WORLDWIDE IT RESEARCH

DAY GROUP

FINANCIAL AND TECHNICAL ISSUES

MARKET RESEARCH INVESTMENT BANKING

Publisher - J. William Day September 2010

META • FORRESTER • GARTNER • ABI • GIGA • DATAQUEST • PEOPLE3 • JUPITER • KAGAN • STRATEGIS • IDC • CAHNERS IN-STAT • YANKEE

Gartner Says Worldwide SaaS Revenue Within the Enterprise Application Software Market to Surpass $8.5 Billion in 2010

Worldwide software as a service (SaaS) revenue within the enterprise application software market is forecast to surpass $8.5 billion in 2010, up 14.1 percent from 2009 revenue of $7.5 billion, according to Gartner, Inc. The rapid adoption of SaaS has contributed to growth in varying degrees across the enterprise software markets. There will be a shift in total SaaS revenue from just over 10 percent of the combined markets in 2009, to more than 16 percent of these combined markets in 2014.

Gartner defines SaaS as software that is owned, delivered and managed remotely by one or more providers. The provider delivers an application based on a single set of common code and data definitions, which is consumed in a one-to-many model by all contracted customers anytime on a pay-for-use basis or as a subscription based on use metrics.

"After a decade of use, adoption of SaaS continues to grow and evolve within the enterprise application markets. As tighter capital budgets demand leaner alternatives, familiarity with the model increases, and interest in platform as a service and cloud computing grows," said Sharon Mertz, research director at Gartner. "Adoption varies between and within markets, and although use is expanding to a wider range of applications and solutions, the most widespread use is still characterized by horizontal applications with common processes, among distributed virtual workforce teams and within Web 2.0 initiatives."

During 2009 and 2010, the significant industry buzz surrounding SaaS and other off-premises models has shifted to cloud computing - a broad concept, of which SaaS is only one variation, representing the application layer of the overall cloud architectural stack. Gartner estimates that 75 percent of the current SaaS delivery revenue could be considered as a cloud service, and that could exceed 90 percent by 2014 as the SaaS model matures and converges with cloud services models.

"The popularity of SaaS has increased significantly within the past five years and initial concerns about security, response time, and service availability have diminished for many organizations as SaaS business and computing models have matured and adoption has become more widespread," Ms. Mertz said.

"Usage and vendors' on-demand 'ecosystems' continue to evolve to provide additional business and technology services, more-vertical-specific functionality, and stronger communities of partners and buyers," Ms. Mertz said. "Although some attrition occurred in 2009 due to business workforce reduction, nearly all SaaS vendors grew revenue, even during the economic downturn, as buyers continued to confirm their acceptance of on-demand. We certainly expect adoption of SaaS to far outpace market growth through 2014."

Although use and adoption continues to grow, deployment of SaaS still varies between the enterprise application markets and within specific market segments because of buyer demand and applicability of the solution.

The project and portfolio management (PPM) SaaS market is rapidly growing in percentage of sales. SaaS alternatives may help to grow the overall PPM market again rather than cannibalizing on-premises sales; however, some SaaS revenue growth will be at the expense of on-premises license, as several new entrants to the market are able to provide solutions at less than the cost of maintenance on more mature solutions.

Total In-Flight Broadband Equipment Investment Should Approach Half a Billion Dollars Globally by 2013

The commitment that airlines are making to providing in-flight broadband has been remarkable. Total in-flight broadband equipment investment should approach half a billion dollars globally by 2013, reports In-Stat.

In-flight Wi-Fi deployments have moved past the trial stage and are approaching critical mass with 2,000 airplanes to be deployed by the end of 2010.

"In-flight broadband service roll-outs by airlines is not without issues though," says Frank Dickson. "With current paid take rates for in-flight Wi-Fi service below 2 percent, providers have a lot of work to do to entice passengers to use the service. Significant investment has been made in on-board and on-ground infrastructure, and now the market will be tested as it tries to get more passengers to use the service."

Recent research by In-Stat found the following:

- In-Stat is anticipating service revenues of $95 million in 2010.
- Airlines that have report offering or testing in-flight broadband or live TV include Air Asia, Air AsiaX, Air Blue, Air Canada, Air France, AirTran, Alaska Airlines, American Airlines, British Airways, British Midlands Airways, Continental Airlines, Delta Air Lines, Frontier Airlines, Jazeera Airways, JetBlue, Kingfisher Airlines, Northwest, Oman Air, Qantas, Qatar Airways, Royal Jordanian, Ryanair, Shenzhen

Airlines, Southwest, TAM Airlines, TAP Portugal, United Airlines , US Airways, Virgin America, and Wataniya Airways.

Frost & Sullivan: Diverse Industrial Applications Drive the World Satellite Machine-to-Machine Communications Market

Worldwide, wireless, wireline, and satellite networks developed significantly in the last twenty years, setting the stage for machine-tomachine (M2M) applications and equipment to utilize these existing networks. Used for logistical tracking, telemetry, remote monitoring, geo fencing, security, and scientific monitoring, M2M communications provide benefits for industries ranging from agriculture to retail, driving the satellite M2M industry over the next five to seven years.

The world satellite M2M communications market is currently experiencing exponential growth, as companies seek to raise productivity while reducing costs. M2M hardware and equipment have continuously reduced in both size and cost in the last five years.

New analysis, World Satellite Machine-to-Machine Communications Market, finds that the market earned revenues of $726 million in 2009 and estimates this to reach $1.90 billion in 2016. The United States dominates the world satellite M2M communications market, with 62 per cent market share since its enterprises have the capital to implement M2M. The Asia-Pacific region is expected to experience maximum growth in terms of regional share in the long term.

"Smaller hardware paves the way for greater potential in the M2M industry to foray into new areas, especially in the in mobile or communication-on-the-move applications," says Frost & Sullivan Research Analyst Daniel Longfield. "Reduced equipment costs further accelerated opportunities by helping in the monitoring and tracking of more assets."

