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The 411 on 511: How This Advanced  
Traveler Information System  
Complements and Competes with  
TDM Netconference



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Association for Commuter Transportation  
National Center for Transit Research at the  
University of South Florida



# Today's Speakers



**Pete Costello**  
Senior Project Manager of  
Transportation Network Information  
Services with PBS&J  
and  
chair 511 Deployment Coalition  
Working Group  
Orlando, FL



**Lynn Osborn**  
511 Contra Costa  
and  
chair of the ACT 511 Council  
Contra Costa, CA



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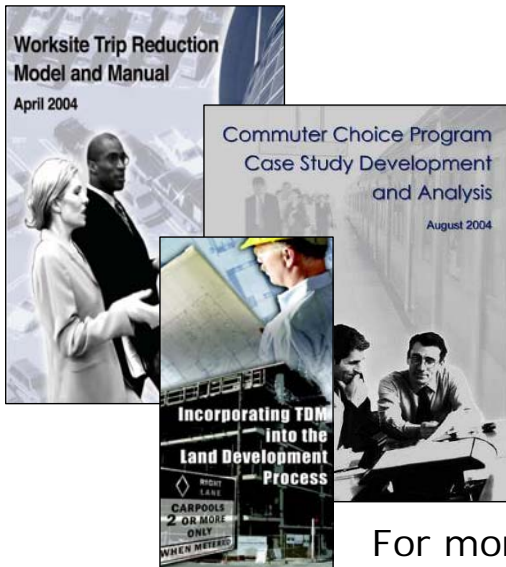
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- Provides professional growth and networking opportunities
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- For more info, visit [www.actweb.org](http://www.actweb.org)



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  - TDM Talk Blog
  - Florida Commuter Choice Training

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[www.nctr.usf.edu/clearinghouse](http://www.nctr.usf.edu/clearinghouse)



## 511 Services "Hit the Road"

The shortest distance between two points is by a direct line.

Kentucky

Iowa

Florida

Utah

San Francisco

Nebraska

ITS AMERICA

## Background

### What is 511?

- An "easy to remember" abbreviated three-digit dialing code and website URL
  - Phone – a "speed dial" to a ten-digit telephone number
  - Web – used to "co-brand" traveler information services

ITS AMERICA

## Background

- 511 designated in July 2000 by the Federal Communications Commission (FCC)
- 511 Deployment Coalition Formed December 2000
  - Policy & Working Entities
  - Provide National Guidance with Local Implementation
- First Call to 511 on June 21, 2001 Secretary Codell (KY)

ITS AMERICA

## Background

### Who is the 511 Deployment Coalition?

- AASHTO
  - State Departments of Transportation
- APTA
  - Public Transportation Agencies
- ITS America
  - ITS Industry – including above agencies
- U.S. DOT
  - Federal leadership

ITS AMERICA

## Background

### SAFETEA-LU Goal for 511

- SEC. 5306. (b) (3) RESEARCH AND DEVELOPMENT.
  - (B) ensuring that a national, interoperable 5-1-1 system, along with a national traffic information system that includes a user-friendly, comprehensive website, is fully implemented for use by travelers throughout the United States by September 30, 2010.

ITS AMERICA

## Background

### 511 Services: Beyond Just the Number

511 is the "cherry on top"

"511" Routing

Telephone System

Traveler Information System



Business Environment

ITS AMERICA

## Background

511 Deployment Coalition Deliverables:

- Guidelines Versions 1.0, 1.1, 2.0 and 3.0
- 7 Deployment Assistance Reports (DAR) including *Public Transportation Content on 511 Services*
- National Conferences  
– July 17 – 19 in San Diego
- Marketing & Outreach – national logo
- Website for Deployers – repository of 511-related material

## Background

Transit Representatives

- Policy Committee
  - Sandra Check, NJ Transit
  - Gregory Cook, Ann Arbor Transportation Authority, *Vice Chair*
  - Ann Flemer, Metropolitan Transportation Commission
  - Bill Millar, APTA




