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ATTORNEYS AT LAW

Franchising is MORE than Cable: It's Managing Rights of Way

eNATOA Webinar

July 9, 2012

From DAS to DCUs: Wireless Installations in the Rights of Way

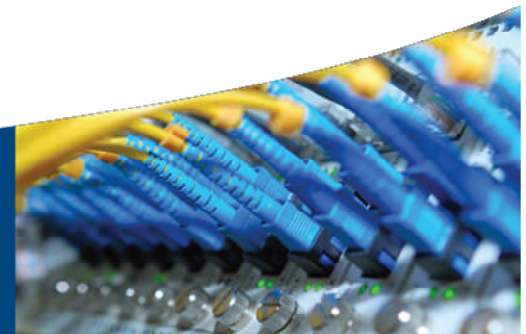
PRESENTED BY

Gail A. Karish

Of Counsel



Telecommunications Law



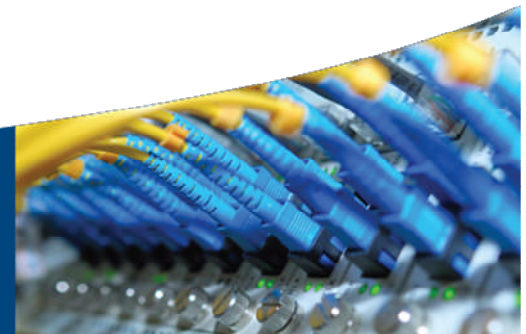
Wireless Installations in Rights of Way

- Distributed Antenna System (DAS)
- Cable WiFi
- Data Collection Units (DCUs)

Survey: Does your city have DAS? Cable WiFi? DCUs?

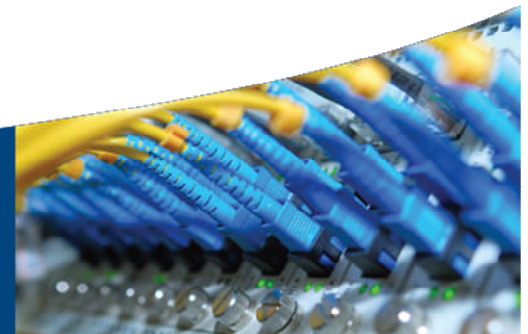


Telecommunications Law



Topics to be covered

- **Who** is deploying these facilities?
- **What** is being deployed?
- **Where** are these facilities being deployed?
- **Why** are these facilities being deployed?
- **What role** for local government?



DAS – WHO?

- Wireless carriers and DAS providers
- Wireless carriers install facilities for their own use
- DAS providers seek to serve multiple wireless carriers (carriers' carrier)
- DAS providers typically licensed by state PUC
- Litigious and active at FCC
 - FCC Right of Way Notice of Inquiry (2011)
 - DAS and Small Cell Workshop (February 1st, 2012)



