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KT Corporation: Transforming a state-owned enterprise to create an agile organization

The polite chatter in the room ebbed away as Dr. Suk Chae Lee, CEO of KT Corporation (KT), Korea's largest telecommunications firm, took his place at the head of the table. It was August 19th, 2011, and on this rare sunny day in Seoul, Lee had gathered his senior management team for a meeting. On the top of Lee's agenda was how to ensure that the change program he had kick-started two and a half years ago could be embedded into the organization's culture.

Lee had taken the helm at KT at a critical stage: the former state-owned enterprise had been suffering a decade-long decline since the market was deregulated. Worse, just prior to his arrival, several of KT's top officials were accused of corruption and were dismissed. Stepping into the breach was Lee, a former government Minister and college lecturer, who had no previous experience running a private sector firm, let alone a telecommunications giant.

A series of radical moves followed, with KT's lightning-quick merger with its wireless sister company, a new company structure, a cleansing of the ranks, and the establishment of an innovation initiative assisted by US-based consultancy Strategos (a division of Innovaro, an innovation services firm). Externally, Lee oversaw the launch of the Apple iPhone – a controversial move in Korea, and a move into Cloud computing ahead of customer demand.

But as he neared the end of his three-year term as CEO, Lee felt that there was a lot more that needed to be accomplished. Much of the work that had been done had not yet showed up, in a significant way, in KT's financial results. Revenue in KT's wireline business, historically the backbone of the Korean telecommunications industry, continued to decline year-on-year. Wireless revenues – which were supposed to be the growth engine – were expected to rise less quickly than at SK Telecom, KT's chief rival in the field. In August 2011, KT's stock price was lower than the start of 2010.

Internally, Lee sensed that a change in the culture was beginning to occur, but was far from complete. According to Lee, KT needed to become more effective, more innovative, and more aggressive. If the core of the corporation did not change fast enough – or even

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worse, if the ingrained culture ended up rejecting the new improvements that had been made – Lee feared that KT's long-term survival would be at stake. It was mid-afternoon, and Lee began engaging his senior management team in a broad-ranging discussion about international affairs and domestic politics. As he steered the conversation towards the issues at KT, Lee thought about how he should approach the last six months of his first term in office. There was hope that there would be a second three-year term. But for now, Lee had to act as if the next half year would be his last stint as the firm's leader.

The Korean Telecommunications Industry

After being damaged in the Korean War in the 1950s, South Korea rebuilt and expanded its telecommunications facilities through a series of economic development plans starting in 1962. An increased demand for telephone service led to the formation of the Korea Telecommunications Authority in 1981 which achieved, by the mid-1980s, a nationwide telephone network. In 1989, as a result of pressure from the U.S. to open the Korean telecommunications market, competition was introduced into the sector. The privatization was overseen by the Ministry of Information and Communications, despite opposition from KT, the incumbent provider. In 1994, KT sold its 23% share in Korea Mobile Telecom, its wireless arm, to SunKyong Group (SK) which renamed its acquisition SK Telecom. When other competitors started entering the wireless market, KT launched KT Freetel in 1997 as a separate (but controlled) entity to compete in the space[1] and continued to own a majority stake in it.

The next decade saw the rapid growth of wireless services as consumers purchased mobile phones, and the gradual decline of KT's wireline revenues as a result of a shift in the general market and competition. By 2008, the top three competitors in the market were KT, SKT, and the LG group of companies (LG Telecom – wireless; LG Dacom (wireline); and LG Powercom (Internet).

SK Telecom was the largest wireless operator in Korea, with 25 million subscribers representing 50% of the market. It was controlled by the SK Group, one of Korea's largest *chaebol*, or conglomerates. SK Telecom focused on wireless and Internet services, and had achieved many firsts in its 15 year history: launching the first digital multimedia broadcasting satellite (2004) and introducing the world's first high-speed downlink packet access (HSDPA), a 3G wireless communications protocol (2006).

The LG group of companies, later renamed **LG U+**, was controlled by the LG Group, another large Korean *chaebol*. It was Korea's third largest wireless operator and was one of the first firms to launch a 3G wireless service. In January 2010, the LG group of companies merged to form LG U+. Historical and forecast operating statistics and financial information for SK Telecom, LG U+, and KT, can be found in Exhibit 1. Revenue breakdowns for the three players can be found in Exhibit 2.

[1] Condensed from H.S. Jung, "The Telecommunications Market in Korea: Current Status and Future Challenges", Center for Information Policy Research, Harvard University, November 2000

Most Korean consumers had wireline telephone service, purchasing additional services such as Internet protocol TV (IP-TV); satellite TV; and broadband Internet over the telephone. Due to years of investment in a fiber-optic network, Korea led the world in the proportion of households who had broadband Internet access, with 12.2 fiber-optic connections per 100 inhabitants in 2008.[2]

Wireless phones and services were purchased from retail stores located across the country, owned by chains and independent operators. These retail stores, typically 400 square feet in size, generally carried a range of mobile phones and accessories. While it was typical for consumers to haggle with sales employees over the product price, the cost of mobile phone service plans was fixed.

KT Corporation

KT had been trying to move beyond its roots as a public utility to compete on the same level as the other Korean telecommunications firms. The first set of reforms in the early 1990s gradually phased in competition while allowing KT to maintain its monopoly on local telephone lines (for which large capital investments continued to be necessary). The remaining competitive restrictions were dismantled in 1995, allowing unfettered access to local, long-distance and other services. KT struggled to remain competitive as 25 new firms entered the market from 1996-1999 (see Exhibit 3 for a list of existing and new service providers by year of entry). In 2000, there were calls for KT to transform its business:

> KT, the largest and oldest telecom service provider with established nationwide telecom facilities, will urgently need to transform itself into the leading comprehensive IT service provider through active structural reform and privatization and by extending its businesses beyond traditional legacy services to new IT services…[3]

In 2008, KT generated revenues from seven different business lines: Internet access; Internet applications (for example, e-commerce software); data; wireline telephone; LM, or land-to-mobile transmission of calls from other carriers; wireless; and real estate. A breakdown of its quarterly earnings by service line can be seen in Exhibit 4. Despite the general awareness that changes had to be made to improve KT's competitiveness, eight years later, KT, in many respects, continued to act as if it were a government-run organization.

Strategy

"For the past 100 years, operating a telecommunications firm was similar to running the only petrochemical plant in a manufacturing base," stated one executive. "You built this big factory and didn't worry about how to sell your products because your customers – all

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[2] http://goldsteinreport.com/article.php?article=6315
[3] H.S. Jung, "The Telecommunications Market in Korea: Current Status and Future Challenges", Center for Information Policy Research, Harvard University, November 2000, page 5.

of whom needed your product and had no alternatives - would eventually find you." KT's principal strategy in 2008 was to protect revenues and profits from its wireline or PSTN business in order to fund growth in other areas. Indicative of a technically-focused, incumbent operator, large amounts of capital were allocated to maintaining its nation-wide telecommunications infrastructure.

Some of the excess cash flow earned from its legacy operations was used to launch competing services that their main competitors had developed. New services – such as broadband or wireless features were meticulously planned years in advance. KT relied in large part to its installed base of customers - and strong brand awareness - to pick up market share.

Structure

From the outside, it seemed as if KT was one single, cohesive organization (Exhibit 5 shows KT's organization chart before its merger with KT Freetel). In reality, KT operated as if it were a holding company with seemingly independent planning and business units.

Each business unit was organized by project – for example, media or IT – and had self-contained sales groups. Few resources, apart from office space and human resources, were shared between the units. Every time a potential new opportunity arose, a new business unit was formed to take advantage of it.

Funding for business units was allocated during a year-long budget cycle beginning in August of each year. Ideas were gathered by business unit heads and submitted to the planning groups. Six months later, budgets were allocated. Once they knew what their budgets would look like, if any equipment or external services were needed, RFIs (request for information) were sent out to suppliers in February. A month after the RFIs came back in June, RFPs (requests for proposals) were sent out in August and vendors selected.

