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Taking control of your content security

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We’re good at security

- AES encryption is standard practice.
- SRT and RIST incorporate security measures.
- Industry-standard DRM safeguards content.
- **But have we accounted for every potential vulnerability?**
- Any weak link compromises the entire system.

Maybe we’re not so good at security

- **Cyber resilience declined by 30% in one year.**
- Large enterprises are improving, but SMEs are falling behind.
- Many media businesses are SMEs – **are they prioritizing security?**
- Security often takes a backseat in tough economic conditions.

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Why should we care about security?

- Content is valuable—protecting it is essential.
- Rights agreements and licensing must be upheld.
- Unauthorised access can create operational and legal challenges.
- A breach in video security may expose wider business infrastructure.
- A strong security framework ensures trust, compliance, and continuity.

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Think end to end

- Security must cover the entire video workflow.
- Risks exist in both physical and virtual infrastructure.
- Every device in the signal path must be assessed.
- Some encoders store sensitive data in plain text.
- Identifying and mitigating weak points is critical.

Passwords

- Reused passwords create a major vulnerability.
- A single exposed password can compromise everything.
- Convenience should never come at the cost of security.

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Physical Security

- **Security isn't just digital—hardware must be protected.**
- Remote production increases the risk of misplaced devices.
- Lost equipment can expose passwords and network access.
- If a device goes missing, what could an outsider gain?

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Virtual Machines

- Virtual machines aren't automatically secure.
- Open-source software relies on community updates, not a single authority.
- Underlying hardware may not be patched for security flaws.
- Regular security checks are essential.

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SSH

- SSH is not always as secure as it sounds.
- A breach anywhere in the network can turn SSH into a tool for attackers.
- Unchecked SSH relays can be exploited for DDoS attacks.
- **Are your SSH configurations secure?**

Control

- **Remote access = remote threats**
- Can critical equipment be operated without internet access?
- What happens if an outsider takes control?
- Think beyond video streams—protect the infrastructure.

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OS risks

Standard operating systems: Are they built for media?

- Linux, Windows, and other general-purpose OS platforms weren't designed for video security.
- Open-source software means constant updates—but also constant risks.
- Hardening helps, but version control and patching remain as ongoing challenges.

A better approach?

- A purpose-built media OS could simplify security and updates.
- Security must be baked in, not patched on.

Self-hosting

Public cloud vs. self-hosting

- Cloud services = shared infrastructure, shared risks.
- Self-hosting = control over security, data, and performance.

Why is this now viable?

- Storage and processing are more affordable than ever.
- A dedicated system removes reliance on third parties.

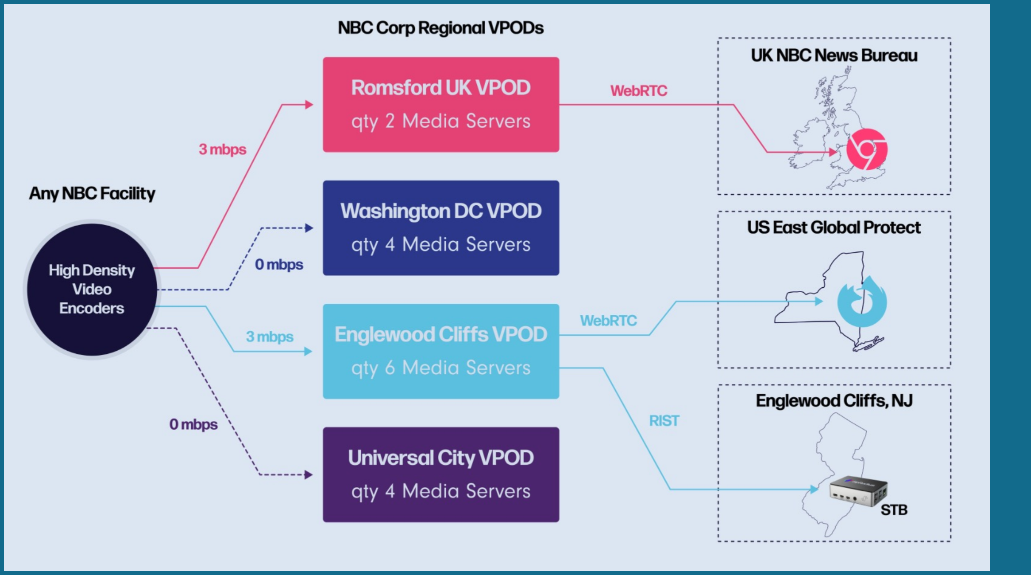
Efficient content delivery without traditional CDNs?