## Background

Transit Representatives



- Working Group
  - Philippe Bellon, Canadian Urban Transit Association
  - Ron Boenau, FTA
  - Matt Coogan, Consultant
  - Melanie Crotty, Metropolitan Transportation Commission
  - Rick L'Amie, Capital Metro
  - Mike Nevarez, Valley Metro
  - Lynn Osborn, 511 Contra Costa
  - Lou Sanders, APTA




## Background

### Why Do We Need Guidelines?



- To assist 511 implementers in developing quality systems
- To lay the foundation for establishing a consistent nationwide 511 Service
- To provide a recommended "Baseline" 511 service, upon which additional features and capabilities can be added
- Not intended to be prescriptive or mandatory requirements for implementers

## Background

### Public Transportation Principles



- Information on all transit agencies in area should be available
- 511 works in conjunction with transit customer service centers
- 511 should minimize additional customer service center overload via automated messages
- Each agency responsible for their information

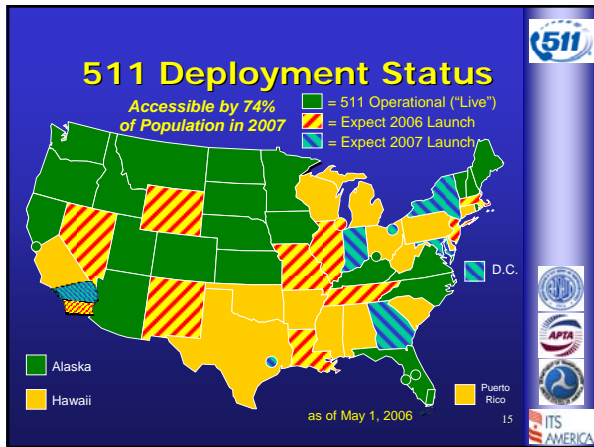
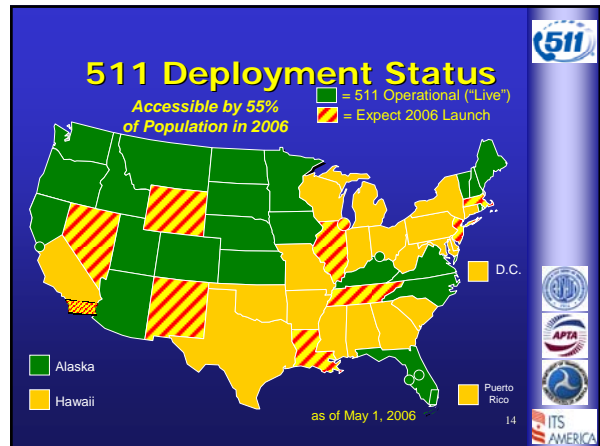
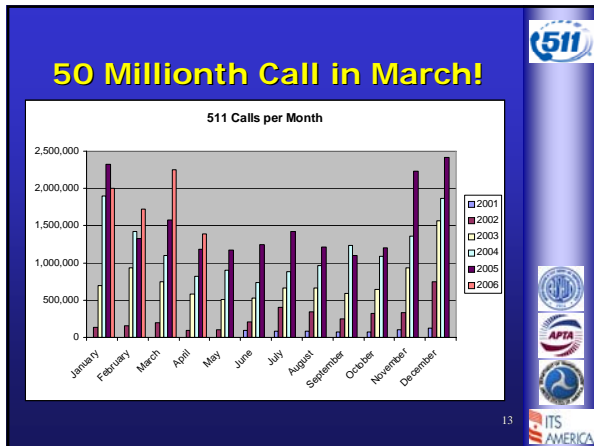



## Background

### Public Transportation Guidelines

- Each agency has at least one automated report:
  - Service description
  - Major service disruptions, changes or additions
  - Direct call transfers from 511 to existing transit customer service centers
  - Other broadcast information at discretion of agency
- Agencies can add more "layers" to reports at their option
- Regional or corridor specific transit information



