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Worldwide Server Market Revenues Increase 11.0% in Second Quarter as Market Recovery Accelerates, According to IDC

Factory revenue in the worldwide server market increased 11.0% year over year to $10.9 billion in the second quarter of 2010 (2Q10). This is the second consecutive quarter of year-over-year revenue growth and the fastest quarterly revenue growth since 2003, as market demand continued to improve around the world. Server unit shipments increased 23.8% year over year in 2Q10, improving slightly over the strong 23.0% year-over-year shipment growth reported in 1Q10 and representing the fastest year-over-year quarterly server shipment growth in more than five years.

Volume systems experienced the sharpest improvement with year-over-year revenue increasing 32.0%, the third consecutive quarter of positive growth for the segment. Midrange server demand improved significantly with year-over-year growth of 6.9%, the segment's first positive growth in nine quarters and another sign of improving server market conditions. Demand for high-end enterprise systems continued to be soft, as revenue declined 23.6% when compared to 2Q09. This is the seventh consecutive quarter of contraction in the high-end enterprise server segment of the server market, most of which occurred during the economic downturn.

"The server market is at a crossroads. This is the fourth consecutive quarter of improving server market demand and the fastest quarterly server revenue growth IDC has reported in more than 5 years," said Matt Eastwood, group vice president, Enterprise Platforms at IDC. "IDC continues to see widespread infrastructure refresh occurring across all geographies. While much of this refresh is occurring first in x86-based servers, IDC expects the recovery to extend to Unix and mainframe platforms in the second half of 2010. That said, it is clear that a wave of migration is also occurring as customers broaden their deployment of x86-based servers to a wider range of workloads."

Overall Server Market Standings, by Vendor: HP assumed the number 1 position in the worldwide server market with 32.5% factory revenue share for 2Q10; HP increased revenue 26.0% year over year and gained 3.9 points of share from a year ago. HP's growth was led by strong demand for its x86 ProLiant servers during the quarter. IBM held the number 2 spot with 29.8% share for the quarter as factory revenue decreased 3.2% compared to 2Q09. Although IBM experienced weakness in its Power Systems and System z servers as customers waited for the completion of a product refresh cycle for both product sets, demand for x86-based System x servers remained strong in the quarter. Dell maintained third place with 15.6% factory revenue market share in 2Q10. Dell gained 3.2 points of share year-to-year on strong 39.1% revenue growth driven by demand from enterprise customers. Oracle maintained the number 4 position in the worldwide server market, with 5.9% a year-over-year revenue decline in 2Q10 to 8.6% market share. Fujitsu, which rounded out the top 5 vendors, experienced a 7.9% increase in factory revenue, holding 3.4% revenue share in 2Q10.

Top Server Market Findings:

- Microsoft Windows server demand was positively impacted by the accelerating x86 server market, as hardware revenue increased 36.6% and unit shipments increased 28.2% year over year. Quarterly revenue of $5.0 billion for Windows servers represented 46.5% of overall quarterly factory revenue.
- Linux server demand also improved in 2Q10, with revenue growing 30.0% to $1.8 billion when compared with the second quarter of 2009. Linux servers now represent 16.8% of all server revenue, up 2.5 points over 2Q09.
- Unix servers experienced 7.2% revenue decline when compared to 2Q09. Worldwide Unix server revenues were $2.9 billion for the quarter, representing 26.3% of quarterly server spending (down 5.2 points over 2Q09, but up 3.9 points from 1Q10).
- The market for non-x86 servers, including servers based on RISC, EPIC, and CISC processors, declined 16.0% year over year to $3.9 billion in 2Q10. This is the fifth consecutive quarter that non-x86 servers have been outperformed in the market by x86 servers. IDC believes that demand for non-x86 systems will improve in the second half of the year now that leading server vendors have completed important product refresh cycles, which will help drive server demand in the midrange and high-end of the market.

"The uptick in the midrange server market shows there was pent-up demand for more scalable servers, through replacement for aging servers and workload consolidation," said Jean S. Bozman, research vice president, Enterprise Servers at IDC. "This segment was hard-hit in 2009, during the deepest part of the economic downturn to date, but IDC expects this decline to moderate in the second half of 2010, with shipments of new midrange enterprise server products in the Unix server market, and continued demand for more scalable x86 servers in the midrange segment (servers priced from $25,000 to $250,000)."

x86 Industry Standard Server Market Dynamics: x86 server revenues continued to accelerate in 2Q10, growing 35.3% in the quarter to $7.0 billion worldwide as unit shipments increased 25.8% to 1.8 million servers. IDC notes that each of the top 5 server vendors experienced positive x86 server revenue growth in the quarter. HP experienced strong revenue growth and led the market with 39.2% revenue share. Dell retained second place, securing 24.3% revenue share while IBM now holds 16.7% revenue share. Overall, this was the fastest year-over-year factory revenue growth for x86 servers in more than 10 years.

"Within the x86 server market, enterprise spending has had a strong return through server refreshes," said Reuben Miller, senior analyst, Enterprise Servers at IDC. "As the economy begins to show signs of recovery, large enterprise businesses are gaining a better view of spending capabilities for the remainder of the fiscal year and beginning to increase their investments."

Bladed Server Market Results: The blade market accelerated in the second quarter with factory revenue increasing 30.9% year over year and shipment growth increasing by 13.6% compared to 2Q09. Overall, bladed servers, including x86, EPIC (Itanium-based), and RISC blades, accounted for $1.5 billion in revenues, representing 14.0% of quarterly server market revenue. More than 80% of all blade revenue is driven by x86 systems, a segment in which blades now represent 18.9% of all x86 server revenue. HP maintained the number 1 spot in the server blade market in 2Q10, with 55.8% revenue share, and IBM finished with 24.2% revenue share.

"Blade adoption continued to gain momentum in the second quarter of 2010, as blades accounted for its largest portion of total server revenue since the form-factor came to market," said Jed Scaramella, research manager, Enterprise Servers at IDC. "Vendors continue to build out their blade offerings through enhanced virtualization, management, and I/O capabilities; customers are leveraging these technologies as part of converged systems that are a building block to future internal cloud infrastructures."

