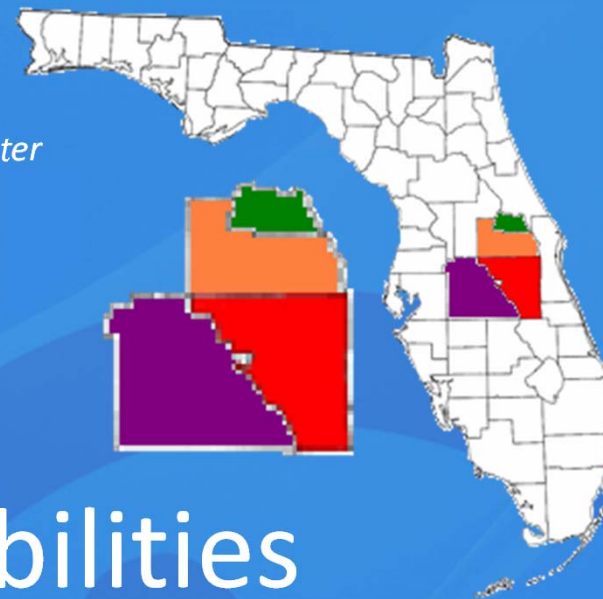


M.O.R.E.T.M.C.C.

Model Orlando Regionally Efficient Travel Management Coordination Center




Building ITS Capabilities One Step at a Time

National Rural ITS Conference
Coeur d'Alene, ID
August 31, 2011

Doug Jamison
Bill Hearndon





Alice: “Would you tell me,
please, which way I ought to go
from here?”

The Cat: “That depends a
good deal on where you
want to get to.”

Alice: “I don’t care much where.”

The Cat: “Then it doesn’t matter
which way you go.”

- Lewis Carroll



What Do You Want To Be When You Grow Up?



LYNX ITS Strategic Plan

Prepared for:

LYNX
Central Florida Regional Transportation Authority
445 West Amelia Street, Suite 800
Orlando, FL 32801

Prepared by:

Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201

and

Multisystems
10 Fawcett Street
Cambridge, MA 02138

June 12, 2003



2003

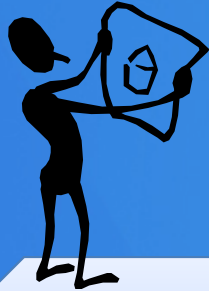
One Stop Shop for traveling from point A to point B, even if you don't travel on LYNX

Regional Traveler Information Dissemination "such as a regional multi-modal traveler information Internet site or telephone information system"

"...a good regional 'neighbor' and partner with other transportation agencies"



What Do You Want To Be When You Grow Up?



Regional “One Stop Shop” for traveler information

Regional Traveler
Information Integration

Regional
Database

Interactive Voice
Response Phone

Regional Fare
Payment Cards

Mobile Data
Terminals

Computer-aided
Dispatch

Interactive Internet
Trip Scheduling

Fare Payment
Cards

Enhanced Mobile Voice
& Data Communications

Automatic Vehicle
Location

Internet Trip
Request

Enhanced
Fareboxes

GIS/Digital
Mapping

Computer-aided
Scheduling

Static Traveler
Information Website

Electronic
Fareboxes



What Do You Want To Be When You Grow Up?

Regional “One Stop Shop” for traveler information			
Regional Traveler Information Integration	Regional Database	Interactive Voice Response Phone	Regional Fare Payment Cards
Mobile Data Terminals	Computer-aided Dispatch	Interactive Internet Trip Scheduling	Fare Payment Cards
Enhanced Mobile Voice & Data Communications	Automatic Vehicle Location	Internet Trip Request	Enhanced Fareboxes
GIS/Digital Mapping	Computer-aided Scheduling	Static Traveler Information Website	Electronic Fareboxes



