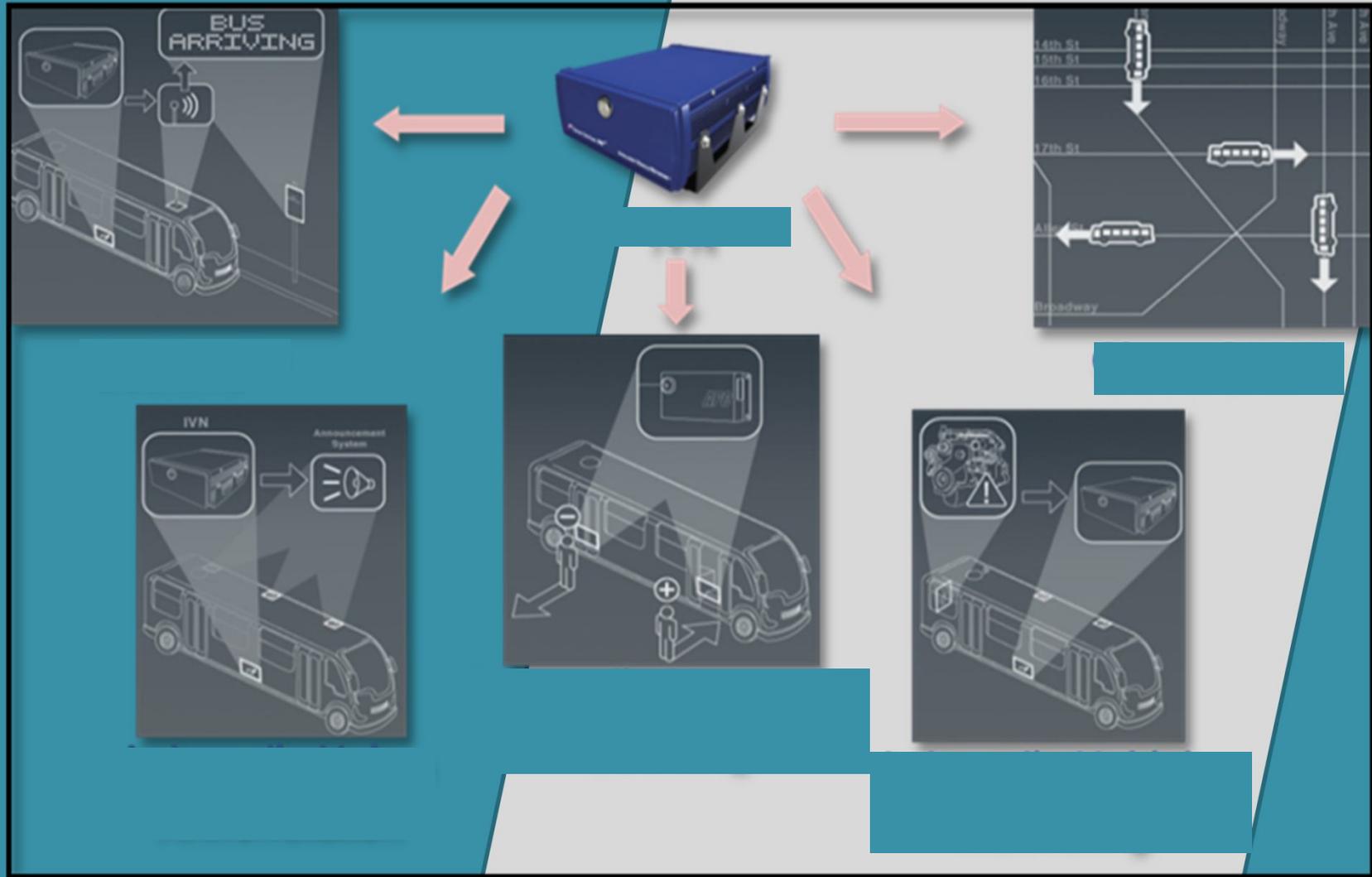


Consolidation of On-Board Ancillary Equipment For Metrobus



Consolidation Of On-Board Ancillary Bus Equipment For Metrobus

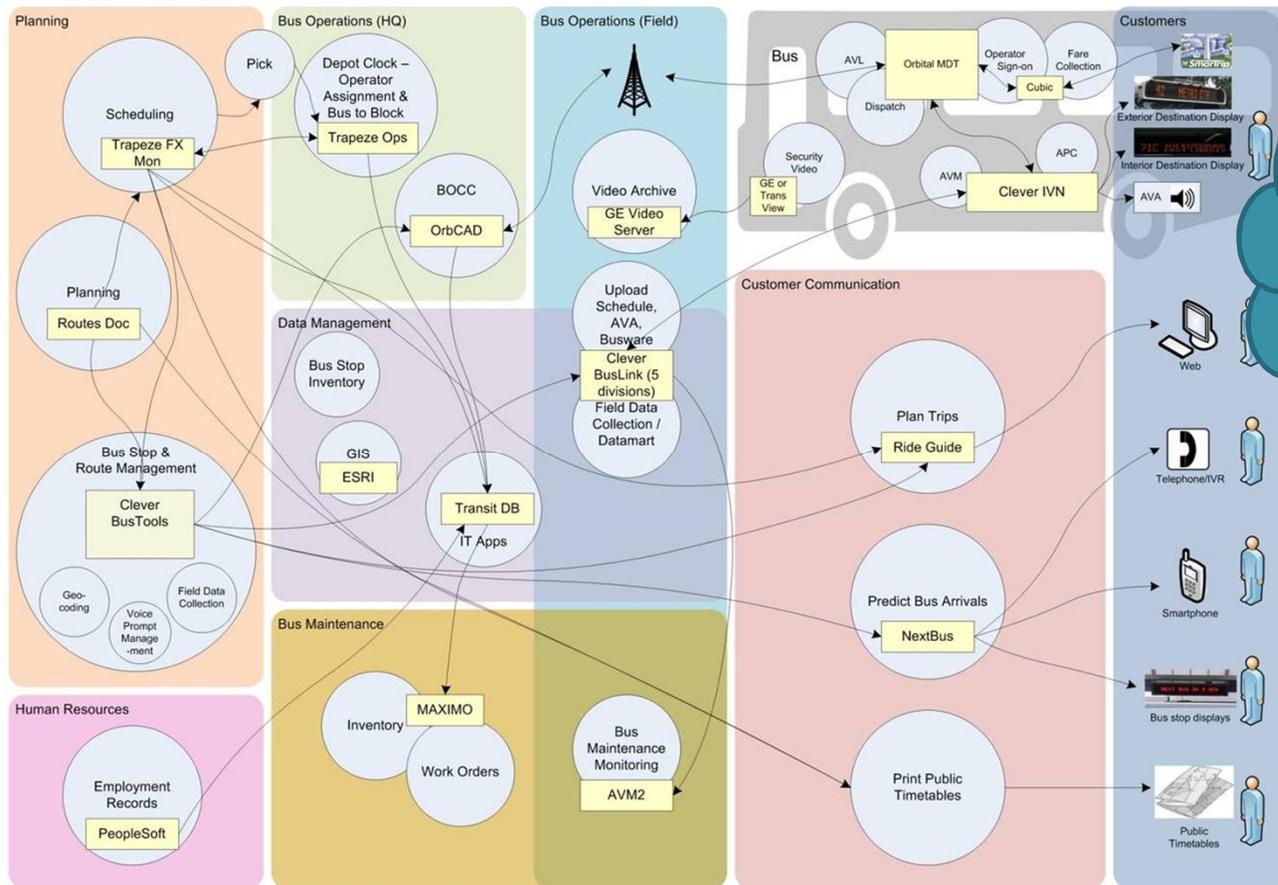
Project's Goal & Main Objective

- ❑ The **goal** is for one vendor to provide a full and robust solution of ancillary bus equipment on-board the Metrobus and fixed end equipment surrounding Bus Operational Control Center (BOCC).
- ❑ Therefore, the **main objective** is Consolidation of On-board Ancillary Bus Equipment (CoABE) and Fixed-end System (FeS) under one vendor, one warranty plan, and one maintenance contract. The Request-For-Proposal (RFP) was issued on November 22, 2010 and a contract was awarded on June 8, 2011.



