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2010

Hong Kong government department entrusts ASL to enhance e-Form system

In the past, public need to download licenses and permits application forms and submit by post or via email, which may not be the most convenient way for the general public. Therefore, a Hong Kong government department entrusted ASL to enhance its existing e-Form system with a total solution.

ASL enhanced the infrastructure of the department's electronic transaction platform with the provision of more powerful servers and backup software with Adobe LiveCycle Forms, Reader Extensions, Digital Signatures and Oracle Database Enterprise Version. In addition, ASL provided comprehensive professional services, including system design, project management, consultation, implementation, and maintenance and support services to the department. Upon completion of the project, application process is greatly automated while administrative process is significantly simplified.

The new e-Form system not only helps Government to achieve environment protection by reducing paper consumption, but also benefits citizens with a faster and error-free application process. Registered applicants can now enjoy one-stop electronic application and license fee payment with the new e-Form.

Managed IT Services, Giving you a peace of Mind

Maintaining an organization's competitive advantage nowadays needs an IT system that delivers high-speed access to data and services at all times, yet it makes the maintaining cost become a certain burden for many organizations. Problems such as high staff turnover, lack of experience, frequent re-training, inadequate cost control, and fault recovery make IT resources management become a burden to IT management.

Managed IT services can simplify IT operations cost-effectively as an externally administered service, providing organizations with access to best-of-breed IT and without costly need on overhauling IT systems regularly. These services also incorporate 7x24 IT administration services, allowing IT personnel to focus on core and strategic IT planning.

ASL is dedicated to perfecting products, services and processes for customer service excellence continuously as stated in its Quality Policy. Internationally recognized IT standards are successfully achieved by ASL such as ISO 9001 Quality Management Standard. ASL has recently established a dedicated Project Management Office (PMO) with proper tools in place to further improve the quality of deliveries in the projects with the clients. The Capability

Maturity Model Integration (CMMI) Maturity Level 3 processes will continue to be the model reference for our Software Development projects. In addition, our internal IT service management is also conformed to the ISO/IEC20000:2005 IT Service Management and ISO/IEC27001:2005 IT Security Management standards with target for certification in 2011 to demonstrate our professionalism in IT Services to our clients through our internal commitments.

With in-depth experience in providing Managed IT Services across various industries, ASL has served a prestigious international hotel, which is a leading five-star hotel in Hong Kong and located at the top of Kowloon's Gold Mile. ASL has provided support on handling over 300 core IT devices and peripherals such as servers farm and storage devices. Having onsite managed IT services for hotel's guests and internal departments, customers can focus on increasing employees' productivity and better allocation of IT resources for higher IT performance.

ASL steers IT infrastructure set up for a European supermarket chain's office in Bangladesh

Setting up an overseas office with fast deployment of IT infrastructure is not an easy task. In May last year, a European supermarket chain entrusted ASL to provide an IT infrastructure for its new office in Bangladesh. In view of customer's needs, ASL designed and built a comprehensive IT infrastructure with HP servers, Juniper firewall, Kaspersky anti-virus software and peripherals. To ensure a quality project deployment, ASL dispatched an IT professional to Bangladesh to provide on-site support services and make sure system in Bangladesh office is properly configured. The project was completed in August 2010 on schedule and stepped up the customer's Bangladesh operations setup.

This is the second time for ASL to be the vendor of choice since its successful implementation of IT infrastructure project in Shanghai for this customer in 2009. This project not only demonstrates ASL's consistent capability in providing regional services, but also continual trust and confidence that customer placed on ASL. Drawing on the wealth of experience, ASL is endeavored to follow the footsteps of customers to meet customers' local and regional IT needs with quality services.

Regional application virtualization project for a North-South trade route giant across Asia Pacific

One of the key carriers on the North-South trade route has branch offices across the region and needs to better manage access control and enable users to work more securely from its branch offices. Meanwhile, they also need to deal with the challenges of simplifying IT

management. To cater for their business needs, this carrier entrusted ASL to implement a regional application virtualization project in May 2010.

In this project, ASL provided a technology refresh for customer to replace windows workstation with IGEL thin-client hardware products for customer's regional offices. Microsoft SCCM 2007 servers and client agents were also installed. Apart from providing thin-client hardware products, ASL also provided one-stop service with project management, solution design, data migration, remote and onsite support services.

The project involved a territorial-wide deployment across 10 cities in Asia Pacific, covering Hong Kong, Taiwan, Singapore and total 7 first- and second-tier cities in mainland China, including Guangzhou, Shenzhen, Xiamen, Shanghai, Tianjin, Qingdao and Ningbo. Thanks to ASL's strong presence in the region, ASL was able to dispatch engineers from its offices in Hong Kong, Guangzhou and Taiwan to deploy project at different customer's site while leveraging ASL Hong Kong headquarters as the project management office.

Ensuring a minimum disruption to customer's business for the technology refresh was also critical in this project. With in-depth understanding of customer's requirement and detailed planning, ASL deployed the project during weekend swiftly and smoothly. Therefore, new system was up and running when business resumed on the next business day. The successful deployment aptly demonstrates ASL's rich experience on systems integration, project management and its regional support capabilities on carrying out a large-scale and regional total solution project.

The project was completed in August 2010 on schedule. The carrier can now enjoy higher operational efficiency, data security and easier IT management.

ASL Taiwan upgrades an ERP system for the expansion of a Taiwan-based company into mainland China

One of the world's largest Original Design Manufacturing (ODM) nursery products manufacturers in Taiwan expands into mainland China and requires an advanced IT system to manage corporate resources in both Taiwan headquarters and PRC operation. ASL consistently excellent performance in both geographic regions made it the vendor of choice for this customer. Upon carefully investigating customer's needs and requirements, ASL upgraded the customer's Enterprise Resources Planning (ERP) system in Taipei and Dongguan's operation respectively. In this project, ASL provided Sun SPARC Enterprise M4000 server and Sun SPARC Enterprise M5000 server with 3-year 7x24 on-site support service. The project

started in August 2010 and was completed on schedule. Upon completion of the project, this manufacturer enhances its productivity and efficiency to support its business development.

This successful cross-strait project demonstrates our capability to support customer's regional expansion. Customer can simply rely on ASL's superb and quality cross-strait IT deployment services to pursue further growth.

Provision of Networked Storage System for the Chinese University of Hong Kong

The Chinese University of Hong Kong (CUHK) is a top university in Hong Kong and Asia with over 20,000 students. To align with organization's initiatives to implement server virtualization and storage consolidation, CUHK entrusted ASL to provide networked storage system for its virtualization platform and two mission-critical computer systems namely Chinese University Student Information System (CUSIS) and SAP E-finance System. Since the virtualization platform and the foresaid mission critical systems will be widely used by many departments in the university, a powerful storage with ultra high performance and continuous availability is crucial. Catering to CUHK's specific needs, ASL selected and provided EMC's best-in-class midrange networked storage CLARiiON Series with consultancy and 3-year 7 x 24 maintenance services. Upon completion of the project, the existing scattered storage of various systems can be consolidated for centralized management while space and energy can be saved, achieving the lowest total cost of ownership (TCO). The storage system can also offer superior levels of data protection and the highest availability to keep operation running. Its ability to scale more disk drives and integrate future technologies allows consolidation of more applications for future development. With this advanced networked storage, CUHK can benefit from simplified storage management and virtualized environment.

Provision of network solutions and server systems for various government departments

ASL has been awarded two Standing Offer Agreements (SOAs) from Government Logistics Department to provide network products and server systems for various government departments. Both agreements are valid for duration of 36 months.

Under the Network Products SOA commenced on 30 January 2010, ASL provides total network solutions including the supply, delivery, installation, commissioning and maintenance of network products and provision of other related services for government departments.