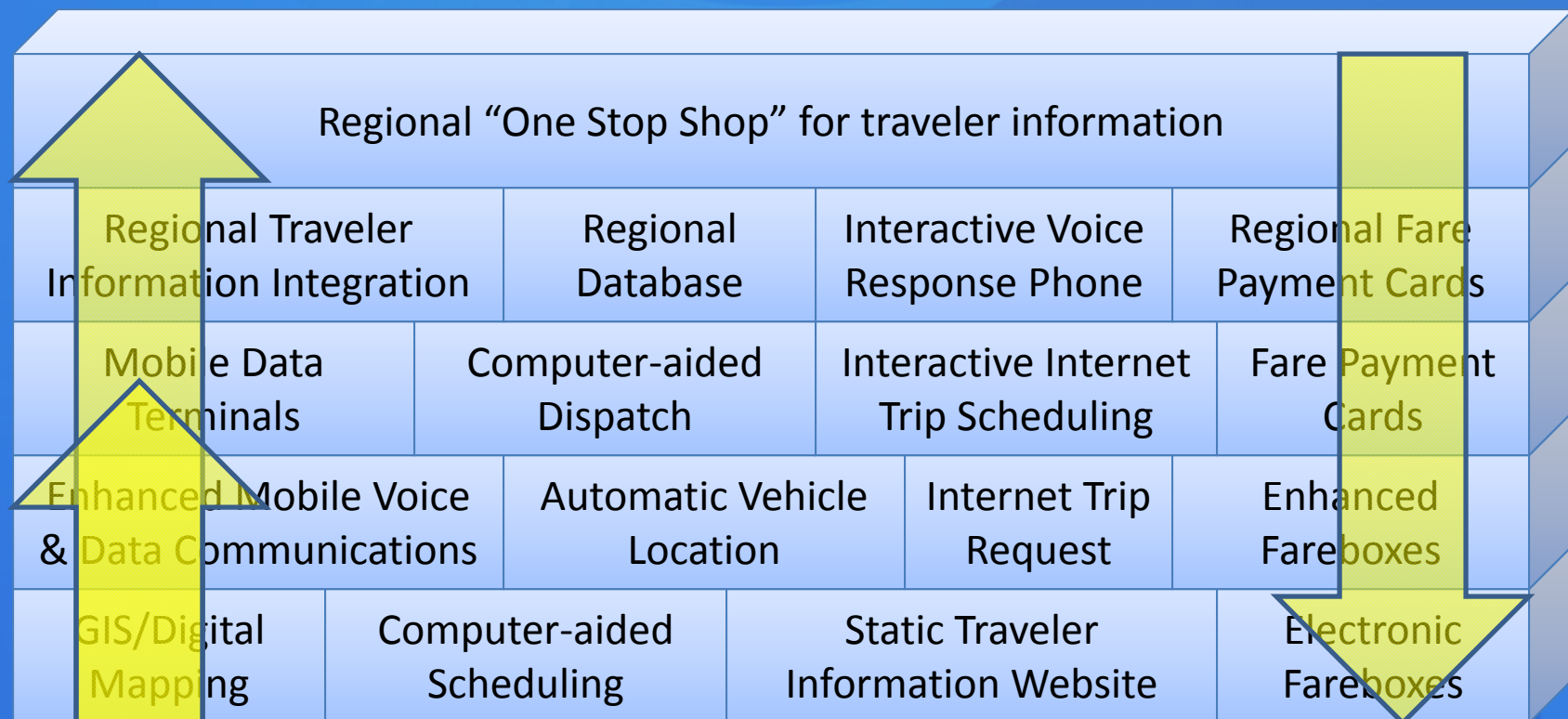
What Do You Want To Be When You Grow Up?

