MDOT ITS VIDEO MIGRATION PROJECT
NRITS 2011

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PROJECT BACKGROUND – BEGINNINGS

- MDOT ITS Video distribution in the beginning
PROJECT BACKGROUND – SYSTEM GROWTH

- System state prior to migration

2005

2008
Distribution
Internally and externally
- MDOT Northwest Regional TMC
- MDOT Statewide TMC
- MDOT Hattiesburg Regional TMC
- City of Oxford TOC
- City of Hattiesburg TOC
- MDOT Gulf Regional TMC

Other:
- City of Jackson TOC
- MS MEDCOM Center
- Pearl River Valley Reservoir Center
SYSTEM REQUIREMENTS

- Allow for future growth
- Streaming video in TMCs
- Streaming video to the public and partners
- Small footprint – Hardware, Space, bandwidth
- Stream-lined design
- Increase reliability
- Increase availability of video
- Simplify topology and technology
Typical multicast setup. Network must be able to and configured for multicast video.

In Mississippi we do not have the ability to multicast across our leased lines.
HIGH LEVEL SOLUTION

- IP Solution
- H.264 Video Format
- Unicast Streaming
- Real Time Streaming Protocol (RTSP/RTP)
- Media Servers for distribution
- Decentralized Video
- Less Equipment, Lower Cost, Higher Efficiency
Using the Video Distribution Server to act as the router/switch to mimic multicast functionality with unicast streams.
SOUTHAVEN TMC BEFORE MIGRATION
SOUTHAVEN TMC AFTER MIGRATION
MSTRAFFIC.COM & TIMS WEBSITE
NEW PARTNERS AND MOBILITY

Hattiesburg EOC w/ 55” LCD

Tablet PC for mobile Viewing

Tablet PC using TIMs Website in vehicle
MULTI-PLATFORM STREAMING H.264
LIVE STREAMING VIDEO
SAVINGS - EQUIPMENT

- Jackson TMC Equipment Room Space
  + Approx. 10 96" Equipment Racks Freed
SAVINGS - HEAT AND ELECTRICITY

- 92% Reduction
- 38,762 Watts to 2984 Watts
- 122,665 BTU to 8311 BTU
SAVINGS - $$$

- 100 Camera Project – $176K Saved
- $1,760 per Camera now saved
- No cost to partners through TIMs
- $38,000 / yr in Electricity
SAVINGS – CARBON FOOTPRINT

- Reduced Carbon Emissions by 264 Metric Tons
  $CO_2/yr$
- Equivalent to:
  + 65 Round Trips from Jackson, MS to Tokyo Japan
  + 29 New Ford F-150 Pick-up trucks for 1 year