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Global Headquarters: 5 Speen Street Framingham, MA 01701 USA P.508.872.8200 F.508.935.4015 www.idc.com

EXCERPT

Worldwide Mobile Worker Population 2007-2011 Forecast

Stephen D. Drake
Merle Sandler
Stacy K. Sudan
Raymond Boggs
Randy Giusto
Sean Ryan

IN THIS EXCERPT

This Excerpt is taken from the IDC Market Analysis report, Worldwide Mobile Worker Population 2007-2011 Forecast, by Stacey K. Sudan, Stephen D. Drake, Raymond Boggs, Sean Ryan, Merle Sandler and Randy Giusto; IDC#209813. All or part of the following sections are included: IDC Opinion, In this Study and Situation Overview. Also included are Figure 1 and 5 plus Tables 1, 2, 3, 4 and 5.

IDC OPINION

The worldwide mobile worker population is set to increase from 758.6 million in 2006, accounting for 24.8% of the worldwide workforce, to 1.0 billion in 2011, accounting for 30.4% of the workforce. Key highlights across the regions include:

- The United States has the highest percentage of mobile workers in its workforce (68% in 2006, expected to reach 73% in 2011), while the rest of the world (ROW) (which includes Canada; Central and Eastern Europe, the Middle East, and Africa [CEMA]; and Latin America) has the lowest (6.0% in 2006, expected to reach 6.8% in 2011).
- Japan's mobile workforce will be increasing at the fastest rate over the forecast period (compound annual growth rate [CAGR] of 8.5%), despite having the slowest total workforce growth rate (0.0%).
- Asia/Pacific (excluding Japan) will have the largest number of mobile workers throughout the forecast. The region had 479.8 million mobile workers in 2006, and that number will grow to reach 671.2 million in 2011.
- Western Europe had the second-largest penetration of mobile workers worldwide in 2006, with 47.8% of its worker population being mobile.

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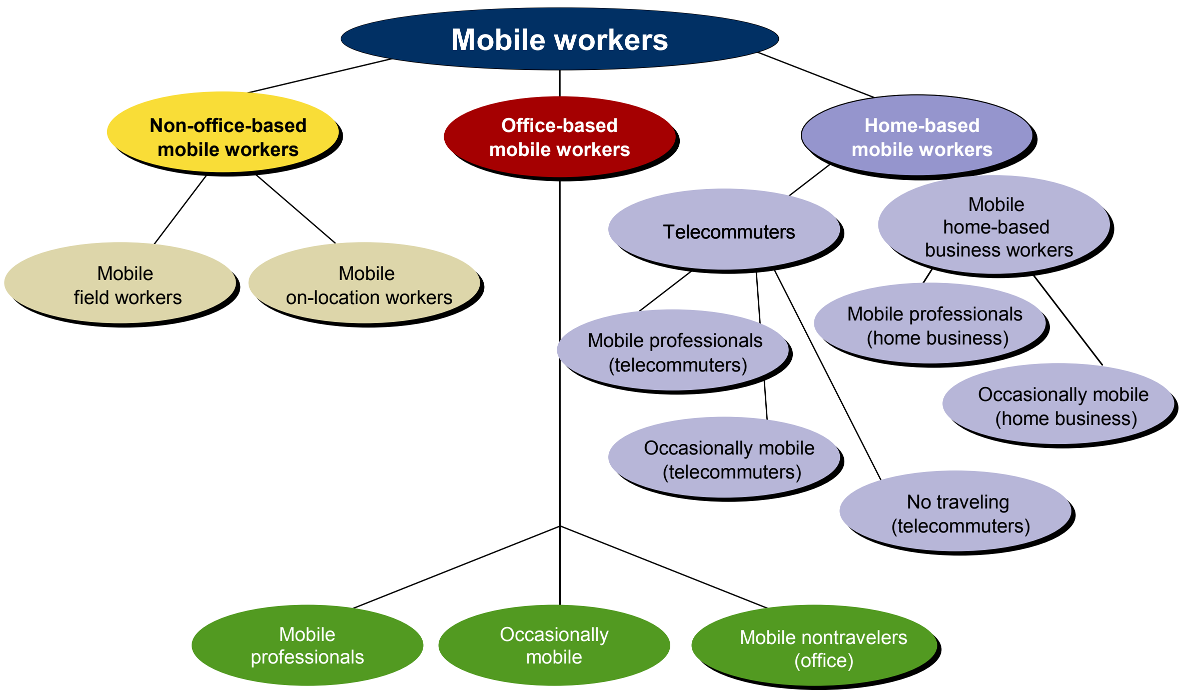
IN THIS STUDY

