

More Service in More Stations: WMATA's Neutral Host Program

Fred Candelaria

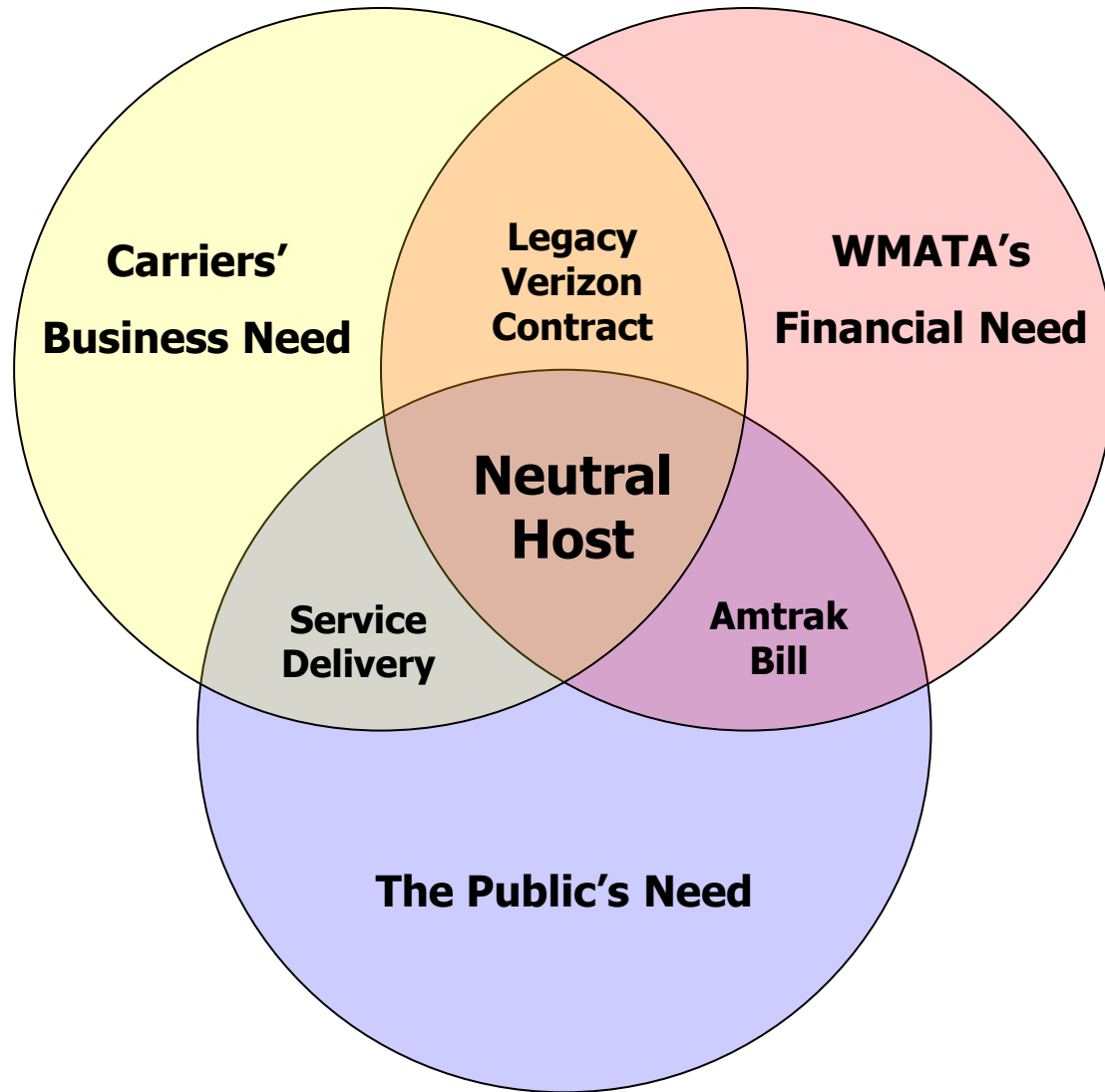
Deputy Chief-Network Communications Services
Washington Metropolitan Area Transit Authority