Vulnerability Research Market Continues to Grow, Finds Frost & Sullivan

It is becoming increasingly evident that research on network security is crucial for the protection of critical telecommunications and computing systems. This is especially true considering the popularity of more powerful mobile computing devices and new technologies such as cloud computing and voice over Internet protocol (VoIP).

In 2009, companies invested considerably in vulnerability research despite the challenges faced during the economic downturn. This trend will continue as established researchers become more proficient, and as both customers and software vendors realize the value of vulnerability intelligence services.

New software and technology empowers users and improves productivity," says Frost & Sullivan Research Analyst Chris Rodriguez. "Unfortunately, it can also expose users to cyber attacks."

Organizations with contributor compensation programs are attracting a large number of researchers with offers of financial rewards. As demonstrated by the sudden rise of new entrants, contributor compensation programs can lower entry barriers and encourage individual researchers to make a more valuable impact on the state of security.

The vendors that have supplemented their research abilities through bug bounty programs have been the top reporters of original vulnerability data in recent years," observes Rodriguez. "Improper reporting processes can provide hackers with an advantage, and researchers may not get due credit if they wait too long."

Gartner Says Demand for Highly Qualified Windows 7 Migration IT Personnel Will Exceed Supply in 2011 and 2012, Leading to Higher Service Rates

The need to migrate from Microsoft Windows XP and Windows 2000 to Windows 7 in a tight time frame will create an extra budgetary and resource burden on companies from 2011 to 2012, according to Gartner, Inc. During that period, demand for highly qualified Windows 7 migration IT personnel will exceed supply, leading to higher service rates.

Gartner analysts said most organizations will need to find extra funds or redirect budgets away from other projects to complete the Windows migration on time.

"Corporate IT departments typically prefer to migrate PC operating systems (OSs) via hardware attrition, which means bringing in the new OS as they replace hardware through a normal refresh cycle," said Charles Smulders, managing vice president at Gartner. "Microsoft will support Windows XP for four more years. With most migrations not starting until the fourth quarter of 2010 at the earliest, and PC hardware replacement cycles typically running at four to five years, most organizations will not be able to migrate to Windows 7 through usual planned hardware refresh before support for Windows XP ends."

Faced with this need to accelerate migration in 2011 and 2012, organizations have three options:

Accelerate PC Replacement Plans: Buying new PCs with the OS upgrade ensures that machines have a full set of compatible drivers and a basic input/output system (BIOS). This course of action also reduces the number of times the machine is touched during its life and ensures that it will have a reasonably long operational life with the new OS over which to amortize the costs of the migration.

Assuming a 10,000 PC environment, where all PCs are replaced, Gartner estimates that the migration cost per PC will be between $1,205 and $1,999, depending on how well-managed the environment is. While the overall cost to migrate is lower than other scenarios, the down side is that the capital costs account for about 60 percent of the total replacement cost, so the capital budget will be larger than in the upgrade case.

Upgrade Installed PCs: Using existing PCs will reduce the capital costs of migration, but will not reduce the labor costs of migration. Assuming the same setup as above — a 10,000 PC environment, where all PCs are upgraded — the migration cost per PC will be between $1,274 and $2,069, depending on how well-managed the PC environment is. This assumes that 25 percent of the machines will need a hardware upgrade to run the OS.

While the capital costs are reduced in this case, upgrading an installed PC simply postpones the inevitable replacement for two to three years. Users will need to be migrated twice, rather than once, during a four-year period.

Evaluate Partial Migration: For task workers, such as data-entry roles (these account for about 15 percent of the population in a typical organization), migrating from a PC to a hosted virtual desktop (HVD) environment is an alternative to PC migration. It would potentially speed up deployment, because it is one image deployed centrally. However, an HVD does not solve the budget issues, because of the incremental cost of the data center and network infrastructure needed to run an HVD. Also, it does not solve the IT support staff issue, since they will be involved in the HVD rollout.

The Cost of Labor: "Whether replacing or upgrading PCs, it is clear that Windows 7 migration will have a noticeable impact on organizations' IT budgets," said Steve Kleynhans, research vice president at Gartner. "Based on an accelerated upgrade, we expect that the proportion of the budget spent on PCs will need to increase between 20 percent as a best-case scenario and 60 percent at worst in 2011 and 2012. Assuming that PCs account for 15 percent of a typical IT budget, this means that this percentage will increase to 18 percent (best case) and 24 percent (worst case) which could have a profound effect on IT spending and on funding for associated projects during both those years."

Gartner expects the cost of IT labor to increase during 2011 and 2012 as demand for Windows 7 migration services spikes. These cost hikes are likely to continue in 2013, as organizations recognize that they are behind in their migrations.

"We estimate that large and midsize organizations worldwide will migrate approximately 250 million PCs to Windows 7, during the migration timeline, so it makes sense for organizations that plan to leverage external services to line up service providers early," Mr. Smulders said. "Begin talks with suppliers now about putting in place contracts that can deliver flexible levels of resources at a fixed rate over the migration period."

Demand for Cable Set Top Boxes Softens, but Some Regional Markets Still Offer Growth Opportunities

The cable set top box market grew again in 2009, once again setting a record for global unit shipments. However, growth slowed significantly last year and 2010 is on track to be the first year of negative growth since 2002, according to In-Stat. Despite the overall market slow-down, some regional markets are poised for growth. Examples of these regional markets are Europe, where the demand for high-definition (HD) cable set top boxes is fueling growth, and Latin America, where the shift from analog cable TV to digital cable TV is spurring unit shipment growth.

"Even in a soft year, the cable set top box market continues to offer solid growth opportunities for cable set top box manufacturers," says Mike Paxton, Principal Analyst. "This is particularly true if manufacturers target emerging regional markets or if they focus on high-margin product categories like HD or PVR-enabled cable set top boxes."

New research by In-Stat reveals the following:

- Worldwide digital cable set top box unit shipments are forecasted to decrease to 44.1 million in 2010, down 8% from 2009.
- Low-cost, digital terminal adapter (DTA) devices are having a big impact on the US cable market. In-Stat is forecasting that over 7 million DTA devices will ship in 2010.
- The value of semiconductor components used in cable set top box products was $2.8 billion in 2009, only fractionally higher than in 2008.
- In 2009, the top three digital cable set top box manufacturers in total unit shipments were (in rank order) Motorola, Cisco Systems, and Technicolor (formerly Thomson). However, the combined market share of the top three manufacturers decreased to 41% of total worldwide unit shipments, down from 50% in 2008.