"There used to be no concept of costs for each action, each activity," said a senior executive. "KT used to operate based on budgets and units, which were not self-adjusting, meaning they were not responsive to changing market conditions. If the allocation for a particular set of items was made, the monies would be spent."

Culture and Systems

In 2008, KT was a hierarchical firm, similar to other Korean companies. Executives, from the CEO down, had the privilege of sitting in well-appointed, spacious offices. At meetings, employees sat by rank, with the most senior executives would sit at the heads of the table, and the most junior sitting on benches behind the main table. Employees were expected to defer judgment to the most senior executive in the room and dissenting opinions were not only as unwelcome, but impolite. Information and responsibility for tasks cascaded with top executives dictating strategic and even executional details.

In the past, people were promoted based on seniority or influence, with very little attention paid to actual performance. "When faced with a difficult situation, executives were known to avoid getting involved," noted a senior executive. "If something went wrong, you were fired. But nobody got fired for doing nothing."

It was typical for top positions to seem like a revolving door for executives moving up through the organization. And when the new person took charge, plans – even those in place for years – could be quickly scrapped for a new direction preferred by the new gentleman – and it was almost always a man – in charge. Employees were used to this routine, and those who wished to remain in favour knew that they needed to vocally reject the old plan and praise the new one. At KT's top level, executives stayed in their post for up to three years, on average.

With no significant changes to the organization after deregulation, KT struggled to compete in new markets while its dominant share in wireline eroded gradually. The decline in financial performance accelerated with the onset of the global financial crisis in 2008. In the third quarter of that year, profit dropped by 48% on a year-over-year basis to 161 billion Korean Won (KRW). But what drew Korean federal prosecutors to investigate the company were allegations of bribery at the highest ranks.

The corruption probe and a new CEO

An internal investigation at KT Freetel in September 2008 led to the arrest of its CEO on charges of receiving bribes from subcontractors.[4] On November 3rd 2008, KT's CEO was accused of accepting bribes in connection with preferential access to subcontracted work. He resigned on November 6th 2008.[5] Market observers believed that the arrests – leaving both KT and KT Freetel without their leaders – would disrupt a planned merger between the two firms.[6]

KT's board of directors and the government put out an open call for qualified executives wishing to be the next CEO of KT. Since there were no takers, they took a proactive approach, seeking out individuals they felt were suited for the job. One candidate was Suk-Chae Lee, a former Minister of Information & Communications.

Suk-Chae Lee

With a bachelor's degree in business administration from Seoul National University, an M.A. in political economy, and a Ph.D. in economics from Boston University, Lee seemed destined for a job in government or in the academic world. His first thirty years were spent in the civil service, where he held significant positions in the Korean government including Chief Economic Secretary for the President, Vice Minister of Finance & Economy, and Minister of Information & Communications from December 1995 to August 1996.

[4] http://www.telecompaper.com/news/korean-prosecutor-arrests-ktf-ceo-on-bribery-charges
[5] http://www.telecomasia.net/content/kt-ceo-resigns-facing-arrest-warrant-0
[6] http://www.telecompaper.com/news/korean-prosecutor-arrests-ktf-ceo-on-bribery-charges

Lee's penchant for being direct stood in stark contrast to many of his colleagues who preferred to conform. As Budget Director of Korea's Economic Planning Board, he insisted on detailed plans for budget proposals from all government departments despite strong resistance from the ministries. Lee made strides in reducing the influence politicians had on the Board, imposing discipline on how discretionary funds were spent. In 1992, alarmed at the potential for economic disaster, he was able to convince the ruling government to disregard their election promises and put Korea on an austerity plan. He achieved this despite the fact he was only given 25 minutes to present his case to the ruling party.

As Minister of Information & Communication in 1996, Lee championed the selection of CDMA (Code Division Multiple Access) in a period of significant uncertainty over global standards. He eventually won over the various stakeholders in the industry and at the government level. In 2001, federal prosecutors arrested Lee on charges he accepted a bribe from LG telecom. Although he was later found not guilty, he spent seven months in jail for the allegations. Lee stated simply, "I had my own philosophy and doctrine. Eventually, the Korean Department of Justice dropped their case against me." By this time, Lee had built a strong reputation as a trustworthy individual. However, dismayed with the state of politics in his home country, Lee moved to the US to teach economics in college.

"I never dreamed of being the CEO of a company," said Lee. "I thought I was a government man." But his time abroad allowed him space to think about the issues in Korea, and he believed that a new technological change was occurring. He continued:

> As a Minister, I was trained to draw a picture with just a bit of information, whether rightly or wrongly. I was worried Korean companies were wasting their time and that they would be left behind in the next technological shift. I accepted the job as CEO of KT because I saw that KT delivered me the materials with which I could participate in the change effort.

Lee becomes CEO of KT

Suk-Chae Lee was offered the CEO job in December 2008. Although his term would not officially start until January 2009, Lee went to work right away. Lee summoned KT's executives to his home for two nights of meetings, with discussions lasting until 7 am in the morning. "As a policy maker, the most important skill is to be able to weigh what is important and what is not; what is urgent and what is not." He saw three key issues he needed to tackle immediately:

First, he wondered what KT should do about the challenge of VoIP (Voice over Internet Protocol), which was booming thanks to free providers such as Skype. KT was worried about the impact of VoIP on its wireline, or PSTN revenues. They believed that embracing VoIP would lead to a collapse of the PSTN business. Lee disagreed, resolving to launch VoIP as a service as soon as possible.

Second, he had doubts that the old KT organization structure – suitable for a public entity in the 1980s – would be the most effective way of dealing with KT's current issues. During the two nights of meetings, one senior executive worked up the courage to say that, if left with its current structure, KT was likely to fail. Later on, Lee noted that this one comment changed the mood of the conversation, prompting other executives to begin constructive criticism of their own firm.

Third, he wanted to revive the merger of KT and KT Freetel because KT's cash flow from its legacy business was the key to boosting KT Freetel's wireless growth business. With the controversy surrounding the firm and the global financial crisis threatening local economies, approaching the merger via the typical route – formal roadshow presentations, a drawn-out regulatory process – would endanger the future of both firms. Lee took an all-out approach, pushing for an immediate merger of the two despite loud opposition from SK Telecom and other rivals. When the chairman of the Korean Communications Commission (KCC) implored Lee to back down, the latter refused. Lee eventually convinced the KCC of his logic and they allowed the merger to proceed.

Forty days after he began working on his new role, in his inauguration speech to KT's employees, Lee did not mince his words. He thanked KT's employees and then moved quickly to outline the issues he saw:

- Our core target market has virtually stopped growing.
- KT seems hesitant in taking any action.
- Our profit margin is falling.
- Profits are not meeting our expectation in every area we have newly entered.
- That undermines the morale of our staff members.
- Young talent is constantly moving out to other companies.
- Our partner companies are more critical than affectionate about us.
- Korean public's awareness of KT as an IT company is much lower than that of our competitors.

He stated that his review of KT's culture, innovation and structure revealed clues as to why KT was underperforming its peers:

> Let me tell you something about Naver.[7] People at Naver don't consider KT or any portal service providers as their competition. The reason is simple. They regard themselves as owners while they see us as mere paid employees, and they know that paid employees can never match owners. Second, innovation is necessary in every major area such as the way we work, our organization and its culture, personnel system and training. Next, organizational issues: many people say KT is a center-oriented, control-driven organization. I want to change this into a field-oriented, innovation-driven organization which gives autonomy to its members.

[7] Naver was a popular internet search portal in South Korea, with its own proprietary search engine, and had a market share of 70%.

Lee went on to touch on important topics such as personnel, compliance, and cost reduction as challenges KT needed to address.

Rolling out the initial changes in 2009

Having spelled out the challenges facing KT in this stark way, Lee then began to make changes across the organization. He cleared the top management ranks of those he felt would not be helpful in moving the company ahead, even inviting the federal prosecutor into the firm to assist in investigating and charging corrupt employees. A new organizational structure was put in place, breaking up the old KT into three CICs, or autonomous company-in-company units. A new organization chart can be found in Exhibit 6.