Globally, there are over one billion personal computers, four billion wireless phones, and one billion wireline phones in service. There are only about one hundred million dedicated M2M devices in service, but reversing those numbers would be ideal for the long term. However, the escalating costs of bandwidth and equipment will restrain market growth in the short term. Satellite hardware and airtime are substantially more expensive than that of their terrestrial counterparts.

"The average revenue per user among cellular operators is in the range of $6 to $7 per month, whereas satellite companies are in the $24 per month range," explains Longfield. "Additionally, hardware prices for satellite M2M equipment range from $74 to $3,200."

As hardware sales grow, economies of scale will develop and contribute to reductions in unit prices for M2M equipment. As prices fall for M2M equipment, more opportunities will materialize in the vertical markets.

"Tracking of mobile assets and transportation monitoring are becoming much more cost-effective for end users due to the reduction in the cost of M2M equipment," concludes Longfield.

Three-Quarters Of Online Retailers Are Dialing Up Mobile Strategies, According To Shop.org/Forrester Research

Consumers' increasing appetite for mobile applications is driving online retailers to speed up their mobile marketing initiatives. According to a Forrester Research, Inc. study produced in partnership with Shop.org, the National Retail Federation's digital division, nearly three-quarters (74 percent) of online retailers either already have or are developing a mobile strategy. One in five boasts having a fully implemented mobile strategy in place already. The survey of 109 companies is part of The State of Retailing Online research series, which provides eBusiness professionals with an annual industry benchmark for marketing and business investment and activities.

"It's imperative for online retailers to stay on top of what their customers want, and these days it's all mobile all the time," said Scott Silverman, executive director, Shop.org. "Mobile commerce has tremendous potential and will no doubt grow to become a significant part of overall sales volume in years to come. Whether to increase customer satisfaction, grow their brand, or drive traffic and sales, online retailers are in this game to stay."

"Mobile investment is modest now, but we see that it will pick up in the future, especially among the biggest brands that have already invested significant amounts in their mobile operations," said Sucharita Mulpuru, vice president, principal analyst, Forrester Research, and lead author of the report.

Earlier this year, Forrester forecast US online retail sales to total $173 billion in 2010. According to "The State Of Retailing Online: Marketing, Social Commerce and Mobile Report," Web retailers with mobile strategies:

- Are investing in features that support the cross-channel experience. Product and price information, store information, and coupons to support the in-store experience are among the most popular features that retailers are offering consumers.
- Have varied levels of investment. On average, respondents anticipated spending $170,000 on their mobile sites this year, large multichannel retailers are spending several times that amount, while smaller online pure plays on average are investing much less.
- Are experiencing modest gains. Retailers reported that their mobile browsers at this juncture are generating a little less than 3 percent of overall site traffic and just 2 percent of revenue.

Marketing And Social Media

Tried and true marketing tactics such as paid search, email, and affiliate marketing command the biggest percentage of an online retailers' marketing budget. According to the report, retailers are spending nearly 40 percent of their marketing budget on paid search.

Retailers are finding value in social media marketing, but the ROI for driving online sales remains murky. Listening to customers is the most significant objective for social tools according to respondents, with 80 percent of retailers reporting that they are pursuing social strategies to experiment and learn. And while 28 percent noted that social marketing has helped grow their business, direct sales from social tactics are not widely measured.

The State of Retailing Online: Marketing, Social Commerce and Mobile Report" is available to Shop.org members and can also be purchased directly at www.shop.org/soro. Forrester clients will be able to access the report as part of their subscription service one month from publication.

5.2 Billion Smart Cards Shipped in 2009; ABI Research Estimates IC Market Worth $1.7 Billion

Smart cards became even further embedded within everyday life for most consumers in 2009. In total, 5.2 billion microcontroller and memory-based smart cards shipped into applications such as SIM cards, payment and banking, government ID, and transportation, among others. At the same time, the IC market was worth $1.7 billion, according to the latest metrics from ABI Research's Smart Card Market Data.

On the card side, Gemalto maintained its clear position as the number one manufacturer, with an estimated 33.8% market share, while Morpho (previously Sagem Orga) gained the most market share (up 1.8%) to consolidate its fourth position.

Meanwhile, with 26.3%, Infineon continued to account for the most revenue among the IC manufacturers while in unit terms, Samsung's strong position in SIM cards saw it capture 34% of IC volumes.

Principal analyst John Devlin says, "Last year's market conditions were unusual. While the smart card market largely weathered the recession in terms of consumer demand, the IC market took a hit on two fronts. First, both card manufacturers and issuers ran down their inventories as they assessed the impact of the credit crunch. Second, price pressure increased greatly as IC manufacturers looked to fill plant capacity and maintain orders. Combined, these factors saw the value of the market fall by more than was expected."

Devlin concludes, "New revenues are coming from contactless/dual-interface cards and more applications require the greater security offered by smart cards. There remains a small but solid memory-based market but higher-end secure microcontroller ICs and embedded solutions are driving the new growth. As a result of this and re-stocking inventory, we forecast that IC revenues will grow nearly 14% in 2010."

Frost & Sullivan: The Introduction of Economical and Superior Undersea Fibre-optic Cables Spurs Demand for Broadband Internet in East Africa

The demand for broadband Internet services in East Africa is growing due to the introduction of undersea cables in the region. Although broadband Internet services are in an early stage of development, there are over 150 market participants in East Africa offering Internet connectivity and application services.

New analysis from Frost & Sullivan, East African Broadband Markets Tracker, finds that the market earned revenues of $301.3 million in 2009 and estimates this to reach $6.34 billion in 2016. The technologies covered in this study are ADSL, mobile (GSM, GPRS/EDGE, HSDPA), WiMAX, Wi-Fi and satellite.

"Fixed-wireless technology offers lower network deployment costs, reduced tariffs and higher quality of services," says Frost & Sullivan Research Analyst Jiaqi Sun. "These factors are driving the East African broadband market."

Fixed-wireless broadband access will reach its maturity in the next two to three years, while 3G mobile broadband will continue to drive market growth. The costs of bandwidth, computers, handsets and other customer premise equipments (CPEs) are expected to reduce moderately, further fueling the service uptake in the region for the next seven years.