Definitions

IDC segments the mobile worker population into three core categories, which include office-based mobile workers, non-office-based mobile workers, and home-based mobile workers. Within each of these categories, IDC further segments the mobile workers (see Figure 1). The following sections provide definitions for each category and subcategory of mobile worker.

FIGURE 1

Mobile Worker Population Hierarchy



Source: IDC, 2007

Mobile Workers

Mobile workers can be divided into three mutually exclusive main categories: office-based mobile workers, non-office-based mobile workers, and home-based mobile workers.

Office-Based Mobile Workers

Office-based mobile workers are those whose primary workplace is the office. This category includes mobile professionals, occasionally mobile workers, and mobile nontravelers.

Mobile Professionals

Mobile professionals are employees that are away from their primary workplace 20% or more of the time. These employees are typically made up of traveling executives, consultants, sales reps, insurance agents, pharmaceutical reps, and others, such as those in the healthcare industry. Mobile professionals are considered to be travelers when they are between locations and visitors when they arrive.

Occasionally Mobile

Previously known as the mobile migration opportunity, occasionally mobile workers are those who may be involved in some mobile activity outside of their primary workplace but do not fit the criteria of mobile professionals who are away from their office at least 20% of the time. These employees may only be mobile a few times a year or less than 20% of their workdays per month.

Mobile Nontraveler

Mobile nontravelers are those workers who are mobile within the office or campus environment but do not travel outside of the office or campus. An example would be IT professionals who travel within buildings and campuses to assist in administration of networks and PCs but are not considered to be mobile professionals or occasionally mobile workers as defined because their mobility pattern remains within the office or campus environs.

Non-Office-Based Mobile Workers

Non-office-based mobile workers are those workers who are mobile but are not in an office environment. The two types of mobile non-office-based workers include mobile field workers and mobile on-location workers.

Mobile Field Workers

Formerly known as mobile data collectors, mobile field workers are typically field service employees from various vertical industries who collect data or require two-way data while out in the field. Increasingly, these employees are delivering enhanced services beyond data collection (such as sales functions) to better serve clients' needs and provide an upsell opportunity for the company.

Workers move from location to location and include those in typically service-oriented fields such as transportation, package delivery, trucking, route accounting, utilities, HVAC, construction management, and warehousing logistics. What makes mobile field workers unique is their pattern of mobility. The locations to which they travel may be part of a regularly traveled route or may vary from day to day. For example, a driver for a package delivery service may drive the same route every day. Conversely, a field service employee's route may be determined at the beginning of each day based on a list of scheduled service calls or may change throughout the day as service calls are received. Mobile field workers often, but not always, operate a company vehicle as part of their job.

Mobile On-Location Workers

Mobile on-location workers are those employees that work at a specific location but outside of an office environment. Unlike mobile field workers, these employees are typically mobile only within a specific area, as they are on location at their primary workplace. Mobile on-location workers may work indoors (e.g., in a restaurant or warehouse), outdoors (e.g., at a construction site), or in mixed environments. Examples include warehouse workers, hospitality workers, and rental car employees assisting customers who are picking up and dropping off vehicles. Some may operate specialty equipment (e.g., forklifts and construction equipment) as part of their job.

Home-Based Mobile Workers

Home-based mobile workers are those mobile and remote workers who use their home as a workplace all or part of the time. This category includes telecommuters and mobile home-based business workers.

Telecommuters

Telecommuters are corporate employees who work at home during normal business hours. The threshold for telecommuters is three days a month or more, though some telecommuters may spend no time in traditional offices. (In effect, they are telecommuting full time.) These workers may have an informal arrangement between the employee and the supervisor, or the work arrangement can be more formalized with a written policy and enrollment.