- ## 511 Deployment Status
- Transit Information on 15 of 28 Services*
- Arizona
  - Cincinnati / Northern Kentucky
  - Maine
  - Minnesota
  - North Carolina
  - Orlando
  - Rhode Island
  - Sacramento / Northern California
  - San Francisco Bay Area
  - Southeast Florida
  - Tampa
  - Utah
  - Vermont
  - Virginia
  - Washington State
  - Colorado (Planning)
- 16 ITS AMERICA



- ## 511 Deployment Status
- Car / Van pool*
- Information on 5 of 28 Services*
- Arizona
  - Sacramento / Northern California
  - San Francisco Bay Area
  - Southeast Florida
  - Utah
  - Colorado (Planning)
- 17 ITS AMERICA

- ## 511 Deployment Status
- Performance Measures
    - 100% Population Coverage by 2010
    - 90% Brand Awareness by 2010
    - 100% Customer Satisfaction by 2010
    - 511 systems will receive more than 40 million calls per year (18.4 million in 2005, 50 millionth call received in March 2006)
- 18 ITS AMERICA

## Public Transportation Content on 511

*Implementer Self-Assessment Checklist*

- General agency information
- Schedule / Timetable
- Website
- Fare information
- Information phone number
- Toll free information number
- Customer service center
- Customer service center hours
- Automated messages IVR
- Service description
- Service hours
- Service disruption information
- Service change information






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## Public Transportation Content on 511

*Implementer Self-Assessment Checklist*

- Service Notices
- Service Alerts
- Special Event information
- Real-time information
- Special pass information
- Parking information
- Elevator / escalator information
- Bike information
- Accessibility information
- Paratransit information
- Quality checked information
- Trip Planning
- Bus / train arrival times






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## Public Transportation Content on 511

*Implementer Self-Assessment Checklist*

- If you checked off at least one of the above, your agency has information that it can begin sharing with the public via 511






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## Public Transportation Content on 511

*Overview of  
Implementation Guidelines*

- Additions
  - Provide sufficient “context” for an unfamiliar user of the service – If one asked for a referral from one city to another entirely different city would that service provide sufficient “context” for an unfamiliar user of the service.
  - List hours of operation before a transfer to a customer service center, which might be closed.






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## Public Transportation Content on 511

*Rationale*

- Produce a “511 basics” guide for transit agencies
- Address getting started with 511 and planning for evolving basic services as experience and demand warrant.






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## Public Transportation Content on 511

*Consumer Research Findings*

- San Francisco Bay Area
  - Needs for transit information
    - Out of ordinary trips
    - During a service disruption
    - When taking trips for:
      - Leisure purposes
      - Job change
      - To the airport

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## Best Practices


- San Francisco Bay Area
  - Operated by the Metropolitan Transportation Commission (MTC) – local metropolitan planning organization
  - Over 30 public transportation agencies on phone and web
  - Over 10 million calls since launch in December 2002
  - Over 20 million web user sessions
  - Approximately \$6 million per year
    - Includes data collection, marketing, operations and maintenance, etc.



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## Best Practices


- San Francisco Bay Area
  - 2005 User Surveys
    - 34% had heard, seen or read about 511
    - Transit riders value 511 (phone and web) for conveniently centralizing a great deal of otherwise dispersed information



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## Best Practices

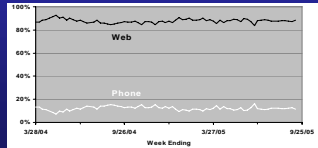
- San Francisco Bay Area
  - 2005 User Surveys
    - 36% said information from 511 caused them to change travel plans
      - 5% delayed their driving trip
      - 20% changed their driving route
      - 1% moved from car to transit
      - 1% moved from transit to car
      - 9% changed their transit trip