Consolidation Of On-Board Ancillary Bus Equipment For Metrobus

Overview of Previous System Architecture



Consolidation Of On-Board Ancillary Bus Equipment For Metrobus

The CoABE and FeS are comprised of the following subsystems:

- ❖ Fixed End System Computer Assisted Dispatch/Automatic Vehicle Location (CAD/AVL);
- ❖ Bus radios to meet the FCC Narrowbanding mandate by December 2013;
- ❖ On-board Automatic Vehicle Location (AVL);
- ❖ Automated Voice Annunciation (AVA);
- ❖ Automated Passenger Counting (APC);
- ❖ Automated Vehicle Health Monitoring (AVHM);
- ❖ Supervisor Mobile Data Terminal (MDT);
- ❖ Yard Management System (YMS).



Consolidation Of On-Board Ancillary Bus Equipment For Metrobus

Timeline for Consolidated Systems

From July 1, 2011 to October 30, 2012

- ❖ Three Major Design Reviews over 9 months
[Completion on April 2, 2012]
- ❖ Factory Acceptance Testing At Vendor's Site
[Completion on October 15, 2012]

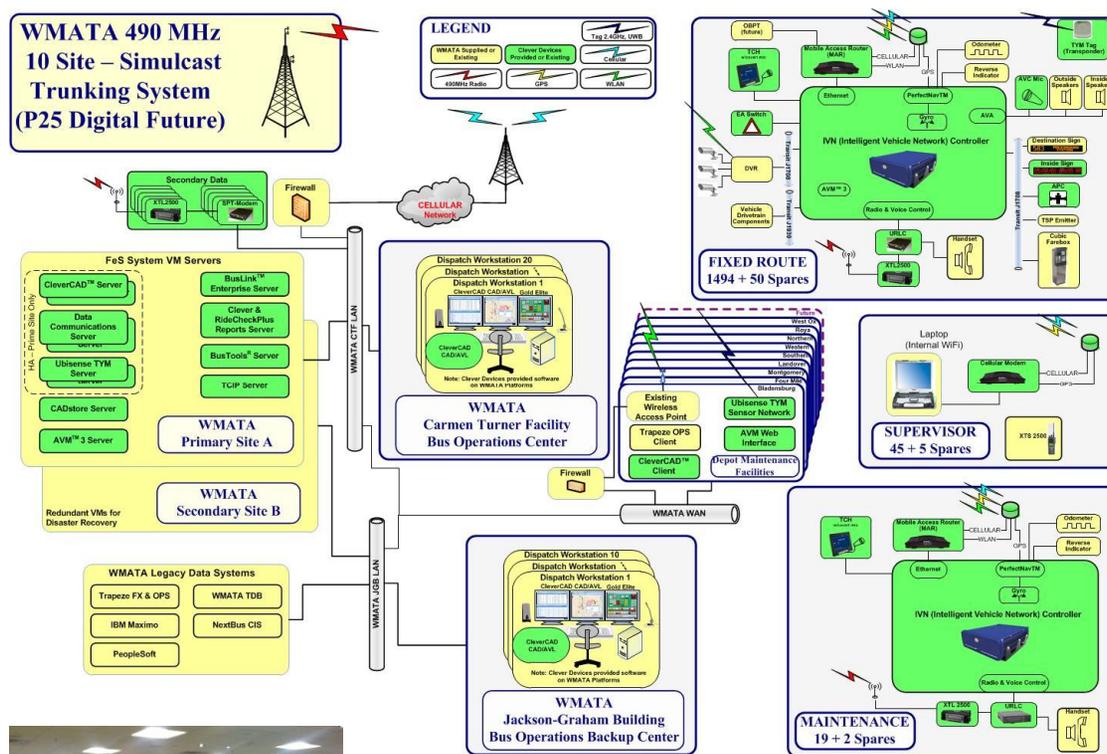
From November 1, 2012 to September 30, 2013

