



# Norway: Trends in the ICT Market - 2007

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09/2007  
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## Summary

The Norwegian market for ICT services and goods has been growing at a steady pace over the last few years and this is expected to continue. Most market segments will enjoy high revenue growth and solid profit margins. The consumer market is fueled by low cost production in China, whereas B2B products and services, on the contrary, are increasingly driven by higher cost of labor – there is practically no unemployment in this sector.

Outsourcing and systems integration of enterprise software are strong segments in the service market. Especially, Customer Relationship Management systems, IT security and other enterprise software are expected to generate high revenues. This growth period is expected to last at least until 2009, although some uncertainty is related to the possible impact of a declining U.S. market.

## Market Overview

The Norwegian market is relatively small, but technology-savvy, innovative and largely homogeneous, and often one of the first to try and adopt new technology. This makes Norway, together with its Nordic neighbors, a good entry point into the European market for many U.S. companies. Statistics Norway indicates that the overall ICT market in Norway is valued at more than USD 60 billion.

The Norwegian ICT market is in a high growth period, and is expected to remain so for a few more years. Some ICT market segments have enjoyed growth rates of 15%, according to Statistics Norway. Overall ICT growth has been in the 5-6% range on an annual basis. The market analysts IDC expects the Norwegian software market to grow by an annual growth rate of 7.1% for the period 2007-2011.

### *Vertical Industries and ICT spending*

Norway is the world's third largest exporter of crude oil and natural gas and many of the ICT companies serve this increasingly high-tech market. For example, Norway's largest oil companies have some of the highest computing capabilities available on the market to solve complicated sub-sea geological challenges. One of the companies, Statoil, last year upgraded to 12 teraflops capacity (from HP), which enable them to cut down calculation time by weeks. Processing of geological data is just one example of many sophisticated needs.

Shipping, fisheries and other maritime industries also make significant contributions to Norway's GDP. An IBM Research study shows that the finance, insurance and media market has the highest percentage of total cost related to ICT (36%), whereas manufacturing (20%) and the public sector (13%) come in at number two and three, respectively. A Statistics Norway survey shows that the ICT market related to manufacturing is the fastest growing sector.

## Market Trends

IDC has summarized the growth trends in the Nordic region with GDP forecasts above the European average, falling number of bankruptcies, high IT investments, and few signs of fundamental, negative change, despite the recent fluctuations in the U.S. financial and housing markets. Most analysts seem to believe that the positive status of fundamental economic indicators will keep the Norwegian economy healthy.

However, a prognosis by ICT Norway and Visendi published in September 2007 indicates that investment levels by companies in 2008 are somewhat uncertain. Fewer companies expect an increase in systems integrations and application developments compared to the peak years 2006 and 2007.

### *Hardware*

External trade with ICT goods is growing. Imports of ICT goods are dominated by computers and related equipment while exports are dominated by telecommunication equipment. Consumer electronics is still a hot commodity.

The server market segment grew several times faster than the rest of the market the last few years and may be worth around USD 250 million. Demand for server consolidation (larger and fewer servers) is expected to increase, and server architecture is expected to be more sophisticated. IBM is the market leader, closely followed by HP, with about one-third of the market each. Intel processors equip more than half of the servers, and Unix is the fastest growing platform with a 34% market share. There has been an annual increase in storage capacity of 50%. The price of gigabytes is dropping, but costs related to administration, cooling, space and electricity are growing. "Virtualization" and "dynamic assignment" seems to be the current buzzwords and these solutions come with the highest price tags.

### *E-business*

The major online electronics retail stores also report higher revenues. One of the largest retailers, Komplet, reported a 25% increase in revenues in 2005 and 22% growth from August 2006 to August 2007. Komplet is now one of the largest online retailers in Europe. Komplet recently acquired another large market player, MPX.no, which had a revenue growth of 45% in 2005. Flatscreen TVs and monitors are still popular and have experienced increased sales lifecycles due to high definition capabilities. Online purchases are increasingly common, largely due to widespread broadband Internet access throughout the country. Unfortunately, because the Nordic countries are in the forefront of broadband development, they are also struggling with illegal downloading of pirated movies, games, various types of consumer software and music. Swedish-operated Pirate Bay is in part to blame for this, and Nordic governments are yet to implement effective countermeasures.

Norwegian consumer demand for e-commerce is high. The value of e-commerce in Norway has increased from USD 290 million to USD 610 million according to the analyst firm MMI. The increase in e-commerce may be a result of more diverse and higher quality goods on offer, that consumer confidence and IT skills see are developing, and that ever more suppliers of products and services use the Internet as a sales channel. The vast majority of Internet users have

ordered products and services online at some time, TNS Gallup reports. Books, travel, IT equipment and clothing are still the best-selling products on the Internet, while films, tickets and books have the highest growth rates. Air travel makes up 83% of travel booked online.