According to the past purchase records from the Government Logistics Department, an average monthly order value amounted to HK\$3.8 million has been placed with various contractors.

Under the Server Systems SOA commenced on 1 February 2010, ASL provides total server systems solutions for the supply, delivery, installation, commissioning and maintenance of server systems and provision of other related services under Categories A (Total System Solution), B (Servers, Software and Peripherals) and C (Storage Subsystems) for government departments. According to the past purchase records from the Government Logistics Department, an average monthly order value amounted to HK\$8 million has been placed with various contractors.

Total networking solution for Fortis

Fortis Insurance Company (Asia) Limited (“Fortis”) is one of the largest life insurance companies in Hong Kong. Combining global strength with local flexibility, Fortis offers both individual and institutional customers a broad-ranged financial protection products and wealth management services to meet their needs.

Previously, Fortis’s IT staffs were burdened by the ageing network facilities and platform. To raise the level of performance and security, Fortis entrusted ASL to provide total networking solution by upgrading their wired, wireless and security infrastructure in Fortis’s Langham Place office, which is one of Fortis’s most important offices.

By implementing a total network solution with H3C S7503E core chassis-based switch as the main backbone, H3C S3600 Series Ethernet Switches and various wireless and security products, ASL offers a highly reliable and secure network with extended wireless coverage for Fortis’s Langham Place office. For wireless network, ASL chose H3C WA2620 series wireless access points and WX5002 wireless controller providing wireless access at 300Mbps, and is six times that of a traditional 802.11a/b/g network. This wireless network enables Fortis to manage a maximum of 64 access points.

In addition, an H3C 200-M Unified Threat Management sits at the centre of Fortis’s Langham Place network, protecting all incoming and outgoing traffic. ASL also deployed H3C iMC (intelligent Management Center) system so that Fortis can easily manage and monitor the whole wired and wireless network as well as security from a single console, so as to reduce the total cost of ownership.

The project completed successfully and efficiently within three months. Fortis's Langham Place office now enjoys enhanced operational efficiency with high-performance and reliable network with extended wireless coverage, which help them pursue further business growth. This project demonstrates ASL's capability in providing tailor-made networking solution to meet specific requirement of customers within tight schedule and on-budget.

Provision of cost-effective data protection and disaster recovery solution for OOCL

As one of the world's largest integrated international container transportation, logistics and terminal companies, Orient Overseas Container Line Ltd. (OOCL) is committed to continual improvement for the highest level of customer satisfaction. To cater for its recent business expansion, OOCL commissioned ASL to provide a data protection and disaster recovery solution. After thorough evaluation on OOCL's existing networked storage system, ASL selected EMC CLARiiON CX4 240 midrange networked storage, SnapView and RecoverPoint to enhance its existing infrastructure and would provide 3-year 7x24 maintenance and training services. The enhanced network storage infrastructure can provide OOCL a powerful and cost-effective local and remote data protection so as to ensure data availability and business continuity. Upon completion of the project, OOCL's system availability is enhanced for higher customer satisfaction and operational efficiency. ASL has long been being the IT services provider for OOCL to enhance its system availability for its mission-critical logistics applications. The winning of this project has proved OOCL's trust and acceptance in ASL's expertise and ability required for providing enterprise-level data protection solution.

ASL builds 10GE network for Stewards Pooi Kei College

Stewards Pooi Kei College (SPKC), located in Shatin, is an EMI Christian School dedicated to providing quality education for the next generation. To cater for the growing demands being placed on computing resources by online educational systems and the daily online activities of students and teachers, SPKC entrusted ASL to upgrade their existing campus-wide network into a 10 Gigabit-Ethernet (GE) platform to provide a more interactive learning environment and accommodate future teaching technologies. With extensive experience in implementing campus network for secondary schools, ASL provided H3C S7500E Series High-end Multi-service Routing Switches, S5120-SI Series Ethernet Switches and other accessory products to construct the network. Apart from providing the tailor-made network solution, ASL will also provide 3-year maintenance services. The reliable, secure and upgraded network can protect the whole campus against virus attack without affecting the performance.

Upon the upgrade of SPKC's campus network in February this year, over 1,000 students,

teachers and staffs of SPKC can now swiftly and securely access their eClass learning management system, eLibrary system and use video-conferencing facilities to share knowledge and information. With this modern and powerful 10GE network in place, SPKC lays a solid IT foundation for a high-quality education.

Provision of Baccarat Score Board System for Marina Bay Sands Singapore

ASL Macau was appointed to implement its self-developed Baccarat Score Board System (BSB) for the new casino at Marina Bay Sands, a premier entertainment destination in Singapore which is owned by Las Vegas Sands Corporation (NYSE: LVS). This system can display a complete history of baccarat game results through an electronic score board. It can provide patrons a visual guide of the trends as Asian baccarat players are typically “trend-driven”. The BSB also allows advertisements on the electronic score board units, facilitating the casino’s promotional activities. Besides, the system can enhance the casino’s operational efficiency by centralizing configuration for gaming tables and by generating analytic reports. In this project, ASL Macau deployed BSB to over 450 gaming tables in Marina Bay Sands with one-stop-shop services, including infrastructure supply, project management, system design and planning, implementation, training, maintenance and onsite support services. This project is another example of ASL Macau’s track record to deploy BSB for operations owned by LVS, including the Venetian Macao-Resort-Hotel, the Sands Macao and the Plaza Casino in the Four Seasons Hotel Macao. ASL BSB is well-recognized in the Macau market as it has been deployed on more than 2,600 gaming tables in Macau up to December 2009, demonstrating ASL’s capability and reputation to meet customers’ needs with excellent services.

2009

Business Intelligence Solution for Hong Leong Insurance

Hong Leong Insurance (Asia) Limited (HLIA) (formerly known as Dao Heng Insurance Co. Ltd.) offers a wide range of insurance services, including comprehensive insurance products for personal, commercial and industrial clients. In order to stay competitive in the insurance industry, HLIA values customer data analysis for its ability to draw new business and improve business results. To continue providing excellent service to customers and meet the company vision “Your Dedicated Protection”, HLIA commissioned ASL to implement Business Intelligence (BI) solution to gradually replace its current method of report generation.

The existing organizational data in HLIA are distributed in multiple enterprise sources. If business users wanted to perform analysis on operational performance, marketing strategies

and customer behaviors, IT staff is asked to extract data from different applications and compile reports manually in Excel format. Such report generation process was time-consuming and relatively prone to high data inconsistency and manual errors.

After evaluating HLIA's needs, ASL chose Oracle Business Intelligence Suite Enterprise Edition Plus (OBIEE Plus) for its comprehensive capabilities, including interactive dashboards, full ad hoc queries, proactive intelligence and alerts, enterprise and financial reporting, and real-time predictive intelligence, etc, that can integrate with HLIA's existing IT infrastructure for the lowest total cost of ownership. To enable the users to identify trends and optimize business results, Oracle Essbase was also deployed and built with multi-dimensional cubes. According to HLIA's analytic requirements, ASL helped HLIA develop and design various dashboards to extract business intelligence. Among them was "Client Analysis" dashboard which consolidates customer demographic data such as age, sex, living district, and etc. Through it, sales and marketing users can generate a detailed and easy-to-understand report which can be viewed in different dimensions, enabling them to better understand customer segments, behavioral patterns and purchasing trends for promoting different types of insurance packages. Based on the relevant business insight drawn from the robust report, its sales channels, such as call center and insurance agents, can take care with the potential customers, enhancing the chances on hitting the right customers and driving more revenues. In addition, the "Daily Sales Analysis" dashboard was built with collections of analytic content, including daily deal size and achievement of sales target, to monitor the daily performance of insurance agents and other channels. Apart from solution design, consultancy and implementation, ASL also provided coaching services for HLIA's IT staff to develop, generate and deliver their own reports.

