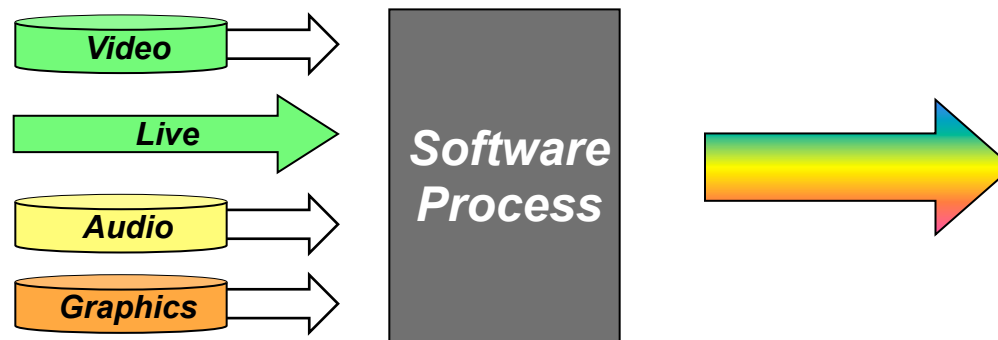
“Such is the case with IT in broadcasting. What was a novelty just three years ago is now standard. What, as recently as two years ago was innovation, is now second nature, and what was state-of-the-art last year is now part of your daily routine.”

André V. Mendes, PBS Chief Technology Integration Officer

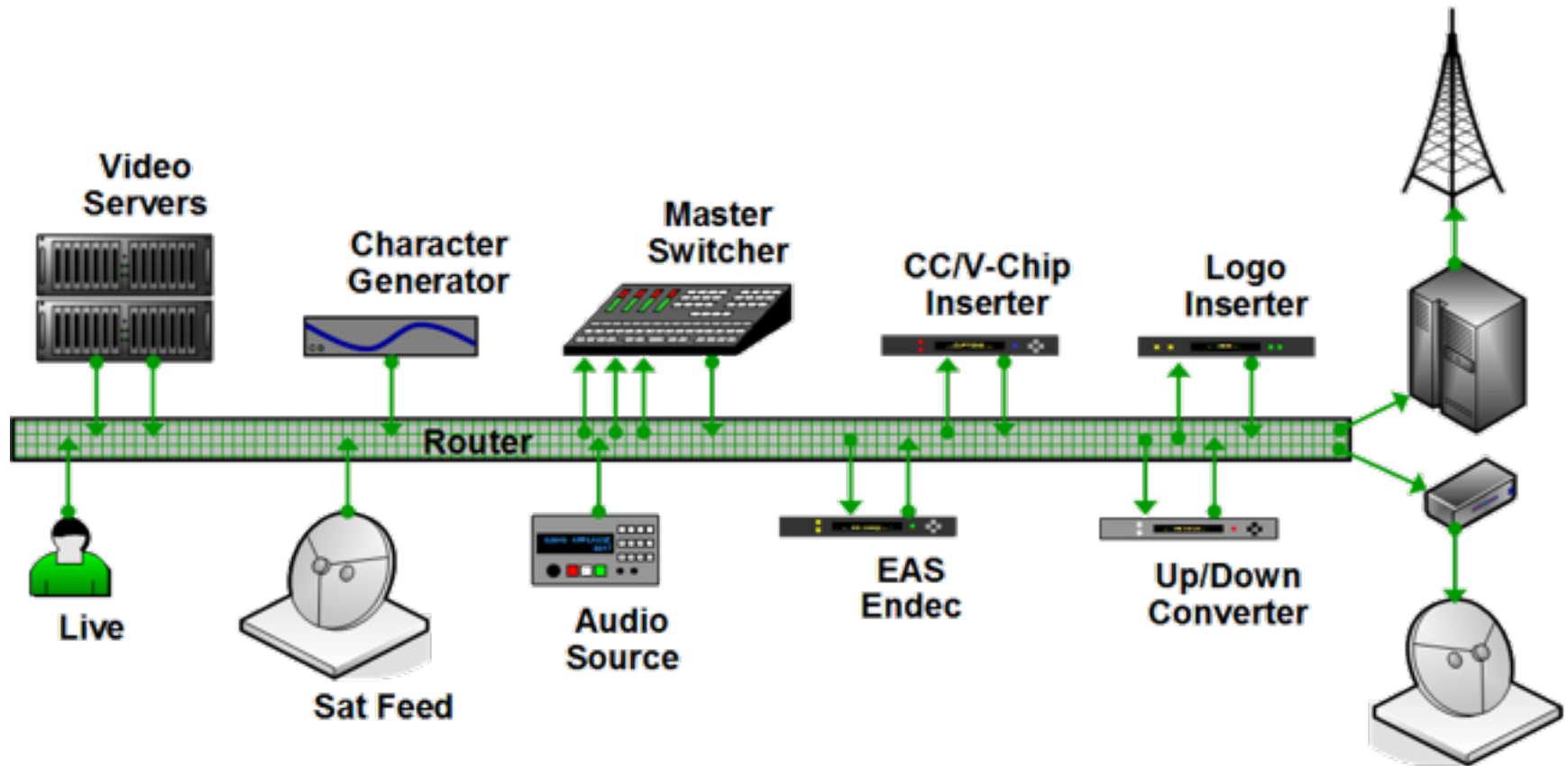
What is File-Based Transmission?