Global Number of Consumer Telematics Users Will Reach 211 Million by 2015

OEM and aftermarket consumer telematics systems continue to gain momentum in both developed and developing regions due to growing popular awareness of their many benefits related to safety, security, maintenance, convenience, infotainment, and cost savings. These benefits will drive growth from 37 million telematics users in 2010 to more than 211 million in 2015.

ABI Research practice director Dominique Bonte comments: "Telematics drivers are diverse, ranging from regulation in Europe (eCall) and legislation in Brazil (SVT) to cheaper telematics connectivity, hardware, software, and services. However, barriers remain: privacy concerns have slowed down the legislation process in Brazil, and industry fragmentation and confusion about business models and service architectures continue to haunt the automotive ecosystem."

While the number of telematics subscribers will see very strong growth in the coming years, direct revenue growth will be slower due to an increasingly large number of free non-embedded, hybrid and phone-based solutions such as Ford SYNC.

Many automotive OEMs such as General Motors, Mercedes-Benz, Volvo, and BMW are eager to embrace the smartphone as a connected vehicle remote control for door unlock and engine start, remote diagnostics such as electrical vehicle battery status, or for eCall and bCall services. Solutions such as Continental's Android-based AutoLinQ take this approach one step further by turning embedded systems into open platforms accessible to third party software developers hoping to break the automotive paradigms of long development cycles, high costs and lagging innovation.

Best Practices Are Beginning to Emerge for Business FMC in Europe, Says IDC

The market for business fixed-mobile convergence (FMC) has been slow to materialize over the past several years but is starting to gain ground in Europe in 2010, according to new research from International Data Corporation (IDC).

"Many business benefits from increased mobile working have not been fully realized because many firms lack centralized cost control, visibility, and efficiency across their fixed and mobile environments," said Nicholas McQuire, research director, EMEA Enterprise Mobility. "In the past, FMC sought to address these challenges but it failed to do so on a wide scale because it was complex, expensive, and limited in terms of the user experience and business case. We are finally starting to see some of these barriers coming down with best practices emerging and generating decent commercial momentum in the market as a result."

According to IDC, telephony-based FMC is the first phase of mobile unified communications driven primarily by the business need for greater cost reduction and control of mobile voice. Growing maturity of service provider portfolios, the emergence of specific customer and sector drivers, and increased evidence of commercial success in Europe are progressing FMC quickly and will evolve the market to its second phase, where the emergence of integrated collaboration applications such as presence and instant messaging will significantly improve the communications experience for business users. In time, mobility extensions will become standard in most unified communications modules and will emerge as a strong contributor to the UCC business case for customers.

Gartner Highlights Four Myths Surrounding IT Self-Service

Of all service desk contact volume, as much as 40 percent could be solved through IT self-service, but only 5 percent of issues actually are solved by IT self-service, according to Gartner, Inc. By 2015, the majority of IT organizations will have less than 10 percent of the contact volume managed by IT self-service.

"IT self-service is a great concept, enabling and empowering end users to solve their own IT problems, thereby allowing support organizations to gain efficiencies through a reduced incident and request workload," said David Coyle, research vice president at Gartner. "However, building a best-in-class IT self-service portal does not guarantee that end users will utilize it."

Following extensive client research, Gartner analysts have identified four common myths that organizations have regarding IT self-service. Gartner believes that these myths and the associated realities, in combination with low IT service desk maturity, are the factors that prevent IT organizations from successfully delivering IT self-service.

Myth: IT self-service reduces costs.
Reality: IT self-service will reduce Level 1 support.
IT self-service does have the opportunity to reduce the cost of IT service and support by moving end-user issues to a lower cost level. However, self-service works well only for specific record types (mainly how-to requests, FAQs and password resets), so organizations should understand that implementing self-service will reduce volume only for those call types. Some issues will still require a call to the IT service desk and/or the assistance of a support technician.

"Organizations that fail to understand the demand mix of service and support will not be able to predict or measure the influence of self-service," Mr. Coyle said. "In addition, IT self-service requires upfront and ongoing investment in staff resources and tools like knowledge management and password reset. The bottom line is that if the investment in IT self-service is higher than the return associated with reducing support costs and increasing end-user productivity, then self-service will actually increase costs."

Myth: IT self-service is a one-time investment.
Reality: IT self-service requires constant care and feeding.
IT self-service is not a "set it and forget it" option, and IT leaders need to constantly understand how IT self-service is being leveraged, and whether end users are getting value from the offering. End users can be aware of the existence of IT self-service support and still not understand how it functions, how it can and should be leveraged, or the benefits it can provide. This requires marketing efforts, specifically to users who may not be aware or users who do not find value in the offering or prefer calling the service desk.

Ongoing efforts also include the maintenance of the knowledge base where articles need continuous updating. Articles that do not fix the problem or that are difficult to understand do not lend themselves well to the credibility that IT self-service portals need to establish. Also, the wider the range of services supported, the more difficult it becomes to keep these knowledge articles up to date.

Myth: End users will flock to self-service.
Reality: End-user acceptance varies greatly.
Understanding the adoption of IT self-service by end users is critical in developing a successful IT self-service strategy, and most organizations will find that the first-year adoption rate can be very low. End-user utilization is the primary objective, so the time and cost investments that are tied to building a world-class self-service portal will not yield favorable returns if end users are not inclined to log their own tickets or attempt to solve their own problems.

Factors that can provide insight into this include an organization's demographics; groups like engineers or young people may be able and willing to leverage self-service, but end users who are stuck in their ways or who are not sophisticated computer users may not be as willing.

Myth: IT self-service is easy to implement.
Reality: The right "companion" tools and processes are prerequisites for a successful implementation.
End users want an IT self-service portal where knowledge is readily available, where passwords are easy to reset, and that is very intuitive to use. It is not the responsibility of the end user to dig through knowledge if it is not stored correctly, or care about any processes or roadblock issues that prevent the support organization from keeping the site fresh and up to date.

