"Attack of the Mini-Cell Towers": How to Protect Your Municipality

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Presenters

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Overview of Presentation:

1. Provide background on the “wireless data explosion”
2. Describe the new wireless infrastructure being installed to meet this explosion
3. Discuss the impact of this new infrastructure on municipalities
4. Outline your legal rights under federal and state law
5. Give brief overview of the Northampton Township experience
6. Discuss how to prepare your municipality to respond to this new threat

Northampton Township- May 2012

- Township Supervisors receive calls from residents.

- These residents complain that workmen have trucked in fiberglass poles, as well as other large equipment, and are painting circles on their front lawns.

- The circles are placement marks for the installation mini-cell towers on the residents' front lawns!

The Wireless Data and Facilities Explosion

Wireless Data Explosion

- The demand for wireless broadband to accommodate new “smartphones”, digital tablets, laptops and other devices has been exploding.
- Smartphone ownership reached 140 million (61% of all cell phone users) in the U.S. in 2013. (Pew Research)
- Global mobile traffic data grew by 83% in 2013. (Cisco Forecasts)

Wireless Data Explosion

- Global mobile data traffic reached 1.5 exabytes per month at the end of 2013. Expected to increase to 10.8 exabytes per month by 2016. Exabyte is 1 billion gigabytes. (Cisco Forecasts)

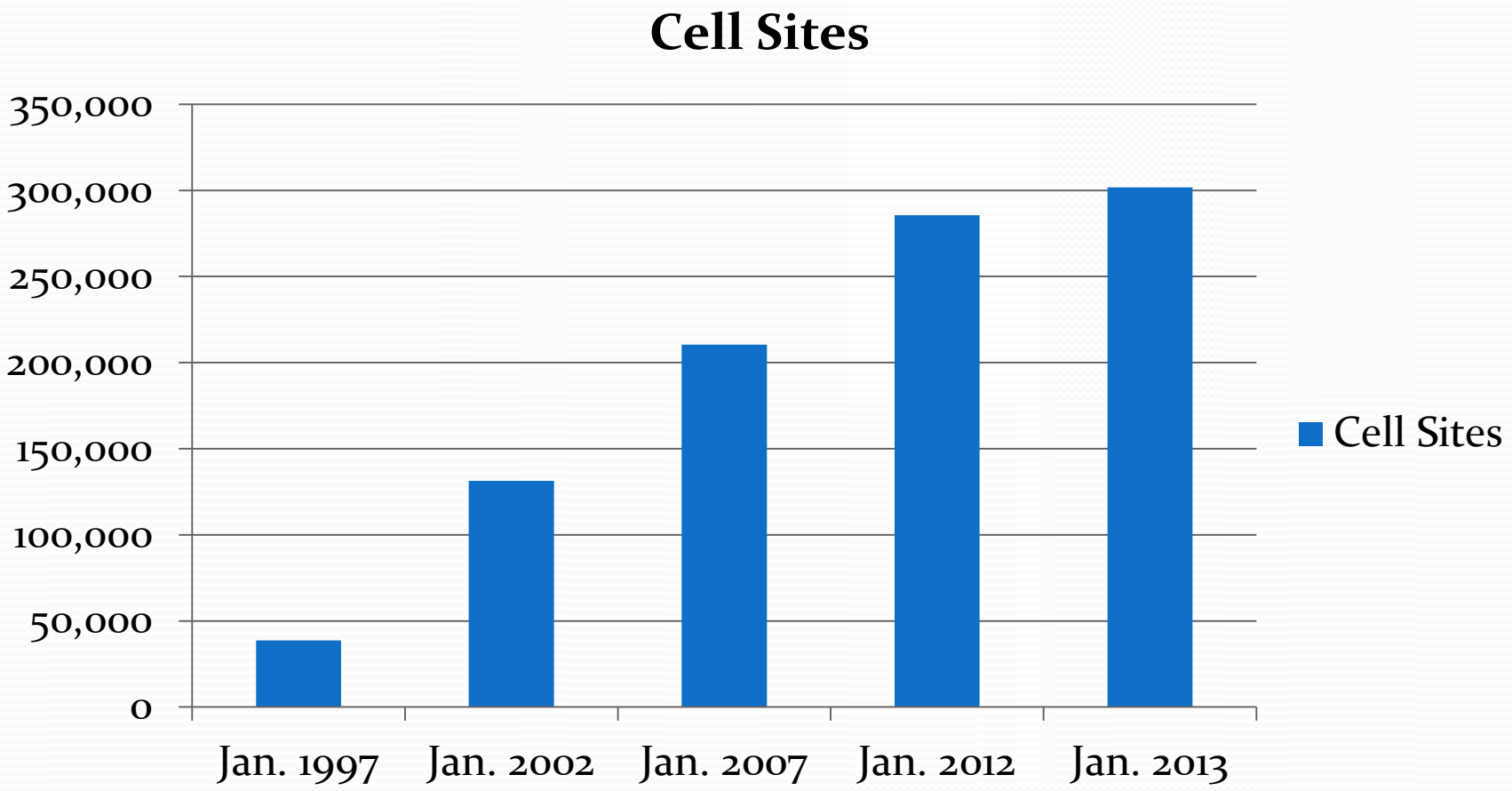
- Number of wireless U.S. subscriber connections has increased in last 5 years from 233.0 million in Jan. 2007 to 331.6 million in Jan. 2013 (42% increase). (CTIA)

