

Case Study: Targa Connect

System Operator Goals

When European car giant Fiat wanted to find a new way to differentiate its automotive offerings, a new means of strengthening its relationship with its customers, and a new source of consumer revenue after their cars rolled off the showroom floor, they turned to Autodesk to implement an innovative location-based information service for Fiat drivers. Through its TargaSys division, Fiat launched one of the world's first—and most successful—auto-based telematics services: Targa Connect®. In September 2001 Targa Connect began offering onboard navigation and personal assistance as an optional add-on to purchasers of mid-priced (Euro 18,000) Alfa Romeo 147.

Targa Connect combines an in-car GSM mobile phone, a GPS (global positioning system) and a user interface that gives drivers access to a wide variety of location-based services through Autodesk Location Service's comprehensive LocationLogic® platform. These location-based services include real-time weather and traffic information, roadside and emergency assistance, locations and operating hours for bank ATMs, service stations, pharmacies, personalized news—even online medical, legal and insurance help. Targa Connect also offers concierge services, including hotel, restaurant and entertainment reservations, which are delivered to the subscriber over the phone by multi-lingual human operators.

Targa Connect subscribers pay an installation fee at the time of sale of Euro 1500, and an annual service fee of Euro 200. Users pay no additional per-minute, per-transaction or premium fees for using the service, they only pay standard SMS fees when they communicate with the Targa Connect Center.

Design Considerations

TargaSys' extensive market research indicated that adoption of location-based services might be inhibited by the user's long learning curve for new technology, and by user preference for human interaction when engaging with new technology. To address these issues, Targa Connect was designed for maximum ease-of-use (with intuitive menu choices), exceptional customer service for new users, and the option of interacting with human operators to complete tasks. Targa Connect delivers superior customer service through its Connect Center, a central service center where human operators handle subscriber requests in 14 languages, in 12 European countries, 24 hours-a-day, 365 days-a-year.

Subscriber ease-of-use also includes a consistent user experience, and consistent security and provisioning across dozens of unique third-party service vendors. By selecting Autodesk LocationLogic, Targa Connect is able to aggregate databases and deliver consumer services from the continent's leading hotel chains (Hilton, Marriott, ???), from the respected Michelin Guide, from Reuters, Timeout, the OAG, Traffic Master, and from Fiat's own dealer service network.

The LocationLogic platform, which includes re-usable application frameworks and flexible APIs, enables third-party developers to rapidly create and deploy applications for Targa Connect with minimal customization effort.

The User Experience

Targa Connect subscribers can call upon a wide portfolio of services as they navigate the backroads and Autobahns of Europe. If their car suffers a mechanical breakdown or if their air bags deploy, emergency help can be immediately summoned to their GPS-determined location. The nearest gas station or Fiat-approved service center can be immediately identified. The Targa Connect Center even provides phone access to an online doctor for medical advice, or appropriate contacts for legal or insurance advice.

While safety and security are the primary attractions for first-time Targa Connect users, information and commerce are the services most frequently used—and the ones that are most profitable for the service provider. Targa Connect subscribers can check availability and book reservations for a wide array of public accommodations from the front seat of their cars: hotels, restaurants, cinemas, trains, ferries, flights, museums, concerts and more. They can determine the opening hours and locations of pharmacies, bank

ATMs, movies, and other institutions. Drivers can also receive up-to-the-minute traffic and weather reports, news, restaurant reviews, and other timely information.

It is through the combination of these many services that Targa Connect really wins the loyalty of the subscriber. Visiting a new friend or client in Milan or Munich? Targa Connect can check the Michelin guide for restaurant suggestions as your drive into town, book a table, and direct the driver on the best route. Targa Connect can locate the parking garages closest to the restaurant, check their closing hours and prices, and even the number of spaces available. Meal didn't go as well as planned—Targa Connect will find the nearest all-night pharmacy, make a hotel reservation, and charge it all to your credit card.

