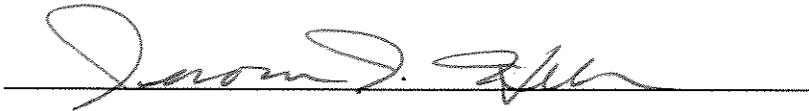


**Controls Over Milwaukee County
Parks' Point-of-Sale Revenues are
Sound but Timeliness of Reporting
and Other Improvements are Possible**

April 2012

Committee on Finance and Audit

Milwaukee County Department of Audit

A handwritten signature in black ink, appearing to read "Jerome J. Heer", is written over a solid horizontal line.

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Department of Audit

Milwaukee County

Jerome J. Heer • Director of Audits
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April 17, 2012

To the Honorable Chairman
of the Board of Supervisors
of the County of Milwaukee

We have completed an audit conducted as part of the Department of Audit's ongoing efforts to monitor and improve Milwaukee County's system of internal controls. This audit focuses on cash receipts computer applications at the Department of Parks, Recreation and Culture (Parks) that interface with Advantage to facilitate the recording of revenue transactions from multiple Parks revenue reporting sites.

The attached audit report notes that internal controls over Parks' Point-of-Sale revenues are sound, but there are opportunities to improve the timeliness of reporting and to strengthen other aspects of processes used by Parks to collect, monitor and record cash receipts.

The report provides recommendations to address specific issues noted during the audit..

Responses from both the Parks Department and the Information Management Services Division of the Department of Administration are included as **Exhibits 2** and **3**, respectively. We appreciate the cooperation extended by both departments' management and staff during the course of this audit.

Please refer this report to the Committee on Finance and Audit.

Handwritten signature of Jerome J. Heer in black ink.

Jerome J. Heer
Director of Audits

JJH/DCJ/cah

Attachment

cc: Milwaukee County Board of Supervisors
Chris Abele, Milwaukee County Executive
Patrick Farley, Director, Department of Administrative Services
Terrence Cooley, Chief of Staff, County Board Staff
Craig Kammholz, Acting Fiscal & Budget Analyst, County Board Staff
Steve Cady, Fiscal & Budget Analyst, County Board Staff
Carol Mueller, Chief Committee Clerk, County Board Staff

Controls Over Milwaukee County Parks' Point-of-Sale Revenues are Sound but Timeliness of Reporting and Other Improvements are Possible

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Summary

This audit was conducted as part of the Department of Audit's ongoing efforts to monitor and improve Milwaukee County's system of internal controls. The County's external financial audit firm, Baker Tilly Virchow Krause, LLC, has recommended periodic internal audits of various computer applications that interface with Advantage, the County's comprehensive financial accounting system. This audit focuses on cash receipts applications at the Department of Parks, Recreation and Culture (Parks) that interface with Advantage to facilitate the recording (posting) of revenue transactions from multiple Parks revenue reporting sites.

Additionally, during the audit we identified issues of concern related to the security of Milwaukee County's computer control centers. Due to the sensitive nature of those issues, and in accordance with Government Auditing Standards, we have communicated our findings in a separate report, with distribution limited to those parties responsible for taking corrective action.

Parks Cash Receipts Interfaces

Parks utilizes a total of 87 cash registers to transact sales at various locations. These include 50 standard cash registers assigned to lower-volume revenue generating locations where daily receipts must be manually processed and posted to Advantage by Parks staff. The remaining 37 cash registers are terminals in a Point-of-Sale (POS) network that record, process and store transactions electronically.

The POS system has two major sub-components:

- **Fairway Golf POS**—25 cash registers are used to process sales and revenues from fees, merchandise and concessions related to Golf, the Domes and Aquatics.

CLASS Reservation POS—12 cash registers are used to book reservations as well as to process sales and revenues from fees related to building rentals, special events, organized sports, picnic permits and some concessions.

Parks needs to improve the timeliness of its revenue reporting function.

In 2010, the Parks Department generated total revenues of \$16.6 million. Of that total, nearly half (\$7.7 million, or 46%) was transacted and processed through Parks' POS system. This revenue is not reported to the Advantage system until Parks accounting staff reconciles POS transactions to cash received and deposited into a Parks bank account. If the POS revenue is not reported to the

Advantage system on a timely basis, the County's official financial reporting system will not reflect the true fiscal status of the Parks department and could result in management or policy decisions based on inaccurate information. According to Parks staff, during the peak summer season of 2010, Parks revenue reporting to the Advantage system was delayed for as long as 60 to 90 days from the time the revenues were collected. Thus, we estimate an average of at least \$1.6 million in POS revenues was not reflected in the Advantage system during the peak summer months of that year.

According to Parks accounting staff, there are several reasons for delays in posting POS revenues:

- Some revenue reporting sites may take up to a week to deliver their daily closing documents to the Accounting office for reconciliation.
- A shortage of Accounting staff, especially during the peak summer months, also contributes to delays in the reconciliation and posting of revenues to the Advantage system. Parks management noted that in 2010, staff availability was further reduced by Executive Orders imposing furlough days on most represented employees as well as a prohibition against incurring overtime.
- Reconciliations, though completed, may backlog while accounting staff tend to other duties.

Automating POS revenue transactions to post directly to Advantage will improve the timeliness of information in the County's financial reporting system.

To improve the timeliness of Parks revenue posting, we explored the feasibility of electronically posting Parks revenues from the POS servers to the Advantage system in overnight or semi-weekly batches. This could be accomplished with some computer program modifications to the current two-step interface application, or by writing a new interface application routine that would seamlessly retrieve revenue transactions directly from the POS servers and post them to the Advantage system in batch form, on an overnight or semi-weekly basis.

Parks needs better tracking to ensure that all POS sites have reported revenues as scheduled.

Each year Parks prepares a schedule of monthly active revenue sites (sites that are scheduled to report revenues). Parks records showed a range of 22 to 58 unique sites scheduled to report revenues for 2010. On average about 42 sites were scheduled to report revenues each year from 2008 to 2010. Up to 18 of the sites at any given time were POS sites. As previously noted, POS sites accounted for 46% of Parks' total 2010 revenues.

Parks has no formal procedure in place to ensure that all active POS revenue reporting sites were reporting revenues as scheduled. As a result, Parks could miss opportunities to identify problematic sites, exhibiting 'red flags' such as:

- Frequent patterns of not submitting register closing documents in a timely manner;
- Failure to report revenues entirely, or reporting lower than expected revenues given weather conditions and day of the week; and/or
- Inappropriate adjustments to POS transactions in order to reconcile to cash deposited.

A mechanized tracking system, such as a computerized spreadsheet, would allow Parks to capture revenue site reporting statistics that could help identify problematic sites.

Internal controls over Parks Department cash receipts could be improved.

Parks cashiers collect cash at each POS register, reconcile the register at the end of each shift, prepare shift closing reports, deposit the shift's cash in the bank and upon receiving the bank deposit validation receipt, deliver all closing documents to the Parks Accounting Office for further reconciliation to the POS transactions. We visited two POS golf sites to observe register operations and the preparation of register closing documents. We noted the dedication, strong work ethic and pride demonstrated by the cashiers with whom we visited. Parks management further noted that their analysis of 2011 activity showed net variances (positive and negative) in cash collections from POS register transactions totaled \$986, or about 0.01% of total 2011 POS transactions.