at&t

T-Mobile



AMERICAN TOWER®

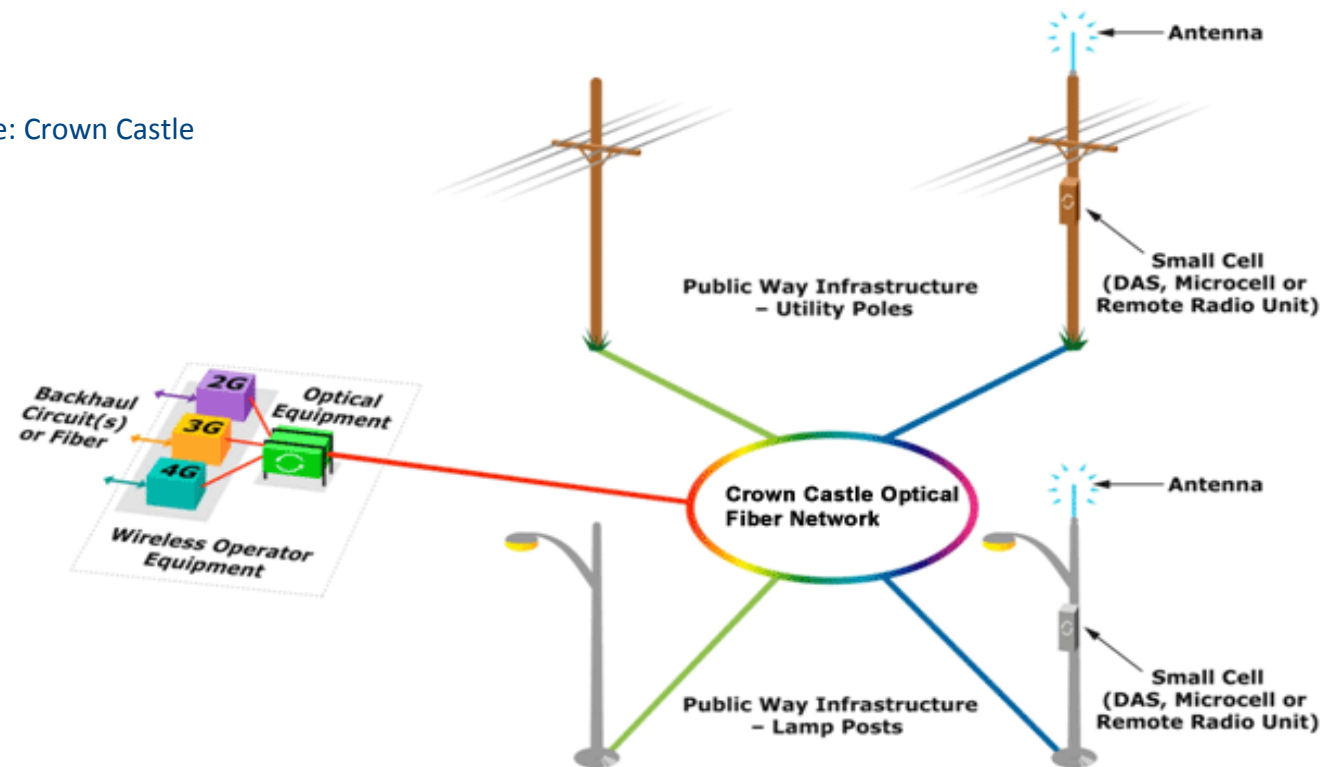


metroPCS



DAS – WHAT?

Schematic Source: Crown Castle



City of Davis, CA

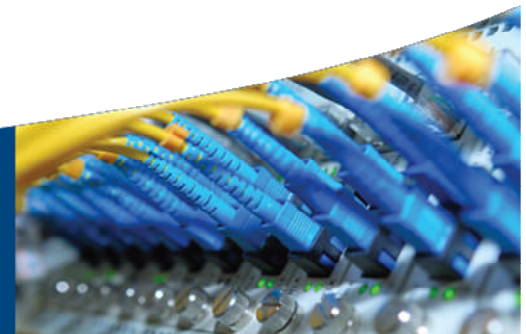
- Photo simulations: <http://cityofdavis.org/cdd/projects/Crown-Castle/Planning-Application-Submittal-Documents.cfm#2012-06-29>



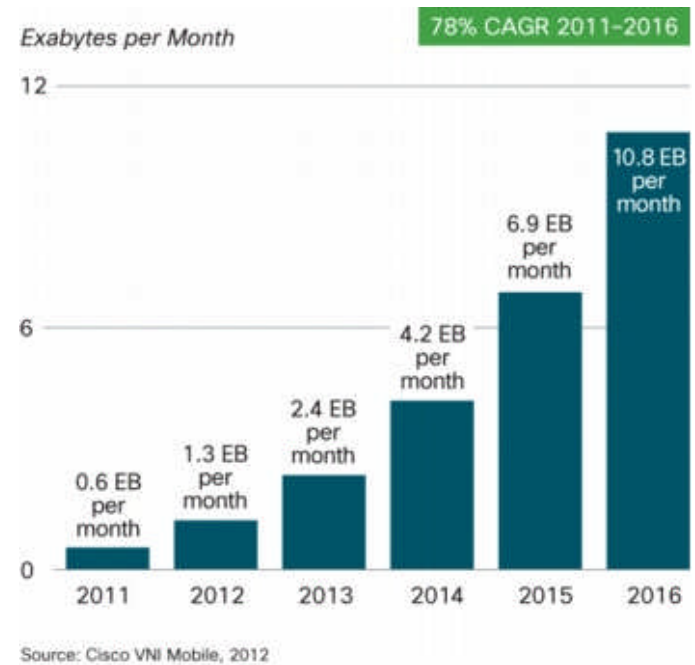
DAS – WHERE?

- Wherever demand warrants
 - “An estimated 10,000 DAS networks have been deployed in the United States, and the number of DAS nodes could double by the end of 2012 and reach as high as 150,000 by 2017.”