How It Works

Users invoke the Targa Connect system by selecting from a short list of menu options. The in-car GSM phone initiates a SMS (short message service) transmission to the Targa Connect operations center. This SMS includes the subscriber's identity, service or information request, and the GPS-determined location. The Connect Center human operator sees the subscriber's profile, location and user history on the operator console. LocationLogic retrieves and personalizes the requested information according to a pre-set subscriber profile, which includes information about the subscriber's credit charging preferences, club memberships, and other details. The requested information is then transmitted by SMS or voice command back to the user's in-car hardware. The user can always choose to speak with a human operator.

Targa Connect's "Follow Me" navigation exemplifies the unique benefits that a well-integrated location-based system can offer to users. When subscribers request directions to a selected point-of-interest (POI), *Follow Me* calculates the best route taking into account the latest traffic conditions. Directions are delivered to the subscriber by their preferred method (SMS or voice command), and repeatedly updated mid-journey as traffic conditions change.

Future upgrades to Targa Connect will employ voice recognition to deliver even more services, more economically. By using Autodesk's flexible LocationLogic platform, the integration of individual technologies and applications are effectively partitioned from existing services, interfaces, and databases. The overall system is easily scaled and adopted to deliver the latest, and most preferred, services to subscribers.

The Operator Experience

Targa Connect is a huge success for its operator, TargaSys, and has been recognized by journalists and market researchers as a seminal consumer telematics offering. By using Autodesk's proven and stable LocationLogic platform, Targa Connect was able to integrate the unique, value-added service offerings of dozens of branded information vendors with minimum customization effort, deploying a full-featured and reliable service in less than 18 months. Presently, Targa Connect includes geo-coded information on more than 2 million POIs across Europe.

Defying the expectations of some market analysts, who believe that telematics is merely a safety and security blanket for drivers, Targa Connect's information and commerce services are proving to be more popular than roadside assistance with actual users. Real-time traffic information is the leading request among Targa Connect subscribers, followed closely by hotel and restaurant information, weather reports, and flight, hotel, restaurant and theater reservations.

"Autodesk has experience as an aggregator of content and applications, a role that is becoming increasingly important as service providers find it necessary to source and manage content from a growing number of suppliers in order to increase the scope of their services."

--Mobile Location Analyst,
August 2001

Subscriber adoption rates have exceeded all early projections. As a result, Fiat is rapidly expanding the Targa Connect program, making it available on the Saab 93 and all Fiat model cars by XXX.

LocationLogic Platform Extends Service to New Users & Markets

Based on the aggressive user adoption of Targa Connect, and thanks to the stability and scalability of the LocationLogic service platform, TargaSys is leveraging its early success to penetrate new markets far from

Fiat's automotive base. Less than a year after rolling out its car-based telematics service, TargaSys is deploying a location-based service for mobile phone users through Telecom Italia Mobile (TIM), Italy's largest wireless operator.

LocationLogic enabled TargaSys to offer its entire compliment of services—including all of the third-party vendors that made Targa Connect's in-car service so attractive—to TIM Connect's mobile phone subscribers on the first day of deployment. The need to use cell-ID technology for location determination on mobile phones (as opposed to GPS location determination for auto subscribers) presented no problem or delay because LocationLogic effectively partitioned this technology option from the platform's other services. All of the existing user interfaces, billing and provisioning applications, content databases and service applications were available for re-use and extension into this new TargaSys market space.

The Road Ahead

With user adoption and service usage rates well ahead of plan, TargaSys expects to achieve breakeven ahead of schedule. By partnering with Autodesk Location Services, Fiat's relationship with its customers is rapidly evolving beyond that of a 20th century auto manufacturer. TargaSys is expanding into new markets and it is realizing growing after-market revenues from subscriber fees and commerce transactions. By employing Autodesk's LocationLogic as the central platform for its location-based service, Targa maintains its primary role as interface to the subscriber, and it is positioned to rapidly expand its service offering to include new applications, databases, and service areas.

Targa Connect Quick Facts

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| Number of subscribers <or new subs every mo.>: | XX |
| Number of third-party content & service providers: | XX |
| Number of countries covered: | 12 |
| Number of languages supported: | 14 |
| Unique points-of-interest in database: | 2 million |
| Years to breakeven: | 3 |