## 3.  Research Opportunity and Objectives

This section of the report provides an overview of the research opportunity.  It also describes how the Work Plan was modified to focus on advanced features of transit Web sites, recognizing that basic Web site evaluations, both transit and non-transit, already provided guidance about design, content, and site navigation.

*Overview*

In 2001, the Transit Cooperative Research Program (TCRP) of the Transportation Research Board (TRB) initiated Project J-09, a multi-task study of the potential for electronic business activities in the transit industry.  Called *eTransit: Electronic Business Strategies for Public Transportation,* its seven Task Orders address a range of topics from application service providers to Web-based training.

TRB's overall objective with this Task Order, using the Internet to provide customer information, and the other *eTransit* Task Orders is described below.

> The declining costs of communications, data storage, and data retrieval are accelerating the opportunities spawned by the Internet and other information and communications technologies.  Choosing and sequencing investments in technologies, processes, and people to reduce costs and increase productivity present challenges to the transit manager, who must weigh the costs, benefits, and risks of changing the ways services are delivered.  TCRP's *eTransit* research program will identify, develop, and promote research to maximize the benefits of e-commerce and other new technology applications for public transportation and mobility management … (and) to provide flexible, ongoing, quick-response research designed to bring electronic business strategies to public transportation and mobility management."[2]

Web-based Customer Information (WBCI) is common in most business sectors that provide service to individual end users.  Most people who have used the Web have visited travel planning sites such a *Travelocity* or *Expedia*, airline or inter-city rail pages, or Web-based driving direction and mapping services such as *MapQuest* and *MapBlast!*.[3] They all have features that could be applied to the transit industry.  Indeed, those services provide useful models for transit agency Web sites and helped the project team in developing the methodology for this study.

The project team's previous experience with WBCI indicates that it has great potential to serve the customers of transit agencies, whether big or small, rural or urban.[4]  For instance, by providing accurate and timely information, the uncertainty often associated

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[2]  From the J-09 Web page at
http://www4.trb.org/trb/crp.nsf/All+Projects/TCRP+J-09, which also shows all of the J-09 Task Orders.

[3]  Visit MapQuest at http://www.mapquest.com/ or MapBlast at http://www.mapblast.com/myblast/index.mb

[4]  View the article, "How Transit Agencies are Leveraging the Web for Traveler Information," which summarizes Buck Marks' previous research and presentations on WBCI.  The article and a PowerPoint presentation showing the Web pages of sites discussed are on the ITS Cooperative Deployment Network Newsletter Web page at
http://www.nawgits.com/icdn/transitweb.html.

with riding public transit could be reduced.  This could potentially lead to real and/or perceived improvements in customer service and increased ridership.

*Refining the Work Plan*

During the initial research, the project team realized that there was already sufficient published documentation about the basic components of commercial and transit Web sites, and therefore modified its research focus to highlight advanced features of transit agency Web sites (see Section 4 for a list of foundation research efforts).  Specifically, the project team chose to focus on the following advanced Web site features:

- Automated itinerary planners (AIP);
- Real-time information display systems (RTD);
- Electronic notification systems (EMN); and
- Customer Relationship Management (CRM).

By investigating the objectives, promise, implementation, technology, value creation, lessons learned, and best practices associated with these advanced features, the project team sought to provide a concentrated knowledge base that would be useful to a range of transit Web site managers or administrators.  The results of this research could help transit agencies maximize their Web site investments, while improving customer service. In an environment where adoption of new technology is often difficult because the technologies for the Web, information management, and communications are changing rapidly,[5] the transit industry is likely not maximizing the customer information potential of the Internet at least in part because it lacks a knowledge base that transit agencies can easily tap into to identify WBCI approaches, requirements, and resources.  Within that framework, this project was designed to explore the potential of WBCI to provide cost-effective, high quality customer information in the transit industry.

As discussed in the next section, this Task Order study entailed background research, review of notable transit agency Web sites identified by the project team, and interviews of transit agency staff that are involved in Web site design, development, or maintenance.

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[5] This topic is discussed in the J-09 Task Order 6 Report, "Potential of Using the Internet for Transit Training: Final Report of Task Order 6."