With the comprehensive and powerful reporting capabilities that BI solution delivers, users in HLIA can now instantly access and analyze various data sources they need by themselves, in turns, resulting in lessened workload for IT department. The solution also reduces the time needed to generate reports from hours to minutes, enabling users to focus more on analysis to make timely and accurate business decision. Moreover, data integrity is maintained since data is consolidated in a central repository and updated on a daily basis. With a single view of up-to-date and accurate information, business managers and executives can quickly monitor the performance of sales agents and channels.

All in all, with ASL's robust BI solution and services, HLIA can leverage its in-house data to gain relevant business insight faster for better decisions and improved operational efficiency.

Firewall upgrade for CSL Limited

CSL Limited (CSL) is Hong Kong's first and leading mobile network operator providing mobile services through a world-class GSM / WCDMA network to over 2.5 million customers. To protect its network from threats and maintain 7 x 24 uptime to its customers, CSL entrusted ASL to provide a robust security solution. After a detailed examination of CSL's existing security system, ASL upgraded the existing system by installing two new clustered Check Point Power-1 9070 appliances for firewall enhancement with VPN function and high availability. To ensure a successful firewall migration, ASL designed and adopted a series of well-defined processes. Prior to migration, ASL set up the new firewall system in a test lab environment and performed thorough testing for minimum service interruption to the current system. To optimize firewall performance and increase manageability, ASL helped CSL to review the existing firewall rule set followed by simulation test of the new rule set migration to the new system. Apart from system design, consultancy and implementation, ASL, as the only Check Point's Certified Collaborative Support Provider in Hong Kong, also provided CSL with premium on-site maintenance services, including one-year 7 x 24 software support service and hardware spare parts support. With the new firewall, CSL's network is guaranteed with comprehensive protection, unrivalled manageability and 7 x 24 uptime for business continuity and a high level of service.

Desktop Management Solution for Midland

Midland Realty is one of the largest listed real estate agencies with about 300 branches in Hong Kong. With an aim to simplify IT assets management and increase software delivery efficiency, Midland entrusted ASL to provide a large-scale desktop management solution to help it manage, secure and support its IT assets for effective service delivery. In this project, ASL selected and provided Symantec Altiris Software Delivery Suite Basic on over 1,300 nodes, covering approximately 1,200 users. The solution can enable Midland's IT staff to easily track, identify and remove unauthorized software that may contain vulnerabilities to virus, spyware, and other threats. In addition, the solution can effectively monitor the usage of IT resources, standardize desktop configuration and automate the delivery of applications and patch updates. Upon implementation of the solution, the assets management has been centralized, optimizing return on investment, while the time and cost involved in manual processes has been reduced, and software privacy and compliance issue has been addressed. Midland can also enjoy the benefits of improved operational efficiency and system security, helping it to achieve a higher quality service for business growth.

Total Maintenance Scheme System – Appointment and Scheduling Subsystem for the Hong Kong Housing Authority

The Hong Kong Housing Authority (HA) was established as a statutory body to take charge of

developing and implementing public housing programme in Hong Kong. The HA launched the “Total Maintenance Scheme” (TMS) in 2006. Major objectives of the scheme are to work out a proactive and comprehensive approach for the maintenance of public rental housing (PRH) estates, and to provide prompt response to emergencies and tenants’ requests. To cope with the TMS programme, the HA had decided to develop a Total Maintenance Scheme System (TMSS) with three major system components. ELM was commissioned to implement one of these components, the TMS Appointment and Scheduling Subsystem (TASS).

As a core subsystem of the TMSS, the TASS is developed to enhance the quality and improve the efficiency in handling maintenance requests and enquiries. The TASS is required to incorporate automatic appointment and scheduling functions for public tenants to make or change appointments for in-flat inspection or repair works. Instead of traditional single booking channel for repair works through estate management staff, the TASS should provide convenient and multiple access channels for public tenants to make repair requests. These channels include maintenance hotline service centre with service centre agents, telephone booking mechanism and e-appointment service via Internet services. The system should be able to support a huge number of users, including over 600 thousands public tenants, about 100 HA staff and over 100 contractors. Outside normal service hours, the system is required to provide 7 x 24 service availability for general enquiry function and allow real time information update.

ELM set up a dedicated team for the project to review business operation and study system requirement. After a thorough review, the team designed and developed a Web-based application for the operation of TASS, enabling convenient and unlimited access of users, including HA staff, contractors, tenants as well as call centre staff, through Internet. Interfaces for TASS with other subsystems are also provided to facilitate information exchange. Besides, to enable operation of the automated telephone booking system, an Interactive Voice Response System and a sophisticated text-to-speech engine (for voice announcements in English, Mandarin and Cantonese) were applied.

Apart from application development, ELM provided Internet and telephony infrastructure, including Web server, PABX telephone system, and other necessary equipment and network facilities for the operation of the maintenance hotline service centre. ELM was also responsible for the management and operation of the service centre, including design and set up of knowledgebase and providing training to assist service centre agents in handling requests and enquiries from public tenants. Moreover, a backup call center was established in Guangzhou to provide contingency service. In order to ensure the specified service level is met, ELM

provides monthly performance reports and has regular meetings with HA.

ELM also provided training services for users using the Web TASS including HA staff and external contractors, as well as system management and operation and enhancement services for HA.

After the implementation of TASS, efficiency in handling maintenance requests and enquiries is improved. The system provides a real time information platform to enable close collaboration among tenants, HA staff and contractors. Public tenants can make maintenance requests and keep abreast of repair work progress of their flats through various channels including Internet, maintenance hotline or on-site service counters. HA staff can keep track of appointments, schedule resources and monitor repair works progress, while contractors can search repair work appointments and update repair work status in the system.

The maintenance hotline provides a one-stop service for tenants from receiving requests and enquiries to clearing of complaint cases with tenants. It helps streamline the operation flow of maintenance services, shorten waiting time for in-flat inspection and repairs. The system also enhances transparency of maintenance work process, helping HA staff to better monitor performance of maintenance contractors and improve the overall service level. Since the launch of TMSS, the TASS was already implemented for about 100 estates and was satisfied by public tenants.

Provision of Comanche Front Office System for Oakwood Residence Hangzhou (Chinese Version Only)

為杭州奧克伍德服務公寓提供酒店前台管理系統

杭州奧克伍德服務公寓(杭州奧克伍德), 附屬於全球領先的奧克伍德集團, 屬新概念酒店服務式公寓。新開業的杭州奧克伍德需要一套完備及操作簡易之多功能酒店管理系統, 故此委托 ASL 廣州提供 Comanche 酒店前台管理系統, 該系統能有效將前台運作自動化, 簡化工作程序及節省成本。除了前台系統, ASL 廣州亦提供其他軟件以進一步加強系統整合功能, 當中包括 Comanche 的電話計費系統、應收賬系統及餐飲客賬管理系統, 並負責安裝、執行、顧問、工程管理、培訓及維護支援等專業服務。配備這些先進的系統, 新酒店的管理工作變得更輕鬆, 服務質素亦得以提升。作為 Comanche 於香港、國內、澳門及台灣之獨家代理商, ASL 廣州有信心將陸續為其他奧克伍德集團於大中華區內之酒店服務式公寓安裝 Comanche 系統。ASL 擁有多多年從事酒店 IT 業經驗, 其服務酒店業的專業團隊深切了解大中華酒店休閒業的需要, 能為客戶提供軟件、硬件、項目管理、實施及售後維護等全方位解決方案, 助客戶實現酒店與服務式公寓管理系統服務一體化。