Telecommuters consist of the following:

- **Mobile professionals (telecommuters):** This segment consists of those telecommuters who also travel away from their homes or corporate offices at least 20% of the time. This definition is consistent with office-based mobile professionals, with the only distinction being that these employees work out of their homes three days a month or more. An example would be regional salespeople who, because of their territory (e.g., the northeastern United States), may report to corporate offices but, because of logistics, work out of their homes and travel within their regional sales territories, visiting clients and prospects.

- **Occasionally mobile (telecommuters):** This segment consists of telecommuters who may be involved in some mobile activity outside of their primary workplace but do not fit the criteria of mobile professionals who are away from their offices at least 20% of the time. These employees may be mobile only infrequently. This definition is consistent with that of office-based occasional mobile workers, with the only distinction being that these employees are telecommuters. An example here would be the worker who telecommutes occasionally for business or personal reasons and has a tendency to travel occasionally to clients or other offices.

- **Nontraveling telecommuter:** Nontraveling telecommuters are workers who are considered to be mobile by virtue of being telecommuters but do not travel away from the home or the corporate office. An example would be a finance department employee who telecommutes a particular number of days because of personal or professional reasons and only works from home or the main office and does not travel for business purposes.

Mobile Home-Based Business Workers

Mobile home-based business workers consist of those home-based, income-generating business owners who are the following:

- **Mobile professionals (home business):** Mobile professional (home business) workers are those home-based business owners and employees whose primary workplace is a home and who are away from their primary workplace at least 20% of the time.

- **Occasionally mobile (home business):** Occasionally mobile (home business) workers are those home-based business owners and employees whose primary workplace is a home and who are away from their workplace less than 20% of the time. They may only be mobile a few times a year.

Other Types of Mobile Workers

IDC identifies a number of additional categories of mobile workers that are essentially an overlay of the categories defined previously. IDC does not quantify these categories separately but uses them largely to further qualify and detail the core mobile workers.

Travelers

Travelers are mobile professionals or occasionally mobile workers, home and office based. They are defined as travelers at the specific time when they are in transit in a plane, train, airport, train station, etc. Travelers are on their way to their final destination, which may be a hotel, conference center, client site, or satellite office, or are on the return journey. Travelers differ from commuters; commuters are en route to the office, but travelers are on their way to or from a visitor site.

Visitors

Visitors are travelers who have reached their destination, which may be a hotel, conference center, client site, or satellite office. At the point at which mobile workers become visitors, they have reached a certain level of "fixed" mobility in so much as they are mobile because they are away from the office, but unlike travelers, they are much less transient.

Commuters

IDC recognizes that the majority of the U.S. workforce commutes to some extent from where they live to where their workplace is located and back home (exceptions include full-time telecommuters and home-based business owners). IDC is interested in those commuters who are leveraging some mobile device technology on their way to work or returning. Like the traveler, the commuter is very transient in nature, but unlike the traveler, who may spend a day or more traveling and is typically in different locations, the knowledge-working commuter has a much shorter traveling time (from minutes to several hours) and is typically traveling the same route each day. The means of traveling is often very similar (e.g., takes the subway to work every day) and typically very limited (e.g., car, subway, or bus).

Corridor Cruisers

Corridor cruisers include those office-based employees that travel within the office or campus area. Corridor cruisers include mobile nontravelers as well as a percentage of office-based mobile professional and occasionally mobile workers, who may exhibit this work pattern at certain times.

Work Extenders

This segment includes corporate workers who take work home from traditional jobs after normal business hours. Although they work in the evening or on weekends, corporate after-hours employees are not compensated separately. Their reward would likely come through raises and promotions associated with greater productivity.

Geographic Definitions

IDC includes five regions in this study: the United States, Western Europe, Asia/Pacific (excluding Japan), Japan, and ROW.

Countries in the Western Europe forecast include Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Countries in Asia/Pacific (excluding Japan) include Australia, China, Hong Kong, India, Indonesia, Korea, Malaysia, New Zealand, Philippines, Singapore, Taiwan, Thailand, Vietnam, and the rest of Asia/Pacific (ROAP).

The ROW region includes Canada; Central and Eastern Europe, the Middle East, and Africa (CEMA); and Latin America.

Worldwide Workforce by Segment

Tables 1 and 2 and Figure 5 segment the overall worldwide worker population and the worldwide mobile worker population for the forecast period.