However, volatile exchange rates may reduce investors' confidence to fund projects in East Africa. Other factors that hinder foreign investments include an immature market environment, the slow process of transferring ideas into products and the fibre-optic network rollout.

"Furthermore, the small market size in terms of subscribers and revenues does not attract foreign funds, slackening market growth," explains Sun.

Service providers should develop a phase-by-phase market entry plan by adjusting business models and repositioning themselves by offering services targeted at different customer groups. They should leverage their marketing capabilities and partnerships with retailers that have good national footprints for maximum delivery of services in the market.

New IDC Manufacturing Insights Report Reveals Visualization Technology Critical to Improving Product Decision Making

"Visualization is an effective method to synthesize different data sources and make them accessible to broader communities of decision makers for cross-disciplinary decisions, and even more so when experience, skills, culture, or language differences might play a crucial role in deteriorating the fidelity of such decisions," said Joe Barkai, practice director of the Product Life-Cycle Strategies service at IDC Manufacturing Insights. "Product-related information, presented in a rich visual context and shared across widely accessible and easily usable collaborative interfaces, can contribute to making more effective product-related decisions that can positively impact the complete product life-cycle, from concept to decommission."

This study reveals that designers and manufacturers of complex products are finding it increasingly challenging to make effective product-related decisions. Expanded technical complexities across engineering disciplines, elongated and dynamic supply chains, a growing shortage of experienced workers, relentless schedules, and budgetary pressures have contributed to creating an environment that challenges traditional decision-making methodologies, means, and tools. However, manufacturers find that presenting complex, multidisciplinary information using visual methods helps level the playing field for decision makers of varying skills and across corporate disciplines, resulting in better and faster decisions.

Key findings of this research include the following:

- Visual information adds significant value by connecting knowledge workers and corporate disciplines that once lacked a common platform for interaction. Visual information is a means to convert, unify, and abstract dissimilar information sources.
- Product firms should use visual information to improve comprehension and effective participation from throughout the product life-cycle, providing a leveled decision-making playing field for all stakeholders. Creating this environment will expand the decision-making population, allowing groups once left out of product decisions to provide their input and experiences.
- Visual decision making is not an isolated activity. Visual decision making should be augmented by the use of collaboration activities and decision-support tools such as social networking, business analytic tools, and leveraging organizational knowledge and best practices.

Gartner Says Mobile Connections in India Will Grow by 27.3 Percent in 2010

Mobile connections in India will grow by 27.3 percent in 2010 to reach in excess of 660 million, according to Gartner Inc. Mobile service revenue in India will reach $19.8 billion by the end of the year, up 19.7 percent from 2009.

"The arrival of new players in the Indian mobile sector has led to fierce competition which has sustained the strong subscriber growth we saw in 2009," said Neha Gupta, senior research analyst at Gartner. "Furthermore, with mobile penetration standing at 44.5 percent at the end of 2009, there is still ample room for growth in 2010 and beyond."

In 2010, mobile penetration in India is projected to 55.9 percent, and Gartner expects the Indian mobile industry to grow at double-digit rates till the end of 2012 with mobile penetration increasing to 72.5 percent in 2012. Mobile market penetration is projected to increase further to 82 percent by 2014, mainly due to the service providers increasing their focus on the rural market and lower handset prices.

By the end of 2014, total mobile services revenue in India is forecast to exceed US$23 billion, and India is expected to remain the world's second largest wireless market after China in terms of mobile connections.

Nevertheless, despite the healthy overall outlook, Ms. Gupta explained that the Indian mobile services market is going through a state of flux, with the arrival of many new players leading to a decrease in price points for the industry. Analysts believe that some market consolidation will happen over the next 18 months as the launch of 3G services enables service providers to distinguish themselves on services offered rather just on prices.

Further uncertainty has also resulted from the recently completed government auction of 3G and Broadband Wireless Access licenses which have lead to an increase of capital expenditure by several operators, which in turn will increase the net debt at the industry level. However, strong growth in subscriber base and revenues is expected to increase the operating cash flows which will absorb its impact.

"The increase in competition in the Indian mobile market has led to price wars which have in turn led to a decline in voice Average Revenue per User (ARPU), and we expect this trend to continue as service providers increasingly shift their focus to rural areas," Ms. Gupta said. "Expect a dramatic decline in growth of voice revenue from 2010 until the end 2014, although this will be balanced by increased revenue from data services which will significantly contribute to the overall growth of mobile services in India."

Wireless HD Video-Enabled Product Shipments to Reach 13 Million by 2014, But Not Without Some Growing Pains

Although slow progress best describes the fate of wireless HD chip vendors in 2010, the five-year outlook is for a robust triple-digit growth rate of wireless HD video-enabled products through 2014 according to In-Stat. The number of shipments is projected to rise from the current levels of less than 1 million to nearly 13 million by 2014.

"The long term projection is for significant growth in wireless HD video-enabled product shipments. However, these technologies are likely several years away from hitting the sweet spot of the consumer electronics (CE) and PC markets," says Brian O'Rourke, Principal Analyst for In-Stat. "There are still significant price and performance issues that need to be overcome before device manufacturers fully adopt these technologies."

Some of the findings include:

- Alternative video transmission technologies, WHDI, WirelessHD, and WiGig Alliance, are vying for a dominant position. Among the differentiation among them is whole-home range, price, and performance issues, single source, and time-to-market issues.
- WHDI and WirelessHD chip ASPS will both fall over 25% annually through 2014.
- WirelessHD, is championed by chipmaker SiBeam and backed by NEC, Panasonic, Samsung, Sony, Toshiba, and LG.
- WHDI (backed by AMIMON) and WirelessHD (backed by SiBeam) device shipments will both grow at triple-digit annual percentage rates through 2014.
- WiGig Alliance members include: Broadcom, Dell, Intel, LG Electronics, Microsoft, NEC, Nokia, NXP, Panasonic, and Samsung.
- Strong competitive technologies include various flavors of Wi-Fi, Intel's Wireless Display (WiDi) initiative, and Sony's TransferJet.

