Enhancing urban governance efficiency through the e-government of Malaysian local authorities – The case of Subang Jaya

Azmizam Abdul Rashid[1], Hamzah Jusoh[2], Jalaluddin Abdul Malek[2]

[1]Jabatan Perancangan Bandar dan Desa, Kementrian Perumahan dan Kerajaan Tempatan, Puterajaya, [2]Pusat Pengajian Sosial, Pembangunan dan Persekitaran, Fakulti Sains Sosial dan Kemanusiaan, Universiti Kebangsaan Malaysia

Correspondence: Azmizam Abdul Rashid (email: azmizam67@yahoo.co.uk)

Abstract

The electronic government (e-government) initiative in Malaysia was launched to lead the country into the Information Age. The vision was for government and businesses people to work together for the benefit of the nation through improved convenience, accessibility and quality of interactions resulting from better information flows, processes, speed and quality of policy development, coordination and enforcement. This paper describes how this vision of e-government had been achieved by the Majlis Perbandaran Subang Jaya (MPSJ) local authority. Seven factors were behind this success of the MPSJ's implementation of the e-government, namely, the willingness of the local authority to commit to e-government and depart from existing ways of doing things; the willingness of the local authority's top management to lead the way to e-government; seamless e-government services that encouraged different agencies to work closely with the MPSJ; the ICT skills building capability and capacity of the MPSJ officers; the development of an e-government public-private partnership framework; the ability of the MPSJ management to overcome cost-related problems in the implementation of e-government; and, the ability of the MPSJ management to monitor and evaluate the impact and benefits of the e-government programme in order to justify continued political and public support. The achievement notwithstanding, the paper identifies further rooms for improvement, namely, the introduction of e-submission to enable the electronic transfer and management of Computer-Aided Drawings (CAD) and related documents through the creation of a Wide Area Network (WAN); and, the application of GIS (GIS-MPSJ) for the computer processing of geographically referenced data.

Keywords: application of GIS, electronic government (e-government), delivers services, ICT skills building, management of Computer-Aided Drawings (CAD), seamless e-government services

Introduction

Since Malaysia implemented the first computer system in 1966, the Government has introduced various initiatives to facilitate the greater integration of Information and Communications Technology (ICT) to improve capacities in every area of life, including the enhancement of education and training programmes. Malaysia saw the advent of the digital revolution from quite early on. We recognized the enormous potential of ICT. For improving our economic and social status, we embarked on the multimedia super corridor (MSC) project in 1996 to help Malaysia leapfrog into the information age. The MSC was envisioned as a global test bed for local and foreign companies to push the limits of multimedia. The MSC's intent was to create a cutting-edge environment to attract foreign businesses, while nurturing and developing local IT Champions at the same time. The MSC would then act as a catalyst for the adoption of ICT

throughout the nation, eventually raising national productivity and making Malaysia excellence in ICT.

In 1997, the Malaysian Government launched the Electronic Government (e-Government) initiative to reinvent itself to lead the country into the Information Age. The implementation of e-Government in Malaysia heralds the beginning of a journey of reinventing the government by transforming the way it operates, modernizes and enhances its service delivery. EGovernment seeks to enhance the convenience, accessibility and quality of interactions with the public and businesses at large. Citizens and businesses are also able to transact with the government anywhere and anytime at their convenience. The main goals of e-government are to improve the quality of public services and the efficiency of administrative work. However, it does not allow citizen participation in local government administration such as policy making and implementation processes using ICT. Public confidence in online services delivery will be a key factor in the success of e-government. The Local Authority is the third tier in the government system, which is at the forefront of public service delivery not only to individuals but also to other organizations of the public and private sectors. The adoption of KM in developing e-government initiatives will be a catalyst in the national strategic policies to achieve the knowledge based economy at the dawn of the 21st century.

This paper examines the implementation and successful of e-government in Subang Jaya Municipal Council (MPSJ) in particular, with respect to on e-complaints. MPSJ is used as a case study for this paper as it is one of the important local authorities in Selangor using e-Government as a main component in delivery system and efficiency in urban governance.

The management of e-complaints by MPSJ had encouraged other local authorities in Malaysia to follow the process of expedite the complaints received from resident. MPSJ had received more than 50 complaints everyday from resident. In 2007, MPSJ received 13,136 complaints in various forms and 14.6% or 1,918 complaints through online complaints or ecomplaints. By 31 December 2007 MPSJ had managed to solve the complaints by about 99.95%. As at August 2008, MPSJ had received 10,561 complaints from resident and 10.6% or 1,119 complaints from e-complaints and 4.1% or 433 complaints through email. Therefore the purpose of this study is to know how MPSJ managed resident complaints via online and expedite the complaints. The study also tries look the factors that make egovernment in MPSJ very successful to arrive at some proposals that can improve the implementation of e-government in the future.