### *Software and services (B2B)*

IDC has projected a 7.1% growth rate for the software market between 2007 and 2011.

ICT outsourcing and systems integration services experienced a significant growth period in the business-to-business market in 2005 and 2006. These are also leading sectors and currently the services that generate the highest revenues in the industry. Hardware support and application development are market segments that may expect slower growth in the Nordic countries, whereas software support and network and desktop outsourcing (NDOS) are expected to grow at a faster pace. Application management (AM) and hosted utility services are by IDC expected to be the fastest growing sectors in the ICT business-to-business sector in Norway and the Nordic region. Norway is in the forefront of adopting hosted software (hosted on servers outside the enterprise), and AMR Research estimate that these so-called “on demand software” solutions account for about 10% of the market today. See Figure 1.

Major product categories such as EPR (Enterprise Resource Planning) and CRM (Customer Relationship Management) systems experience higher sales and good business opportunities for the vendors and integrators. Although a popular technology, a recent Gartner survey of 300 Norwegian companies indicated that as much as 70% of the CRM-implementations “failed”, and only 26% had a clear target as to what to expect financially from the implementation. Better business analysis (of their customers) could help justify/improve the investment and prepare the company for a rainy day.

Nevertheless, Siebel Norway recently stated that “the market for CRM is boiling”. SAP and Oracle also report higher sales. The reasons for implementing comprehensive enterprise systems in companies also seem to shift from a cost-cutting focus to profit-generation. IDC’s Enterprise Technology Trends Survey for 2005 show that companies in 2004 considered that their primary motive for ICT investments was to contribute toward cost-cutting (65%), and that increasing revenues was secondary (35%). In February 2005, the ratio was 50/50.

A need for more sophisticated storage solutions in Norwegian enterprises creates opportunities. Systems Integrators offering these solutions in Norway report of 60-70% storage growth annually. Some clients need to increase their capacity by as much as 200%. This expansive growth requires differentiating cost of data storage based on usage. U.S. vendors and service providers can profit from this market opportunity by offering analysis services, applications and hardware.

Consolidation among system integrators seems to be a trend in 2007 and 2008, where the largest players try to get a solid representation throughout the Nordic region. This is driven by the profile of their customers, who also get a pan-Nordic outreach.

### *IT Security (B2B)*

One of the most promising ICT sub sector is IT security for the enterprise market. This market develops much faster than other parts of the industry, as threats seem emerge at a rapid pace.

Empirical data from all vertical industries show that companies have big holes into their critical and sensitive data – wherever that data may be. The health, banking and telecom sectors are among the most vulnerable as they have the greatest challenges handling the most sensitive type of data. Larger companies with higher revenues and larger IT budgets tend to be more secure than smaller companies, but far from secure enough.

A survey of the largest Internet banking solutions in Norway revealed that not a single bank had satisfactory security features implemented. At least six financial institutions have had direct losses as a consequence of hostile attacks, or hacking. Part of the problem in some banks are related to the security level with their customers (their equipment and habits), whereas some banks suffer from a mix of ad hoc security solutions overlapping each other. This is not only unsafe, but also user-unfriendly. The survey showed that most banks had a satisfactory user identity setup, as well as a good SQL injection. Some of the banks failed on cross-site scripting, likelihood of virus/trojans, and transaction verifications. The largest global suppliers such as Microsoft, Norton and McAfee are now rolling out their all-in-one solutions in the Norwegian market, but it is unclear how this will address the specialized needs in the various vertical sectors. IP telephony and related services are good examples of products that are difficult to secure.

