



BUSINESSPARTNER

CASE STUDY



Ulsan Metropolitan City Realizes Vision of Digital City with Avaya IP Telephony Solution

Challenge	Solution
Ulsan Metropolitan City Hall was looking for an advanced IP telephony solution as part of its “Ubiquitous Ulsan” initiative to transform itself into a digital city. It needed an extremely secure and robust system with rich functionalities to support local requirements.	An Avaya IP Telephony Solution connecting Ulsan Metropolitan City Hall to its 15 main branch offices and other smaller branches, with an initial investment in 1,300 Avaya IP Phones. The solution was further bolstered by additional development work by Avaya to translate the phone menu into Korean and introduce other popular
Value Created	
<ul style="list-style-type: none"> • Potential cost savings of KRW 100 million per annum from the converged voice and data IP infrastructure • Ease of integration with Ulsan IP infrastructure backbone • High performance IP telephony solution with top-notch security features and scalability 	

Ulsan is a commercial capital of southeastern Korea with an ambitious masterplan called “Ubiquitous Ulsan” to make it a truly digital city. Ulsan Metropolitan City Hall worked with Avaya and its local BusinessPartners to develop an advanced IP telephony solution that would help the city reduce communication costs significantly, enhance productivity and put it squarely on the road to a digital revolution.

The Challenge: Achieving its Vision of Becoming a Digital City

Ulsan is a metropolitan city located in south-eastern region of Korea. A center of culture, tourism and commerce with a population of 1.1 million, Ulsan is proactively pursuing e-government under its “Ubiquitous Ulsan (U-Ulsan) initiative by implementing a municipal informatization plan in 2006. The core challenges have been setting up a basic plan for U-Ulsan, comprehensively and systematically managing city information, pursuing the informatization of municipal administrative affairs to realize municipal e-government and promoting high-tech digital services by encouraging public participation.

In addition, Ulsan has promoted reorganization of its city website for open municipal services based on the Internet, expansion of e-library, integration and dual processing of web-systems, establishment of website security system, opening of mobile websites and websites monitoring.

As part of the process to achieve its vision of U-Ulsan, the Ulsan Metropolitan City Hall decided integrate its previously separate voice and data networks into a single IP-based communications system.

The Solution: Leading the Way with Large-scale IP Telephony Solution

Ulsan’s decision to introduce IP telephony was largely driven by the need to reduce communication costs, enhance productivity and ensure ease of integration with the future U-City infrastructure. It reviewed both domestic and foreign IP telephony solutions in light of various factors including the needs of the metropolitan city offices, future technology development and solution scalability.

In the end, the city decided to introduce an Avaya IP Telephony System with 2,500 lines – comprising IP and analog extensions – for the Ulsan Metropolitan City Hall, its 15 main branch offices and other branch offices, with plans to integrate it with the U-Ulsan infrastructure in the future. Ulsan was the first metropolitan city to introduce an IP telephony system on such a large scale.

Jung, Jin-Myung, Manager of IT Administration of Ulsan Metropolitan City said, “We invested in an Avaya IP Telephony System to reduce maintenance and communication line costs by integrating the existing communication networks where voice and data were

separated into one. We started to build the system at the end of last year and it was completed in June 2007. There were some initial teething problems but they have been addressed and the system is stable now."

As a public organization, security was an important consideration. During the evaluation process, the Avaya solution earned additional points for its outstanding security functions and scalability. Mr Jung said, *"Security is a primary factor given that the City Hall has to manage sensitive and confidential information. In terms of scalability and the development of communication technologies, Avaya solutions also stood out. As we were first metropolitan city hall to build a large scale IP Telephony System, we were initially concerned about the stability of 1,300 units of IP Phones. But they've proved to be very stable and durable."*

The Avaya solution – which was implemented by Busan Link Info System, an Avaya BusinessPartner, and Arisys Inc – comprises Avaya S8710 Server, Avaya G650 Media Gateway for its main offices and Avaya G350 Media Gateway for 25 branch offices, and 1,350 units of Avaya IP Phones for every staff in every office of every division. In addition, INTUITY AUDIX LX was deployed to record phone conversations with civil petitioners (up to 250 users), NMS, and 56 units of Avaya PoE Switch C363T PWR were also installed. Moreover, Avaya EC500 was added to link the system to mobile phones to further improve work efficiency.

The Benefits: Robust, Secure IP Infrastructure with Potential Annual Savings of KRW100 Million

Ulsan boasts the no. 1 PC penetration rate and no. 1 Internet usage rate in Korea and it has made a lot of investment and efforts for informatization. In particular, Ulsan will establish the U-City infrastructure within three years by securing its own network, turning itself from a polluted to an ecological and cultural city to play its role as a commercial capital of Korea.