Frost & Sullivan: Mobile Operators Depend on Mobile Data Services, Smart Pricing to Drive the North American Mobile Communication Markets

With penetration rates of more than 88 percent, the mobile market in North America can now officially be considered saturated. Mobile operators aspiring for better business outcomes are maximizing revenues from existing subscribers by offering innovative premium data services that run over next-generation wireless networks and devices. The emergence of a broad range of connected devices expects to push penetration of mobile services to more than 100 percent.

New analysis from Frost & Sullivan, 2010 North American Consumer Mobile Communications Outlook, finds that mobile subscribers in North America will exceed 355 million in 2014.

"Today, subscribers rely on wireless services for their communication, entertainment, and information requirements on-the-go," says Frost & Sullivan Industry Analyst Vikrant Gandhi. "Text messaging has also evolved as an important medium for communication, primarily because it can be used in a wide range of scenarios and it is extremely cost-effective especially when used as part of a data plan."

Over 60 percent of North American mobile subscribers regularly use text messaging, and a majority of these are part of a bundled data plan. The impact of smart phones in driving data usage on the mobile networks is beyond doubt.

The biggest challenge is to ensure a satisfactory, pleasant, and useful consumer experience while delivering maximum value. Even though North American mobile operators protect the consumer experience, managing the end-user experience is not always possible since an increasing amount of traffic is increasingly causing several operational impediments.

"Mobile operators are forced to expand their content catalogs, but are not able to increase the data plan rates to justify this expansion," cautions Gandhi. At a certain 'tipping point', it may become unfeasible to continue doing this without exploring other sources of revenues, such as mobile advertising."

Long product development cycles further complicate bringing new devices to market at a rapid pace. The big question is how to increase average revenue per user (ARPU) without racing to add new services, devices, or network technologies. In order to compete successfully in this space, mobile operators need to look at multiple strategic factors, including service pricing, content lineup, quality of service, and customer care.

"Mobile operators could classify mobile content and match these to their customer demographics to determine the optimum mix for their decks," advises Gandhi. "Apple's iPhone, Android devices and the new generation of Blackberry devices are some examples of the possible impact compelling devices can have on subscriber uptake and service usage."

Forrester: Tablets To Outsell Netbooks By 2012

Fueled by a growing interest in tablet computers, nearly half a billion PCs will be sold to consumers in the US between now and 2015, according to a new report by Forrester Research. Over the next five years, PC unit sales across all form factors — desktops, notebooks and laptops, tablets, and netbooks — will increase by 52 percent, as outlined in the Forrester report, "The US Consumer PC Market In 2015." Data in the report is based on Forrester's latest five-year ForecastView for the personal computing and eReader markets in the US.

Despite an ongoing industry debate about how to define tablets, Forrester believes they should be classified as a form of personal computer. Tablet sales in the US will go from a modest 3.5 million units in 2010 to 20.4 million units in 2015, a 42 percent compound annual growth rate. Starting in 2012, tablets will outsell netbooks, and by 2014, more consumers will use tablets than use netbooks. In 2015, tablets will constitute 23 percent of PC unit sales.

"Tablet growth will come at the expense of netbooks, which have a similar grab-and-go media consumption and Web browsing use case as tablets but don't synchronize data across services like the iPad does," said Forrester Research Analyst Sarah Rotman Epps. "Consumers didn't ask for tablets. In fact, Forrester's data shows that the top features consumers say they want in a PC are a complete mismatch with the features of the iPad. But Apple is successfully teaching consumers to want this new device."

While desktop sales will slide over the next five years, going from 18.7 million units sold in 2010 to 15.7 units in 2015, desktops will continue to play a relevant role in the market, buoyed by consumers' desire for processing-heavy activities such as gaming and watching and editing HD and 3D video and graphics.

By 2015, Forrester forecasts the US PC market will break down as such (based on percentage of units sold in 2015): notebooks (42 percent), tablets (23 percent), desktops (18 percent), and netbooks (17 percent).

"Product strategists should align their offerings to capitalize on these market shifts, with chipsets, displays, accessories, software, and content that anticipate the growth of tablets and the continued relevance of traditional PCs," said Epps.

M2M Markets Grow Strongly, But Many Module Vendors Skirting the EDGE

Cellular M2M (Machine-to-Machine) module shipments approached 28 million in 2009, and according to ABI Research, they will quadruple to exceed 114 million in 2015. This is a market showing strong growth, but not all segments of it are benefitting equally.

"Not so long ago, it appeared likely that M2M would be making liberal use of the EDGE cellular air interface standard," says practice director Sam Lucero. "However, market data suggests that EDGE has not become the technology of choice for many M2M vendors."

EDGE is in some ways a logical option for M2M applications. A 2.5G technology, it operates in the same frequency bands as GSM/GPRS, but with greater spectral efficiency and lower cost. Since many M2M use cases don't require 3G speeds and bandwidth and not all carriers have 3G spectrum licenses, EDGE would seem a useful upgrade path from GSM/GPRS.

But, says Lucero, "Module shipment data since 2003 shoves no significant adoption of EDGE in the M2M market. After many years of only nominal shipments, ABI Research must now conclude that EDGE will likely never gain traction in the future."

Application developers are largely either staying with the GSM/GPRS standard where bandwidth or future-proofing are not prime considerations, or are shifting directly to WCDMA in cases where they are.

Why this lack of enthusiasm? Developers have proven extremely cost-sensitive, opting to forgo even the minimal extra expense of EDGE if they can live with GSM/GPRS. Also, concern about future-proofing appears to be growing. Despite EDGE's immediate benefits, it does not address fundamental anxieties about GSM/GPRS/EDGE networks being "turned off" in favor of 3G/4G at some point within the deployed life-span of M2M applications.

This doesn't mean that EDGE is never used. It has seen uptake in commercial telematics and consumer OEM telematics, as well as fixed wireless terminals and industrial PDAs.