Implementation of e-government in Malaysia: The case of Subang Jaya Municipal Council (MPSJ)

Beginning 1997, parts of Petaling Jaya such as Subang Jaya, Sunway, Puchong and USJ were placed under the jurisdiction of the newly formed Subang Jaya Municipal Council (MPSJ). MPSJ administers the Petaling District, a 16,180 hectares vibrant economic node of the Klang Valley. Its role as a conurbation of Kuala Lumpur has added advantages to its growth in that the expansion of industrial, institutional, commercial and services sectors that come with continuous urbanization has created further employment opportunities. Its location within the MSC region has also contributed to the rapid development of ICT and communication within the district while offering the best infrastructure facilities in the country. The current population of the MPSJ is about 474, 800 people. By the year 2020, this figure is expected to reach the projected total of 644,600. Figure 1 shows the location of MPSJ in the context of the State of Selangor and the Klang Valley region.

Under the guidance set by the federal and the Selangor state governments, the MPSJ has embarked on several ICT endeavours to improve its administrative machinery in terms of structure, systems, procedures, management integrity and work ethics. New strategic measures

were introduced and ICT was utilized to upgrade both the quality of management and delivery system. The MPSJ has thus recognized early the potential and impact of ICT in improving its internal operations and service delivery.

On-line services in MPSJ

Since 2002, MPSJ has developed and improved a system solution for on-line payment, application and complaints. The online system is an e-government ICT-enabled delivery system to enhance transparency and improve the ability of MPSJ to serve clients better. The objective of the system is to automate thus speed up the whole process of assessment payment and resident Complaints while the submission and approval of applications for development plans, building plans, and issuance of Certificate of Fitness are coordinated by a One Stop Centre (OSC) . Tables 1 and 2 show the range of online services provided by the MPSJ.

Through the new system MPSJ offers a single point of contact between the local authority and the public it serves. This system enables MPSJ residents to interact with most of the departments within the MPSJ which provide various services ranging from information searches to license applications. To cater to services which require physical presence/interaction, MPSJ has set up kiosk centres believing that through this dual approach, MPSJ can enhance the relationship and quality of interactions between the MPSJ and its clients. Online services are one of the pilot applications that MPSJ has embarked upon to demonstrate how the ICT, delivered via the latest and most convenient ways, the Internet, kiosks, the ever-mobile hand phone and even podcasts can be exploited for the benefit of the public.

Since the implementation of the ICT applications in 2002 the MPSJ had received more than 50 complaints everyday from residents. In 2007 the number of complaints stood at 13,136 of which 1,917 (14.6%) were received online via MPSJ's website and the rest via telephones, SMS, newspapers, faxes, open counters, and MPSJ Open Day events. Complaints were mostly related to environment, neighborhood issues, objections to tax assessments and on-going construction projects, cleanliness, utilities and infrastructures. Mostly complaints came from resident in Subang (5,562), followed by Puchong (4,241), Seri Kembangan (1,631) and Kinrara (1,702).

MPSJ's Corporate Development Department (CDD) took immediate actions on the complaints . The maximum days normally taken by the CDD to settle the problems raised in the complaints were 14. The CDD coordinated the Complaints Meeting every Tuesday and Thursday. The Head of MPSJ chaired the meetings and the CDD's Director acted as secretary. The purpose of the meetings was to inform heads of departments and relevant officers of the type and location of the complaints, the courses of actions to be taken and the progress made on previous complaints. The heads of departments and relevant officers then visited the locations and resolve the problems complained within 7 days. Complainants were then informed of the status of their complaints via email or letter. Thus, by 31 December 2007, MPSJ had managed to settle and solve 99.95% of the complaints it received. Similarly, as of August 2008, MPSJ had received 10,561 complaints of which 1,119 or 10.6% were e-complaints, and another 433 or 4.1% were e-mail complaints . By 12 August 2008, MPSJ had managed to settle 9,965 or 94.35% of those complaints . Most of the complaints came from residents in Subang (4,717),followed by Punchong (3,339), Seri Kembangan (1,176) and Kinrara (1,333). Given a working situation where there had been endemic shortages of staff, that the MPSJ still managed to complete close to 100 percent of the task truly speaks for the superb achievement of this local authority . Figure 2 illustrates the overall process of e-complaints management in the MPSJ.