Using standard format digital content files in a software-based process to create a crafted transmission stream.

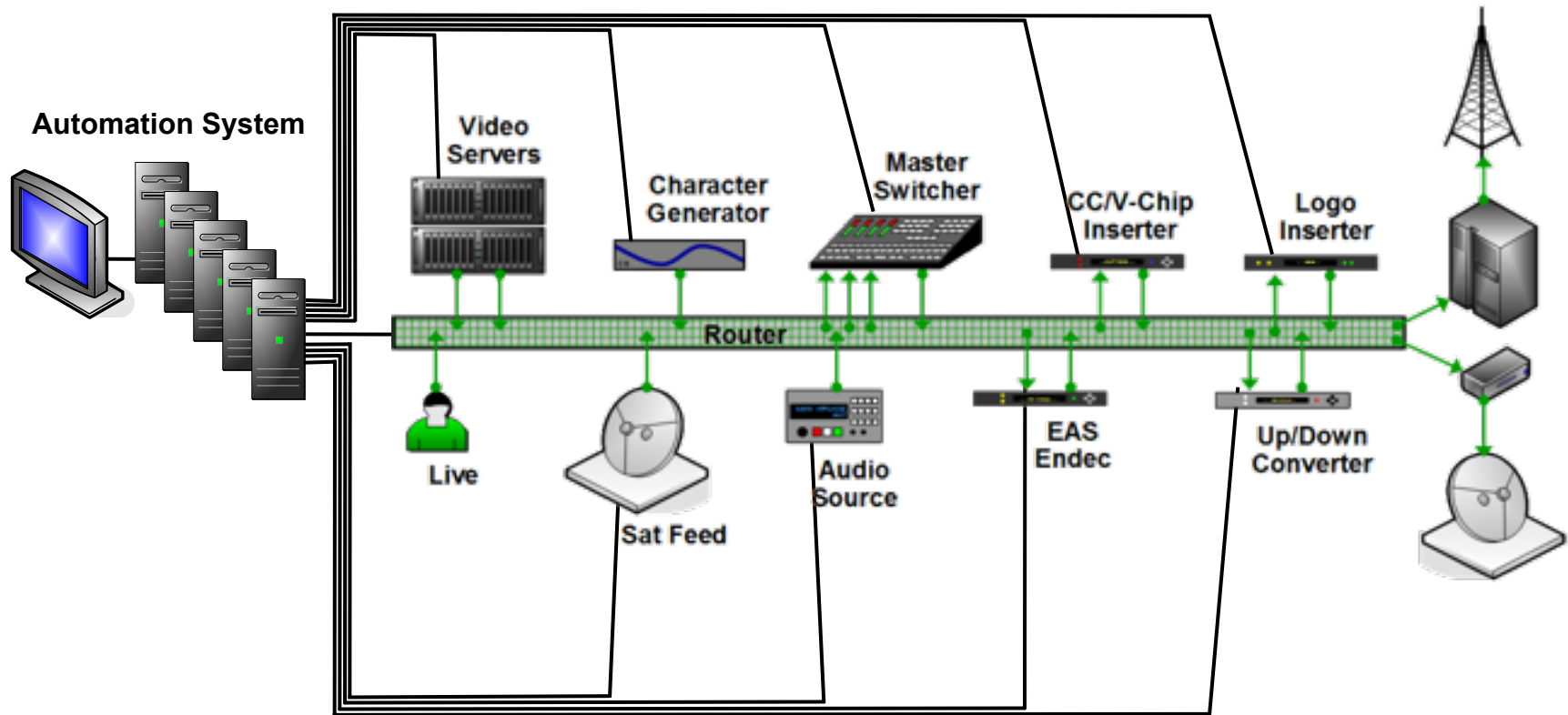
A “crafted” transmission stream combines recorded and/or live content, video/audio transition effects, and graphic/audio overlays in a pre-defined sequence to produce a desired Quality of Experience (QoE) for the viewer.



