

# Expandable Theatre Networking Systems

Harry Mathias

cto / ceo

**DCMP Consulting Inc.**

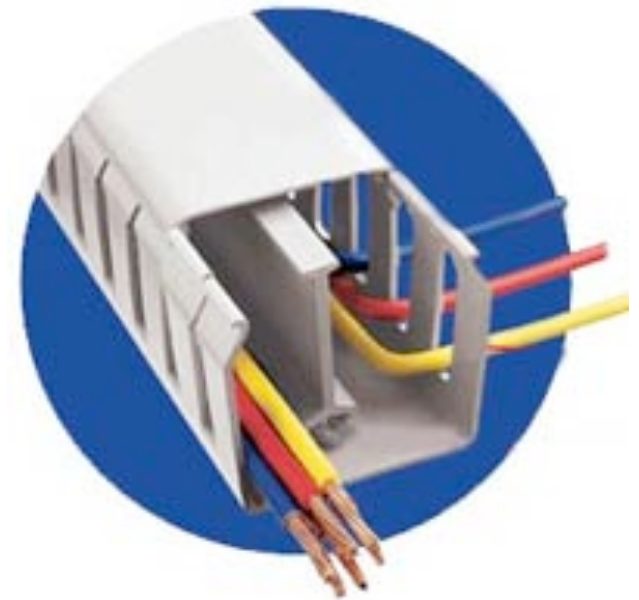


Planning an architecture for  
Cinema Advertising that can  
grow to a Multiplex-Wide  
D-Cinema System



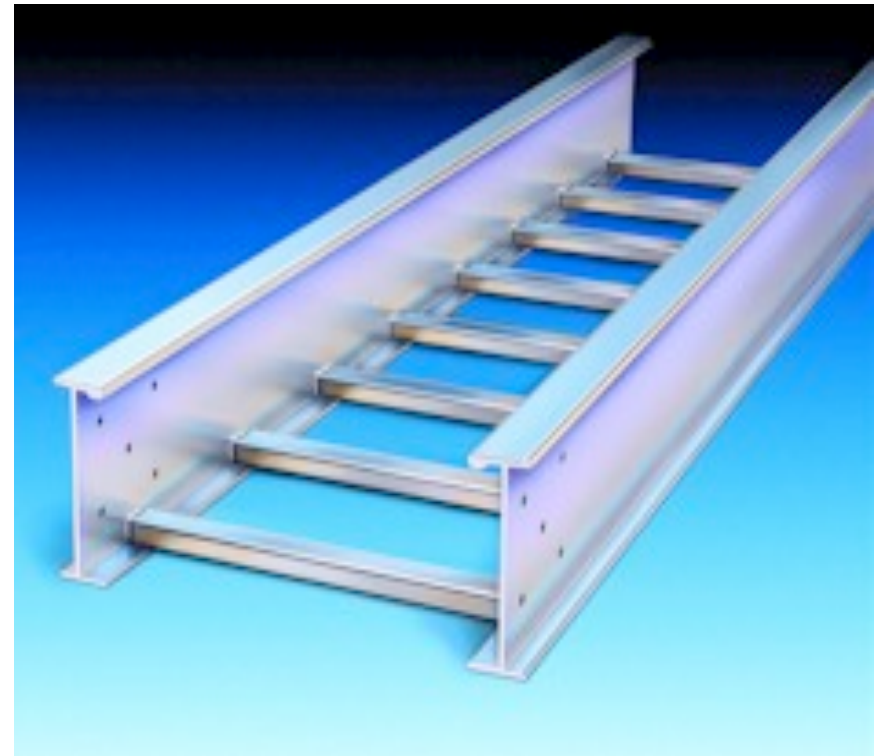
# Theatre Network Planning

- Modern cinema office computers may have internet access, but not the booth.
- Most cinemas currently have modem dialup internet access in the booth, at the *very most*.



# Flexible & Future-proof Mechanical Layout is the Key

- Network cabling the multiplex is labor intensive, but low in materials cost.
- If good planning is done in advance, then high speed hubs and routers can be added, as needed, and at low labor cost.



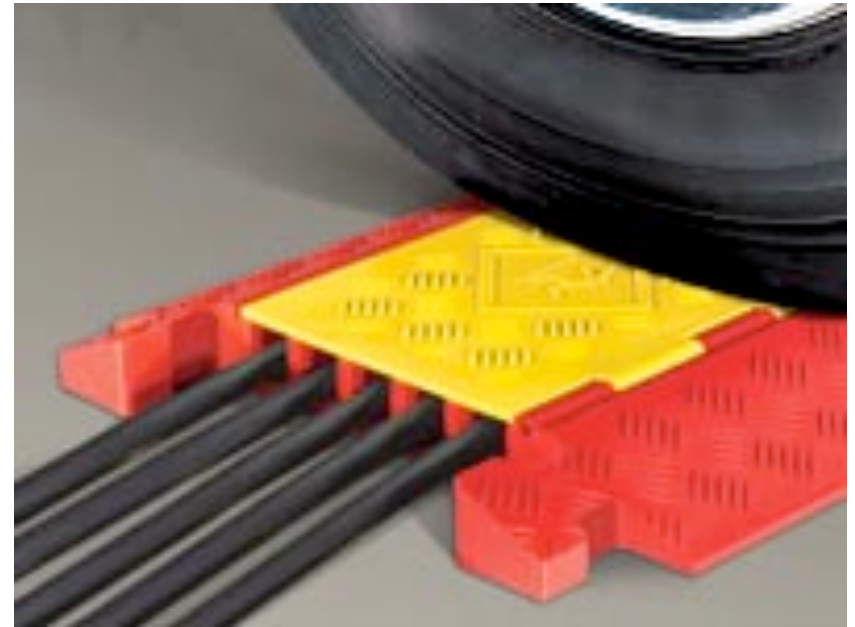
# Flexible Future-proof Mechanical Layout is the Key

- The cabling should be “home run”, with each screen cabled to the office or central equipment closet.
- If Ethernet cabling is used then it should be high quality and at least Cat6 rated for Gig-E speeds.
- Of course analogue & CobraNet audio cable can also be run on these raceways.



# Cable Crossing Floor...

- If network or an HDSDI Coax must cross the floor cable crossings should be used.
- Floor crossings are common from wall to projector pedestal, for example.



# Fibre Channel Advantages...

- Fibre Channel based networks are desirable for high speed uses such as D-Cinema content or central content storage.
- Fibre Channel networks are not affected by “dirty” booth power or projector lamp strikes, because they are optical data links.





# Fibre Channel Advantages...

- ▶ Installing Fiber Optic Systems is similar to installing twisted-pair cable.
- ▶ Fiber Optic Cables have excellent pull strength, and they have considerable resistance to crushing and cutting. Their flexibility makes them exceptionally easy to handle.
- ▶ Fiber Optic Systems do not degrade in performance, or bandwidth even in a long-term installation.





# Central Storage or NAS



- If D-Cinema content is stored in a secure central storage NAS system, then a high speed Fibre Channel networking system in the theatre is highly desirable.
- If this is not done at first, allowing for it's future deployment is wise planning.



# Skilled Network Cabling People...

- If you investigate the network cabling business, you will find a great many highly-skilled people in this well-established industry.
- It is very common today to use Cat6 wiring for both office computer networks, and for office telephone systems.
- As a result tools, materials, and system test equipment are now readily available, and not expensive.

Thank You

