Wireless Internet Service and Equipment for MHC

Submitted by: **COACH CONNECT CORP.**

Section 1 – Company Profile

Coach Connect, Inc.
2110 San Gabriel
Austin, TX 78705
512-472-6224

Coach Connect, a Texas Corporation founded in January 2003, is a traveler services and Internet connectivity company. It is the leading company that provides professional-grade high-speed wireless Internet access to the recreational vehicle (RV) industry. The focus of its business include equipping RV parks with wireless Internet solutions and offering wireless Internet subscriptions to RV owners using those parks. At present, it is the service provider of choice for 55 RV parks in 18 states throughout the US from Florida to Oregon. It provides wireless Internet access to 20,000 RV pads and has 4,000 subscribers who own RVs.

The company has deployed systems for a wide variety of structures, locales, and climates that are more extreme than those required for MHC Corp.. Its experience in providing complete wireless Internet solutions throughout the US has helped it identify the most effective and durable equipment for dependable service. In addition, Coach Connect utilizes a proprietary (Coach Connect BAS Command Center) control system to monitor its Wi-Fi deployments. It has also developed standardized maintenance routines to ensure that all the systems operate reliably. Because users of these systems have different capabilities in using computers and the Internet, the graphic users interface (GUI) and system architecture are designed to be simple and user friendly. In addition, Coach Connect is providing, and expanding, a suite of services that no other Wi-Fi company provides. Quality, innovation and dependable services are how Coach Connect grows its customer base. It will continually refine and add-value to its product offering while maintaining reliability and customer satisfaction.

Addressing the needs of the nearby communities' for marketing their businesses and tourism attractions will be another major focus of our collaboration with the Texas A&M University System (TAMU—primarily Texas Cooperative Extension. We believe this collaboration will place Coach Connect in a unique position to ensure that MHC Corp.' wireless Internet initiative has the most profound impact on the communities that surround MHC Corp..

As you will see in this proposal, our vision, expertise, and commitment to quality will demonstrate that Coach Connect can reliably provide the necessary wireless services while also transcending the role of an ordinary Wi-Fi service provider and help the MHC Corp. fulfill its vision "To be America's Number One RV Destination."

SCHEDULE 1 - CLIENT REFERENCES

Organization Name:Palm Creek Golf and RV Resort
Street Address: 1110 North Henness Road
City: Casa Grande State:Arizona Zip Code:85222
Name of Person to Contact: Mike Ravenhill
Telephone Number: (800) 421-7004 FAX Phone No: (520) 876-8962

Organization Name:Holiday Travel Park
Street Address: 3890 South Nellis Blvd.
City: Las Vegas State:Nevada Zip Code:89121
Name of Person to Contact: Nyree Smith
Telephone Number: (702)451-8005- FAX Phone No: (702) 451-5806

Organization Name:Paradise Island RV Resort
Street Address: 2121 Northwest 29th Court
City: Ft. Lauderdale State: Florida Zip Code:33311
Name of Person to Contact: Ray Smith
Telephone Number: (954) 485-1150 FAX Phone No: (954) 485-5701

Section 3 – Completed Project Description

As a sample of one of the wireless deployments that is similar to the MHC Corp. initiative, we offer Paradise Island RV Resort. This project entailed full wireless coverage to an RV resort so patrons can avail themselves to wireless Internet services. The size of this park is acres and serves 232 RV sites. The project was engineered to easily expand Wi-Fi coverage if the park plans to add additional sites in the future. The project has been installed and running reliably since August 15, 2003. Contact information for this property follows: 12

Paradise Island RV Resort
2121 Northwest 29th Court
Ft. Lauderdale, FL 33311
Ray Smith (954) 485-1150

Coach Connect coordinated and performed the following tasks:

- Initial site survey and planning
  - Study site plans, aerial photography, interview management, determine building types and devise antenna deployment schemes.
  - Performed on-site inspection to ensure that wireless design would be viable in consideration of external factors.
- Coordination with broadband service provider
  - As part of a turn-key deliverable, Coach Connect solicited bids from and selected the Internet Service Provided that offered the most reliable service at the best cost to the customer.
  - Coach Connect has worked closely with this provider since the initial installation in the course of conducting normal service routines.
- Provision and installation of all necessary hardware
  - Hardware was specifically selected for this installation based on weather conditions, trees and other factors, and the platform was selected based on the known future need to further expand the system easily and cost effectively.
  - Installation techniques were used in careful consideration of other equipment, and all local codes were adhered to.
  - Fully tested and documented the final installation.
- On-site and remote hardware maintenance
  - Support for this installation has been largely conducted remotely, however, Coach Connect has secured local maintenance personnel that can be dispatched whenever necessary.
- Set up of free employee access accounts
- Assist property manager with informational brochures to instruct clients on subscribing to wireless services.
  - Provide 24/7 toll-free support to subscribers having difficulties gaining Internet access. As with all Coach Connect installations, the system does not require any effort of the RV park management to support the on-going operation, including end-user support.

This project at Paradise Island RV Resort cost approximately $15,000.

Section 4 – Description of Recent Projects

Recently Completed Projects

Palm Creek Golf and RV Resort – Casa Grande, AZ
Completed March 1, 2004
Mike Ravenhill – Manager
Phone Number: 800-421-7004

Pacific Shores Motor Coach Resort – Newport, OR
Completed June 27, 2004
Mike Parks – Manager
Phone Number: 800-333-1583

Las Vegas Motor Coach Resort – Las Vegas, NV
Completed September 15, 2003
Carl Townsend – Manager
Phone Number: 702-897-9300

Paradise Island RV Resort – Ft. Lauderdale, FL
Completed August 1, 2003
Ray Smith – Manager
Phone Number: 954-485-1150

Holiday Travel Park – Las Vegas, NV
Completed March 15, 2004
Nyree Smith – Owner/Manager
Phone Number: 702-451-8005

Santa Fe Skies – Santa Fe, NM
Completed December 1, 2004
John Brown – Manager
Phone Number: 877-565-0451

Terrible's Lakeside Casino RV Park – Pahrump, NV
Completed October 1, 2003
Roy Ingram – Manager
Phone Number: 775-751-7770

Past Project Schedule

The following is the schedule used for the design and installation of the wireless Internet solution for Las Vegas Motor Coach Resort located in Las Vegas, NV. The project was completed to the client's satisfaction.

Table 1. Example project schedule for wireless installation at Las Vegas Motor Coach Resort, Las Vegas, NV

Task	Begin Date	End Date
Initiate bid process	6/16/2003	6/18/2003
Conduct site survey using site layouts and photographs	6/24/2003	6/24/2003
Identify broadband provider	6/24/2003	6/24/2003
Design robust yet cost efficient solution	6/25/2003	6/30/2003
Deliver quote	7/11/2003	7/11/2003
Sign Agreement	7/14/2003	7/14/2003
Purchase and receive designated equipment	7/16/2003	7/30/2003
Order broadband service	8/06/2003	8/06/2003
Confirm successful installation of broadband service – acquire IP addresses	8/20/2003	8/20/2003
Pre configure/Test equipment	8/22/2003	8/27/2003
Ship equipment to site	9/02/2003	9/02/2003
Install equipment on-site	9/12/2003	9/14/2003
Test installed wireless system	9/14/2003	9/15/2003
Activate site in Coach Connect support systems	9/15/2003	9/15/2003
Customer Orientation and Signoff	9/15/2003	9/15/2003

Past Project Schedule—Snapshot of Project Performance Monitoring (PPM) tool

The following is a snapshot of a Project Performance Monitoring (PPM) tool. This example shows the implementation of a Wi-Fi system installed in 2003 at Las Vegas Motor Coach Resort. The scheduling tool allows us to track the ongoing status of a project, and provides quick access to relevant contact information and critical risk management items.