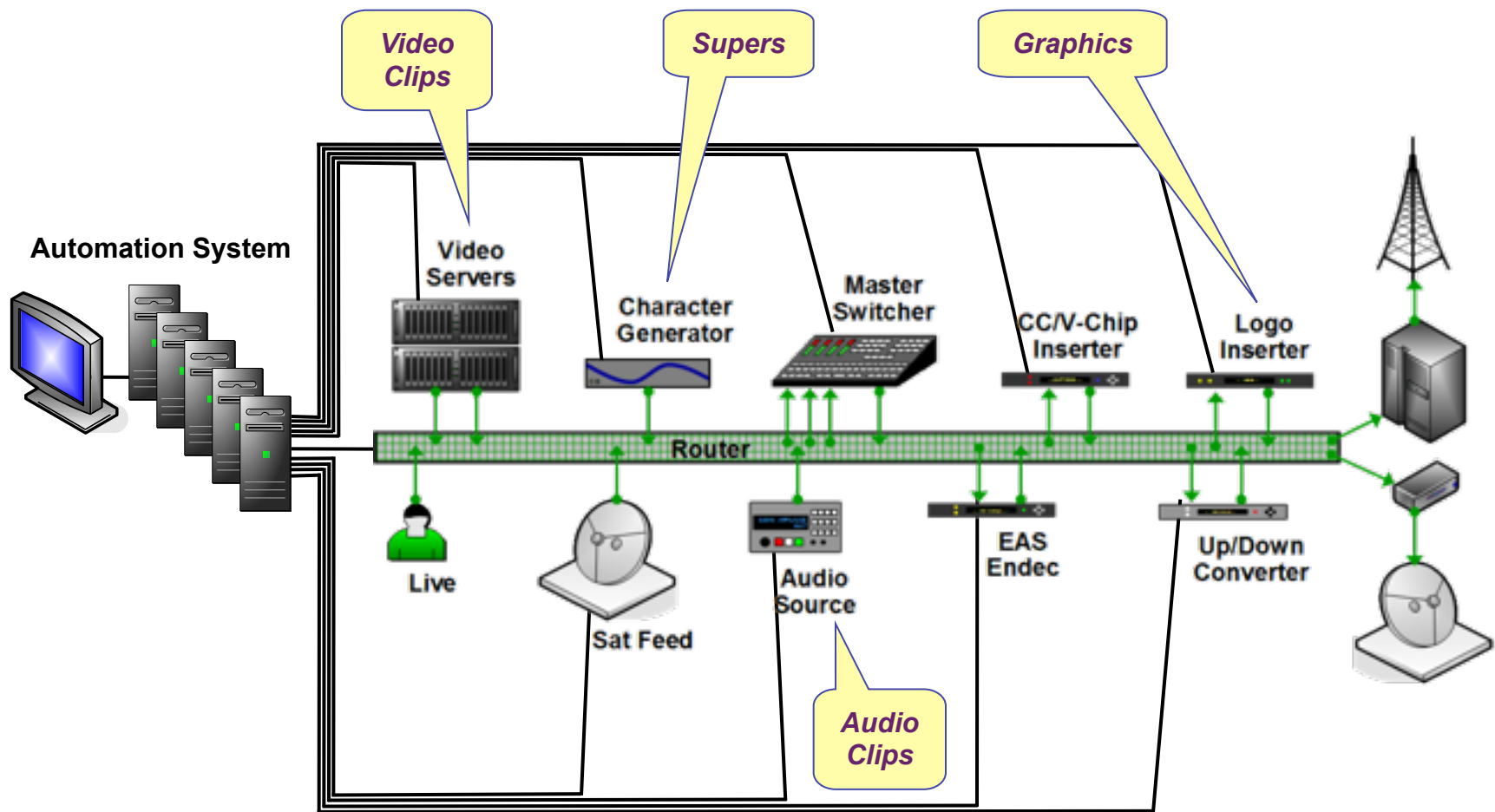
Broadcast Hardware-Based Transmission System