Relocation of Business Recovery Centre for HSBC Thailand

To ensure HSBC's capabilities and readiness to resume business operation in case of unexpected incidents or external crisis, the bank decided to relocate and expand its business recovery centre. ASL Thailand was entrusted to provide the disaster recovery (DR) solution by relocating and coordinating the setting up of the new business recovery centre. Located in Bangkok business area, the new recovery centre has an office space which is more than double in size than the previous one. The new centre is well-equipped with powerful and reliable computing and communications systems. If disaster occurs in its existing local offices, the centre will be used to resume business operations with data recovered quickly. ASL Thailand also provided consultation on backup schedule, monthly data recovery test, facility and equipment checking reports, simulation test, security products update and 3-year onsite maintenance service with 7 x 24 standby support services to HSBC. A dedicated team was also formed to support HSBC during the simulation test and business disruption. The project was completed within two months as scheduled. In fact, this was the second time that ASL Thailand was appointed as the IT services provider to offer DR services to HSBC since 2003. The achievement of this project shows that ASL Thailand has continued to meet HSBC's stringent standards and has extensive capabilities and experience in setting up business recovery center. By outsourcing DR support services to ASL Thailand, HSBC can focus on its core business while maintaining its reputation as a leading commercial bank in Thailand.

2008

Onscreen Marking System for Hong Kong Examinations and Assessment Authority

The Hong Kong Examinations and Assessment Authority (HKEAA), a statutory body with one of its major responsibilities to conduct two of Hong Kong's largest public examinations – the Hong Kong Certificate of Education Examination (HKCEE) and the Hong Kong Advanced Level Examination (HKALE), is committed to providing valid, reliable and equitable examinations and assessment services for Hong Kong.

Every year, HKEAA recruits approximately 5000 markers who are responsible for marking over 2 million examination scripts. Traditionally, examination marking processes involve many manually operated procedures, including collection of original examination scripts from different examination centers, distribution of scripts to markers, return of marked examination scripts, and calculation and checking of the marks. To enhance the efficiency and quality of marking and provide better service, HKEAA called for the introduction of the centralized "Onscreen Marking System" ("OSM"), which is the first-of-its-kind in Hong Kong, in 2006 and appointed ASL as one of the prime contractors to develop a Web-based OSM, that can

automate the marking process and deliver higher accuracy, security, quality and efficiency of script marking.

Implementation of Onscreen Marking System

ASL formed a dedicated project team to assist HKEAA in developing and customizing the OSM system in accordance with the requirement of public examinations in Hong Kong. To implement the OSM, ASL supplied, installed and integrated necessary hardware and software, including database and application servers at the two data centers of HKEAA and 1000 desktops for the three purpose-built Assessment Centres, located at Lai King, Tsuen Wan and Wan Chai. Prior to the system roll-out, ASL conducted a pilot test to refine onscreen marking procedures and ensure the smooth operation of the system. Besides, ASL set up a Disaster Recovery (DR) site at the secondary data center of HKEAA and performed the DR drill, failover and resilience test to make sure there is no single point of failure in both primary and secondary sites. ASL also provided on-going maintenance support services and training services for HKEAA.

The OSM was initially and successfully adopted in 2007 for the marking of HKCEE English and Chinese Language papers. Up to September 2008, it has already been implemented for ten subjects of the HKCEE and HKALE.

With the implementation of the OSM, markers can simply view and mark, by using mouse clicks, on the scanned answer images of scripts via secure intranet at the Assessment Centres. The system will then capture all the marks and annotations by markers and automatically compute the total score and store in a central database. The efficiency and accuracy of marking are increased with human errors minimized. Before markers can do actual onscreen marking, they must pass a qualifying test to ensure marking quality. The system enables real-time monitoring of marking consistency. In case significant discrepancy is detected by automatic statistical analysis of the marking, showing markers are too harsh or too lenient, the chief examiner on duty at the centre can provide prompt advice and support to markers for early remedial action. The digital based system also allows individual script or question to be allocated to different specialized markers, offering flexible and immediate distribution of script for double marking. In addition, more detailed information on the marking of each question is made available, thus providing a ready source for analysis on candidates' performance and better feedback to schools and teachers. Moreover, the system facilitates easy retrieval of stored scanned scripts for appeal processing and research.

The OSM is capable to support 1600 concurrent markers at the Assessment Centres. To

facilitate markers to book their seating at the Assessment Centres, ASL also developed an Online Booking System, and an Exam Personnel Management System for HKEAA to manage profile of markers and non-marker exam personnel, facilitating exam personnel recruitment. The OSM eliminates the physical movement of scripts, enhancing the efficiency, accuracy, security and quality of examinations and assessment process with remarkable results.

“We are happy to see that the system was successfully roll-out in less than a year with the dedicated effort of ASL project team, and markers generally prefer onscreen marking to manual marking. Besides, the project has recently received MIS Asia IT Excellence Awards 2008 in the category of Best Change Management (Government).”

– Mr. Tsang Kwong-nap, General Manager – IT, HKEAA

Server consolidation for Hong Kong Housing Society

Hong Kong Housing Society (HKHS) is a non-government organization aimed at serving the needs of the Hong Kong community in housing and related services. HKHS businesses include development of rental estates, subsidized housing and senior citizen housing, various housing loan schemes, commercial and car park leasing, urban renewal, and building management and maintenance. The HKHS IT systems support a wide-range of users including internal staff, tenants, contractors and vendors. In order to provide enhanced services and grow operational efficiency, HKHS sets out to improve its IT infrastructure. Since mid-2006, HKHS has implemented the internationally-recognized ISO 20000 IT Service Management project and selected a Service-Oriented Architecture (SOA) approach to help its staff utilize IT more efficiently. In December 2007, HKHS achieved ISO 20000 accreditation, demonstrating its commitment to IT service excellence.

The IT Department of HKHS has deployed a number of applications and systems running on heterogeneous platforms, and numerous servers for its diverse business and frontline operations. The continued increase in the sheer number of servers threatened to bring the server management costs higher, compounded by a marked increase in the number of underutilized server resources. Moreover, the implementation of SOA required a highly reliable platform for the delivery of mission critical application services. To address the above issues, HKHS looked for ways to simplify server management in order to lower data center management and administration costs, while improving service levels.

Considering the complexity of HKHS's IT environment and requirements, ASL implemented a server consolidation solution for HKHS. ASL proposed the Egenera BladeFrame system* based on its integrated virtualization capabilities, unique N+1 failover features and Processing

Area Network (PAN) architecture. ASL provided and installed the Egenera BladeFrame ES system with 6 Processing Blade™ (pBlade™) modules to consolidate HKHS data center servers and integrate with its SOA to deliver critical application services. Through Egenera system's powerful virtualization capabilities, data center resources are reallocated based on business priorities and service-level agreements to ensure that every application gets the resources it needs to best perform. The BladeFrame features built-in N+1 failover and verifiable disaster recovery to ensure and enhance the reliability and availability of critical services for HKHS and its customers. Apart from system installation, setup and configuration, ASL was also responsible for the system maintenance and support services for the duration of 3 years.

With the implementation of server consolidation solution, operation efficiency of HKHS has been improved. The Egenera BladeFrame system enables rapid deployment of services within a SOA by configuration automation, while PAN Manager software improves the utilization of server resources, optimizing operation. The solution allows HKHS to deliver mission critical services with no single point of failure. Besides, the virtualization technology simplifies the IT infrastructure of HKHS data center and significantly lowers the administration cost and TCO.

All in all, IT service level of HKHS is improved with greater user satisfaction and higher business operation efficiency, helping HKHS achieve the goal of service enhancement and its primary mission of service to the community.

