

A Powerful Tool to Monitor Spending Compliance
and Combat Fraud and Misuse

MasterCard Expert Monitoring System



The Demand for Greater Accountability will Continue to Increase...

The ability to streamline financial processes to save time and resources is a top priority for government procurement officials. To help achieve this goal, MasterCard offers the MasterCard Expert Monitoring System™, a secure, web-based, system designed to augment and transform the organizational processes of electronic payments within government agencies.


The MasterCard Expert Monitoring System is a suite of tools that is both adaptable and adjustable to changes in financial management activities by anticipating future requirements while adding value to daily processes. Card transaction data from the MasterCard purchasing, travel, fleet, and integrated card programs is turned into actionable information to help procurement officials meet several, critical card program objectives such as:

- Ensuring data integration and transparency
- Advancing compliance with oversight and management requirements
- Facilitating organizational change
- Anticipating future needs of agencies

MasterCard Solution Meets Key Objectives Outlined by the General Services Administration and the Office of Management and Budget

Critical to the success of government agency card programs is the ability of procurement officials to ensure that the card programs comply with both the General Services Administration (GSA) and the Office of Management and Budget (OMB) directives. As a result of increased oversight and reporting requirements (1099, strategic sourcing, fraud detection, controls to identify internal misuse, etc.), all government agencies must identify those tools that provide value in both meeting and supporting the compliance requirements of the GSA and the OMB.

The MasterCard Expert Monitoring System supports strategic sourcing, mines card data, and provides a state-of-the-art solution for risk management, fraud detection and mitigation, detection of internal misuse, and compliance monitoring and reporting. In addition, the system has the ability to support all of the key requirements outlined by the office of the GSA SmartPay Program, Appendix B to the OMB Circular A-123, the Department of Defense Charge Card Guidebook, and other congressional mandates.

	Architecture	Database	Rules and Queries	Number of Users
 Dynamic Monitoring System	Client Server	MS SQL Oracle	Complex Queries	Up to 25 Users
Expert Monitoring System Premium	Browser Based	Oracle	Complex Queries/Artificial Intelligence Driven Scoring	Up to 25 Users

The Difference is in the Rules

The MasterCard Expert Monitoring System is a powerful system that relies on rules-based technology. Certain behaviors can be identified by a complex relationship between transactions. Since suspicious transactions can be similarly characteristic, the rules capabilities enable procurement officials to identify distinct characteristics. If a transaction meets specific criteria, the Expert Monitoring System highlights it for further review allowing early detection of fraud, or ensuring employees are complying with agency spending policies. Because “expert technology” can never replace the proactive value of the human expert, MasterCard subject matter experts work with procurement officials to define a set of rules and/or criteria related to unacceptable card usage.

During implementation, the MasterCard implementation team may recommend inputting a set of basic rules based on best practice spending guidelines. The implementation team will then work with procurement officials to help develop rules to support specific business objectives. MasterCard works with procurement officials to define the business rules needed for each specific card program, recognizing that procurement officials have the best understanding of their agencies, the employees, and culture. The system is then set up to automatically extract data from a variety of sources (e.g., procurement systems, purchasing card transaction data, etc.). The MasterCard Expert Monitoring System compares transaction data to the implemented rules highlighting specific patterns or trends. As spending behaviors evolve, the Expert Monitoring System empowers the procurement official to change the rules to ensure behavior patterns are identified and the appropriate reporting and investigative processes are managed efficiently and automatically.

Ensure Data Integration and Transparency

The MasterCard Expert Monitoring System allows government procurement officials to have a bird’s eye view of siloed databases, providing the ability to make informed decisions about accurate, synchronized, and timely sets of data. Data can be coordinated from multiple locations such as data warehouses, databases, and data marts to provide a dashboard view of all agency card transaction information. Accountability may be increased

due to improved transparency, and procurement officials gain comprehensive views of how and where public funds are used.

Government procurement officials also have the ability to create profiles to address agency needs and identify opportunities for strategic sourcing. For example, fraud/misuse or risk and behavior rules can be created based on the following profiles:

- Cardholders
- Merchants
- Products
- Geographic locations

To further ensure strategic sourcing, multiple profiles can be monitored and scanned concurrently. Once rules are input into the system, procurement officials are able to retrieve up-to-date reports with a few keystrokes, e.g., “Who are the top fifty (50) merchants based on total agency spend for the most recent quarter of the year?” The Expert Monitoring System allows vast amounts of data to be enhanced in an effort to develop innovative processes and reduce risk.

Advancing Compliance with Oversight and Management Requirements

Many U.S. government agencies do not have the resources or the proper skills needed to meet the various oversight and management requirements such as the OMB Circular A-123. In many cases, there is only a handful of procurement officials, or just one, to oversee the card activity of all the employees within an agency. The procurement official is required to identify and rectify card misuse, fraud, and compliance. With the Expert Monitoring System, compliance is facilitated throughout the entire agency, at every level. All department heads are provided the ability to identify impending issues in real-time, prior to them becoming serious problems.

The MasterCard Expert Monitoring System can aid procurement officials in singling out fraudulent transactions and card misuse. Its automated, instant mobile alerts identify questionable card transactions for follow-up. Rather than relying on a handful of

procurement officials, the Expert Monitoring System provides a streamlined approach to the oversight and management process, while disseminating it to the chain of command and approval throughout an agency.