The two most frequent call types are how-to requests (how to access or operate IT resources) and password reset (establishing or regaining the privilege to access IT resources). Because password problems make up 20 percent to 30 percent of all IT service desk volume, with most of those issues resolvable by password reset tools, automating this function can save organizations the costs of supporting this type of request.

"The benefits of a well-designed self-service portal go well beyond service desk contact reduction. If properly implemented, self-service can improve customer satisfaction, provide incident trend analysis, identify training opportunities, and consolidate the knowledge that currently exists in silos across the support organization," Mr. Coyle said. "These 'soft' benefits should always be outlined when making a business case for self-service."

Frost & Sullivan Predicts Smartphones to Account for 54% of Asia-Pacific Device Sales by 2015

Growth in the Asia-Pacific smartphone market is expected to skyrocket in the coming years, and by 2015, Frost & Sullivan forecasts that 54% of all devices sold in the region will be smartphones, up from only five percent in 2009.

Mobile social networking has also proven to be a big driver of smartphone adoption in all Asian countries. Smartphone sales in Asia-Pacific are rapidly increasing in all markets, as developed markets like Japan and South Korea are switching from feature phones to smartphones, while operators in emerging markets are pushing smartphones to entice users to upgrade from 2G to 3G service.

"Smartphones are critical to every operator's mobile broadband business case, as a smartphone user's ARPU (average revenue per user) typically increased by 25 to 100 percent after adoption depending on the market," says Frost & Sullivan Industry Manager Marc Einstein. "The Asia-Pacific market is particularly interesting for smartphones as there has been significant uptake in emerging markets like China, India and Indonesia, even among prepaid users."

Despite the massive growth in smartphone sales, there are still many factors impeding sale of the device in many markets. According to Einstein, "Eighty percent of Asian mobile users use prepaid cards, and in fact in many markets are as high as 97 percent, making smartphone subsidies impossible for most users. Furthermore, there is a lack of public Wi-Fi, particularly in emerging markets, which has been a smartphone savior in the USA and other developed markets."

Smartphone sales are also particularly important for vendors as the total market for device sales is stagnant in most markets.

"Only the most developing markets are seeing double-digit increases in device sales, and with flat or negative growth in many markets, smartphone sales are filling in this gap," Einstein adds. He estimates 477 million units of smartphones will be sold in Asia-Pacific in 2015.

SuperSpeed USB: Digital Cameras and Camcorders Will be Fastest CE Segments to Adopt

USB has been extremely successful in the digital still camera and digital camcorder markets because most users want to download images to PCs to store video recordings and still pictures or to print pictures. As picture file sizes increase with camera resolution, and as camcorders move from standard-definition (SD) to high-definition (HD), the desirability of SuperSpeed USB becomes even more apparent, according to In-Stat. As a result, adoption of SuperSpeed USB into digital cameras and camcorders will be much more rapid than other CE device segments, with penetration levels reaching 50% and 60% respectively, by 2014.

"SuperSpeed USB can move 25GB of data in 70 seconds, the same amount of data would take nearly 14 minutes using high-speed USB," says Brian O'Rourke, Principal Analyst. "This dramatic leap in download times makes the adoption of SuperSpeed USB into digital camcorders and cameras a natural migration. We expect to see the first SuperSpeed USB camcorders hit the market in the second half of 2011."

Recent In-Stat research found the following:

- Nearly 160 million digital TVs will ship with USB in 2014.
- By 2014 nearly 7 million set top boxes will be have integrated SuperSpeed USB.
- SuperSpeed USB will reach 40% penetration in the portable digital media player market in five years.
- 225 million SuperSpeed USB flash drives will ship in 2014, representing a CAGR of 791.8% from 2009 to 2014.
- More than 3 billion USB-enabled devices shipped in 2009; over 4 billion will ship in 2012.

Standalone PNDs Still the Preferred Choice for Automobile Use

Personal navigation devices (PNDs) have been popular in recent years, and remain so. According to ABI Research market data, approximately 42.3 million personal navigation devices will be shipped in 2010. New devices offer more features attractive to customers. "New features such as multimedia functions, voice commands, and digital camera and Bluetooth connections are being added to both handheld and automotive-friendly devices," notes telematics and navigation practice director Dominique Bonte.

Device manufacturers such as Navigon, Pioneer, and Garmin all launched new PNDs in the first half of 2010. Among the new products launched this year, Garmin ntIvi 3700 series devices are less than 9mm thick, which is ultra-thin compared to the other devices on the market. It also has a dual-orientation capability which is very suitable for portable use. New products from Garmin and Navigon come with Bluetooth connections.

Personal navigation devices come with screens sizes ranging from 3 to 5 inches. In-vehicle dashboard devices have larger screens, up to 7 inches. More than 80% of the portable and in-dash navigation devices come with touch screens which give a more intuitive user experience.

Recently, PND manufacturers are facing increased competition from GPS-equipped smartphones, and some manufacturers have found their sales of PNDs declining. Free map access from Google and Nokia on mobile phones has also caused a fall in sales and average selling prices.

However, "Stand-alone PNDs still have an advantage over smartphones," says research associate Khin Sandi Lynn. "Their larger screens provide users with a clearer view that is also easier to use while driving. Although volumes are dropping, for automotive use standalone PNDs will remain the preferred choice for many users."

More Efficient eGovernment Operations can be Achieved in Asia/Pacific through the Adoption of Cloud, Says IDC Government Insights

Most public sector agencies are widely dispersed operational silos and have an urgent need to coordinate and integrate the various egovernment functions. The challenge is that these agencies face varying policy and operational restrictions which translate to different needs and scales on their IT capacity. As the business case for the traditional data center is no longer sustainable in the long run, the adoption of cloud computing technologies in the public sector has become a viable option, according to the latest IDC Government Insights study.

"In general, the Asia/Pacific public sector is still apprehensive about the adoption of cloud computing especially in agencies that handle sensitive information. Most of the initiatives today are still at an experimental stage as the public sector tries to determine the return on investment (ROI) and weigh the risks involved in the adoption of cloud computing technologies," says Gerald Wang, Senior Market Analyst at IDC Government Insights Asia/Pacific.