- AT&T alone experienced 20,000% wireless data increase from 2007-2012. (DAS Forum)

Data Explosion Has Led to Facilities Explosion

- **Megacells**: large towers with large coverage area in miles
- **Macrocells**: smaller towers with coverage of .5 to 2.5 miles
- **Microcells**: large antennae covering hundreds of meters
- **Picocells**: smaller antennae covering smaller area—includes indoor and outdoor

Data Explosion Has Led to Facilities Explosion



Source (CTIA)

Data Explosion Has Led to Facilities Explosion

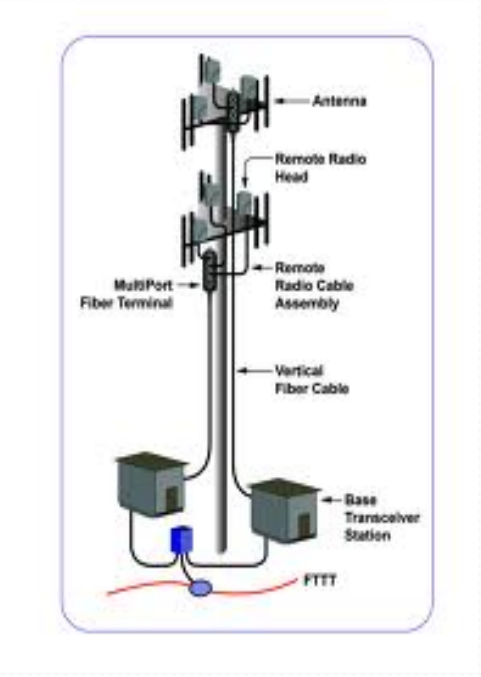
- Verizon Wireless plans to increase its cell sites by 53% (from 42,600 to 65,000) just to accommodate its current needs. (FCC 2012 Wireless Competition Report)

- AT&T Wireless plans to deploy over 40,000 new small cell sites. (CTIA)

- Annual wireless revenues have increased 183% in the past 11 years from $65.3 billion in 2001 to $184 billion in 2012. (CTIA)

New Wireless Infrastructure: Beyond Cell Towers

- Not just traditional cell towers anymore
- New wireless facilities are smaller, more targeted, and much more numerous than traditional cell towers.
- Wireless carriers and contractors typically want to install these facilities in public rights-of-way (ROWs).



New Wireless Infrastructure to Meet the Data Explosion

Distributed Antenna Systems ("DAS")

Distributed Antenna Systems ("DAS")

- DAS increases coverage and boosts broadband capacity in areas underserved by traditional cell tower sites.