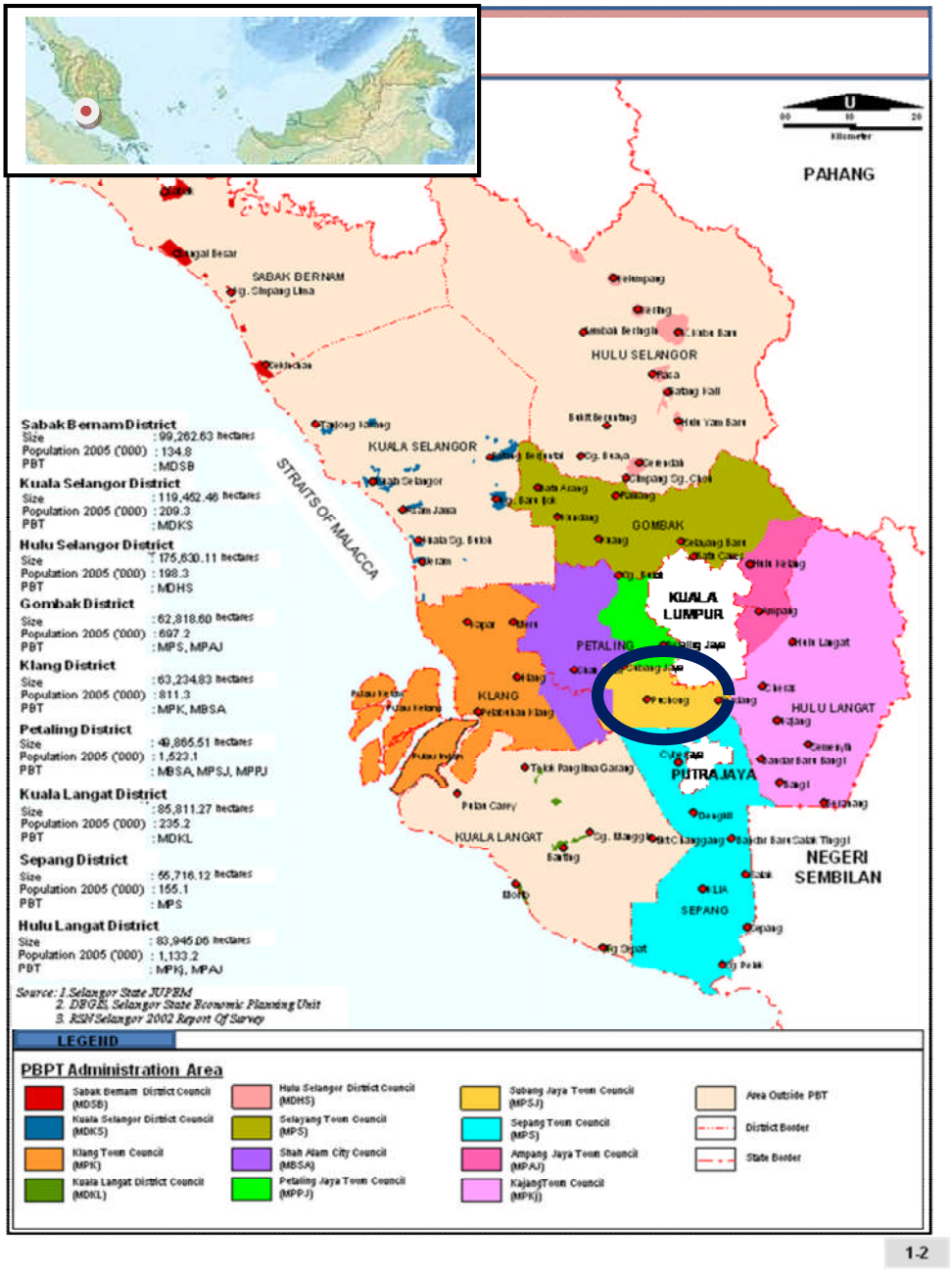

Figure 1: *Location of MPSJ in the context of state of Selangor and Klang Valley Region*

Table 1. On-line services provided by local authorities in Selangor and Federal Territory