** Egenera BladeFrame system had been awarded "Best Virtualization Product" at 2007 BladeSystems Insight, the only national summit focused on blade-based data center solutions.*

2007

SWIFTNet Phase 2 Migration for over 50 banks in Hong Kong and Macau

SWIFT customers have been required to implement SWIFTNet Phase 2 Migration by following a given country schedule. With 31 May 2007 and 31 July 2007 as the deadlines for Hong Kong and Macau, ASL started receiving orders from SWIFT customers in October 2006 for providing infrastructure upgrade and installation of the new PKI Hardware Security Module (HSM), in order to fulfill the partial requirements for completing the whole Phase 2 migration project. By the end of July, ASL was entrusted by over 50 banks in Hong Kong and Macau to provide these migration services. While the working schedule for most of the projects was tight, the above mentioned services have been delivered satisfactorily and timely. These customers include one of the largest Chinese banks and three prestigious local banks in Hong Kong with

worldwide operations. Apart from the infrastructure upgrade, ASL has also provided the adoption of the new relationship management application (RMA) for SWIFT customers to help them achieve the other requirements for implementing the Phase 2 Migration. Being the accredited SWIFT Service Partner in Hong Kong since 2002, ASL has provided SWIFT services for more than 70 major banks in Hong Kong and 10 banks in Macau. Our dedicated team of Certified SWIFT Experts and Engineers can provide customers with implementation services for a comprehensive range of SWIFTAlliance products and SWIFTNet products running on Windows and UNIX platforms. Our local technical assistance services encompass project management, system testing, consultancy, technical analysis, System Care Services and business recovery services. With our subsidiaries in Macau, Taiwan and Mainland China, ASL can also provide strong regional support services to facilitate customers' regional business development.

ASL rides Macau's gaming industry boom

The Macau gaming industry has experienced an unprecedented growth in recent years. According to the statistical results provided by the Gaming Inspection and Coordination Bureau (DICJ) of the Government of the Macao SAR, the number of casinos in Macau has increased from 15 in year 2004 to 27 by the third quarter of 2007. With 13 years local market experiences in providing quality IT services for government and private enterprises, ASL Macau has currently won businesses from four of the six holders of casino operating concession to provide IT infrastructure, solutions and services which help them grow faster with lower cost.

The popular gaming solutions – BSB and PCMS

Baccarat Score Board System (BSB) is one of the most popular gaming solutions developed by ASL. It eliminates game manipulation by displaying the direct result input obtained from a playing card reader. ASL has provided the BSB to Venetian Macau Limited, which operates Sands Macao and The Venetian® Macao-Resort-Hotel. ASL provides one-stop-shop services, including the infrastructure supply, project management, system design and planning, implementation and maintenance support services. By September 2007, ASL Macau has deployed BSB to over 1,300 gaming tables in Macau, equivalent to an estimated market penetration rate of over 50%. In addition, ASL Macau has developed a Playing Card Management System (PCMS) for casino to facilitate the handling of a large consumption of playing cards. Other gaming solutions provided by ASL include Dice Game and Card Game Display System.

Intelligent business solutions for enhancing operational efficiency

Apart from the gaming solutions, ASL Macau also provides powerful business solutions such as time and attendance system, document management solution, human resources management system and payroll solution for casinos. In fact, the increase in casinos from year 2004 to year 2006 has been accompanied by 71% higher demand for workers and about 30% increment of their earnings. With these user-friendly business solutions, casinos can manage hundreds or even thousands of employees cost-efficiently with higher productivity.

ASL Club Management Solution helps Taiwan SunRise Golf Club enhance service quality (Chinese Version Only)

ASL 俱樂部管理系統協助台灣揚昇高爾夫鄉村俱樂部提升服務質素

台灣揚昇高爾夫鄉村俱樂部為一私人專屬之高級休閒俱樂部，擁有國際級標準高爾夫球場、五星級豪華景觀套房、餐飲及休閒設施完善。由於揚昇球場的會員眾多，有效的客戶資料管理對提供優質服務尤其重要，故此揚昇委託了澳圖美德公司（ASL 台灣）提供俱樂部管理系統及支援服務。揚昇球場黃美蘭協理說：「我們很重視會員來館的活動歷程，所以，當然會仔細的留下相關資料，了解會員消費的習慣，以便主動提供最適當的服務，所以好的電腦系統是非常重要的，尤其服務的公司也應該具有相當的經驗與規模的服務團隊，才能提供我們所需要的服務。」「揚昇球場與 ASL 台灣合作多年，對其所具備的經驗與技術十分信賴，目前所有系統的使用都十分方便，會員在現場所需要的相關查詢，系統都可以很快速正確的產生，對於服務會員具有莫大的助益，ASL 台灣不斷因應我們的需求來提升系統功能，使系統更適合於我們的使用。」黃協理續說：「我們也正在審慎評估增加新球場的可能性，希望能夠給會員更多休閒的選擇，當然，有 ASL 台灣在系統方面的後勤支援，相信一定可以很順利的為新單位導入管理系統，讓我們的會員及來賓都能體驗更便利且優質的服務。」

此外，ASL 台灣於七月五日假台北西華飯店舉辦記者會，介紹其服務台灣觀光休閒業的經驗和能力，並邀得技術夥伴昇陽電腦白大新總經理以及合作的客戶揚昇高爾夫球鄉村俱樂部及華國飯店的總經理共同參與，可見 ASL 台灣的發展充分獲得業務夥伴和客戶的支持。

Provision of highly available clustering solution for OOCL

Reliability, speed and efficiency are important criteria for customers to evaluate the performance of their logistics services provider. As one of the world's largest integrated international container transportation, logistics and terminal companies, Orient Overseas Container Line (OOCL) is determined to deliver the best quality services to provide the highest level of customer satisfaction.

OOCL has recently appointed ASL to provide a real-time clustering solution for its mission-critical logistics applications. After a thorough study of OOCL's requirements and IT environment, ASL delivered a high-availability (HA) and scalable application service delivery

platform, with automatic fault detection and recovery capabilities for OOCL.

To set up the HA architecture, ASL installed two Sun Fire V490 servers and deployed Sun Cluster to run on it. This system provides seamless integration with OOCL's existing applications. The HA architecture provides OOCL with continuous access to data and network, while managing multiple applications with simplified administration and low cost.

In addition to the provision of hardware and software, ASL also delivered proof-of-concept testing and consultancy services. Upon completion of the project, OOCL's system availability is enhanced to increase customer satisfaction and operational efficiency.

Security and infrastructure enhancement for HKCAA

The Hong Kong Council for Academic Accreditation (HKCAA) is an independent statutory body to provide accreditation and assessment services on the academic standards of various educational programmes for different education and training providers in Hong Kong. To prepare for the expansion of the Council's services and strengthen protection for its network security, HKCAA commissioned ASL to carry out a security and infrastructure enhancement project. ASL replaced HKCAA's existing servers with 5 units of Dell PowerEdge servers which were used as domain controller, file server and exchange server, and upgraded its operating systems and exchange server to raise the system performance and stability. The exchange server was configured into a front-end and back-end server architecture to provide an additional security layer for the council's system and protect its back-end server from denial-of-service attacks. To provide secure and fast remote access for the growing number of HKCAA's employees, ASL deployed a more advanced Cisco ASA 5510 adaptive security appliance to provide reliable and proactive security and VPN services. ASL also helped HKCAA implement a new backup solution to centralize the management of its existing backup process by using Symantec Backup Exec. The enhanced infrastructure and network security enable HKCAA to deliver its quality services for education and training providers and Hong Kong citizens in a more efficient manner.

Provision of server systems and network solutions for various government departments

ASL has been awarded two Standing Offer Agreements (SOAs) from Government Logistics Department to provide server systems and network products for various government departments. Both agreements are valid for a duration of 24 months and extendable for a further 12 months.

