

Accenture Communications Solutions Client Case Study

Turkcell Teams with Accenture to Create an Agile Service Delivery Platform


accenture

High performance. Delivered.

• Consulting • Technology • Outsourcing

Company Overview

Turkcell is Turkey's leading operator, with 31.8 million subscribers. As Europe's third-largest Global System for Mobile Communication (GSM) operator, Turkcell's extensive market coverage is matched by a global reputation for innovation. The company was the first in the GSM Association to introduce convergent billing solutions, and in Turkey it has consistently been a market leader, introducing a range of new products and

services to its customers. In August 2006 it launched its new customer portal, "Turkcell-im", providing mobile internet services through a single point of access. Earlier innovations include the April 2005 launch of "gnçtrkcll", a "youth club" which brings together nine million Turkcell subscribers, offering them GSM and non-GSM benefits; "GPRSland" (World Communications Award winner, 2002); "MaxiMesaj"

(Multi Media Services); "Turkcell-im" (a set of new value-added services combining targeted marketing in partnership with various consumer brands); "Turkcell BlackBerry"; and "TurkcellEDGE". Turkcell now has GPRS roaming agreements in place with 276 operators in 113 countries, making it the world leader by number of contracted operators.

Turkcell chose Accenture for its deep industry experience, close familiarity with the Turkish wireless market, and market leading methodologies, tools and software applications integrated in Accenture Communications Solutions.



Business Challenge

With the drive towards privatization and deregulation gathering momentum, new operators have wasted no time in entering the Turkish marketplace. The years 2005 and 2006 saw a number of significant developments, including the arrival of Vodafone (which acquired Telsim, the country's second-largest mobile operator), and the purchase of a 55 percent stake in fixed-line operator Turk Telekom (now the owner of 82 percent of leading Turkish mobile operator Avea) by a consortium which includes Saudi-Lebanese company Saudi Oger and Telecom Italia.

Increasingly tough competition for customers is clearly set to be a fact of life in Turkey's wireless market. In such an environment, establishing differentiation is a strategic priority for operators. Crucial to this is their ability

to create infrastructures and processes that support the rapid rollout of innovative, value-added software-based services to customers. For all operators, the proliferation of value-added services places significant strains on existing information technology (IT) infrastructures particularly where these have evolved "spontaneously" over a period of years, mainly based on point-to-point integration between different components, and with no clear architecture in place. As a result, product development schedules, sales capabilities and customer care (especially in supporting higher-level applications and the complex bundling of services) are all tested to the limit.

For Turkcell—already offering its 31.8 million subscribers more than 300 services across several different service

categories, as well as hundreds of processes—the scale of these combined challenges were immense. Since its operational launch in 1994, the company had successfully established a commanding market position, but to maintain that leading position in an increasingly competitive market it needed to revitalize the ways in which value-added services were developed, deployed and controlled.

As part of this process, the company urgently needed to offer its customers "channel agnostic" services in an accessible and controllable self-service environment. And instead of taking up to one year to develop and bring to market, these services would have to be rapidly deployed. Given the pace of change in the wireless market, it was also essential that the new IT

infrastructure should be readily scalable and inherently future-proof, with a projected lifespan of between five and 10 years. Easy and seamless interoperability with legacy business support systems was also a must. Concurrent with these objectives, Turkcell needed to maximize the potential for top-line revenue growth by lowering operational costs, as well as refreshing its legacy IT architecture.