No	Local Authorities	Payment	Complaint	Submission	Status	Information	Total
1	Majlis Daerah Kuala Selangor	✔	✔	✘	✔	✔	4
2	Majlis Bandaraya Shah Alam	✔	✔	✔	✔	✔	5
3	Majlis Daerah Hulu Selangor	✔	✔	✘	✘	✔	3
4	Majlis Daerah Kuala Langat	✔	✔	✘	✘	✔	3
5	Majlis Perbandaran Ampang Jaya	✔	✔	✘	✔	✔	4
6	Majlis Perbandaran Kajang	✔	✔	✘	✘	✔	3
7	Majlis Perbandaran Klang	✔	✔	✘	✔	✔	4
8	Majlis Bandaraya Petaling Jaya	✔	✔	✘	✔	✔	4
9	Majlis Perbandaran Selayang	✔	✔	✔	✘	✔	4
10	Majlis Perbandaran Subang Jaya	✔	✔	✘	✔	✔	4
11	Majlis Perbandaran Sepang	✔	✔	✔	✘	✔	4
12	Dewan Bandaraya Kuala Lumpur	✔	✔	✔	✘	✔	4
13	Perbadanan Putrajaya	✔	✔	✔	✔	✔	5
	Total online services	13	13	5	7	13	50

Source: Ministry of Housing and Local Government and State of Selangor Secretariat Office, 2008
Legend : ✘ - Online services not provided ✔ - Online services provided

Table 2. On-line services provided by MPSJ

NO	DETAIL ONLINE SERVICES	Provided / Not Provided
1	Bayaran Cukai Taksiran	✔
2	Bayaran Lesen Perniagaan	✘
3	Bayaran Lesen Papan Tanda Kekal	✘
4	Bayaran Lesen Papan Tanda Sementara	✘
5	Bayaran Lesen Penjaja	✘
6	Bayaran Kompaun	✘
7	Semakan Cukai Taksiran	✔
8	Semakan Status Lesen Perniagaan	✘
9	Semakan Status Permohonan Lesen Papan Tanda Kekal	✘
10	Semakan Status Permohonan Lesen Papan Tanda Sementara	✘
11	Semakan Status Permohonan Lesen Penjaja	✘
12	Semakan Status Sewaan Kemudahan Awam	✔
13	Semakan Status Kompaun	✔
14	Semakan Maklumat Harta Cukai Taksiran	✔
15	Semakan Bil Cukai Taksiran	✔
16	Semakan Status Wang Cagaran	✔
17	Semakan Status Bil Pelbagai	✔
18	Semakan Ivois Pembekal	✘
19	Semakan Kompaun	✘
20	Semakan Penyata Kompaun	✘
21	Semakan Kompaun TLK	✘
22	Semakan Bil Sewaan	✘
23	Permohonan Lesen Perniagaan	✘
24	Permohonan Lesen Papan Tanda Kekal	✘
25	Permohonan Lesen Papan Tanda Sementara	✘
26	Permohonan Lesen Penjaja	✘
27	Permohonan Kebenaran Merancang	✘
28	Permohonan Kebenaran menduduki	✘
29	Permohonan Kerja Tanah	✘
30	Permohonan Landskap	✘
31	Permohonan Menyewa Rumah	✘
32	Permohonan Membeli Rumah	✘
33	Pengurusan Aduan	✔
34	Aduan Kpd Ahli Majlis	✘
35	Status Aduan dan Maklum balas	✘
36	Maklumat Perpustakaan	✔
37	Jadual kerja-kerja Memungut Sampah	✘
38	E-Pusara	✘
39	Informasi dan Maklumat	✘
40	Kemaskini Maklumat	✘
41	Maklumat Lalulintas	✘
42	Carian Maklumat Sewa	✘
43	Carian Maklumat Bil Pelbagai	✘
44	Tempahan Online Utiliti dan Kemudahan Awam	✘
TOTAL ONLINE SERVICES		10

Source: Ministry of Housing and Local Government and State of Selangor Secretariat Office, 2008
Legend : ✘ - Online services not provided ✔ - Online services provided

Factors behind the successful implementation of the e-government in MPSJ

Several factors have led to the successful implementation of the e-government in MPSJ:

Firstly, the willingness of the local authority to commit to e-government and depart from existing ways of doing things. The e-Government project is not mere computerization of the MPSJ. It involves the effort of reinventing processes, standards and technologies. MPSJ has incorporated ICT into a package of modernization-related changes and reforms that challenge public administration's existing internal governance frameworks. E-government coordinators in MPSJ had used ICT as a tool to facilitate change and not just attempted to restructure public administration around the old non- ICT frameworks.