IDC predicts that the mobile worker population worldwide will amount to 1.0 billion people in 2011, up from 758.6 million in 2006. This represents a CAGR of 5.8%. In addition, the mobile worker population's share of the total workforce worldwide is expected to increase from 24.8% in 2006 to 30.4% in 2011.

Segmenting the forecast numbers by the three main mobile worker categories reveals the following:

- **Mobile office workers.** This group represents the lion's share of the mobile workforce population (62.3% in 2006 and 62.0% in 2011). This segment will grow from 472.7 million in 2006 to 622.9 million in 2011, increasing at a CAGR of 5.7%.

- **Mobile nonoffice workers.** This segment will experience the highest growth rate during the forecast period (CAGR of 6.2%), while representing the second-largest share of the population (31.7% in 2006 and 32.3% in 2011).

- **Home-based mobile workers.** This group will reach 58.0 million worldwide by 2011, up from 45.4 million in 2006, with a CAGR of 5.0%.

TABLE 1

Worldwide Worker Population by Segment, 2006–2011 (M)

	2006	2007	2008	2009	2010	2011	2006–2011 CAGR (%)
Mobile	758.6	801.1	847.8	896.5	947.8	1,005.4	5.8
Growth (%)	NA	5.6	5.8	5.7	5.7	6.1	
Share (%)	24.8	25.7	26.8	27.9	29.0	30.4	
Nonmobile	2,303.7	2,315.5	2,319.1	2,320.1	2,318.3	2,306.3	0.0
Growth (%)	NA	0.5	0.2	0.0	-0.1	-0.5	
Share (%)	75.2	74.3	73.2	72.1	71.0	69.6	
Total	3,062.3	3,116.7	3,167.0	3,216.6	3,266.1	3,311.6	1.6
Growth (%)	NA	1.8	1.6	1.6	1.5	1.4	

Note: See Table 3 for key forecast assumptions.

Source: IDC, 2007

TABLE 2

Worldwide Mobile Worker Population by Segment, 2006–2011 (M)

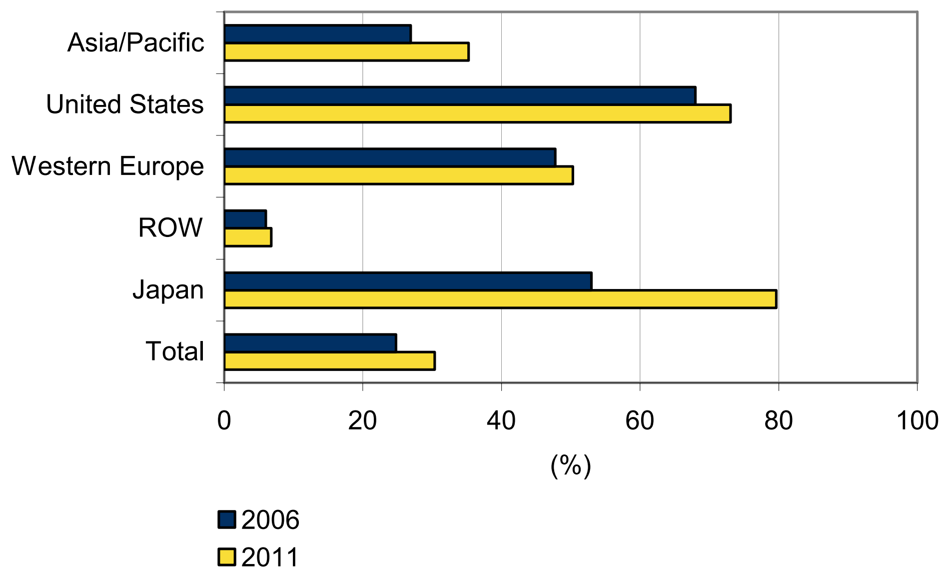
	2006	2007	2008	2009	2010	2011	2006–2011 CAGR (%)
Mobile office	472.7	498.7	527.6	556.7	588.3	622.9	5.7
Growth (%)	NA	5.5	5.8	5.5	5.7	5.9	
Share (%)	62.3	62.3	62.2	62.1	62.1	62.0	
Mobile nonoffice	240.5	254.7	269.8	286.7	304.0	324.4	6.2
Growth (%)	NA	5.9	5.9	6.2	6.0	6.7	
Share (%)	31.7	31.8	31.8	32.0	32.1	32.3	
Mobile home based	45.4	47.7	50.5	53.1	55.4	58.0	5.0
Growth (%)	NA	4.9	5.8	5.3	4.2	4.7	
Share (%)	6.0	6.0	6.0	5.9	5.8	5.8	
Total	758.6	801.1	847.8	896.5	947.8	1,005.4	5.8
Growth (%)	NA	5.6	5.8	5.7	5.7	6.1	

Note: See Table 3 for key forecast assumptions.