He adds, "Governments should take an active change management stance to address the people and process aspects of cloud implementations, such as revolutionizing traditional workflows and facilitating interoperable standards to bring about greater inter-agency coordination. All the stakeholders involved need to internalize the value and application of the cloud model so as to truly realize a continued and successful egovernment transformation."

IDC Government Insights notes that the global recession has increased public scrutiny and accountability demands on the IT budgets of government organizations. Paradoxically, these organizations are increasingly under pressure to raise service competency and productivity. This cost and performance management irony has propelled public agencies to look to other technological alternatives, such as cloud computing solutions.

IDC Government Insights also expects data protection and security solutions such as "rights-management-as-a-service", and integrated business intelligence and analytics applications to feature strongly as key technological innovations that lead the adoption of cloud computing for the public sector.

Gerald concludes, "Inevitably, apart from cost management agendas, public sector agencies will need to define their own set of business requirements for cloud computing solutions. This means they have to explore and gather distinctive proficiency and awareness towards building a specialized enterprise-grade cloud services model that fits the unique environment it serves. Thus, the eventual adoption of cloud technologies, whether public, private or a hybrid of both models, lies fundamentally on the operational requirements it seeks to address."

Gartner Says Indian Domestic Process Management Services Market To Grow 31 Percent in 2010

India domestic process management services segment forecast to reach $683 million in 2010, a 31.1 percent increase from 2009 revenue of $521 million, according to Gartner inc. The market will experience steady growth through 2014 when process management services revenue in India will reach $1.6 billion.

Large scale outsourcing of process management will bring in the next wave of growth in the Indian domestic IT/IT-enabled services (ITES) industry. High economic growth, competitive pressure, agility, time to market, innovation and adoption across verticals and breadth of services will be driving this high growth rate in this segment.

In 2009, the Indian IT Services/business process outsourcing (BPO) market showed resilience with greater interest from corporate level executives in outsourcing decisions. Prioritization for outsourcing spending aligned with organizations' agility, scalability and cost focus. Cautious buyers, cost containment were evident in mature verticals.

"IT services spending will continue to shift from discrete spending to outsourcing in 2010. New avenues of growth will open in the mid-market and in up-selling," said Arup Roy, senior research analyst at Gartner. "The entry of new hybrid providers will blur the lines between product and IT services and offerings will move from traditional to utility, 'as-a-service' to cloud-based delivery models."

Currently process management services are restricted largely to telecommunications and banking and financial services sectors. However moving forward it is likely to be adopted in verticals such as government, utilities, healthcare and retail. These are high growth verticals with high degree of transaction processing work requirement. Such transactional processes, although crucial, are not core to the activities of those organizations. There are high degrees of inefficiencies built into the system. Hence, outsourcing of such processes to third party specialists would bring in advantages of efficiency, efficacy and cost thereby increasing the competitive edge.

"From a service line perspective, India domestic market is still heavily dominated by voice-based services. Most of the BPO work is around contact center type of work catering to customer care and sales/marketing services. This would comprise almost 65-70 percent of the market, "said Mr. Roy. "This is likely to expand into other service lines such as FIR process outsourcing, finance and accounting, analytics and other niche services. BPO is in the emerging stages. As adoption increases, and it becomes adolescent, the provider landscape would also change with much larger, sophisticated and specialist providers playing in the space. This would further drive the expansion of the service lines within BPO."

Frost & Sullivan: North American Enterprises Recognize the Business Value of Premium Mobile Applications

A majority of companies today realize the importance of mobilizing their business processes and workflows. A key growth driver for the North American mobile enterprise applications market is the promise of a fast, hard dollar return on investment (ROI). Frost & Sullivan's First Quarter 2010 survey of mobile and wireless decision-makers examined enterprise preferences and plans around four premium mobile enterprise applications - mobile workforce management, next-generation fleet management, mobile office, and mobile sales force automation (SFA). Considering the high level of satisfaction reported with each of these applications, it is apparent that ROI expectations are being squarely met.

Current users of premium mobile solutions identified a broad assortment of ROI impacts, all of which can profitably influence the bottom line of a business.

"ROI-related measures of success included reduced paperwork, improved service response times, and more accurate billing. They also included increased revenues, a faster sales cycle, and less employee overtime," says Frost & Sullivan Senior Industry Analyst Jeanine Sterling. "The 'soft benefit' of increased customer satisfaction was also always ranked highly in our survey."

Despite an abundance of ROI-based success stories, the Frost & Sullivan survey of 300 North American companies revealed that issues surrounding upfront costs continue to be cited as the key barrier to adoption for the four major mobile data applications. Application developers and their channel partners must address these concerns head-on by reducing initial customer investment requirements, as well as marketing their solutions more effectively.

"The cost of adding or upgrading mobile devices, integrating the solution with current back-office systems, and handling any customization needs are cited by interested businesses as major reasons for non-adoption," notes Sterling. "While the specifics can vary by application category and by country (Canada vs. U.S.), it is clear that many companies still find the upfront expense unaffordable at this time."

On the pricing front, the move toward a software as a service (SaaS) monthly fee model helps tremendously, especially when the hardware expense can be bundled into the monthly charge. Vendors must also continue to increase the standardized components of their solution and keep customization complexity to a minimum. From a marketing standpoint, more verticalized solutions and more case studies that are pertinent will help convince naysayers to pilot a mobile solution. Very importantly, according to the survey responses, current solution users also remain excellent prospects for expanded deployments and incremental sales.

Wireless Charging of Mobile Devices Has a Market Potential of $4.3 Billion by 2014

The growth of mobile devices combined with the increasing consumer aggravation with different and often proprietary charging solutions for each device, is fueling an opportunity for wireless charging systems. The market for wireless charging systems will reach $4.3 billion in total market revenue by 2014, according to In-Stat.

While several different technologies are vying for market position, they all offer the benefits of charging mobile devices ranging from handsets to PCs simply by touching or being within proximity of a charging station. Another benefit is that many of these charging solutions can be hidden or seamlessly integrated into furniture or automobiles.