Mobile Backhaul and Convergence of Networks Trigger Growth in the IP/CESR Market, Finds Frost & Sullivan

Mobile backhaul and convergence in the metro network are clearly two important drivers of the Internet protocol/ carrier Ethernet switch/router (IP/CESR) market. Applications, such as business services and IPTV infrastructure, will climb continuously during 2010; however, the migration to next-generation backhaul equipment and convergence in the metro network fuels the real growth.

In the past couple of years, and especially in 2009, vendors focused on incorporating synchronization in their carrier Ethernet/IP MPLS solution to address the mobile backhaul market. This, along with carrier Ethernet operation, administration and maintenance (OAM), end-to-end management solutions and service assurance features, has enabled rapid adoption of carrier Ethernet for mobile backhaul.

"Ethernet also offers advantages such as modular upgrade of bandwidth which allows service providers to align costs with growth," says Frost & Sullivan Research Analyst Prayerna Raina. With significant progress being made in Ethernet synchronization standards and implementation of the same in products, 2011 will be the year for take off for Ethernet and mobile backhaul, delayed mainly by the macroeconomic conditions and solidification of service provider migration strategy."

The deployments are exceedingly complex and service providers are trying to address multiple goals simultaneously, such as capital and operational expenditure reduction and new service creation to generate revenue. In terms of the competitive landscape, the IP/CESR market is concentrated with the top three vendors constituting more than fifty percent of market share.

In regions such as Asia Pacific, this aspect is magnified by the presence of strong regional vendors such as Huawei," says Raina. It is vital for vendors to enhance portfolio depth especially relating to mobile backhaul and convergence of networks."

Continued mobile subscriber growth, mobile broadband, and upgrade to 4G networks will sustain market momentum. Vendors in the Ethernet 2.0 market can capitalize on the opportunities in the rapidly growing applications and emerging markets by proactively addressing service provider requirements regarding convergence and mobile backhaul. This will leverage existing and new global or regional partnerships that provide breadth and/or depth to the product portfolio.

IDC Expects High Growth for APEJ Security Appliance Market in 1Q10 in the Coming Quarters

The security appliance market revenues in the Asia/Pacific excluding Japan (APEJ) region reached US$218.4 million in factory revenues for 1Q 2010, representing a strong 16% increase over the same quarter last year, according to IDC's Asia/Pacific Quarterly Security Appliance Tracker. The encouraging growth was largely contributed by Unified Threat Management (UTM) and Content Management appliance, while the other security appliances reported muted results. China, Korea and India were the three largest countries that contributed 72% of the APEJ security appliance market in 1Q 2010.

The security appliance market has become a strategic growth area where various vendors continued to invest in advanced feature enhancement or extending partnerships. "The security appliance market responded well to increasing customer demands as companies find more holistic approach towards threat management and awareness," says Naveen Hegde, Market Analyst of Asia/Pacific Software Research at IDC. "Firewall and VPN appliance was most deployed in terms of % revenue though UTM appliance grew very well with a 40% quarterly growth. The popularity of UTM appliance was driven by its all-in-one action features, cost, and ease of management."

Content management appliance showed the strongest growth at 69% year-on-year as well as promising increased momentum in the coming quarters. This is mainly because of the improved adoption of messaging and web security solutions. A number of major vendors are revisiting their current messaging and web security platforms, and updating them with all the critical requirements.

Companies are in a situation where they have to deploy all the necessary measures to ensure that their business is not compromised through breach of security.

Naveen concludes, "Security appliance adoption In the region still lags behind compared to the likes of US and Europe markets. However, the demand is clearly on a strong positive curve. With regular feature enhancements and practical benefits, IDC expects spending to cross the US$1 billion revenue mark in factory revenues by end of 2010."

802.11n Device Unit Shipments Grow by 85% Year over Year

Although unit shipments in 1Q10 for the Worldwide WLAN market decreased by 9.4% quarter-over-quarter, it increased by 4.8% year-over-year. That increase was fueled primarily by migration to 802.11n technology. Shipments of 802.11n devices grew 85% in Q1 2010 compared to Q1 2009.

"Total WLAN revenue decreased 7.2% quarter-over-quarter to $1.1 billion in 1Q10 versus 4Q09," says Vahid Dejwakh, Industry Analyst, InStat. "Revenue for 802.11n products was nearly 40% of the total WLAN market in 1Q10."

Additional data included:

- Netgear is the leader in total "n" devices shipped, shipping in 1Q2010 over 2 million "n" devices which include SOHO routers, residential gateways, network adapters and access points.
- D-Link is the leader in total WLAN devices shipped (regardless of whether it is "a", "b", "g" or "n" technology), shipping in 1Q2010 over 3.9 million WLAN devices. D-Link also saw the strongest share gain year-over-year.
- SOHO Routers demonstrated the most significant growth, as shipments grew 92% 1Q10 over 1Q09 and 12% 1Q10 over 4Q09.

- 802.11g declined quarter-over-quarter by 18% and by 19% year-over-year
- Vendors in In-Stat's 1Q2010 WLAN tracker include 2Wire, 3Com, Actiontec, Apple, Aruba, Belkin, Buffalo, Cisco, D-Link, HP ProCurve, Linksys, Motorola, NETGEAR, Ruckus Wireless, Siemens, SMC, Technicolor, and ZyXEL.

Frost & Sullivan: Data Services to Drive Growth as SEA's Mobile Market Nears Saturation

Growth in Southeast Asia's (SEA) mobile services is expected to be driven by data services as mobile connections penetration surpassed 90 percent in 2009 and slowing revenue growth signal saturation.

Capping a three-year run of high growth, 2009 saw Southeast Asia's mobile connections rising 22.1 percent to 489 million (subscriptions). Total revenues however grew just 3.2 percent, reaching US$28.7 billion in the same year.

"Last year marked a tipping point for service growth drivers in Southeast Asia - and the rest of Asia - as data services revenues, reaching US$7.1 billion, drove 60 percent of Southeast Asia's total revenue growth," says Frost & Sullivan senior consultant Nicholas Khoo.

