City of Beverly Hills
David Schirmer, CIO
Fiber to the Premise

• What is it?
  – Residential offering
    • 1 Gigabit per second
    • $55 per month
    • Single family / multi family
    • Voice and video as add on
    • No installation fees*
  – Commercial Offering
    • Variety of tiered plans
    • Additional costs
Business Drivers

• Why fiber to the premise?
  – Economic development, innovation, future proof
  – Education, digital divide, being left behind
  – Concerns over existing providers
  • Speed, price, customer service

Maximum Speed by Tier
Bevery Hills, CA

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1000
Importance of Capacity

- Anticipated demand for bandwidth

Source: Nokia Solutions and Networks analysis, 2014
Other Municipalities

- 83 communities with comprehensive FTTP systems
- 185 with partial systems
• ~2001: ‘Talk’ of purchase of Adelphia’s system
• ~2002: Municipal Area Network construction
• ~2008: School District first client
• ~2010: Working with incumbents
• ~2014: Feasibility study undertaken
• ~2015: Council approved finalizing design
• ~2016: Design Complete
• ~2018: Construction
Feasibility Study

• Determine financial impacts of deploying fiber
  – Build baseline financial pro forma
  – Evaluate sensitivities and alternate scenarios

• Market Research / Revenue Model
  – Demand estimates based on results of primary market research
  – Product, packaging and pricing strategies based on competitive analysis of local market
Feasibility Study (cont.)

• Operating Expense
  – Combined local costs and existing deployment experience

• Capital Budget
  – Capital budget based on sample designs for local neighborhoods
  – Unit costs based on local construction rates and recent client bid results
Market Research Findings

• Statistically valid survey results
  – Greatest area in need of improvement is speed (42%), followed by lower price (29%)
  – 65% of respondents ‘definitely’ or ‘probably’ switch
    • Revenue model assumes much lower adoption rate
  – Dissatisfaction with current providers
  – 86% internet adoption rate, 79% recognize the importance of bandwidth
Financial Analysis

• The project is financially viable
  – Project achieves positive cash flow in Year 5
  – Project is net cash positive in 15 years
Cash flow with debt service ($M)
Time Frame

- Continue construction: Jul 2018
- Beta customers: Aug 2018
- Launch: Fall 2018
- Construction completion: Fall 2020
The Design

• Engineered to 100% utilization
  • Anticipated 35% to 50% uptake
    • ~50% available for City use
  • 25% set aside for 2-10 Gb/s
The Design

- Design topology
  - ~55% overhead using electric utility
  - ~30% to use existing conduit
  - ~15% micro trenching, directional boring
Staffing

• Initial staffing model in place (up to 20 FTEs)
  – Initially using out-sourced model
  – Top-tier personnel to be insourced
Laterals

• Multi Family
  • MFR account engineer to negotiate with owners on best path
    • Single MPOE with risers up to units preferred

• Commercial
  • Commercial account engineer to negotiate with owner
    • Build to telco closet, riser to suites
Lessons Learned

• Utilize public steering committee
• Understand process for attaching to poles
  – Conduct early pilot project
• Require local experience from design engineer
• Conduct construction methodology pilot
• Design from premise upstream
• Setting appropriate expectations
• Utilize communications plan
  – Web, video, news, door-to-door, mail
Fiber to the Premise

Thank you.

Beverlyhills.org/fiber