



## RFP Integrated Parking Management System

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## 1.0 Scope of Services

**City of St. Louis**  
Request for Proposals  
Integrated Parking Management System

## 1.0 Scope of Services

Aparc Systems is committed to providing best-value, customized solutions that maximize return on investment. We consider our parking solutions to be an important investment in infrastructure and are proud to offer high-quality, durable and technologically advanced systems that are customizable to each client's unique needs.

Aparc is committed to utilizing and growing MBE/WBE businesses in the St. Louis area. Together with our local service partner, Hudson and Associates, LLC (a local MBE/WBE business in St. Louis) and Passport Parking, LLC (a certified MBE recognized by the Carolinas Minority Supplier Development Council), we offer a superior solution that addresses the latest technological advancements in the parking industry while providing optimal service to the City, its parking program and its citizens. A summary of the services and technologies proposed has been provided below:

Hudson and Associates, LLC <i>Services</i>	Aparc Systems, Inc. <i>Technologies</i>	Operational Benefits
<b>On-Street Parking Program</b>		
Parking program management Meter collections Meter maintenance and technical support Boot enforcement Pay-station installation Meter relocation (for existing single space meters)	Multi-space pay-stations in Pay-by-Space configuration Real-time wireless communications ParkPort back office reporting portal On-street space signage Passport Pay-by-Phone and mobile payment platform	Local support Self-monitoring equipment enables quick resolution of issues Dynamic reporting tools for efficient management Space signage utilizes existing meter poles, minimizing removal and signage costs Greater variety of payment options increases compliance and revenues Switching to multi-space meters reduces on-street hardware, which provides significant cost savings for meter collections and maintenance events
<b>Enforcement and Citation System</b>		
Parking Violation Bureau Staffing and management Customer service Citation processing Dispute/appeal management	TicketManager™ citation software Wireless handhelds and printers Online citation payment and dispute modules Online permitting solution Mobile LPR technology Integration with existing eTIMS back office processor	Full integration with pay-stations and booting system for seamless operation Enables intelligent enforcement of all parking transactions, maximizing enforcement efficiency and revenues Online modules speed payment and dispute processes, allowing for efficiency cost savings

## **Technologies**

Aparc is a software development and integrated systems specialist, and we have aligned ourselves with leaders from across the spectrum of industry in order to provide the most advanced and reliable solutions available. We constantly demonstrate our ability to supply, install and warranty a wide variety of systems that enhance, supplement or replace those in use. With our integrated approach, Aparc will provide the City with increased flexibility, allowing programs to be further modified and customized based on changing needs and emerging technology. Our proven solutions for the City's parking program include:

- Pay-by-Space solar-powered pay-stations
- On-street Tri-Meter space signage
- TicketManager™ Enforcement System with Motorola handheld systems and Zebra Bluetooth printers
- Integration with existing eTIMS back office processor
- Automated towing and booting dispatch capability
- Passport mobile payment applications (including pay-by-phone, smart phone and tablet)
- Mobile License Plate Recognition (LPR) technology
- ParkPort Reporting Portal (central management system)
- Online Citation Payment module
- Online Citation Dispute module
- Online Permitting Solution
- Merchant validation system

The driving force behind any parking program is the back engine that makes intelligent enforcement possible. Aparc's solution is unique in that all components are fully integrated, making it one of the strongest enforcement systems on the market. With all components communicating to the Central Management System (CMS), there will be no need to manually query multiple databases for enforcement and the City can be assured that all transactions are accounted for when it comes to parking enforcement.

While Aparc's recommended solution is to implement multi-space parking Pay-Stations, Aparc can also provide new single-space parking meters in combination with our multi-space meters, if the City so desires. Aparc's single-space meters will be fully integrated with the Central Management System and other system components.

## **Services**

We have partnered with Hudson and Associates, LLC, to provide all local and on-site services required. Incorporated in 2005, Hudson and Associates, LLC (HA) is certified as a Minority/Women and Small Business Enterprise firm with the City of St. Louis and St. Louis Minority Business Enterprise. A multi-faceted professional service firm, HA specializes in project management and staffing services to local, state, and federal agencies including the City of St. Louis, Treasurer's Office, St. Louis Public School District, and St. Louis Lambert International Airport. With over 10 years of management and technical resources experience HA will staff the most qualified employees to ensure that the program is operating efficiently and effectively.

Hudson and Associates (HA) will provide the following services and personnel to support the Integrated Parking Management System:

#### *Program Management*

- **Program Manager (PM)** – A full time project manager will manage daily operations and monitoring contract services as required for both programs. The PM will develop performance goals and policies to enhance service; draft reports as required; assist with operations and safety training as needed; manage client relations and address concerns; monitor and evaluate parking systems/technology; and assist with bank reconciliation. In addition, he/she will be responsible for hiring key personnel and developing training programs/exercises to ensure a proficient and safe work environment.
- **IT Technician** - HA will staff a full time IT officer to monitor and manage all IT equipment integrated and provided to support the program. The IT officer will work closely with the technology vendors to certify resources are functioning at peak performance levels to ensure a smooth integration and efficient system.
- **Administrative Assistant** – A full time executive assistant will be staffed to provide administrative support as required. This will include contract management, document control, budget and book keeping, marketing support, Human Resource services, and drafting reports are required.

#### *Gateway Parking*

Hudson and Associates, LLC will manage and staff all major services to support the revenue collection operation and equipment maintenance at Gateway Parking.

- **Project Manager (PM)** – A full time project manager will be on-site to manage daily operation. He/she will be responsible for managing all staff; monitoring and evaluate parking systems/technology; generating all monthly reports required by contract and associated with program; reconciling bank deposits/reports; and managing vendor contracts. In addition, he/she will be responsible for hiring key personnel and developing training programs/exercises to ensure a proficient and safe work environment.
- **Operations Manager (OM)** – A full time OM will be responsible for managing daily collection and dispatch operations. The OM will develop service schedules or routes for meter collection, tech, and booting services; coordinate meter key distribution for collection; conduct special field assignments and investigation; manage fleet/vehicle services; develop; assist with employee recruiting/training; and address employee matters as needed.
- **Meter Collectors** – The meter collectors will be responsible for auditing, collecting and depositing the revenue from the various meters as assigned daily. In addition, the collector will report signage discrepancies and any meters out of service or vandalized.
- **Meter Technician Support** – The meter technicians will be responsible for repairs/servicing, removal, installation, battery replacement, special on-street projects, painting, stamping, and addressing hazardous conditions as needed to ensure all meters are functioning properly. Each technician is also responsible for presenting management with a daily report that highlights the conditions, issues and service provided on each meter as required per the service contract at the end of their shift.
- **Boot Enforcement** – HA will staff up to three vehicle operators (boot officers) to capture scofflaw violators. The boot officers will respond to service calls from the dispatcher to enforce or release a boot as needed. Another option for enforcement will be from the boot eligibility list provided by the Parking Violation Bureau office. The boot officer will upload information to the License Plate Recognition (LPR) system daily. Once a vehicle has been identified, a boot and

notice will be placed on the vehicle. A boot report will be made daily for the OM and dispatcher to review and file for the record.

- **Dispatcher** – The dispatcher(s) will manage and monitor all communications during shifts. He/she will serve as the communication piece for all the service providers in operation during the work hours. In addition, the dispatcher will monitor the Parking Enforcement Officers' routines and address any safety matters, record and report all meter issues presented, and coordinate booting and towing enforcement. The dispatcher will be responsible for logging all boot, towing and repair activities for the Project Managers monthly report.

#### *Parking Violation Bureau (PVB)*

Hudson and Associates, LLC will manage and staff all major services to support the ticket processing operation at the Parking Violations Bureau (PVB).

- **Program Supervisor** – A lead supervisor will assist the Program Manager with managing daily operation. The supervisor will assist the staff with any daily matters such as customer complaints, technical support, and operational/policy concerns. He/she will work in coordination with the cashiers and site Project Manager to reconcile daily/monthly deposits and address any discrepancy with a customer or deposit. The supervisor will assist the prime contractor Program Site Manager with any special reports and assist with training.
- **Customer Service Representatives (CSR)** – HA will staff up to six CSRs to work the Customer Call Center at PVB. The call center is set up to allow a citizen the opportunity to discuss matters about a ticket issued or meter services. The CSRs will be responsible for opening a ticket and addressing the concerns and updating the ticket profile as needed. In addition, the CSRs assist with explaining the payment process and directing the violator to the web system to process payments. The CSRs will also process correspondence and coordinate any payment that come through lockbox with the cashiers on staff. If a violator decides to challenge a citation the CSRs will coordinate a formal adjudication hearing then suspend all ticket penalties until the adjudicator presents a ruling.
- **Cashiers** – HA will staff three cashiers at the PVB. The cashiers are responsible for processing all ticket payments as approved (ie. cash, checks, credit cards, etc.) and updating the account in person. At the end of each shift each cashier is responsible for closing out their window and balancing the drawer for daily deposit.
- **Data Imaging** – HA will staff a clerk to perform various data entry and imaging duties to ensure historical data is recorded and properly archived. The clerk will scan every ticket and all correspondence or images associated with the ticket(s) to be filed indefinitely.
- **Data Entry Clerk** - HA will provide data entry services to ensure all manual tickets issued are uploaded to the ticket management system (eTIMS) within 24 hours of the date received.

### **A. Cost Benefit Analysis**

#### **Costs for Equipment, Options and Operation**

Please see section 4.0 Cost and the included sealed envelope which contains all costing information. Also included in this section are the lease/finance options available.

#### **Return on Investment**

Based on our industry experience, Aparc estimates that the City can realize substantial cost savings and revenue increases with the implementation of our solution. Potential avenues of savings and revenue increases include:

- 25-30% cost savings on patrolling (with the use of an intelligent parking enforcement system and mobile LPR)
- 30-40% cost savings on coin collections (with fewer machines to collect from, greater variety of convenient non-coin payment options and real-time monitoring of coin box levels, which means that staff know when and where to collect)
- Minimum 20% parking revenue increase (greater compliance with intelligent enforcement, as well as flexible and convenient payment options, and providing customers with receipts)
- 25% parking revenue increase when the City includes a modest parking rate increase (if the City is considering a parking rate increase, now is the time to do it – parkers are more likely to be accepting of rate increases when they accompany the implementation of a new program)
- 25% violation revenue increase (increased citation yield, compliance and payment options)
- 20% violation revenue increase when a modest fine increase is implemented
- Additional personnel cost savings related to maintenance and support (fewer machines to service translates to less time required for maintenance)

A detailed ROI has been provided in section 4.0 Cost, in the attached sealed envelope.