Source: IDC, 2007

FIGURE 5

Worldwide Mobile Workforce Penetration by Region, 2006 and 2011



Source: IDC 2007

Forecast Assumptions

Key forecast assumptions are discussed in detail in Table 3. In developing forecast assumptions, IDC considers three specific factors: the level of impact that the assumption will have on the market (high, moderate, low), whether the assumption will act as an accelerator or inhibitor, and the certainty of the assumption.

TABLE 3

Key Forecast Assumptions for the Worldwide Mobile Worker Population, 2007–2011

Market Force	IDC Assumption	Impact	Accelerator/ Inhibitor/ Neutral	Certainty of Assumption
Macroeconomics				
Worldwide economic growth	Industrialized regions that experience long-term economic growth will be more prone to consider investments in corporate mobile technology infrastructure and devices. The world economy has been experiencing strong growth, but signs of market risk exist in rising oil prices, the declining U.S. dollar, and the subprime lending debacle in the United States.	**Moderate.** Strong GDP growth in many countries has put many companies in a position to spend on mobility, but this will be tempered by market uncertainties.	↑	★★☆☆☆
Demographic/ workforce growth	Steady growth is expected in Asia/Pacific (excluding Japan) and ROW. Slow workforce growth is expected in mature markets.	**High.** Mobile solutions/products will be easier to sell to a young, tech-savvy workforce.	↔	★★★★☆
Globalization	Multinational corporations and corporations doing business with partners or customers in other regions will have a higher likelihood of having mobile workers due to time differences and cross-pollination of business practices.	**Low.** This will help to accelerate adoption of mobility in Asia/Pacific (excluding Japan) and ROW. It also will act as a driver for greater adoption in the United States and Western Europe.	↑	★★★★☆
Pressure to optimize corporate revenue through cost savings	Corporations are exploring more seriously the advantages of telecommuting as a way to reduce corporate space leasing expenses.	**Moderate.** Country-specific attempts will be made at this time in the United States, Western Europe, Canada, and some parts of Asia.	↔	★★★☆☆
Technology				
Mobile devices	Newer models with stronger capabilities, multiple connectivity options, and a variety of form factors will continue to proliferate. Downward pressure on price will continue.	**High.** Mobile devices that are better designed to meet the needs of mobile workers of all types and at reasonable price points will enable a greater number of workers to become mobile.	↑	★★★★☆
Services/platform/ infrastructure	Strong penetration of enterprise wireless LAN deployments will	**High.** A solid infrastructure and data and content delivery	↑	★★★★☆

TABLE 3

Key Forecast Assumptions for the Worldwide Mobile Worker Population, 2007–2011

Market Force	IDC Assumption	Impact	Accelerator/ Inhibitor/ Neutral	Certainty of Assumption
	occur in organizations.	venue will build market confidence and minimize security concerns.		
Ease of adoption/ conversion	Mobile deployment adoption is becoming more open and better integrated, and suppliers are offering more consumable packaged solutions.	**High.** Workers who are already mobile will easily adapt to newer devices and processes.	↑	★★★☆☆
Convergence of IT and telephony systems	As enterprises upgrade to IP-based networks for both voice and data and deploy WLANs, more workers will be given the opportunity to go mobile.	**High.** Technologies that combine IT and telephony systems and then extend these to mobile devices enable greater voice and data capabilities for mobile workers and enhance collaborative efforts. Enterprises will see potential cost reductions.	↑	★★★☆☆
Wireless connectivity	Cellular (CDMA/GSM), WiFi, GPS, and Bluetooth are increasingly being offered, in various combinations, on a single device. Faster and more ubiquitous networks are being deployed.	**High.** Greater connectivity options and faster data speeds will enable more business applications to run on a mobile device and will drive use cases for mobility.	↑	★★★★☆
Security	Ongoing breaches will undermine confidence.	**High.** Technology providers are placing greater emphasis on secure access, encrypted data transfer, antivirus, and device management, but many enterprises are unprepared for malicious attacks, data theft, or inadvertent data loss.	↓	★★☆☆☆
Market dynamics				
Adoption of mobile services	High growth of mobile subscribers is occurring in emerging markets. Continued growth is occurring in more saturated mature markets.	**High.** Mass adoption of mobile services will increase mobile business use among SMB users and mobile self-selectors in large enterprises.	↑	★★★★☆