Under the Server Systems SOA, ASL provides total solutions for the supply, delivery, installation, commissioning and maintenance and other related services of server systems under Categories A (Total System Solution), B (Servers, Software and Peripherals) & C (Storage Subsystems) for government departments for the formation of business and enterprise server system, or the upgrade/ maintenance of existing server systems. The agreement commenced in November 2006 and has an estimated value of over HK\$340 million shared by 13 suppliers according to the Government Logistics Department.

Under the Network Products SOA, ASL provides total network solutions including the supply, delivery, installation, commissioning, maintenance and other related services of network products for government departments for the formation of new network systems, or the upgrade/ maintenance of existing network systems. In addition, ASL will be responsible for delivering a wide range of professional services such as network planning and design, network support, network reconfiguration, system implementation and 24 X 7 hotline support services. The agreement commenced in February 2007 and has an estimated value of HK\$90 million shared by 14 suppliers according to the Government Logistics Department.

Firewall migration and upgrade for Sing Tao

Due to the office relocation, Sing Tao News Corporation Limited (Sing Tao) called on ASL to migrate and upgrade its firewall solution, which has also been provided by ASL before. Based on the customer's relocation schedule, ASL worked out a detailed plan for the firewall migration and provided consultancy service such as firewall policy review and firewall testing in order to minimize interruption to the existing network security and daily operations. To strengthen security level of the new network, ASL adopted unified threat management and deployed Check Point VPN-1 UTM which has consolidated proven security functions including firewall, intrusion prevention, Web application firewall, and both IPSec and SSL VPN, into a single integrated solution. And for better security infrastructure reliability, ASL deployed Check Point SecurePlatform on Intel-based servers for Check Point VPN-1 UTM to run on. The resilience level of the firewall gateways were also enhanced by using Check Point ClusterXL. ASL is also responsible for the provision of 1-year hardware and software maintenance services. The solution and migration services provided by ASL engineer with CCSE (Check Point Certified Security Expert) qualification were delivered with high standard and quality. Sing Tao can have a higher level of network security and availability at the new office after the project was completed.

Centralized email archiving solution for the Hong Kong Housing Authority

With thousands of organization users, Hong Kong Housing Authority (HKHA) faced the

challenge of handling a mounting email volume generated from daily operations, which could make its email management become cumbersome and costly. ELM was entrusted to implement a centralized email archiving solution. ELM deployed user-friendly and powerful content management and storage management tools, including DB2 CommonStore for Lotus Domino, DB2 Content Manager, Tivoli Storage Manager, and integrated them with IBM xSeries servers, IBM DS4300 SAN disk array and IBM 3582 Ultrium LTO3 Tape Library. The solution provides a centralized and secure archive repository, external to the existing messaging systems. It archives inactive emails automatically to the less expensive storage like tape libraries to reduce the online storage cost in long term. The solution trims down the size of online storage of the email systems to bring a higher level of server performance. In addition, the solution can manage digitized content across multiple platform, database and applications. User productivity is increased with higher data availability. Apart from solution design and implementation, ELM also provided maintenance support services to HKHA.

SWIFTNet implementation and upgrade project for Macau Chinese Bank

To connect and access to SWIFT services, the secure and industry-standardized messaging services and interface software for financial institutions, Macau Chinese Bank Limited (MCB) has entrusted ASL to provide implementation and integration of SWIFT products. As the accredited SWIFT Service Partner in Hong Kong, ASL offered local technical assistance services such as consultancy, testing, project management, system care services and technical analysis with SWIFT-certified professionals. ASL implemented SWIFT products, including SWIFTAlliance Starter Set and SWIFTAlliance Workstation, and ensured MCB to have a smooth and reliable access to the SWIFTNet FIN. Moreover, ASL will be responsible for providing infrastructure upgrade for MCB to migrate to SWIFTNet Phase 2 effectively and timely. Following SWIFT's specified schedule, ASL will implement the upgrade to SWIFTNet release 6 and establish a single security model by using Public Key Infrastructure (PKI) and Hardware Security Modules (HSM).

Provision of printers for provincial branches of BAAC

To enhance working efficiency, Bank for Agriculture and Agricultural Cooperatives (BAAC), a state-owned bank under the Ministry of Finance in Thailand, appointed ASL Thailand to provide 900 units of Epson LQ-2090 high speed 24-pin printers for its provincial branches across Thailand.

Apart from the provision of hardware, ASL Thailand provided comprehensive support services, including installation, 2-year onsite maintenance service and replacement service with 4-hour response time commitment. Based on the customer's requirement, ASL finished efficiently

the delivery and installation for all printers covering various parts of the country within two months. BAAC was satisfied with the swift and quality service provided by ASL Thailand. In fact, ASL Thailand has built a good reputation and has extensive experiences in supplying bulk quantity of computing facilities for clients from both private and public sectors. This project has just provided another track record for ASL Thailand to demonstrate its flexibility and capability to deliver excellent services for fulfilling customers' needs.

2006

Business continuity solution and managed services for Asia Airfreight Terminal

Asia Airfreight Terminal Co., Ltd. (AAT), a leading airfreight terminal based at Hong Kong International Airport, provides quality cargo and documentation handling services to many airline customers in the world. To ensure its business up and running continuously, AAT commissioned ASL to design and provide a business continuity solution. Based on the customer's business needs, ASL proposed and set up a secondary site at ASL Data Center (ASLDC). In this project, ASL provided 2 units of Sun enterprise servers and various Oracle services, including installation, data migration and tuning services. ASL installed the Enterprise Edition of the Oracle Database with Oracle Data Guard which provides transactionally consistent copies of the production database, offering high protection for business data against failures, disasters, errors and corruptions. After the implementation of the solution, real-time data synchronization is enabled. Business data can be automatically transmitted from AAT's primary site to the secondary site in real-time. In addition, ASLDC also provided comprehensive managed services for AAT's secondary site. With 7 x 24 managed services, well-trained IT personnel and advanced facilities provided by ASLDC, AAT can ensure round-the-clock availability of its business-critical information for smooth operations. In case of outage in the primary site, the business process can switch-over to ASLDC to prevent data loss and maintain customer service level.

IT infrastructure enhancement for ICEA

ICEA, a well-known investment bank, has recently commissioned ASL to upgrade its IT infrastructure in order to enhance its banking and securities brokerage services and cater for its business expansion. In this project, ASL replaced ICEA's legacy systems with 16 units of more powerful yet space-saving HP ProLiant BL20p G3 blade servers to improve the scalability of the platform. In addition, ASL helped ICEA set up Storage Area Network (SAN) to consolidate storage infrastructure and gain better control of storage assets by providing an enterprise-class HP StorageWorks 4000 Enterprise Virtual Array storage system, a scalable HP StorageWorks MSL6030 Tape Library and switches. ASL also performed server migration from Windows NT4.0 to Windows Server 2003, which makes it easier for ICEA to deploy and

manage. Apart from infrastructure enhancement, ASL has provided a security solution to deliver high performance, integrated protection for ICEA's email system against spam and virus with content filtering. The solution includes the installation of mail security appliance, provision of 3-year 7x24 hardware support service and network port vulnerability assessment. The improvement of IT infrastructure helps ICEA to simplify IT management and guarantee data security and availability, raising its efficiency in providing better services to support business growth.

Provision of infrastructure managed service for Cathay Pacific

Cathay Pacific (Cathay) has been well known around the world for its excellent airline service. In order to enhance its service level and ability to cope with market changes, Cathay looked for a new service provider which can provide tailor-made, quality and flexible 7X24 IT infrastructure managed service to facilitate its business operations. Being one of the world's largest international airlines providing passengers and cargo carrier services to over 50 major cities, Cathay's IT infrastructure supports over 16,000 users worldwide and contains multiple servers and desktops of different platforms. After a detailed examination, Cathay selected ASL to provide the infrastructure managed service for a period of three years starting from May 2006. ASL has to ensure a smooth transition of service from the previous service provider within a specified period of time.