Comments Of PCIA—the Wireless Infrastructure Association and The Das Forum, In the Matter of Wireless Telecommunications Bureau Seeks Comment On The State of Mobile Wireless Competition, WT Docket No. 11-186 (filed Dec. 5, 2011)



DAS – WHY?



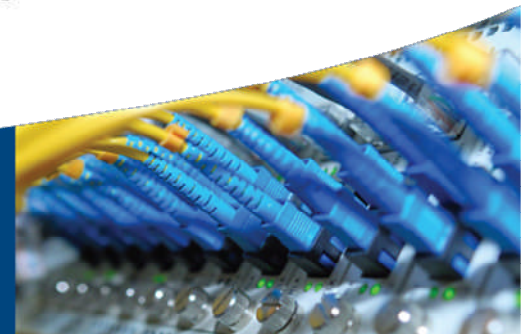
Cisco Forecasts 10.8 Exabytes per Month of Global Mobile Data Traffic by 2016

http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-520862.pdf



Cable WiFi – WHO?

- Five U.S. cable operators formed consortium

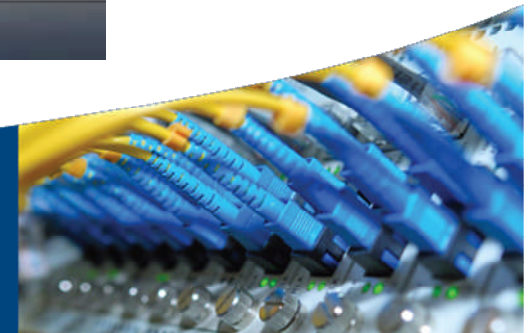


Cable WiFi – WHAT?

- wireless internet access hotspots

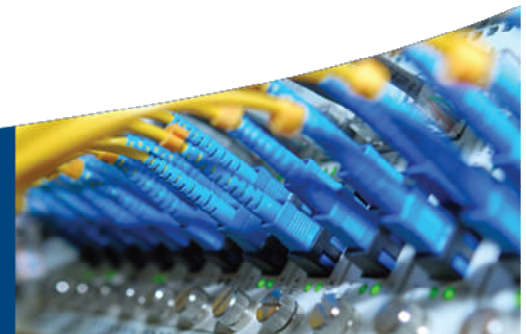


Photos: BelAir Networks



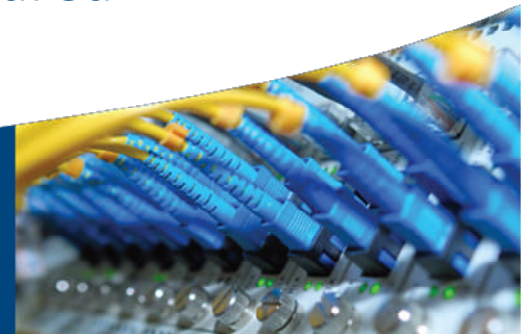
Cable WiFi – WHAT?

- Free Service, if already an internet subscriber of the cable operator
- Can connect with laptop, cell phones, tablets
- Cable operator may place limits on use
 - XFINITY: “you may connect up to 3 devices per username at any given time (i.e. simultaneously); however, no more than a total of 5 devices in a month”



Cable WiFi – WHERE?

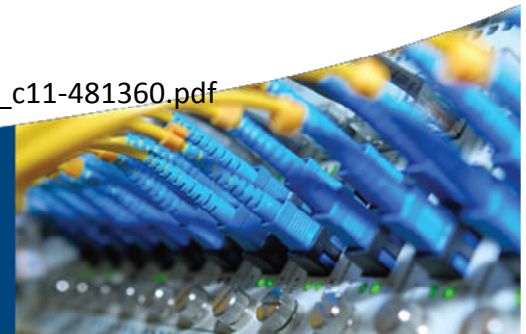
- Cable Operator service areas
 - Los Angeles Metro area: TWC, Cox
 - New York Metro area: TWC, Cablevision, and Comcast
 - Philadelphia, Tampa, Orlando, other cities
- “CableWiFi™” is the network name for the 5 companies’ shared hotspots (announced May 2012)
 - 50,000 CableWiFi™ hotspots
 - Sharing in early stages, e.g., Cablevision customers do not have access to hotspots outside the tri-state area



Cable WiFi – WHY?