However, some areas of Parks cash operations exhibit weaknesses in control over cash and thus provide opportunities for abuse. We identified several opportunities to strengthen the overall system of internal control over POS revenue sites:

- **Cameras could be a cost-effective deterrent to revenue irregularities at registers located at regulation golf courses.** Cameras are an inexpensive deterrent to fraud, waste and abuse, and can aid in post-incident investigations.
- **Upgrading safes to replace combination locks with keypad technology can reduce risk associated with high turnover seasonal, part time employees.** Parks uses a number of safes in its cash operations. Many of these safes are the combination lock-type. According to the Golf Manager, when Parks cashiers exit County service, they leave with knowledge of the combination to the safe(s). Combination locks on safes are typically not changed because it costs about \$100 per safe to re-program a lock, according to the Golf Manager. Keypad safes with programmable access-codes provide the opportunity to change codes at no additional costs. We obtained a preliminary estimated cost of \$150 to \$400 per keypad safe, depending on features.

- **Controls over voided and negative transactions can be strengthened.** Under conventional cash operations, procedures usually require that voided transactions or negative transactions be approved by an on-site manager. Because Parks cashiering operations are often staffed by one cashier per shift, it may be impractical to obtain manager approval for many of these transactions. Parks management conducts cursory reviews of voided transactions for detection of irregularities or excessive voids. Parks could better monitor the voided and negative transactions activity by conducting and documenting ongoing active analysis of these transactions to help detect patterns of abuse or excessive use of voids by cashier or by site. This could become a tool to alert Parks as to employees who potentially need further training and/or other action.
- **Periodic surprise on-site cash counts would help detect and deter unrecorded or manipulated recordings used to facilitate cash skimming from registers.** Cash control procedures utilize surprise on-site cash counts as a means to deter, detect, and help prevent fraud and abuse of cash. Parks indicated there is insufficient staff time to continue any further on-site surprise cash counts. To help deter fraud, waste and abuse with a minimal amount of staff time, Parks should conduct a select number of surprise cash counts each year based on an analysis of exception reports that identify sites with a high incidence of voided and/or negative transactions.
- **Controls could be strengthened over non-cash instruments including gift certificates and pool tickets.** Parks incorporates gift cards, gift certificates, coupons, and tickets in their cash operations. The POS system has strong built-in controls over gift cards, which contain machine-readable magnetic strips that must be swiped through card readers to become valid. However, not all Parks revenue sites have POS registers and therefore alternative manual controls are needed to minimize abuse of coupons and tickets.

Given Parks' reliance on part time and seasonal employees, a formalized password/access control policy is needed to reduce the risk of unauthorized access to POS cash registers.

According to the Golf Manager, he maintains a hierarchy of passwords for different levels of personnel to access the POS system. However, Parks was unable to provide a formal documented Policy and Procedure for managing access, changes, and revocations of passwords and user IDs for its network of POS registers. Unauthorized access to the POS network could lead to unauthorized transactions to the POS networks and/or access to sensitive customer data stored in the system. Thus, Parks needs to develop and document a formal access control policy for its POS system to include proper authorizations for passwords and ID assignments, changes, and revocations.

A sound access control policy should include:

- Who is authorized to request and make password changes.
- Date and time password was issued and revoked.
- Who issued the password and to whom the password was granted.

- The reason for authorizing access.
- Electronically required passwords be changed periodically.

A change control policy is needed for Milwaukee County Interface application program changes.

Documentation of the POS interface application that interfaces with the County's Advantage system resides primarily with an outside consultant and changes are usually made by the same consultant. While the consultant affirmed that the interface application program and any documentation is under the ownership of Milwaukee County, IMSD staff could not confirm whether a log of all changes made to the application have been formally documented. Also, we were unable to obtain any documentation relating to the changes made to the interface program.

Undocumented application program changes or fragmented documentation of critical program changes could result in a corrupt interface application program sending inaccurate data feeds to Advantage. Under this scenario, it could call into question the integrity of the data generated from Advantage causing a breakdown on the reliance of the County's accounting controls.

Parks and IMSD maintain adequate data backup for Parks POS servers, but documented testing of data restoration procedures is needed.

Parks and IMSD maintain reasonable data back-up protocols for both servers used for Parks POS transactions. The server located at the Courthouse has redundant data back-up in place, and the POS data residing on the server located at the Parks Administration building is backed up at a remote location. During our review, we met with staff from IMSD who indicated that it would take about 24 hours to recover Parks servers' data should the servers become inoperable, damaged, or stolen. This appears reasonable.

However, IMSD's data restoration capabilities relative to the Parks POS system include not only protocols to address problems associated with server downtime, but contingencies for server replacement and data retrieval from the Parks' POS vendor.

While these data back-up and restoration procedures reflect sound contingency planning, a regimen of periodic, documented testing of the procedures is a key element missing from IMSD's planning for continuity of Parks POS operations.

Security could be improved at one of two POS server locations.

One POS server is physically located at the Parks Administration building and the other server is physically located at the Courthouse. Both servers are maintained by the County. Having the servers in different locations is a good preventative control and standard protocol for information systems so that a total shutdown of operations could be averted in the event of a catastrophe at one of the locations.

The Parks Administration server lacks adequate security and is vulnerable to theft, water damage, vandalism and/or sabotage. While the server has adequate data backup, processing delays could be experienced should the server be damaged or stolen. Furthermore, the server contains critical customer information that could become exposed should the server be stolen.

Details of these issues, along with recommendations to address all concerns raised during our audit, are included in the report. Management responses from Parks and IMSD are presented as **Exhibits 2** and **3**, respectively.

We wish to acknowledge the cooperation extended throughout the audit process by management and staff of both the Parks Department and the Information Management Services Division of the Department of Administrative Services.

Background

This audit was conducted as part of the Department of Audit's ongoing efforts to monitor and improve Milwaukee County's system of internal controls. The County's external financial audit firm, Baker Tilly Virchow Krause, LLC, has recommended periodic internal audits of various computer applications that interface with Advantage, the County's comprehensive financial accounting system. The Advantage system incorporates, among other controls, a system of accounting controls to ensure the overall integrity of data inputs, data processing, and fiscal reporting.

This initial audit focuses on cash receipts applications at the Department of Parks, Recreation and Culture (Parks) that interface with Advantage to facilitate the recording (posting) of revenue transactions from multiple Parks revenue reporting sites.

Additionally, during the audit we identified issues of concern related to the security of Milwaukee County's computer control center. Due to the sensitive nature of those issues, and in accordance with Government Auditing Standards, we have communicated our findings in a separate report, with distribution limited to those parties responsible for taking corrective action.

The objective, scope, and methodology of the audit are outlined in greater detail in the Scope Section of this report (see **Exhibit 1**).

Parks Cash Receipts Interfaces

Parks utilizes a total of 87 cash registers to transact sales at various locations. These include 50 standard cash registers assigned to lower-volume revenue generating locations where daily receipts must be manually processed and posted to Advantage by Parks staff. The remaining 37 cash registers are terminals in a Point-of-Sale (POS) network that record, process and store transactions electronically.

