

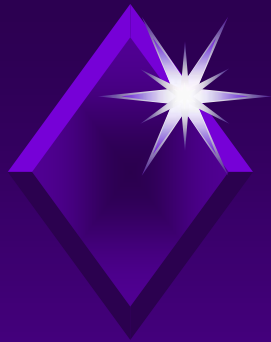


*Institutional Networking
and the Cable System*

...addressing the First Mile Challenge!

CENIC Annual Conference

May 7, 2003



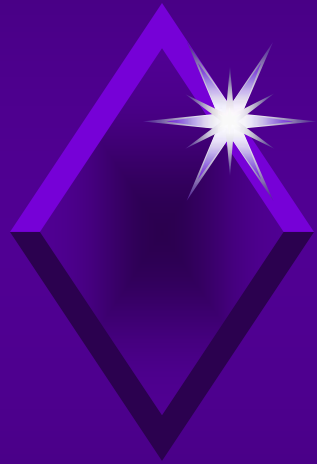
What we'll cover...

- ◆ Cable opportunities
- ◆ The Monterey I-Net
- ◆ Cable Franchise renewal process
- ◆ Your questions...



Cable Opportunities...

- ◆ High capacity, 2-way telecommunications systems
 - ◆ video, data (including Internet), voice
 - ◆ opportunity for Institutional Networks
- ◆ Increased channel capacity and program content
- ◆ Possible additional revenue for City
- ◆ PEG access (channel capacity and resources)



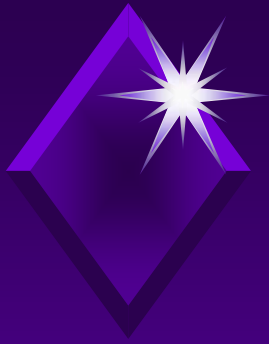
The Monterey I-Net

*Have you hugged
your packets lately?*



Monterey's I-Net...

- ◆ Links City, other governmental agencies, MPUSD, other qualifying assets (60 sites)
 - ◆ partner missions/interests vary considerably
- ◆ Voice, Video, Data
 - ◆ telemetry applications
 - ◆ Internet Connection
- ◆ Incremental Cost pricing model
 - ◆ we ended up getting it for free
 - ◆ all costs will be “going forward” costs
- ◆ City is *initial* management entity



What is it?

- ◆ 2 switch locations connected via redundant backbone
 - ◆ will expand into neighboring communities (and, potentially, interconnect with neighboring regions)
- ◆ 6 strands of fiber from one of the switches to each site
- ◆ Gigabit Ethernet
- ◆ Video System
 - ◆ cablecast to PEG channels
 - ◆ Video on demand, internally and to the Internet
- ◆ Internet Connection



Implementation Status

- ◆ All fiber in Monterey placed, Core switching activated
- ◆ City's sites activated
- ◆ Activation of other sites in process
- ◆ Connection to OMC/CSUMB complete
- ◆ Internet connection
 - ◆ CENIC via MPC complete
 - ◆ CENIC via CSUMB this Summer
- ◆ Network in service for live video
 - ◆ AMP has ordered its digital cablecast/streaming/VOD platform



Internet opportunities...

- ◆ Local government, education, military, and research assets can collectively leverage an Internet connection that outstrips any organization's individual service capacity or ability to pay
 - ◆ Higher service levels at less than today's service costs
 - ◆ This can be the vehicle to bring Internet2 to the local research/education community
- ◆ I-Net address our "first mile" challenge in an affordable way
- ◆ We've only just begun...
 - ◆ discussions continuing
 - ◆ CSUMB is the cornerstone in the mix



What is the cost?

- ◆ Installation of initial fiber and electronics was paid for via liquidated damages settlement!
 - ◆ We originally planned to pay about \$420,000, or about \$10,000 per site
- ◆ All costs are now “going forward” costs...
 - ◆ Network management, Cisco maintenance, renewal of core switching = \$150/month per site
 - ◆ Internet connection costs are driven by capacity desired
 - ◆ 10 megabit guaranteed (burstable) about \$650/month
 - ◆ 1 megabit guaranteed (burstable) about \$80/month



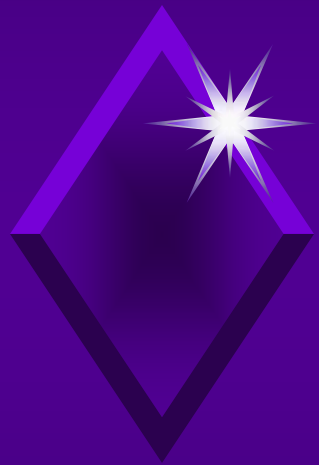
Bells and Whistles...