#### **Existing Meters and Infrastructure**

Aparc suggests a phased implementation (refer to item G: Rollout Implementation Schedule) that will allow about half of the existing single-space meters to remain in service until their end-of-life, or until parking demand in less busy areas becomes too high. With our phased approach, the City will not be obligated to make the upfront capital expenditure required to replace *all* of its single-space meters. From the central core area where we propose to install the initial phase of multi-space meters, Aparc will remove the existing single-space meters, the best of which will be kept for refurbishing and reuse in surrounding areas where less reliable equipment needs to be replaced. The remaining single-space meters would then be gradually phased out and replaced with our multi-space meters as needed.

Aparc also proposes to provide our unique on-street Tri-Meter space signage for the core area where our Pay-by-Space program will be implemented. Our Tri-Meter space signage is designed to utilize existing meter poles, so that the costly undertaking of stall marking and space numbering is not required. One Tri-Meter sign is required for every two spaces, so every second meter post will be used as a sign post with the remaining removed.





## B. Functionality

### **Back End Reporting**

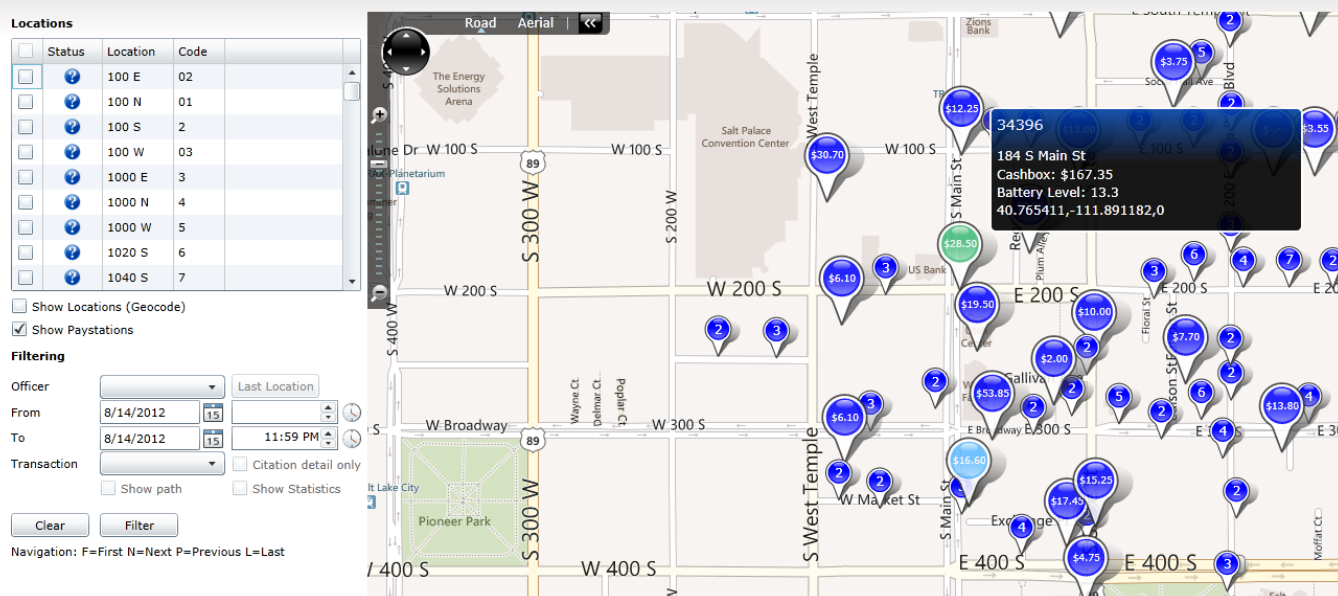
All back end reporting is managed through Aparc's ParkPort reporting portal. ParkPort is an online dashboard and entry portal to the backend Central Management System (CMS) that provides online real-time monitoring and reporting tools, including access to raw data, pre-structured reports and a graphical mapping application. The dynamic nature of ParkPort's reporting capabilities means that the City of St. Louis can manipulate all raw data to produce specific data outputs. All reports are exportable in PDF, CSV and Excel formats.

ParkPort produces a wide array of reports, satisfying both the financial and operational aspects of the pay-station program. Common reports include, but are not limited to:

- Revenue data (by pay-station, zone, group, plate/space number or payment type)
- Battery voltage levels
- Coin box levels
- Alert log
- Cash out log

Revenue information is generated in real-time, allowing the City's management personnel to review and account for all transactions as they occur. ParkPort can also be equipped with a real-time GPS mapping tool that provides an up-to-the-minute map view of the City's pay-station system and status of each machine. This valuable monitoring tool allows the City to monitor the health of its pay-stations, including cash box and battery levels, which assist in the planning of cash collection and maintenance

## Aparc Mapping



routes.

## Power and Communication

Aparc's Pay-Stations are designed to run on solar power. Solar powered Pay-Stations are capable of operation with minimum battery life of 36 months. The solar panel is adjustable in 120 degree steps and can be fixed in line with any of the three sides of the Prisma cabinet, ensuring optimal placement for maximum exposure to sunlight. The Pay-Station relies on solar energy to charge the battery, which powers the machine. Once fully charged, a battery has the capability to operate the machine for at least 3-6 weeks with zero sunlight, depending on the usage of the machine.



Alternatively, AC powered Pay-Stations are available and operate on 120V AC. In the case of AC powered machines, final electrical hookup and power conduit will be the responsibility of the City due to regional building codes and requirements.

When the Pay-Stations are not in use, they utilize sleep mode to conserve energy, which makes the system very energy efficient. Solar-powered Pay-Stations have an automatic sleep mode to conserve power. The Pay-Stations are woken up when a coin or credit card is inserted or a button is pressed.

Aparc's Pay-Stations communicate wirelessly via GPRS cellular communications. Remote data transfer via the 850+1900MHz GPRS network allows for two-way wireless communication. Status messages, cash data and revenue statistics can be received at the backend, while parameter data as well as the radio controlled time can be transmitted to the Pay-Stations from Aparc's control office.

### **Handicapped Provisions and Hooding**

Aparc's Pay-Stations are fully compliant with current Americans with Disabilities Act requirements.

Should a Pay-Station be out of service, an "Out of Order" message will be displayed on the screen. An out of service machine will not accept any form of payment; the coin slot will be closed and the card reader inactive, which eliminates the need for a costly hood or bag. If the City prefers for out of service machines to be hooded, Aparc can provide hoods at an additional cost.

### **Multilingual Features**

Aparc's Pay-Stations support a multilingual option that can accommodate up to five different languages, including English, Spanish, German, French, and Italian. Additional languages can be programmed if required. Furthermore, for simplicity and ease of use, the buttons on the Pay-Station feature a language-neutral alphanumeric display (international symbols such as a clock for time, or green for "Go").

### **Data Security**

All sensitive data (ie. credit card transactional data) transmitted from Aparc's Pay-Stations is encrypted using 128-bit encryption protocol. Furthermore, our Pay-Stations are fully PCI compliant, and all online payments (including permit and citation payments) are processed through Moneris' PCI compliant interface. All data are backed up regularly and backups are fully monitored to ensure ongoing protection.

### **Redundancy**

Aparc's secure production servers operate in a Private Cloud setup. Our datacenter features multi-homed upstream for maximum redundancy, multiple and redundant UPS systems (including natural gas generators for long-term power outage protection), and multiple and redundant cooling systems to maintain appropriate temperature levels.

### **Mobile Payments for Gated Parking Facility Users**

As a solution for the City's existing gated parking facilities, Aparc recommends pre-registered event parking. Aparc will provide a web interface accessible through the City's website that will allow parkers to select the desired facility, register their vehicle and pre-pay online for their parking. Integrated stationary License Plate Recognition (LPR) systems can be placed at the entrances to the facilities and linked to the entrance gates to provide access to registered vehicles.

Aparc's mobile payment partner, Passport, can facilitate mobile payments for a variety of situations, including on-street and off-street parking. However, for gated parking facilities there may be an additional integration requirement to allow access to vehicles that have paid via the mobile payment platform.

### **Event Permit System**

Aparc's Online Permitting Solution is a revolutionary digital, paperless, internet-based solution that eliminates costly processes of manual paperwork, in-person validation, hang-tags and window decals

that accompany traditional permitting systems. Our unique solution provides full control over the creation, deployment and management of permits.

Permit search and enrollment modules can be easily integrated with the City's website to offer a seamless user experience. Aparc's online solution facilitates user-based management by allowing prospective and current permit holders to apply for permits and update their account details, including valid license plates and billing information.

Our Online Permitting Solution is highly customizable to accommodate a variety of operations and permit types for different applications. With extremely rich permitting functionality Aparc can accommodate hourly, daily, weekly, monthly, annual, variable time, variable day, multiple lot, driving pool as well as tokenized parking and special event permits to handle almost every conceivable situation. Permits can be issued by assigned stall or by license plate and can cover off-street or on-street parking.

### **Integration**

Aparc Systems is a software development and integrated systems specialist. Along with our veteran in-house development team, Aparc has partnered with established industry leaders to provide an entire portfolio of the world's most advanced equipment and systems. We constantly demonstrate our ability to supply, install and warranty a wide variety of systems that enhance, supplement or replace those in use. With our integrated approach, Aparc will provide the City of St. Louis with increased flexibility, allowing programs to be further modified and customized based on changing needs and emerging technology.

Aparc's back office system has the ability to gather information from a number of different pay-station providers (including our Pay-by-Space pay-stations included in this proposal), as well as pay-by-phone vendors, License Plate Recognition (LPR) systems, vehicle sensors, and permit systems. All components of our proposed solution are integrated, including our TicketManager™ Enforcement System. This ensures that the system as a whole can report on the validity of any parking event, whether paid at the pay-station, by mobile device or through an online permit.