In order to acquire a thorough understanding of Cathay's requirements on this project, ASL has set up a dedicated team to work with the customer's IT team for around a year. In December 2005, ASL won the deal and signed two 3-year outsourcing contracts with Cathay to provide 7 x 24 desktop infrastructure and deskside support to over 16,000 users, and also 7 x 24 application server support. The contracts involved the provision of comprehensive infrastructure managed services, including operation of the local server farm, taking charge of system management and technical support of infrastructure and application servers, operating the disaster recovery center of local servers, implementing the security changes to desktops and servers, delivering Oracle professional services, and providing management and technical support for more than 4,000 desktops. Moreover, the project team continues to be responsible for monitoring the service quality. Cathay can evaluate the service performance and efficiency through the regular review reports regarding security, overall project management, and the cost incurred.

This is the largest in value yet of managed service contracts secured by the ASL Group up to August 2006. ASL is fully committed to provide Cathay with a balanced solution which has taken account of key factors considered by them, including cost, innovation, satisfaction,

quality, assurance, safety as well as the flexibility for growth and market fluctuations. With ASL's tailor made service to meet Cathay's unique requirements, Cathay can be relieved from the burden of managing a diversified IT infrastructure and focus resources on their core business development, while maintaining sufficient flexibility to respond to future business needs. In fact, ASL has years of experiences to provide IT infrastructure for Cathay prior to the winning of this deal. Continued support from Cathay has again testified ASL's strength to support the operation of large enterprises.

Provision of IT infrastructure for SKH St. Andrew's Primary

Teaching and school management have been facilitated with the use of ITeD network and WebSAMS. To ensure effective use of ITeD network and WebSAMS, school requires a reliable IT infrastructure to provide smooth and fast downloading and uploading information. SKH St. Andrew's Primary School, a newly-established primary school dedicated to providing quality learning to students, entrusted ASL to provide IT infrastructure and networking systems for the new school year. ASL supplied the school with hardware systems and set up a high-speed optical fiber network with Dell PowerEdge 2850 server, 3COM switches and CISCO router. The network was secured by firewall appliance installed to provide access security and the first line of defense against Internet security threats. In addition, ASL provided about 150 units of monitors and desktop computers installed with Microsoft Windows 2003, antivirus and multimedia application software. This whole school project is completed on schedule. To enhance its service level, ASL has also extended the hardware maintenance service to 5 years for most hardware products purchased by the school. With the new IT infrastructure set up, the school can be fully-equipped on leveraging IT to provide quality education to students.

Back Office Solution for Rio Hotel and Casino

Rio Hotel and Casino (Rio), a newly opened hotel and casino in Macau, entrusted ASL to provide a back office solution to support its accounting and human resources management operations. Based on Rio's requirement, ASL provided its in-house developed Financial Accounting System (AFAS) and Human Resources Management System (AHRMS) for the customer to start up new operations efficiently. Embedded with modules of general ledger, accounts receivable, accounts payable, inventory control and purchase order and fixed assets system, AFAS is easy to learn and user-friendly. Rio can rely on its advanced and flexible features to automate accounting process and minimize human errors. To facilitate the computation of employee's social security fund, personal tax and salary, ASL has helped Rio to integrate AHRMS with Web-based smart card access control and time attendance system. Apart from the supply of software and 5x7 software maintenance support, ASL also provided system design, systems integration, project management and consultancy. Hotel's daily

operations involve handling of many customers' transactions and administrative tasks. The use of AFAS and AHRMS can assist Rio in maintaining smooth operation and delivering quality services to customers.

Partner with EMC to introduce ILM solution

With the tremendous growth of enterprises' use of information technology in Macau in recent years, many government departments and companies have to cope with exponential increase in electronic data and control related expenses. To address these issues, ASL Macau joined hands with EMC to organize a seminar at Macau Tower Convention & Entertainment Centre and introduce how Information Lifecycle Management (ILM) solution can help businesses enhance data management and operational efficiency. At the beginning, Mr. Stephen Choi, Deputy General Manager – Macau, CSA Automated (Macau) Ltd. delivered an opening speech and expounded on ASL's service offerings, experiences and capability to deploy EMC's storage solution as EMC's Service Enabled Partner and Authorized Service Network partner. Then, three speakers from EMC elaborated on the concept of ILM, the deployment of data backup, recovery and archiving solution and shared with audiences successful case studies. To help businesses minimize data loss and service downtime, ASL security product manager has also explained the best security practices to be followed when these solutions are implemented. All participants were enlightened by the comprehensive and practical information given during the seminar.

Provision of maintenance and operation support services for TIPO's Library Automation System

The Intellectual Property Office Ministry of Economic Affairs (TIPO) is responsible for formulating intellectual property right (IPR) enforcement policy and legislation on patent, trademark, copyright, and other IP-related affairs. It provides IP-related information and services to the general public in Taiwan. TIPO has a library which has extensive collection of both domestic and foreign IP-related information and publications. To enhance service quality and bring convenience to the library users, TIPO commissioned ASL Taiwan to supply onsite support staff and provide maintenance, operation and technical support services for its library automation system in July 2006. ASL Taiwan provided a professional staff who was experienced in library operations to assist in managing database and providing archiving and system maintenance services. With quality support from the onsite specialist, TIPO's library can fully utilize the benefits of the system and deliver cost-efficient services. Apart from the provision of software technical support services, ASL Taiwan helped the library to perform daily operations such as book classification, cataloging and authority control. It took care of various processing services including placement of barcode and spine labels, ownership stamping and

attaching security strip. Moreover, ASL Taiwan undertook periodical control encompassing serial check-in, overdue and loss charges, creating journal catalogue, binding back issues and ensuring the accuracy and integrity of bibliographic database. To update customers on the latest arrival of books and IP-related newspaper clipping, ASL Taiwan handled the circulation services for the library. With ASL Taiwan's efficient support services, TIPO can utilize resources of the library effectively and all IP-related information and publications can be managed and stored in a professional way.

Revenue Management System Upgrade for Cathay Pacific

To cater for the expected capacity ramp up and to ensure smooth system performance following the software revamp, Cathay Pacific Airways Limited (Cathay), the winner of the Best Airline of the Year 2006, has entrusted ASL to provide system upgrade for its Revenue Management System (RMS). RMS is a mission-critical system for compiling and analyzing passenger and flight data. Cathay can use RMS to make accurate business forecast and increase its agility to provide swift response to the market change. ASL provided a number of high performance Sun Fire enterprise servers and workgroup servers for the upgrade of RMS. ASL also provided Sun's data-center scale SAN storage system and worked with Sun to design and implement the SAN architecture. To centralize data protection and data management for the RMS, ASL deployed a backup solution with Sun StorEdge Enterprise Backup Software and Sun StorEdge L25 tape library. The SAN system enables effective storage resource management, reduced backup time and high availability of massive RMS data. With reliable and scalable infrastructure in place, Cathay can further improve its efficiency in revenue management and continue to provide high service quality to its customers.