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Regional Traveler Information Integration	Regional Database	Interactive Voice Response Phone	Regional Fare Payment Cards
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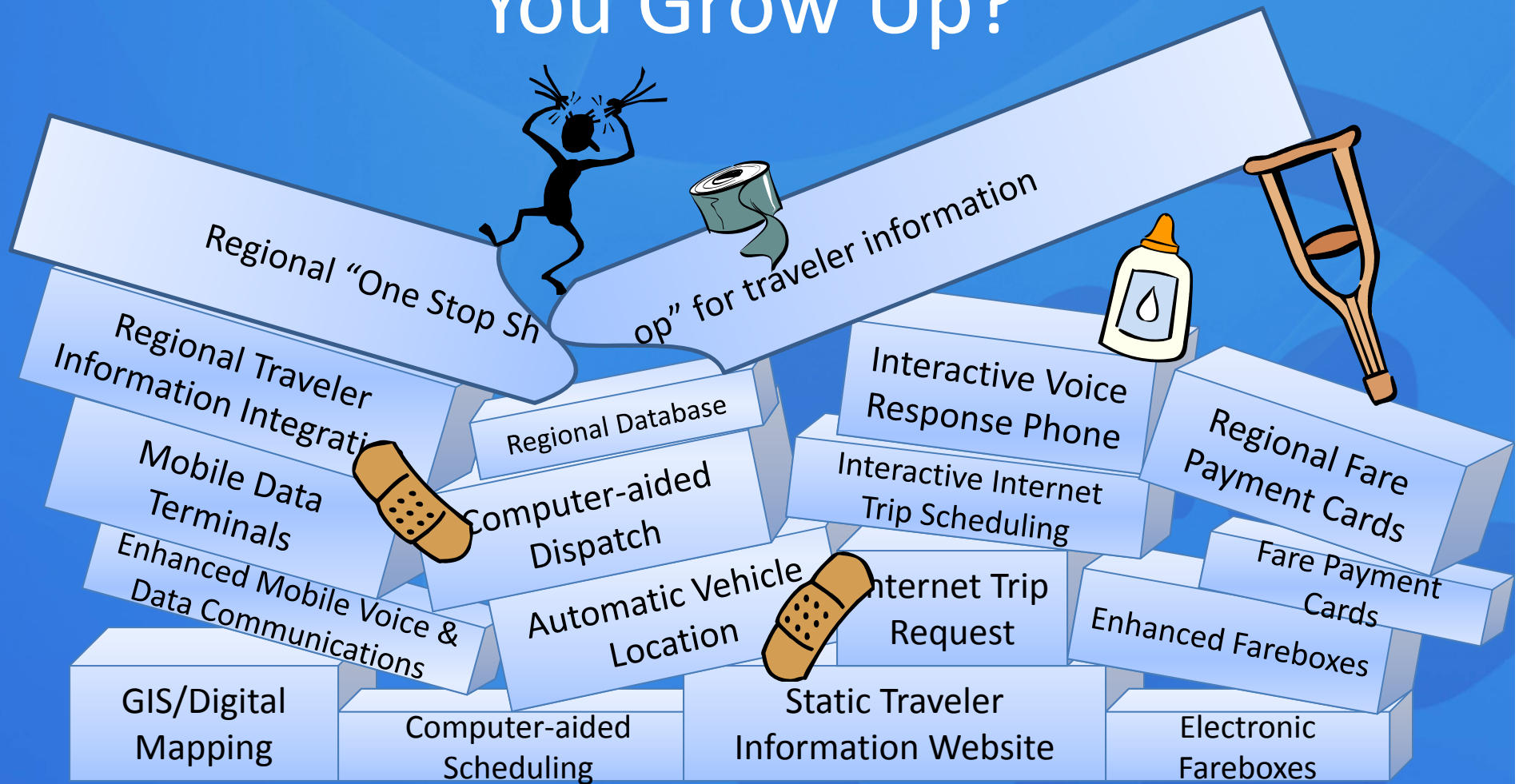
M.O.R.E.T.M.C.C.



What Do You Want To Be When You Grow Up?



What Do You Want To Be When You Grow Up?



What Do You Want To Be When You Grow Up?

Regional “One Stop Shop” for traveler information			
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GIS/Digital Mapping	Computer-aided Scheduling	Static Traveler Information Website	Electronic Fareboxes



M.O.R.E.T.M.C.C.

Model Orlando Regionally Efficient Travel Management Coordination Center

Travel Management Coordination Center

Establish **replicable** and **scalable** models of traveler management coordination centers (TMCC), that provides **one-stop, unified** customer-based travel **information** and **trip planning** services, and supports **coordinated** human services transportation **operations**. – USDOT RITA



Stakeholders

Service Providers

Central Florida Regional
Transportation Authority
(LYNX)

Lakeland Area Mass
Transit District
(Citrus Connection)

Polk County Transit
Service
(PCTS)

Human Service Agencies

Agency for Health Care
Administration

Department of Elders
Affairs
(DOEA)

Agency for Persons
with Disabilities
(APD)

Area Agency on Aging
(Senior Resource Alliance)

Social Service Organizations

Seniors First

Seminole Community
Mental Health

Terra Vista Rehab
Center

Lakeside Behavioral
Healthcare

Laurel Hill
Independence Center

Other Interest Groups

MetroPlan Orlando
(MPO)

Polk County
Transportation Planning
Organization
(MPO)

MV Transportation, Inc.

Goodwill Industries of
Central Florida

Florida Commission for
the Transportation
Disadvantaged

Florida Department of
Transportation



Problem: What are you trying to solve?

Concept: How do you think you will solve the problem? Who are the stakeholders?

Concept of
Operations

Needs: What do the stakeholders need the solution to do?

Needs
Assessment

Systems
Requirements

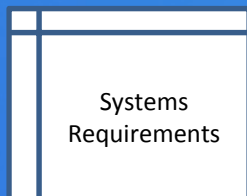
Requirements: How must the solution perform to meet the needs?

High Level
Design

Design: Incorporate the problem statement, concept, needs, and requirements.