To meet the City's pilot requirement, Aparc will integrate our TicketManager™ enforcement system with the existing eTIMS back office processor. Following the pilot, Aparc will provide several go-forward options for the City to consider:

1. Maintain eTIMS as the back office processor.
2. Maintain eTIMS as the back office processor, with added functionality and modules developed by Aparc.
3. Replace eTIMS with a full TicketManager™ back office. Aparc is willing to work with the City to identify and develop further feature sets if the City desires.
4. Aparc can present several third party back offices that we have already integrated with.

### **Waiting Lists and Mass Email**

Aparc's Online Permitting Solution allows customers to be placed on waiting lists if permit or parking space availability is full. Our feature-rich enrollment process enables map-based searching for available spots with optional waiting list information. Waiting lists are kept in applicant date order and parkers are automatically notified when spaces become available.

Automated emails keep applicants and permit holders informed of their status. Mass emails are typically activity-based, which eliminates the guess-work required to keep customers updated. When a permit is approaching its expiry period, for example, an email will be automatically sent to the permit holder reminding them to renew. Likewise, customers are automatically notified via email when their application has been approved.

### **Online Customer Interface**

The online interface for Aparc's permitting system is intuitive and easy to use. Users access the enrollment module directly from the City's website. Aparc's Online Permitting Solution supports user-managed accounts, which significantly reduces the manpower requirements and cost of account maintenance. Customers are provided with password access to their account, allowing users to easily keep their information, including billing address, credit card information and applicable license plates, up to date. Prospective permit holders are also able to submit permit applications as well as submit payments fully online.

Pay-by-Phone and mobile payment customers are also given access to their own personalized Account Management website upon completing Passport's phone verification security process during their first parking stay.

## **C. Maintenance and Service**

### **Training, Spare Parts and Software**

Aparc provides comprehensive training in first-level corrective maintenance, allowing for quick on-site resolution of all basic issues. Training seminars (and additional web-based archives for refresher courses) are scheduled prior to the installation of the equipment so that systems will be properly tested and staff is fully engaged. Aparc has a knowledgeable and experienced team of individuals to provide systems training. Training will consist of both classroom and hands-on instruction to achieve a proper understanding of system operations – from hardware to software.

Aparc's training program is based on a "train the trainer" method, meaning that the selected maintenance personnel that participate in Aparc's training program will be given the knowledge and tools to conduct their own end user training and a detailed transition training program.

The training seminars will be broken down into three (3) main sections:

- System Administrative Training
- Operational Training (coin collection)
- Maintenance Training

Aparc can also provide a recommended list of spare parts based on our industry knowledge, experience and the scope of the City's project. Please refer to Appendix B: Field Test Requirements for recommendations.

For additional details on reporting capabilities, please refer to item B: Functionality.

### **Coin Collections**

Aparc's Pay Stations have been engineered to provide exceptional security with collections and accounting. The extra measures taken to protect against fraud ensure collections and accounting



personnel are in compliance with proper accounting practices and that an audit trail is available and clear.

When collections are required, an alert from the Pay-Station will notify the Central Office and collections personnel. Alternatively, the City can monitor coin box levels in ParkPort and decide when cash collection is necessary. The collection process begins by opening the lower compartment door on the Pay-Station with the required high-grade bolt key and security key. A third key is then used to remove the cashbox. During this process, special notifications will be sent to the Central Office informing management that a cash door has been opened and the cashbox removed. When the cashbox is removed, the Pay-Station will automatically print a detailed list of all sales/transactions, which have occurred. This revenue report should accompany the cashbox when handed off to accounting.

The accounting department will be responsible for the counting and management of all revenue upon opening the cashbox with another separate key. All credit and coin transactions are reviewed and compared to the printed transaction receipt (from the Pay-Station) and the real-time backend management system. If an irregularity should occur, the source will be readily apparent when revenue is compared to the system's backend financial reports or the Pay-Station's transaction receipt. Revenue will be sorted by denomination of coin and/or type of credit card along with totals. With real-time connectivity, all financial information is immediately available at the Central Office for review. Should a connection or power failure occur, all information is stored and backed up in the Pay-Station's memory.

After revenue has been processed, the empty cash box is ready to be returned to the Pay-Station. When a cashbox is re-entered into the Pay-Station it automatically resets the financial transaction data in the Pay-Station's memory. The Pay-Station is aware that the box is empty because only cashboxes that have been emptied and manually reset will be accepted. Signals and alerts will be provided to the Central Office when the cash door has been opened and the cashbox returned.

### **Remote Diagnostic Capabilities**

A data link to the mobile GPRS communication network will keep the City's personnel constantly up-to-date on the operating state of all Pay-Stations. Aparc's Pay-Stations are self-monitoring, and provide instant notification when problems arise.

Alarms and warnings are sent from the Pay-Stations to the backend via wireless GPRS communication. Once the alarms and warning are received, the backend then distributes the messages to the selected personnel via fax, fax/email, email or SMS text message. As a system standard, if there are any critical operational failures, alarms will be programmed with appointed City personnel, sending alerts to their email, pager, or cell phone immediately upon the failure occurring.

Alarms and warnings include:

- Equipment door closed
- Equipment door open
- GSM Modem Error
- Machine closed
- Machine no longer signaling
- Machine door open
- Cashbox status
- Power failure
- Full coin vault
- Printer ok
- Paper low
- Paper jams
- Paper empty
- Paper refilled
- Paper end
- Printer error

- No sale with coins
- Coin Jam
- Unit operational status
- E-cash data transmission ok

### **Performance**

Aparc's proposed solution includes reliable, high-tech parking hardware with real-time remote monitoring and automatic alerts and warnings, ensuring quick assessment and resolution of any potential issues. Pay-Stations use both a non-static IP address and a separate GPRS for communication transmission which is highly reliable and guarantees maximum up time. Our units feature an industry-leading 99% average operational readiness record. Should pay-station communications experience any downtime, all other payment methods (coin, pay-by-phone, mobile payment and online payment) will continue to be accepted. With local on-site support available through Hudson and Associates, the City can be assured of optimal customer service required for maximal uptime of its parking system.

All data collected from the proposed system components is transferred to the Central Management System (CMS) hosted on Aparc's secure server. To ensure maximum uptime of the backend and online components, our datacenter features multiple and redundant UPS systems, hard drives and cooling systems, as well as regular data backups and 24/7 monitoring and support.

### **Third Party Maintenance**

Aparc will provide necessary training to the City's authorized maintenance personnel, be it through a third party or directly with STLTO. Warranties will remain unaffected as long as maintenance personnel have participated in Aparc's training program. Aparc also offers additional "refresher" training through our annual Support and Maintenance Agreement (SMA).

### **Support for Repairs**

In addition to remote support provided through Aparc, local on-site support will be provided by Hudson and Associates. First level corrective issues are typically resolved via phone or email, with second level issues escalated to our technicians if required.

### **Service Contract and Equipment Warranty**

Aparc is committed to year-round service and equipment coverage to all of our customers. Our equipment and systems are designed to be durable and robust, and Aparc provides a standard warranty program that provides a 100% guarantee that all equipment is free of any defects upon the completion of installation for a period of one year. Aparc will repair and/or replace, at no cost, any part or modular component determined to be defective in material or workmanship under normal use and service under our Service and Maintenance (SMA) Program. Our SMA Program also provides added protection so that maintenance and service for your system are being addressed quickly and professionally by our support team, and includes ongoing coverage for all parts and labor for electrical or mechanical failure within the specified terms of the agreement. For additional details on our SMA, please refer to Appendix C: Sample SMA.

### **Hardware and Software Upgrades**

Aparc's SMA includes all firmware upgrades, which will be delivered via secure Over the Air Programming (OTAP), as well as software maintenance and upgrades including patches, firmware updates and all client and host software application updates.

With our SMA, Aparc will also replace hardware that is damaged due to normal wear and tear or a factory defect (including recalls), as well as replace or upgrade parts required to maintain PCI

compliance at no cost to the City. However, if the City desires a hardware upgrade that is not mandatory, Aparc will replace the part at a reduced labor rate (if applicable). Under these circumstances, the City would be responsible for the cost of the part.

## D. Payment Options

### Payment Methods

Aparc's proposed solution is designed to provide maximum payment flexibility. The system will accept the following methods of parking payment:

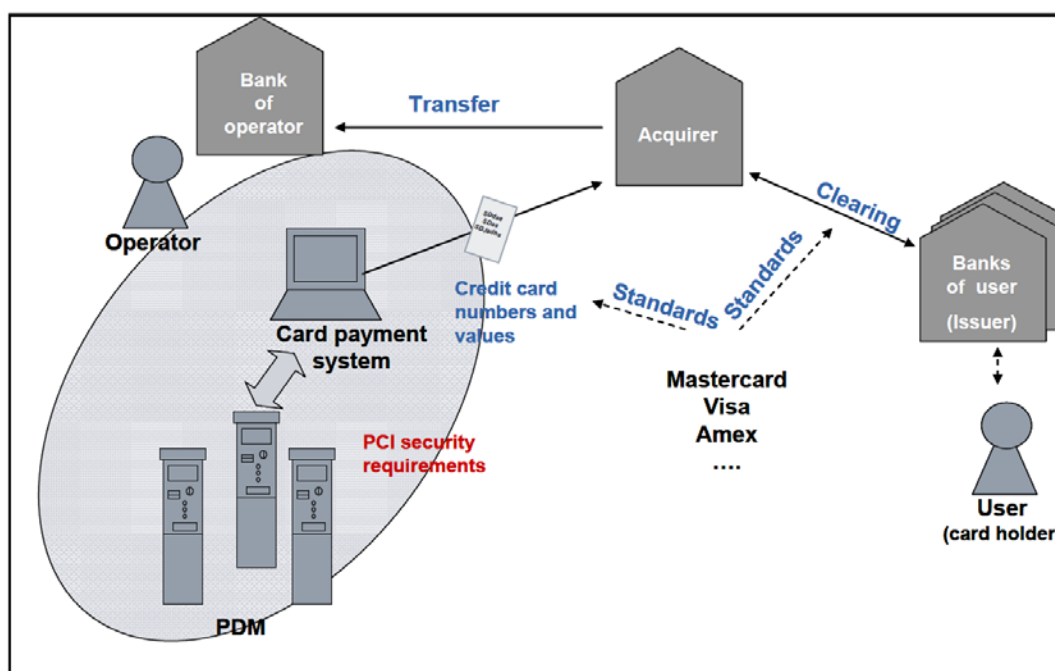
- Coin
- Credit card
- Stored value smart card
- Mobile payments (including Pay-by-Phone, Tablet and smart phone application)
- Near Field Communication (NFC) and Quick Read (QR) codes on the Tri-Meter space signage

In addition, Aparc will provide online interfaces that will accommodate:

- Online citation payments
- Online permit issuance and payments
- Event parking registration and pre-payments
- Merchant parking validations

Pay-Stations process credit card transactions according to the current standards of the Payment Card Industry (PCI). The processing of credit card data underlines strict regulations and obligations which are agreed to by the major credit card companies and are defined by PCI. The Pay-Stations' processing service includes the user data warehouse where the IT infrastructure is located and is checked regularly. These locations and processes are also certified to fulfill PCI requirements.