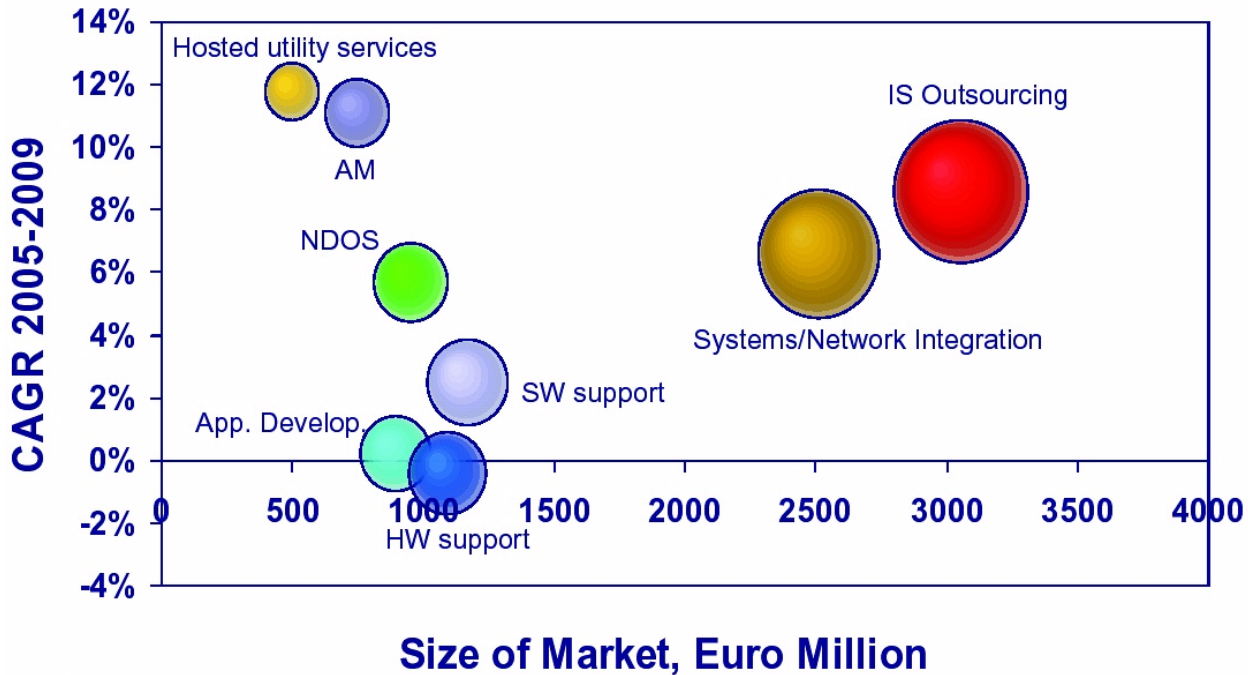
U.S. security vendors with niche products should consider Norway and the Nordic region. Value added resellers (VAR's) and systems integrators are on a constant lookout for new features to secure their customers. The U.S. Commercial Service will in March 2008 host a PowerNetworking event in all four Nordic countries where vendors will have a chance to meet with a wide range of pre qualified end users and integrators over four days. See <http://www.buyusa.gov/norway/en/powernetworking.html> for more information.

According to Statistics Norway 47% of companies in 2007 have a dedicated IT security person, up from 39% in 2006. Interestingly, the share of companies with an educational focus on IT security decreased from 34% to 28% from 2006 to 2007. The penetration of anti-virus software and firewalls is high and stable, with 92% and 89% of companies with more than ten employees having implemented these technologies. This is an indication that U.S. suppliers of mainstream products will have a hard time penetrating the market with an unknown product. 11% of the companies encrypt confidential correspondence.

#### *Other indicators*

The job market in the ICT sector has improved significantly over the last few quarters. Unemployment rates for ICT are practically zero, driving up salaries and eventually prices of services. For example, it is not uncommon for experienced SAP-consultants to have annual salaries of USD 160,000. Some analysts compare this to the situation in 2000 and 2001, and point out that it is hard to be profitable with salaries at this level.

Figure 1. Source: IDC



### Import Market

Norway is to a great extent dependent on foreign trade and importing ICT hardware. Imports of ICT goods amounted USD 5.3 billion in 2005, according to Statistics Norway. Note that the table does not account for services and software

Table: Import and export of ICT goods. Mill NOK. Source: Statistics Norway  
Currency: 1 USD = 6.5 NOK. Final 2006-figures not yet released.

	2005		2004		2003	
	Exports	Imports	Exports	Imports	Exports	Imports
<b>ICT goods, total</b>	<b>11 950</b>	<b>34 683</b>	<b>11 236</b>	<b>33 814</b>	<b>10 459</b>	<b>28 003</b>
Audio and video equipment	706	6 161	635	5 308	545	4 515
Computer and related equipment	1 603	14 509	1 613	14 131	1 850	11 968
Electronic components	1 801	3 220	1 504	3 225	1 608	2 544
Telecommunications equipment	4 392	7 246	4 378	7 825	3 451	6 139
Other ICT goods	3 449	3 547	3 107	3 324	3 005	2 837

### Competition

The market consists of systems integrators of all sizes, a few large regional telecom providers, the major global software and hardware manufacturers (Microsoft, SAP, IBM, Dell, HP, etc.) and numerous subcontractors and outsourcing companies supporting these market segments.

There are also many related sub-sectors, such as AV manufacturers, distributors and

integrators, four to five major retail chains for electronic goods covering the entire market, and a few manufacturers of micro chips and various other types of hardware. A few national application developers are also performing well, within CRM, game development, and software development for mobile devices, to mention some. Like in the United States, the vast majority of companies are small and medium sized private businesses. Only the largest are traded on Oslo Stock Exchange. The Norwegian Government has direct and indirect ownership of some companies, especially within telecommunications.