The POS system has two major sub-components:

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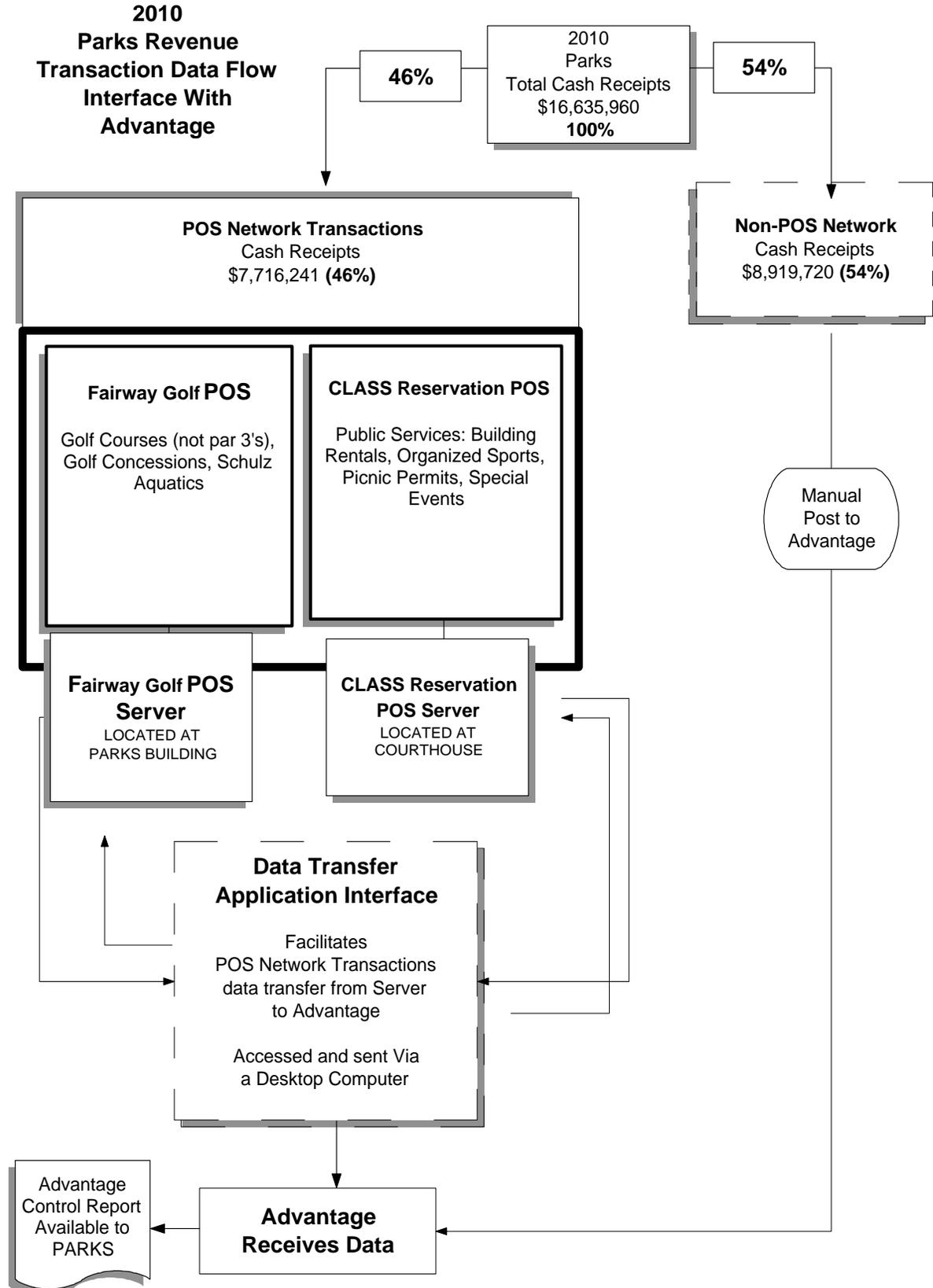
[Note: Parks staff informally refers to the POS network components as the Fairway Golf and CLASS Reservation systems. The term Fairway is the brand name of the software used for golf reservations while the term CLASS is an acronym of undetermined origin with no known descriptive meaning.]

Electronic transactions data recorded by these POS systems are stored on two separate computer servers based on the respective categories above (Fairway Golf and CLASS) until retrieved by Parks staff via a desktop computer for reconciliation to the related cash receipts and bank deposits.

POS transactions are uploaded to a desktop computer by Parks Accounting Division staff via a computer program written and maintained by a consultant under contract with the Department of Administration (DAS). Parks staff uses spreadsheets that are pre-populated with the POS transaction to facilitate reconciliation of these transactions to the register closing documents obtained from the revenue reporting sites. Staff makes adjustments if necessary and then inputs a “reconciled summary” to the County’s Advantage system.

Parks Management then verifies the data and approves the data transfer to Advantage via the Advantage electronic signature control protocol. From this point forward, the Advantage system of accounting controls take effect, including review and approval by the Treasurer’s Office, and then Parks fiscal data becomes available to County employees and policymakers.

Following is a flow chart showing the flow of POS revenue transactions to the Advantage system. Revenue figures from 2010 are used because they are the most recent figures for which POS transactions totals can be verified.



Source: Auditor prepared from Parks records.

Section 1: Parks needs to improve the timeliness of its revenue reporting function.

Delays in posting POS revenue transactions distort financial information used by decision makers.

In 2010, the Parks Department generated total revenues of \$16.6 million. Of that total, nearly half (\$7.7 million, or 46%) was transacted and processed through Parks' POS system. This revenue is not reported to the Advantage system until Parks accounting staff reconciles POS transactions to cash received and deposited into a Parks bank account.

If the POS revenue, or a significant portion, is not reported to the Advantage system on a timely basis, information obtained from the County's official financial reporting system will not reflect the true fiscal status of the Parks department and could result in management or policy decisions based on inaccurate information.

During the peak summer season of 2010, Parks revenue reporting to the Advantage system was delayed for as long as 60 to 90 days from the time the revenues were collected.

According to Parks staff, during the peak summer season of 2010, Parks revenue reporting to the Advantage system was delayed for as long as 60 to 90 days from the time the revenues were collected. Thus, we estimate an average of at least \$1.6 million (\$7,716,241 divided by 12 months multiplied by two and one-half months of delay) in POS revenues was not reflected in the Advantage system during the peak summer months of that year and would not be readily available for decision making.

The delay in reporting POS revenue to the Advantage system stems from the fact that Parks does not post revenues to Advantage on a daily basis despite the fact that the transactions data resides on the POS servers (dedicated computer hardware systems that run programs from a central 'host' location to serve multiple terminals within a network). POS revenue transactions

Cash receipts from the revenue reporting sites are deposited frequently.

data is posted immediately to their respective servers at the time transactions are entered into the POS registers. These transactions remain on the servers until Parks staff retrieves them.

Parks Accounting staff reconciles revenue closing documents generally within a few days of receiving them from the revenue reporting sites. While cash receipts from the revenue reporting sites are deposited frequently, Parks staff batches the reconciliations and enters them into the Advantage system, via the previously-mentioned process, generally at the end of the month.

According to Parks accounting staff, there are several reasons for delays in posting POS revenues:

- Some revenue reporting sites may take up to a week to deliver their daily closing documents to the Accounting office for reconciliation.
- A shortage of Accounting staff, especially during the peak summer months, also contributes to delays in the reconciliation and posting of revenues to the Advantage system. Parks management noted that in 2010, staff availability was further reduced by Executive Orders imposing furlough days on most represented employees as well as a prohibition against incurring overtime.
- Reconciliations, though completed, may backlog while accounting staff tend to other duties.

According to the Finance Manager, sometimes the upload to Advantage is delayed for as much as 90 days. She indicated that Parks hires part-time staff when funding is available to help alleviate backlogs. The Finance Manager also indicated that there should be no reason why the data could not be sent directly to Advantage and then reconciled by accounting staff after the fact. According to the Finance Manager, whose background is in the private sector retail environment, this is how sales were posted by a former employer.