The clearing of credit card transactions is described in the diagram shown below. The pay-station card payment system ensures the transfer of the transaction data to the acquirer according to the relevant security standards in a certified process.





For these PCI compliant card clearing services, complex hardware and software equipment is exclusively provided. The PCI process requires various activities such as regular log file reviews, encryption key management, appointment and training of involved personnel, software change management, risk management and incident reporting. A yearly recertification assures long term compliance to PCI regulations.

In addition, all online payments are processed through Moneris' PCI compliant interface. For details on the system's reporting capability, please refer to item (B) Functionality for details.

#### *Collections & Revenue Audit Capability*

Aparc's Pay-Station were engineered to provide exceptional security with collections and accounting. The extra measures taken to protect against fraud ensure collections and accounting personnel are in compliance with proper accounting practices and that an audit trail is available and clear.

When collections are required, an alert from the Pay-Station will notify the Central Office and Collections personnel. Alternatively, the City can monitor coin box levels in ParkPort and decide when cash collection is necessary. The collection process begins by opening the lower compartment door on the Pay-Station with the required high-grade bolt key and security key. A third key is then used to remove the cashbox. During this process, special notifications will be sent to the Central Office informing management that a cash door has been opened and the cashbox removed. When the cashbox is removed, the Pay-Station will automatically print a detailed list of all sales/transactions, which have occurred. This revenue report should accompany the cashbox when handed off to accounting.

The accounting department will be responsible for the counting and management of all revenue upon opening the cashbox with another separate key. All credit and coin transactions are reviewed and compared to the printed transaction receipt (from the Pay-Station) and the real-time backend management system. If an irregularity should occur, the source will be readily apparent when revenue is compared to the system's backend financial reports or the Pay-Station's transaction reports. Revenue will be sorted by denomination of coin and/or type of credit card along with totals. With real-time connectivity, all financial information is immediately available at the Central Office for review. Should a connection or power failure occur, all information is stored and backed up in the Pay-Station's memory.

After revenue has been processed, the empty cash box is ready to be returned to the Pay-Station. When a cashbox is re-entered into the pay-station it automatically resets the financial transaction data in the Pay-Station's memory. The Pay-Station is aware that the box is empty because only cashboxes that have been emptied and manually reset will be accepted. Signals and alerts will be provided to the Central Office when the cash door has been opened and the cashbox returned.

#### **Smart Card**

Aparc can provide magnetic strip stored value smart cards. The Pay-Stations utilize a hybrid card reader (tracks 1, 2 and 3, and conforms to ISO 7810, 7811 and 7816), which provides a single card slot for acceptance of both stored value smart cards and normal credit cards. Aparc's smart card program has a unique login and logout ability, which allows parking customers to pay for the precise amount of parking

time used. Customers would swipe their card at the Pay-Station to login and begin parking; when finished, they would swipe again to logout and complete their parking session, thereby being debited only for the amount of time that they used.

### **Pay-by-Phone**

Aparc has partnered with Passport Parking, LLC to provide pay-by-phone and mobile payment platforms. Passport is fully integrated with Aparc's presented solution of hardware and software. The area's largest private parking operator, St. Louis Parking, is currently using Passport's pay-by-phone system in their facilities. Having a cohesive system throughout the community will aid in the convenience and adoption of the program.

Parkers can park using the following methods to pay for complete a transaction:

- Mobile apps
- IVR (Voice)
- SMS (Text)
- Mobile web

Passport's system is designed to register as a first-time user and park in 1-2 minutes, which results in higher utilization rates and fewer "hang-ups". The user is verified to their phone number and the system recognizes the user based on the unique number. A local or toll-free number can be used. The pay-by-phone process will require a 4 digit PIN for security purposes, and one-time credit card entry to be saved securely on file.

### **Pay-by-Mobile**

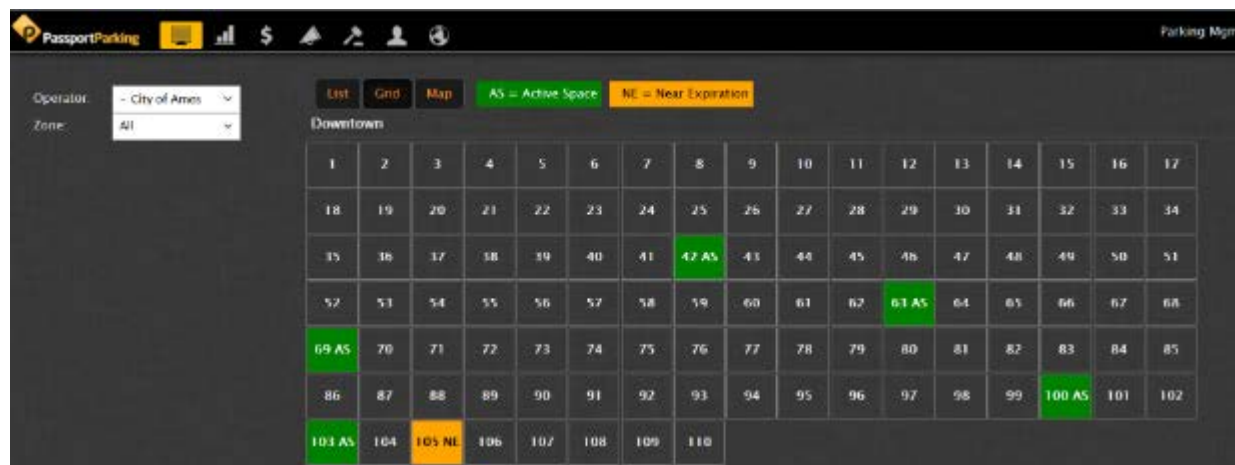
Using the mobile application, customers can pay for parking from their smart phones, and may even log in with one-touch using Facebook. This is even faster and will allow motorists to view nearby merchants that may be providing parking discounts through PassportParking.

With a variety of additional functionality, Passport's mobile pay system also allows users to easily:

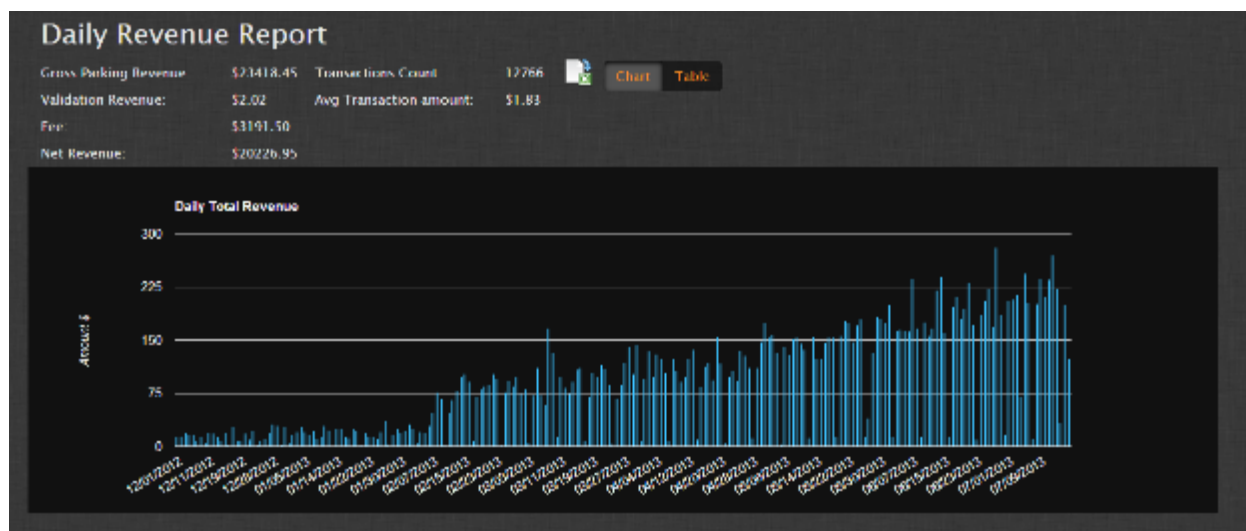
- Extend parking sessions – Parkers can easily extend via phone call, text or the Passport app during an active parking session up until the maximum time allowed to stay.
- Enable reminders – User can get alerts prior to the expiration of a parking session via a text message and/or email.
- Obtain receipts – A final text message, email or push notification through the customer's smartphone application stating that the parking session has concluded and detailing the total cost for the session.
- Pre-fund accounts – A pre-paid account "wallet" provides a means for the parkers to load a balance on their account. All wallet balances remain with the City at all times and those fund balances on the parkers account can only be used at City locations. All merchant processing savings is passed to the City.



The City will be given access to Passport's web-based Operations Management Console, which allows for real-time fiscal and operational visibility and control. This tool will provide the City with the ability to monitor parking in real-time, analyze utilization and turnover; manage rates and events and view parking sessions and respective expiration times.