In total, 30% of senior executives were recruited from outside the firm. Many of these employees came from diverse industries such as finance, banking, and manufacturing. Lee also made a point of hiring senior female executives where possible. These new and newly-promoted executives started to have an impact on the firm (see Exhibit 7 for a list of the top executives in the firm). The majority of top 100 executives at the Senior Vice President level and higher had been in their positions since December 2010.

Lee received support from KT's trade union, which spoke for the company's unionized workforce (comprising 85% of employees). In an unprecedented move, KT's trade union offered to assist in shedding 16% of KT's workforce by 2010, mostly through voluntary attrition. More amazingly, the trade union moved to transform its seniority-based wage scheme to become performance-based. These moves signaled to Lee that KT had moved beyond its formerly antagonistic relationship with its trade union.

As another way of bringing in fresh thinking, starting in June 2009, 1,000 new employees were hired, of whom 300 had only high school education. In Korea, the lack of a university education was widely seen as career-limiting. Consequently, many high school graduates were stuck in menial or temporary jobs. For Lee, a shift from hiring only university-educated employees was an important one for the company and the country. In addition, he calculated that the new employees would be very grateful to be given a chance to have a real career and would be supportive of change in the workplace. He stated:

> In Korea, many parents have sold off their paddy fields to fund their children's education – there is a 75% university participation rate. But there are a limited number of jobs when they graduate. Hiring high school leavers is a signal that we can find great employees from the pool of high school graduates as well.

Some executives immediately sent visual signals that change was imminent. "In my first week at work, I asked my team to bring my desk out of my office and into the middle of the floor," said a senior executive. "I turned my former office into an idea room."

KT's processes, best described as being suited for a manufacturing context, were overhauled. For example, as late as 2009, the only method of communication within KT was through IM, or instant messaging. Email was only available for external stakeholders. Because IM could only be accessed while at one's desk, keeping the IM system in place, and sending frequent messages to employees, was one way the old KT culture kept tabs on employees. When Yung Kim, a senior executive who had come from BT arrived at the firm, he told his direct reports that he would no longer be answering any IM messages. If they wanted to reach him, they could email him or speak to him in person.

Procurement was another area that was re-examined. KT's old procurement system handed out contracts based only on which bid was the lowest. This frustrated long-standing vendors, especially small- to medium-sized enterprises (SMEs) who depended on steady contracts. In June 2009, Lee announced that KT would now work with SMEs on a "win-win" basis, and even offered to reduce credit terms to help SMEs with their cash flow requirements. Calling this new approach "Grow Together", Lee hoped that innovative practices and products developed by SMEs would benefit KT businesses. During the same month, the merger with KT Freetel was completed and the new KT was unveiled.

Lee was keen to look externally for solutions. On a visit to the U.S. in June 2009, he visited high tech startups and venture capital firms. A month later, he walked into an Apple shop in the U.K. and was impressed by the well-designed layout and the fact that consumers could play with the devices before purchasing them. Upon his return to KT, Lee asked his team to work with its wireless retail channels to recreate the experience in at least 100 shops. He set aside funds to open a few key corporate-owned stores. In July 2009, KT's company slogan "All New" was replaced with "Olleh Management" and "Olleh KT". An innovative Television and print campaign accompanied the rebranding of the organization.

With these high-level changes in place, Lee then worked with the leaders of the three major divisions (CICs) to shake up their new organizations, their product and service offerings, and how they operated.

Mobile Business Group

In 2010, the Mobile group was responsible for meeting growing demand for broadband Internet access via mobile phones and laptop computers. It aimed to expand KT's wireless data communication business by working with handset manufacturers to broaden its selection of smart phones and handsets. Mobile was also working on developing various software applications for mobile phones. Led by Hyun-Myung Pyo, the Mobile group, widely-acknowledged as the "growth" business in KT, generated 11.3 trillion KRW in operating revenue 2010.

A clear sign that the new KT was not prepared to follow its competitors came in November 2009 when it brought the Apple iPhone to Korea. The skeptics believed that Koreans would not embrace a foreign device such as the iPhone when there were strong local handset manufacturers like Samsung. In addition, the data tariff, at 416 KRW per megabyte, seemed too high for consumers to consider using a smart phone on a regular basis. Moreover, the regulators and competitors were concerned with the disruption the iPhone might cause in the domestic market. Lee saw it another way: he viewed the iPhone – and its accompanying App Store – as a way to push the Korean industry from focusing on hardware to software. By bringing in the iPhone, he planned to trigger nothing less than industry-wide change.

To facilitate the iPhone's entry, he asked his team to propose data tariff reductions. The first few proposals were understandably conservative – 10-15% decreases. After all, the Mobile Business Group enjoyed large margins on data. "There was a lot of apprehension about a reduction in the data tariff," stated a senior executive. "Mobile was generating a significant portion of its operating income from data and any decrease in the rate would have an immediate effect on margin." On the other hand, Lee was convinced that the iPhone would not be adopted widely if users were restricted, cost-wise, from accessing the data-rich services the iPhone platform facilitated.

Unsatisfied with a token reduction, Lee ordered an 88% decrease in data rates, to 50 KRW per megabyte, to accompany the iPhone launch. Commenting on the unprecedented reduction in tariff rates, one senior executive said: "Sometimes, in order to succeed, you have to give up what you enjoy."

The launch of the iPhone in late 2009 was highly successful, with over 2.7million iPhones sold and supported in Korea. As data usage for the iPhone was 110 times data usage for regular feature phones, the margins from data actually increased in aggregate. The iPhone's introduction spurred Samsung and LG Electronics to develop new models of smartphones.

Another initiative was KT's decision to push the "Wholesale Application Market", a collaborative venture with other local and international telecommunications firms, as a way of competing with the iPhone's App Store.

Driven by the looming convergence of the mobile industry with the financial payments industry, Mobile Business Group was developing a Mobile Wallet, which would allow consumers to use their phones for payments and other services. Utilizing near field communication (NFC), the phones included an NFC chip that allowed encrypted data to be sent to a reader on a point-of-sale cash register, for example. KT consumers enabled with Mobile Wallet would be able to pay for sundry items by holding their phones near a reader and entering a personal identification number (PIN) when prompted. The phones could also be used to send a proof of identification, interact with others in multi-player mobile games, and share files. Instead of testing Mobile Wallet in a few key areas, KT's Mobile group made the decision to roll out the service across the country in 2011. There seemed to be significant opportunity for Mobile – and other CICs – to tap into KT's customer database. One senior executive commented:

> The biggest asset in KT is its customer database. When I first entered the telecommunications industry, I was shocked to learn how telcos neglect their customers. We've made huge progress in this area. We used to keep KT and KT Freetel customer lists in different databases and we were treating them as separate customers. Now, we are starting to count the number of products sold by customer and we will treat a customer who spends US$500 a month differently from a customer who spends $50 a

> month. In addition, we're now able to target specific customer segments. We can allow partners like P&G to send coupons directly to young urban women, for example. These coupons for shampoo could be delivered to their mobile phones. Whichever firm utilizes its customer database better than the others will be a winner.

Home Business Group

The Home Business Group offered a range of information technology and telecommunications services for households. Its goal was to be the one-stop-shop for these services which included fixed-line telephone service, also known as PSTN, Internet phone service (VoIP), and Internet Protocol Television (IP-TV). Yu-Yeol Seo headed up Home, which generated 5.1 trillion KRW in operating revenue in 2010.

PSTN was KT's legacy national fixed line telephone business and was suffering revenue declines of about 12% per year. While Korea's population had been stable at about 48 million since 2006, domestic long-distance calling minutes had fallen from 14.7 billion in 2006 to 7.3 billion in 2010. The number of local calls had halved in the same period. But KT had built a base for an expansion of services via its fixed line infrastructure. It had transitioned all of its fixed line services from analog lines (copper wire) to fiber-optic lines by the mid-2000s. Fiber-optic lines provided significantly greater transmission capability with less signal fading.