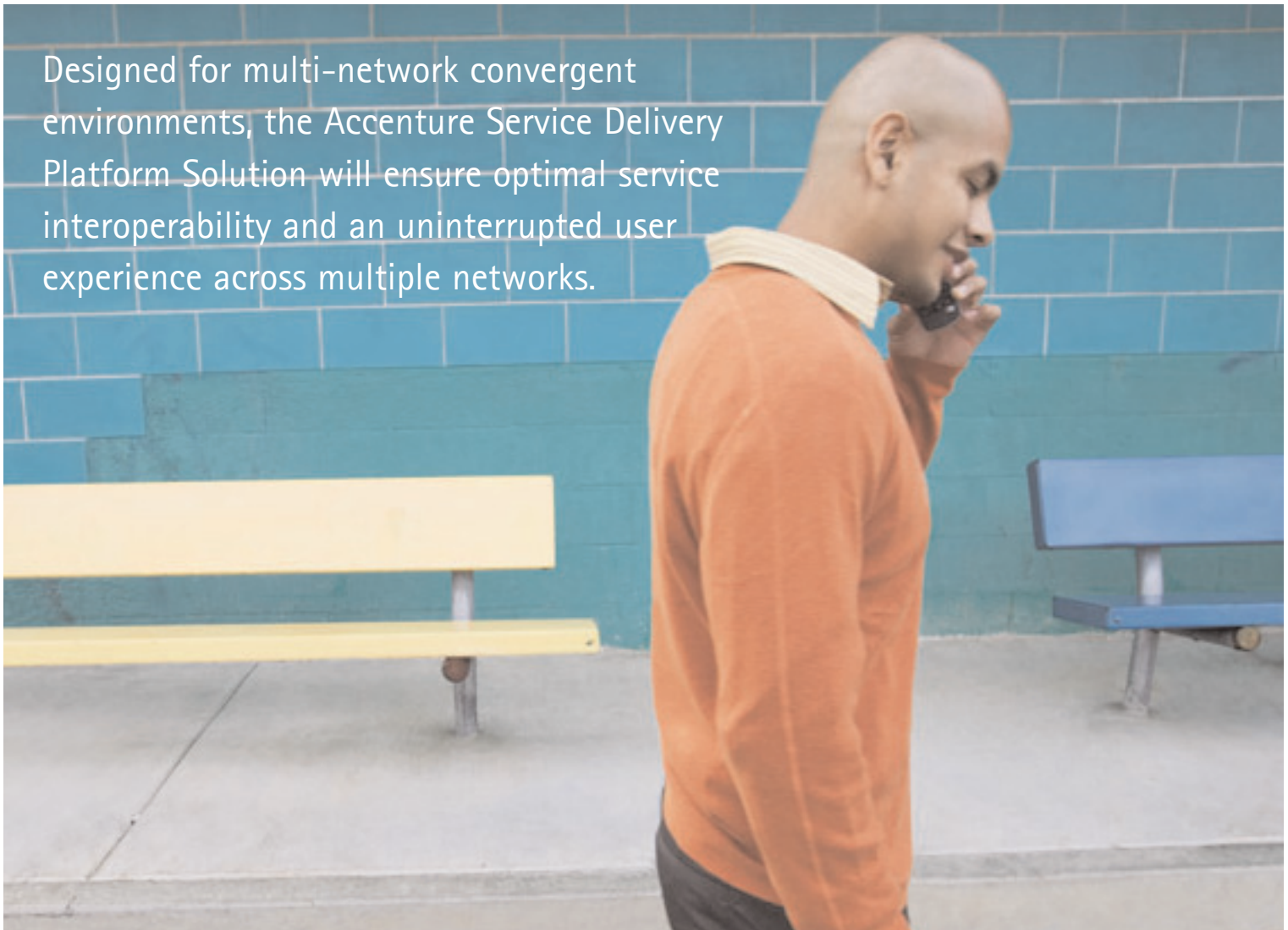
Turkcell knew that it needed a new service delivery platform architecture (SDPA) to help reduce complexity, enabling it to simplify relationships with third-party service developers, cut time to market for new service delivery, and orchestrate these new services across multiple platforms so as to ensure an uninterrupted user experience. However,

the deployment of this SDPA would be a massive technical and operational challenge. The sheer scale of Turkcell's operations meant that hundreds of services would have to be seamlessly migrated to the new SDPA with no interruptions. The company's legacy architecture would have to be integrated with the new service-oriented architecture (SOA) without risking any loss of service. And the whole project would have to be completed within one year, in line with Turkcell's strategic business priorities.

Given Accenture's deep industry experience, close familiarity with the Turkish wireless market, and market leading methodologies, tools and software applications, the Accenture Service Delivery Platform Solution - part

of the Accenture Communications Solutions suite of proven solutions to help communications service providers reach high performance - was eventually selected to lead the project. Accenture brought to the Turkcell project an approach rather than a prepackaged solution. Turkcell wanted to be deeply involved in the development of this new architecture, and Accenture contributed with the flexibility and simplicity of its framework offering.

Designed for multi-network convergent environments, the Accenture Service Delivery Platform Solution will ensure optimal service interoperability and an uninterrupted user experience across multiple networks.



How Accenture Helped

As the first service delivery platform (SDP) deployment in the Turkish wireless marketplace, this project was high profile and closely watched. With eight different companies also involved in the project as specialist solution developers, management of the overall program was daunting.

What Accenture brought to Turkcell was a clear framework and a simple approach, introducing a comprehensive taxonomy for the service delivery infrastructure that could be readily understood by all involved, assisting the overall success of the project.

Accenture identified and defined three distinct but interconnected infrastructure domains as central to the new system:

- The core service delivery platform architecture (SDPA).
- The services to be deployed onto the new architecture.
- The enablers, or "building blocks", that lie between the core SDPA and the services themselves.