Broadcast Hardware-Based Transmission System

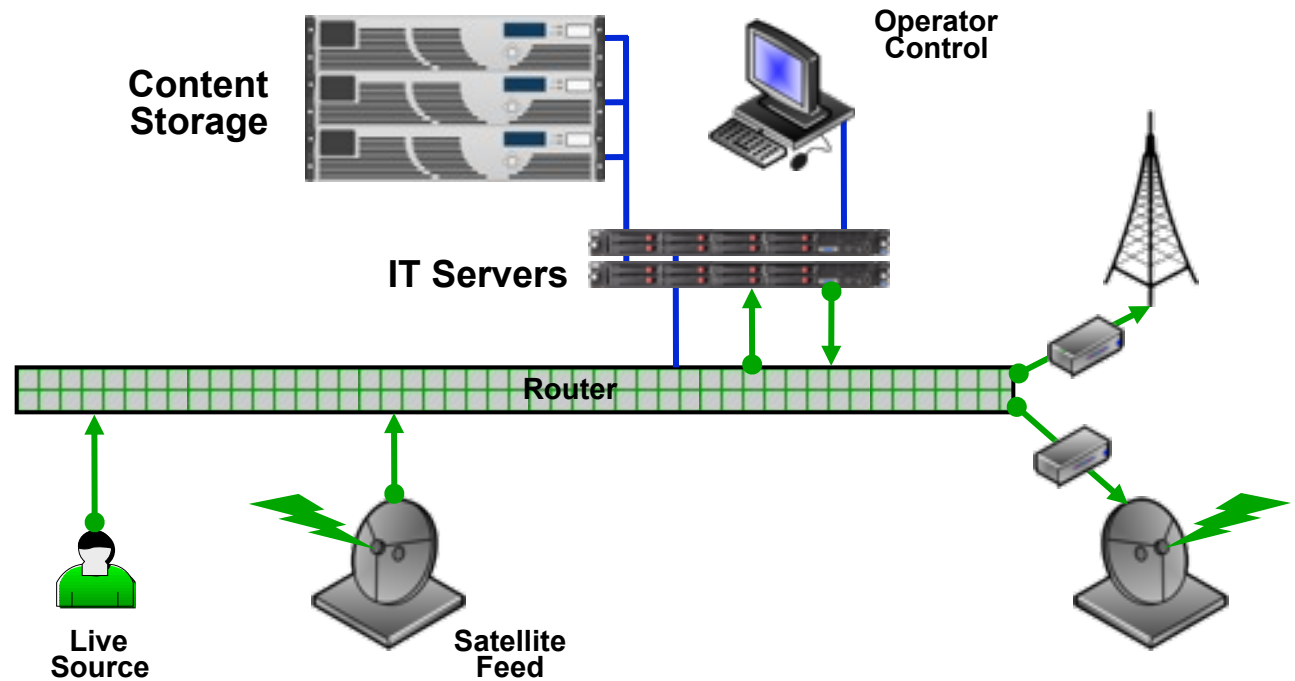


Broadcast Hardware-Based Transmission System

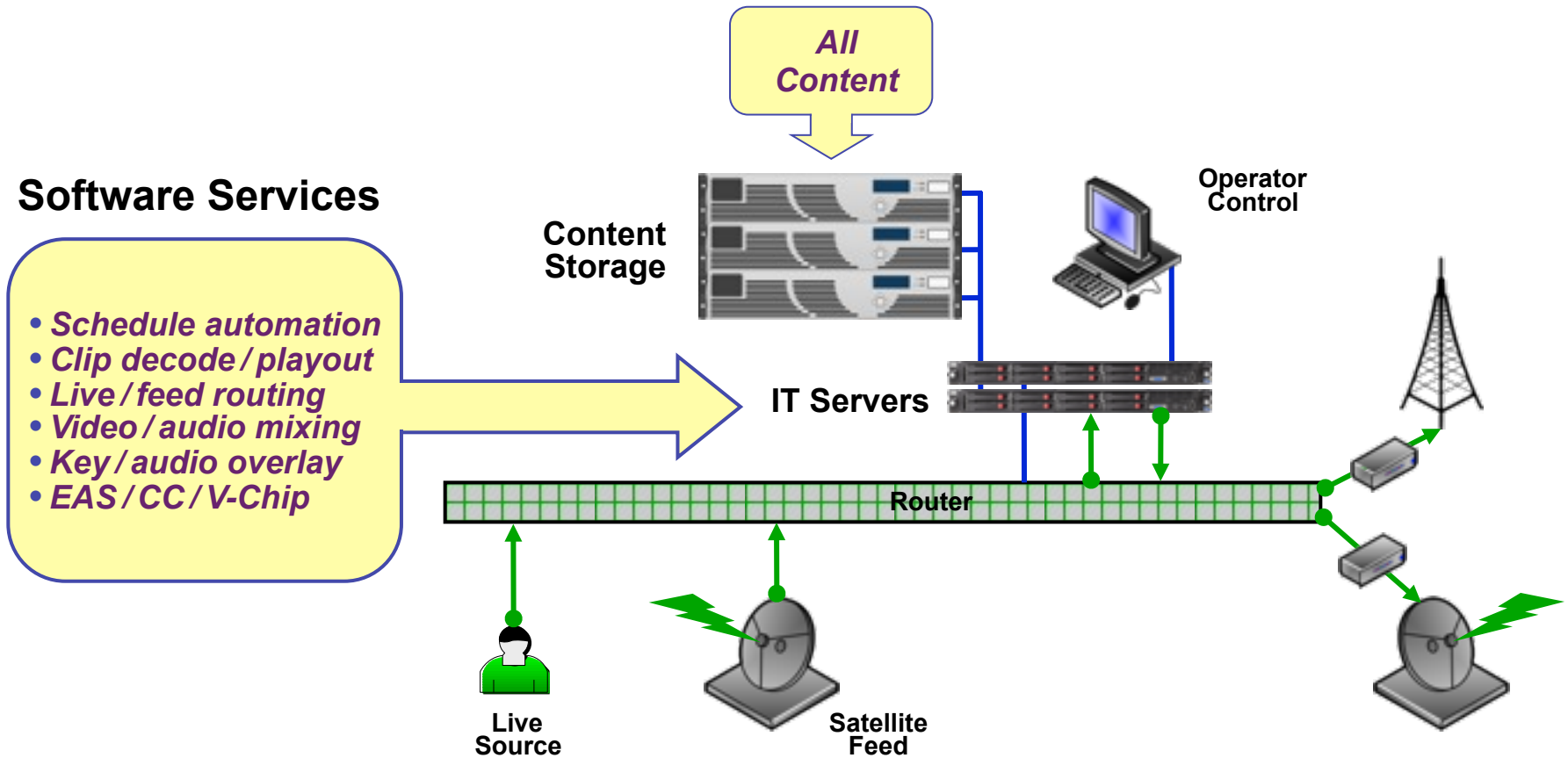


Multiple Content Storage Locations and Proprietary Formats

IT / Software-Based Transmission System



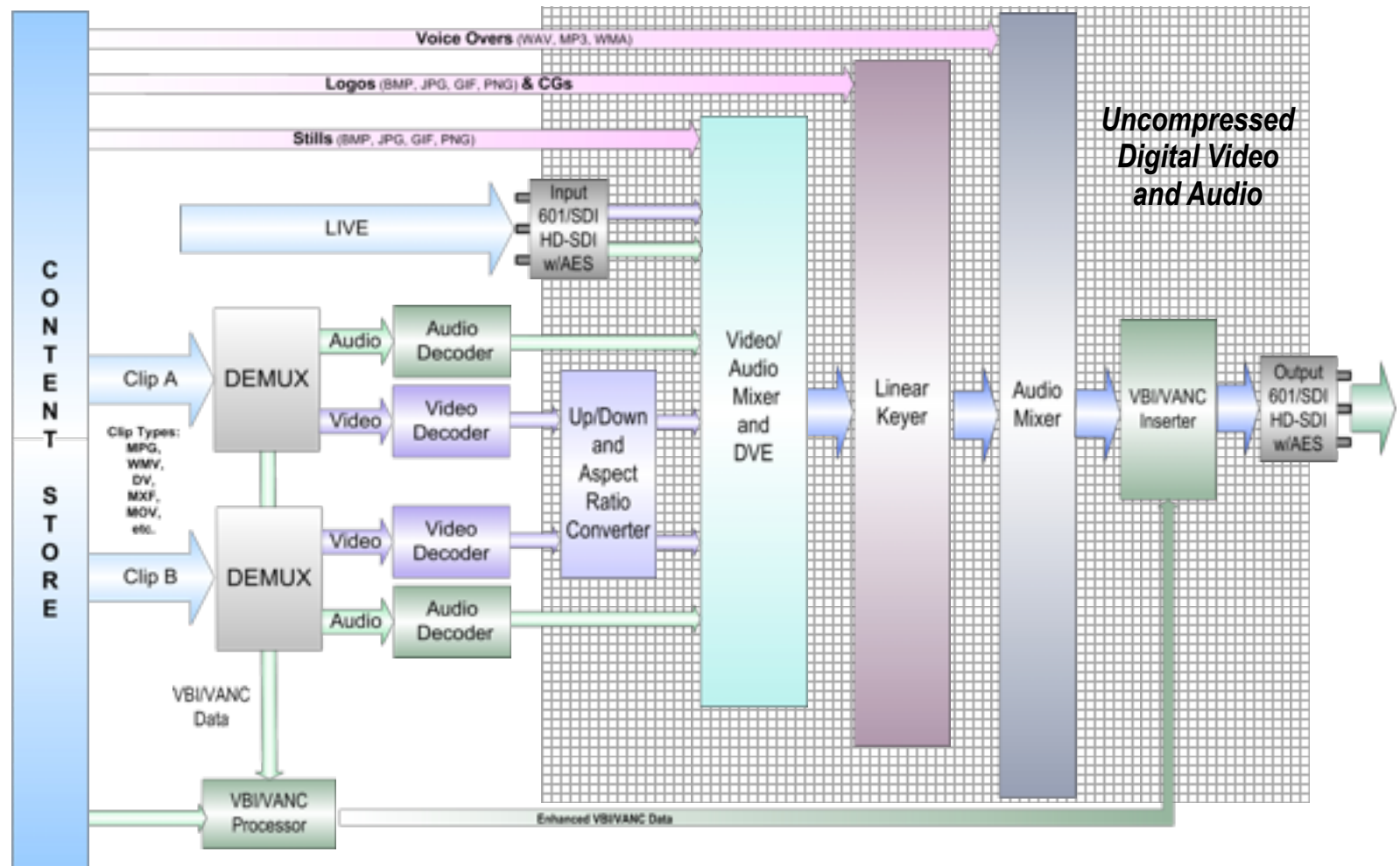
IT / Software-Based Transmission System



Centralized Content Storage in Standard File Formats