During our review, we visited Hansen Golf Course and observed the POS revenue transactions processing as well as the end-of-shift register closing and reconciliation. We noted that only one Golf Starter/Cashier was present during the shift. This employee collects and processes cash and credit card transactions, generates customers' receipts from the POS register, manages and reconciles the daily petty cash and 'change-fund,' and reconciles the register transactions at the end of the shift. We also noted that about a week's worth of reconciled closing documents were stacked on the employee's desk. According to the employee, he waits until the bank's deposit validation receipts are returned from the bank, attaches them to the respective closing documents, and then takes all the closing documents into the Accounting Office upon his next trip to the Parks Administration building.

Automating POS revenue transactions to post directly to Advantage will improve the accuracy and timeliness of information in the County's financial reporting system.

Computer program modifications would be needed to post Parks revenues from the POS servers to the Advantage system in real-time or in overnight batches.

To improve the timeliness of Parks revenue posting, we explored the feasibility of electronically posting Parks revenues from the POS servers to the Advantage system in real-time or in overnight batches. Based on discussions with Parks accounting staff and staff from IMSD, some computer program modifications would be needed, primarily related to the current interface application.

As previously noted, the computer program used by Parks Accounting staff in a two-step process to upload POS transactions and interface with Advantage was written, and is maintained by, a consultant under contract with the Department of Administration (DAS). However, because the consultant reports directly to a separate division of DAS, his work assignments on projects and tasks are not identified and prioritized by IMSD technology staff.

Further, although the County owns the programming code developed and modified by the consultant, past experience suggests that reliance on outside consultants for internal County computer programming can be problematic. Clear protocols must be in place to minimize disruption of County operations in the event its contractual relationship with such consultants end. For instance, past programming modifications may not always be adequately documented or easily interpreted by others, and there is no guarantee whether or for how long the contractual relationship between the consultant and the County will continue at an economical rate.

**Most businesses
post POS system
transactions prior to
reconciling the
transactions.**

Another option is to have IMSD write a new interface application routine that would seamlessly retrieve revenue transactions from the POS servers and post them directly to the Advantage system in a timely fashion. The only substantive concern expressed during separate discussions with Parks and IMSD staff related to the accuracy of the transactions being posted to the Advantage system prior to reconciliation. However, the consensus was that most businesses follow this transaction posting protocol and that cash is reconciled to the transactions at the end of the day and authorized adjustments are made if necessary.

Further, it should be noted that the information contained in Advantage could be unreliable at any given time under the current protocol because of the delays in posting reconciled figures. Also, under current practice, staff has the ability to manipulate and adjust original POS transactions without a system control in place to limit adjustments to authorized individuals.

A preliminary review of the magnitude of adjusting entries under the current practice indicates no material differences between original POS transactions and the adjusted reconciled summary posted to Advantage. However, shifting to a post-reconciliation (after posting directly to Advantage) would vastly improve the

The suggested change would make Parks revenue data available within 24 to 96 hours after collection.

timeliness of Parks revenue reporting to the Advantage system with little to no human intervention. If done on an overnight or semi-weekly batch basis, this change would make Parks revenue data available within 24 to 96 hours after collection. While adjustments to some transactions posted to the Advantage system would be necessary, these adjustments should continue to be inconsequential and have no material impact on the revenues reported. Based on our limited review of on-site register reconciliations, overages and shortages were minimal.

While this procedural shift in the reconciliation process may have little impact on improving the efficiency of the process, it strengthens a critically important control over Parks' POS network of transactions. Only original (un-manipulated) transactions would be reflected from initial entry into the POS network registers through the final posting to Advantage. Thus, cash received and deposited would be reconciled to original POS transactions and only authorized, electronic adjustments would be allowed. Performing reconciliations in this manner would leave an electronic log of all adjustments in the Advantage system.

Therefore, to improve the timeliness and internal control of Parks POS revenue reporting to the Advantage system, we recommend that Parks Department management work collaboratively with IMSD management to:

- 1. Develop protocols, such as retention of appropriate documentation of programming modifications, to ensure the Parks POS/Advantage interface program is maintained with minimal disruption in operations should DAS' contractual relationship with the consultant currently performing that task end.*
- 2. Work to modify the current application interface or write a new one to facilitate nightly or semi-weekly batch posting of POS transactions, or a summary of transactions, to the Advantage system.*

Section 2: Parks needs better tracking to ensure that all POS sites have reported revenues as scheduled.

Each year Parks prepares a schedule of monthly active revenue sites (sites that are scheduled to report revenues). Parks records showed a range of 22 to 58 unique sites scheduled to report revenues for 2010

Parks needs a formal process to ensure all POS revenue generating sites are reporting transactions.

On average about 42 sites were scheduled to report revenues each year from 2008 to 2010. Up to 18 of the sites at any given time were POS sites. As previously noted, POS sites accounted for 46% of Parks' total 2010 revenues.

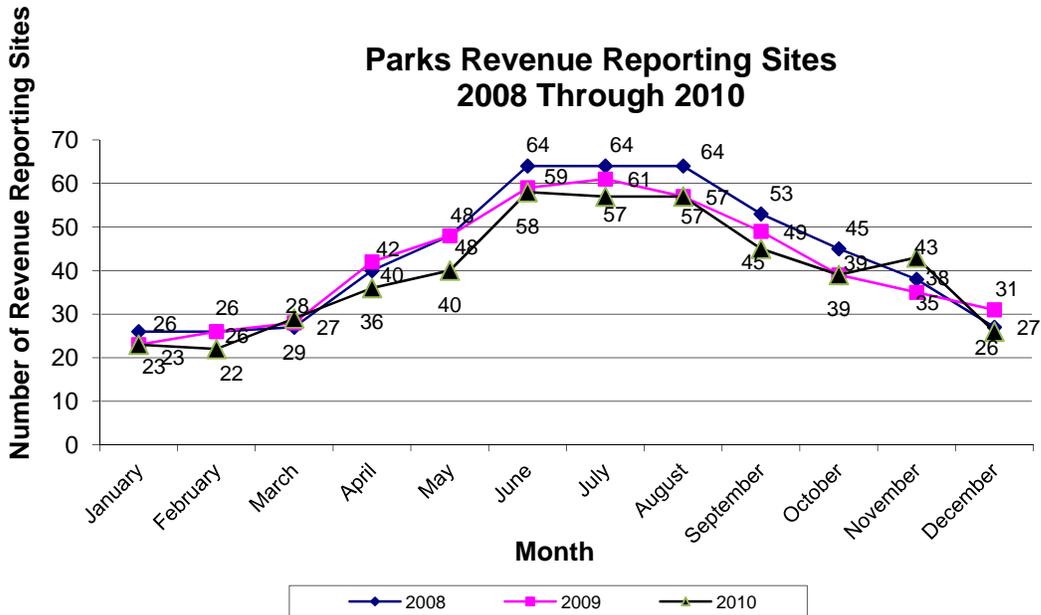
Table 1 shows Parks monthly schedule of active revenue sites for 2008, 2009 and 2010. As depicted, the number of scheduled revenue reporting sites increases around March and tapers off around November each year.

Table 1
Monthly Schedule of
Parks Revenue Reporting Sites
2008 through 2010

Year	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	Average Per Month
2008	26	26	27	40	48	64	64	64	53	45	38	27	522	44
2009	23	26	28	42	48	59	61	57	49	39	35	31	498	42
2010	23	22	29	36	40	58	57	57	45	39	43	26	475	40

Source: Parks records.

Figure 1 presents the same data graphically



Source: Parks records.

Parks has no formal procedure in place to ensure that all active POS revenue reporting sites are reporting revenues as scheduled.