In line with Turkcell's need for a flexible, "future-proof" infrastructure, Accenture had committed to putting in place a scalable, technology agnostic system that could readily adapt to new technologies—and this commitment underpinned Accenture's approach to the project.

For preparing Turkcell's new service portal, the Accenture team concentrated on migrating Turkcell's

core infrastructure towards a centralized, service-oriented approach. To assist service continuity and reduce the impact on customers, the legacy point-to-point architecture had to operate throughout in tandem with the new SDPA solution. The goal was to enable Turkcell to cost-effectively create, deploy and manage value-added data services, and make them easily and securely accessible by consumers—anywhere, anytime, and on any device.


Accenture was also selected to design and build the service orchestration component, which was implemented using Oracle's BPEL (business process execution language) Process Manager. This component is the central pivot of the whole architecture, responsible for providing a common set of functions and a common way of viewing the underlying network. It also allows the SDP to standardize all service interfaces—creating a platform from which the company can provision, control and bill for all the value-added services it provides.

This service orchestration implementation turned out to be the largest ever completed on Oracle's BPEL engine, due partly to the excellent teaming and cooperation between Oracle and Accenture, and was achieved within four weeks.

From the outset, Turkcell's SDPA design was based on defined customer and third-party behaviors. By providing a common set of functions and a common way of viewing the underlying network,

Turkcell's SDPA standardizes all service interfaces within an "open", service-oriented architecture (SOA), giving third-party developers access to Turkcell's own network and systems and creating a horizontal platform from which the company can provision, control and bill for all the value-added services it provides. Because it integrates with operations support systems (OSS), business support systems (BSS), and network service products based on industrial standards (such as XML, HTTP and Web services), the SDPA allows Turkcell to leverage its existing technology investments.

Designed for multi-network convergent environments, the Accenture Service Delivery Platform Solution will enable the SDPA to offer value-added services across multiple networks (PSTN, broadband, wireless 2/2.5/3G, WiFi) by utilizing common internet protocol (IP) standards. This is geared to assist optimal service interoperability, and an uninterrupted user experience. Being based on IP, it embodies emerging IMS (IP multimedia subsystem) standards, whilst complying with existing IMS components. This places Turkcell in a strong position from which to fully exploit the internet protocol convergence opportunities that may soon be available in Turkey.



"We are faster, more flexible and more responsive to customer demands than ever before."

Cenk Bayrakdar, CIO Turkcell

High Performance Delivered

Accenture research shows that a mastery of information technology is an essential component of high performance. By teaming with Accenture to develop a unique service delivery infrastructure, Turkcell has significantly advanced towards its own high performance—and has done so in a remarkably short period of time, considering that the new SDPA went live in August 2006.

The most dramatic benefits lie in the 75 percent reduction in time-to market for new services. Instead of taking up to a thousand man-days to integrate brand new service platforms with its legacy OSS/BSS architecture and to deliver them to customers, Turkcell now takes significantly less time—a crucial differentiator in such a competitive marketplace. Campaign design has also been vastly accelerated, as Turkcell Chief Service & Product Development

Officer Cenk Bayrakdar explains: "Setting up a new campaign used to take several days—it now takes a day. Our goal is to do it in five to 15 minutes by end January 2007."

Besides adding to Turkcell's agility, this dramatically shortened timeframe for the launch of a service has delivered significant operational cost savings: compared with the situation under the previous service creation environment, savings of between 50 and 75 percent are now being achieved.

Another benefit was in the ability to dramatically scale operations. Equipped to serve 30 million customers, the SDPA addresses the scale versus flexibility dilemma which confronted Turkcell. Prior to SDPA there were over 600 interfaces for 19 service platforms—there are now just 200 interfaces. Such a simplified operating environment has enabled Turkcell to scale horizontally,

providing new services to its customers without in any way compromising its agility. For example, in the three months following its launch, the SDPA handled over 126 million value-added SMSs.

The SDPA has also enabled Turkcell to scale vertically to incorporate a much larger number of service developers. As a "nimble giant", Turkcell has been leveraging its enhanced flexibility to build an expanded, independent and collaborative third-party developer ecosystem that accelerates the pace and breadth of its innovation. Three months after its launch, 11 application service providers and 48 content providers were offering 100 services through the SDPA. Says Bayrakdar: "SDPA allows third-party developers to rapidly access its functionalities through the new portal, which offers predefined processes and ready-to-use services, and to quickly

create and integrate their own solutions and services."

There have also been other substantial benefits. Turkcell has achieved a cohesive migration from its legacy point-to-point service infrastructure to the new service-oriented architecture incorporated in the SDPA with no loss of continuity, and with customer satisfaction having been maintained throughout the process.