- ❖ Deployment at CTF BOCC + JGB BOCC
- ❖ Deployment on 1500 bus
- ❖ Deployment on 45 Supervisor Vehicles
- ❖ Deployment on 19 Maintenance Vehicles



Consolidation Of On-Board Ancillary Bus Equipment For Metrobus

Overview of Consolidated System Architecture



Numerous Systems & One Vendors

New Technology on Metrobus

- Cellular Data
- Wireless Ethernet Router (i.e., Mobile Access Router)
- Yard Management Bus Location System

Improvements on Metrobus

- Farebox Downloads
- Single Point Logon
- Traffic Signal Priority



Consolidation Of On-Board Ancillary Bus Equipment For Metrobus

Consolidated Annual Cost & Cost Savings

CoABE & FeS Annual Maintenance Cost in FY14 – FY16

➤ FY14 – Full Hardware/Software Maintenance Support	\$1,459,952
➤ FY15 – Full Hardware/Software Maintenance Support	\$1,475,217
➤ FY16 – Full Hardware/Software Maintenance Support	\$1,490,992
TOTAL	\$4,426,161

Annual Cost Savings

<u>Fiscal Year</u>	<u>Cost Now*</u>	<u>Future Cost</u>	<u>Future Savings</u>
➤ FY14	\$3,615,999	\$1,459,952	\$ 2,156,047
➤ FY15	\$3,615,999	\$1,475,217	\$ 2,140,782
➤ FY16	\$3,615,999	\$1,490,992	\$ 2,125,007

3-YEAR TOTAL COST SAVINGS

\$6,421,836

* “Cost Now” reflects the existing and/or future cost if the CoABE & FeS contract were not in place [\$2,866,864 (BMNT)+ \$749,135 (IT) = \$3,615,999].



10/10/2013

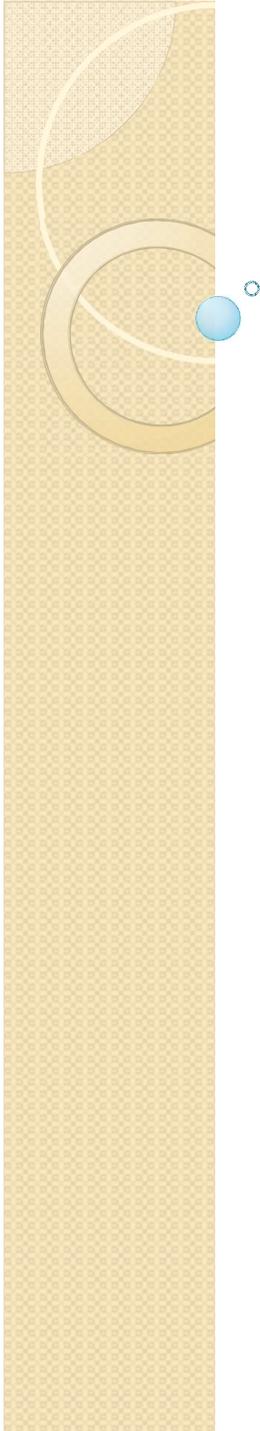
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Consolidation Of On-Board Ancillary Bus Equipment For Metrobus

Yard Management System Design

- ❑ YMS will reside on WMATA's server and access via the Intranet Web Browser
- ❑ Indoor/Outdoor vehicle location will be displayed along with the status (e.g., available, not available, assigned)
- ❑ YMS will interface with WMATA's Transit Database for Trapeze schedule assignments & Maximo maintenance work orders





QUESTIONS/COMMENTS