"Despite the long history of the various technologies, we are really just now beginning to see the true market potential for wireless charging solutions," says Jim McGregor, In-Stat's Chief technology Strategist. "Like many other technology markets, it will start with add-on and third-party solutions. Eventually solutions will be integrated into many mobile electronics as the costs decrease and the demand increases. While still a fraction of the overall mobile device segment, wireless charging is just beginning to hit its stride in the market."

Recent Research by In-Stat found the following:

- Approximately 44% of survey respondents found current mobile charging solutions are an annoyance. Up to 40% are willing to pay $50 more for a wireless charging solution, depending on the mobile device.
- As with other technologies, prices are expected to degrade rapidly to about half of current pricing by 2014.
- Tightly coupled inductive charging systems are expected to be the early market leader.
- Of the integrated charging solutions, over two thirds are expected to be in cars.

IDC's Worldwide Quarterly Enterprise Networks Tracker Shows Continued Strong Growth in Ethernet Switch and Router Markets in Second Quarter

In the second quarter of 2010 (2Q10), the International Data Corporation found year-over-year revenue growth of 32.7% in the Ethernet switching and 11.0% in the Ethernet routing markets worldwide, reflecting continued strong performance across all regions and key product segments.

"The second quarter performance was very good, following on the heels of exceptional first quarter results for the Ethernet switch market," said Rohit Mehra, director, Enterprise Communications Infrastructure at IDC. "As seen in previous years, the second calendar quarter builds on the performance of the first, which is what the market delivered, showing strong year-over-year growth from the slowdown the market witnessed in 2009. The continued adoption of PoE (Power over Ethernet) and gigabit ethernet is also being helped by the underlying networking drivers - the growth of voice and video over IP applications, network-attached devices, virtualization, and cloud computing."

IDC's update report found that the worldwide router market showed moderate strength in 2Q10. The enterprise router market was marginally lower compared to 1Q10, but had an 8.0% year-over-year gain. This segment continues to be soft and off by around 25% from the record levels seen in 2007 and 2008. Service provider router revenue now accounts for 73.9% of the router market and includes both core and edge routers.

"The continued market recovery in 2010 is very encouraging with all regions and market segments making a contribution," said Cindy Borovick, vice president, Enterprise Communications Infrastructure and Datacenter Networks. "IDC's Worldwide Quarterly Enterprise Networks Tracker shows a strong 87.9% year-over-year increase in 10GbE switch revenue in 2Q10 and for the first time there were more than 1 million 10GbE ports shipped in the quarter. The 10Gb adoption was driven by datacenter, cloud, and campus buildouts."

From a vendor perspective, Cisco's Ethernet switch market share increased to 65.8% in 2Q10 from 62.8% in 2Q09, but was down from 68.3% in the exceptionally strong 1Q10. Cisco performed on par with the Service Provider router market and now accounts for 46.1% of Service Provider router revenue (same as in 2Q09).

Gartner Says. Security Software Market is Poised for 11 Percent Growth in 2010

Worldwide security software revenue is forecast to surpass $16.5 billion in 2010, an 11.3 percent increase from 2009 revenue of $14.8 billion, according to Gartner, Inc. Although the economic downturn slowed security revenue to 7 percent growth in 2009, organizations have indicated an intention to give priority to security budgets.

"Most segments of the security software market will continue to grow over the next few years, although a significant degree of variation is expected between the more-established and less-mature technologies," said Ruggero Contu, principal research analyst at Gartner. "Overall, security will remain one of the fastest-growing areas within the enterprise software market."

Gartner analysts said security software markets will weather the current economic downturn better than in 2001 and 2002, because the market conditions are dramatically different in terms of maturity, penetration, confidence in IT, and geographic and vertical mix.

"Security software vendors that have a balanced mix of channel, new license and maintenance revenue streams and flexibility in contractual terms, such as software as a service (SaaS), open source and outsourcing, have the strongest options for continued growth and to even out the risk," Mr. Contu said. "Shrinking discretionary spending budgets have heightened competition for new maintenance and license revenue streams and placed a renewed emphasis on vendor performance and viability."

The consumer security software market remains the largest security software segment, with 2010 revenue projected to reach $4.2 billion in 2010, up from $3.9 billion in 2009. The endpoint protection platform (enterprise) market is the No. 2 security software segment, with revenue on pace to reach $3 billion in 2010, up from $2.9 billion in 2009.

The security software market continues to benefit from prioritization and demands related to compliance requirements, as well as the need to keep up with ever-increasing sophistication and volume in the threat landscape.

"During the next six to 12 months, products delivered as SaaS and appliances will continue overtaking traditional software licensing as the preferred purchasing methods," said Matthew Cheung, senior research analyst at Gartner. "Delivery as a suite in subsegments such as enterprise endpoint security, identity and access management (IAM), and Web security will be the most prevalent product delivery types. Despite major vendors seeking to consolidate, opportunities exist for smaller niche players and product specialization, and local expertise is expected to remain a valued factor."

Compliance remains an important driver across many segments, particularly user provisioning, security information and event management (SIEM) and mobile data protection.

"The growing sophistication of the threat landscape — with malware composed of multiple components that can be installed after the initial infection and the exploits of socially engineered trojans, which trick end users into downloading and executing malicious files — will push organizations and consumers to invest in endpoint security products in coming years," Mr. Cheung said.

IAM is a critical component of enterprises' security strategies. Gartner clients indicate that about 8 percent of their security budgets are currently dedicated to JAM. This area is composed of technologies with varying levels of maturity and adoption; overall, the IAM market is estimated to grow to more than $12 billion by 2014.

Web-to-TV Video Content Revenue Will Reach $17 Billion by 2014

The growth of Web-to-TV video is happening faster than most people expected. By 2014 there will be 57 million US broadband households viewing full-length online video on the TV, says In-Stat. Revenue associated with this web-to-TV video content will grow from $2 billion to over $17 billion over a five-year period.

"The over-the-top (OTT) video market represents a new distribution channel for digital entertainment. Content producers want to market premium video content directly to the consumer," says Keith Nissen, Principal Analyst, In-Stat. "However, they have not yet decided the best way to monetize OTT video content and how to manage the OTT opportunity in context with their legacy distribution partners."