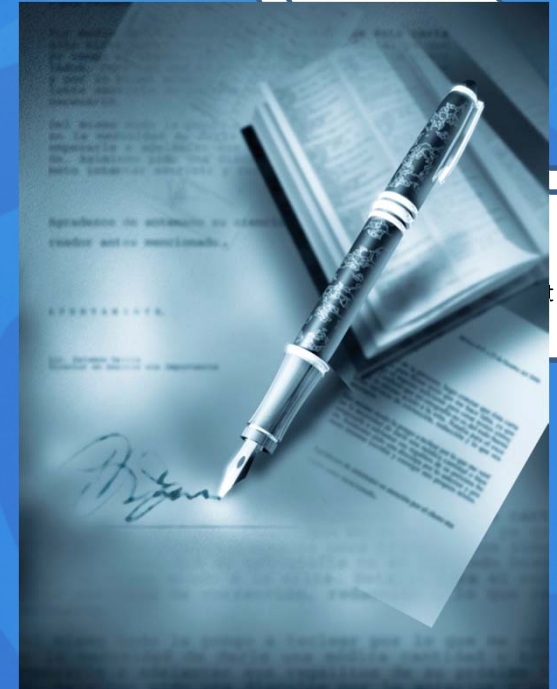
Systems Engineering Process





In documents, vendor is responsible.

Not in documents, requires a change order.



Systems Engineering Process



Concept of
Operations

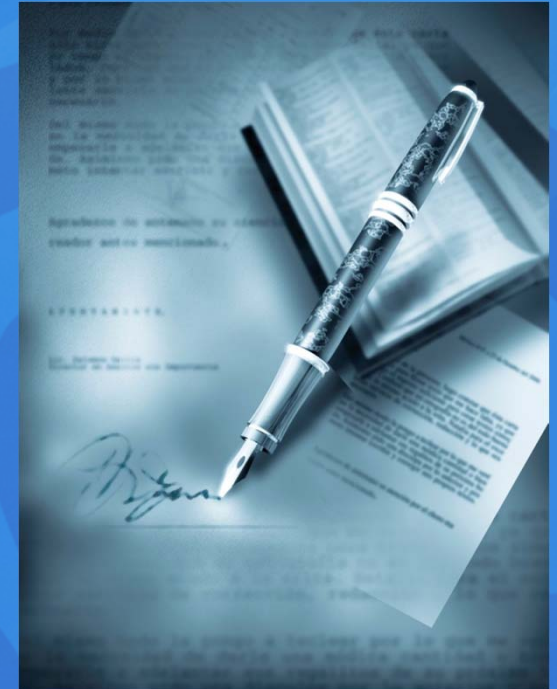
Needs
Assessment

Systems
Requirements

High Level
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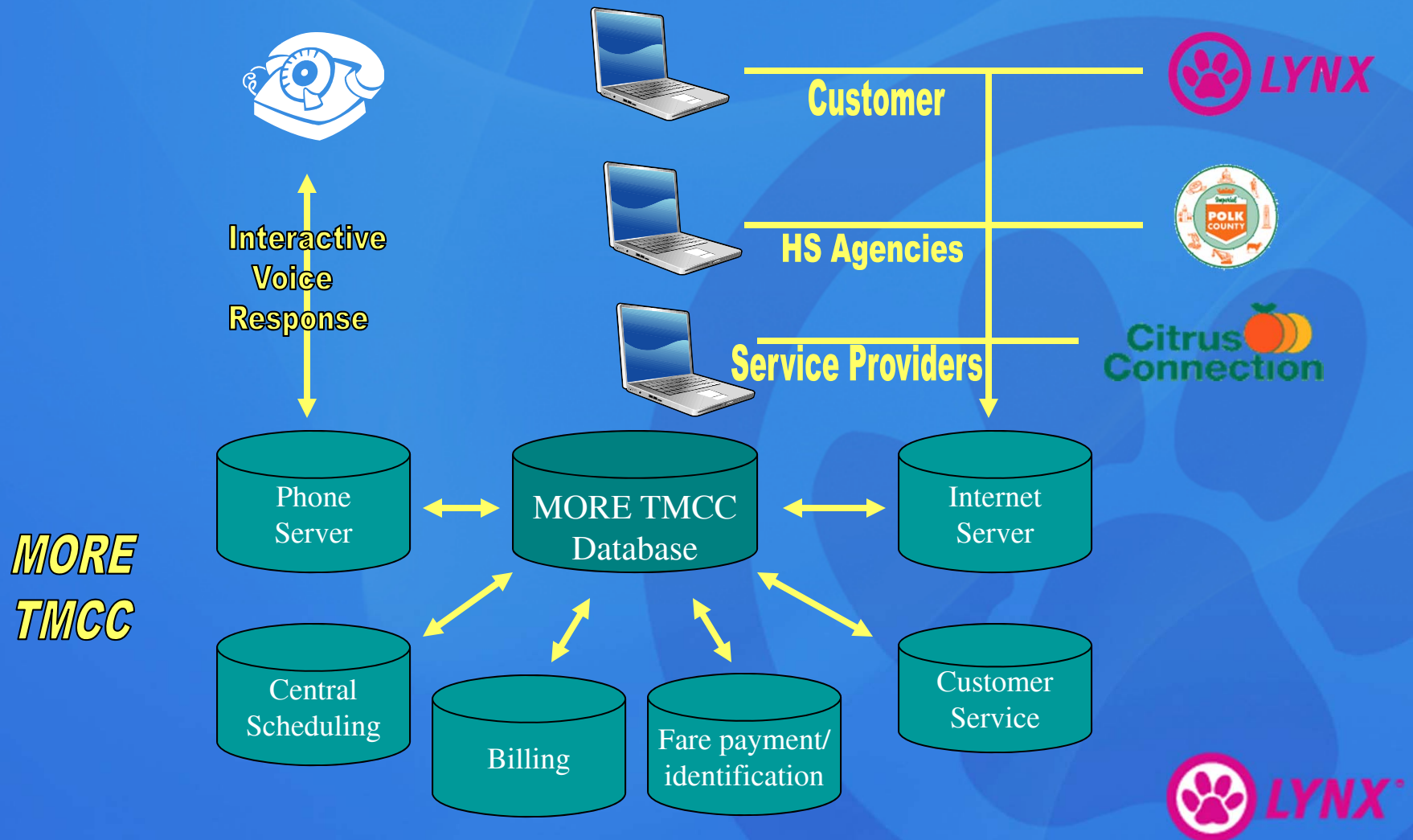