Secondly, the willingness of the local authority's top management echelons to lead the way to e-government .The leadership and enthusiasm of these leaders and officers had driven the successful implementation of the e-government in MPSJ. They had the vision, commitment and actions that were consistent with the message and thus helped to translate MPSJ's vision into an action plan. The MPSJ's council members, top management and officers made e-government a priority and steered transformation by putting it in a broader context. It was little wonder then that the e-government concept was able to gain acceptance even at the early stage of the implementation. At more advanced stages, they managed to transform and sustain support for the e-government project. Indeed, leadership was present and felt at all governance levels - from the political to the administrative.

Thirdly, seamless e-government services that encouraged different agencies to work closely together with the MPSJ. Agencies such as the Shah Alam City Council (MBSA), the Temerluh Municipal Council, the Ministry of Housing and Local Government, the State of Selangor Town and Country Planning Department, and other agencies had been able to collaborate with the MPSJ in the implementation of e-government. The collaboration did not only involve technical but also shared clients. MPSJ's officers who were e-government coordinators had facilitated the planning for seamless services, clarified data sharing arrangements and addressed accountability issues. The approaches adopted to deal with collaboration issues included peer reviews, standards and frameworks, inter-operability, shared infrastructures and evaluated pilot projects.

Fourthly, the implementation of e-government enhanced the ICT skills building capability and capacity of the MPSJ officers. The much improved skills were not only in technical but also in decision-making matters. The MPSJ officers were able to lead the organization's ICT strategy not only with the spelling out of its broader goals but also with the up-dating and strengthening of their traditional management skills in order to deal with the impact of e-government. In other words, the MPSJ had taken steps to identify and ensure the skills needed for effective e-government.

Fifthly, the implementation of e-government encouraged cooperation between the government and private sectors. MPSJ and other developers have developed an e-government public-private partnership framework. Transparency of skills between the two sectors enables new product development through high-level creativity and innovation efforts. As part of this framework, an examination of audit and accountability arrangements covering ICT partnerships would be helpful.

Sixthly, the ability of the MPSJ management to overcome cost-related problems in the implementation of e-government, such as ineffective project management, technology failures, funding discontinuity and unrealistic political demands. The MPSJ had managed to identify these issues and dealt with them in order to prevent them from jeopardizing its e-government project implementation.

Finally, the ability of the MPSJ management to monitor and evaluate the impact and benefits of the e-government programme in order to justify continued political and public support. Assessments had been realistic and done within time frames that were useful to MPSJ with priority given to the assessment of demand, benefits and service quality. The importance of

assessing demand cannot be overstated; as services become more complex and expensive user feedback become an indispensable factor to consider.