Project: **Coach Connect :: Las Vegas Motor Coach Resort**

Project Start Date	6/15/2003
Report Date	9/2/2003
Project Week	10
Estimated Project Hours	250

	Main Tasks		Target Date
		100%	
1	Site Survey	100%	6/24/2003
2	Prepare Proposal	100%	7/1/2003
3	Procure Broadband	100%	8/20/2003
4	Obtain Equipment	100%	7/30/2003
5	Configuration	100%	8/27/2003
6	Ship equipment	50%	9/2/2003
7	Installation	0%	9/15/2003
8	Customer Wrap Up	0%	9/15/2003

v	Milestones (Date)	
v	6/16/2003	intitiate client contact
v	6/24/2003	obtain site layout and photographs
v	6/24/2003	evaluate and select broadband provider
v	6/28/2003	comprehensive review of site plans
v	7/8/2003	design WiFi system
v	7/9/2003	obtain equipment pricing
v	7/11/2003	complete proposal
v	7/11/2003	deliver proposal
v	7/14/2003	sign agreement
v	7/14/2003	issue press release
v	7/15/2003	include site in marketing materials
v	7/18/2003	order equipment
v	7/19/2003	place order for broadband
v	8/10/2003	receive equipment
v	8/10/2003	confirm broadband specs (IP addresses, etc)
v	9/2/2003	configure & test equipment
	9/2/2003	ship equipment to site
	9/14/2003	install equipment
	9/14/2003	test and document system performance
	9/14/2003	activate site in support system
	9/15/2003	customer orientation
	9/15/2003	customer signoff

Project Team		Since
Project Coordinator	Jamison Stewart	6/15/2003
Technical Lead	Frank Drew	6/15/2003
LVMC Project Rep	Carl Townsend – Manager	6/15/2003
	Phone Number: 702-897-9300	

Equipment Item	Qty
ZyXEL WSG-100 Gateway 63mW (100 users)	1
ZyAIR B-1000 Access Point (80mW)	2
ZyAIR B-420 Bridge (50mW)	4
HyperLink 500mW ODU Amp	3
HyperLink Lightning Arrester (N-F to N-F)	4
APC 350VA UPS w/6 outlets	1
EtherWAN 8 port 10/100 UTP Switch	1
HyperLink Omni-15 (360º)	1
15dBi 180° Sector Panel Antenna	2
HyperLink 16dBi AmpTenna	2

Week #	Week Hours	Cummltv Hours	100%
1	4.00	4.00	
2	10.00	14.00	
3	20.00	34.00	
4	20.00	54.00	
5	8.00	62.00	
6	8.00	70.00	
7	32.00	102.00	
8	32.00	134.00	
9	40.00	174.00	
10	0.00	174.00	
11	0.00	174.00	
12	0.00	174.00	

Top Risk Management Items	Status	Date
WAP not shipped	Resolved	8/8/2003
Broadband documentation	Resolved	8/10/2003
Park user authorization	**Ongoing**	

Figure 1: A snapshot of the Project Performance Monitoring (PPM) tool used for monitoring the project schedule detailed above.

Figure 2: Wi-Fi equipment being shipped to Pacific Shores RV park in Salem, Oregon.

Figure 3: Omnidirectional antenna used for providing Wi-Fi service over large areas.

Universal Site Approach

A common package of best performing wireless equipment is utilized at all Coach Connect Locations. Variation in deployments are based on the unique site and facility requirements. Standardizing installation, maintenance, and replacement of on-site equipment helps to simplify upkeep and stocking of equipment replacements. Coach Connect has developed extensive knowledge and experience with different wireless equipment and strives to utilize a common platform across all installations. This eliminates problems associated with supporting non-standardized equipment and installation procedures.