As PSTN continued to generate cash flow which could be invested in new opportunities, Home's ultimate goal was to find a way to provide additional services – beyond telephone, IP-TV and Internet - through its fixed line network. Calling it the "smart home" initiative, new services could include security monitoring or proprietary educational content, services which would appeal to home owners. "We just have to let go of the notion that wireline is a declining business," said a senior executive.

In searching for new opportunities to sell product and provide data services, the team dusted off robot technology that had been developed with the Korean government and overcame hurdles to commercialize the KIBOT, a robot pet for children. Costing 500,000 KRW, the KIBOT was a combination of telephone, sensor, media content, video phone and camera. Lee was the sponsor for the project, which saw the Home team partner with iriver, an electronics company in Seoul after Samsung and LG Electronics passed on the opportunity.

Global and Enterprise Business Group

The Global and Enterprise Business group aimed to be a one-stop vendor to corporate customers, SMEs, and government agencies. It provided services such as data communications design and the development of information technology infrastructure. For example, KT helped a public transportation client build an urban transit infrastructure maintenance system, allowing crews to use their smart phones to send maintenance results back to headquarters. Led by Sang-Hoon Lee, Global and Enterprise Business Group generated 3.7 trillion KRW in operating revenue in 2010.

"There was a self-assured attitude that permeated the organization," said a senior executive from this group. "The old culture could be described as very government-like. When I joined KT, it seemed as if we did not have one company but rather a few hundred companies under the same umbrella. No one was sharing resources and departments still existed whether they made money or not. There was no concept among managers of what actions or activities cost the firm. It was like the Titanic, and our competitors were the icebergs up ahead."

Other new business developments

KT's Corporate Centre initiated programs as well. The newest program was Cloud computing, which was the provision of on-demand applications from centrally-located data centres. The investment in the Cloud computing initiative had been prompted by Lee's visit to the US in March 2010. KT's IT team had learned about Cloud computing in 2009 and had monitored developments since then. Following Lee's return, a formal program was set up to pursue the initiative.

But to make Cloud computing successful, it was clear to Lee that they had to act quickly, which required a circumvention of KT's lengthy budgeting and approval process. If the Cloud computing team had followed the current budgeting process, they would have had to submit the request and receive the allocation a year later. Forced to purchase in bulk, they would have been unable to take advantage of the 50% price reductions in equipment every six months, a norm in the IT industry.

Instead, Lee allocated them a special fund from which they could draw and make weekly purchases. KT launched Cloud computing in August 2010 and signed on 1,000 enterprise customers. But the process from idea to service was not without its challenges. Early in the implementation phase, the Cloud computing team discovered that their vendor would be unable to deliver services as promised. Instead of ignoring the issue – as would have been done in the previous regime – the Cloud computing team confronted the vendor, admitted to Lee that the program needed to be redirected, absorbed a $1 million loss, and hired a new vendor for the project.

Apart from launching new services, KT was expanding horizontally as well. "We don't have many former colonies like Britain, quipped an executive. "So there are fewer overseas expansion possibilities for us." One exception was KT's arrangement with Japan's Softbank, run by Masayoshi Son, a Japanese businessman whose family immigrated from Korea two generations ago. Before signing its joint venture for Cloud computing, KT had built a call centre, linking it to Japan with underwater fibre optic cables.

KT's diversification plans include purchasing a 39% stake in BC Card, a credit card transaction processing company, and Kumho Rent-a-car, the largest car rental-fleet operator in Seoul. These were investments in adjacent industries, according to KT executives, and positioned the company to enter other industries such as medical, farming and automotive.

"As for the size of our workforce, shedding staff would be an easy way of getting rid of people, but that's the US way. To use an analogy, imagine that there are too many people for one truck. The KT way would be to keep all the people, but prepare a new truck for the excess numbers".

Changes in the Working Environment

Lee made the decision to shift the entire KT head office campus from its remote location on the outskirts of Seoul, to several buildings in the heart of the city. "Before the move, we were monks, toiling away in our own environment," recalled a senior executive. To encourage work-life balance, the concept of "smart working" was introduced. Office space was refurbished from operational buildings around the city, allowing employees to elect to work remotely a few days a week or at home. This arrangement was especially helpful for the young women in the company who had to take care of their children. But it was clear to Lee that getting used to the concept of smart working would take some time. A senior executive commented:

> In Korean, the phrase "taking your desk away" means that you've been fired. So it was quite difficult at first for the team to wrap their heads around the fact that they could work remotely without facing consequences. A year after the implementation of smart working, we're still seeing attitudes change. For example, last week, I was told by a direct report that another executive could not attend the meeting because he was "smart working". I asked why he couldn't just call into the meeting. The look on my direct report's face indicated to me that the thought of teleconference did not even occur to him, that the idea of having a meeting meant that everyone had to be in the same room, speaking face-to-face.

The approval systems were streamlined. Instead of having six separate meetings, with six different levels of executives to get to a decision, the process was changed so all stakeholders could meet in the same room, at the same time, and arrive at a quick decision. This new process reduced the potential for misunderstanding, as a senior executive explained:

> It used to be the case that a vice president (VP) would come to meet another VP even though his junior employee was really the person in charge of the project. This was because the VP felt that he had to attend in order to not seem impolite to the other VP. But what ended up happening was that you'd have a VP who needed details and another who had none. When the message went down the organization, inevitably through a few directors and then finally to the junior in charge, the message would be altered, often significantly.

To tap into the expertise of those more familiar with the latest technologies, Lee assembled a group of junior employees and met with them on a regular basis, assigning them issues for their feedback. To ensure that he was constantly in contact with his 30,000 employees, Lee prepared regular video messages for the firm, which was broadcast every morning with KT and industry news.

Embedding Innovation in KT

> "Some people say our employees are not creative, they have no ownership. But when they come up with ideas, management does not always listen or they are criticized. Obstacles, like IT, are put up, and there is no feedback given to the employee." – *a senior executive at KT*

One of Lee's goals was to ensure that the momentum that had been built up at KT would continue whether or not he would continue as their CEO. One of the ways, according to Lee, was to instill "deep change" in the organization. That meant that the change effort at KT needed to reach not only its middle manager ranks, approximately 300 VP's in total, but the bulk of its over 30,000 employees.

As always, Lee was on the lookout for external sources of inspiration. In late 2009, on hearing that Gary Hamel, a noted author and Chairman Emeritus of Strategos, an innovation consulting firm, was in town at a bank client's office, Lee and Kim met with Hamel at his hotel. Hamel explained Strategos' approach:

> "Our goal at Strategos is to help our client companies outperform industry rivals by bringing innovation to the core of their business. Unlike some other consultancies, who like to take on all the key tasks themselves, our method is to develop innovation leaders within the firm, over a period of years, who take on such activities as coaching, skill-building, and mapping and monitoring of innovation-related activities. As the company's innovation capability is built, Strategos' involvement decreases".

Impressed with Strategos's methodology, Lee hired Strategos and recruited people from across the company to organize a designated innovation team called "Innovative Management (IM)." Lee intends to begin a multi-year process of shaping KT employees from the archetypal "KT men", a staidly corporate-type employee - to innovators ready to challenge the status quo.

By mid-2010, IM and Strategos had assessed the state of innovation at KT and found that significant improvements could be had. They found that while there were many innovation activities at KT, many were unfocused and other lacked support. "We were asked to climb a mountain," said a senior executive. "But when it came time to climb, we each headed off to different mountains." Together, IM and Strategos designed five programs intended to put in place, over the next two years, which would reinforce change at KT: engage employees in challenges; inspire with purpose and opportunity; prepare leaders;

strengthen the system; and build community. A high level plan of IM programs can be found in Exhibit 8.