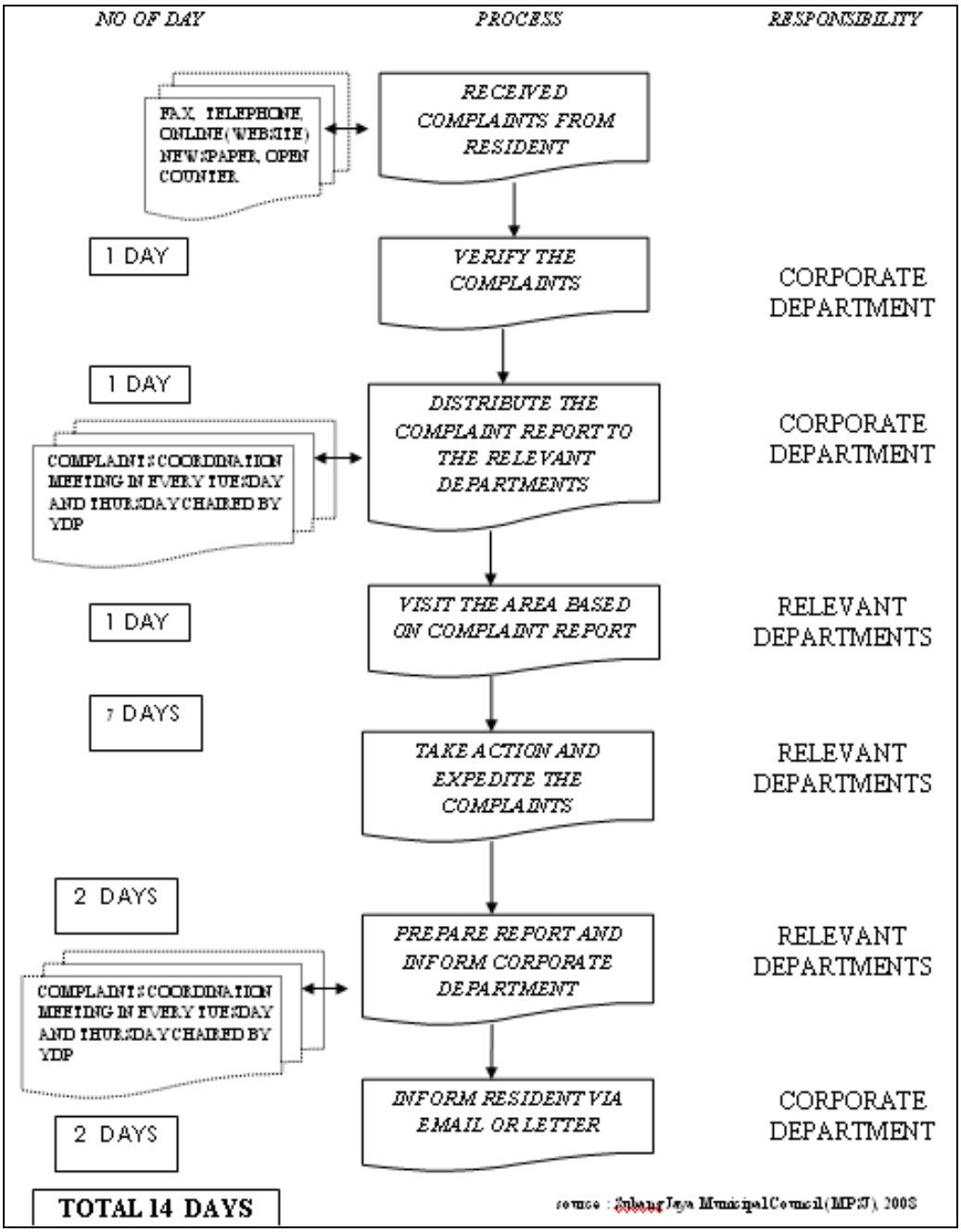

Figure 2. *The process of e-complaints management in the MPSJ*

Rooms for further improvements of e-government in MPSJ

Although the MPSJ has been successful in implementing its e-government, and as depicted in Table 2 wherein the local authority provided only 10 out of the total 44 possible on-line services, there are still rooms for further improvement of this achievement.

For one, e-submission should be introduced and implemented to enable the electronic transfer and management of Computer-Aided Drawings (CAD) and related documents. It will

have create a Wide Area Network (WAN) to extend the network beyond the physical boundaries of a building. For this a lease line from the telecommunications provider and a router at each end of the line will be required. Thus, workers separated by vast distances would be able to "see" their whole organization's network neighbourhood as though they were in the same building. Hence, MPSJ could be connected to the State Administration through such a WAN allowing the State Government to access information on development approvals at each of the technical departments as and when required without having to direct MPSJ to compile regular reports for the State's consumption. WANs are expensive and dedicated to users for the various technical departments (and its business partners). The World Wide Web (WWW) on the other hand offers the world-wide audience access to information published by the MPSJ. Developers and consultants would be able to investigate planning guidelines with map-enabled webs or searchable database-driven webs without having to travel long distances from their offices to MPSJ's office. They could also track the progress of their applications through restricted webs from the comfort of their office anywhere in the world. Through the usage of this electronic solution, it is expected that the whole approval processes duration will be substantially reduced by more than 90%. Driving the traffic across the network of course are the servers controlling access (security) to the resources, processing the request for data and then sending the data or file to the computer which sent the request. In a multi-department network with multiple servers and domains (groups) trust relationships would have to be established. It will also offer the pre-approved renovation plan process for house-owners.

The new system solution will benefit both the authorities and the community in terms of efficiency, transparency, shorter turn-around time of application processing, and approval which all currently takes over a year, to now about a month, and cost saving due to faster project approval process. Developers and their consultants will be able to 'track' the progress of their applications online, and Government officers will be able to constantly monitor their activities at every stage. Because all submissions are made digitally, there will no longer be a need for hard copies of plans and documents, and files cannot be lost or misplaced. The application of the Build-Own-Operate (BOO) business model solution will further enhance for the MPSJ e-government . Figure 3 illustrates a conceptual framework for implementing a networked MPSJ e-submission and approval system which is accessible also by other government agencies as well as the general public and the local authorities' other clients.