fcandelaria@wmata.com



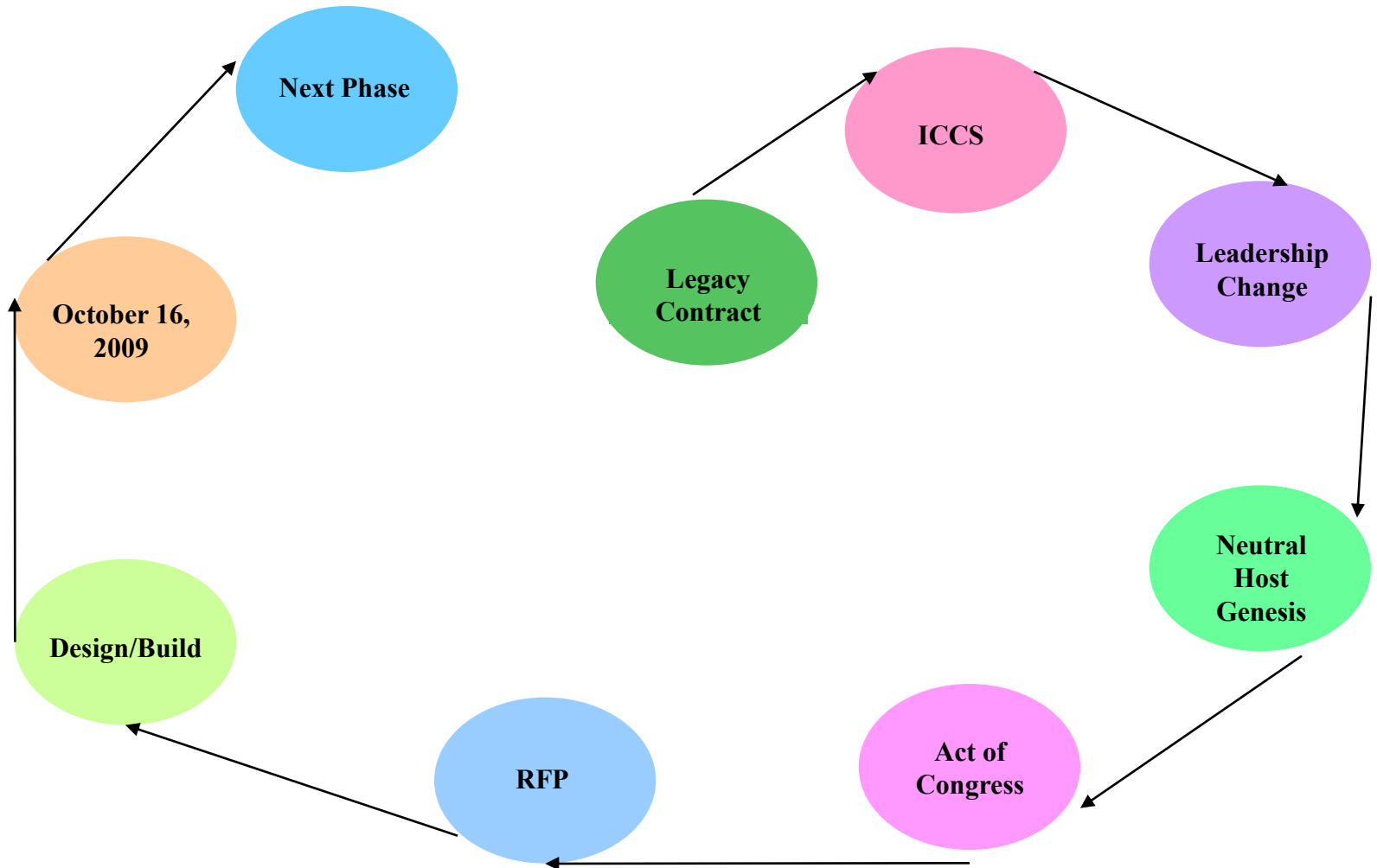


Program Drivers





WMATA's Neutral Host Program





Legacy Verizon Contract

Business Model

- Negotiated in 1993 for a public safety radio system and a share in usage revenue
- Contract called for Verizon to get a pro-rata payment from any new third-party wireless operator

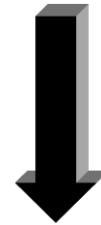


Technology Model

- Initially analog but contract modified to allow 1XTR in 2001
- Limited CDMA capacity
- Sprint roaming in the 800MHz PCS bands only

Business Challenges

- Did not foresee the industry's move to flat-rate pricing
- Did not include data or text usage in revenue sharing calculations
- WMATA was losing money





WHAT'S MAKING NEWS TODAY

After years of rejecting invitations, Bush to speak at NAACP
President Bush plans to speak to the NAACP on the 50th anniversary of the 1954 Supreme Court decision in *Brown v. Board of Education*. The White House announced the appearance days after the founding of the civil rights group publicly urged Bush to attend.