“The goal is to create deep change in the organization,” said a senior executive involved, “The objective of the five programs is to tackle the five issues of unfocused activity, over-control, fragmentation, inconsistency and insularity. Strategos looks at the program as an integrated system of employees, leadership, opportunities, purpose and supporting system. Our employees will learn how to unlock their innovation potential through guided sessions: this is a very employee-centered approach.”

According to Gary Getz, Managing Director and global practice leader at Strategos, KT employees would “learn by doing and make business contributions in pilot innovation projects built around specific innovation challenges.” The first step was to select teams and topics, the second step was to involve KT employees in pilots and assist them in developing innovation skills as the “first wave pilots” were launched. The third step was to prepare for subsequent waves of innovation.

As IM and Strategos implemented its programs, it had to overcome some bias in KT. Getz stated: “When we started, many at KT saw the idea of innovation in a negative light. They called it “shedding our skin”, the way a snake moults. But many were happy with KT’s history and did not want to ignore their past successes. They felt that being innovative would be to admit failure, that they had to change because what they were doing was wrong.” Also there were different ideas of what innovation should, or could be. Some saw innovation as all sorts of changes, some saw it as internally-oriented and efficiency driven, much like Six Sigma.

For many employees, innovation was just another program, another fad that would disappear when the current slate of top managers moved on. But as IM and Strategos ran its programs, the tide of opinion began to shift as managers saw value in the skills the Strategos consultants were teaching them. By mid-2011, over 1,500 KT employees had been involved in one or more innovation activities led by IM and Strategos.

And these efforts led to results. The programme of activities facilitated by Strategos encompassed a large number of new projects and initiatives, some placed under existing business units, others done as stand-alone ventures. For example, some projects included an “Olleh Avatar”, which was designed to be the consumer’s alter ego in the services world. One of the first projects under the Olleh Avatar domain was the “Social Closet”, which allowed consumers to reflect their personality and body shape in the Avatar so that items, such as clothes, could be worn in the digital world. Future projects would allow consumers to direct the Avatar to perform chores for them such as bill payments. Related to the Avatar was the concept of the “Lifelog”, which was a personal database designed to follow consumers from cradle to grave. A digital stamp – mean to replace paper loyalty cards – was designed in another project.

Another team planned to launch “artist.com”, an intermediary to connect promising artists with companies and government entities who wished to commission their work. The intent was to disintermediate the mid-priced art world, taking a fee in the process.

Projects were not limited to new business opportunities; through “field challenges” involving large numbers of front-line employees, KT teams also used the new innovation methods to identify large numbers of small customer-oriented improvements, from placing account representatives’ personal phone numbers on the business cards they gave to customers to prioritizing mobile services resellers’ listings on the KT website in the order of their customer satisfaction rankings. Elsewhere in KT, there were innovation projects not linked with IM and Strategos’ efforts. Driven by KT’s Corporate Centre, the “Econovation” centre had been built in downtown Seoul. It was a series of offices outfitted with the latest computer equipment and software, and would be rented free of charge to low-income developers who could work on their own software projects.

While first wave of projects had started to come to market in 2011, Getz and his team knew that implementing “deep change” at KT was a multi-year effort and required the support of all executives involved. One of the biggest barriers, in Getz’s opinion, was the need for cultural change.

Grappling with cultural change

Nearly two years after Lee took charge, KT’s government-like culture continued to exist in the way individuals interacted with each other and with suppliers. KT, like Korean society as a whole, continued to function in a hierarchical fashion, and many agreed that cultural change would need more time to realize. While KT’s new structure – the three CICs—had been put in place to break up the old hierarchy, Lee was noticing that there was the danger new silos were being formed.

It was premature to declare that KT had developed an innovation culture. Many people were impressed with Strategos’s work. “I am a fan” said one. Others acknowledged that it was quite hard to get the level of creativity and challenge they wanted. “My boss needs to approve my idea before anyone else,” said a manager. “In KT, 100 talented managers cannot win over one incompetent director,” said a second. “We have an idea rejection system,” another offered.

A broader issue that the KT innovation team and Strategos had to tackle was the fact that while many KT employees were interested in the innovation program, many viewed it as just another certification exercise they had to undertake. “Adding to one’s professional credentials is important,” said a manager. “Some KT employees in the Innovative Management program are looking for the proverbial scholastic test at the end, the stamp of approval that confirms that they are now innovative.”

When projects were approved, they often joined a slew of other innovation initiatives that operated independently from each other. Strategos found that, within KT, there was a large variety of innovation-related processes, structures, resources and enablers that operated in isolated pockets. “There is a lack of long-range strategic planning,” said a manager. “Everything is due “as soon as possible.” “We are slaves to the KPIs (Key Perfomance Indicators),” lamented another. As a result, many innovation projects were stalled.

Within KT, there was enormous respect for what Lee had achieved in moving KT ahead. "He has a very clean decision-making style," said Yung Kim. "When he makes decisions, it's approved in flash." But of course, this top-down approach was not enough, and Lee still wondered how successful they were being in making the cultural change needed across the company. He was particularly concerned about his VP's – the 300 middle management level executives just below the top level. How could he engage this group as leaders of the needed change rather than protectors of the status quo?

Looking to the future

The broad industry trends in the Korean telecommunications industry in 2011 included the continued growth of wireless due to the introduction of smartphones such as the Apple iPhone and the Samsung Galaxy; the continued, slow decline of the traditional wireline business; large capital expenditure requirements to maintain and grow networks; and pricing pressures due to both competition and regulatory policies. KT's initial success with Cloud computing was given an additional boost when it signed, in May 2011, a $65 million joint venture deal with Softbank on a new Cloud computing and Data Centre.

Financially, however, KT had not yet emerged from a turnaround. In mid-August 2011, while the South Korean market was up by 14% since the start of the year, KT shares were down 14% for the same period. In 2010, KT generated 1.2 trillion Korean Won (KRW) in net profit from 20.2 trillion KRW in sales. It continued to be the leader in the wireline market, which generated 21% of revenues from wireline telephone access, 14% from Internet access, and 7% from data. Its growing wireless operation contributed 54% to revenues. Yet a senior executive saw that improvements could be made. Hong Jin Kim, Senior Executive Vice President (SEVP), Head of Transformation Officer, COO, Global & Enterprise Business Group stated:

> Here are some rough numbers. Our revenues from Home are about 5.1 trillion KRW; mobile is 11.3 trillion KRW; and we generate 3.7 trillion KRW from Global & Enterprise. Our profit margin is 10%. Three quarters of our business is in decline – how are we going to arrest that decline? On the tariff side, we're facing 220 billion KRW in reduction this year. We're coming out with new services and new ideas, but on the infrastructure side, we have a "free rider" issue, as if our competitors are using our highway without having to pay for it. There's rapid data explosion that requires us to ramp up our investments. Yet even as investment goes up, call quality seems to drop. In mobile, we face serious competition and large capital expenditure requirements. Yesterday (August 17th, 2011), we participated in a wireless auction for spectrum, going 11 rounds with SK Telecom. It's a war towards the tomb.

Back in the meeting, as his senior executives offered their ideas, Lee thought about the success that KT had enjoyed in the last two and a half years. "Whether we fail or succeed, it's up to you," he said to his team. "No one can predict how KT will turn out."

Everyone in the senior management team sensed that KT was on the verge of achieving something greater; that its next stage of growth was just around the corner. Yet Lee was aware that their efforts could fall apart. Change typically took years to ingrain and, up until now, less than 10% of the employee base had been directly engaged in innovation coaching and training.

“We’ve changed how we do work so that there’s a lot less overlap,” said a senior executive. “Now, our work-flow looks more like a factory operation, with new opportunities logged and tackled in order. But as we become more customer-driven, we need to get better at selling because what we’re selling is more complex; it’s not just a dumb pipe, but rather a package of services such as medical or insurance. To get to where we need to go, we need to get people with government DNA to act like professionals with sales DNA.”