For another, the application of Geographical Information System for the MPSJ (GIS-MPSJ) would create immense opportunity for the development of new approaches to the computer processing of geographically referenced data. With this technology, a more effective solution to various spatial-related problems including those associated with planning matters can be achieved. GIS which come as a complete package with the capability in capturing, storing, updating, manipulating, analyzing and displaying of all forms of geographically referenced information, has proven to be an appropriate tool for regional planning and monitoring. The MPSJ must increase its effectiveness by developing innovative ideas in carrying out its functions.

The urban system can no longer be treated in terms of simple land use and traffic concepts. The planner's conception of the urban system must be extended to include a host of social, political and economic variables. The mixture of problems which must all be resolved together creates a situation in which many alternatives must be tried, combined, improved and tested intellectually and practically, and disseminated to the public. The GIS-MPSJ web page will act as a source of reference in making decision and evaluation for planning and development purposes where MPSJ and Klang Valley are concerned. This hopefully will contribute to a better-informed society in MPSJ. Through access to the interactive maps interface, users are allowed to retrieve information such as physical characteristics and built up areas, green and recreational areas, land use, housing as well as population and socio-economy. In addition, results of several analyses may also be made accessible, for example, those associated with the *Integrated Land Use*

Assessment (ILA) study to encourage users to participate in evaluating the model as well as final results for further improvement of the e-government.

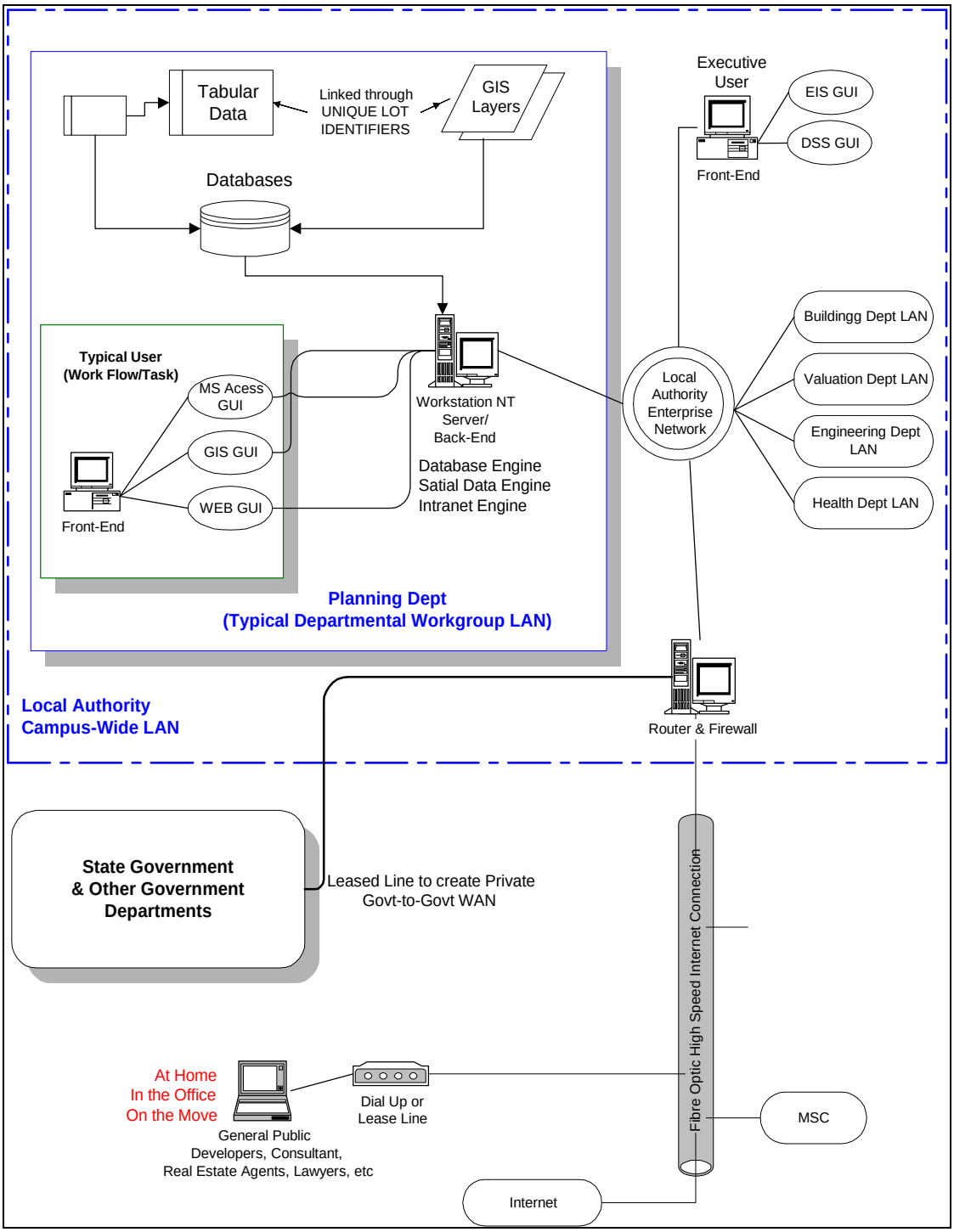

Figure 3. *A conceptual framework for implementing a networked MPSJ E-Submission and approval system*