During our audit, we noted that Parks has no formal procedure in place to ensure that all active POS revenue reporting sites are reporting revenues as scheduled. According to Parks management, accounting staff would eventually recognize, during the reconciliation process, when a site did not report register closing documents. However, relying on such a passive internal control over revenues creates opportunities for abuse of funds and potentially contributes to delays in reporting revenues to Advantage.

Additionally, Parks could miss opportunities to identify problematic sites, exhibiting 'red flags' such as:

- Frequent patterns of not submitting register closing documents in a timely manner;
- Failure to report revenues entirely, or reporting lower than expected revenues given weather conditions and day of the week; and/or
- Inappropriate adjustments to POS transactions in order to reconcile to cash deposited.

After discussing this matter with Parks management, a wall calendar of scheduled reporting sites was created. Accounting staff applies a manual check-mark on the calendar to indicate when closing documents from scheduled revenue reporting sites are received. While this calendar provides a good snapshot of sites' reporting status, a more formal mechanized tracking system, such as a computerized spreadsheet, would enhance this control. A spreadsheet would allow Parks to capture more revenue site reporting statistics that could help identify problematic sites. Additionally, such a tracking tool could aid in the selection of sites for conducting an unannounced cash count (discussed later in this report).

To better monitor revenue reporting sites and more easily identify problematic sites, Parks should consider utilizing a spreadsheet or other computerized method to ensure that all

3. *Develop a computerized tracking methodology to ensure that revenues from all sites are reported as scheduled and that corrective actions are taken when problematic sites are identified.*

Section 3: Internal controls over Parks Department cash receipts could be improved.

As previously noted, about \$7.7 million of Parks 2010 revenues flowed through its POS system. While this included a mix of cash and credit card transactions, cash operations require strong controls to help deter and/or prevent opportunities for fraud, waste, or abuse.

Parks cashiers collect cash at each POS register, reconcile the register at the end of each shift, prepare shift closing reports, deposit the shift's cash in the bank and upon receiving the bank deposit validation receipt, deliver all closing documents to the Parks Accounting Office for further reconciliation to the POS transactions.

Parks maintains a formal cash handling procedures manual and during our review, we noted that Parks had some training meetings with cashiers to discuss cash operations.

Also, during our review, we visited two POS golf sites to observe register operations and the preparation of register closing documents. We noted the dedication, strong work ethic and pride demonstrated by the cashiers with whom we visited. Parks management further noted that their analysis of 2011 activity showed net variances (positive and negative) in cash collections from POS register transactions totaled \$986, or about 0.01% of total 2011 POS transactions.

We identified several opportunities to strengthen the overall system of internal control over POS revenue sites.

However, some areas of Parks cash operations exhibit weaknesses in control over cash and thus provide opportunities for abuse. We identified several opportunities to strengthen the overall system of internal control over POS revenue sites, described as follows.

Cameras could be a cost-effective deterrent to revenue irregularities at registers located at regulation golf courses.

Cameras are an inexpensive deterrent to fraud, waste and abuse, and can aid in post-incident investigations. For instance, the two top revenue-generating golf courses, Brown Deer and Whitnall, have camera surveillance. However, most of the Parks revenue generating sites do not have cameras pointing at the cash registers. For those sites with cameras, electronic data images are retained for a running 30-day period and thus are available for review.

To help deter fraud, waste and abuse of County resources and to capture evidential support should an investigation be warranted, we recommend Parks management:

- 4. Consider installing cameras at all regulation golf/concession registers. At minimum, a camera should be installed at Oakwood Golf course, the third highest golf revenue generating site (approximately \$800,000 in revenues for 2010).*

Upgrading safes to replace combination locks with keypad technology can reduce risk associated with high turnover seasonal, part time employees.

Parks uses a number of safes in its cash operations. Many of these safes are the combination lock-type. According to the Golf Manager, when Parks cashiers exit County service, they leave with knowledge of the combination to the safe(s). However, combination locks on safes are typically not changed because it costs about \$100 per safe to have a company re-program a lock, according to the Golf Manager. Not reprogramming these locks makes cash and other valuables kept in the safes vulnerable to theft. Parks uses some part-time and temporary cashiers in its cash operations and these employees generally have access to the combinations of safes.

Keypad safes with programmable access-codes provide the opportunity to change codes at no additional costs. We obtained a preliminary estimated cost of \$150 to \$400 per keypad safe, depending on features. Additional costs could be incurred to remove the old safes and to install the new keypad safes.

To strengthen control over cash operations, we recommend Parks management:

5. *Replace combination safes with keypad safes whereby the access-code can be easily changed as often as needed at no additional cost.*

Controls over voided and negative transactions can be strengthened.

Parks procedures for handling voided and negative transactions are outlined in a departmental cash operations manual. These are transactions that cancel or reverse the previous transactions, respectively. Under conventional cash operations, procedures usually require that voided transactions or negative transactions be approved by an on-site manager. Because Parks cashiering operations are often staffed by one cashier per shift, it may be impractical to obtain manager approval for many of these transactions. However, Parks management obtains information on these types of transactions from the closing reports, and indicated that they conduct cursory reviews for detection of irregularities or excessive voids.

Parks cashiering operations are often staffed by one cashier per shift.

Based on our review of transaction information, Parks could better monitor the voided and negative transactions activity by conducting and documenting ongoing active analysis of these transactions to help detect patterns of abuse or excessive use of voids by cashier or by site. This could become a tool to alert Parks as to employees who potentially need further training and/or other action. And as previously mentioned, this analysis could also aid in the selection of sites for conducting surprise cash counts.

To strengthen controls over cash operations, we recommend Parks management:

6. *Develop timely exception reports to more actively monitor voided and negative transactions. Parks management should devise reports that can be sorted by voided and negative transactions per cashier, per revenue site and per month to help detect patterns of potential abuse.*
7. *Document management review and analysis of exception reports on a regular basis. The Parks cash handling procedures manual should be updated with this procedure and cashiers should be made aware of the change.*

Periodic surprise on-site cash counts would help detect and deter unrecorded or manipulated recordings used to facilitate cash skimming from registers.

Cash control procedures utilize surprise on-site cash counts as a means to deter, detect, and help prevent fraud and abuse of cash. Prior to our review, Parks had not been conducting periodic on-site surprise cash counts at their revenue generating sites. However, during the early phase of our audit, Parks management conducted one on-site surprise cash count and indicated that it would expand this practice to other sites. However, at the conclusion of our field work, Parks indicated there is insufficient staff time to continue any further on-site surprise cash counts.

Parks should conduct a select number of surprise cash counts each year.

To help deter fraud, waste and abuse of Parks resources, Parks should conduct a select number of surprise cash counts each year. Selection of target sites can be random. However, Parks could also utilize its analysis of exception reports (see audit recommendations No. 6 and No. 7) that show high incidence of voided and/or negative transactions as the basis for selecting sites for surprise cash counts.

Therefore, we recommend Parks management:

8. *Implement a policy to conduct and document a minimum number of surprise on-site cash counts per year, take*

remedial action if necessary, and disseminate this information to all cashiers.

Controls could be strengthened over non-cash instruments including gift certificates and pool tickets.

Non-Cash Transactions

Parks incorporates gift cards, gift certificates, coupons, and tickets in their cash operations. The POS system has strong built-in controls over gift cards as each card contains a machine-readable magnetic strip that requires the card be swiped through a card reader in order to become valid. The POS system tracks the value assigned to these cards, thus minimizing the opportunity for fraud and abuse. However, not all Parks revenue sites have POS registers and therefore redemption of magnetized gift cards are limited only to those sites with POS registers.

