

SCAN NATOA Chapter Meeting: Wireless Update

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Key Points

#1

About
T-Mobile

#2

Eliminating
Pain Points

Our
Corporate
Culture

#3

Small Cell
Technologies

Needed for 4G
and the
Promise of 5G

#4

Smart
Deployments

+

Smart
Regulations

=

Smart Cities

#5

Partnerships

Advance
Communities
&
Connectivity



About T-Mobile

Headquarters: Bellevue

Flagship Brands:



We employ 50,000+ people
across America.

More than 6,000 employees
in the State of Washington.

~70 million customers
across the United States.



Washington Annual Payroll:
> \$425 million

Retail Outlets in Washington:
49



Eliminating Pain Points

T-Mobile®
NATIONAL DEVELOPMENT



- Embedded in our corporate culture.
- It's how we create value & gain new customers.
- It's how we build efficiencies with the companies that build our network.
- It's how we work with 50,000+ employees.
- **Results since 2014: Customer growth has skyrocketed from 30- to 70-million subscribers.**

The Promise of 5G: Opportunity.

Communities with 5G will have significant competitive advantages.



Smart grids, smart cities, public safety, transportation efficiencies, personal mobile apps, business development & retention.



Setting the Context

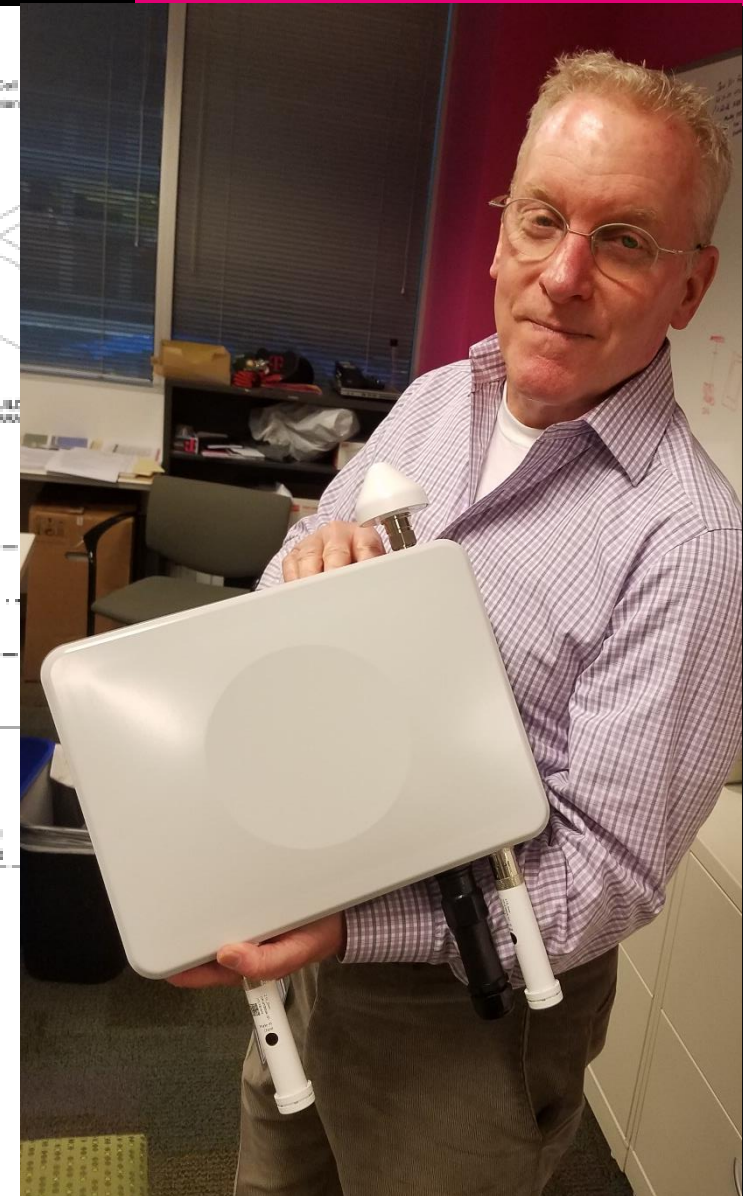
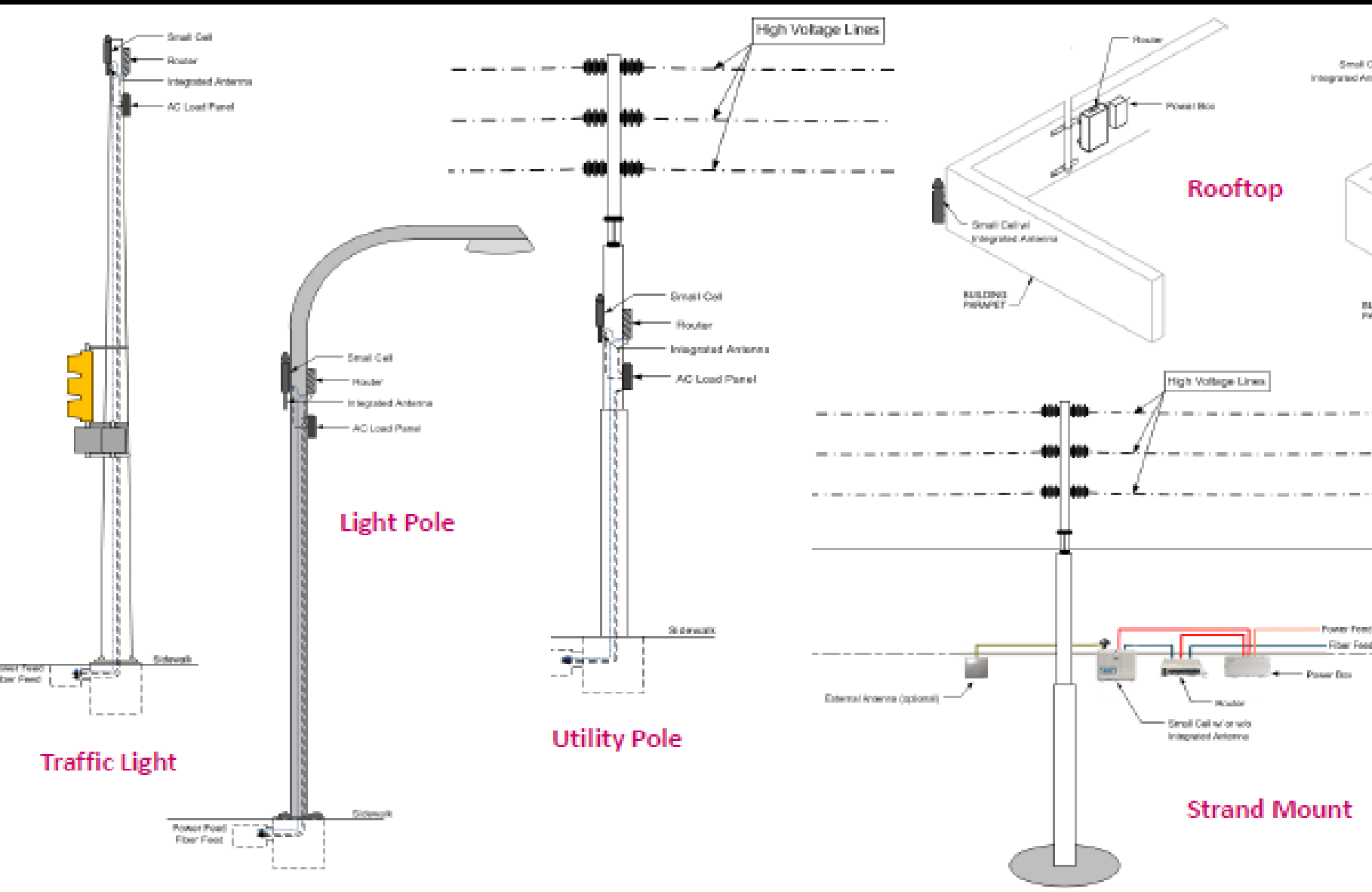
HowMobileWorks.com