For example, if the goal is to monitor card program compliance, a procurement official may define a set of rules or criteria related to acceptable card usage. The MasterCard Expert Monitoring System searches the data, identifies all variances from the definition, and alerts the procurement official that variances have been identified. The procurement official can then use the information to conduct further analyses.

Facilitating Organizational Change

The buying privileges associated with the GSA SmartPay program and other procurement programs are continuously improving and being revised; however, it may take a few months for all of the cardholders to become aware of the policy/process changes, due to the method of communication being utilized to disseminate the revised procurement processes. The MasterCard Expert Monitoring System identifies new processes and policies, and automatically notifies cardholders by way of pre-tailored email messages. These messages inform the cardholders that they are in violation of new policies/processes. This method of communication can facilitate rapid implementation of policy and process changes throughout government agencies, while saving time, manpower, and money.

Anticipating Future Needs of Agencies

A key challenge faced by many agencies is the ability to ensure that past lessons learned are integrated into new processes and policies. These lessons must also be automated to proactively prevent future fraudulent and abusive transactions. The Expert Monitoring System creates rules and parameters that enhance its ability to detect probable fraudulent and abusive card transactions, by routinely managing transaction data from past, future, and ongoing electronic payments. This practice occurs by way of the Expert Monitoring System analyzing thousands of card transactions in search of key patterns such as spending averages, transaction velocity, and card activities with cardholders, departments, and vendors. Identifying these key patterns for both indisputable and fraudulent transactions makes it possible for the Expert Monitoring System to continuously learn, and use the information to alert agencies about atypical transactions, which are most likely fraudulent.

The MasterCard Expert Monitoring System has the ability to enhance the oversight and monitoring requirements of government agencies.

MasterCard Expert Monitoring System is an Adaptable Suite of Tools

The MasterCard Expert Monitoring System consists of several components:

The Profiler patterns the behavior and trends of cardholders, departments, agencies, merchants, and other user-defined categories. Profiling current fraud situations creates better understanding of the characteristics of potential risks. A profile of normal spending patterns is also developed at the account level. Account and fraud profiles are combined to minimize "false" alerts. The "normal" behavior profiles allow procurement officials to recognize abnormal behavior. The creation of merchant profiles helps auditors identify deviations from normal activity.

The DataViewer makes it possible for procurement officials to review transactions, cardholders, and merchants that do not conform to the rules, and flag them for unacceptable card usage. Various data options permit procurement officials to choose the data they want to view.

Selecting specific data to be viewed allows procurement officials to focus efforts on specific areas of interest rather than having to navigate through extensive amounts of data. The review period can be either increased or decreased to monitor activity over a specific period of time, or pinpoint the exact time when a particular event occurred.

The MoneyTracker is a complete multi-user case management and business logic component in the MasterCard Expert Monitoring System. It presents a powerful solution to supply tracking of the different stages of a fraud investigation and audit capabilities. It can be customized by creating the steps and actions required by the agency's investigation team. All analysts can investigate cases using the same procedures, which will improve agency efficiency and performance.

The MoneyTracker systematizes, organizes, and tracks any transaction patterns that suggest fraud or misuse in the agency cardholder portfolio. Responding to specifically established rules, the MoneyTracker creates investigation cases and then prioritizes them so investigators can focus on the most serious cases first. It also enables the monitoring of the efficiency of investigation operations by detailing the number of investigations, the "false/positive ratio," which reveals if the rules established are effective, and the amount saved in potential losses.

The Communicator is a powerful notification component of the Expert Monitoring System. It enables procurement officials to send either email or SMS notifications to fraud analysts, managers, or directly to cardholders when non-compliant or fraudulent transactions are identified. These notifications can be sent to an email address, a mobile phone, a PDA, or a pager enabling 24/7 compliance monitoring in or out of the office.

The Communicator transmits automatic text messages telling procurement officials, managers and/or cardholders whenever transactions matching user-defined criteria require review. Its fast response means cards can be blocked in a matter of minutes, reducing the number of fraudulent transactions and their impact on payment card programs. Using the power of the MasterCard Expert Monitoring System's rule-based technology, notifications can be created that accurately match agency requirements, so that the correct cardholder receives an appropriate message as soon as a target transaction occurs.

The MasterCard Expert Monitoring System is available on the GSA Schedule IT-70 (MasterCard Contract #GS-35F-0155S). Visit GSA ADVANTAGE!, an online, interactive electronic information and ordering system at www.fss.gsa.gov.

This is an example of how MasterCard continues to provide the U.S. Federal Government with products and services to meet and overcome the challenges and issues facing agencies every day.

The MasterCard Public Sector Development team is committed to partnering with public sector organizations throughout the implementation process to provide the support that is needed. The team is dedicated and ready to assist agencies to ensure smooth and efficient implementations of their payment solutions:

- Review card program requirements
- Identify and address all steps to build the agreed-upon solution
- Collaborate to build an effective project plan
- Create a working team to ensure all implementation tasks at MasterCard are coordinated and performed to client satisfaction
- Establish clear lines of communication between clients and MasterCard

For questions, comments, or additional information, please call the MasterCard Public Sector Development team at 800-MCPUBLIC (627-8254), or visit us on the web at www.mastercard.com/gov.