Gift certificates are printed on paper and are redeemable at all Parks cash registers. While the gift certificates contain unique serial numbers, they are not tracked and thus could be electronically re-produced and redeemed several times without detection. They contain no other significant identifying marks or unique characteristics that would differentiate a quality photo copied version from an original. Gift certificates bring in immediate revenue (payment is received at the time of purchase) and duplicate redemptions would constitute a direct loss of revenue to the County.

Redemptions of duplicated gift certificates expose the County to both external (customer) and internal (employee) abuse.

Additionally, redemptions of duplicated gift certificates expose the County to both external (customer) and internal (employee) abuse. In the latter instance, an employee could duplicate previously redeemed gift certificates and use a duplicate to replace cash pocketed by the employee so the cash register's receipts tie out to recorded transactions. While duplication of coupons is a lesser concern because coupons are designed to incentivize increased customer activity, coupons that have been

redeemed are equally susceptible to internal employee manipulation.

A cost-effective technique to strengthen internal controls over the redemption of paper gift certificates is to require patrons to sign these instruments at the time they are presented and require cashiers to punch a hole in or to deface or void them immediately following redemption. Some sites utilize this technique, but Parks should enforce this policy system-wide. This control helps prevent internal abuse and manipulation of coupon and gift certificate transactions by employees.

Parks could also consider eliminating paper gift certificates with gift cards to capture the benefits of the existing magnetized POS scanning technology. While not all sites are equipped with POS registers, data from 2010 and 2011 indicate that gift certificate redemptions at non-POS locations are negligible.

To minimize abuse and deter potential duplication and multiple redemptions of these instruments, we recommend Parks management:

9. *Require all cashiers to punch, deface, or void redeemed gift certificates prior to securing it into the register drawer.*

Aquatics Tickets

Parks sells about 50,000 to 60,000 aquatics tickets each year. During our review, we noted a few stacks of tickets (similar to bus tickets) on a table inside the Parks Administration building in a room where employment applicants have access; one stack was labeled 'duplicates.' According to the Aquatics Supervisor, the tickets are sold to patrons by staff at each of the Aquatics Centers. The tickets are color-coded and sold at a price of \$6.75 for adults and \$5 for children. The Aquatics Supervisor also indicated that Parks has started eliminating the use of tickets at these centers and that only five of the 13 centers still accept tickets for payment. He expects only two sites to continue using

Parks has started eliminating the use of tickets at Aquatics Centers.

tickets due to the lack of registers at the entry points at those locations.

We further learned that these tickets are not currently reconciled or tracked by accounting staff. The Aquatics Supervisor indicated that he tracks and reconciles these tickets but would not know right away if a stack was missing. Staff that does the ordering indicated that there was a print error on the 'duplicate' tickets but they decided to use them instead of ordering new stock as a way to save on printing costs.

Accepting duplicate tickets at the Aquatics sites degrades the effectiveness of any internal control in place to help detect or prevent redemption of invalid tickets or unauthorized duplicates. Until use of the tickets are eliminated entirely, Parks needs to ensure that tickets are ordered and printed in sequential order according to serial numbers and account for all gaps in the numbering.

To properly control the issuance and redemption of Aquatics tickets, we recommend Parks management:

10. Establish regular reconciliation of tickets ordered, issued and redeemed to identify gaps in serial numbers and/or possible indications of unauthorized duplicates being redeemed. Link this process with ticket ordering to prevent erroneous orders of tickets with duplicate serial numbers.

11. Destroy and document any duplicate tickets that are ordered and/or printed in error.

Certificate of Insurance

The vendor contract for the POS system requires that the vendor makes available an updated Certificate of Insurance (COI) each year to ensure that Parks has ongoing coverage as outlined in the agreement. At the time of our audit, Parks did not have a valid COI on file but was able to obtain one upon request.

To ensure that the POS and other Parks vendors maintains adequate insurance coverage of at least the minimum required by contract and that coverage is extended to Parks and Milwaukee County, we recommend Parks management:

- 12. Establish a procedure to generate requests to applicable vendors for a copy of required Certificates of Insurance for each contract year at least 60 days prior to the expiration date of the copy on file and ensure that a valid copy is acquired and retained.*

Section 4: Access controls for Parks POS cash registers need strengthening and a change control procedure is needed for related interface programs.

Given Parks' reliance on part time and seasonal employees, a formalized password/access control policy is needed to reduce the risk of unauthorized access to POS cash registers.

Parks manages assignments and revocations of password for access to the POS cash registers and servers. Access to the POS system requires a password and user ID. As such, when Parks employees leave County service (Parks frequently uses seasonal part-time and temporary staff in its revenue operations), their passwords and user IDs are to be revoked.

According to the Golf Manager, he maintains a hierarchy of passwords for different levels of personnel to access the POS system. He also indicated that he maintains standard conventional industry access protocol to manage access to the POS servers. For example, vendor access to the servers must be authorized by Parks via assignment of a new vendor password that is disabled 24 hours following activation.

However, Parks was unable to provide a formal documented Policy and Procedure for managing access, changes, and revocations of passwords and user IDs for its network of POS registers. Parks utilizes 37 registers and two servers in its POS system. Unauthorized access to the POS network could lead to unauthorized transactions to the POS networks and/or access to sensitive customer data stored in the system. Thus, Parks needs to develop and document a formal access control policy for its POS system to include proper authorizations for passwords and ID assignments, changes, and revocations.

A sound access control policy should include:

- Who is authorized to request and make password changes.
- Date and time password was issued and revoked.
- Who issued the password and to whom the password was granted.
- The reason for authorizing access.
- Electronically required passwords be changed periodically.

A change control policy is needed for Milwaukee County Interface application program changes.

During the audit, we learned that documentation of the POS interface application that interfaces with the County's Advantage system resides primarily with an outside consultant, and that changes to such applications are usually made by the same consultant. While the consultant affirmed that the interface application program and any documentation is under the ownership of Milwaukee County, IMSD staff could not confirm whether a log of all changes made to the application have been formally documented. Also, we were unable to obtain any documentation relating to the changes made to the interface program.

Documenting application program changes is a critical component in maintaining program and data integrity within any network.

Documenting application program changes is a critical component in maintaining program and data integrity within any network of interfacing systems such as those interfacing with the County's main Accounting system. Undocumented application program changes or fragmented documentation of critical program changes could result in a corrupt interface application program sending inaccurate data feeds to Advantage. Under this scenario, it could call into question the integrity of the data generated from Advantage causing a breakdown on the reliance of the County's accounting controls.

Previously, we recommended that IMSD take control of this application interface and revoke access and control from the contracted consultant.

To strengthen controls over password assignments and revocations for the Parks POS system, and to maintain detailed documentation of application changes related to all application programs interfacing the County's Advantage system, we recommend Parks management:

13. *Work with IMSD to develop an access control policy for its POS system and ensure that password change requests, revocations, and assignments are properly authorized and documented. Such a policy should be consistent with Milwaukee County IMSD standards and documented in Parks' policy and procedures manual.*
14. *Work with IMSD to develop a change control policy to manage changes to application interface program(s) interfacing with Advantage. Such a policy should be consistent with Milwaukee County IMSD standards, documented in Parks' policy and procedures manual.*

Section 5: Parks and IMSD maintain adequate data backup for Parks POS servers, but documented testing of data restoration procedures is needed.