- CELL SITE CONNECTIVITY REQUIRES BILLIONS OF DOLLARS OF LAND-BASED INFRASTRUCTURE
- CARRIERS HAVE HUNDREDS OF THOUSANDS OF MACRO CELL SITES
- 4G – AND IN THE FUTURE 5G – NETWORKS REQUIRE DENSELY-POPULATED SMALL CELLS – THESE TECHNOLOGIES PLAY A SIGNIFICANT ROLE NOW & IN THE FUTURE.



Setting the Context





Setting the Context



Light Pole



Strand Mount



Traffic Light



Rooftop Test Site



Creating Smart Cities / Smart States

“We need to make it ... screamingly easy for the operators to add small cell technologies to their networks, and that is going to take a lot of work with the municipalities.”

**T-Mobile's Senior Vice President for
Technology Dave Mayo**

“If siting for a small cell takes as long and costs as much as siting for a cell tower, few communities will ever have the benefits of 5G.”

**Federal Communications Commission
Chairman Tom Wheeler**

SMART TECHNOLOGIES + SMART REGULATIONS = SMART CITIES



Partnerships are Key to Addressing Issues

TREND	SOME OF THE MAIN ISSUES	PAIN POINTS ARE FELT BY	DISCUSSION POINTS FOR FINDING COMMON GROUND
	SKYROCKETING DEMAND	CONSTITUENTS/CONSUMERS, BUSINESSES & WIRELESS CARRIERS	NETWORKS MUST BE DESIGNED THAT CAN HANDLE GREATER DEMAND AND MORE CAPACITY. DENSER DEPLOYMENT OF NETWORK ANTENNAS IS A SOUND SOLUTION.
	UTILIZING THE PUBLIC RIGHT OF WAY	JURISDICTIONS & WIRELESS CARRIERS	SMART LOCAL AND REGIONAL LAND USE REGULATIONS AND RIGHT OF WAY AGREEMENTS CAN PROTECT COMMUNITY INTERESTS WHILE PROVIDING ACCESS TO WIRELESS CARRIERS FOR ANTENNA DEPLOYMENTS.
	REVENUE STREAMS	JURISDICTIONS	JURISDICTIONS ARE RESOURCE- AND FUNDING-STRAPPED.
	COSTS & FEES	WIRELESS CARRIERS	WIRELESS CARRIERS WILL INVEST WHERE THE REGULATORY APPROACH IS MOST HOSPITABLE - AND ESTABLISH PRIORITIES ACCORDINGLY. THIS COULD LEAD TO COMPETITIVE DISADVANTAGES FOR SOME COMMUNITIES.
	STREAMLINED SITING PROCESSES	JURISDICTIONS & WIRELESS CARRIERS	LAND USE DECISIONS ARE LOCAL. THE FEDERAL GOVERNMENT DIMINSHES LOCAL DECISION-MAKING WHEN UNDUE TECHNOLOGY DEPLOYMENT HURDLES ARE CREATED.
	AESTHETICS	COMMUNITIES, JURISDICTIONS & WIRELESS CARRIERS	MANY JURISDICTIONS ARE INTERESTED IN CONSISTENT LOOK & FEEL. TECHNOLOGY CHOICES ARE INDIVIDUAL CARRIER DECISIONS.
	PUBLIC SAFETY & HEALTH	CONSUMERS, FIRST RESPONDERS, CARRIERS, JURISDICTIONS, BUSINESSES	MOBILE NETWORKS PARTNER WITH LOCAL PUBLIC SAFETY ANSWERING POINTS (PSAPs). PERSONAL AND PUBLIC SAFETY ARE ENHANCED BY ROBUST NETWORK COVERAGE. MORE PUBLIC EDUCATION BY WIRELESS CARRIERS IS NEEDED WHEN IT COMES TO RADIO FREQUENCY EMISSIONS.



Questions and thank you.