There was no doubt in Lee’s mind that some employees were taking a wait-and-see attitude. He recalled his unsuccessful experience trying to convince farmers in Korea’s countryside. The farmers were used to harsh wind conditions but they knew that the winds would always pass. So they turned their backs to the wind, to wait out the storm. “Our goal is to be the Global ICT (Information Communication Transaction) leader”, thought Lee. But he wondered how that goal translated into actionable programs at KT.

Lee looked at the senior team in front of him. He thought about how he could overcome the inertia that existed in the middle of the organization. His term would end in six months and he hoped to have another three years as CEO.

Exhibit 1
KT, SK Telecom and LG U+
Key Forecasts

KT

	2009	2010	2011F	2012F	2013F	2014F	2015F
Wireless							
Subscribers	15,016,195	16,040,527	16,596,339	16,864,933	17,181,519	17,454,577	17,722,901
% change yoy	4.5%	6.8%	3.5%	1.6%	1.9%	1.6%	1.5%
Net adds	650,962	1,024,332	555,812	268,594	316,586	273,058	268,324
% change yoy	1.0%	57.4%	-45.7%	-51.7%	17.9%	-13.7%	-1.7%
Churn rate, monthly	3.7%	3.4%	3.1%	3.3%	3.1%	3.0%	2.9%
Wireless service revenue (Wbn)	6,198	6,631	6,782	7,010	7,191	7,355	7,445
% change yoy	3.8%	7.0%	2.3%	3.4%	2.6%	2.3%	1.2%
Wireline							
Broadband subs	6,952,833	7,423,607	7,823,580	8,244,961	8,689,037	9,157,031	9,650,231
% change yoy	3.6%	6.8%	5.4%	5.4%	5.4%	5.4%	5.4%
PSTN subs	18,052,168	16,634,607	15,594,538	14,334,098	12,842,296	11,447,935	11,106,610
% change yoy	-9.1%	-7.9%	-6.3%	-8.1%	-10.4%	-10.9%	-3.0%
VoIP subs	1,701,238	2,724,039	3,630,531	4,601,476	5,481,527	6,221,917	6,843,586
% change yoy	419.1%	60.1%	33.3%	26.7%	19.1%	13.5%	10.0%
IPTV subs	1,172,108	2,085,153	3,209,233	4,334,081	5,458,941	6,583,800	7,708,659
% change yoy	51.6%	77.9%	53.9%	35.1%	26.0%	20.6%	17.1%
Wireline revenue (Wbn)	8,744	8,442	8,173	8,041	8,043	8,127	8,322
% change yoy	-5.8%	-3.5%	-3.2%	-1.6%	0.0%	1.0%	2.4%
Total revenue (Wbn)	18,956	20,233	20,979	21,702	21,926	22,431	22,994
% change yoy	0.1%	6.7%	3.7%	3.4%	1.0%	2.3%	2.5%
Marketing (Wbn)	3,146	3,015	2,710	2,781	2,627	2,677	2,763
% change yoy	-11.6%	-4.2%	-10.1%	2.6%	-5.5%	1.9%	3.2%
Marketing to sales	16.6%	14.9%	12.9%	12.8%	12.0%	11.9%	12.0%
EBITDA (Wbn)	4,066	4,968	5,077	5,091	5,076	5,112	5,142
% change yoy	-16.9%	22.2%	2.2%	0.3%	-0.3%	0.7%	0.6%
EBITDA margin	21.4%	24.6%	24.2%	23.5%	23.1%	22.8%	22.4%
Operating profit (Wbn)	945	2,053	2,237	2,311	2,325	2,407	2,515
% change yoy	-34.5%	117.2%	8.9%	3.3%	0.6%	3.5%	4.5%
OP margin	5.0%	10.1%	10.7%	10.6%	10.6%	10.7%	10.9%
Net profit (Wbn)	605	1,172	1,391	1,444	1,486	1,596	1,721
% change yoy	14.8%	93.7%	18.7%	3.8%	2.9%	7.4%	7.9%
NP margin	3.2%	5.8%	6.6%	6.7%	6.8%	7.1%	7.5%
Capex (Wbn)	2,959	2,466	2,622	2,713	2,412	2,467	2,529
% change yoy	-6.1%	-16.7%	6.4%	3.4%	-11.1%	2.3%	2.5%

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Exhibit 1
KT, SK Telecom and LG U+
Key Forecasts

SK Telecom

	2009	2010	2011F	2012F	2013F	2014F	2015F
Wireless							
Subscribers	24,269,509	25,705,509	26,221,175	26,676,293	27,177,057	27,608,970	28,033,394
% change yoy	5.4%	5.9%	2.0%	1.7%	1.9%	1.6%	1.5%
Net adds	1,237,464	1,436,000	515,666	455,118	500,764	431,913	424,424
% change yoy	16.3%	16.0%	-64.1%	-11.7%	10.0%	-13.7%	-1.7%
Churn rate, monthly	2.7%	2.7%	2.2%	2.5%	1.9%	2.0%	2.0%
Total revenue (W bn)	12,101	12,460	13,432	14,379	15,059	15,807	16,609
% change yoy	3.7%	3.0%	7.8%	7.0%	4.7%	5.0%	5.1%
Marketing (W bn)	2,986	3,065	2,753	3,278	3,345	3,916	4,693
% change yoy	8.1%	2.6%	-10.2%	19.1%	2.0%	17.1%	19.8%
Marketing to sales	24.7%	24.6%	20.5%	22.8%	22.2%	24.8%	28.3%
EBITDA (W bn)	4,209	4,221	4,420	4,547	5,013	4,991	4,721
% change yoy	5.1%	0.3%	4.7%	2.9%	10.3%	-0.4%	-5.4%
EBITDA margin	34.8%	33.9%	32.9%	31.6%	33.3%	31.6%	28.4%
Operating profit (W bn)	2,179	2,035	2,277	2,281	2,633	2,508	2,130
% change yoy	5.8%	-6.6%	11.9%	0.2%	15.5%	-4.8%	-15.1%
OP margin	18.0%	16.3%	16.9%	15.9%	17.5%	15.9%	12.8%
Net profit (w bn)	1,288	1,417	1,471	1,690	1,911	1,893	1,443
% change yoy	0.8%	10.0%	3.8%	14.9%	13.1%	-1.0%	-23.8%
NP margin	10.6%	11.4%	11.0%	11.8%	12.7%	12.0%	8.7%
Capex (W bn)	1,769	1,844	2,000	2,157	2,259	2,371	2,491
% change yoy	-7.8%	4.2%	8.5%	7.8%	4.7%	5.0%	5.1%

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Exhibit 1
KT, SK Telecom and LG U+
Key Forecasts