- Customer Retention
 - Wireless Data Market Competitive Threat
 - Cisco: “Traffic from wireless devices will exceed traffic from wired devices by 2016. In 2016, wired devices will account for 39 percent of IP traffic, while Wi-Fi and mobile devices will account for 61 percent of IP traffic. In 2011, wired devices accounted for the majority of IP traffic at 55 percent.”
- Alternative Source of Revenue
 - Non-cable internet subscribers
 - Wireless carrier data caps

http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-481360.pdf

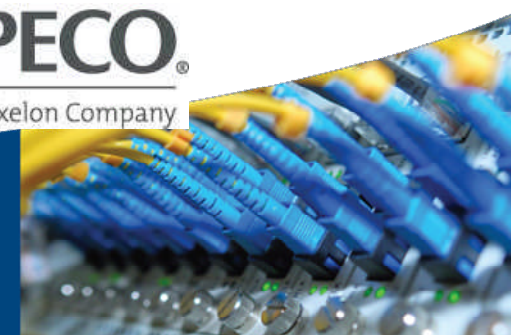
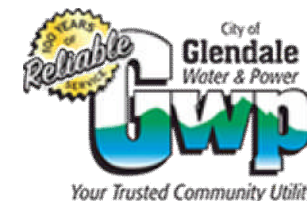


DCUs – WHO?

- The other public utilities

- Gas
- Electric
- Water

- Including investor-owned, public and municipal utilities

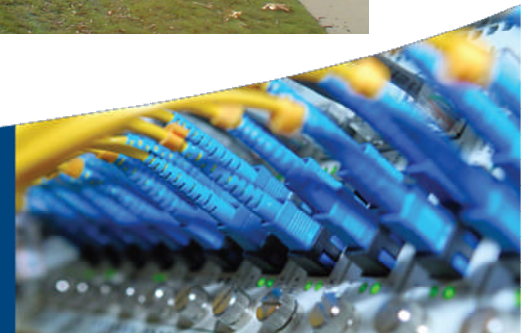


DCUs – WHAT?

- Advanced Metering Infrastructure
 - LAN- Smart Meters communicate wirelessly with Data Collection Units (DCUs)
 - WAN- DCUs communicate with utility (wireless or wireline)