The City will have the ability to view all transactions that flow through the pay-by-phone system in real-time, as our cloud-based tool is accessible at all times. Additionally, the City can easily export transaction reports to Microsoft Excel for additional analysis and internal reporting requirements.



### Pay-by-Web

Passport provides parking customers with the ability to register and park online at [passportparking.com/parkers](http://passportparking.com/parkers). After setting up an account, customers can view all parking session history and download receipts.

Aparc can also accommodate parking payments online with our Online Permitting Solution, which is a revolutionary digital, paperless, internet-based solution that eliminates costly processes of manual paperwork, in-person validation, hang-tags and window decals that accompany traditional permitting

systems. Our unique solution provides full control over the creation, deployment and management of permits.

Permit search and enrollment modules can be easily integrated with the City's website to offer a seamless user experience. Aparc's online solution facilitates user-based management by allowing prospective and current permit holders to apply for permits and update their account details, including valid license plates and billing information.

Our Online Permitting Solution is highly customizable to accommodate a variety of operations and permit types for different applications. With extremely rich permitting functionality Aparc can accommodate hourly, daily, weekly, monthly, annual, variable time, variable day, multiple lot, driving pool as well as tokenized parking and special event permits to handle almost every conceivable situation. Permits can be issued by assigned stall or by license plate and can cover off-street or on-street parking.

## **E. Customer Service**

All customer service relating to Pay-by-Phone and mobile payment applications will be fielded by Passport Parking. Passport will provide 24/7 customer service.

Aparc's support staff can be reached 7 days a week at our toll free support line or via email. Our Client Services department provides guaranteed response times as part of our Service and Maintenance Agreement (SMA).

## **F. Marketing**

Aparc Systems pledges its support in assisting the City of St. Louis in the production of an awareness campaign to ensure that the public experiences a graceful transition to the new parking program. Aparc's marketing department is experienced in the creation of marketing campaigns, and will act as a resource for the creation and implementation of a comprehensive marketing plan for the improved St. Louis parking system.

### **Sample Marketing Plans**

Aparc has participated in public awareness campaigns in numerous markets, using a wide spectrum of mediums to alert parkers of the implementation, usage and benefits of new parking programs.

Previous marketing plans are, in part or in whole, the intellectual property of Aparc's existing clients. As such, Aparc cannot disclose exact details of past programs.

Our organization has provided the following to support client awareness initiatives:

- Marketing project management expertise
- Graphic design
- Promotional and instructional copy
- Evaluation and selection of vendors for the production for printed collateral, signage and promotional goods
- On-site installation of instructional signage

- Creation and distribution of press releases
- Participation in the arrangement of press events
- Participation in the arrangement ambassador programs
- Web and social media content
- Co-production of instructional and promotional videos

Aparc proposes a joint marketing effort in conjunction with the City of St. Louis City Hall and Downtown Business Association. The objectives, approach and success criteria will be selected as the City further defines its roll-out strategy.

An allotment of \$15,000 has been included in our pricing proposal. As the true scope and requirements of the marketing plan are yet to be determined, this figure is subject to revision based on mutual agreement between the City and Aparc.

#### **Initial Marketing Plan**

Elements and timing of the marketing plan will be defined following a scope assessment with the City of St. Louis. The plan will include public relations and promotional activity.

#### **Message, Medium, Location and Frequency of Use**

Messaging and content will be based on the communications goals of the City. Specific locations, mediums, and frequency are to be determined.

#### **Graphics and Signage**

Aparc has produced promotional and operational graphics for a variety of electronic and physical media. The true scope of the signage requirement, cost of the production and delivery time is contingent on the marketing requirements to be determined at a later date.

### **G. Rollout Implementation Schedule**

Aparc proposes a phased implementation for the City's new Pay-by-Space pay-stations. We suggest an expanding core model for replacement of the existing single space meters, beginning in the City's central core (encompassing 5,000 spaces) where parking volumes and turnover are the greatest. Aparc will work with the City to determine the exact core area(s) and formulate a plan of action for replacement.

Our suggested ratio of Pay-by-Space pay-stations to parking spaces is one pay-station for every 9-14 parking spaces. The ratio will vary, depending on block layouts and parking requirements, and Aparc will collaborate with the City to make recommendations on pay-station placement. For the cost proposal, however, Aparc has assumed an average of one pay-station for every 12 spaces, amounting to 417 pay-stations covering the initial 5,000 spaces in the core area(s).

In conjunction with the installation of the Pay-by-Space pay-stations in the core(s), Aparc/Hudson will remove all single space meter heads for repurposing. Meters that are still in excellent working condition will be kept for replacement of meters in the peripheral areas that have reached the end of their life. The other meters that are removed from the core(s) will be salvaged for spare parts.

Aparc feels that the above implementation plan will provide the City with maximal cost efficiency, as the City will not be required to replace all of its single space meters initially. The existing equipment will continue to be used wherever possible outside of the core(s) until either its end-of-life is reached or

parking demand is too high for efficient functioning, at which time additional Pay-by-Space pay-stations will be introduced – this will facilitate a gradual replacement of all remaining single space meters, allowing the City to spread out the cost of the replacement.

Implementation schedules are developed specifically for each of Aparc's projects. Depending on the City's requirements, final implementation approach/agreement and logistics, Aparc's technicians can install up to 3-5 pay-stations per day.

## **H. Company Financial Information**

Please refer to Appendix A: Company Financial Information

## **I. References**

Please refer to section 3.0 References.



## 2.0 Experience and Capacity

**City of St. Louis**  
Request for Proposals  
Integrated Parking Management System

## 2.0 Experience and Capability

At Aparc Systems, it is our goal to create lasting relationships with our clients by consistently providing exemplary customer service and customized solutions that maximize return on investment. We consider our parking solutions to be an important investment in infrastructure and are proud to offer high-quality, durable and technologically advanced systems that are customizable to each client's unique needs.

Aparc Systems, Ltd. ("Aparc") was founded in 2006. Significant growth since that time has enabled expansion across North America, including the establishment of Regional Offices in Hawaii, Utah, California, Florida and Ontario. Aparc currently has a staff of approximately 45 people, including 5 Client Care support staff, 6 Operations staff and 8 software developers and engineers on the Integrated Solutions team.

Aparc is led by a senior management team with more than 100 years of extensive parking and transportation experience, delivering integrated technology-based solutions. Each individual member has a strong project management background and history of successes with large and complex parking projects. Our leaders have recruited teams of talented, dedicated, professionals who exemplify the Aparc vision.

### **Integrated Systems Specialist**

We, at Aparc, are software development and integrated systems specialists, and have aligned ourselves with leaders from across the spectrum of industry in order to provide the most advanced and reliable solutions available. Each of our vendor partners is the leader in their industry, and from the best partners rise the best solutions.

Along with our veteran in-house development team, Aparc has partnered with Fortune 500 companies Siemens and Motorola, along with other established industry leaders, to provide an entire portfolio of the world's most advanced equipment and systems. We constantly demonstrate our ability to supply, install and warranty a wide variety of systems that enhance, supplement or replace those in use. With our integrated approach, Aparc will provide the City of St. Louis with increased flexibility, allowing programs to be further modified and customized based on changing needs and emerging technology. Our proven solutions include the following systems, equipment and facilities:

- Siemens Pay-Stations (Pay & Display, Pay-by-Space and Pay-by-License Plate)
- Motorola handhelds utilizing our real-time TicketManager™ Enforcement Solution
- Pay-by-Phone, Tablet, and Smart Phone Applications
- Aparc's License Plate Recognition (LPR) technology
- A variety of Aparc online modules including Online Citation Payment, Dispute, Permitting, and Vehicle Validation Systems
- Way Finding Solutions and Signage
- Wireless Vehicle Sensors

One of the exceptional benefits of working with Aparc is that our in-house software developers create unique, custom configurations and tailored solutions for each client. Every system is unique, while built on a tested and robust platform.



## **Experience in Offering Multi-Space Parking Solutions**

Aparc has successfully implemented integrated multi-space parking solutions for municipalities and other public and private sector organizations across North America. For over five years, Aparc has been a leader in city-wide installations of multi-space pay stations, including the Cities of Victoria (BC), Surrey (BC), Salt Lake City (UT), Sausalito (CA), Honolulu (HI), as well as more than 500 stand-alone installations throughout North America. Each of these projects is current, having received multiple upgrades and software enhancements throughout their installations.

In 2011, Aparc was awarded the largest contract in its history – a two-phase parking program in Salt Lake City, Utah consisting of nearly 350 Siemens Pay Stations, 20 handhelds running on TicketManager™ enforcement system, mobile License Plate Recognition System and a signage program.

## **Experience in Offering Enforcement Solutions**

TicketManager™ was first deployed for the City of Vancouver in 2001 (before the establishment of Aparc) and has been upgraded regularly. In 2011, more than 11 million citations were issued through TicketManager™. The overwhelming success of TicketManager™ has confirmed Aparc's close relationships with other industry leaders, providing our clients with customized, fully-integrated solutions. By offering our TicketManager™ handheld enforcement solution that is fully integrated with Siemens Pay-Stations and a variety of other systems, Aparc consistently meets and exceeds all customer expectations.

Aparc has extensive experience in providing our TicketManager™ enforcement solution for major municipalities in North America. Current clients include cities of Toronto (ON), Victoria (BC), Salt Lake City (UT), Sausalito (CA), and Honolulu (HI). In 2005, Aparc successfully commissioned 340 real-time Intermec handheld devices with TicketManager™, outfitting a force of over 400 Toronto Police Officers. Toronto features the second largest parking enforcement program in North America.

Aparc's in-house development team has extensive experience configuring and customizing TicketManager™ to meet the unique needs of clients. Aparc has successfully integrated TicketManager™ with several third party systems using a variety of methodologies, including Ticket Tracer, Tempest, and the City of Toronto's IBM system with 11-unique integration points.