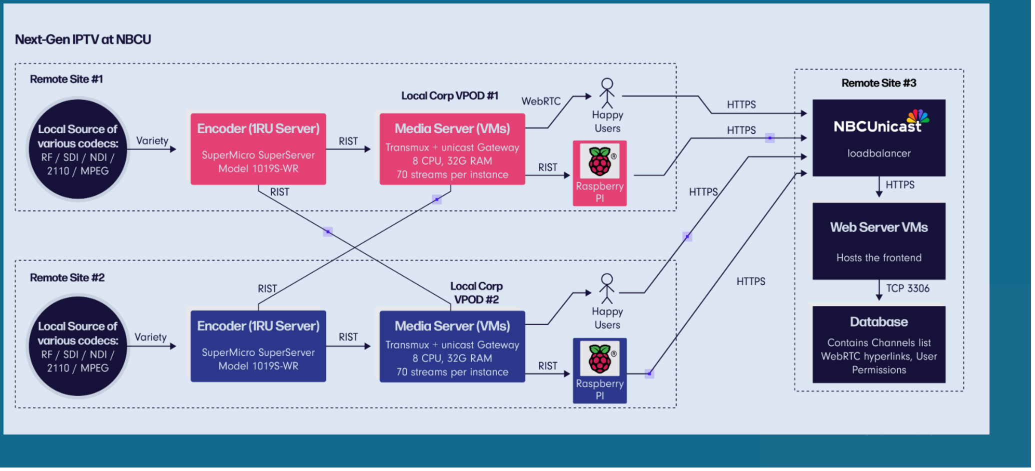
- Smart design + UDP = low-latency, scalable distribution.

Use case: NBCUniversal

Overview

- NBCUniversal needed a secure, real-time media distribution system across its global hubs.
- SipRadius designed and implemented a custom, end-to-end solution that enables:
  - Real-time, encrypted content sharing across global sites.
  - RIST-secured media transport from creation to playback.
  - Optimized performance with custom OS & COTS hardware.
- The result? NBCUniversal now trusts SipRadius with its most valuable content.





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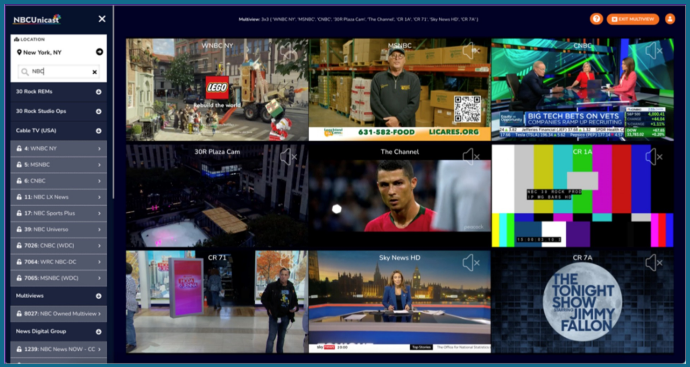
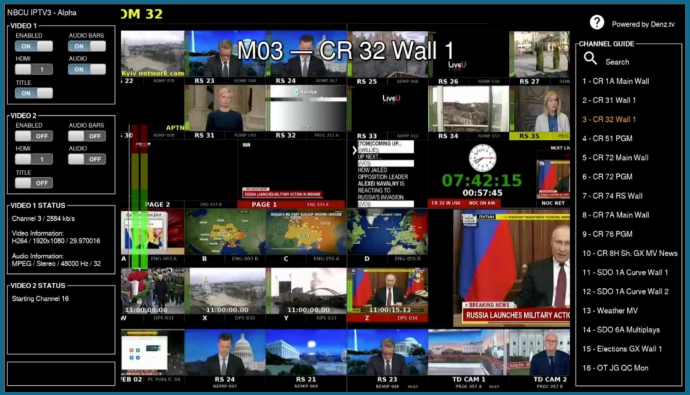
Use case: NBCUniversal