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## Best Practices

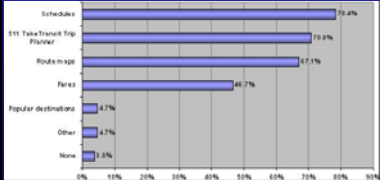
- San Francisco Bay Area
  - Traffic and transit information requests make up 97% of all requests on phone and web
    - Traffic dominant on phone
    - Transit dominant on web



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## Best Practices


- San Francisco Bay Area
  - Most used information on web
    - Transit schedules
    - Trip planner
    - Maps
    - Fares



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## Best Practices



- San Francisco Bay Area
  - Issues
    - Data quality and accuracy is a problem
      - Specifically for schedules and trip planner information
    - Long-term transfer funds from traffic to transit
      - Improve data collection and automate processes
    - Explore streamlined transit agency menus



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## Best Practices

- San Francisco Bay Area
  - Issues
    - Requirements proposed for adoption by transit agencies
      - Provide timely and comprehensive schedule and route updates; routinely perform quality checks; and inform MTC well in advance of changes to the data exchange interface.
      - Notification of changes in telephone information center hours, schedules, fares, and any other changes in recorded information.
      - Consistently promote 511 Transit on transit agency web sites, in printed materials, at bus stops and on vehicles.
      - Share their real-time predictions and configuration data on a timely basis for dissemination on outlets such as 511, 511.org and regional real-time signs.



## Best Practices



- Transit Cooperative Research Program (TCRP)
  - Project A-31, Impact of 511 Deployment on Transit Call Center Operations
    - Determine the factors which can be used to predict the impact on transit call center operation by deploying 511. Provide a tool for prospective 511 implementers to assess the impact on their ongoing operations considering such factors as the level of automation and nature of services to be deployed.
  - Project panel overseeing the effort and bids were due May 31, 2006

## Resources Available

- 511 Websites
  - <http://www.deploy511.org>
  - <http://ops.fhwa.dot.gov/511>
- Deployer Websites
  - AZ511.com, 511.KY.gov, 511MN.org, 511tampabay.com, 511virginia.org, etc.
- Listserv at Yahoo! Groups
  - [511\\_coalition\\_subscribe@yahoogroups.com](mailto:511_coalition_subscribe@yahoogroups.com)

## THANK YOU!

- Pete Costello, PBS&J
  - (407) 806-4440
  - [petecostello@pbsj.com](mailto:petecostello@pbsj.com)




## 411 on 511 The S.F. Bay Area Experience

Lynn Osborn  
Association for Commuter Transportation  
511 Council  
511 Contra Costa Program Manager  
June 1, 2006  
Netconference



1

## What is the MTC 9 County Region?

9 San Francisco Bay Area Counties

7 Million People;  
almost 4 million jobs

101 Municipalities

1,400 Miles of highway

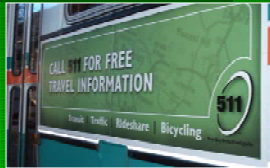
19,600 Miles of local streets and roads

23 Public transit operators



## User Needs: Early Research

- Four focus groups
  - Traffic
  - Transit
  - Ridesharing
  - Bicycling
- Overall need: A single source of timely and reliable information, on the phone and on the Web.



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## Bay Area 511 Program

Bay Area's free traveler information service

Phone – Call 511  
Web – Visit 511.org



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## Background

- Fall 2002 Deployment
- Press conference-media
- Live demonstration of 511 phone system
  - Transition from 817-1717 to 511
- Subsequent integrated website portal
  - Transition from transitinfo.org to 511.org