Systems Engineering Process

www.ntionline.com



Phase II Deployment - Concept



Phase II Deployment - Funding



	Federal TMCC	Federal 5307	State Grant
Consultant Support Project Management	\$100,000		
Internet Access Email/SMS Notification			\$165,000
Point of sale fare media Identification Cards Electronic Payment		\$150,000	\$35,000
Interactive Voice Response		\$330,000	
	\$100,000	\$480,000	\$200,000



Phase II Deployment - Evaluation

Coordination - increased coordination among the various transportation, human service and funding agencies

- There will be less increase in coordination in the initial stages of the MORE TMCC deployment due to the reduced scope
- Agencies will be enabled to process identification cards for their customers
- Agencies will be able to directly book and service trips for their customers (one call, one ride)



Phase II Deployment - Evaluation

Efficiency – sharing resources and utilizing technology will increase efficiency among and within agencies

- The number of calls taken (overall) will be reduced as more customers are served on-line and by IVR
 - Reduction in average hold queue time
 - Reduction in the number of abandoned calls
- Customers will use the on-line and IVR access to cancel trips
 - Reduction in “no shows”
- The arrival notification will reduce the number of calls to check on trip arrival and reduce the dwell time for pick-up



Phase II Deployment - Evaluation

Cost – decreased costs due to higher efficiency

- Reducing the “no shows” and “late cancels” will reduce costs
 - Service provider gets paid for hours of service
 - Removing non-revenue trips from the schedule will increase efficiency



Phase II Deployment - Evaluation

Customer Satisfaction – the MORE TMCC should improve the customer experience

- Customers who believe that the transportation services are more accessible
 - Easier to book
 - Easier to pay fare
- Customer satisfaction with the trip reminder feature
- Customer satisfaction with the vehicle arrival notice feature



Internet Access - Scope

Customers / Social Workers

- Book a trip
- View/edit a trip
- Cancel a trip

10% registered
(and growing)

The screenshot shows the 'Web ACCESS' interface for Lynx. At the top, there's a header with the Lynx logo and 'Web ACCESS' text, along with contact information: 'Online Reservations' and 'Online Customer Service 407-423-TRIP (8747)'. Below the header, the page is divided into two main sections. On the left, under 'Client Information', a user is logged in with a masked ID and address (4201 W NEW NOLTE RD, ST CLOUD, FL 34772). A 'Log out' button is present. Below this is a 'Services' menu with links: Home, Review or Cancel Trips, Reserve a Trip (highlighted), My Subscriptions, My Profile, General Info, Announcements, Feed Back, and Help. The right section is titled 'Reserve a Trip' and contains a prompt: 'Please review your ride request information below and click "Reserve Trip" button to continue.' Below this, trip details are listed: Date (08-25-2011), Requested (10:00a), Pickup Time, Pick-up Location ((CUSTOMER HOME) 4201 W NEW NOLTE RD, ST CLOUD, FL 34772), Pick-up Comments (osceola health care), Drop-off Location (WALMART ALTAMONTE, 200 STATE HWY 434, ALTAMONTE SPRINGS, FL 32714), Drop-off Comments (434 AND 436), Space Type (WHEELCHAIR), and Mobility Aid. It also lists 'Additional Passengers: 1. PERSONAL CARE ATTENDANT - AMBULATORY'. At the bottom of this section are buttons for 'Reserve Trip', 'Start Over', 'Edit Trip', and 'View Map >>'. The footer features the Lynx logo and 'ACCESS-LYNX PARATRANSIT PARTNERSHIP'.

