BY SARAH PARKES

Crosstown Traffic

Traffic headaches in Malaysia's busy capital, Kuala Lumpur, soon may be a thing of the past, thanks to a cutting-edge IT-based system.

Over the last 20 years, a thriving information technology (IT)-led economy has seen Malaysia's capital Kuala Lumpur evolve into one of Asia's busiest, most vibrant metropolises. But chronic rush-hour congestion now regularly brings commuters to a standstill on the major arteries feeding the booming Klang Valley and Multimedia Super Corridor regions.

Fortunately, those snarls, queues and overheated engines (and motorists) soon may begin to disappear thanks to a MYR400 million (US105 million) state-of-the-art Integrated Transport Information System (ITIS).

Based around two core components—the Advanced Traffic Management System (ATMS) and the Advanced Traveller Information System (ATIS)—the new system is designed to help better manage the Kuala Lumpur road network by providing comprehensive round-the-clock traffic information to the city's traffic management officers, public transport operators, emergency services and commuters.

Providing blanket coverage of 200 km of roadway via a network of 255 closed-circuit television cameras, 728 automatic incident detection cameras and 140 variable-message signs that dynamically display up-to-the-minute traffic information and road warnings to motorists, the system promises to improve road usage and safety by cutting traffic delays, reducing accidents, improving emergency response times, minimizing pollution and assisting in future road planning.

The heart of the new system is a sophisticated Traffic Management Centre, which will collect, process and evaluate information from the network's front-end primary data sensors and surveillance systems.

The ITIS project, which began in mid-2003, is being managed by local firm ITS Konsortium through a core team of about 30 professional staff, who are charged with implementing and overseeing seven core work packages. Responsibility for the two key elements of civil engineering and IT systems is divided between two senior project managers (SPMs), who themselves report directly to Deputy Project Director Lawrence Liew and, ultimately, a project chief executive officer.

"During our first task—preparation of the Master Implementation Program (MIP)—we broke the project into four key phases: Planning, Design and Prototyping (PDP), Acceptance, Testing and Procurement (ATP), Physical Implementation (PI), and Testing and Commissioning," Liew says. "The MIP, which is punctuated by a number of key milestones, is relatively loosely structured—a deliberate decision on our part that allows the program to be more adaptive to external shocks."

One example of this need for flexibility was the implementation of PDP, a phase originally envisioned to last approximately six months that had to be subsequently extended due to unavoidable delays in securing site access for survey and reconnaissance work. Liew says this kind of risk to project timelines is being mitigated actively by rapid mobilization of additional teams and resources as needed, to ensure milestones are still reached on track.

"The nature of the project means that, logistically, an increase in hands-on resources generally translates into comparable increments in productivity rates for physical works,"

he says. In the same spirit, the potential for software delays has been offset by splitting the development process into two parts, with core development work rolled out early and proofing and testing brought in during the phased completion of roadside equipment.

Liew says basing the team within a single project office has streamlined communications and facilitated rapid problem-solving through *ad hoc* working groups. A dedicated project intranet also fosters fast information exchange between the team and its equipment and engineering sub-contractors, supplemented by regular weekly, fortnightly and monthly review meetings with relevant team members and third party suppliers.

With ATP now complete for most project subsystems, the 18-month PI phase began in earnest in the third quarter of 2003 and is scheduled for completion in early 2005. Stage testing and commissioning will begin around the same time, with project wrap-up expected on schedule mid-2005.

When fully installed, information generated from the system will be accessible through a dedicated ITIS portal, which will offer a range of multimedia services including Route Planner, which will provide information on traffic volumes, accidents, the location of nearby service stations and so on; Driving Tips, which will cover road safety topics and useful driver resources; and Public Transport, which will include information on fares, routes and timetables. Advanced telecommunications capabilities also could allow the system to automatically send information direct to drivers' mobile phones. PM

Sarah Parkes is a freelance journalist with more than 12 years of experience in the telecom and IT sectors. Based in France, she is a regular contributor to a number of U.S. and European publications, including London's *Financial Times*.