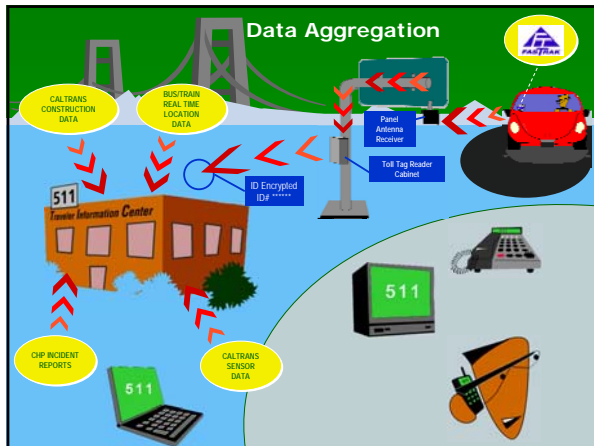
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## The Bay Area 511 Program

- Multimodal**
  - Traffic
  - Transit
  - Ridesharing
  - Bicycling
- Innovative Features**
  - Real-time traffic conditions
  - Customized driving times
  - Real-time transit arrival times
  - Ridematch System (including rideshare information)



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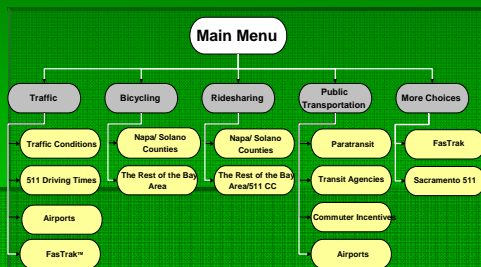
## 511 Phone

- Original design based on customer input
- Users of all modes requested a single source of timely and reliable information
- Voice Recognition System



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## 511 Menu



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## 511 Phone Service



- State-of-the-art, interactive voice-response system
- Touch-tone alternative available
- Integrated into 711 California Relay Service
- "Short cuts" bypass menu options
- Interruptible
- Transfers to live transit operators



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## 511 Web Service – 511.org

- Same multimodal, on-demand traveler information, and more
- Interactive, real-time mapping and trip-planning tools
- Alternate text image tags and "skip navigation" links for screen readers
- Traffic and Driving Times map provides optional color schemes and textures



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## 511.org Homepage

- Public Policy
- Commuter Choice
- Vanpool
- TMA



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## Modal Pages



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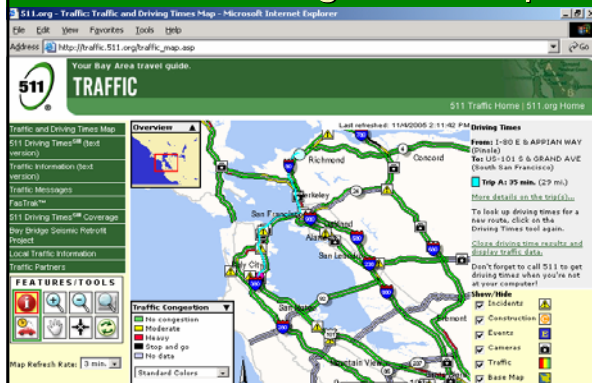
## Traffic User Needs

- Current, on-demand information,
  - when traffic is typically heavy
  - during bad weather
  - incident reports
  - for sudden slowdowns
- Driving times between their origin and destination



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## Traffic & Driving Times Map



## Transit User Needs

- Single source of info for multiple agencies
- Schedule, route and fare info
- Service disruption advisories
- Tool for planning unusual trips



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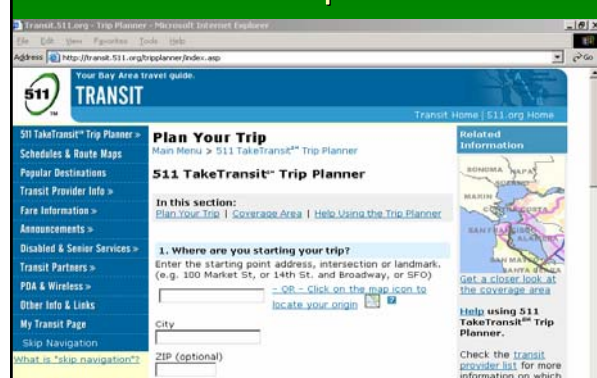
## SF Bay Area