The SDPA also assists ease of use for subscribers. As a result, Turkcell has experienced a dramatic increase in service usage, with average WAP pages per view per visit having jumped almost six times since July 2006 (from 3.1 to 17). Content sales have risen by over 370 percent, and are continuing to rise without any advertising support. Just one month after the launch, the daily visitor numbers had been doubled in comparison with the former WAP site. In addition, WAP portal GPRS usage has risen by up to 3,400 percent.

Key to these emphatic results are the

SDPA's signature characteristics—intuition, speed, and personalization. Subscribers are provided with a flexible, secure interface from which to access or activate multiple services across different platforms through a single sign-on. The service orchestration part of the Accenture solution (orchestrating 19 different platforms in a set of integrated tools) delivers quick user interaction: though the WAP portal main-page view requires 180 transactions to be carried out, it takes under a second to be served to the user. And SDPA delivers a personalized experience—its unified subscriber database means that Turkcell's campaigns can be rapidly bundled and targeted at multiple user segments.

Turkcell's pioneering SDPA is in tune with the company's reputation for innovation. Its holistic customer interaction framework has been achieved by means of a design tool, created by Accenture, which helps align architecture, process and technology issues with customer requirements. Its

simplified process design means that over 100 of its 300 services, which used to be delivered across the 38 legacy platforms, have already been migrated to the new architecture. And its focus on high performance has increased its orchestration speed by 1,300 percent to 380 transactions per second (tps), where average orchestration environments only see between 20 and 30 tps.

The strength of the teaming relationship between Accenture and Turkcell helped the new system to be developed dynamically and responsively. At the same time, the coordinated efforts of the eight specialist solution developers involved were a major source of value. As a result of this project, Turkcell's Cenk Bayrakdar concludes: "We are faster, more flexible and more responsive to customer demands than ever before. Our new SDPA has opened up a new business approach, meaning that we can develop new products and services more quickly, before delivering them via exciting and flexible new channels."

"Our new SDPA has opened up a new business approach, meaning that we can develop new products and services more quickly, before delivering them via exciting and flexible new channels."

Cenk Bayrakdar, CIO Turkcell

About Accenture

Accenture is a global management consulting, technology services and outsourcing company. Committed to delivering innovation, Accenture collaborates with its clients to help them become high-performance businesses and governments. With deep industry and business process

expertise, broad global resources and a proven track record, Accenture can mobilize the right people, skills and technologies to help clients improve their performance. With approximately

146,000 people in 49 countries, the company generated net revenues of US\$16.65 billion for the fiscal year ended August 31, 2006. Its home page is www.accenture.com

About Turkcell

www.turkcell.com.tr

Turkcell is the leading GSM operator in Turkey with 31.8 million post-paid and pre-paid customers as of December 31, 2006 operating in a three player market with a market share of approximately 60% as of September 30, 2006 (Source: Telecommunication Authority). In addition to the high quality wireless telephone services, Turkcell currently offers General Packet Radio Service (GPRS) countrywide and Enhanced Data Rates for GSM Evolution (EDGE) in dense areas, which provide for both improved data and voice services. Turkcell provides roaming with 539 operators in 193 countries as of January 22, 2007. Serving a large subscriber base in Turkey with its high-quality

wireless telephone network, Turkcell reported US\$4,528 million net revenues as of December 31, 2005 and US\$3,497million net revenue for the nine months as of September 30, 2006 as per IFRS financial statements.

Turkcell has interests in international GSM operations in Azerbaijan, Georgia, Kazakhstan, Moldova, Northern Cyprus and Ukraine. Turkcell has been listed on the NYSE (New York Stock Exchange) and the ISE (Istanbul Stock Exchange) since July 2000 and is the only NYSE listed company in Turkey. 51.00% of Turkcell's share capital is held by Turkcell Holding, 7.46% by Cukurova Group, 13.07% by Sonera Holding, 5.07% by M.V. Group and 0.01% by others while the remaining 23.39% is free float.

Copyright © 2007 Accenture
All rights reserved.

Accenture, its logo, and
High Performance Delivered
are trademarks of Accenture.

Contact

For more information, please contact:
Carlo Gessi, Partner
carlo.gessi@accenture.com or
Emmanuel Laloz, Marketing
emmanuel.laloz@accenture.com

Accenture was awarded first place among nearly 200 entries in the Enterprise ROI category at the CTIA WIRELESS 2006 Convention (www.ctiawireless.com, www.ctia.org), further validating the benefits wireless customers may achieve in creating and managing data services through Accenture Service Delivery Platform Solution.