Placement and installation of the visible elements of the Wi-Fi solutions will be carefully planned as follows:

- Coach Connect will begin its planning process by visiting the site with diagnostic tools and equipment. Ambient radio signals and other sources of radio frequencies will be monitored and documented to ensure that signal noise and radio interference will not be an issue for each site.
- The equipment slated to be permanently installed will be staged temporarily so that frequency channel programming can be tested and documented. This step is especially important if a spectrum analysis of a site shows the presence of other, potentially interfering frequencies.
- Careful planning as to equipment selection and location will be made by taking in existing architectural considerations. Generally, it is preferred to locate wireless electronics as close to the antennas as possible to lessen signal loss, however, cable lengths may be extended if the end result is to provide a more vernacular blending into the existing structures. After the completion of each site survey, Coach Connect will provide MHC Corp. with a detailed plan showing precise equipment installation, and a simulation of the finished installation for review. This will be done by presenting both a detailed site plan showing all equipment locations and cable pathways, as well as digital photography of the existing structures with a superimposed simulation of installed equipment. Coach Connect will modify its plans until the Project Manager is completely satisfied.

The following are standards that are employed for each installation:

Antennas and supporting electronics

- All antennas are mounted in an aesthetically pleasing manner to avoid being a distraction to the existing structure design.

- Antenna mounts and equipment will all be wind rated to exceed the weather requirements of each site.
- Antenna supports will, whenever possible, be NOT directly mounted to a roof in any manner which entails penetration of the roof structure.
- To the extent possible, antennas will be installed to blend into and compliment the existing architectural features.

Cabling from antennas to equipment

- Cabling that connects antennas to wireless equipment will be carefully and aesthetically routed.
- Protection from ultra violet exposure will be installed for the long-term integrity of the system.
- Cables will be routed through existing conduit whenever possible. When not possible, cable entries will be constructed in a manner compatible with local building requirements and in a manner that does not entail roof penetrations. All cable entry points will be sealed per local codes.
- Cabling inside the equipment closet will be labeled and professionally dressed to both be pleasing to the eye, but also to facilitate on-going maintenance and support efforts.

Internal equipment installation

- Generally, Coach Connect mounts its equipment onto a wood board that is attached to an existing wall in the equipment room or phone closet.
- If there is currently a wooden structure housing telephone or other equipment, Coach Connect may elect to use space on the existing board, or add a board on or near that board.
- Equipment shall be mounted in a professional manner, and in such a way as to not interfere with other adjacent equipment.
- Generally, it is preferred to mount wireless equipment close to the ceiling to ensure that it is not inadvertently bumped or disrupted by other service personnel.
- Any and all equipment mounted outdoors shall be contained in a weather proof enclosure, with careful consideration given to sealing cable entry points to avoid the build up of humidity.

Coach Connect will fully and professionally document each aspect of a finished installation and provide copies to the Project Manager as a courtesy. This documentation will be inclusive of as-built site plans, digital photographs, and programming details for each device.

Equipment will be hidden or camouflaged to ensure that visual impacts are minimized. Existing conduits and entry points into the buildings will be used to reduce construction or alteration of structures for installation of Wi-Fi equipment.

Maintenance and Support of Installations

Product reliability is a key criteria when selecting wireless electronics, and Coach Connect has devised its product offerings based on both performance and field-tested reliability. Coach Connect will maintain spares of all essential products to facilitate future service calls. In addition, Coach Connect will be monitoring the health of each installation 24 hours a day through its Control Center, with pager alerts automatically generated whenever a problem is detected. Service personnel will be notified of any failure and have the ability to access the equipment remotely. If the equipment is completely down and not remotely accessible, Coach Connect has also incorporated into its design a technique that will allow service personnel to remotely re-initialize the system immediately so that remote access to the equipment can be tried again. (This is especially important since there will not be anyone “on-site” to read status lights or re-initialize

equipment.) Any issues that cannot be resolved immediately through remote access will entail a service technician to be dispatched to the site.