LG U+

	2009	2010	2011F	2012F	2013F	2014F	2015F
Wireless							
Subscribers	8,658,490	9,021,490	9,208,627	9,493,154	9,671,358	9,825,061	9,976,098
% change yoy	5.5%	4.2%	2.1%	3.1%	1.9%	1.6%	1.5%
Net adds	448,784	363,000	187,137	284,527	178,204	153,702	151,038
% change yoy	12%	-19%	-48%	52%	-37%	-14%	-2%
Churn rate, monthly	3.5%	3.6%	3.1%	3.3%	3.2%	3.3%	3.3%
Wireless service revenue (W bn)	3,531	3,479	3,432	3,631	3,809	3,947	4,090
% change yoy	2.9%	-1.5%	-1.4%	5.8%	4.9%	3.6%	3.6%
Wireline							
Broadband subs	2,521,725	2,773,468	2,995,487	3,233,323	3,488,088	3,760,918	4,053,018
% change yoy	14.1%	10.0%	8.0%	7.9%	7.9%	7.8%	7.8%
PSTN subs	347,743	383,486	408,155	420,525	426,386	427,559	427,644
% change yoy	5.2%	10.3%	6.4%	3.0%	1.4%	0.3%	0.0%
VoIP subs	2,125,617	2,749,514	3,399,942	4,107,443	4,748,996	5,288,739	5,741,935
% change yoy	76.8%	29.4%	23.7%	20.8%	15.6%	11.4%	8.6%
IPTV subs	344,218	613,063	915,329	1,221,750	1,528,202	1,834,653	2,141,104
% change yoy	428.9%	78.1%	49.3%	33.5%	25.1%	20.1%	16.7%
Wireline revenue (W bn)	2,567	2,826	3,152	3,408	3,653	3,906	4,166
% change yoy		10.1%	11.6%	8.1%	7.2%	6.9%	6.7%
Total revenue (W bn)	7,587	8,501	8,228	8,933	9,450	10,012	10,591
% change yoy		12.0%	-3.2%	8.6%	5.8%	5.9%	5.8%
Marketing (W bn)	1,790	2,055	1,876	2,011	1,905	1,962	1,964
% change yoy		14.8%	-8.7%	7.2%	-5.3%	3.0%	0.1%
Marketing to sales	23.6%	24.2%	22.8%	22.5%	20.2%	19.6%	18.5%
EBITDA (W bn)	1,531	1,907	1,741	1,915	2,231	2,330	2,432
% change yoy		24.6%	-8.7%	10.0%	16.5%	4.4%	4.4%
EBITDA margin	31.0%	37.4%	34.6%	35.0%	38.8%	38.5%	38.2%
Operating profit (W bn)	654	655	463	542	767	772	774
% change yoy		0.2%	-29.4%	17.1%	41.6%	0.6%	0.2%
OP margin	13.2%	12.9%	9.2%	9.9%	13.4%	12.8%	12.1%
Net profit (w bn)	462	570	303	339	494	497	496
% change yoy		23.3%	-46.8%	12.0%	45.5%	0.6%	-0.2%
NP margin	9.4%	11.2%	6.0%	6.2%	8.6%	8.2%	7.8%
Capex (W bn)	1,248	1,148	1,700	1,600	1,524	1,579	1,636
% change yoy		-8.0%	48.0%	-5.9%	-4.8%	3.6%	3.6%

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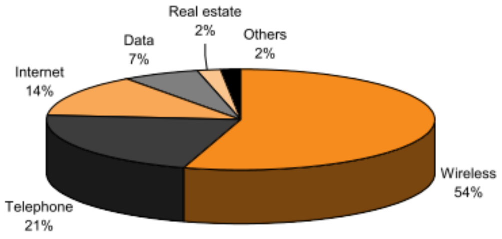
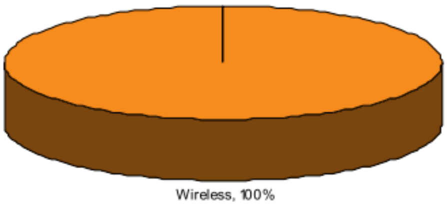
Exhibit 2
KT, SK Telecom and LG U+
Revenue Composition, 2010

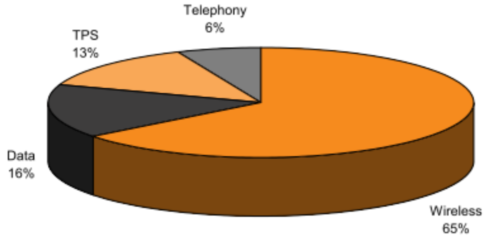
KT



SK Telecom



LG U+



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Note: TPS = Triple Play Services, including telephone, Internet and IP-TV

Exhibit 3
New Service Providers and Status of Facilities-Based Service Providers

Service	Existing Service Providers	New Service Providers				Number
		1996	1997	1998	1999	
Wired:						
• Local	KT		Hanaro			2
• Long-distance	KT, Dacom		Onse Telecom		Hanaro	4
• International	KT, Dacom	Onse Telecom				3
Leased line	KT, Dacom	Thrunet, G&G Telecom	Onse Telecom	Dreamline	Hanaro, SK Telecom, Hansol PCS, Kangwon Mobile Telecom, PowerCom	11
Wireless:						
• Mobile telephony	SK Telecom, Shinsegi Telecom					2
• PCS		KT Freetel, LG Telecom, Hansol PCS				3
GMPCS				SK Telecom, Dacom		2
TRS	Korea TRS	Anam Telecom, Seoul TRS, Saebang Telecom, Daegu TRS, Kwangju TRS, Cheju TRS	Choongnam TRS, Chungbuk Mobile Telecom, Kangwon Telecom, Saehan Telecom			11
Radio paging	SK Telecom, Naray, Seoul, Buil, Saerim, Kwangju, Shinwon, Chunbuk, Saehan, Kangwon, Cheju	Happy Telecom	Bukyung			13
Wireless data transmission		Airmedia, Intec Telecom, Hansae Telecom				3
Satellite data transmission					Korea Obcom	1
B-WLL					Dacom	1
Total	15	27	9	3	8	37*

*Operators providing multiple services counted only once.
B-WLL = broadband-wireless local loop
GMPCS = global mobile personal communications by satellite
PCS = personal communications system
TRS = trunked radio service
Source: Ministry of Information and Communications (MIC), *White Paper: Cyber Korea 21* (1999)

H.S. Jung, "The Telecommunications Market in Korea: Current Status and Future Challenges", Center for Information Policy Research, Harvard University, November 2000, page 15.

Exhibit 4
KT earnings by service line, 2008

(W bn)	1Q07	2Q07	3Q07	4Q07	1Q08	2Q08	3Q08	2008F	Run rate
Total sales	2,966.7	3,003.8	2,952.6	3,012.9	2,955.4	3,029.0	2,913.5	12,205.1	73%
% Yoy change	2.4%	1.2%	-1.6%	3.2%	-0.4%	0.8%	-1.3%	2.3%	
% Qoq change	1.6%	1.3%	-1.7%	2.0%	-1.9%	2.5%	-3.8%		
1. Internet access	524.7	528.5	528.1	537.4	528.1	539.8	534.1		
2. Internet application	91.3	97.7	105.6	95.3	106.9	148.2	156.5		
3. Data	406.9	407.7	404.9	408.3	402.4	413.0	419.8		
4. Telephone	1,053.1	1,034.0	1,023.1	1,074.4	1,023.2	1,016.3	970.2		
5. LM	411.9	405.3	387.8	392.1	364.1	358.5	340.6		
6. Wireless	379.5	398.5	362.6	370.9	419.9	428.8	364.6		
7. Real estate & Others	99.3	131.9	140.5	134.5	110.8	124.5	127.6		
EBITDA	1,000.8	867.8	873.8	819.9	815.4	861.5	889.7	3,325.9	77%
Operating Profit	523.5	377.6	332.0	196.5	333.0	367.6	329.4	1,130.1	91%
Pre-tax Profit	526.4	286.6	308.0	142.7	197.8	193.5	198.9	694.9	85%
Net Profit	377.6	222.4	252.7	115.5	154.1	160.5	161.4	501.2	95%
Profit Margins									
Service EBITDA margin	33.7%	28.9%	29.6%	27.2%	27.6%	28.4%	30.5%	27.3%	
Operating Profit margin	17.6%	12.6%	11.2%	6.5%	11.3%	12.1%	11.3%	9.3%	
Pre-tax Profit margin	17.7%	9.5%	10.4%	4.7%	6.7%	6.4%	6.8%	5.7%	
Net Profit margin	12.7%	7.4%	8.6%	3.8%	5.2%	5.3%	5.5%	4.1%	

Source: Company data

Gina Kim, “KT Corp”, ABN Amro Asia Ltd., 31 October 2008, page 2.