- Transit connections
- 9 counties
- 23 transit agencies
- Different fare rates and instruments



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## TakeTransit Trip Planner<sup>SM</sup>



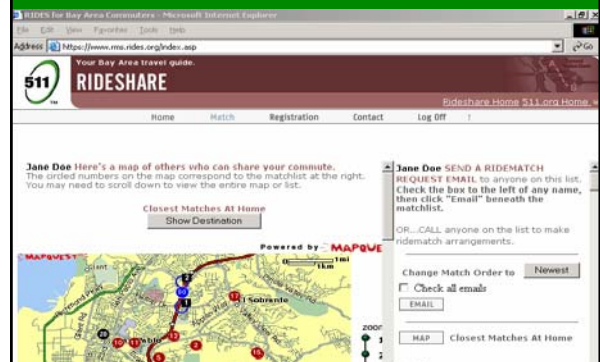
## Rideshare User Needs

- Quick resource to find partners
- Supportive environment
- Incentive information



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## 511 Ridematch Tool



## Bicycling User Needs

- Bike route maps
- Safety information
- A place to connect with other bicyclists



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## 511 BikeMapper<sup>SM</sup>



## 511 Partner Rideshare Agencies

- Four of nine Bay Area Counties with local rideshare agencies
  - 511 Contra Costa
  - The Alliance - (Peninsula Traffic Congestion Relief Alliance-San Mateo)
  - SNCI - (Solano/Napa Commuter Information)
  - 511 Rideshare Program - serves five counties and hosts RMS



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## 511 Contra Costa

- 1992- Agency called Contra Costa Commute Alternative Network established
- 1996- [www.traks.org](http://www.traks.org) website developed
  - First San Francisco Bay Area Transportation Website
- 2005-Agency name changed to 511 Contra Costa for better public recognition and understanding of services



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## 511contracosta.org Website



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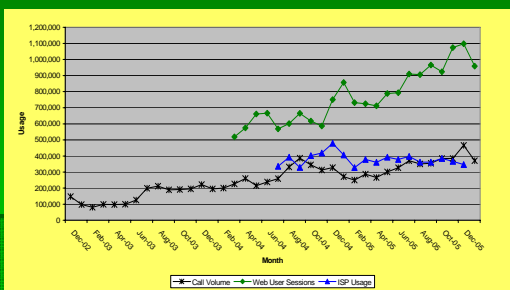
## 511 Phone and Web Usage Summary

- Over 350,000 calls per month
- Over 1.3 million web user sessions per month
- Cumulative usage to date: 11 million calls and almost 21 million web user sessions
- Majority of phone requests are for traffic information, majority of web requests are for transit information



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## 511 Phone and Web Usage Summary

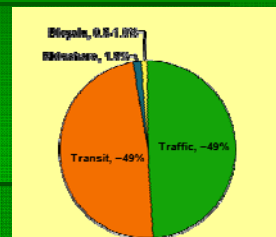


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## Predictions

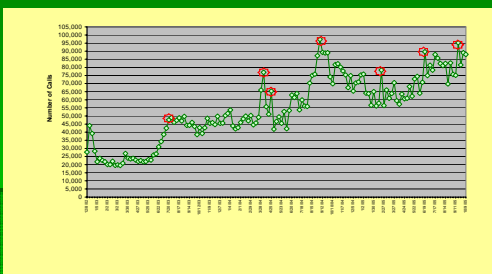
Based on current trends, looking ahead 5 years, we predict:

1. Phone usage will surpass the web (1.8 mill calls/week vs. 1.2 mill user sessions/week).
2. Transit will be more popular on the web than phone (68% share on the web);
3. Traffic will be more popular on phone (78%).
4. Usage will split evenly between traffic and transit, when combining phone and web.



