

Future of Mobile Networks

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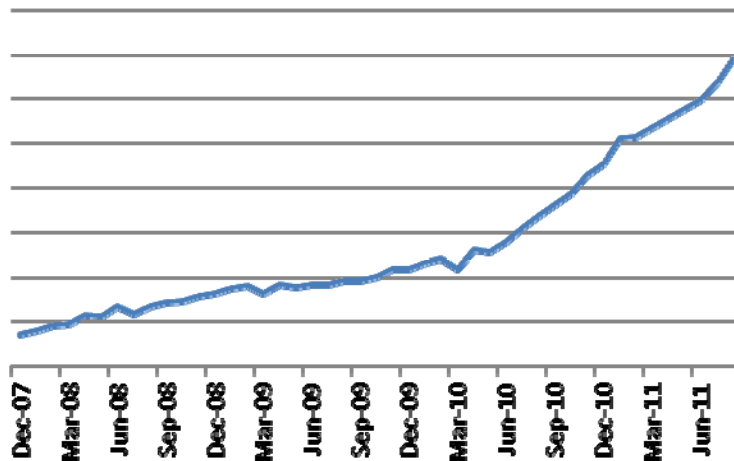
Director, Sprint Solutions Engineering



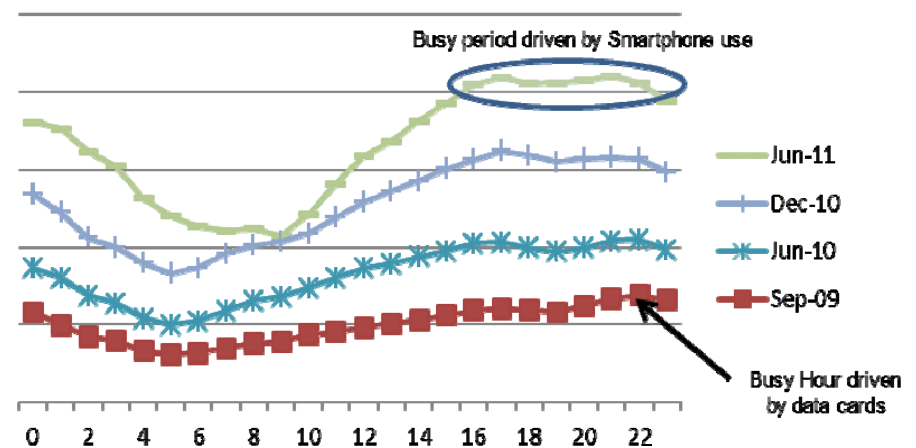
What is happening at a macro perspective?

- Unabated growth in aggregate network data usage
- Smart-phone network connections are increasing rapidly
- Growth in connected devices – wireless to everything
- Data dominates voice in the network

Network Data Tonnage



Hourly Tonnage Trends – Busy Hour Shifts



Industry & User trends

- Business processes changing rapidly
- Technology changes driving IT managers to adopt new tech solutions
- Workforce becoming more mobile
- Internet traffic to increase four times to 1.3 zettabytes* by 2016
 - ❖ 1 *zettabyte* = *trillion gigabytes*
(1,180,591,620,717,411,303,424 bytes)
 - ❖ 2009 WWW = 1/2 *zettabyte*

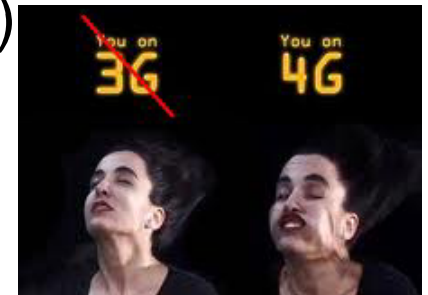


Voracious Average Data Consumption

What is driving this momentum?