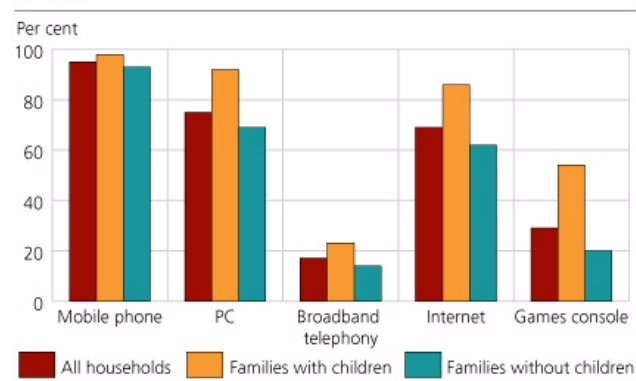
The level of competition varies greatly for each market segment – and over time. For example, companies offering IP-telephony in the private market had a great first-mover advantage in 2004, while experts today expect consolidations and reductions in this market. In 2007 and 2008, innovative security companies offering unique features in the enterprise market may find a good market in Norway.

## End Users

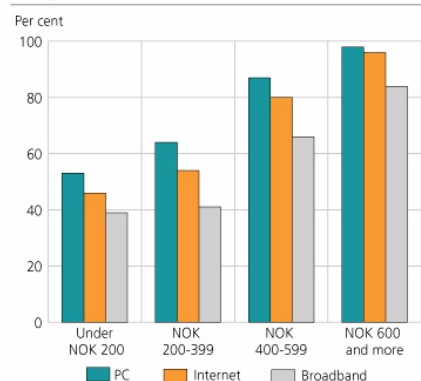
With an overall population of 4.6 million, the Norwegian market is small. However, Norwegian end-users are technology-savvy, innovative, largely homogeneous, and are often among the first to try and adopt new technology. Norway is often used as a test market for foreign manufacturer to effectively measure the potential of their new products. Figures 2 and 3 show the adoption of some of the most common innovations, as well as access to PC's and Internet connections.

Figure 2 and 3. Source: Statistics Norway

Percentage with access to different ICT, by family type. 2nd quarter of 2006



Households with access to PC, Internet and broadband at home, by the total gross income. 1 000 NOK. 2nd quarter of 2006. Per cent



## Market Entry

Similar to in the United States, physical presence over time, a good track record and reliable service and follow-up is critical when selling enterprise software in Norway. U.S. companies interested in penetrating an established market should be patient, seek sound market advice and try to establish some solid sales references before expecting to sell in higher volumes. Alternatively, M&A's could of course jump-start the market, but this requires time, money, risk and insight. Niche products could have a much faster track.

U.S. exporters seeking general export information and assistance or country-specific commercial information should consult with their nearest U.S. Export Assistance Center or the



U.S. Department of Commerce's website [www.export.gov](http://www.export.gov). Information on services offered by the U.S. Commercial Service in Oslo can be found at <http://www.buyusa.gov/norway>.

## Opportunities for Profile Building

### ICT Norway

A leading membership organization in the Norwegian ICT sector.

Website: [www.ikt-norge.no](http://www.ikt-norge.no)

### Abelia

Association of Norwegian ICT- and knowledge based enterprises. Trade and employer association with 400 members. Part of the Confederation of Norwegian Enterprise.

Tel: +47 23 08 80 70

Website: <http://www.abelia.no>

### The Norwegian Computer Society

Special interest society for information technology (IT) in Norway. Open, independent forum for Norway's IT professionals and advanced IT users.

Website: <http://dataforeningen.no/FgdLS4k.ips>

### American Chamber of Commerce in Norway

The American Chamber of Commerce in Norway is a business networking, information and assistance organization promoting the interests of its members.

Tel: +47 22 54 60 40

Website: [www.amcham.no](http://www.amcham.no)

## Upcoming Trade Shows and Events

### Elektrofil 2008

Exhibition of consumer electronics. Will be hosted in the last week of March 2008. Web site only in Norwegian.

Website: [www.elektrofil.com](http://www.elektrofil.com)

### Lyd, Lys og Bilde 2009

A relatively small trade show for the B2B AV industry. Next show scheduled for 2009. Website only in Norwegian

Website: [www.llb.no](http://www.llb.no)

### Java Zone 2008

Miniature of JavaOne with 2500 participants. September 2008.

<http://www4.java.no/web/show.do?page=152&articleid=5053>

### Nordic IT PowerNetworking 2008

Hosted by Commercial Service for U.S. IT security vendors to meet with end users and VAR's

<http://www.buyusa.gov/norway/en/powernetworking.html>

### For More Information

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