VIDEO 1
ENABLED: ON
AUDIO BARS: ON
HDMI: 1
AUDIO: ON
TITLE: ON

VIDEO 2
ENABLED: OFF
AUDIO BARS: OFF
HDMI: 1
AUDIO: OFF
TITLE: OFF

VIDEO 1 STATUS
Channel 3 / 2884 kb/s
Video Information:
H264 / 1920x1080 / 29.970016
Audio Information:
MPEG / Stereo / 48000 Hz / 32

VIDEO 2 STATUS
Starting Channel 16

Key details

Challenge

- Secure, high-quality content sharing between Los Angeles, New York, and London.
- Required low-latency access to both uncompressed and compressed video.

Solution

- RIST-encrypted transport with end-to-end security.
- Custom OS + COTS hardware handling 21 streams per workstation.

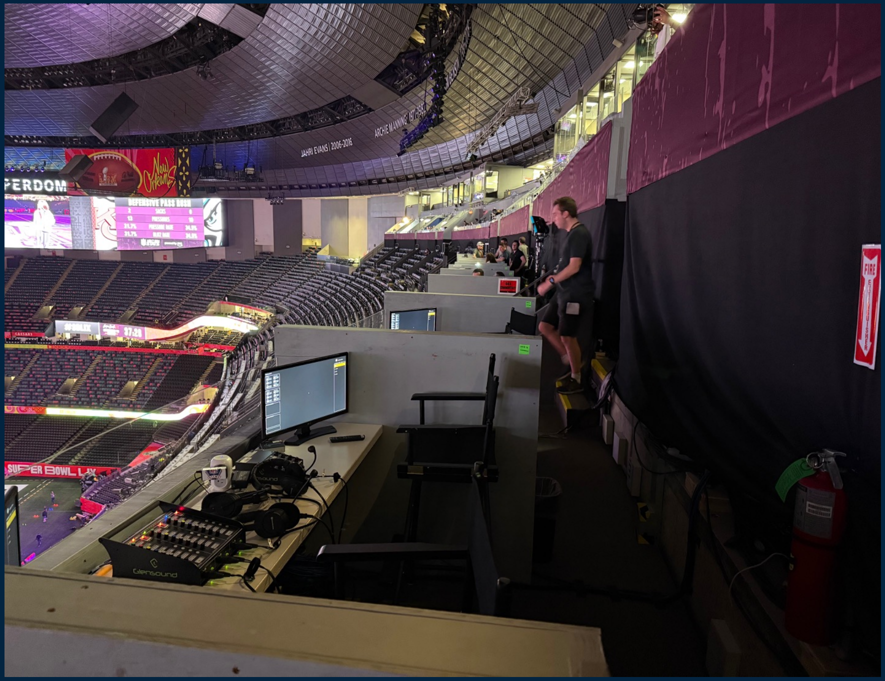
Result

- <1s latency, fully encrypted media distribution.
- Remote access protected via WebRTC + DRM.

Use case: Super Bowl

Overview

- Live sports coverage demands speed and security—and nothing tests those limits like the Super Bowl.
- BSI needed a secure, low-latency infrastructure to distribute multiple live feeds and enable remote commentary with sub-second synchronization.
- SipRadius provided a solution that:
  - Enabled on-site commentary from multiple locations.
  - Ensured sub-second latency for real-time sync.
  - Protected all streams with AES-256 encryption.
  - Delivered with custom OS.



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Use case: Super Bowl

Key details

Challenge

- Deliver World, Fox and Statistic feeds securely and in real time to support low-latency on-site commentary.

Solution

- RIST-secured media transport for uninterrupted, encrypted delivery.
- Seamless feed distribution to on-site commentary positions inside and outside the stadium plus VIP booth distribution.
- Distribution to NFL Films compound/ trucks.
- Additional AV1 WebRTC was also made available for browser playback.

Result

- Sub-second latency ensured real-time commentary.
- Stable, secure, and scalable infrastructure.
- 75 end points connected.

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Conclusion

Security in video streaming isn’t optional—it’s essential.

A single weak point can compromise your content, infrastructure, and reputation. The right security measures ensure resilience, reliability, and control over your workflows.

Download the SipRadius Security audit checklist

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Thank you

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