Some of the factors affecting this revenue growth include:

- The installed base of web-enabled consumer electronics video devices will grow from 70 million in 2009 to 237 million in 2014.
- The total number of US broadband households that own web-enabled CE video devices will nearly triple to 98 million by 2014.
- Within five years, over 11 million operator-provisioned hybrid STBs will be delivering online video content directly to the TV.

Contactless Smart Cards to Find Widespread Acceptance in Asia-Pac from 2012

Contactless smart cards, already having found user appeal for their freedom of form, are expected to see wider adoption in Asia-Pacific once key implementation projects are fully operational in two years.

Frost & Sullivan research analyst Reuben Foong expects growth in unit shipments to peak from 2012 to 2016 at rates between 20 and 25 percent year-on-year, and averaging at a CAGR (compound annual growth rate) of 16.4 percent (2009-2016). By end-2016, an estimated 1.9 billion contactless smart cards will be shipped in Asia-Pac, up from 590 million last year.

The contactless cards market was worth US$775 million in 2009, against a total smart cards market (contact and contactless) of US$1.94 billion. By units shipped, contactless cards accounted for 23 percent of the 2009 total card shipment. Foong expects this to grow to half of all smart cards shipped in 2016.

According to Foong, demand for contactless cards will be driven mainly by NFC (Near Field Communication), e-Passport and mass transit projects being implemented around the globe and across Asia-Pacific.

"The world is already prepared to roll-out NFC commercial projects with a small number of commercial projects having already begun and more than 200 pilot projects already completed across the globe," he says. "In Asia-Pacific, we can expect large-scale mobile NFC deployments in the next one to two years."

He adds that NFC on mobile devices will also prompt renewed interest in contactless bank credit and debit cards, with security issues having been ironed out.

The use of the contactless interface in e-Passports has long been a well-accepted standard worldwide sanctioned by the International Civil Aviation Organization (ICAO), United States and European Union, and more than 80 countries having already adopted that standard.

Foong expects demand for contactless cards for e-Passport and similar government identification (ID) applications in Asia to continue. "Government ID projects are by far the largest user of contactless cards currently (66 percent of contactless card shipment, 2009), and will likely remain so for the next five years as more nations migrate to the contactless interface," he explains. "Bearing in mind also that e-Passports have to be renewed, typically, every five to ten years."

India, China, the Philippines, Indonesia and Vietnam are all slated to implement e-Passports within the next five years.

One of the earliest applications of smart card technology was transportation such as mass transit services, which has, arguably, been the platform on which new form factors were introduced and espoused, motivated by user convenience. Mass transit ticketing is the second biggest application for contactless cards - 28 percent of contactless card shipment in 2009 - after government ID, and Foong believes uptake will continue with the rise of mass transit projects across Asia-Pacific.

Other forms of contactless card applications other than standard plastic cards include minicards and USB devices - both also available in contact form - tokens and wristbands and watches.

While some of these forms have been around for some time, they have yet to find commonplace purpose, Foong says. "As with any new technology, it will take time to find a proper niche as well as a concerted effort amongst all stakeholders to bring about a competitive value proposition to end users and gain market acceptance," he concludes.

The $1 Billion Microwave Tube Market is Successfully Holding Off the Gallium Nitride Threat

While microwave and millimeter wave high-power vacuum electron devices (VEDs) remain "below the radar" of many industry observers, the total available market (TAM) for this segment is over $1 billion.

Despite its size, and although these tubes remain essential elements in specialized military, scientific/medical and space communications applications, this market is generally under-reported and poorly understood by those not directly involved in it.

Essentially, this is now a stable industry after several rounds of consolidation in recent years. ABI Research director Lance Wilson says, "There is potential for some further consolidation, but there are no signs of that happening yet. One new RF semiconductor technology — gallium nitride (GaN) — may change the landscape but has not yet done so to any meaningful degree. While it is not yet monopolizing the microwave RF power industry, GaN is advancing steadily and is a technology that should be closely watched, as it will continue to be a threat to some aspects of the microwave and millimeter wave VED marketplace.

"These specialized vacuum electron devices may at first seem anachronistic," he adds. "But in some cases there is no other way to generate such high levels of RF power within an acceptably small space. Certain microwave and millimeter wave VEDs can generate megawatts, and it would take tens of thousands of transistors to do that."

Vietnamese 3G Market Has to Move Diligently to Succeed - Frost & Sullivan

With seven operators, the Vietnamese mobile market is one of the top five most competitive markets in this region. Vietnam's mobile connections grew 58% in 2009 and penetration reached 127%. However, recent operator comments suggests that 50% of these connections are inactive and as much 70% of the connections added in 2009 were multi-SIM users.

On the broadband front, the Vietnamese market has seen growth of over 60% in the past 4 years. A subscriber base of 2.1 million in 2008 gave the nation a household broadband penetration rate of 11.9%. The subscriber base is expected to grow at a Compound Annual Growth Rate (CAGR) of 15.22% from 2004 to 2014 and is forecasted to reach 4.9 million by the end of 2014. While, the household broadband penetration is projected to reach 24.9% by the same period. Consumer broadband revenues are expected to grow at a CAGR of 15.11% from 193 million in 2008 to 449 million in 2014.

Backing all these potential growth and positioning the nation as a forerunner amongst its regional counterparts is the Vietnamese Ministry of Information and Communications (MIC). The recent guidelines placed by the regulator clearly indicates the progress that the nation's telecommunications sector is posed to evolve into.

Of these guidelines, is the rise in foreign investor equity limit from 24.5%to 49%, permitting private telecoms infrastructure and lifting the foreign ownership cap. This move has sent clear signs to the international telecommunications community that the Vietnamese domestic market is eager to raise on par with its international counterparts.

Nitin Bhat, Partner at Frost & Sullivan, commented, "Prepaid still dominates Vietnam's market with 94.5% mobile connections. High multi-SIM usage and SIM churn has been encouraged by SIM usage bundling with users arbitrating promotional rates and service bundling. Data revenues do not appear to have gained the traction they have in other markets, possibly due to widespread voice credit bundling. The low penetration rate offer the opportunity for growth in internet access over affordable mobile devices and for wireless as it increasingly becomes the preferred mode of broadband access. Growth in this area would significantly increase data's contribution and importance to market revenues."