As previously noted, revenues recorded through the POS system and temporarily stored on the servers totaled \$7.7 million in 2010, representing 46% of all Parks revenue that year. Financial transaction data stored on POS servers are vital to the accuracy and timely reporting of revenues from Parks. With such critical financial information residing on servers for periods of up to 90 days before it is transferred to Advantage, it is important that these servers are backed up daily to the County network and a data recovery test be conducted and documented.

Parks and IMSD maintain reasonable data back-up protocols for both servers used for Parks POS transactions.

Parks and IMSD maintain reasonable data back-up protocols for both servers used for Parks POS transactions. The server located at the Courthouse has redundant data back-up in place, and the POS data residing on the server located at the Parks Administration building is backed up at a remote location.

During our review, we met with staff from IMSD who indicated that it would take about 24 hours to recover Parks servers' data should the servers become inoperable, damaged, or stolen. This appears reasonable.

However, IMSD's data restoration capabilities relative to the Parks POS system include not only protocols to address problems associated with server downtime, but contingencies for server replacement and data retrieval from the Parks' POS vendor.

While these data back-up and restoration procedures reflect sound contingency planning, a regimen of periodic, documented testing of the procedures is a key element missing from IMSD's planning for continuity of Parks POS operations.

Therefore, we recommend that IMSD management:

- 15. Work with Parks to ensure that POS data restoration plans are tested and documented.*

Section 6: Security improvements over Parks revenue transaction data systems are needed.

Security could be improved at one of two POS server locations.

The POS system software is owned by a private vendor, Active Networks, while the servers are owned by Milwaukee County. The vendor is responsible for changes and maintenance of the software and Parks is responsible for the servers. One POS server is physically located at the Parks Administration building and the other server is physically located at the Courthouse. Both servers are maintained by the County. Having the servers in different locations is a good preventative control and standard protocol for information systems so that a total shutdown of operations could be averted in the event of a catastrophe at one of the locations.

The Parks Administration server is vulnerable to theft, water damage, vandalism and/or sabotage.

The Parks Administration server lacks adequate security and is vulnerable to theft, water damage, vandalism and/or sabotage. The server is located in a vulnerable area in the Parks Administration building with an external access door that is not properly secured. According to the Parks Golf Manager, the estimated cost to replace the server could run close to \$10,000. While the server has adequate data backup, processing delays could be experienced should the server be damaged or stolen. Furthermore, the server contains critical customer information that could become exposed should the server be stolen.

During our review, we noted that adequate security was in place at the entrance to the server room, located on the first floor at the east end of the Parks Administration building. A key is required for entry and only a select few Parks personnel has access. We also noted that the room has a working fan above the internal entry door to help maintain an optimal climate for the computer

equipment within the server room. The server was actively working as we observed live data feeds on the desktop connected to the server.

However, we noted that two windows were present in the server room; one on the east wall and the other integrated into an external entry door on the south wall. Although no evidence of breakage or water leakage was observed, both windows appear vulnerable to forced entry or potential breakage/leakage through acts of nature such as strong winds during a heavy storm.

During our review, the Golf Manager indicated that he agreed that the door with the window is a security concern. He noted the door is a fire exit and indicated he would take action to either remedy the concern or replace the door with a more secure one.

To help protect sensitive customer information from being stolen and/or help prevent damage to the server located at the Parks Administration building, we recommend Parks management:

- 16. Take steps to move the server within the same room away from the window to an area of the room where it is less visible and susceptible to water damage, or to a more secure area altogether.*
- 17. Replace the existing external entry door containing a window with a more secure door.*

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Audit Scope

This audit was conducted as part of the Department of Audit's ongoing efforts to monitor and improve Milwaukee County's system of internal controls. The County's external financial audit firm, Baker Tilly Virchow Krause, LLC, has recommended periodic internal audits of various computer applications that interface with Advantage, the County's comprehensive financial accounting system.

The objective of this audit was to evaluate the internal control environment of cash receipts applications at the Department of Parks, Recreation and Culture (Parks) that interface with Advantage to facilitate the recording of revenue transactions from multiple Parks revenue reporting sites. Audit efforts focused on the current control environment based primarily on 2010 data, the latest full-year information available.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We limited our review to the areas specified in this Scope Section. During the course of the audit, we:

- Reviewed capital and operating budget information from 2010—2011.
- Reviewed December 2005 Report on Internal Control, prepared by Virchow Krause & Company (Baker Tilly VK, LLC.) and their subsequent Internal Control Reports through 2009.
- Interviewed management from the Milwaukee County Parks and Department of Administration (DAS) IMSD.
- Interviewed (phone) personnel from Active Networks, Inc., owner of the POS / CLASS system.
- Reviewed the contract between Active Networks, Inc. and Milwaukee County Parks.
- Visited two County Golf Courses to observe and review POS register transactions, register reconciliations, and preparation of register closing documents.

- Visited and observed POS / CLASS servers in operations and reviewed the County's data backup and recovery procedures.
- Toured the locations of the County's Computer Network Control Centers to determine the strength of the County's security protocol over its systems and data.
- Reviewed Parks cash receipts operations and policy and procedures related to register operations, register reconciliations, and reconciliations conducted in the Accounting office.
- Observed staff procedures related to the electronic upload of POS / CLASS transactions from their respective servers to the desktop computers via the application program that interfaces with Advantage, as well as the posting of reconciled transaction summaries to Advantage.
- Conducted internet research related to internal control over cash operations and to obtain cost estimates related to money safes.
- Attended training designated for Parks cashiers.

CHRIS ABELE, MILWAUKEE COUNTY EXECUTIVE
 SUE BLACK, DIRECTOR OF PARKS, RECREATION AND CULTURE

Date: April 12, 2012
 To: Jerome Heer, Director, Department of Audit
 From: Sue Black, Director, Department of Parks, Recreation and Culture
 Subject: **Point of Sale System Audit Response**

The Parks Department would like to thank the Department of Audit for undertaking this review of our Point-of-Sale Revenue Reporting Processes. The Parks Department is committed to continuous process improvement assessments in all aspects of our operations.

As the following table reflects, a number of the recommendations have already been implemented and we will continue to work with the Department of Audit and the Information Management Services Division, IMSD, to evaluate the balance of the recommendations for implementation.

Please feel free to contact me with any questions.

<u>Item</u>	<u>Responsible</u>	<u>Audit Recommendation</u>	<u>Management Response</u>	<u>How Recommendation will be Implemented</u>
1	IMSD	Develop protocols, such as retention of appropriate documentation of programming modifications, to ensure the Parks POS/Advantage interface program is maintained with minimal disruption in operations should DAS' contractual relationship with the consultant currently performing that task end.	Parks needs someone who can support the current interface.	IMSD