## 3.0 References

**City of St. Louis**  
Request for Proposals  
Integrated Parking Management System

### 3.0 References

Since Aparc was established in 2006, Aparc has installed almost 1,000 Siemens Pay-Stations for municipalities and other public and private sector organizations throughout North America. Through our relationship with Siemens, we provide these clients with network services, maintenance, and end-user customer service technical support. Since 2008 Aparc has been a premium partner of Siemens, and together we provide reliable and market leading parking equipment. The culmination of over 160 years of engineering and technology experience, the Siemens Pay-Station has proven their durability and reliability in cities throughout North America and around the world. With over 25,000 multi-space meters installed throughout 30 countries, Siemens' reputation, expertise and impressive portfolio of projects demonstrates an ability to select quality partners and engineer superior systems.

Siemens has deployed several large-scale city-wide installations of more than 7,000 parking spaces, including Munich, Germany with over 1,700 Pay-Stations, Copenhagen, Denmark with over 1,600 solar-powered Pay-Stations, and Budapest, Hungary with almost 1,200 solar-powered Pay-Stations.

Aparc is providing the following references from municipalities for our Siemens Pay-Station and TicketManager™ enforcement programs:

#### Aparc/Siemens Pay-Station References

City of Victoria, BC, Canada		
<b>Address:</b>	1 Centennial Square, Victoria, BC, Canada V8W 1P6	
<b>Contact:</b>	Ismo Husu, Manager of Parking Services	
<b>Phone:</b>	250-361-0257	Email: <a href="mailto:ihusu@victoria.ca">ihusu@victoria.ca</a>
<b>Project Description:</b>	<p>On March 31, 2010, Aparc Systems completed the installation of 267 Siemens Pay-by-Space Pay-Stations throughout the City of Victoria. Integrated with 20 Motorola handhelds running TicketManager™ enforcement software, the new system has increased customer compliance, lowered operational costs by reducing maintenance requirements, provided added customer conveniences such as credit card and smart card payment ability and added the enforcement efficiency of our Pay-by-Space program.</p> <p>Aparc recycled the existing single-space meter poles as mounts for our Tri-Meter space numbering signs. The City was very impressed with the the signage program that allowed the City to avoid the costs involved in removing the poles, patching holes and painting space numbers on the ground.</p>	

City of Surrey		
<b>Address:</b>	14245, 56 <sup>th</sup> Ave, Surrey, BC, Canada V3X 3A2	
<b>Contact:</b>	Mana Daniwall, Transportation Planner	
<b>Phone:</b>	604-591-4555	Email: <a href="mailto:mdaniwall@surrey.ca">mdaniwall@surrey.ca</a>

<b>Project Description:</b>	<p>In September 2009, Aparc won the contract for the City of Surrey's on-street parking program. The project began in December 2009, with the installation of 25 solar powered Pay-by-License Plate Pay-Stations. A second installation of an additional 24 Pay-Stations was completed in early 2011. The City of Surrey is also using our real-time TicketManager™ system and 10 handheld enforcement devices.</p> <p>In early 2013, the City of Surrey selected Aparc's Siemens Pay-Stations (approx. 8 units) and fixed LPR system to commission an off-street parking program at the Surrey New City Hall.</p>
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Copenhagen, Denmark	
<b>Project Description:</b>	<p>In April 2006, Siemens installed approximately 1,600 pay and display machines in the Danish capital. The machines are part of a comprehensive parking-space management concept which is intended to reduce car traffic and congestion in the inner city. The contract also includes the service and maintenance for several years. The delivery and installation was done in shipments of more than 100 units per week in spring 2007.</p>

Munich, Germany	
<b>Project Description:</b>	<p>Siemens has been awarded two contracts (1<sup>st</sup> tender in 2008 and 2<sup>nd</sup> tender in 2009) to supply and install over 1,700 pay and display Pay-Stations in public areas. As well as standard operation, a number of customer-specific functions have also been included in the Pay-Stations, including integration with Munich ParkCard program.</p>

Budapest, Hungary	
<b>Project Description:</b>	<p>Siemens completed the first installation of Siemens pay and display pay-stations in March 2000, and the system was extended since then in different phases. The last installation of 80 machines was completed in January 2006, which increased the total number of Pay-Stations to almost 1,200 in the city of Budapest.</p>

## Aparc Enforcement Solution References

Toronto Police Service	
<b>Address:</b>	1500 Don Mills Road, 6 <sup>th</sup> Floor, North York, ON M3B 3K4
<b>Contact:</b>	Due to the organization's policy, TPS advised that they are not allowed to recommend or provide personal opinions on the program, but they are willing to provide information on the program.
<b>Phone:</b>	416-808-2222 (General Line)

<b>Project Description:</b>	<p>The second largest parking enforcement program in North America, Aparc commissioned 340 real-time Intermec handheld devices with TicketManager™ outfitting a force of over 400 Toronto Police Service (TPS) Parking Enforcement Officers. Over the course of the contract, Aparc has worked with the City on 11 integration points and has developed the system into an efficient enforcement tool. After implementing Aparc's TicketManager™ solution, TPS realized a significant increase in citation revenue as a result of improved public compliance and enhanced revenue control. Over 2.5 million citations are issued every year on this program.</p> <p>In October 2012, Aparc was awarded a 5-year contract upgrading over 300 handheld devices and TicketManager™ software.</p>
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City of Vancouver	
<b>Address:</b>	Suite 700 – 1125 Howe St, Vancouver, BC V6Z 2K8
<b>Contact:</b>	Alain Chan, Information Systems Supervisor
<b>Phone:</b>	604-257-8788 <b>Email:</b> alain.chan@vancouver.ca
<b>Project Description:</b>	<p>The City of Vancouver was one of Aparc's first TicketManager™ installations, with a total of 125 TicketManager™-equipped Motorola handheld devices. Implemented in 2001, the City of Vancouver issues approximately one million parking citations annually. Aparc was also awarded a contract in April 2009 for the first Pay-by-License Plate installation in North America. Installation of 8 Siemens Pay-by-License Plate Pay-Stations was completed in November 2009. An integrated pay-by-phone solution was also provided.</p> <p>Aparc constantly upgrades the software to satisfy the City's requirements during the contract. Since the project started, Aparc has developed multiple custom interfaces with the City's systems including Tempest Management System, local Ministry of Transportation, City's bylaw court system, and Microsoft BizTalk middleware.</p>

## PassportParking References

PassportParking, LLC was found in 2010 and is a fully integrated provider of cloud-based parking management solutions. The company uses the latest in cutting edge technology and equipment to unify all aspects of the parking process. Passport has provided mobile payment services for three years since it was established and below are some references from municipalities:

<b>Chicago, IL</b> Dennis Pedrelli CEO Chicago Parking Meters 312-262-6862	<b>Asheville, NC</b> Ken Putnam Director, Transportation Services 828-259-5405
<b>Dubuque, IA</b> Tim Horsfield Parking Division Manager 563-589-4267	<b>Ocala, FL</b> Charles Rich Director, Code Enforcement 352-629-8309



## 4.0 Cost

**City of St. Louis**  
Request for Proposals  
Integrated Parking Management System

## 4.0 Cost

As instructed, Aparc's cost proposal is enclosed in a separate sealed envelope.



## 5.0 Insurance

**City of St. Louis**  
Request for Proposals  
Integrated Parking Management System





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

9/13/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Woodruff-Sawyer & Co. 50 California Street, Floor 12 San Francisco CA 94111		<b>CONTACT NAME:</b> <b>PHONE (A/C, No, Ext):</b> 415-391-2141 <b>FAX (A/C, No):</b> 415-989-9923 <b>E-MAIL ADDRESS:</b>	
		<b>INSURER(S) AFFORDING COVERAGE</b>	
		<b>INSURER A:</b> Travelers Prop Casualty Co of Ameri	
		<b>INSURER B:</b> Travelers Casualty Insurance Compan	
		<b>INSURER C:</b> Travelers Indemnity Company	
		<b>INSURER D:</b>	
		<b>INSURER E:</b>	
		<b>INSURER F:</b>	

**INSURED** APARSYS-01APARC Systems Inc  
One Market Street, Suite 3600  
San Francisco CA 94105**COVERAGES****CERTIFICATE NUMBER:** 1271741695**REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC			ZLP15N01200	1/24/2013	1/24/2014	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$300,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
C	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			BA5C076436 BA7C625100	1/24/2013 1/24/2013	1/24/2014 1/24/2014	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$10,000			ZUP15N01236	1/24/2013	1/24/2014	EACH OCCURRENCE \$1,000,000 AGGREGATE \$1,000,000 \$
B	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	HSUB5A57556013	6/1/2013	6/1/2014	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES** (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Issued for evidence of insurance purposes only

**CERTIFICATE HOLDER****CANCELLATION**APARC Systems Inc.  
One Market Street, Suite 3600  
San Francisco CA 94105

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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## Appendix A: Company Financial Information

**City of St. Louis**  
Request for Proposals  
Integrated Parking Management System

## Appendix A: Company Financial Information

Aparc Systems is a financially stable company that has provided parking products and integrated solutions across Canada and the U.S. since its founding in 2006.

**Kayne Anderson**  
*Capital Advisors, L.P.*

Aparc is a privately held company, operationally and financially backed by Kayne Anderson Capital Advisors, L.P. (Kayne Anderson) a leading alternative investment firm with over \$19.4 billion in assets under management. Kayne Anderson has a strong track record of partnering with leading, high growth companies. The proceeds of the investment are being used to expand the roll-out and reach of Aparc's innovative parking solutions. A letter from Kayne Anderson assuring their financial stability and support has been provided on the following page.

Since Aparc and Kayne Anderson are both privately owned companies, financial statements and reports cannot be disclosed. Aparc's mobile payment partner, PassportParking (Passport) is also a private company securely backed by institutional investors. Due to confidentiality, audited financials cannot be disclosed. However, upon request, Passport can provide the City with a current capitalization table.

### Aparc's Financial References

- Bank of Montreal – Matthew Lee, Commercial Services Officer, 604-665-7213
- Xyfon Solutions Inc. – Farid Najafi, Founder & Director of IT, 604-568-1221

### Passport's Financial References

- Institutional Investor: Relevance Capital – Cameron Newton, Managing Partner, 931-455-0155
- Council: Baker Donelson – Will Norton, Attorney, 615-726-7358

### Lawsuits or Litigation

There are no lawsuits or litigation against Aparc Systems and PassportParking.