Nitin further added that Vietnamese operators will have to accelerate 3G traffic appropriately and should rely on Wi-Fi where possible to keep network costs under control.

Worldwide PC Microprocessor Unit Shipments and Revenues Rise in the Second Quarter Compared to the First Quarter, According to IDC

Worldwide PC microprocessor unit shipments and revenues in the second calendar quarter of 2010 (2Q10) increased 3.6% and 6.2%, respectively, compared to the first quarter of 2010, according to the latest PC processor study from International Data Corporation (IDC).

The average sequential change in unit shipments between a calendar year's first quarter and its second quarter is an increase of 1.6%. For revenues, the average sequential change is a decrease of -2.8%. So, these increases represent better performance than usual for a second calendar quarter.

"Such a sequential increase in PC processor shipments alone would have been enough to conclude that the first half was strong for the market," said Shane Rau director of Semiconductors: Personal Computing research at IDC. "However, a modest rise in revenues, too, points directly to a rise in average selling prices. System makers bought more and higher-priced PC processors in 2Q10 than in 1Q10. Digging a little deeper into the numbers shows that they bought more mobile processors and more server processors, while desktop processors remained flat."

Looking at market performance by PC form factor, mobile PC processor unit shipments rose 6.5% quarter over quarter, PC server processors rose 6.1% quarter over quarter, and desktop PC processors declined -0.1% quarter over quarter.

2Q10 Vendor Highlights: For the overall worldwide PC microprocessor market in 2Q10, Intel earned 80.7% unit market share, a loss of 0.3%, while AMD earned 19.0%, a gain of 0.2%, and VIA Technologies earned 0.3%.

In 2Q10 unit share by form factor, Intel earned 86.1% share in the mobile PC processor segment, a loss of -1.7%. AMD finished the quarter with 13.7%, a gain of 1.6%, and VIA earned 0.2%. In the PC server/workstation processor segment, Intel finished with 93.5% market share, a gain of 3.3% and AMD earned 6.5%, a loss of 3.3%. In the desktop PC processor segment, Intel earned 72.2%, a gain of 0.5%, AMD earned 27.3%, a loss of -0.7%, and VIA earned 0.5%.

Market Outlook: IDC's forecast for worldwide PC processor unit growth in 2010 is 19.8%. However, market demand for processors weakened during the second quarter and is expected to remain weak in August. "Major OEMs cut PC build orders with their contract manufacturers who, in turn, have cut orders for commodity components," said Rau. "While the PC processor vendors re-iterated their solid outlook during their most recent earnings calls, the softness we've seen ultimately makes us concerned for end demand's pull on processors. Likely, the second half of the year will be seasonal given the early build for Intel's Sandy Bridge and AMD's Fusion architecture launches, but lower than the year-over-year growth seen in the first half of the year. 2011 remains a wildcard in terms of sustainable unit growth."

Gartner and SEPA Survey Shows Photovoltaic Solar Power Is Gaining Momentum With Utilities

Research undertaken by Gartner, Inc. and the Solar Electric Power Association (SEPA) has revealed that utilities are becoming increasingly interested in procuring photovoltaic (PV) solar power generation systems. The Gartner/SEPA survey found that PV is one of the leading technologies for near-term renewable energy for utilities. The survey also found that utilities view onshore wind and biomass as the other key near-term renewable energy sources.

Gartner and SEPA conducted a survey of utilities in Europe and the U.S. to understand their requirements and objectives for integrating PV solar systems into their energy generation portfolios. A telephone survey of utility firms in the U.S., Germany, Spain, Italy and France was supplemented by an online survey in the U.S. The survey was conducted from mid-December 2009 through mid-February 2010, and it included 134 respondents.

"PV solar systems are a cost-effective means of adding distributed and central generation sources," said Alfonso Velosa, research director at Gartner. "System costs have decreased by over 30 percent since 2008. This has lowered the cost of electricity from these systems and improved their competitiveness relative to other renewable energy sources. PV systems are attractive to many organizations and individuals as they can be designed relatively easily, in a wide range of sizes and to fit in many different locations."

Utilities in Germany clearly lead in the use of PV resources, with 75 percent of the German utilities surveyed currently using PV as part of their energy resource portfolio. An additional 15 percent of utilities are considering adding PV to their portfolio within five years. To a large extent, this reflects a decade-long effort by the German government to support renewable energy.

Among U.S. utilities, 44 percent of those surveyed indicated they had PV solar energy resources and another 33 percent consider PV solar power generation for use within five years.

"Clearly, U.S. utilities, and their customers, have been exploring the PV market. To some extent, they may also have been learning from activities in markets such as Germany," said Mike Taylor, director of research at SEPA. "The large number of U.S. utilities that are using PV systems indicates that they are building up their experience with the technology in anticipation of expansive solar growth and new policy initiatives that could occur."

The survey found that renewable energy requirements and government requirements are the top two global factors behind the utilities' decisions to integrate PV supply into their energy portfolios. This is due to the higher costs of PV energy relative to retail and wholesale electricity prices, and, more importantly, the prevalence of various procurement and incentive requirements in different countries.

"Overall, the survey indicated that federal policy and state regulatory levels have strong influence over utility procurement decisions and strategies," Mr. Taylor said. "Although price declines will continue to make PV more competitive with retail and wholesale electricity pricing, it is unlikely that the importance of policy will decline significantly in the near-term."

"U.S. utilities will continue to have strong influence over compliance options for meeting national or state-level renewable portfolio standard (RPS) obligations, but while EU utilities feel a similar influence from policy, their mechanisms and processes for acquiring PV generation are very different," Mr. Velosa said. "This points to a hazard for the PV industry. If policy does not adapt to the changing pricing environment and other budgetary pressures, there may be a backlash against PV and other renewable energy sources."

"Big Seven" Smartphone Applications to Drive Future Hardware Designs

Smartphone manufacturers need to accommodate seven core smartphone applications, the "Big Seven", in their next generation handset designs, according to In-Stat. These big seven applications include email, games, social networking, instant messaging, mapping & directions, music & radio, and weather. Combined, the big seven will account for 7 billion downloads worldwide in 2014.