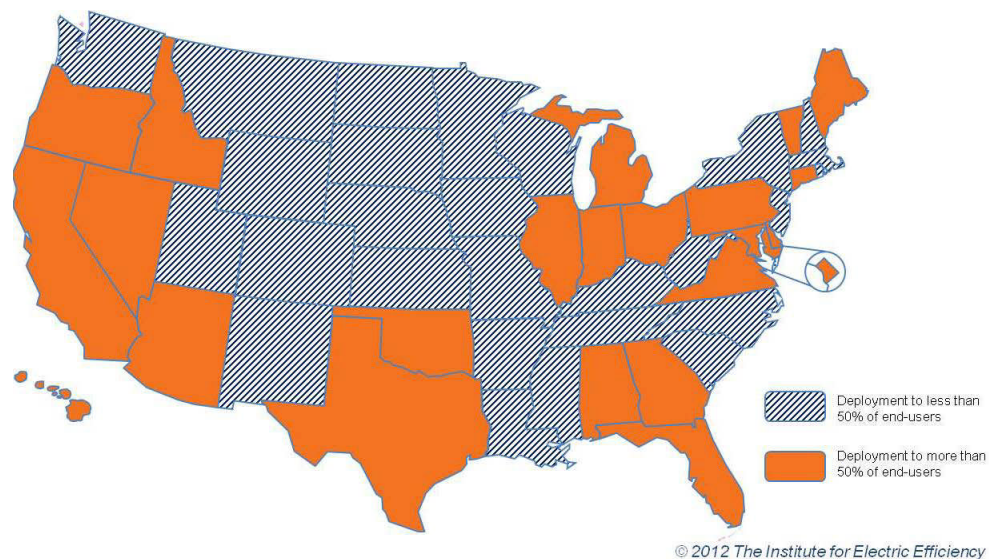


Photo Source:
SoCalGas

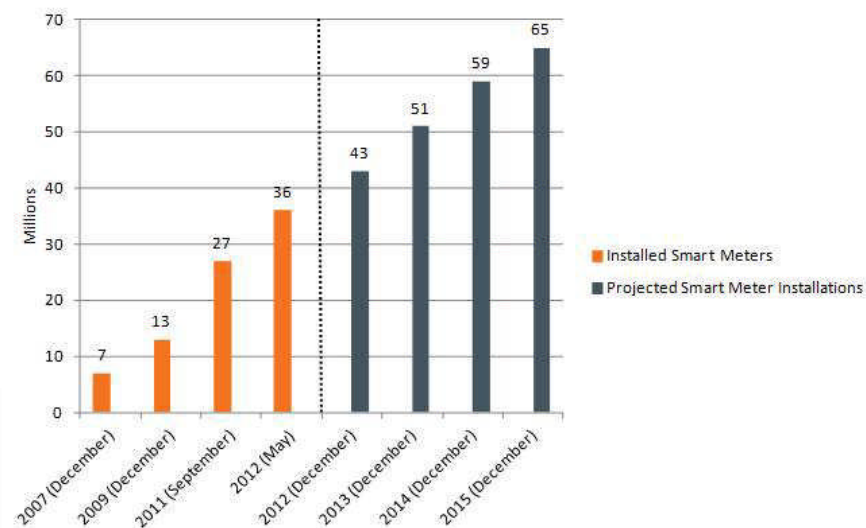


DCUs – WHERE?

Expected Smart Meter Deployments by State by 2015

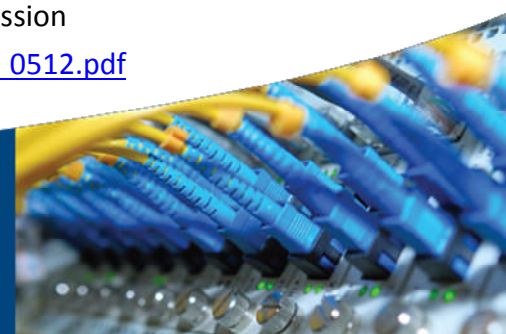


Smart Meter Installations in the US: 2007-2015 (millions)



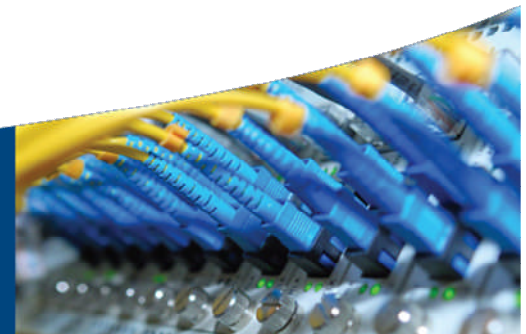
Source: Institute for Electric Efficiency, Federal Energy Regulatory Commission

http://www.edisonfoundation.net/iee/Documents/IEE_SmartMeterRollouts_0512.pdf



DCUs – WHY?

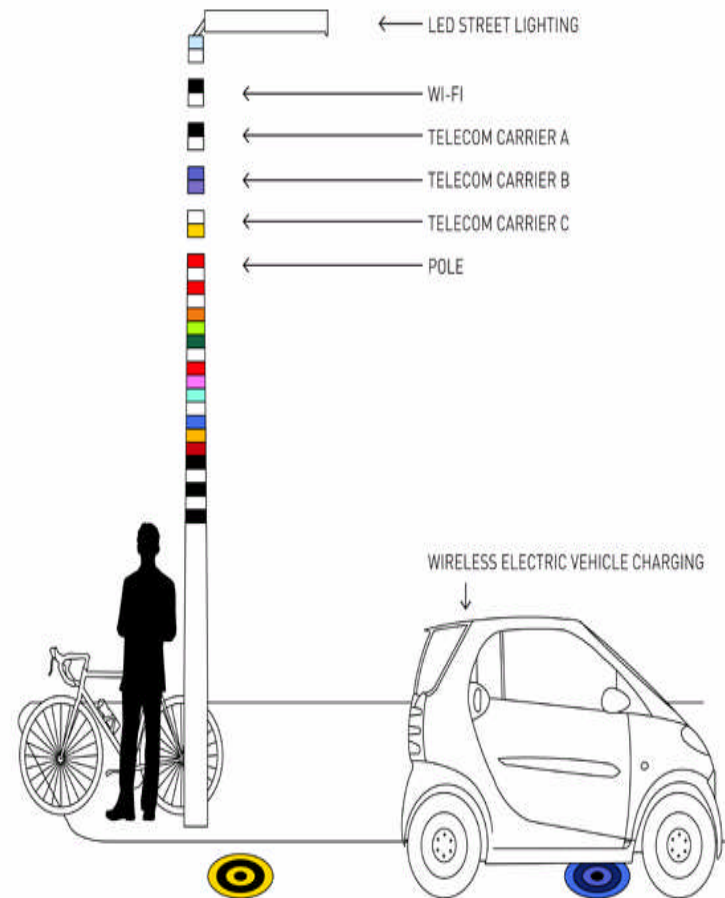
- 1st phase of Smart Grid deployments
 - Smart Meters/Advanced Metering Infrastructure
- Modernization of communications infrastructure
 - Wireless meter reading
 - Demand management
 - Enhanced operational control
 - Outage restoration