President had no regrets
The president had no regrets about his years in a row, and has often been criticized in speeches by the group's leaders. But under new NAACP President Bruce

S. Gordon officers have improved
The National Association for the Advancement of Colored People is holding its 99th annual gathering at a convention center just miles from the White House. Presidential spokesman Tony Snow said Bush decided to speak to the group Thursday because of "a record of opportunity" for the president to look his civil rights record and record issues. — AP



DC Examiner
July 2006

MORE TOP STORIES

TRAIN SPOKESTOP

City officials announce D.C. Circulator has new Web site

The increasingly popular and improving D.C. Circulator bus service now has a new Web site, city officials said Tuesday. The new site, www.dccirculator.com, is a comprehensive "one-stop" site that includes a pocket that can be downloaded on portable digital travel players. The pocket contains information and interviews on events and entertainment along the Circulator routes, including an exclusive interview with District Mayor of the Capital Fringe Festival. The franchise offers a useful peek at the festival. For details, visit the site or call 877-988-8282. — John Hayes

Officials say Metro eclipses 200 million annual riders

Metro officials reported 215,604,114 riders in 2005, a record for the system in the 2005 fiscal year, the most in its 50-year history. The figure is a 4.4 percent increase, or 10 million more riders, over last year's 2004. The average weekday ridership in that year 2005 was 892,500, compared to 868,870 in the previous year. Metro also reported more people took trips on Metro during June than during any other month in its history — with 32,461,818 trips, an average of 747,222 riders each weekday. — Mike Hayes

POUHTIS

Council Chairman Cropp picks up ARL-CDO support

DC Council Chairman Dale Cropp, a leading advocate for gay, lesbian and transgender rights, was picked up Tuesday by the overwhelming majority of the Metropolitan Washington Council, ARL-CDO, the major lobbying group in the District. Cropp has received the support of the ARL-CDO's 100 members, including about 10,000 DC residents — DC Chamber of Commerce and Greater Washington Board of Trade in the past week. — [Name obscured]

TODAY'S TOP STORY - TRANSPORTATION

Phone giants join forces to land Metro communications contract

By James Ruppert, Staff Writer

The nation's four largest wireless phone service providers are joining forces to land a \$42-million contract to provide wireless service for Metro's new communications system, officials said Tuesday.



Larry King is seen at the top of the page. Photo credit: [Name obscured]

If the proposal is successful, it will be the first time a wireless network is used for Metro's new system, officials said Tuesday.

Police on trail of activist's alleged killers for a month

By David McCabe, Examiner Staff Writer

DC detectives were on the trail of two soldiers for nearly a month before the men allegedly killed a 30-year-old man in Georgetown last week. In two separate incidents,

Metro officials earlier this year, the source said. The information stems from a systematic bid in February to provide a wireless service for Metro's new communications system. Since the system, it has been a long process, and Metro officials said they are in the process of selecting a provider. Metro Project Manager Jonathan Wynn said he could not disclose many of the specifics.

Metro would like to have wireless service at 10,000 locations across the 700-mile rail system and at the stations across the system, new Metro systems on buses and taxis, and other electronic platform signs. These systems would be linked to a \$20 million contract of 240,000 devices and phone system.

Verizon Wireless spokesman John Sullivan said he could not confirm the bid by any agency or to whom it would be awarded. He said he would be willing to provide services and technology for the project, but he can provide more information.



Metro Changes Leadership

- **John Catoe takes over as General Manager**
- **Suzanne Peck is new CIO**
 - She assembled a team to take over the cell phone program
 - Legacy Verizon contract
 - Administrative cell phones
 - ICCS and Neutral Host
 - Surveyed other properties to learn about their neutral host contracts
 - NY-MTA
 - BART



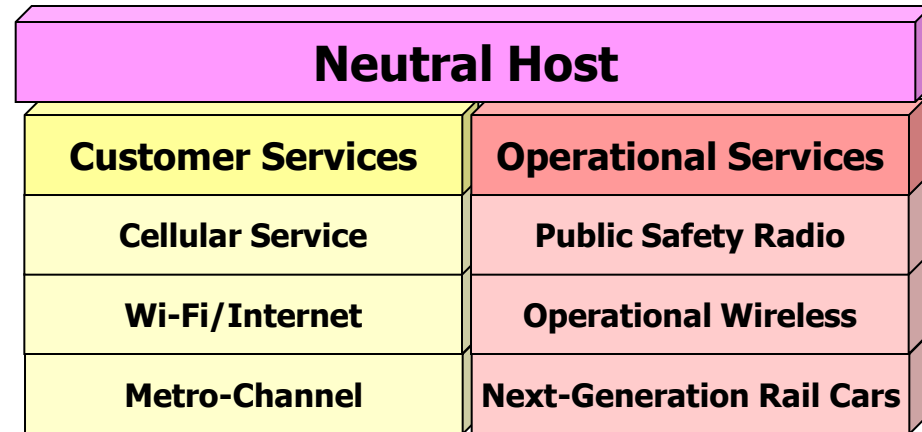
New Cellular Program

Project

- Build one comprehensive wireless network (Neutral Host) to support a variety of wireless services throughout Metro's underground stations and tunnels