Exhibit 5
KT organization chart

KT Org. Chart before Merger

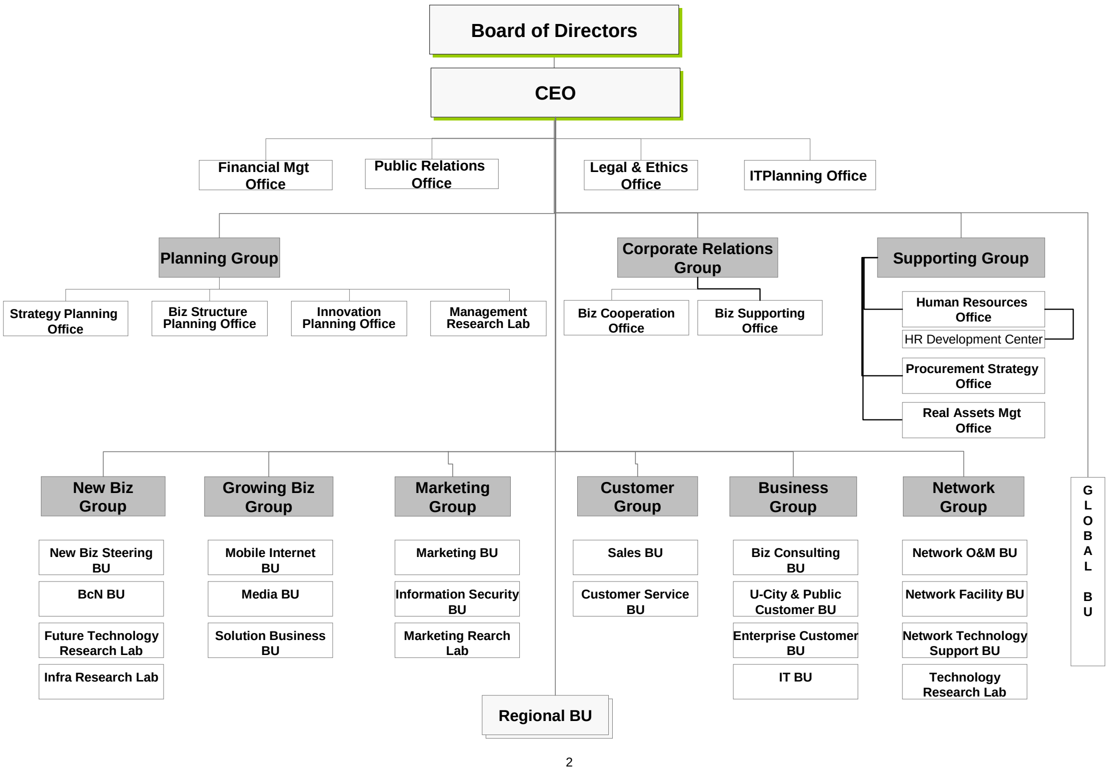

Exhibit 6
KT organization chart

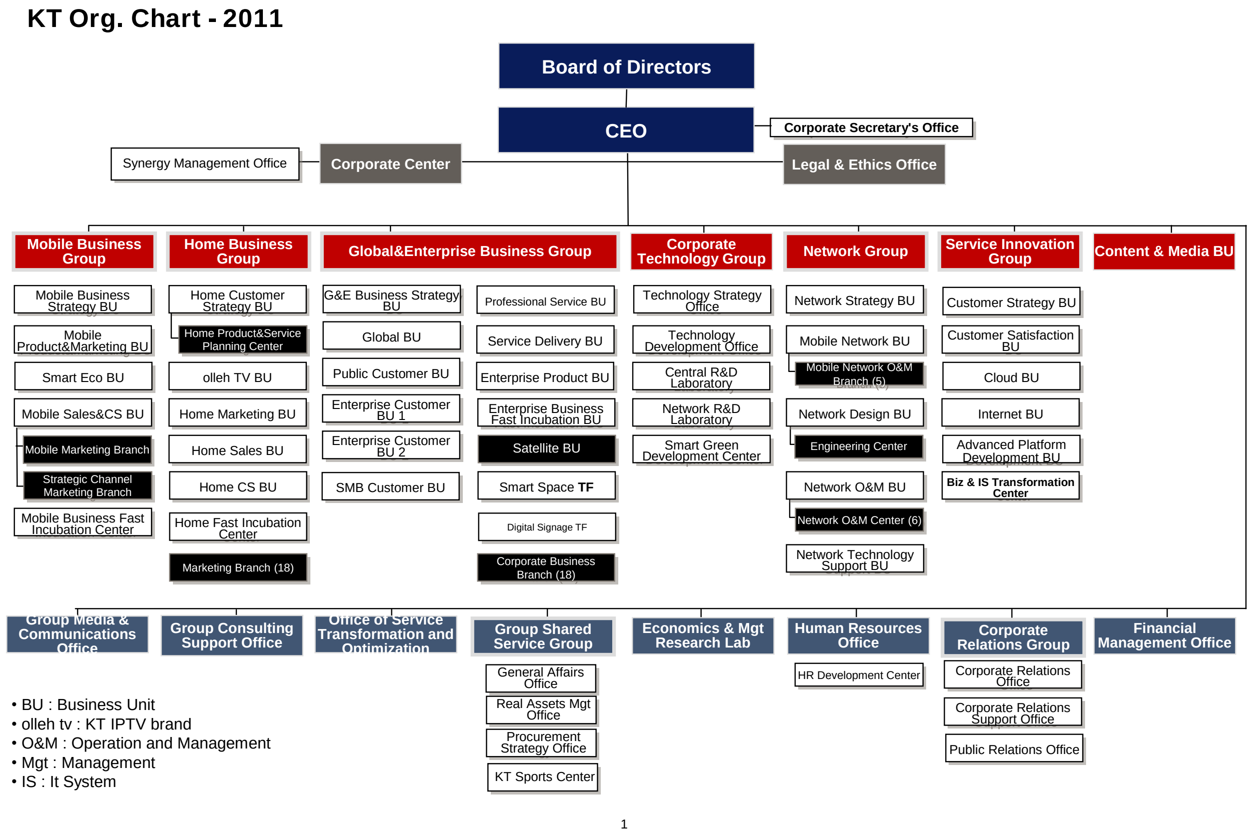

Exhibit 7
The Top Executives at KT

Name	Title and Responsibilities	Current Position Held Since	Years with the Company	Date of Birth
Ho-Ick Suk	Vice Chairperson, Corporate Relations Group	June 2009	2	November 27, 1952
Seong-Bok Jeong	President, Legal & Ethics Office	January 2009	2	December 7, 1954
Yu-Yeol Seo	President, Home Customer Group	January 2010	33	September 9, 1956
Doo-Whan Choi	President, Corporate Technology Group	December 2006	4	January 10, 1954
Sam-Soo Pyo	President, Senior Advisor	December 2010	2	December 12, 1953
Yung Kim	Senior Executive Vice President, Corporate Center	January 2010	2	September 8, 1956
Sung-Man Kim	Senior Executive Vice President, Network Group	January 2009	28	October 3, 1956
Jung-Hee Song	Senior Executive Vice President, System Integration Group	January 2011	0	February 18, 1958
Han-Suk Kim	Senior Executive Vice President, Global Business Unit	January 2010	21	January 12, 1956
Hong-Jin Kim	Senior Executive Vice President, STO Support Unit	September 2010	1	April 25, 1953
In-Sung Jeon	Senior Executive Vice President, Group Shared Service Group	January 2010	31	October 9, 1958
Gyoo-Taek Nam	Executive Vice President, Corporate Center Synergy Management Office	October 2010	25	February 6, 1961
Sang-Jik Lee	Executive Vice President, Legal Affairs Center	June 2009	2	September 6, 1965

Exhibit 8
Innovation Management Programs at KT

Culture & Values	Direction & Leadership	Structure & Roles	Management Processes	People Skills	Teams & Communitiies	Metrics & Rewards	Tools & IT Support
Pyramid - philosophy, vision, Olleh management	Vision 2020	Fast incubation centers	Fast decision making for CEO priorities	Home Business Innovation Training	Econovation	Revised HR policies - evaluation process - mileage points	Wikis
KT value system - ACTION	Olleh branding	Economic management lab	New Business Development Process		Olleh Campus	Innovation award program	
Open to outside ideas & partnering	Industry benchmarking	New business strategy group	Venture Awards		United Korean smartphone appstore	Operational KPI's - as input to manager evaluation	
		Wiki coaches			Task Force Teams		
		Home business innovation managers					

Exhibit 9
Strategos's Innovation Plans for KT