A major initiative will be the integration of the Avaya IP Telephony Solution with the IP network infrastructure that will form the foundation of U-Ulsan. To this end, it is planning to install 400 additional Avaya IP Phones, build

a web session system, and test the system using various applications.

The Avaya IP Telephony Solution, as a core pillar of the U-City infrastructure, has captured the attention of other cities, provinces and over 100 municipal governments as a benchmark for upgrading civil service operations, as well as for its cost reduction and increased work efficiency. Mr. Jung said, *"Under the next stage of our U-City project, we will be focusing on building a robust IP infrastructure. We estimate that the Avaya IP Telephony Solution will help us reduce costs by KRW 100 million (USD106,770.00) every year."*

Ulsan also asked Avaya to develop new functionalities to support local requirements that domestic solutions offered, for example, a Korean phone menu. As a result, although not initially available, a Korean phone menu for the Avaya IP Telephony Solution was developed quickly. Avaya is also working to introduce other previously not available features to cater to local preferences and requirements.

Mr Jung said, *"Foreign-made solutions need further improvement to be more suitable to the local environment to accommodate Korean-style functions and feature, however Avaya solutions excel in performance and functions, and promptly developed to accommodate Korean-style functions and feature Korean designs in IP Phones just like local companies,"* and added *"The main stream going forward will be localization and customization to interoperate the various Unified Communications based on IP Telephony. We are very satisfied with Avaya as Avaya promptly responded to develop functions to support local language and improve inconvenient functions to accommodate our needs with its regional development team which located in most of countries in APAC including Korea, Japan, China, India, Singapore and Australia just acting like local companies."*

Although some users initially missed functions previously available on their traditional phones, positive feedback began to pour in as they discovered the advanced features Avaya IP Telephony could offered. In particular, the call history function that precisely identifies callers and receivers along with

The biggest benefit of IP Telephony System is an annual reduction of about KRW 100 million (USD106,770.00) in budget by integrating separate voice and data networks into a single IP infrastructure.

— Jung, Jin-Myung, Manager of IT Administration, Ulsan Metropolitan City Hall

the recording function were highly popular. As phone conversations from with civil petitioners could be recorded, this enabled Ulsan to process grievances more efficiently.

In addition, providing unique numbers to individuals at each office and each division, connecting

extensions to cell phones, and saving department transfer costs were other key benefits.

Moving forward, the Ulsan Metropolitan City Hall has asked Avaya to continue to invest in developing additional functions to fully realize the potential of its IP telephony system.

ABOUT ULSAN METROPOLITAN CITY HALL

Ulsan Metropolitan City Hall is responsible for supervising metropolitan administrative affairs under the grand vision of the "Road to the Economic Capital, Ulsan, 2021". The mid- and long-term Ulsan development plans will focus eight sectors including industrial fundamentals, culture/tourism, social welfare, among others. Ulsan is transforming itself into an advanced ecological and cultural city in order to play its role as a commercial capital of Korea.

ABOUT ARISYS INC

Working with Avaya, Arisys Inc delivers IP Telephony solutions for enterprises in Korea. The companies also jointly develop and market other communications solutions, for example, industry-specific (general enterprise, manufacturing, distributing, hotel, school, government and public organizations) voice communication solutions to provide messaging, conferencing, web session services and more that substantially contribute to the competitiveness of their customers.

ABOUT AVAYA

Avaya delivers Intelligent Communications solutions that help companies transform their businesses to achieve market-place advantage. More than 1 million businesses worldwide, including more than 90 percent of the FORTUNE 500®, use Avaya solutions for IP Telephony, Unified Communications, Contact Centers and Communications Enabled Business Processes. Avaya Global Services provides comprehensive service and support for companies, small to large.

For more information visit the Avaya Web site: www.avaya.com.

Systems	Services
<ul style="list-style-type: none"> • Avaya S8710 Server • Avaya G650 Media Gateway • Avaya G350 Media Gateway • Avaya 4601, 4610, 4620 Series IP Telephones • Avaya INTUITY AUDIX LX • Avaya EC500 • Avaya PoE Switch C363T PWR 	<ul style="list-style-type: none"> • Bulsan Link Info System • Arisys Inc

For more information on how Avaya Intelligent Communications can take your enterprise from where it is to where it needs to be, contact your Avaya Client Executive or Authorized Avaya BusinessPartner, or access other collateral by clicking on **Resource Type** under "Do Your Research" at www.avaya.com.

The quotes in this case study are statements by Jung, Jin-Myung, Manager of IT Administration, Ulsan Metropolitan City.