OCL Actions in Response to the PwC Report (as at end August 2007)

AREAS	RECOMMENDATION	OCL ACTION
1. Root Cause	OCL to consider implementing certain enhancements (working in conjunction with the relevant parties) to address the problems arising from the identified root causes, the key ones of which are as follows: • Rectifying the malfunction in the relevant certified EFT module and obtaining appropriate re-certification; • Enhancing the error logging and/or handling capability between the various software components of the EPS enabled add-value machines and with the EPSCO host system; • Incorporating suitable unique identifiers (e.g., Octopus card ID) in the relevant EPSCO transaction file and using such identifiers to enhance reconciliation procedures to facilitate improved and more proactive identification of potential failed add-value transactions; and • Improving the clarity of messages displayed at the EPS enabled add-value machines to the customer during the add-value process.	OCL set up a Task Force comprised of our technology team and representatives of all relevant third parties immediately upon the receipt of the PwC Report on 27 July 2007. This task force is working to address the identified root causes with all the relevant parties (EPSCO, EFT module manufacturers, MTR, KCR and the Network Provider). The first meeting was held on 31 July 2007. All parties have since devoted considerable time and resources to studying the issues raised by the PwC Report and the Task Force will meet for the third time in early September to discuss coordinated actions. Each party has identified the specific tasks under its responsibility. Estimates related to resource and timescales needed to implement those tasks are being prepared. In relation to specific items: Problems causing the malfunction of the EFT module have been identified. Work is already in progress to incorporate the Octopus ID within the EPSCO transaction file. OCL has reviewed and improved the clarity of consumer messages displayed on the add value machines. Despite the complexity of the system and the number of parties involved, Octopus in its oversight role, has set a benchmark of ensuring that similar incidents cannot occur again as final resolution to ensure that no similar failures will be repeated. OCL is currently evaluating each task to be carried out against this benchmark.

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2. OCL's Oversight of Third Party IT System Change Management	 Greater ownership in overseeing and managing the implementation and integration of systems and critical components of the Octopus system provided by third-party providers should be taken up by OCL. OCL take greater ownership in overseeing and managing the implementation and integration of systems and critical components developed by outside third parties. Sufficient due diligence and impact analysis should be carried out by OCL against the work performed by such third parties prior to placing reliance on them. An appropriate level of risk assessment and impact analysis should be conducted by OCL with regard to all changes implemented by OCL and other related third parties which are deemed to be critical to OCL's business operations. OCL should also develop and adopt a more integrated testing approach for system implementation and change management activities. 	OCL management has completed the first phase of the risk assessment of all third-party providers. OCL is in the process of specifying the appropriate levels of impact assessment, IT change management and integrated testing approach based on the level of risk for each provider that has been identified through that assessment. This process will be completed in November. The oversight of third-party IT System Change Management will be one of the responsibilities of the newly created OCL Risk Management Committee as detailed in Section 6 below.
	OCL should enhance the controls over the program migration process, data patching activities and data backup and restoration procedures.	Enhancements to the program migration process and backup procedures were completed in May and July, respectively. Enhancements to the controls over data patching have been specified, are currently in development and should be completed in September.

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3. OCL's Management and Oversight of Outside Service Providers	A clearer identification of OCL's oversight responsibilities over certain outside parties which form an integral part of OCL's business operations should be established.	OCL Management has started the implementation of a process for assessing the criticality and risks of operations and activities performed by all outside service providers.
	OCL put in place a process of assessing the criticality and risks of operations and activities performed by outside third parties, and clearly identify and define its oversight responsibilities over the same.	OCL Management is establishing an Operational Risk Management unit within the Operations Department to ensure that OCL's oversight responsibilities are fulfilled. That unit will be functional in November and will monitor the outside service providers' compliance with OCL standards on an on-going basis.
	A thorough review of the existing monitoring procedures and mechanisms should be carried out by OCL.	OCL's oversight responsibilities for Outside Service Providers will be one of the risk areas within the scope of the newly created OCL Risk Management Committee as detailed in Section 6 below. The Committee will review the Management risk reports and actions related to Outside Service Providers.
	Terms and conditions included in the service agreements with outside service providers (OSPs)/merchants should be enhanced, monitored and enforced by OCL.	Legal review of all standard contracts is underway and that review will incorporate the OCL standards as defined above. The review will be completed in November.
	OCL should discuss with MTR and KCRC to help ensure that appropriate operational manuals and/or procedures are prepared and agreed to address the maintenance requirements of AVMs located at MTR and KCR stations and also reduce the risk associated with the potential mis-use of the system 'reset' function of the EPS add-value machines.	The recommendation for improvement to MTR and KCRC operational procedures has been discussed in the EPS Task Force meetings (see section 1 above) during August 2007 and all parties agreed to enhance the operational procedures before the resumption of the service.
	OCL should formalise the existing policies and procedures in tracking and handling of incidents raised by OSPs/merchants.	Incidents raised by OSPs/merchants are being included within the enhancements to the centralised and standardised problem/incident management process (see section 4 below).