TABLE 3

Key Forecast Assumptions for the Worldwide Mobile Worker Population, 2007–2011

Market Force	IDC Assumption	Impact	Accelerator/ Inhibitor/ Neutral	Certainty of Assumption
Cultural attitudes toward working remotely	Companies in early adopter countries such as the United States, Western Europe, and parts of Asia/Pacific are more receptive to the concept of their employees working remotely.	**Moderate.** This will be offset by the conservative attitudes of companies in other parts of Asia/ Pacific, CEMA, and Latin America where remote working/telecommuting is not common.	↔	★★★★☆
Market competition	Competitive efforts to reduce business lag time and be more responsive to customers, partners, suppliers, and colleagues will drive enterprises to address customer demands to a greater degree.	**Moderate.** Enterprises will try to use more aggressive ways to reach customers and have a faster turnaround time in responding to customer demands. As a result, there will be a greater need for employees to be mobile and work remotely. More verticals that traditionally had a low mobile workforce will align themselves to new market opportunities and will send more employees out in the field.	↑	★★★★☆
Distribution	Enterprise mobility vendors will define their go-to-market strategies and invest time and effort in streamlining their distribution network for their products and solutions. Some vendors such as Nokia have made a concerted effort toward resolving the channel for mobility applications. Carriers will be in a better position to penetrate the market with mobility products from RIM and Microsoft.	**High.** The upside is that enterprise mobility players will have a wider reach among enterprises.	↑	★★★☆☆

Legend: ★☆☆☆☆ very low, ★★☆☆☆ low, ★★★☆☆ moderate, ★★★★☆ high, ★★★★★ very high

Source: IDC, 2007

United States

United States Mobile Worker Population Forecast and Assumptions

IDC expects the number of mobile workers in the United States will reach 120.1 million in 2011, up from 105.6 million in 2006, reflecting a compound annual growth rate (CAGR) of 2.6% for the forecast period (see Table 4).

As detailed in Table 4, the key findings for each of the three main categories of mobile workers are as follows:

- **Mobile office workers.** In 2006, IDC estimates that there were 62.3 million mobile office workers. By 2011, this number will reach 71.4 million, representing a 2.8% CAGR over the forecast period.
- **Mobile nonoffice workers.** In 2006, IDC estimates that there were 33.0 million mobile nonoffice workers, and by 2011, this number will increase to 36.9 million. This represents a 2.3% CAGR over the forecast period.
- **Home-based mobile workers.** In 2006, there were a total of 10.3 million home-based workers, and IDC expects this number will climb to 11.8 million by 2011. This category will see a CAGR of 2.8%, the lowest of the three categories.

IDC's U.S. forecast is based on the following assumptions:

- Drivers:
  - Growth in management, business, and financial occupations is projected to average 14% from 2004 to 2014. These occupations have a high potential to become mobile.
  - Growth in nonoffice mobile workers will be driven by the healthcare industry, (particularly nurses, physicians, and specialists), general maintenance workers, and across industries employing installers and repair personnel.
  - There is an increasing pressure for companies to provide work/life balance programs for workers, which often allows for more flexibility and mobility in their schedules. In addition, the generation that is entering the workforce now expects to be able to have some level of mobility in their job and tends to have a high comfort level with technology in general, including remote access technologies and mobile devices.
  - Enterprises continue to deploy mobility solutions to meet both horizontal and vertical industry needs, and IDC survey research found that, in 2006, just over 70% of respondents had a mobile application live today or were in the process of piloting one.
- Inhibitors:
  - The U.S. market is at risk of an economic slowdown brought on by the recent subprime mortgage debacle, high oil prices, and a weak U.S. dollar.
  - There has been a decline in the overall telecommuter numbers due to a higher degree of churn than in the past. For many, telecommuting is not a

destination — they telecommute for a while, but then go back into the corporate world.