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## Phone and Web Usage Spikes in Times of Need



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## 511 Strategic Plan- A Vision for 2015

### Strategic Plan Process

1. Develop a vision for 511 in the Bay Area
2. Define existing functions and features. Evaluate customer usage trends. Identify potential enhancements
3. Explore public and private sector roles and responsibilities for 511. Explore 511 as an emergency response tool
4. Document costs for existing functions and potential enhancements; integrate new technology
5. Develop various operational scenarios. Recommend a preferred scenario to support the vision



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## 511 Contra Costa Strategic Plan

- Concentrate on website improvements
- Plan currently under development
  - Smart Corridors: Incorporate county/corridor-specific real-time traffic feeds to 511contracosta.org website
  - Incident management details-including alternative routes and modes
  - Emergency preparedness postings
  - More responsive to immediate need for accurate information
  - Integrate information via new technologies



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## Special Thanks to:

Shauna Callow  
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## Contact Information

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[www.511contracosta.org](http://www.511contracosta.org)



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## Useful 511 Links

- FHWA 511 Home
  - <http://www.ops.fhwa.dot.gov/511/index.htm>
- 511 Deployment Coalition
  - <http://www.deploy511.org/>



## Coming Attractions

- The 511 National Conference
  - July 17- 19, 2006 in San Diego, CA
- ACT International Conference
  - August 27-30, 2006 in Boston, MA



The streaming recording of today's presentation and copies of the slides will be available tomorrow at [www.nctr.usf.edu/clearinghouse](http://www.nctr.usf.edu/clearinghouse)



## Netconference Evaluation Form

Title: The 411 on 511: How This Advanced Traveler Information System Complements and Competes with TDM

Date: 6/1/06 City: \_\_\_\_\_

Please take a few minutes to fill out this brief evaluation. Your feedback will help us to plan future sessions and is greatly appreciated **Please email to [winters@cutr.usf.edu](mailto:winters@cutr.usf.edu) or fax to Phil Winters at 813-974-5168**

	Excellent	Very Good	Good	Fair	Poor
1. How would you rate this session overall?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. How would you rate this session in meeting your expectations?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. How would you rate this session in being relevant and helpful to your job?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. How would you rate the presenter(s) knowledge of the material and contribution to the learning objectives?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. How would you describe the level of the session on fitting your level of experience? (Circle one)

Too advanced

The right level

Too basic

6. How would you describe the length of the session? (Circle one)

Too long

The right length

Too short

7. What from this program was most valuable for you?

8. What was missing from this program or presented in less detail than you would have liked?

	Very Effective	Somewhat Effective	Not At All Effective
9. How effective do you feel this netconference was an effective communication tool	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Yes	No	Don't Know
10. Are you planning to attend the 2006 ACT Conference in Boston, MA?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Are you planning on taking any professional development workshops at the ACT meeting?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**(over)**

12. The following question asks you to divide 100 points between a set of options to show the value or importance you place on each program or service. Please distribute the 100 points giving the more important reasons a greater number of points

<b>Points Awarded</b>	<b>ACT Program or Service</b>
_____	Supporting ACT government relations efforts
_____	Receiving member discounts (e.g., conferences)
_____	Participating in netconferences hosted by chapters and Virtual Discussions
_____	Attending national conference
_____	Attending chapter events and/or regional conferences
_____	Participating on councils (e.g., TMA Council, Public Policy Council, etc.)
_____	Receiving publications (TDM Review)
_____	Receiving email news and alerts (eTDM Review, Action Alerts)
_____	Other
_____	<b>= 100 Total Points</b>

13. Additional Comments (i.e., topics of interest, presenters, other thoughts and ideas, etc.):

**OPTIONAL**

Name \_\_\_\_\_

Email \_\_\_\_\_

Thank you! The recorded version of this session and copies of the slides can be found at [www.nctr.usf.edu/clearinghouse/netconferencing.htm](http://www.nctr.usf.edu/clearinghouse/netconferencing.htm)

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