- ◆ Video opportunities in-process
- ◆ Voice services over the I-Net likely
- ◆ Wireless applications coming, including telemetry
- ◆ ??????????



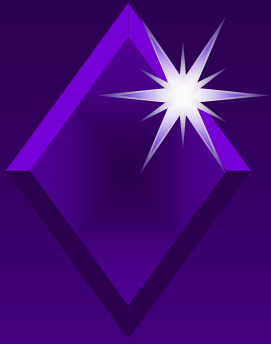
What are the next steps?

- ◆ Continue I-Net Activation
- ◆ Finalize User Agreements and Internet cost sharing
- ◆ Steering Group Formed
 - ◆ Standing Committees on Internet/Network Management, Outreach, Video/Rich Media, Wireless
- ◆ Continue the dialog
 - ◆ Substantial coordination required to grow the I-Net throughout the region *and* interconnect it with similar networks in neighboring regions
 - ◆ Numerous opportunities for partnerships spanning multiple disciplines



Franchise Renewal 101

The short course...



What's a Franchise, anyway?

- ◆ A contract permitting the use of public rights-of-way to conduct cable operations
 - ◆ describes type, quality, and level of service
 - ◆ details other conditions, arrangements, and obligations
- ◆ Franchising authorities have an obligation to ensure appropriate use of public rights-of-way
 - ◆ public is entitled to things in return
- ◆ Franchises are non-exclusive
 - ◆ obligation to maintain a level playing field



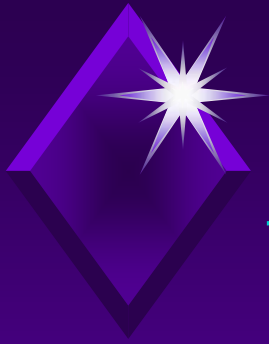
Cable Enabling Ordinance

- ◆ Applies to any/all operators in jurisdiction
- ◆ Minimum system, program, and PEG requirements
- ◆ Procedures for applications, transfers, and terminations
- ◆ Conditions of street occupancy
- ◆ Minimum customer service requirements



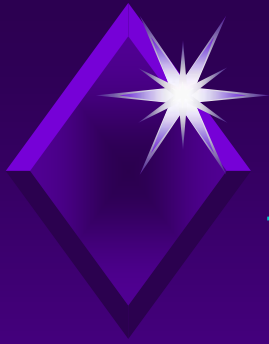
Formal vs. Informal Process

- ◆ Formal renewal process is precisely defined in Federal law
 - ◆ Ascertainment, proposals, review / decision
- ◆ Most franchises are handled via informal process
 - ◆ best to use elements of both
- ◆ Formal process begins 30 to 36 months prior to expiration of current franchise



Ascertainment...

- ◆ Includes...
 - ◆ performance review under current franchise
 - ◆ technical, financial, customer service, compliance issues
 - ◆ assessment of future community needs and interests
- ◆ This is a very important step in the process!
 - ◆ legally required for Formal process
 - ◆ just as essential in “informal” negotiations



Ascertainment Tools

- ◆ Review the file
- ◆ Engineering Studies
- ◆ Fiscal Analysis
- ◆ Surveys
- ◆ Focus Groups
- ◆ Public Hearings
- ◆ Other...



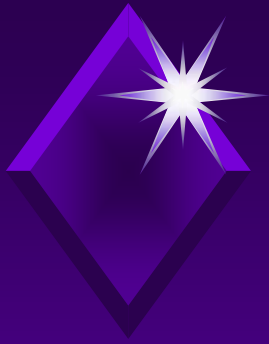
What's Next?

- ◆ Informal negotiations
and/or...
- ◆ Resumption of formal process
 - ◆ Request for Proposals (RFP)
 - ◆ Receive/review proposals
 - ◆ Decision



When can you deny renewal?

- ◆ Not often!
 - ◆ Never via informal process
- ◆ During formal process, for the following reasons...
 - ◆ demonstrated noncompliance with substantial terms of current franchise
 - ◆ quality of service
 - ◆ financial, legal, or technical inability to deliver service
 - ◆ proposal does not meet community needs/interests, considering cost



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