Equipment Monitoring, Maintenance and Technical Support

Equipment will be monitored using Coach Connect's Command Center technology that provides real-time performance information on all of the wireless sites in the Coach Connect network. Through the use of this technology problems can be identified proactively by Coach Connect and addressed without the need for a user report. The system utilizes an instantaneous "alarm" system that notifies the Coach Connect System Support team 24/7. The alarm initiates a electronic page through Coach Connect's system support. The alarm will continue until a technician has taken action to address the problem. The Coach Connect Command Center will ensure that wireless Internet access will be provided without interruption, barring events that are beyond Coach Connect's control (e.g. ISP problems, inclement weather, etc.). Coach Connect provides technical assistance 24/7 to its customers and the hotline number printed on instructional leaflets.

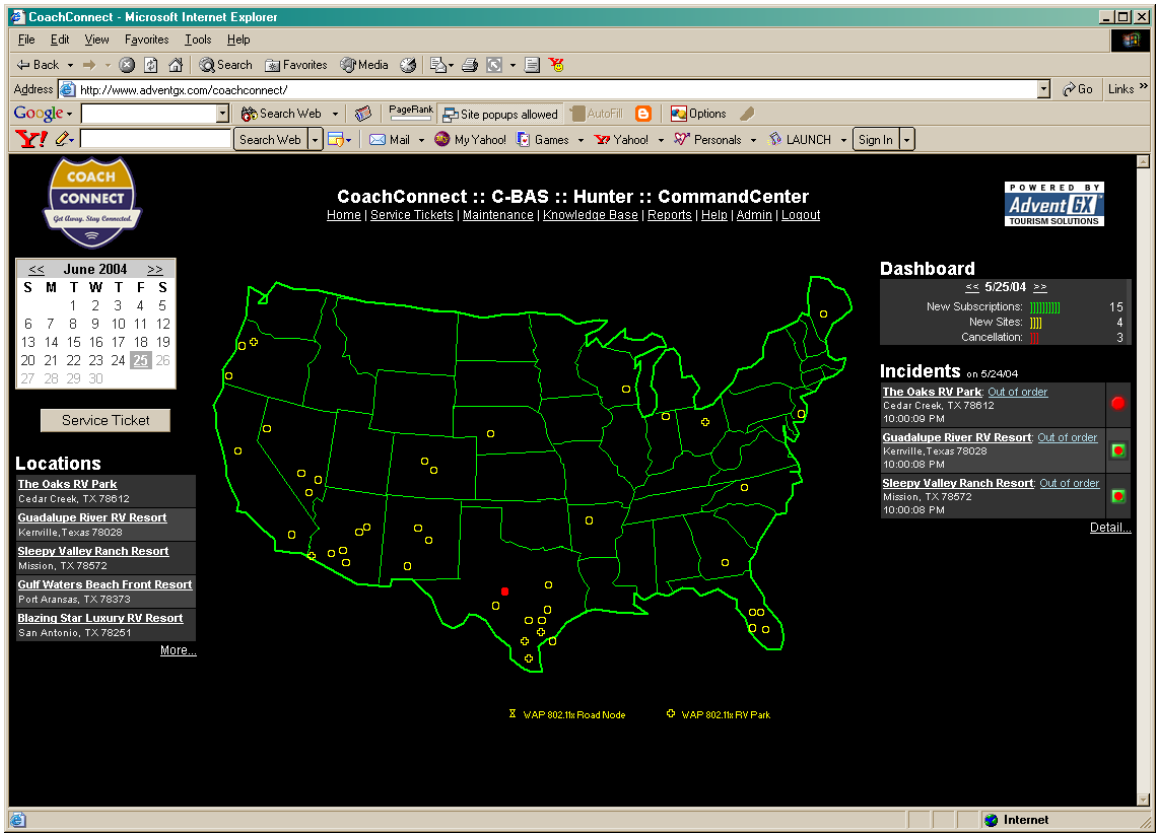

Figure 5: The Coach Connect Command Center allows for real-time monitoring of the equipment at RV parks. This allows for proactive issue resolution for maximized up-time for the end user.