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4. OCL's Problem Management Process	An integrated problem management framework should be established. PwC recommends that OCL review and enhance its existing problem management process by (a) assessing the sufficiency of information captured in the exceptions reports received; (b) establishing a formal definition of 'incidents' triggering different escalation requirements; (c) establishing a clearer delineation of roles and responsibilities amongst individual departments and harmonising procedures where possible; and (d) creating a central oversight function/process to facilitate the analysis of incidents identified and responses to the same in a holistic manner, i.e., cross departmental. Communication of issues by the Operations Department to other departments and among different departments within OCL for follow-up actions should be enhanced. Evaluation of potential issues underlying cardholders' enquiries and complaints and information captured in the Refund Databases should be enhanced and better utilized. The current approval process with regards to the issuance of press releases should also be enhanced.	Customer communications and problem management are high priorities for OCL. In that regard, customer service, including related communications, and problem management are taken very seriously. The related actions taken in response to the failed Octopus EPS add-value incident include the following: • OCL has completed a review of our problem management process and, as a result, we have revised our incident and hotline call report formats to better capture relevant data and we have also improved the process for press release approval. Summaries of the hotline reports, in their new format, are now circulated to senior management on a regular basis to ensure that there is broad-based awareness of the nature of customer service issues and also indications in case these may be part of broader issues that need to be addressed by one or more functions of OCL. • OCL has created a centralised problem management function within the Customer Relations unit that, among other things, manages resolution of consumer complaints and we have recruited a Senior Manager, Customer Relations with long customer service experience to head this unit. That Senior Manager reports directly to the Operations Director. • OCL is also establishing a new, , dedicated unit to champion consumer interests and we are recruiting a Senior Manager to head that new function. This new Senior Manager will have extensive experience managing consumer-

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		related issues. This unit will focus on enhancing all aspects of our service to consumers. The Senior Manager of this unit will report directly to the Operations Director.
		 Enhancements to the systems, including the Refund Database, to better support the two units above are in progress, which when implemented in 4Q 2007 will increase OCL's speed of identification and response to problems and further enhance safeguards for consumers' interests.

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5. Improving Consumer Protection	A more appropriate balance should be struck between OCL's and cardholders' interests in the evaluation of business and operational issues	The OCL Board will create an additional Independent Director seat on the Board to further enhance Board level discussions and consideration on a wide spectrum of issues including consumer interest.
	 Recommendation that OCL Board/senior management re-assess the extent to which cardholders' interests are being considered in the evaluation of business and operational issues of OCL, and appropriate management processes be considered to enable such information to be collected, assessed, and reported to the Board; 	At the OCL Management level, a new, dedicated unit to champion consumers' interests is being established and the recruitment of a Senior Manager to head this new function is in progress. This new Senior Manager will have extensive experience managing consumer related issues. This unit will focus on enhancing all aspects of our service to consumers, including consumer protection. The Senior Manager of this unit will report directly to the Operations Director.
		On 23 August, OCL launched a major new initiative, the 'Friends of Octopus', which is a dedicated customer-engagement program that will strengthen OCL's two-way communication with its customers so that they can play a greater role in the development and improvement of OCL's products and services.
	 OCL establish a more proactive process and procedures for identifying, locating, and handling of Octopus cardholders who have unclaimed values, and revisit the record keeping policy on refunds to cardholders; 	The OCL Management has started a process of thoroughly reviewing the customer refund process and will complete the review by the end of September 2007. The record keeping policy was revised in April 2007.
	OCL should also enhance cardholders' awareness of their rights and responsibilities in the usage of Octopus cards; and	A Program of actions to enhance cardholder's awareness of their rights and responsibilities in the usage of Octopus cards is underway and it includes educational advertisements that were placed in leading newspapers in May 2007; promotion of the use of transaction enquiry machines in MTR/KCR stations since May 2007; enhanced consumer tips on the OCL website since July 2007; and an enhanced card user guide to be printed and distributed in September.

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	OCL should consider assigning additional call centre resources for handling lost card reports to enhance customer services.	Additional resources were added in April 2007 at the same time as hotline service hours were extended from 9 to 9, six days a week. Other actions to strength our consumer services already taken include:
		Provision of the printout of 10 most recent transactions at MTR/KCR customer service counters to all cardholders (previously only P cardholders) was extended on 1 June 2007.
		The cost of getting printouts for the last 40 transactions has been reduced from \$200 to \$100 since 1 June 2007.
		The \$20 handling fee on Personalised ('P') Card applications has been waived from 1 August 2007 for the next 12 months.
		Development of a P Card instant issuance program to encourage and make it easier for customers to apply for P Cards. P Cards allow OCL to contact customers should the need arise.

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AREAS 6. OCL's Governance	 A review should be performed to identify those areas where governance structures and processes could be developed or enhanced to better support OCL's business going forward OCL to enhance the coverage of OCL's existing IT policies, procedures and guidelines and a more comprehensive IT governance framework be developed and approved by the Board and implemented and monitored on an ongoing basis; OCL to revisit the existing approach of the Internal Audit Department to better align their focus with the broader range of risks facing OCL going forward; and OCL to reassess the existing compliance 	Following a comprehensive review, which included external expert opinion, the OCL Board has accepted the review recommendations and has agreed to make three changes that will better support OCL's governance going forward: (i) The appointment of an additional Independent Director, as detailed in section 5 above. (ii) Enhancing the approach, visibility and access of Internal Audits to the Board through a standing agenda item presented by the Chairman of the Audit Committee at each Board meeting following Audit Committee meetings. (iii) The formation of a new Risk Management Committee chaired by the CEO and supported
	OCL to reassess the existing compliance framework and approach including the adequacy of resources assigned to the handling and monitoring of compliance requirements. OCL should also consider the need for a dedicated compliance committee and function responsible for the development of formalised compliance related policies and procedures.	by two other Board directors. The Committee will be covering a full range of risks including IT Governance and Compliance.