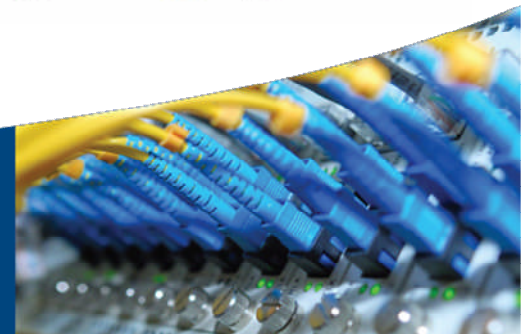
The future....



Illustration by Jeff Cook

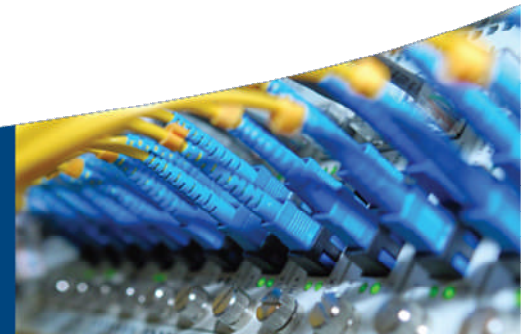


<http://www.v-pole.com/>



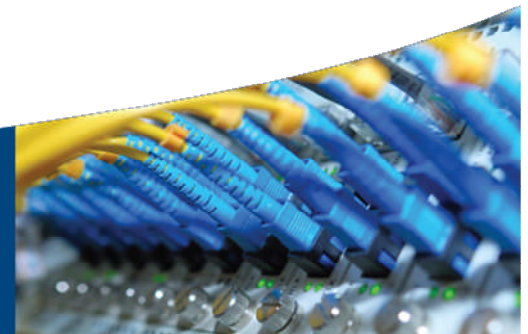
WHAT ROLE FOR LOCAL GOVERNMENT?

- Regulatory
 - Communications Act, Section 337(c)
 - Communications Act, Section 253
 - Middle Class Tax Relief and Job Creation Act of 2012, Sec. 6409
 - State law, e.g. Cal. Pub Util Code 7901, 7901.1
 - Local ordinances
 - Franchises
- Issues
 - Federal preemption
 - PUC preemption
 - Zoning code applicable in right of way?
 - Aesthetics
 - Underground utilities districts
 - RF emissions



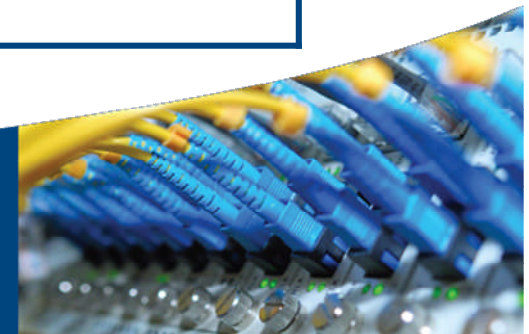
WHAT ROLE FOR LOCAL GOVERNMENT?

- Proprietary
 - Poles and street lights distinct property from public right of way
 - Federal Pole Attachments Act of 1978 (municipal exemption)
 - State rules (if applicable) may differ, e.g. California's AB 1027
 - Fair compensation



Summary

	DAS	Cable WiFi	DCUs
Who?	Wireless carriers DAS providers	Cable providers	Gas/electric/water utilities
What?	SMALL ANTENNAS / SOMETIMES WITH FIBER BACKHAUL		
Where?	Demand Driven	Major markets	Everywhere smart meters/grid rolled out
Why?	WIRELESS DATA DEMAND		
Regulatory	Federal/State/Local/Franchise		
Proprietary	Pole/Street Light Owner		



Thank you!



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