Client Information:

Client Id: [REDACTED]
4201 W NEW NOLTE RD
ST CLOUD, FL
34772

Log out

Services:

- Home
- Review or Cancel Trips
- Reserve a Trip
- My Subscriptions
- My Profile
- General Info
- Announcements
- Feed Back
- Help

Reserve a Trip

Please review your ride request information below and click "Reserve Trip" button to continue.

Date: 08-25-2011
Requested: 10:00a
Pickup Time:

Pick-up Location: (CUSTOMER HOME) 4201 W NEW NOLTE RD
ST CLOUD, FL
34772

Pick-up Comments: osceola health care
Drop-off Location: WALMART ALTAMONTE, 200 STATE HWY 434
ALTAMONTE SPRINGS, FL
32714
Drop-off Comments: 434 AND 436
Space Type: WHEELCHAIR
Mobility Aid:

Additional Passengers: 1. PERSONAL CARE ATTENDANT - AMBULATORY

Options:

Reserve Trip Start Over Edit Trip View Map >>

LYNX®

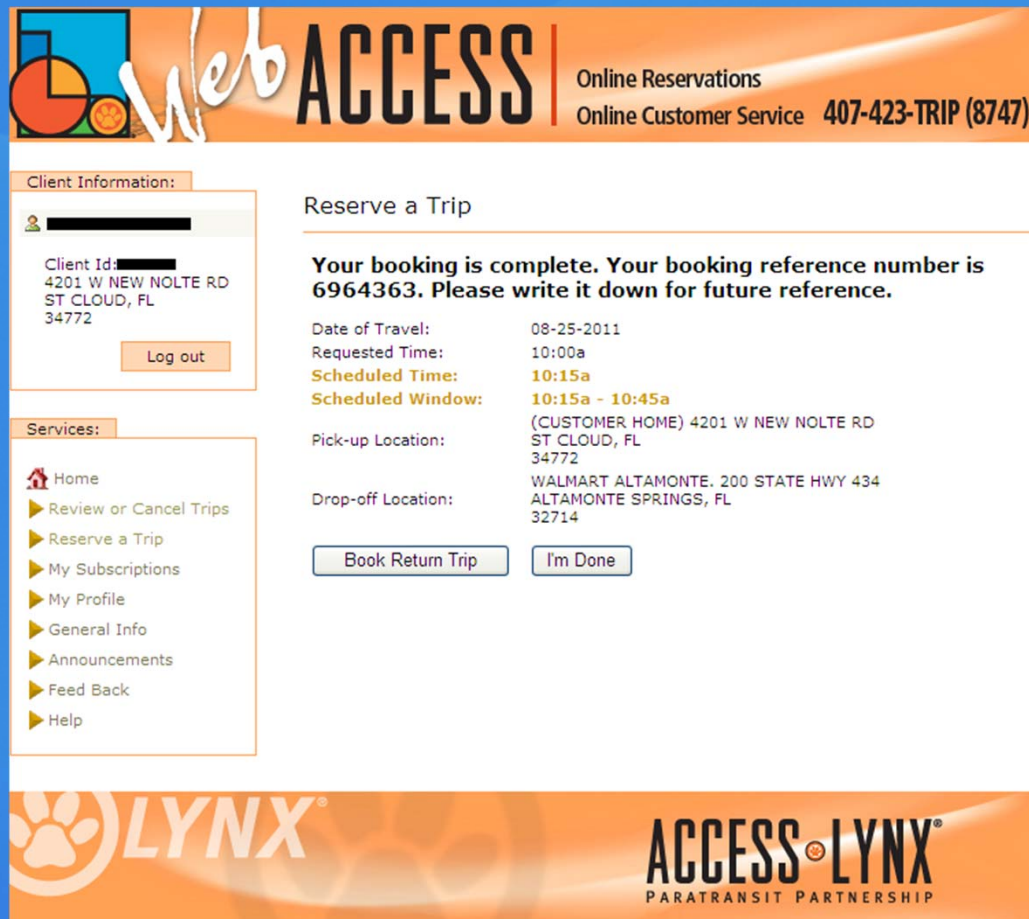
ACCESS-LYNX®
PARATRANSIT PARTNERSHIP



Internet Access - Scope

SMS / E-mail

- Confirmations
 - Booked Trip
 - Canceled Trip
- Day before reminders
- Vehicle arrival notice



