

Process

A straightforward process was used to derive viable, comprehensive and integrated ITS concepts. The process used a step by step approach to pare down concepts. Approved evaluation criteria, costs, and other coordinated efforts were used to select concepts. The process was very effective in keeping the Technology Task Group informed and involved. The process was comprehensive and based upon the USDOT National ITS Architecture, Version 2.0.

The USDOT National ITS Architecture is a framework for the integration of ITS into the transportation system. In basic form the "Architecture" provides comprehensive information about ITS. A comprehensive list of ITS concepts, applicable to the Dulles Corridor, was developed from the National ITS Architecture market packages. Market packages provide an accessible, deployment oriented perspective defining specific technology application concepts.

USDOT has presented Interim Guidance on consistency with the National ITS Architecture and Standards. The Transportation Equity Act for the 21st Century (TEA-21) requires that ITS projects receiving federal-aid funding from the Highway Trust Fund including the Mass Transit Account conform to the National Architecture and Standards. By approaching this project from the National Architecture Market Package perspective, the approach taken for this project is in conformance with the Architecture.

To gain a greater level of specificity for this project some of the concepts were broken out in further detail from their associated market package or were tailored to this project. For example, the concepts of wayside/in-station traveler information (e.g., variable message signs at transit stops), automated public address system, in-vehicle traveler information (automated next-stop annunciation), and on-board electronic destination signs were broken out in greater detail from the market package, Transit Traveler Information. Other concepts, such as transit vehicle tracking and broadcast traveler information, remained at the level of detail as defined in the National ITS Architecture market packages. Some of the concepts, such as platform screen doors and precision docking, are unique and are not contained within an existing market package.

Each market package was reviewed for application to this project. Existing or planned ITS applications in this region were reviewed and documented as to their effect on the Dulles project. Market package applications then became ITS concepts. These project concepts were evaluated against weighted criteria and ranked. They were then screened further using a logic and expert panel check. As a result of the prioritization process, the list of concepts was essentially broken into the following three groups:

- **Implement:** Those recommended for implementation as a part of the Dulles Corridor Rapid Transit project with the greatest potential for payoff.
- **Coordinate:** Those already proposed or implemented by candidate transit operators in the Corridor. Those that are functions of a traffic agency or other agency.
- **Monitor:** Those that could be implemented beyond the time period of the project.

After the concepts were prioritized, the top-rated ITS concepts were grouped into the areas of electronic payment, safety and security, traveler information, and operations. For each group, detailed capital and

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operating costs estimates for each phase of implementation were developed. The cost information was coupled with the phases of the service delivery plan. The Technology Task Group coordinated efforts with the Service Delivery Task Group in development and review of the detailed implementation plan. The combined implementation plan for technology application to the Dulles project was presented to the Dulles Corridor Task Force and recommended for approval.