Provision of IT Infrastructure for Three TWGHs Colleges

One of the initiatives of the School Improvement Programme driven by the Education and Manpower Bureau is to provide a better environment for learning. ASL has recently been commissioned to provide various IT infrastructures for three schools under the Tung Wah Group of Hospitals (TWGHs), namely, Li Ka Shing College, C Y Ma Memorial College and Mrs Fung Wong Fung Ting College, to enhance their computing facilities. ASL has set up multi-media learning centers, computer-aided learning centers, and comprehensive IT facilities at classrooms at the new phase of these schools. In these projects, ASL supplied and installed over 200 units of desktop computers and monitors, networking products, scanners and printers, Microsoft Office applications and antivirus software for the three schools. Apart from the provision of hardware and software, ASL also provided cabling and 3-year hardware

maintenance services for the schools. In fact, the schools orders were drawn from a TWGHs' tender of the provision of information technology hardware and software awarded to ASL for the year 2005 and 2006. Under the agreement, schools and service centers under TWGHs can enjoy the benefits of purchasing hardware and software from ASL with guaranteed service level, competitive pricing and simplified administrative and purchasing procedures.

The Provision of IT Professional Services to Government Departments

ASL has been awarded each and every Standing Offer Agreements (SOAs) it bade for under four separate service categories to provide Information Technology Professional Services for Government departments with a period of 42 months, effective from 28 December 2005. Under the category 1 service agreement, ASL will provide various types of Pre-implementation and Project Management Services. For category 2, ASL will provide Ongoing Services and total solutions on maintenance services such as call centre, multi-vendor network support services, system/ application maintenance and support management. For category 3, ASL will deliver Implementation & Full System Development Life Cycle Services, involving mainly applications/ systems design and development. In addition, ASL will provide Information Security Services under category 4. The winning of these SOAs fully demonstrates ASL's ability and experience of handling large-scale projects and providing various Government departments with quality professional services in addition to the supply of various IT infrastructure products.

Corporate Identity Management Project for Hong Kong Housing Authority

For a long time, identity (ID) management and access control was handled by various individual application systems using disparate security policies at Hong Kong Housing Authority (HKHA). Thousands of users IDs/ passwords were generated and different measures of access control were used for over 9,000 HKHA staff and more than 500 business partners to access systems across various IT platforms. To access these applications and information, the users were required to enter different IDs/ passwords. Considering the administration cost and effort required for managing multiple user IDs/ passwords, the HKHA decided to initiate a Corporate Identity Management Project to provide a better and cost effective user ID management scheme. After reviewing HKHA's situation, ELM implemented a centralized identity management solution and provided system design, project management and consultation for HKHA. ELM supplied and installed high performance IBM pSeries 615 servers to lay down a reliable and scalable platform. ELM also provided systems integration of a suite of IBM Tivoli software into the IBM WebSphere Application Server. The Web single sign-on technology was deployed to provide seamless authentication access to multiple applications through a common security infrastructure. Upon the implementation of the solution, a secure,

automated and policy-based user management process was in place to help increase HKHA users' productivity. The users can get access to various applications securely with one single user ID/ password. They are also enabled to perform password resets and synchronization by themselves, reducing the overall administrative workload and helpdesk support demand. The solution can automate the processing of administrative request and facilitate the management of user IDs. With a centralized control of security and consistency policy to be implemented across HKHA, the organization's security level is enhanced.

Document Management System for Judiciary

ASL has provided a document management system (DMS) for Judiciary. In the project, ASL provided a one-stop-shop solution, including the provision of software and hardware systems, systems design, project management and consultation, training, hardware technical support services and maintenance services for Judiciary.

First of all, ASL implemented knowledge management tools and a Web-based enterprise class document management system (DMS) with a powerful search engine and a variety of major useful features such as translation aid, version control, indexing and full text searching of various data formats, documentation annotation tools and automatic classification of documents by user defined rules. According to the client's specific requirements, ASL customized a number of system features, encompassing uploading and archival documents and data, annotating documents under a pre-registered topic, providing a Web interface for searching and a graphical tool for adding annotation over the document. With these tailor-made features, the DMS is turned into a more user-friendly and powerful system for users to do their work. Most importantly, the DMS and all the customizations are compliant with international security standards and risk assessment guidelines. To further enhance the performance of the DMS, ASL also implemented a high availability solution for the elimination of any single point of failure. In the production run of the DMS, ASL's digital imaging team provided data conversion services for the involved parties of a civil appeal case and converted floor plans, photos and video clips, several ten thousands of litigation documents in different sizes, into electronic format with indexing for Judiciary to upload the data into the DMS.

With the set up of the DMS, lawyers can submit litigation documents and exhibits in CD or DVD format to Judiciary whom can store the data in a central data bank with common file format. The DMS can index the data for instantaneous retrieval of information by authorized users. In addition, the DMS has deployed access control which can enable data protection and secured remote access. The authorized users are required to provide the ID and passwords assigned by the Judiciary in order to access the data in the system via Web

browser.

Back Office Solutions for Macau Fisherman's Wharf and Celebrate Macau Corporation

Riding on a wave of booming gaming and tourism industries, Macau has attracted many businesses to set up new operations there. ASL Macau seizes the market opportunities to provide the newly launched businesses with its advanced back office solutions, including Financial Accounting system and Human Resources Management system.

Macau Fisherman's Wharf (MFW), the new and first ever-themed entertainment attraction in the tourism industry of Macau, needed a reliable accounting system to initiate and automate the accounting operation. ASL Macau proposed and provided its Financial Accounting System running on Windows platform for MFW. The system was installed in both MFW's headquarters and complex office. It comprises major modules, including general ledger, accounts payable, accounts receivable, inventory control and purchase order, and fixed assets system. ASL Macau is also responsible for the provision of 3-year software maintenance support and onsite training. The new system can facilitate the accounting operation and minimize human errors, helping MFW to raise the efficiency of overall business operation and the quality of customer services.

In addition, Celebrate Macau Corporation (CMC), which operates different dining and entertainment concepts within New Orleans Blocks I, II & III in the Macau Fishman's Wharf, has also entrusted ASL Macau to provide an integrated human resources management (HRM) system. The project started in December 2005. ASL provided the self-developed HRM system with personnel and payroll modules for CMC. By integrating it with a Web-based smart card access control and time attendance system, ASL's HRM system can automate the computation of staff's salary, their social security fund and personal tax. Besides, the ASL's HRM system is integrated with CyberOffice EasyDoc, a document management system developed by ASL, to facilitate searching of employees' information. The integrated systems enable HR staff to quickly retrieve and view the employees' personal information such as resumes, employee contracts and certificates, enhancing the productivity of the human resources operations. Lastly, ASL Macau is committed to provide training and maintenance support services for CMC.

Library Cataloging Outsourcing Service for Kainan University

To prepare for the increase of book collections due to the opening of the new 8-storey library building in December 2005, Kainan University, one of the leading universities in Taiwan,

assigned ASL Taiwan to provide copy cataloging, classification and a wide range of library outsourcing services for 30,000 copies of Japanese books in September 2005. In this project, ASL Taiwan developed a user-friendly application system to produce MARC (Machine-readable cataloging) records with accurate bibliographic data for the cataloging and classification of the Japanese books, following two major online cataloging systems in Japan, National Diet Library and National Institute of Informatics-Catalog Information Service (NACSIS-CAT). In addition, ASL Taiwan provided various shelf-ready library outsourcing services for the university library to speed up the handling of library materials and their availability for student use. These services encompassed supplying call number labels, placement of barcode and labels, ownership stamping, attaching a date-due slip and security strip. To ensure delivery of timely and quality services, ASL Taiwan formulated and implemented a stringent bibliographic control system for this project and formed a dedicated team of 8 to 15, comprising library system experts and staff with excellent Japanese language skill.

The project was finished within four months and all cataloging and classification of 30,000 Japanese books were in compliance with the international MARC standard. With ASL Taiwan cataloging outsourcing service, Kainan University library can enjoy timely services on a reasonable budget and reallocate personnel for performing core library services to achieve higher productivity. Since the service was introduced in 2005, this was the first library cataloging outsourcing service project of ASL Taiwan.