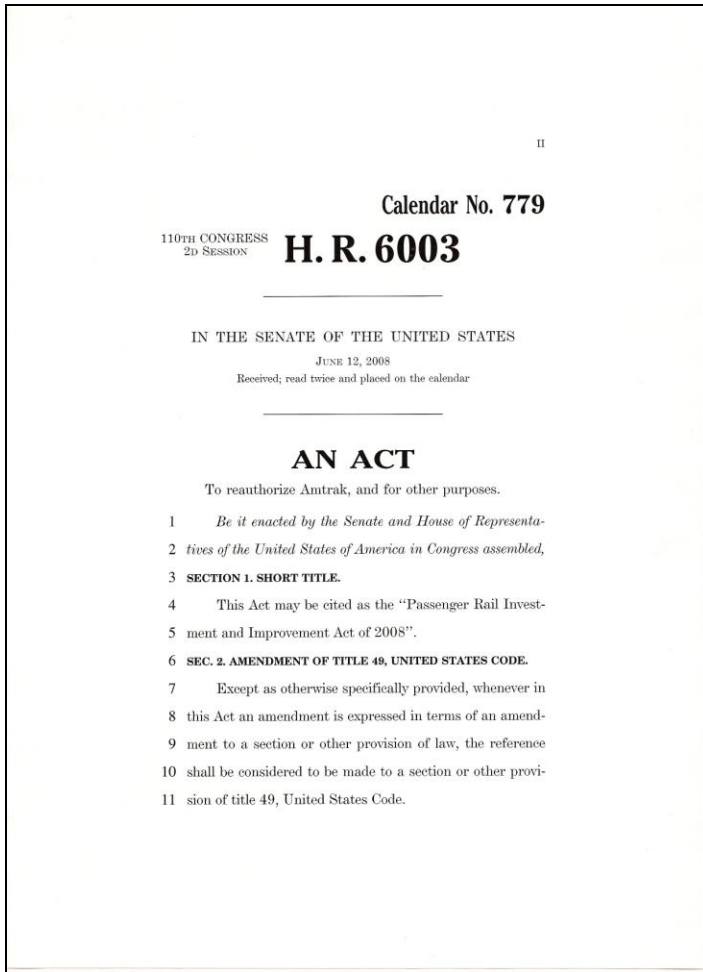
Benefits

- Enable Metro's customers to access all wireless voice and data services, including cellular and Wi-Fi
- Support Metro's operational, administrative, and public safety wireless needs





Amtrak Bill



Passenger Rail Investment and Improvement Act of 2008 authorized for WMATA \$1.5B over 10 years if:

- Passengers at 20 of WMATA's busiest stations have cellular service from any cellular service provider that wants to do business in the system within 1 year of enactment
- Passengers have cellular service throughout WMATA's underground system 4 years after enactment
- Other conditions are met



Request for Proposals Summary

- License to build and operate a Neutral Host at no cost to Metro
- Service to 47 underground stations and 101 miles of tunnels
- Protection of Metro's assets and revenue opportunities
- Allow equal access to all qualified wireless service providers
- Financial offers must include a minimum annual guarantee
- Maximization of revenue while minimizing cost and service disruptions
- Implementation timeline satisfies planned Federal mandates



Key Dates & Activities - Past

- **May 2008** RFP released
- **September 2008** 4 Bids received by WMATA
- **October 16, 2008** Amtrak bill signed: 12 month clock begins
- **December 2008** Negotiations begin with Carrier Team
- **February 2009** Board authorizes award to Carrier Team
- **May 2009** Contract signed
- **June- July 2009** Final Engineering / planning
- **August -October 16, 2009** Construction at “20 busiest stations”
- **October 16, 2009** System turn-up at 20 stations