Our experience has proven that most problems can be resolved through remote diagnostics using the Coach Connect Command Center. However, in instances where on-site support is required, the Command Center can dispatch technicians using the automatic paging function. Coach Connect has a network of professional technicians who utilize our company's standardized procedures to provide prompt quality service. Since Coach Connect has locations in 18 states we already have representatives located strategically throughout the nation. For Texas, our headquarters are in Austin, Texas and our Command Center will soon be located at the Research

Park at Texas A&M University. These two locations will be the home to most of our company's staff. Additionally, customer support is available to subscribers of Coach Connect's services.

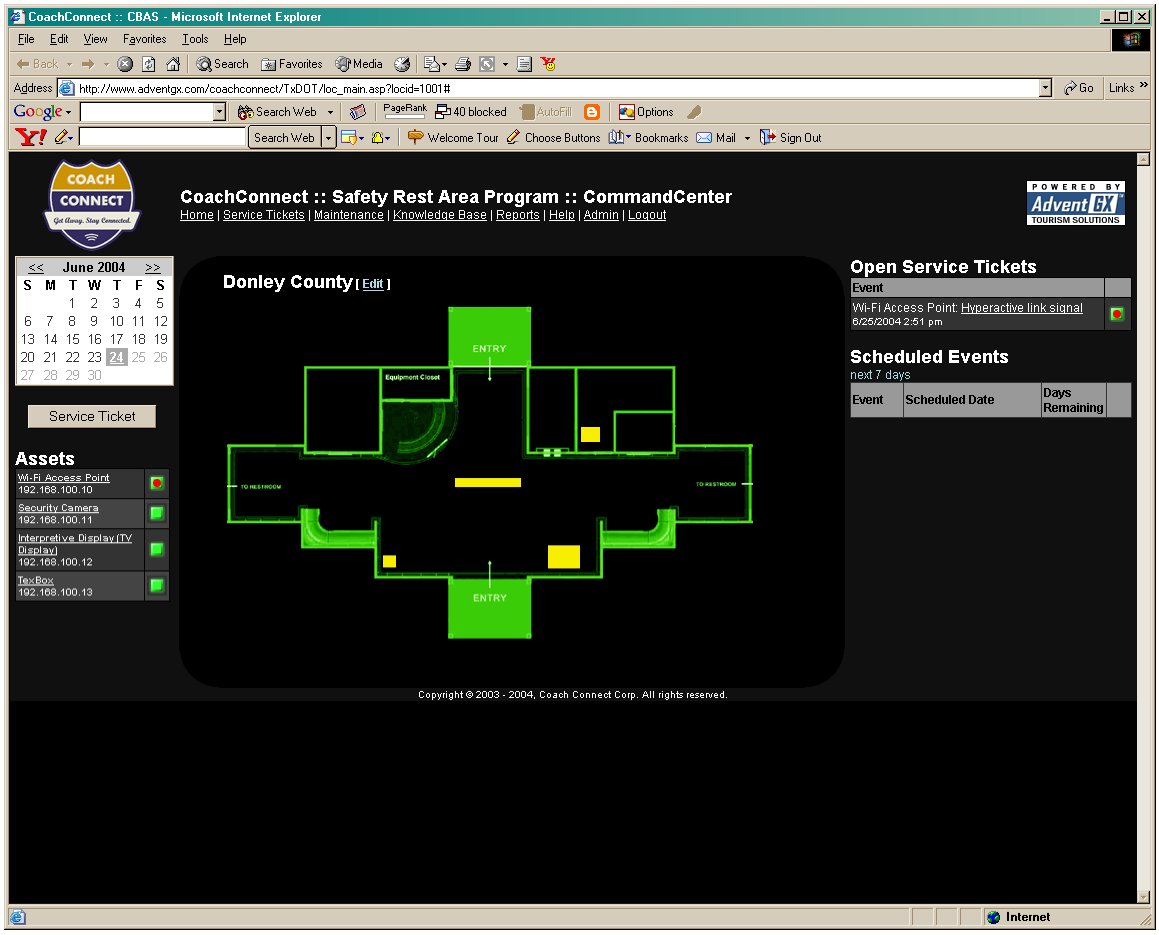

Figure 7. Screenshot of mock-up Coach Connect Command Center detailed site monitoring page. This GUI provides live monitoring of all systems linked to the Internet (wireless access, kiosks, cameras and interpretive displays).

One-stop, Internet Shopping—the Coach Connect approach

There are innumerable Internet service providers (ISP) in the marketplace. This is a significant challenge when considering the deployment of universal Internet access across states. However, by using a single company as the manager of these ISP providers, Coach Connect can provide a standardized service that will eliminate potential customer confusion and frustration because of inconsistent access portals, procedures and quality of service.

Additionally, by utilizing a common Wi-Fi provider across all of the nation, monthly subscriptions will become an attractive option to customers who travel extensively throughout the states (e.g. truck drivers). In fact, from our experience with our current RV subscribers we anticipate that the monthly subscriptions (as opposed to short-term subscriptions) will encourage travelers to stop more often. Our financial projections and cash-flow analysis show that supporting longer term

subscriptions will be the most advantageous for sustaining this initiative (see Financial Viability below). Longer-term subscriptions require fewer users to support the project while also reducing management expenses associated with the program. Nonetheless, our model and promotional strategy will actively promote and support all subscription levels. Coach Connect is well positioned to be the sole-source provider of this service across the state.