2	Parks	Work to modify the current application interface or write a new one to facilitate nightly or semi-weekly batch posting of POS transactions, or a summary of transactions, to the Advantage system.	<ul style="list-style-type: none"> - A new interface to automatically upload summarized sales per POS site nightly would improve timeliness of information but Parks would still reconcile and correct entries as needed, so no timesavings occur. - Only 47% of Parks sales dollars are transacted using POS machines, so only that portion of sales would be reported on a timelier basis. - At \$12-15k per POS initial costs and \$6k on going annual costs, the cost outweighs the benefit at many Parks' sites. - Sales for POS sites can be viewed at any time by Parks staff. 	Cost vs. benefit analysis should be done first.
3	Parks	Develop a computerized tracking methodology to ensure that revenues from all sites are reported as scheduled and that corrective actions are taken when problematic sites are identified.	<ul style="list-style-type: none"> - In 2011 Parks Accounting created a spreadsheet to track the receipt of each cash report per day per site. A "closed/no sales" form is required when the site does not have a cash report. - For POS sites, reports inform us of all sales that need to be accounted for. - At month end, sales are reconciled to both bank and credit card statements to be sure that no sales were unrecorded. Parks feels this issue now has more than adequate controls. 	Completed in 2011
4	Parks	Consider installing cameras at all regulation golf/concession registers. At minimum, a camera should be installed at Oakwood Golf course, the third highest golf revenue generating site (approximately \$800,000 in revenues for 2010).	<ul style="list-style-type: none"> - 85% of POS sites have security cameras in place. - Upgraded security systems, including cameras are part of a 5-year capital plan. - Oakwood Golf Course will be evaluated this year. 	Upgraded security systems, including cameras are part of a 5-year capital plan.
5	Parks	Replace combination safes with keypad safes whereby the access code can be easily changed as often as needed at no additional cost.	<ul style="list-style-type: none"> - As Parks replaces existing safes, we are replacing the old "dial" safes with new keypad safes. - Seven new keypad safes have already been purchased and installed. 	Replacement Plan
6	Parks	Develop timely exception reports to more actively monitor voided and negative transactions. Parks management should devise reports that can be sorted by voided and negative transactions per cashier, per revenue site and per month to help detect patterns of potential abuse.	<ul style="list-style-type: none"> - A Fairway report of negative or voided POS transactions is available and currently reviewed by management staff. 	A more formal review policy will be implemented

7	Parks	Document management review and analysis of exception reports on a regular basis. The Parks cash handling procedures manual should be updated with this procedure and cashiers should be made aware of the change.	- Currently, "speed memos" are required for any overage or shortage more than \$10.00 with management review. The cash-handling manual will be updated.	The cash-handling manual will be updated.
8	Parks	Implement a policy to conduct and document a minimum number of surprise on-site cash counts per year, take remedial action if necessary, and disseminate this information to all cashiers.	- Periodic surprise on-site cash counts have been done in the past, more could be done if resources were allocated for such a project. - In 2011 ten sites were audited; at least 20 sites will be audited in 2012. Results were sent to the site and to its management. - A policy will be established.	At least 20 sites will be audited this year. Results will be disseminated
9	Parks	Require all cashiers to punch, deface, or void redeemed gift certificates prior to securing it into the register drawer.	- At POS sites the customer name is typed in for transaction, Parks feels this is better control than a signature, which may be illegible. - Current policy is for the cashier to deface/void all gift certificates as they are used. This policy will be reinforced with cashiers.	Current policy is for the cashier to deface/void all gift certificates as they are used. This policy will be reinforced with cashiers.
10	Parks	Establish regular reconciliation of tickets ordered, issued and redeemed to identify gaps in serial number and/or possible indications of unauthorized duplicates being redeemed. Link this process with ticket ordering to prevent erroneous orders of tickets with duplicated numbers.	- New orders numbers begin with the number after the last batch ordered and will only be ordered by Accounting. - Accounting will track tickets issued to and returned from Aquatics. - Aquatics will track tickets redeemed and identify duplicate usage, and report monthly	See response
11	Parks	Destroy and document any duplicate tickets that are ordered and/or printed in error.	- Duplicate orders will be destroyed.	See response
12	Parks	Establish a procedure to generate requests to applicable vendor for a copy of required Certificates of Insurance for each contract year at least 60 days prior to the expiration date of the copy on file and ensure that a valid copy is acquired and retained.	- In 2012 the DPRC has incorporated contract management software into its contracts management process to assist the department in tracking contract compliance.	See response
13	Parks	Work with IMSD to develop an access control policy for its POS system and ensure that password change requests, revocations, and assignments are properly authorized and documented. Such a policy should be consistent with Milwaukee County IMSD standards and documented in Parks' policy and procedures manual.	- While there have not been issues in the past and different levels of passwords for seasonal staff minimize risk to the system, - A formal password/access control policy will be written and implemented.	A formal password/access control policy will be written and implemented.

14	IMSD	Work with IMSD to develop a change control policy to manage changes to application interface program(s) interfacing with Advantage. Such a policy should be consistent with Milwaukee County IMSD standards, documented in Parks' policy and procedures manual.	IMSD	IMSD
15	IMSD	IMSD work with Parks to ensure that POS data recovery plans are tested and documented.	IMSD	IMSD
16	Parks	Take steps to move the server within the same room away from the window to an area of the room where it is less visible and susceptible to water damage, or to a more secure area altogether.	<ul style="list-style-type: none"> - Increased security precautions have been put in place since this initial audit. - Re-enforced deadbolt doors have been installed as well as high security metal screens have been installed on the windows. 	See response
17	Parks	Replace the existing external entry door containing a window with a more secure door.	<ul style="list-style-type: none"> - Increased security precautions have been put in place since this initial audit. - Re-enforced deadbolt doors have been installed as well as high security metal screens have been installed on the windows. 	See response

Date : March 12, 2012
To : Jerome J. Heer, Director of Audits
From : Chris Lindberg, Chief Information Officer, IMSD
Subject: Response to the Department of Audit's review of the Parks' Point-of-Sale Revenue Reporting Processes

The Information Management Services Division (IMSD) has reviewed the Parks' Point-of-Sale (POS) Revenue Reporting Processes document as prepared by the Department of Audit and is in agreement with technology related recommendations. Over the next several months IMSD will not only implement internal process improvement but will work closely with Parks' management to provide assistance as needed with timely revenue reporting, vendor process compliance and the development of POS security policies.

A review of recommended actions 1, 2 and 15 and IMSD's comments are included below:

1. Develop protocols, such as retention of the appropriate documentation of programming modifications, to ensure the Parks POS/Advantage interface program is maintained with minimal disruption in operations should DAS' contractual relationship with the consultant currently performing the task end.

RESPONSE: IMSD has process and protocols in place to ensure that application code is secured and appropriate documentation is retained. IMSD has two retention databases for all code developed by IMSD and contracted staff, Model Management and Team Foundation Server. Team Foundation Server, implemented in mid 2011, currently stores technology code related the Parks POS interface. All code development and periodic changes are managed within Team Foundation Server. IMSD will continue to work with employees and contracted staff to ensure that code development is thoroughly documented and maintained.

2. Work to modify the current application interface or write a new one to facilitate nightly or semi-weekly batch posting of POS transactions, or a summary of transactions to the Advantage system.

RESPONSE: IMSD has a working and integrated interface that Parks' staff executes on a monthly basis. The code is currently written in a manner that would allow staff to batch and post more frequently as recommended by this Audit. IMSD, as needed, will provide support to aid Parks in process improvement and timely posting of transactions into the Advantage system.

15. Work with Parks to ensure that POS data restoration plans are tested and documented.

RESPONSE: Restoration of data housed within the IMSD Data Center is currently tested on an ad hoc basis. IMSD concurs with the Audit recommendation that a regimen of periodic, documented testing is a sound practice. IMSD will work with

Parks' staff to solidify a regular occurring restoration test plan and documentation for the POS system by September, 2012.

IMSD is committed to continuous process improvement and would like to thank the Audit Department for their insight and recommendations as part of the Parks' Point-of-Sale Revenue Reporting Processes Audit. IMSD will work closely with Parks' staff and will provide resources and staff expertise to assist with compliance to fulfill recommendations as outlined

CC: Douglas Jenkins, Deputy Director of Audit
Sue Black, Parks Director
Laurie Panella, Deputy CIO, IMSD
Rich Foscato, Interim CTO, IMSD
Laura Schloesser, Chief of Administration, Parks
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