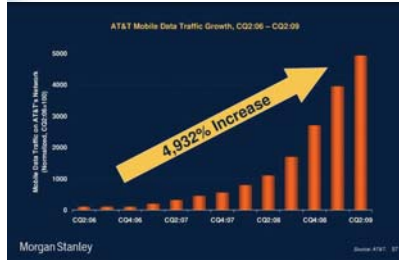
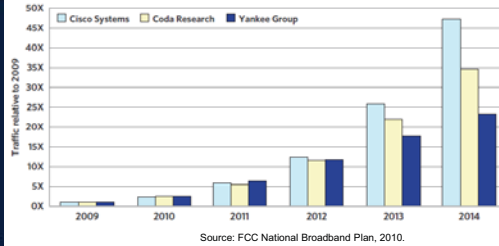




U.S. Mobile Data Traffic Growth



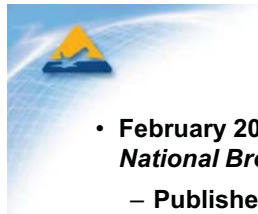
AT&T thru 2009



Projected Growth for All Carriers Relative to 2009

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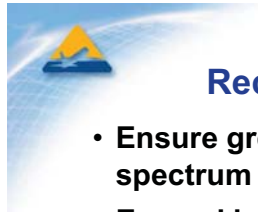


Congressional Activities

- **February 2009 – Congress directed the FCC to develop a *National Broadband Plan***
 - Published in March 2010
 - Includes recommendations on making more spectrum available for wireless broadband services
- **March/July 2009 – Radio Spectrum Inventory Act legislation introduced in Senate/House**
 - Mandates that FCC/NTIA create and update biennially, an inventory of government and non-government spectrum use
 - Purpose: “significant step in making available more spectrum for commercial and wireless services”, R. Boucher (D-Va)
 - House version passed April 10, 2010
 - Senate version blocked by Sen. Tom Coburn (R-Ok)

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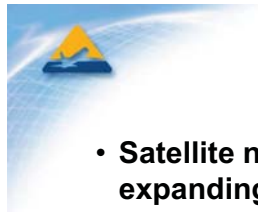
National Broadband Plan Recommendations on Spectrum

- **Ensure greater transparency concerning spectrum allocation and utilization**
- **Expand incentives and mechanisms to reallocate or repurpose spectrum**
- **Make more spectrum available for broadband within the next 10 years**
 - 500 MHz within 10 years
 - 300 MHz (between 225 MHz – 3.7 GHz) within 5 yrs
 - 20 MHz - 2.3 GHz WCS band
 - 10 MHz - Upper 700 MHz D Block
 - 60 MHz - Advanced Wireless Services (AWS) auctions
 - 90 MHz – MSS terrestrial component deployment
 - 120 MHz – reallocate from broadcast television

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Summary

- **Satellite navigation system capabilities are expanding greatly both domestically and abroad**
 - Many new signals with advanced features for more robust tracking in challenged environments
 - Many more satellites providing better positioning geometry
- **Mobile wireless services anticipated to utilize many additional bands over next decade**
 - FCC/Congressional activities anticipated to lead to 100's of additional MHz of spectrum
- **Together, these developments will offer many new possibilities for future wireless RF localization**

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