The screenshot displays the Lynx Web ACCESS interface. At the top, the header includes the 'Web ACCESS' logo and contact information: 'Online Reservations' and 'Online Customer Service 407-423-TRIP (8747)'. The main content area is divided into two columns. The left column, titled 'Client Information', shows a user profile with a redacted name, a client ID, and an address (4201 W NEW NOLTE RD, ST CLOUD, FL 34772), along with a 'Log out' button. Below this is a 'Services' menu with links to Home, Review or Cancel Trips, Reserve a Trip, My Subscriptions, My Profile, General Info, Announcements, Feed Back, and Help. The right column, titled 'Reserve a Trip', displays a confirmation message: 'Your booking is complete. Your booking reference number is 6964363. Please write it down for future reference.' It lists travel details: Date of Travel (08-25-2011), Requested Time (10:00a), Scheduled Time (10:15a), and Scheduled Window (10:15a - 10:45a). It also specifies the Pick-up Location ((CUSTOMER HOME) 4201 W NEW NOLTE RD, ST CLOUD, FL 34772) and the Drop-off Location (WALMART ALTAMONTE, 200 STATE HWY 434, ALTAMONTE SPRINGS, FL 32714). At the bottom of this section are buttons for 'Book Return Trip' and 'I'm Done'. The footer features the 'LYNX' logo with a paw print and the 'ACCESS LYNX PARATRANSIT PARTNERSHIP' logo.

Web ACCESS | Online Reservations
Online Customer Service 407-423-TRIP (8747)

Client Information:

Client Id: [REDACTED]
4201 W NEW NOLTE RD
ST CLOUD, FL
34772

Log out

Services:

- Home
- Review or Cancel Trips
- Reserve a Trip
- My Subscriptions
- My Profile
- General Info
- Announcements
- Feed Back
- Help

Reserve a Trip

Your booking is complete. Your booking reference number is 6964363. Please write it down for future reference.

Date of Travel: 08-25-2011
Requested Time: 10:00a
Scheduled Time: 10:15a
Scheduled Window: 10:15a - 10:45a
(CUSTOMER HOME) 4201 W NEW NOLTE RD
ST CLOUD, FL
34772

Pick-up Location: (CUSTOMER HOME) 4201 W NEW NOLTE RD
ST CLOUD, FL
34772

Drop-off Location: WALMART ALTAMONTE, 200 STATE HWY 434
ALTAMONTE SPRINGS, FL
32714

Book Return Trip I'm Done

LYNX®
ACCESS LYNX®
PARATRANSIT PARTNERSHIP



Internet Access - Scope

The primary goal is to enable customers and their representatives to manage their own trips while reducing call volume and phone queues.

The screenshot displays the 'Web ACCESS' interface for Lynx. The header includes the 'Web ACCESS' logo and contact information: 'Online Reservations' and 'Online Customer Service 407-423-TRIP (8747)'. The main content area is divided into two columns. The left column, titled 'Client Information', shows a client's name (redacted), 'Client Id: [redacted]', and address '4201 W NEW NOLTE RD ST CLOUD, FL 34772', with a 'Log out' button. Below this is a 'Services' menu with links: Home, Review or Cancel Trips, Reserve a Trip, My Subscriptions, My Profile, General Info, Announcements, Feed Back, and Help. The right column, titled 'Review or Cancel Trips', features a date selector set to '08-25-2011' and a dropdown for 'Selected Day Only'. It includes a 'Printer-friendly View' link and a 'Help' icon. The main trip details section shows the date 'Thursday, 08-25-2011', 'Booking Id: 6964342', and various time windows: 'Scheduled Pick-up Time: 10:15a', 'Estimated Pick-up Time: 10:32a', 'Requested Pick-up Time: 10:00a', 'Start Window: 10:15a', and 'End Window: 10:45a'. The status is 'Booked - Scheduled'. The pick-up location is 'OSCEOLA HEALTH CARE - 4201 W NEW NOLTE RD, ST CLOUD, FL 34772' and the drop-off location is 'WALMART ALTAMONTE - 200 STATE HWY 434, ALTAMONTE SPRINGS, FL 32714'. At the bottom of this section are buttons for 'Detail', 'Cancel', and 'Repeat'. The footer contains the 'LYNX' logo and the 'ACCESS LYNX PARATRANSIT PARTNERSHIP' logo.