Software-Based Video/Audio Processing

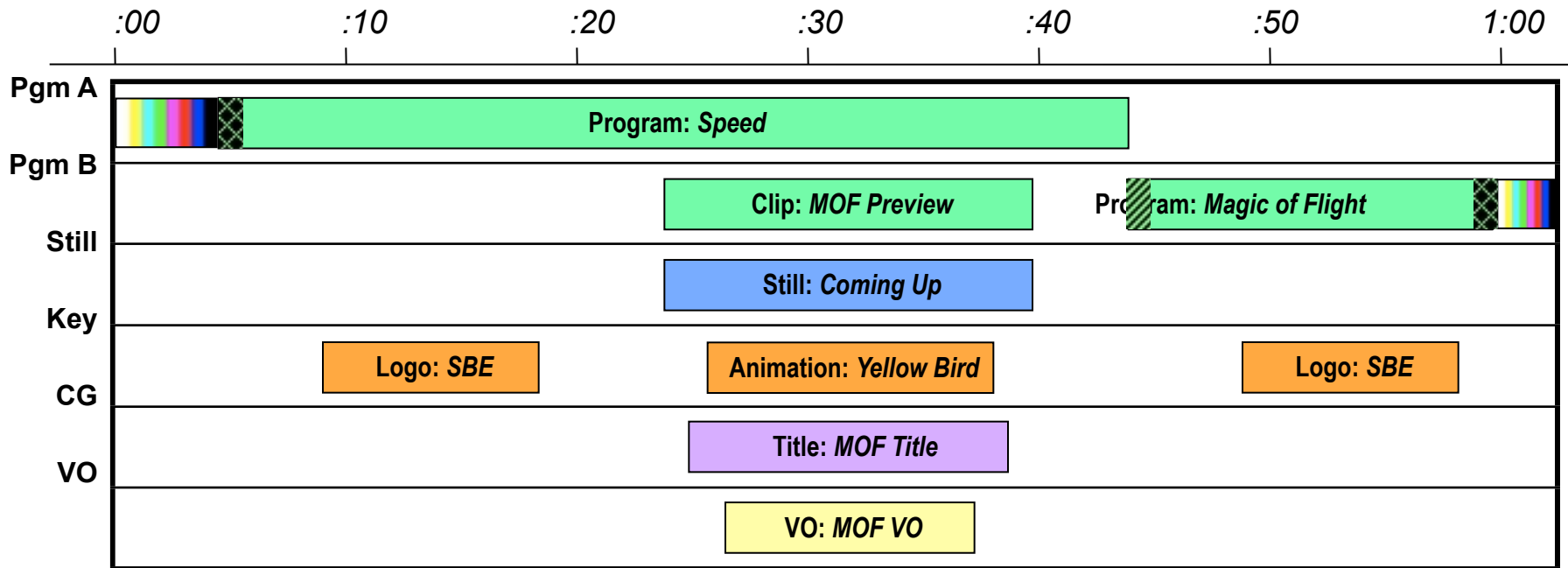
Software-Based Video/Audio Processing



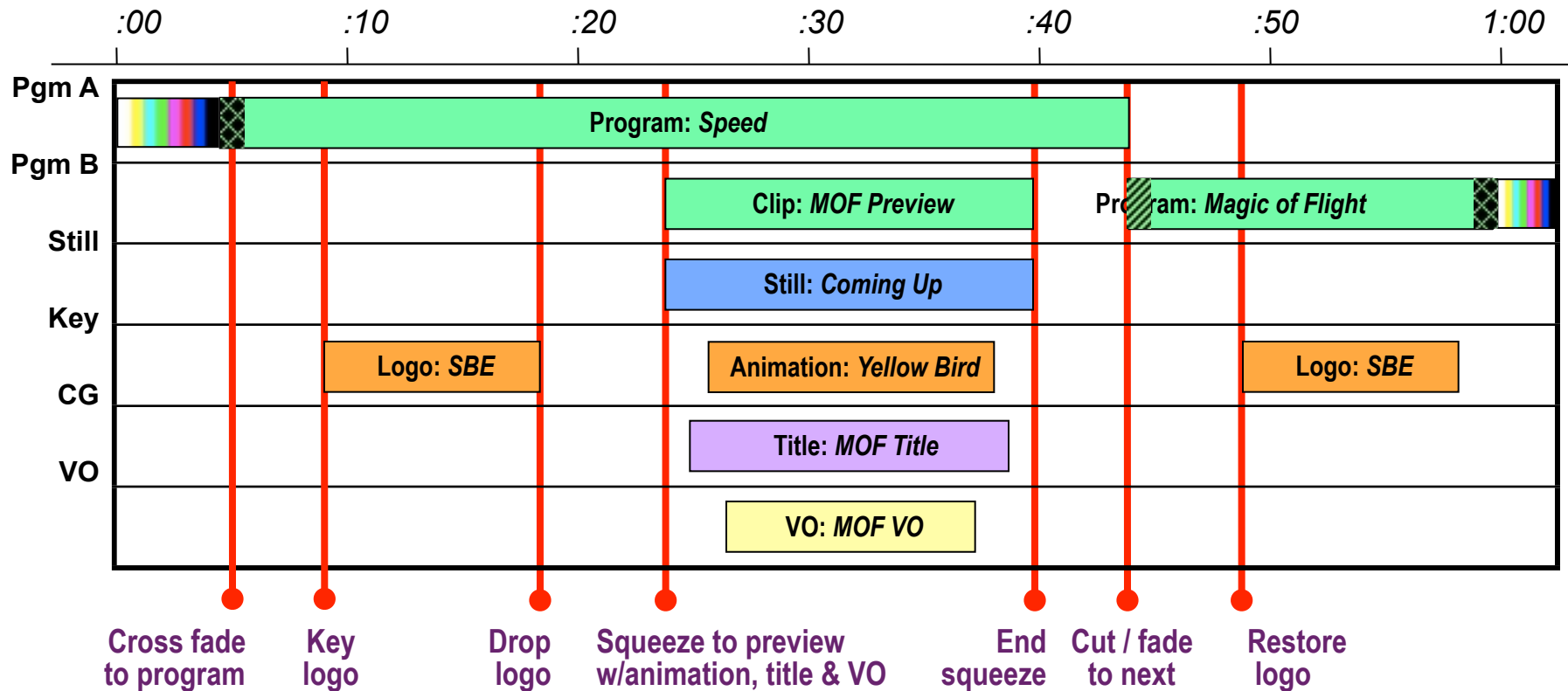
Sample File-Based Event Sequence

	Event	Transition	Content Type	Content File
1	<i>Play Program 1</i>	Cross Fade	Video Clip	SPEED.MPG
2	<i>Key Logo</i>	Slide Down	Still Graphic	SBE_LOGO.PNG
3	<i>Drop Logo</i>	Wipe Up		