- BYOD (Bring Your Own Device)
- Smartphone Adoption – 51%+ Growing
- Security – Mobile Device Management
- HTML5
- The Future of Voice (Smart Mobile Enterprise)
- Multi-Network Access



The Smart Mobile Enterprise



Smart Mobile Enterprise

- Seamless user experience across the desktop and mobile device
- Secure and trusted environment on the device accessed and controlled by the enterprise

Mobile IP Communications Apps

- Voice and video calling
- Guaranteed delivery
- Over LTE networks
- Over Wi-Fi
- Security



Developing solutions that meet environmental and societal needs

Health Care

- Remote monitoring
 - In-home care
- Weight management



Transportation

- Fleet management
- Fuel & green benefits
- Safety & convenience



SmartGrid

- Energy efficiency
 - Smart Meters
- Electric vehicle charging



Sprint's objective with network modernization

Reduce costs, **improve** performance and coverage

Optimize use of spectrum assets

Technology **flexibility**

Sunset iDEN network - mid 2013

Multimode Network Platform

Enables multiple technologies and spectrum to be deployed on a common platform at a lower cost structure

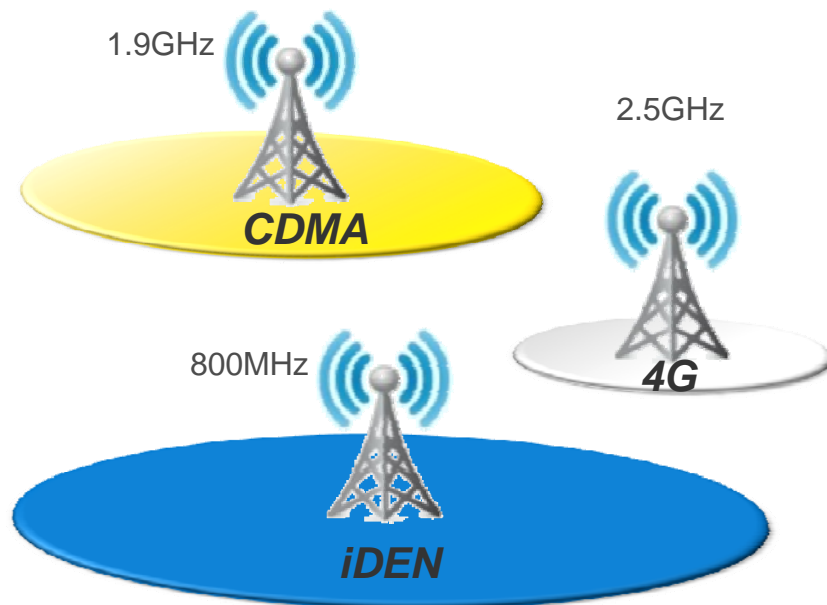
Integrated Device Chipset

Enable devices to function on multi-spectrum bands and multimode technologies

Network Vision means greater reach and efficiency for each frequency and better capacity

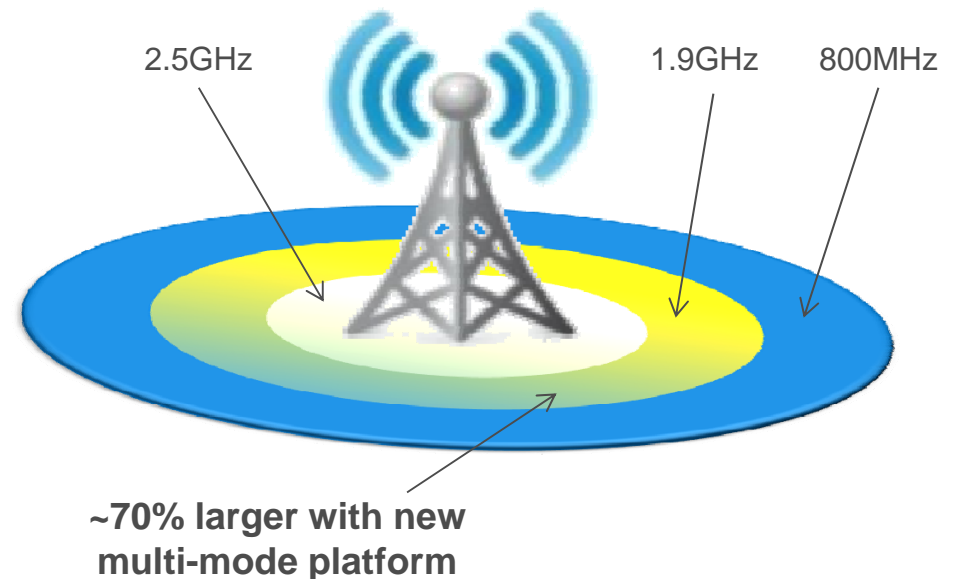
Today:

- **Separate** networks with specific technology and spectrum linkages



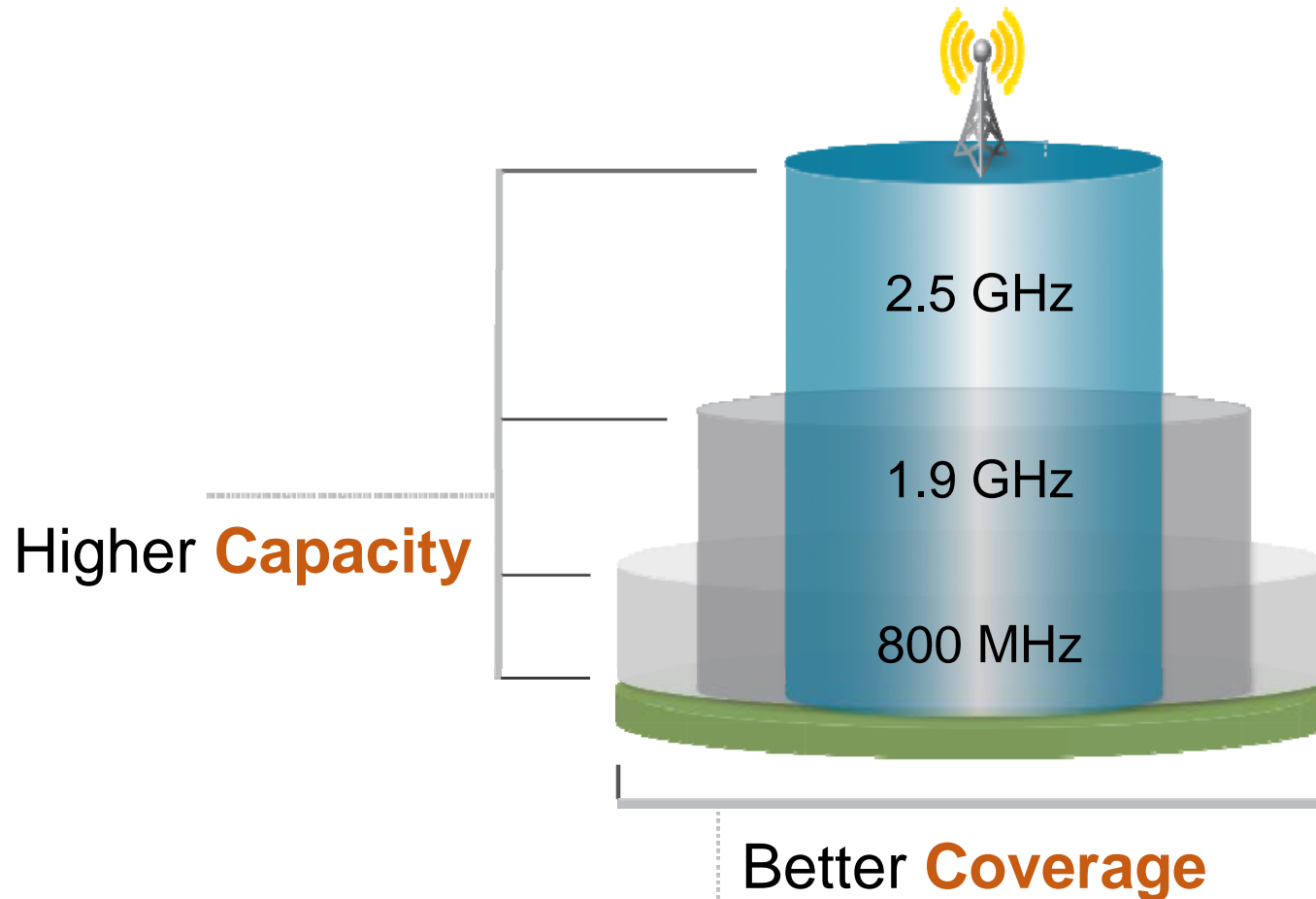
Future:

- **De-couple** network/frequencies relationship
- **Multi-mode platform** utilizes best frequency for each technology and every purpose (voice/data)

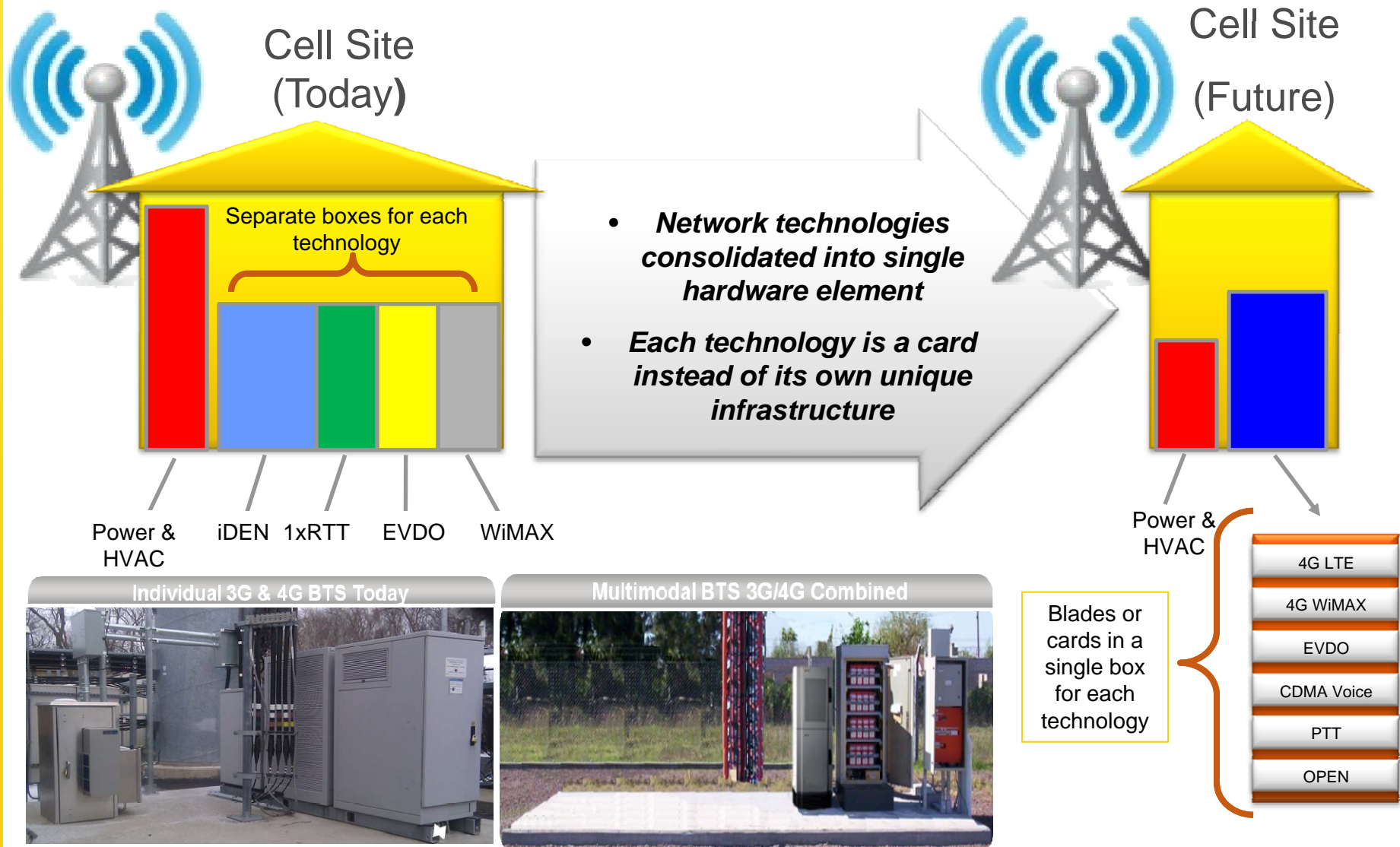


Maximizing Spectrum Capabilities

Available spectrum allows Sprint to *maximize capacity* and *optimize coverage*




Future of Cell Site Design



Network Transparency



 <http://network.sprint.com/>



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Enhancements in this area

Last 6 months:

- 31 [voice upgrades](#)
- 21 [data capacity upgrades](#)
- 9 [data speed upgrades](#)

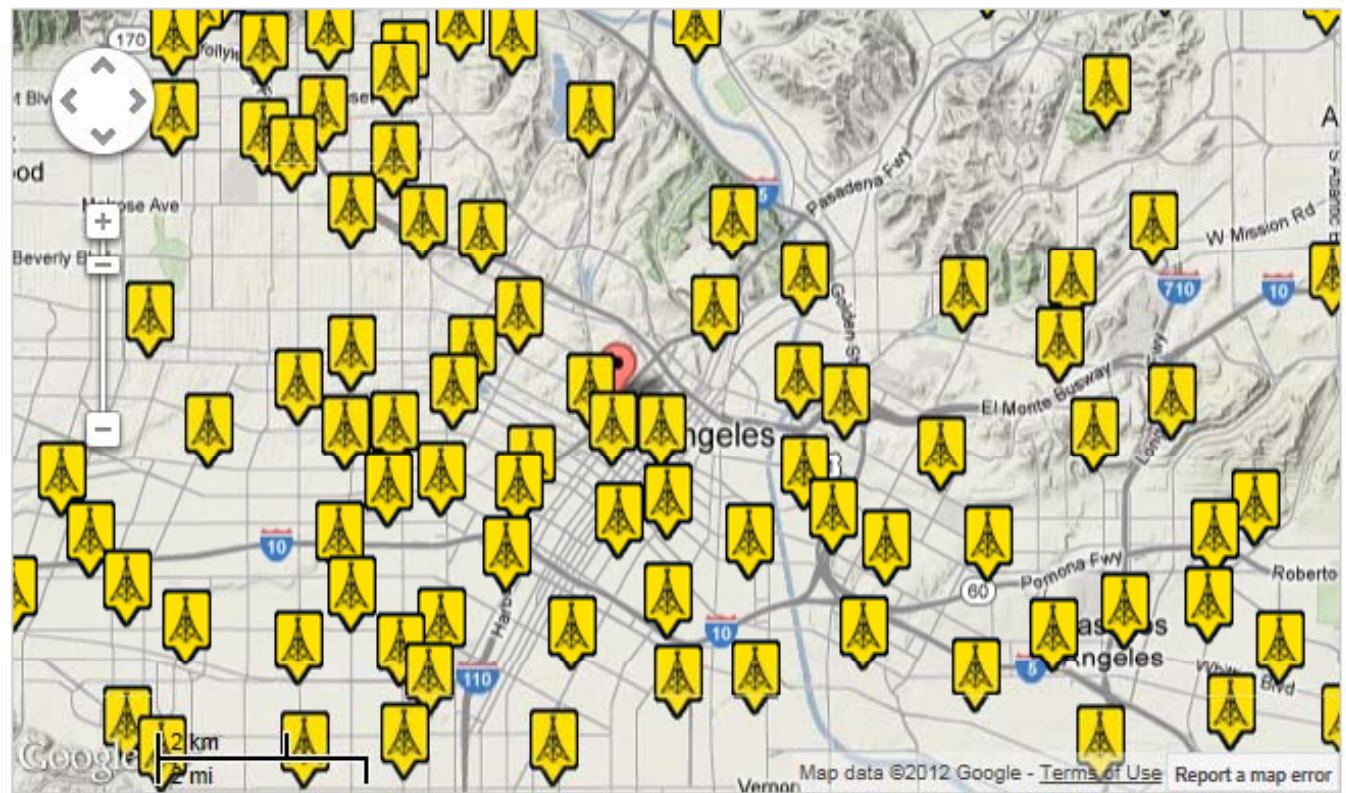
Completed: **61**

Next 6 months:

- 22 [voice upgrades](#)
- 29 [data capacity upgrades](#)
- 29 [data speed upgrades](#)

Planned: **80**

Map depicts Sprint 3G Network and Nationwide Sprint Network upgrades only



Thank You

Q & A