### MBE/WBE Utilization

Aparc is committed to utilizing MBE/WBE businesses for this project. Our local service partner, Hudson and Associates, LLC is a MBE/WBE business in St. Louis, and our mobile payment partner, PassportParking, LLC is a certified MBE through the National Minority Supplier Development Council. MBE/WBE certifications for both companies have been provided on the following pages.

## Kayne Partners

*Fund II, L.P.*

**Doyl Burkett**  
**Partner**

November 6, 2013

Attn: Carl Phillips, City of St. Louis  
Parking Administrator

Kayne Anderson Capital Advisors, L.P. ("Kayne Anderson") is a leading U.S.-based alternative investment firm, currently managing over \$24 billion principally through private investment partnerships and public closed-end funds. Kayne Partners Fund II, L.P. ("Kayne Partners") is the growth private equity group of Kayne Anderson and is a leading provider of capital and connections to rapidly growing companies in North America. Since its inception more than a decade ago, Kayne Partners has invested over \$500 million in platform investments and add-on acquisitions.

Kayne Partners is an investor in the Aparc Systems Group of Companies ("Aparc Systems"). Kayne Partners supports Aparc Systems as a business partner in its projects and pursuits. One of the many benefits of this business and investment partnership is the strength it adds to Aparc Systems' ability to deliver significant projects to the market, and to provide superior service to their clients on an ongoing and long term basis.

Kayne Partners looks forward to its continued partnership with Aparc Systems and its management team. For more information on Kayne Partners, please visit [www.kaynepartners.com](http://www.kaynepartners.com) and for more information on its investment in Aparc Systems, please contact Doyl Burkett at (310) 282-2805 or [dburkett@kaynecapital.com](mailto:dburkett@kaynecapital.com).

Sincerely,



---

Doyl Burkett, Partner  
Kayne Partners Fund II, L.P.

11/06/13

Date

# CAROLINAS MINORITY SUPPLIER DEVELOPMENT COUNCIL



THIS CERTIFIES THAT

## Passport Parking, LLC

Has met the requirements for certification as a bona fide Minority Business Enterprise as defined by the National Minority Supplier Development Council, Inc. (NMSDC) and as adopted by the Carolinas Minority Supplier Development Council .

**\*\*NAICS Code(s): 812930**

**\*\*Description of their product/services as defined by the North American Industry Classification System (NAICS)**

November 16, 2012

CA20158

*Issued Date*

*Certificate Number*

November 30, 2013

*Expiration Date*

*President, CarolinasMSDC*

**By using your assigned (through NMSDC only) password, NMSDC Corporate Members may view the original certificate by logging in at: <http://www.nmsdc.org>**



*An affiliate of the National Minority Supplier Development Council, Inc. (NMSDC)*



**LAMBERT-ST. LOUIS**  
**INTERNATIONAL AIRPORT®**

**Rhonda Hamm-Niebruegge**  
**Director**

July 23, 2012

Shelia Hudson  
Hudson and Associates, LLC  
1204 Washington, Suite 402  
St. Louis, MO 63103



Francis G. Slay  
Mayor  
City of St. Louis

CERTIFICATION #: DMWBE1316  
EFFECTIVE RENEWAL DATE: 07/16/12

RE: MBE/WBE CERTIFICATION RENEWAL

Dear Ms. Hudson:

The St. Louis Airport Authority (SLAA) is pleased to notify you that your firm meets the requirements for certification as DMWBE, in accordance with the policies of the MBE/WBE Program.

Your certification number and the effective date of your certification are noted above. Work done by your firm will count toward applicable DMWBE participation goals only if your firm performs a commercially useful function, is responsible for a distinct element of the work of a contract, and carries out its responsibilities by actually performing, managing and supervising the work.

If there are any changes in the ownership, control, mailing address, e-mail address, telephone number or fax number of your firm, you must notify this office immediately. Failure to report any of these changes to this office and/or any violation of the policies and procedures of this program may result in the revocation of your certification.

This certification is renewable in five years on **07/16/17**. Renewal forms will be sent to you at least 90 days prior to the renewal date of your certification. However, each year on the anniversary date of your certification, you must submit to the SLAA a signed, notarized affidavit, affirming that there have been no changes in the firm's circumstances affecting its ability to meet the requirements for certification. An Annual Update Affidavit will be sent to you prior to your anniversary dates. **It is your responsibility to ensure that your firm's certification remains current.**

Your firm's name has been incorporated in our online directory of the Directory of Minority & Women Owned Businesses. Our website address is [www.mwdbe.org](http://www.mwdbe.org), which is utilized by firms bidding on city contracts.

Based on the information you provided, your firm will be listed under the following areas of expertise:

AREAS OF EXPERTISE: Community Relations/Communications

The City, SLDC, the Authority and the Program make no representations, warranties, or guarantees, including representations, warranties or guarantees to any third party, as to the quality of work to be or previously performed by any M/WBE and further makes no representations, warranties or guarantees as to the quality, experience, capabilities or qualifications of any M/WBE or any of the persons associated therewith. The City, SLDC and the Program make no representations, warranties, or guarantees, whatsoever as to whether any M/WBE shall be the recipient of any part of any City Contracting Opportunities.

We welcome your participation and wish you every success.

Very truly yours,

  
Harry V. Moppins, Jr.  
Airport Assistant Director of Community Programs/DBE Program

HVM:art

P.O. Box 10212 | St. Louis, MO 63145-0212 U.S.A. | City of St. Louis Airport Authority | Main Phone 314-426-8000 | Fax: 314-426-5733

*Fly/STL.com*



## Appendix B: Field Test Requirements

**City of St. Louis**  
Request for Proposals  
Integrated Parking Management System



## Field Test Requirements

### A. Power and Communication Requirements

Aparc's Pay-Stations are designed to run on solar power. Solar powered Pay-Stations are capable of operation with minimum battery life of 36 months. The solar panel is adjustable in 120 degree steps and can be fixed in line with any of the three sides of the Prisma cabinet, ensuring optimal placement for maximum exposure to sunlight. The Pay-Station relies on solar energy to charge the battery, which powers the machine. Once fully charged, a battery has the capability to operate the machine for at least 3-6 weeks with zero sunlight, depending on the usage of the machine.

Aparc's Pay-Stations communicate wirelessly via GPRS cellular communications. Remote data transfer via the 850+1900MHz GPRS network allows for two-way wireless communication. Status messages, cash data and revenue statistics can be received at the backend, while parameter data as well as the radio controlled time can be transmitted to the Pay-Stations from Aparc's control office.

### B. On-Street Signage

Aparc will provide our durable metal Tri-Meter space signage for the pilot program. Our Tri-Meter space signage is designed to utilize existing meter poles, so that the costly undertaking of stall marking and space numbering is not required. One Tri-Meter sign is required for every two spaces, so every second meter post will be used as a sign post. The remaining posts can be removed for the duration of the pilot, if the City desires.





## C. Training, Spare Parts and Software

### Training

Aparc will ensure that City personnel are fully trained in first-level corrective maintenance, allowing quick on-site resolution of all basic issues. Training seminars (and additional web-based archives for refresher courses) are scheduled prior to the installation of the equipment so that systems will be properly tested and staff is fully engaged. Aparc has a knowledgeable and experienced team of individuals to provide systems training. Training will consist of both classroom and hands-on instruction to achieve a proper understanding of system operations – from hardware to software.

Aparc’s training program is based on a “train the trainer” method, meaning that the selected City personnel that participate in Aparc’s training program will be given the knowledge and tools to conduct their own end user training and a detailed transition training program.

The training seminars will be broken down into three (3) main sections:

- System Administrative Training
- Operational Training (coin collection)
- Maintenance Training

Training Course - Operational Training (APARC HOSTS SIEMENS BACKEND)		Duration
<b>Basic training 8: Pay Station</b> Installation, Cash Box, CPU, Thermal Printer, Card Reader, Modem, P-Top, Maintenance		8 Hrs.
<b>System Operations Training 1: Pay Station</b> Initial Setup, Operation Messages, User Functions, Special Tickets, Tariff Selection		4 Hrs.
<b>E-Cash Function</b>		2 Hrs.
<b>System Operations Training 2: Pay Station Software</b> Reporting		4 Hrs.

Aparc’s training seminars will include but will not be limited to: preparing configuration data, transferring data to the parking pay-stations, audit procedures and controls, preparing and exporting reports, responding to alarms, coin collection, and understanding the operation and nature of the parking pay-stations’ components.

### Typical Preventative Maintenance

Aparc will also ensure that all City personnel receive training on the preventative maintenance requirements, which encompass all operational aspects:

#### **Monthly Requirements:**

- Visual Inspection (external & internal)
- Cleaning and lubrication of relevant moving parts.
- Diagnose Solar Panel (online monitoring)
- Diagnose Modem (online monitoring)

#### **Bi-Monthly:**

- Diagnose Battery (online monitoring)

## Spare Parts

Aparc typically recommends the following ratio of spare parts to pay-stations:

Recommended Ratio	Part Description
1 for every 80 pay-stations	Prisma Solar Panel
1 for every 16 pay-stations	Red Button
1 for every 10 pay-stations	Green Button
1 for every 16 pay-stations	Add Time Button (Small)
1 for every 26 pay-stations	Language Button
1 for every 26 pay-stations	Tariff Button
1 for every 8 pay-stations	Anti Pin (V18)
1 for every 40 pay-stations	Escrow
1 for every 8 pay-stations	Coin Acceptor (US & Canada)
1 for every 16 pay-stations	Card Reader
1 for every 80 pay-stations	CPU
1 for every 20 pay-stations	Pay Station Printer
1 for every 20 pay-stations	Modem (Kit)

Spare parts can be stored at the City's designated location, with the City's third party maintenance and collections contractor, or with Aparc's local service partner, Hudson and Associates. Please note, however, that for the size of the pilot and the spare part ratios above, it is unlikely that the City will require all of the spare parts listed. Aparc will discuss potential spare parts requirements with the City when preparations for the field test commence.