Web ACCESS | Online Reservations
Online Customer Service 407-423-TRIP (8747)

Client Information:

Client Id: [redacted]
4201 W NEW NOLTE RD
ST CLOUD, FL 34772

Log out

Services:

- Home
- Review or Cancel Trips
- Reserve a Trip
- My Subscriptions
- My Profile
- General Info
- Announcements
- Feed Back
- Help

Review or Cancel Trips Help

08-25-2011 Selected Day Only Printer-friendly View

Date: Thursday, 08-25-2011

Booking Id: 6964342 **Scheduled Pick-up Time:** 10:15a
Estimated Pick-up Time: 10:32a
Requested Pick-up Time: 10:00a
Start Window: 10:15a
End Window: 10:45a
Status: Booked - Scheduled
Pick-up: OSCEOLA HEALTH CARE - 4201 W NEW NOLTE RD, ST CLOUD, FL 34772
Drop-off: WALMART ALTAMONTE - 200 STATE HWY 434, ALTAMONTE SPRINGS, FL 32714

Detail Cancel Repeat

LYNX
ACCESS LYNX
PARATRANSIT PARTNERSHIP



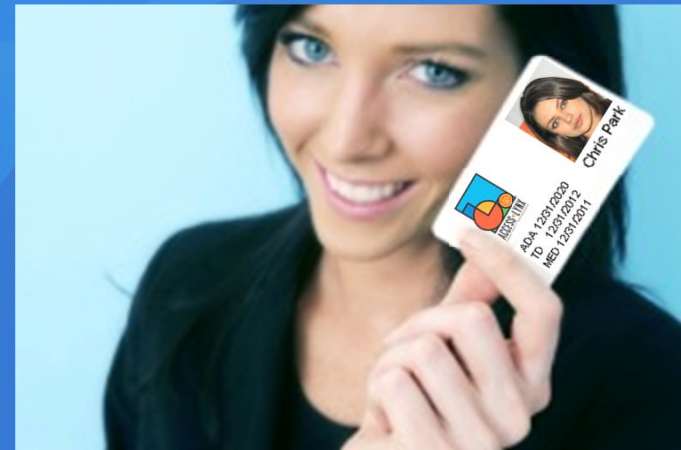
Identification - Scope

Identification

- Magnetic stripe
- Verification of service
- Eligibility

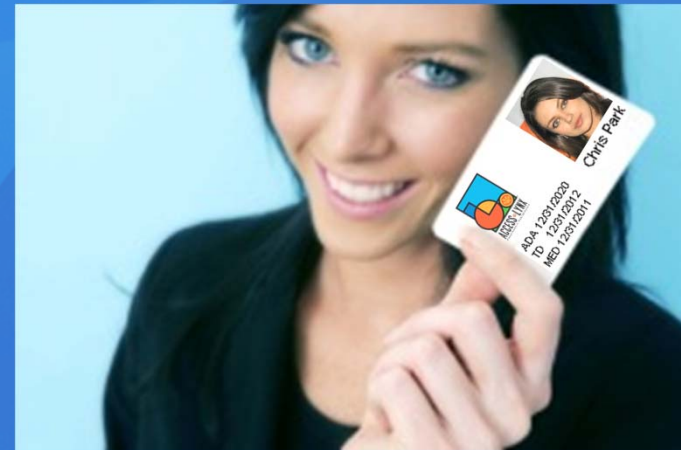
Fare payment

- Stored value



Identification - Scope

The primary goals are to reduce fraudulent trips to billing partners by incorrect passengers, while providing customers with proof of eligibility for use on fixed-route and out-of-area travel.



Interactive Voice Response - Scope

Customers / Social Workers

Book a trip

View/edit a trip

Cancel a trip

Vehicle arrival notification

"Welcome to LYNX Quick
Stop information. For
assistance in English..."



Interactive Voice Response - Scope

The primary goal is to enable callers to obtain information and manage their trips without the need to reach a phone operator and to notify customers of vehicle arrivals. This is expected to reduce phone queues and “no show” trips.

“Welcome to LYNX Quick Stop information. For assistance in English...



Interactive Voice Response - Issues

Converting text to speech

“W Colonial Dr and Paul St” becomes “West Colonial Doctor and Paul Saint”.



Interactive Voice Response - Issues

Converting text to speech

How do you pronounce...

Alafaya
Altamonte
Apopka
Araphaho
Astatula
Bithlo
Buena Ventura
Caramobola
Chickasaw
Chuluota
Clarcona

Debeaubien
Econlockhatchee
Eola
Glockamora
Gotha
Hiawassee
Holopaw
Homasasa
Ingeborge
Kewannee
Kissimmee

Minnehaha
Minneola
Montverde
Narcoossee
Nipawin
Ocoee
Okaloosa
Oropesa
Oviedo
Owasso
Poinciana

Punta Gorda
Sarmundham
Seigneury
Tohopekaliga
Tuckasegee
Tuskawilla
Wakulla
Waumpi
Wekiwa
Weewahootie
Zureiq



Interactive Voice Response - Issues

Converting to Español

“Orange Avenue” is not “Calle de Naranja”

“LYNX” is not “lobo cervical”

Does the adjective refer to a masculine or feminine noun?

Español de Cuba, España, Mexico, Puerto Rico...



What Do You Want To Be When You Grow Up?

Regional "One Stop Shop" for traveler information			
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bhearndon@golynx.com