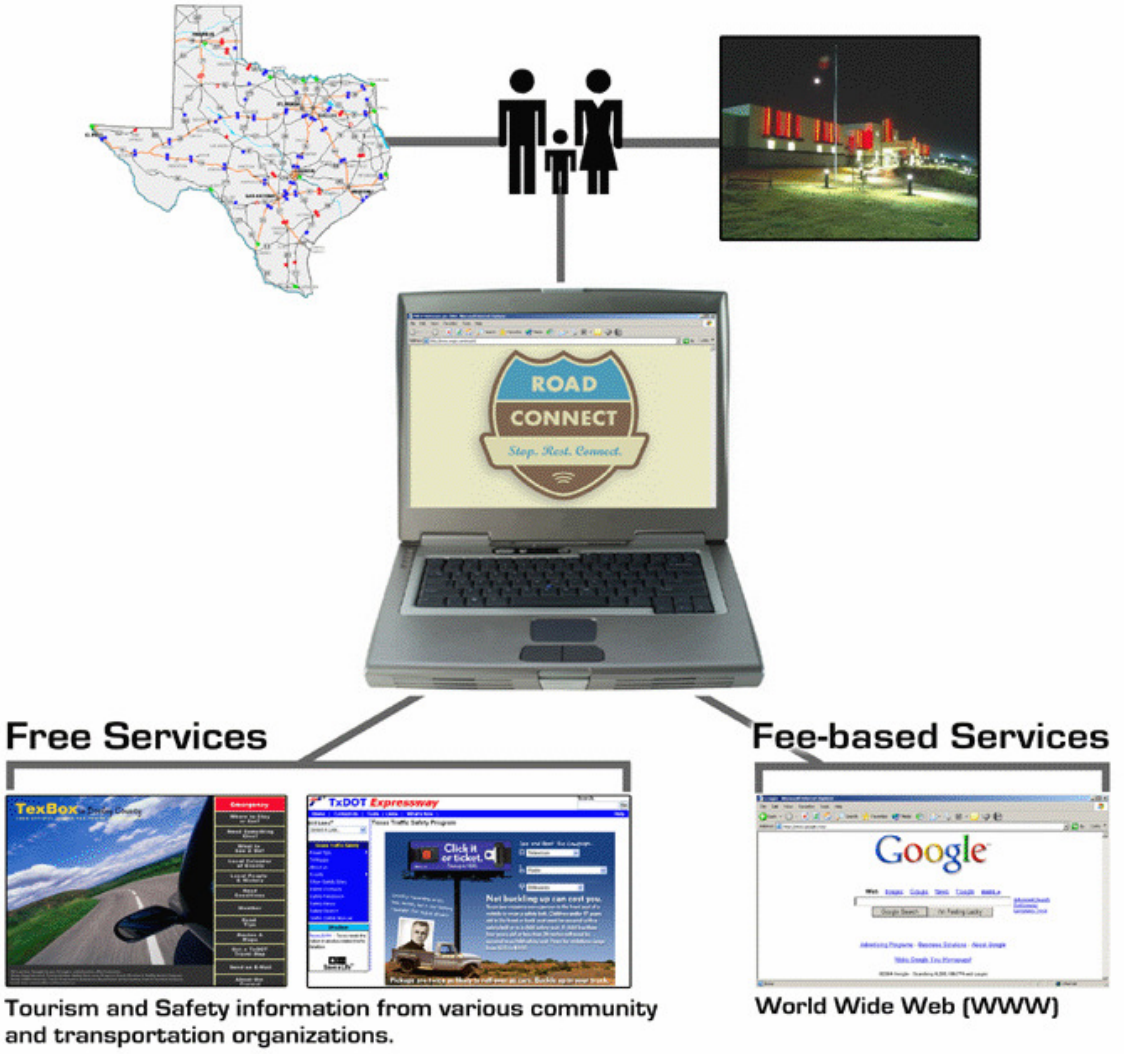

Figure 7: A conceptual flow diagram showing travelers options while accessing the wireless Internet network, supported by Coach Connect.

Promotion and Public Relation Campaigns

Working in concert with the Texas A&M University,Coach Connect will launch a public relations campaign to promote this wireless Internet project nationwide. This project is the first of its kind in the US and it will serve as a model for other states considering this type of offering. It has already generated tremendous amounts of publicity, and will continue to do so after implementation. To sustain the positive publicity about this initiative, Coach Connect will actively promote this service utilizing its media contacts and outlets and through its relationships with other businesses, travel associations and other organizations.

Road Connect—a Concept for Wireless Internet Provision across North America

Since Coach Connect already has business presence in several states we have begun a strategy to create a "brand" for Wi-Fi Internet access services that could be provided at nearly any location, but specifically at rest areas or travel information centers throughout the US and Canada. We believe that Texas will lead the way for other states and Canadian provinces to provide similar capabilities. We are aware of at least five other US states (Minnesota, Montana, North Carolina, Oregon, Vermont) and one province in Canada (British Columbia) that are pursuing similar ideas. Our branding concept is entitled "Road Connect". Below is a mock-up of a Web access portal with our Road Connect logo. This snap-shot shows a conceptual version of the log-in page for Internet access subscribers who have paid to use the. (see Figure 7).

Figure 8: A mock-up of the Road Connect fee-based access page—derived from the Family Motor Coach Convention held Mar., 2004 that Coach Connect provided wireless Internet access to 4000 RVs.

Financial Viability

Prices for subscribers for Internet access are anticipated to be as follows. However, pricing will be adjusted according to demand:

Table 2. Schedule of subscription rates for fee-base Internet access

Period of Service	Price
Monthly	29.99
Daily	3.99
Hourly	1.99

These subscription levels and pricing terms are consistent with other available wireless Internet access available to travelers based on our analysis of other Internet access providers. These prices have been set at this level because, based on our projections, they will provide a revenue stream that will support the installation and maintenance of a dependable, professional quality, high-speed wireless Internet solution at MHC Corp..