Southeast Asian operators' growth focus is shifting from customer acquisition to maintaining existing revenue streams and developing new ones.

"Plain old voice and text messaging services will no longer deliver larger revenue growth than data services, even in developing markets such as Cambodia and Vietnam," he adds.

Southeast Asia is at the beginning of another wave of mobile data services enabled by exponentially improved networks and device capabilities.

Frost & Sullivan identifies three broad data service segments - 'mobile Internet' [on existing and upgrading low- to mid-end devices delivering relevant thin' services and Internet service extensions]; 'mobilized Internet' [on mid- to high-end smartphones offering new services and extensions around portability of the Internet experience and services]; and mobile broadband [which adds mobility value to broadband through untethered access on a variety of portable devices].

"Mobile broadband offers the clearest new connections growth and new revenue stream opportunity for operators," says Frost & Sullivan senior industry analyst Shi Min. She adds that countries like Singapore, Vietnam and Malaysia - already with mobile penetration of 137 percent, 127 percent (although half are reportedly inactive) and 108 percent, respectively, in 2009 -present the best potential for mobile broadband given the broadband- and Internet-receptiveness of these nations.

Shi explains, "In developed markets, like Singapore, mobilized Internet and mobile broadband competition is likely to revolve around branding and value-capture based on lifestyle patterns, personalization and convenience."

The Philippines, Indonesia and Thailand (each with mobile penetration of 80 percent and above; and low fixed-Internet and -broadband penetration), on the other hand, offer fertile environments for mobile and mobilized Internet, giving users access to an almost transparent fixed Internet experience on their devices.

"In developing markets, mobile could well become the primary narrow and broadband Internet access service," Khoo says. He however adds that the intermediate challenges for operators to navigate are end-user device affordability, and, in low Internet-readiness markets, familiarity with and usage of the Internet.

"To profitably encourage and retain service uptake and usage, managing network economics and strategic services will be key," they suggest. "Advantages are likely to accrue to operators that are able to deliver sustainable efficiencies and effectiveness in both their data networks and marketing (of services)."

Handset Semiconductor Revenue to Increase About 4% in 2010

After four quarters of decline, the global mobile handset market began showing signs of life starting in 4Q 2009. ABI Research expects the trend to continue through the next five years.

According to Industry Analyst Celia Bo, "Due to the resurgence of the mobile handset market, the total revenue for handset semiconductors is forecast to increase about 4% this year. Major semiconductor components such as baseband processors and application processors, accounting for more than 60% of the revenue in this segment, are expected to show revenue increases of 3% and 8% respectively in 2010."

As well as the baseband processor, the application processor is another important component enabling mobile devices to deliver better performance, more reliable connectivity and longer battery life; today's chipsets are becoming ever more compact and competitive.

Qualcomm announced the dual core Snapdragon processor in June this year; it signaled a new era for technology architecture development, and the market is set to see some significant improvements in application processor performance and power consumption. In 2010, application processor shipments are forecast to increase significantly while ASPs drop.

"Connectivity chips will be key drivers of handset semiconductor market growth in the next five years," Bo notes. "Bluetooth has the highest attach rate: the average penetration rate is expected to be 57% in 2010. The penetration rate of GPS is expected to double between 2010 and 2015. Wi-Fi chips will deliver the highest revenue of the three connectivity chips over the next five years."

Falling Hardware Costs Drive Steady Growth in the Australia Digital Signage Systems Market

Australia's fledgling digital signage systems market is expected to grow at a steady compound rate of more than 12 per cent per annum to reach A$58.4 million by 2013.

Although the global financial crisis has forced many companies to cut back on spending and some vendors are experiencing lengthy sales cycles, interest in digital signage systems is growing. A primary driver for sales in 2009 was the decline of hardware prices, particularly among plasma and crystal display (LCD) systems. The report suggests that a continuing shift in advertising dollars from print media to channels such as the Internet and digital signage will further increase momentum, driving growth in the digital signage systems market in the years ahead.

While the market for digital signage systems is still in the early stages of growth, vendors including Cisco and HP are actively increasing their push into the local market. Additionally, telecommunications carriers have identified the opportunities offered by the market and within the last few months Telstra and Alphawest/Optus, for example, have begun to align themselves with partners for key components such as hardware, software, content processing, content management and content display.

Service providers, apart from having a control over the network, are looking to be an end-to-end solution integrator in this market. Telstra, for instance, recently launched its digital signage solution and in the months ahead will broaden that to encompass digital media IPTV.

The report notes that at present the market remains very fragmented and many channels do not have the right expertise to handle complex projects that require many components of digital signage. Frost & Sullivan anticipates that this will drive mergers and acquisitions in the next two years as participants seek to acquire companies that enable them to fill gaps in areas such as hardware, software or content creation.

Interactivity with digital signage systems is expected to increase with the evolution of mobile devices such as the iPhone and the Google Android. Growing use of social media such as Twitter will also create closer linkages between advertising, social media and mobility with digital signage systems.

Demand for digital signage systems in the last 12-18 months has primarily centered around public display areas such as airports, customs halls, cinemas and retail outlets. Frost & Sullivan expects demand in such locations to continue but also predicts the rise of new signage opportunities within financial services outlets, transport locations such as train stations and bus stops, real estate companies, education and car dealership organizations and medical centers.

Relative Economic Stability Means IDC Keeps Forecast for West European IT Services Unchanged in 2010

International Data Corporation has published the second quarterly revision for 2010 of its Western European IT services forecasts, in which the company estimates that total end-user spending on external IT services in 2010 will be close to $204 billion in Western Europe, and that demand growth will pick up from 2011 to reach $232 billion in 2014. IDC revises its forecasts each quarter in the light of economic and industry trends, and its forecasts are in constant currency, thus excluding the effects of currency movements.