4	<i>Preview Program 2</i>	DVE: Open Squeeze	Video Clip Still Background	MOF_CLIP_2.MPG COMING_UP_BLUE.JPG
5	<i>Key Program 2 Title</i>	Wipe Right	CG	MOF_TITLE.CAP
6	<i>Key Animation</i>	Play	Animated Graphic	YELLOW_BIRD.GIF
7	<i>Insert Voice Over</i>	Audio Over	Audio Clip	MOF_VO.MP3
8	<i>End Preview</i>	DVE: Close Squeeze		
9	<i>Play Program 2</i>	Fade Up	Video Clip	MAGIC_OF_FLIGHT.MPG
10	<i>Key Logo</i>	Slide Down	Still Graphic	SBE_LOGO.PNG

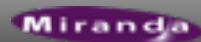
Sample File-Based Event Sequence



Sample File-Based Event Sequence



CCBE 2010 – Understanding the File-Based Transmission Process



Sunday, September 26, 2010

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Why IT / Software-Based Transmission?

- Reduced Cost of Deployment
Capital Equipment • Power • Cooling • Rack Space
- Simplicity of Workflow
Central Content Store • Standard File Types • Desktop Operation
- Scalability and Redundancy
1 Server = 1 Channel • 2 Servers = 1 Fully-Redundant Channel
- Leverage the Benefits of IT
Huge Market Size = Large R&D Investment → Rapid Innovation
“It’s easier to ride the horse in the direction it’s going.”



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www.omnibus.tv

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