- ❑ Enterprises show a reluctance to deploy mobility solutions on a large scale and are cautious even in smaller rollouts. Executives and IT decision makers have many valid considerations to weigh, including security, asset management, costs, and tangible gains in productivity.

TABLE 4

U.S. Worker Population by Segment, 2006–2011 (M)

	2006	2007	2008	2009	2010	2011	2006–2011 CAGR (%)
Mobile	105.6	108.1	110.8	113.6	116.7	120.1	2.6
Growth (%)	NA	2.3	2.5	2.5	2.7	3.0	
Share (%)	68.0	68.8	69.9	70.5	71.3	73.0	
Nonmobile	49.8	49.0	47.6	47.6	46.9	44.4	-2.3
Growth (%)	NA	-1.5	-2.9	0.0	-1.5	-5.5	
Share (%)	32.0	31.2	30.1	29.5	28.7	27.0	
Total	155.4	157.1	158.4	161.2	163.6	164.5	1.1
Growth (%)	NA	1.1	0.8	1.8	1.5	0.6	

Note: See Table 3 for key forecast assumptions.

Source: IDC, 2007

TABLE 5

U.S. Mobile Worker Population by Segment, 2006–2011 (M)

	2006	2007	2008	2009	2010	2011	2006–2011 CAGR (%)
Mobile office							
Mobile professional	21.3	22.2	23.3	24.4	25.6	27.2	5.0
Growth (%)	NA	4.2	5.0	4.7	4.9	6.3	
Occasionally mobile	25.4	24.5	23.3	22.1	21.0	20.0	-4.7
Growth (%)	NA	-3.5	-4.9	-5.2	-5.0	-4.8	
Mobile nontraveler	15.6	17.0	18.6	20.4	22.4	24.2	9.2
Growth (%)	NA	9.0	9.4	9.7	9.8	8.0	
Total	62.3	63.7	65.2	66.9	69.0	71.4	2.8
Growth (%)	NA	2.2	2.4	2.6	3.1	3.5	
Mobile nonoffice							
Mobile field	12.1	12.4	12.8	13.1	13.4	13.7	2.5
Growth (%)	NA	2.5	3.2	2.3	2.3	2.2	
Mobile on location	20.9	21.3	21.8	22.3	22.7	23.2	2.1
Growth (%)	NA	1.9	2.3	2.3	1.8	2.2	
Total	33.0	33.7	34.6	35.4	36.1	36.9	2.3
Growth (%)	NA	2.1	2.7	2.3	2.0	2.2	
Mobile home based							
Telecommuter							
Mobile professional	2.1	2.3	2.4	2.5	2.6	2.7	5.2
Occasionally mobile	1.8	1.9	2.1	2.2	2.3	2.4	5.8
Nontraveling	4.4	4.3	4.3	4.3	4.2	4.2	-0.7
Subtotal	8.3	8.6	8.8	9.0	9.2	9.4	2.4
Home-based business							
Mobile professional	1.7	1.8	1.9	2.0	2.1	2.2	5.0
Occasionally mobile	0.3	0.3	0.3	0.3	0.3	0.3	1.3

TABLE 5

U.S. Mobile Worker Population by Segment, 2006–2011 (M)

	2006	2007	2008	2009	2010	2011	2006–2011 CAGR (%)
Subtotal	2.0	2.1	2.2	2.3	2.4	2.5	4.5
Total	10.3	10.7	11.0	11.3	11.6	11.8	2.8
Growth (%)	NA	3.5	2.8	2.8	2.7	2.3	
Total							
Mobile population	105.6	108.1	110.8	113.6	116.7	120.1	2.6
Growth (%)	NA	2.3	2.5	2.5	2.7	3.0	
Share of workforce (%)	68.0	68.8	69.9	70.5	71.3	73.0	
Workforce	155.4	157.1	158.4	161.2	163.6	164.5	1.1
Growth (%)	NA	1.1	0.8	1.8	1.5	0.6	

Note: See Table 3 for key forecast assumptions.

Source: IDC, 2007