Financials

- **Neutral Host Term**
 - Initial Term: 15 years
 - Renewal Terms: 5 (five) 2-year renewal terms
- **Minimum Annual Guarantee (MAG)**
 - Twenty-five year MAG Total \$51,810,027
 - Twenty-five year average MAG \$2,072,401
- **Additional Revenue Opportunities**
 - If a 5th FCC licensed carrier joins
 - WMATA receives a 25% increase to the original MAG
 - WMATA has first “right-of-refusal” to host all non-licensed wireless providers
 - Example: Boingo WiFi
- **Other Benefits**
 - \$15m WMATA wireless network to be constructed at no cost to Metro
 - New architecture removes 94% of active electronics from the tunnels
 - Much easier to maintain and upgrade the system
 - Greatly enhances employee and contractor safety



Phase 1 Stations





Project Management Approach

- **Verizon to reuse space and assets from their legacy system to support phase 1 build-out**
 - Base station hotel space
 - In-place fiber assets
- **Develop mutually agreed upon design guidelines for:**
 - Equipment location
 - Coax runs
 - Antenna placement
 - Power feeds
- **Obtain key executive leadership buy-in**
 - Rail Transportation
 - Safety
 - System Maintenance
 - Plant Maintenance
 - Quality Assurance
 - Engineering
 - Electrical
 - Mechanical
 - Architectural
 - Structural



Construction Approach

- **Started with three concurrent teams a night**
 - Contractors underestimated the amount of work that could be completed in one night
- **Next tried “Super-teams”**
 - 50 contractors working at the same station at the same time
 - Didn’t have enough support escorts and safety monitoring
- **Full sprint-12 concurrent teams**
 - All three shifts for 30 days
 - Non-revenue work windows
 - 40 support escorts from 6 departments
 - Over 120 contractors supporting build-out



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Cell Service Expands at 20 Metrorail Stations Today

By [Lena H. Sun](#)
Washington Post Staff Writer
Friday, October 16, 2009

By midnight Friday, the long-awaited expansion of cellphone service at Metro stations will mean riders who use the three other nationwide carriers will join Verizon users in having service at 20 of the busiest underground platforms, officials said Thursday.



Metro Center is among the 20 stations that will have expanded cellphone service on the platforms for subscribers to T-Mobile, Sprint-Nextel and AT&T. (By Gerald Marneau—The Washington Post)

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THIS STORY
[Metro's Busiest Stations to Get Cellular Access](#)
Cell Service Expands at 20 Metrorail Stations Today

Riders who use AT&T, [Sprint Nextel](#) and T-Mobile will be able to make calls, send text messages or surf the Web from those 20 station platforms. Officials cautioned Thursday that initial service will be available only when riders are on the platforms. They will lose it once they step on a train and move into the tunnels.

Eventually, service will expand to anywhere inside the station. By the end of November, officials said they expect that the 20 stations will have continuous coverage from street to platform.

By next fall, the remaining 27 underground stations are supposed to be wired. But full underground service -- including in tunnels between stations -- is not expected to be available until October 2012.

Some non-Verizon customers have been getting a signal this week because carriers have been testing the network, company officials said.

The first phase of the project was completed by the four nationwide carriers, which have been working as a consortium since May to install hardware at the end of station platforms and on mezzanines. Cables and antennae were also installed late at night when the rail system was closed.

Until now, only riders with Verizon service and Sprint customers -- with roaming charges applying -- have had underground service on a wireless network as part of

- Poll
- Have you noticed the expanded cell service in Metro stations?
- I have good cell service on Metro.
 - It's been spotty between stations but better on station platforms.
 - I tried to use it and it didn't work.
 - I haven't tried accessing it yet.
 - Other. (Please describe in comments).

View results
This is a non-scientific user poll. Results are not statistically valid and cannot be assumed to reflect the views of Washington Post users as a group or the general population.

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"Sleep is a beautiful thing."
B. Kroko
WMATA IT/NCS Technician



Key Dates & Activities - Future

- **October 16, 2010** **Remaining 27 underground stations and tunnels if possible**
- **October 16, 2011** **50% of Tunnel Segments**
- **October 16, 2012*** **Remaining 50% of Tunnel segments**

**** Final milestone of the Amtrak Bill***



Lessons Learned

Safety First

- **Competition Works**
- **\$20,000 or \$128,000 or over \$2,000,000 per year in new revenue**
- **Clearly define business objectives**
- **Allow plenty of time for design review and site verification**
- **Get key executive buy-in**

- **Never underestimate the versatility of SO electrical cabling**
- **Power will be your biggest hurdle**
- **Keep a business focus**
- **Track rights are a scarce and precious resource**
- **Piggy-backing allows for schedule compression**