- Not installed by wireless carriers (Verizon, AT&T, Sprint, T-Mobile), but rather by "neutral host providers" (Crown Castle, ATC, NewPath, etc.) that try to obtain public utility status from the PUC. Typically installed in public ROWs and on rooftops.

- Estimated 10,000 DAS networks were installed in U.S. by end of 2011. Projected to reach as high as 150,000 by end of 2017. (PCIA Comments to FCC 12/5/11).

Typical DAS Facility in ROW

Distributed Antenna Systems ("DAS")

- DAS networks involve different types of installations. All at least include poles, antennae (nodes), control boxes on poles, cabinets on ground, and fiber optic cable to a central hub site.

- In public ROWs, typically include 4-5 ft. antennas on current utility poles or new 25-45 ft. fiberglass poles in areas where all utilities are underground.

- More localized and targeted. According to Crown Castle representative, DAS is about "capacity, not coverage."

Data Collection Units ("DCUs")

- DCUs are being deployed primarily by electric utilities.
- They communicate with smart meters for meter reading, outage restoration, and enhanced operational control.
- PECO planning to install this technology for all of its 1.6 million customers over the next 10 years. This is a $650,000,000 investment. (PECO)
- Includes 2 types of wireless networks: 1) antennae on existing and "additional" poles; and 2) "refrigerator sized" cabinets and 85 ft. poles with 13 ft. antennae. (PECO)

Municipalities' Legal Rights Regarding Wireless Facilities

Impact of New Wireless Facilities

- New wireless facilities add new burden to public ROWs and often impose new “mini-cell towers” on residential neighborhoods.
- Because these facilities are installed in the ROWs, they are different from traditional cell towers and require different regulations.
- Need to take proactive approach and develop a legally sustainable regulatory structure that protects the municipality.
- Although accidents are rare, there are also public safety concerns.

Public Safety Concerns

Legal Authority for Wireless Facility Management by Municipalities

- The Telecommunications Act of 1996 states that local governments cannot "prohibit or have the effect of prohibiting wireless facilities," but also **preserves local zoning authority** over the "placement, construction, and modification of wireless facilities."

Legal Authority for Wireless Facility Management by Municipalities

- Certain limitations:
  - May not unreasonably discriminate against providers of "functionally equivalent services."
  - Must act on a request for approval within a "reasonable period of time" after the request is filed.
  - Any denial of a request for wireless installation must be in writing and supported by substantial evidence.
  - Municipality may not regulate wireless services based on environmental effects of radio frequency emissions.

Recent Changes in Wireless Facilities Law

- Federal Communications Commission (FCC) Issues "Shot Clock" Ruling in 2009 to define "reasonable period of time" for making decision on wireless applications:
  - 150 day approval/denial period for new facilities
  - 90 day approval/denial period for collocation facilities
  - Local governments cannot reject wireless application "solely" because another carrier or carriers serve the area.
- On May 20, 2013, the U.S. Supreme Court upheld the FCC's "Shot Clock" ruling in the case of *City of Arlington, Virginia v. FCC*, No. 11-1545

Recent Changes in Wireless Facilities Law

- Congress enacts 2012 Collocation Statute: local government shall approve an "eligible facilities request" for modification of an existing wireless tower that doesn't "substantially change" its physical dimensions.
- PA Legislature Enacts "Wireless Broadband Colocation Act" in late 2012.
- Recent preliminary actions at the FCC:
  - FCC issues Notice of Inquiry (NOI) on wireless broadband-2012
  - FCC issues Notice of Proposed Rulemaking (NPRM) on radio frequency exposure-Mar. 2013
- Only a few DAS cases because technology is new, but key federal cases uphold municipal zoning authority even where the local host provider holds a Certificate of Public Convenience and Necessity from the PUC.