Conclusion

The e-government initiative in Malaysia was launched to lead the country into the Information Age. It has improved both how the government operates internally as well as how it delivers services to the public. It has improved the convenience, accessibility and quality of interactions with citizens and businesses and thus simultaneously improving information flows and processes within government and the speed and quality of policy development, coordination and enforcement. The vision of e-government is a vision for government, businesses and citizenry working together for the benefit of the nation. The vision focuses on effectively and efficiently delivering services from the government to the general public, enabling the government to become more responsive to the needs of its citizens. The MPSJ has proven to some degree that this vision is achievable.

The inspiration of the MPSJ e-government means that Malaysia should now work towards improving local governance by expanding the consultative process through using the ICT tools more effectively, and extending lessons learnt from initiatives such as eKL, MyEG into other areas that are not as urbanized and computer-literate.

References

Ahmad Sarji (1996) *Civil service reforms towards Malaysian's Vision 2020*. Pelanduk Publications, Kuala Lumpur.

Ahmad Al - Athari & Mohamed Zairi (2001) Building benchmarking competence through knowledge capability. *Benchmarking : An Internal Journal* 8 (1), pp 70-80.

David Nicholson – O'Brien (2000) *Government in the knowledge age-how governments can lead with knowledge*. *Knowledge Management Review* 3 (1), pp. 4-30.

Davenport TH et al (1998) Successful knowledge management projects. *Sloan Management Review* 39 (2), pp. 43 - 58.

Hansen MT *et al*. (1999) What's your strategy for managing knowledge? *Harvard Business Review* 77 (2), 106 - 117.

Heeks R, Bhatnagar S (1999) Understanding success and failure in information age reform. In: Heeks R (ed) *Reinventing government in the information age: IT enabled public sector reform*, pp. 49-74. London, Routledge.

Ives W, Gordon C (2000) *Knowledge management journey: Navigating the IT/HR turf way. Harvard Business Review on knowledge management*. Harvard Business School Press.

Jacky Swan, Maxine Robertson, Sue Newell (2002) Knowledge management: The human Factor. In: *KM Systems*. Thomson Learning.

Muhammad Rais Abdul Karim (1997) *Reengineering the public service*. Pelanduk Publications and MAMPU, Kuala Lumpur.

Muhammad Rais Abdul Karim, Nazariah Mohd Khalid (2003) *E-Government in Malaysia-Improving responsiveness and capacity to serve*. Pelanduk Publications and MAMPU, Kuala Lumpur.

Peter AC Smith, Moira McLaughlin (2004) KM: People are important. *Journal of Knowledge Management Practices* Vol 5.

Peter CB (2001) A primer on Knowledge Management. In: *Students Accountant*, pp. 30-36. ACCA, UK.

Peter F Drucker (1999) Beyond the information revolution. In: *The Atlantic Monthly* [Cited October 1999]. Available from: http://www,theatlantic.com/issues/99oct/9910drucker.htm.

Quinn J, Anderson P, Finkelstein S (1996) Managing profesional intellect: Making the most of the best. *Harvard Business Review* (March –April), 71 – 80.

Ridderstrale J (2000) Business moves beyond bureaucracy. Mastering Management. *Financial Times*. November 6.

Rory L Chase (1997) Knowledge management benchmarks. *Journal of Knowledge Management* 1 (1), 83-92.

Ruggles R (1998) The state of the nation: Knowledge management in practice. *California Management Review*, Spring.

Shapero A (1985) *Managing professional people: Understand creative performance*. The Free Press, New York, NY.

Sattar Bawany, Bawany Associates (2004) Implementation of knowledge management in Singapore Organizations. *Journal of Knowledge Management Practice*, October.

Shields R, Holden T, Schmidth RA (2000) A critical analysis of knowledge management initiatives in the Canadian public service: The impact of a knowledge – based economy on work in the public service, the virtual of expertise and knowledge. Available from: www.carleton.ca/innovation/km-fed.pdf.