Demand in the Germanic and Nordic regions is expected to pick up first, while growth in France and the U.K. will be slower. Demand in the U.K. is subject to more uncertainty, as new government initiatives to be announced in the autumn could affect not only direct government spending, but also the overall economy in a manner that would lead to reduced IT services spending in the short term.

IT services include project-oriented services (such as IT consulting, systems integration and custom application development), outsourcing services (such as datacenter outsourcing and application management), and support services (such as IT training and hardware and software deployment). IT services exclude business consulting and business-process outsourcing (BPO).

"The good news is that the economy seems broadly stable compared with 2009, despite the sovereign debt issue, and enterprises seem to be in a healthier state than last year. With IT services spend dependent in part on enterprise and consumer confidence, and of course on levels of cash flow in enterprises and government bodies, we see a short-term period of relative stability where things don't get much better but neither do they get much worse. We have kept our forecast for the European IT services market essentially unchanged for the third quarter in a row, as far as the big picture goes, only making relatively small adjustments to the U.K. and Greece," said Douglas Hayward, research manager for European Services at IDC in London.

"Our surveys of end users earlier this year showed spend confidence starting to return, with growing interest in outsourcing and cloud computing, for example, but the reality at the coalface is that IT services vendors typically reported falling IT services revenues in 1Q10, and we expect this also to be the case for 2Q. We expect that demand and vendor revenues will revive in 3Q and 4Q of 2010, so that IT services spend for the full year will end at same level as 2009," said Hayward. "We have not been expecting a return to demand growth until the second half of this year, and there are many signs that we were right not to do so. When looking at services contract signings in the first half of the year, it is clear that the situation is improving, but it takes 6-9 month before revenue starts being booked in large scale by the vendors, so we believe a conservative forecast for 2010 is fully justified. We do not see customers enthusiastically opening their wallets yet."

Silicon Vendors Battle For $500 Million TV Tuner Market

Silicon chip vendors are fighting hard for the shifting TV tuner market in which traditional can-type TV tuners are being replaced by all-solid-state, silicon-based TV tuners, reports In-Stat. NXP is the global market leader for silicon tuners, followed by Microtune, Maxlinear, and others. In-Stat projects the market opportunity will nearly double within five years, topping $500 million by 2014.

"TV set manufacturers want to make sure they can trust the silicon TV tuner vendor to support their design needs and reliably supply very high volumes," says Gerry Kaufhold, In-Stat analyst. "Silicon TV tuner suppliers need global supply chains that can source assembly and test, and align their price roadmap with consumer markets."

Recent research by In-Stat found the following:

- Some ultra-thin LCD TV sets are already using silicon TV tuners.

- Silicon tuners dissipate less power than can-type tuners, and have more consistent performance and quality due to tighter manufacturing tolerances. Their cost continues to decline as silicon process technologies improve.

Frost & Sullivan: High Disposable Incomes and a Vibrant Tourism Industry Drive the Mauritian Mobile Communications Market

The Mauritian mobile communications market has seen significant investments in the infrastructure development and data segments. These are areas with immense growth potential due to the saturation of voice services.

"The submarine cables that are being deployed will mitigate bandwidth shortages witnessed in the country," says Frost & Sullivan Research Analyst Mervin Miemoukanda. "The key drivers of this market are high disposable income, a vibrant tourism industry, the increasing demand for mobile broadband and multimedia, and the diminishing costs of handsets."

"The low levels of Internet and fixed-line penetration rates in Mauritius mean that there are still growth opportunities in the country," says Miemoukanda. "Furthermore, the mobile communication market has witnessed significant growth in terms of subscribers after the liberalization of the country's telecommunications market in 2003."

However, with a mobile penetration rate of 82 per cent in 2009, the Mauritian mobile communications market is near saturation. Competition is intense and operators find it challenging to retain their customers and acquire new ones.

"The absence of substantial subscriber growth in the future will lead to higher churn rates and increasing operator marketing expenses to mitigate it," says Miemoukanda. "Therefore, operators need to find new methods to maintain their margins at the existing levels."

The mobile operators are expected to improve the quality of services with continuous infrastructure investment such as call-switching capacity to develop innovative solutions like SMS-based services, and to initiate managed services by outsourcing non-core businesses such as network maintenances. These strategies help step-up the demand for mobile services and consequently the subscriber and revenue growth.

"Operators should also look at methods to offset the loss in voice revenues by promoting infrastructure sharing," concludes Miemoukanda.

As Market Shares Shift, Annual Netbook Shipments Will More than Double by 2013

This year, almost 60 million netbooks are expected to ship worldwide. According to a new set of forecasts from ABI Research, almost double that number will be reaching global markets in 2013. This is the result of the rapid netbook market growth observed since the introduction of the new computer category in 2008, a trend which will only start to abate in 2014-2015.

As the netbook market matures, market shares are beginning to shift among vendors. Half a dozen vendors commanded 78% of the market in 2009. Acer and ASUS (which pioneered the whole netbook concept with its Eee PC) held almost equal one-third shares of the market in 2008, but ASUS didn't maintain that lead and lost half of its market share in 2009.

"Instead of having a preeminent two," notes principal analyst Jeff Orr, "it looks as if only Acer will continue to maintain its commanding lead; but at the same time there are more vendors competing head-to-head. Most of the others major names - HP, Dell, Lenovo - increased their market shares in 2009, while Samsung lost a couple of percentage points."

With the market starting to settle into a stable shape, Orr expects that we'll soon start to see "consolidation through attrition," with some of the smaller players exiting the market. "Some firms saw netbooks as an entry point into the PC market. Gigabyte is one example. But with a 2009 market share falling to just 0.1%, Gigabyte might be advised to rethink that strategy. Other suppliers, such as the OLPC (One Laptop per Child) initiative, have been hit hard by the global recession."

Consumer interest in netbooks shows no sign of waning, and the attraction remains the same: value rather than raw performance. Netbooks are not replacing laptops or PCs; they are being bought as complementary devices. Education remains a strong market driver, and the next several years will see very respectable continuing growth.