Collocation in Practice

The Northampton Township Experience

Ripped from the Headlines

"Northampton, Pa. Residents Fight Plan To Erect Cell Towers on Lawns"
– CBS Philadelphia, 5-10-12

"Cell towers get bad reception from residents"
– ABC Philadelphia, 5-10-12

"Neighbors Outraged Over Cell Phone Towers"
– NBC Philadelphia 5-14-12

"Northampton Township files suit in federal court
in Philadelphia over cell pole installation project"
– Bucks Local News, 5-24-12

"Northampton Cell Tower Fight Headed to Federal Court"
– CBS Philadelphia, 5-24-12

"Controversial cell phone towers on hold in Bucks"
–Philadelphia Business Journal, 5-24-12

The Northampton Township Experience

- American Tower Corporation ("ATC") obtained a Certificate of Convenience from the PUC and began installing a DAS network consisting of 60 antennae in the public rights-of-way, including at least a dozen new "towers" and 39 miles of fiber optic cable.

- Township initially treated this as a right-of-way matter and directed ATC to the Township Right-of-Way Ordinance, including a fee of 5% of gross revenues. ATC filed suit in state court and obtained an injunction against the Township.

- ATC began installing nodes atop existing utility poles and constructing new poles. ATC surveyed and marked proposed locations for new towers in neighborhoods where all utilities were located underground.

- New towers would have been 25-40 feet tall and many were to be located directly in the front yards of existing homes.

- Township residents became incensed.

The Northampton Township Experience

- The Township Board authorized pulling ATC permits, based upon non-compliance with Township zoning requirements.
- Township issued stop work notices to ATC, directing that ATC must meet zoning ordinance requirement that no new telecommunications facilities can be located in residentially zoned areas.
- Work on the DAS system ceased and the Township filed suit in federal court, claiming that ATC was in violation of Federal Telecommunications Act, which preserves the Township's zoning authority.
- Settlement discussions commenced and ATC agreed to attempt to reengineer its DAS system in order to eliminate the 12 proposed new towers.
- All litigation was placed on hold and ATC altered the dimensions of the network such that no towers were placed in residential neighborhoods with utilities underground.

How and When Your Municipalities Will be Affected

Crown Castle

- CLG recently met with attorneys from Crown Castle, one of the nation's largest neutral host providers.
- CLG learned that Crown Castle plans to construct or expand its DAS systems in the suburban Philadelphia area.
- This is expected to happen over the next 12 months.
  - Specifically, DAS systems in Bucks, Chester, and Montgomery Counties will be targeted.
  - Crown Castle aims to boost capacity, not coverage.
- It is likely that other neutral host providers will contact your municipalities to install regarding DAS installations over the next year and a half.

CLG's Recommendations to Respond to Changes in Wireless Technology and Regulations

Recommendations Regarding Wireless Facilities Regulation

- Review your municipality's current wireless facility ordinance to determine whether its provisions:
  - Comply with current laws and regulations
  - Address new technologies for wireless facilities inside and outside the public rights-of-way
  - Provide appropriate legal protections for the municipality

Recommendations Regarding Wireless Facilities Regulation (continued)

- Draft or amend ordinance to achieve the following:
  - Apply to new wireless technologies, such as DAS and DCU networks
  - Incorporate recent judicial and regulatory changes in federal and state law
  - Include separate requirements for “tower-based” and “non-tower based” facilities
  - Include separate requirements for wireless facilities inside and outside the ROWs
  - Address colocation and other “second generation” facilities

Recommendations Regarding Wireless Facilities Regulation (continued)

- Draft or amend ordinance to achieve the following:
  - Protect residential neighborhoods consistent with federal and state law
  - Preserve the visual character of the community
  - Establish or update zoning process for approval or denial of facility applications
  - Retain beneficial provisions from the current cell tower ordinance
  - Review and potentially amend zoning restrictions, design regulations, standards of care, colocation requirements, penalties, etc.

Bottom Line

- Convert old cell tower ordinance to a comprehensive wireless facilities ordinance that protects your residents, addresses new technologies, and incorporates the most recent regulatory changes.

Questions?

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