Changing Threats and New Technologies Trigger Innovation in the World Firewall Products Market, Finds Frost & Sullivan

The world firewall products market has witnessed slowing growth rates in recent years due to market saturation, economic pressures, and mature technology. However, vendors are improving their firewall solutions to meet customer needs and address the constantly changing threats.

Enterprise network environments have continued to evolve due to the proliferation of mobile computing devices, increased interconnectivity with Web 2.0 technologies, convergence trends, and emerging technologies such as voice over Internet protocol (VoIP), virtualization, and cloud computing. These technologies open up new attack vectors that the security industry and customers must address.

The firewall forms the cornerstone of any security infrastructure as it is the first line of defense for enterprise networks and fulfills basic regulatory requirements. As one of the original security technologies, the market is currently very large and continues to grow.

"The firewalls ability to define and defend a network perimeter has earned itself a reputation as an indispensable security product," says Frost & Sullivan Research Analyst Chris Rodriguez. "While this reputation has helped the market grow in the past, participants must step up efforts to innovate to ensure growth levels resume their upward trajectory."

The economic recession tightened security budgets in 2009 and this state is expected to continue in 2010, as customers remain cautious. Despite the resilience of the security industry, this restraint will be most pronounced in the immediate future before tapering off.

High barriers to entry characterize the market. In 2009, there were more than 30 competitors, down from 40 in 2008 and 60 in 2007. The market share held by the top five competitors had increased to 72.2 percent in 2009, indicating that it is difficult for new entrants to enter this market.

Technology maturity and a high level of product diffusion have slackened growth in recent years. Moreover, customers already have firewall solutions deployed and feel little motivation to invest in a new firewall solution anytime soon. They are awaiting network refresh cycles to replace or upgrade their firewalls, thereby causing a steady decline in market growth. Participants must work toward changing these attitudes to enable quality products to succeed in this marketplace.

Vendors are striving to add new functionality in recognition of the fact that traditional port and protocol-based filtering is becoming less effective in the changing threat landscape. "The firewall initially underwent much change and innovation, with multiple product methodologies developed in a short span of a few years," explains Rodriguez. "Since then, vendors have introduced new features, but customers have essentially been using inspection firewalls for over a decade."

Features such as Deep Packet Inspection (DPI), load balancing, and VoIP support are commonly included and new capabilities such as application- and identity-based filtering are now being introduced. This will provide better protection for customers while reinvigorating customer demand for the technology.

This fourth generation of technologies holds the most potential for the firewall market, and vendors will continue to evaluate new ways to remain relevant in the long term.

IDC's Social Business Framework: Using People as a Platform to Enable Transformation

Business in 2010 has changed dramatically from the pre-social Web environment. The social Web has shifted customer, employee, supplier, and partner expectations and is shaping a fresh way of interacting. As interaction is redefining online relationships, innovative methods of communication and collaboration have emerged and trust takes on new importance. The International Data Corporation (IDC) believes that social platforms, which experienced 55.9% year-over-year growth from 2008 to 2009, are quickly becoming a catalyst for the worldwide collaborative applications market.

"In a hyper-connected global business environment, competition is more unpredictable and the impetus for innovation is stronger as well," stated Michael Fauscette, group vice president, Software Business Solutions. "Not only are market factors and dynamics different, but the people are also different."

"The social business recognizes that people and businesses collaborate in different ways," stated Erin Traudt, research director, Enterprise Collaboration and Social Software. "It enables a choice in communication methods among today's workforce, where it is not the technology at the center of the conversation, but how people work and interact."

The social business framework developed by IDC is designed to foster better communication, collaboration, and overall understanding of current market dynamics to decrease language barriers between vendors, customers and the broader industry. According to IDC, the social business framework is made up of four key elements, which are critical to a social business transition and symbiotic in their relationship. As a practical matter, the process of implementing any social business initiative or project should follow these steps:

- Identify the market factors that are generating the need for change.
- Recognize the social objectives that you want to accomplish and why it's important.
- Establish the social outputs that will be used to support the objectives.

Broadcast Mobile TV Captures Subscriber Counts, while 3G Mobile TV Drives the Revenue

New research from In-Stat identifies that the largest number of mobile TV subscribers/viewers will come from digital broadcast. This will be followed in numbers by analog broadcast viewers. However, while cellular mobile TV subscribers will be lower, they will generate the lion's share of revenue, with over $15 billion in subscription revenue by 2014.

"Global 3G network development is driven by the popularity of data services such as soda) networking and texting," says Norm Bogen In-Stat analyst. "Mobile TV stands to leverage this demand." Recent research by In-Stat found the following:

- Cellular mobile TV subscribers will generate over $15 billion in subscription revenue by 2014.
- Mobile TV broadcasting standards remain fragmented by geographic region worldwide, with CMMB, ISDB-T (1seg), ATSCM/H, DVB-H, MediafloFLO and DMB all finding deployments.
- Asia, primarily India and China, will drive mobile TV subscriptions.

Frost & Sullivan: Data Center Infrastructure Falls to a Handful of Developers

The commercial data center market is undergoing significant growth and change, fueled by a confluence of factors, including demand for computing and storage resources, powerful next-generation computing equipment, accessibility by remote users, and power and cooling issues.

Within this environment, enterprises are increasingly turning to third-party providers for some or all of their data center infrastructure needs. Faced with inadequate internal data center space, they are willing to use outsourced solutions ranging from leased raw space, to co-location facilities, to dedicated hosting.

At the same time, interest is surging in a newer model for purchasing data center infrastructure. Cloud Computing has introduced a "just in time" element to data center infrastructure, allowing businesses to lease computing resources as needed from third-party providers, with pay-per-use or utility pricing. This model promises users ultimate scalability without the burden of investing in additional equipment, or the time required to set it up.

Who, then, shoulders the investment and time burden? "The data center business is, at the end of the day, highly capital-intensive," explains Lynda Stadtmueller, Senior Research Analyst and co-author of the study. From real estate and construction, to power and cooling distribution systems, to configuring IT and networking equipment, creating a data center requires significant investment, as well as a long time to make it user-ready."