## Reporting Software

Aparc will provide backend reporting software accessible via our ParkPort reporting portal. For more information on ParkPort, please refer to section 1.0 Scope of Work, item B (Functionality).

## D. Third Party Contractor

Aparc will provide training to the City's authorized maintenance, collections and enforcement personnel, regardless of whether they are City employees or a third party contractor.

## E. Equipment for Field Test

Aparc will furnish and install six (6) pay-stations and other required equipment to service 40 to 60 spaces of metered parking.

## F. Enforcement Protocol

All payment information collected from the pay-stations and mobile payment system will be transferred to Aparc's Central Management System (CMS) in real-time via GPRS wireless communications. The integrated TicketManager™ enforcement system will query the CMS to provide the real-time payment information to parking officers.

## **G. Keys for Collection and Maintenance**

Standard keys for collection and maintenance will be provided to the City personnel during the field test period.

## **H. Credit/Debit Card Verification**

Credit card/debit card payment is verified and processed in real-time. Processing time from the transmission of card information to authorization is approximately 7 seconds. The credit card/debit card transaction process is fully PCI compliant. All data is encrypted to PCI-DSS requirements and full credit card details are not stored at the pay-station or the CMS. More information on our credit card processing has been provided in section 1.0 Scope of Service, item D (Payment Options).

## **I. Integration with Xerox/ACS ETIMS System**

Aparc currently integrates with numerous systems for citation payment and collection activities. New citations are sent to the receiving systems and updated statuses on the disposition of the citation are received. As new citations are created in TicketManager™, we have the ability to push these citations to 3<sup>rd</sup> party products. These pushes can be expressed in two forms depending on the capabilities of the receiving system. If Web Services are available, Aparc can call those services and pass information, or we can provide citations in a static list to be updated into the receiving system. Aparc also provides Web Services where the status of citations can be updated in TicketManager™ to reflect payments and collection activities. Static uploads can also be accommodated in the sending system if the receiving system is unable to call our software via Web Services.



## Appendix C: Sample Service and Maintenance Agreement

**City of St. Louis**  
Request for Proposals  
Integrated Parking Management System

<b>OFFICE USE ONLY:</b>				Contract # _____
Client Name: _____				
Head Office Address: _____				
	Street	City	Province/State	Postal/Zip
Key Contact #1:	_____	Tel #: _____	Email: _____	
Key Contact #2:	_____	_____	Email: _____	

## Aparc Systems Support and Maintenance Agreement (SMA)

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## 1.0 Executive Summary

Aparc is committed to year-round service and equipment coverage to all of our customers. Our equipment and systems are designed to be durable and robust, but our SMA Program is a necessary service to provide added protection so that maintenance and service for your system are being addressed quickly and professionally by our support team. Additionally, it also includes all monthly, licensing, networking and communication costs from those devices not requiring third party cellular service to central servers.

## 2.0 Definitions:

<b>Hardware:</b>	All physical electronic and mechanical equipment, including associated firmware to make the installed system operational.
<b>Software:</b>	All software in front-end systems and back-end systems being provided as SAAS (software as a service)
<b>Communication fees:</b>	All cellular communications and associated backend software hosting and services relating to cellular communications.
<b>Service Labor:</b>	Agreed service rate (hourly / daily) for technician on-site service if items fall outside of hardware warranty
<b>Exemptions:</b>	List of hardware that falls outside of hardware warranty, or defined with Lifetime expectancy such that the hardware is not covered by warranty if it falls outside its lifetime expectancy.

## 3.0 Hardware Warranty

### Standard One Year Hardware Warranty

Aparc provides a standard warranty program that provides a 100% guarantee that all equipment is free of any defects upon the completion of installation for a period of one year. Aparc will repair and/or replace, at no cost, any part or modular component determined to be defective in material or workmanship under normal use and service under our SMA Program.

### Extended Warranty (SMA)

Aparc's SMA Program provides ongoing coverage for all parts and labor for electrical or mechanical failure within the specified term of this agreement. However, material costs will apply for any parts beyond their lifetime expectancy, or as the result of vandalism or improper use, as listed under section 7.0 "Exclusions and Exemptions". This coverage also includes the following additional support services:

1. Call Center Support toll free at 1-877-878-1118 or [support@aparcsystems.com](mailto:support@aparcsystems.com)
2. Customers with our SMA Program will receive priority service and will be scheduled ahead of other service work.
3. Recommendations of spare parts inventory purchases, as well as in-field or in-shop service as prescribed by Aparc.
4. Sixteen hours of additional training per calendar year for authorized personnel at a maximum class size of six (6) individuals, minimum of four (4) hours per session, with written request via email to Aparc's Client Care Department email request to: [support@aparcsystems.com](mailto:support@aparcsystems.com)
5. Hosting of software as a service. Cellular service charges will be billed separately.
6. Includes all firmware upgrades, which will be delivered via secure Over the Air Programming (OTAP)
7. Ability for clients to view systems online through the internet.
8. Service technicians will perform preventative maintenance as a value-add service. Annual Preventative Maintenance services will include:
  - Semi-annual on-site maintenance diagnostic check of all primary components to ensure full functionality.
  - Semi-annual cleaning of graffiti and solar panel cleaning.
  - Pro-active monitoring of system log files and dispatching of technician to action any items before they become an issue.

## 4.0 Software

### Aparc frontend and backend software modules

Aparc provides an all-encompassing warranty, service and licensing support program to provide you the Client with ongoing coverage for all client & hosted software applications, to guarantee that the system is up-to-date, licensed and at peak performance. The support program also ensures that the Client has immediate access to Aparc trained personnel for system assistance and general instruction and support. The program includes the following:

1. Call Center Support at toll free: 1-877-878-1118 and email at [support@aparcsystems.com](mailto:support@aparcsystems.com).
2. Software maintenance and upgrades including patches, firmware updates and all client & host software application updates and associated labor.
3. Customers with our SMA Program will receive priority service and will be scheduled ahead of other service work.

## 5.0 Communications Fees

Aparc's Service and Warranty Program includes all monthly networking and communications costs, except for those devices that require third party cellular communication, such as pay stations, handhelds, LPR cameras, etc.

## 6.0 Labor for service outside of warranty or (SMA)

It is agreed that labor for replacing hardware not covered by Warranty, the result of vandalism, or other aspects of the SMA are to be charged at agreed rates of the following:

Without SMA, labour = \$150/hour (within coverage periods specified in "Section 8.0: Levels of Service". No travel expenses will apply within metro Vancouver). Minimum call-out charge two (2) hours.

### 6.1 Parts outside of warranty or SMA

It is agreed that all parts requiring replacement outside of warranty, SMA, vandalism, or life expectancy, will be charged at the cost specified in the following table and that a local inventory of spare parts will be maintained to ensure replacement of warranted items within 24 hours of client contact.

Item / Function	Measure	Delivered Cost *
Thermal Printer	\$	1,126.63
C.C. Reader	\$	763.20
Coin Inlets	\$	118.12
Keypad	\$	520.00
Mainboard	\$	1,253.83
Modem	\$	1,253.83
Housing Lock	\$	165.00
Vault Lock	\$	63.60
Coin Box / Bag	\$	540.00
Keys (full set)	\$	172.63
LCD / LED Panel	\$	112.67
Solar Panel	\$	1,108.46
Antenna	\$	45.43
Battery	\$	262.50
Ticket Roll	\$	48.00



\* Excluding taxes

Note: Where an item is listed and there are multiple representations for the same part, their cost will be considered identical, unless otherwise specified.

## 6.2 Software Application Programming

It is agreed that inclusive in the SMA the following allowances will be honored and/or undertaken by Aparc technician staff;

- a. A minimum of twelve (12) parameter and/or tariff changes per calendar year
- b. Unlimited changes related to warning messages and/or advertising text

## 7.0 Exclusions and Exemptions

1. Repair of damage or increase in service time due to:
  - a. acts of malicious or intentional damage from 3<sup>rd</sup> parties
  - b. accidents, acts of nature, natural phenomenon, acts of war or riots,
  - c. equipment damage caused by power surges, or result of power failure or removal of primary power for any reason,
  - d. replacement of the following i.e., light bulbs, paper, ribbons, removal of broken key cards from card readers, operator functions, turning heaters on and off, and other accidents and defects caused by improper use or negligence.
  - e. the use of unauthorized supplies or equipment, except ticket stock and batteries
  - f. Failure to continually provide a suitable operating environment with all facilities as prescribed by Aparc and/or the equipment manufacturer.
  - g. Use of the equipment for purposes or uses other than that which it was designed or intended for.
2. Improper installation or replacement of tickets, modules, paper or cash/coin bins, which causes material damage.
3. Credit card acceptance problems relating to (or data recovery resulting from) clearing house and/or credit card circuit issues.
4. Aparc shall not be held responsible for any delay or failure to perform all or any part of the service due to any action or regulation; strikes or other labor troubles; fire, damage to, or destruction in whole part of the equipment; or any other causes, contingencies, or circumstances within North America that is not subject to its control which may prevent or hinder the manufacture or delivery of parts or make the fulfillment of this Agreement impracticable, any of which shall without liability excuse Aparc from the performance of the Agreement. The client shall be released, without liability, under like circumstances if written notice is given to Aparc before shipment is made.

5. Aparc will replace the following items in instances of normal “wear and tear” occurring within the defined life expectancies specified below unless otherwise listed in the contract. Electrical or mechanical failure of components beyond lifetime expectancy. If a component is not listed in the exemption list then it is covered under the term of the warranty and/or SMA.

	Item	Life Expectancy
A	Card readers	250,000 reads
B	Printers (exclusive of print heads and cutters)	200,000 receipt prints
C	Print heads	150,000 receipt prints
D	Printer cutters	150,000 receipt prints
E	Heaters	3 years
F	Light bulbs	1 year
G	All buttons, incl. green	5 years
H	Batteries	2 years

## 8.0 Levels of Service

Aparc’s core office hours are 8:30AM – 5:00PM (Pacific Standard Time) Monday - Friday, during which our Client Care and Operations Department staff are available for immediate service and support. Please call (1-877-878-1118) or email [support@aparcsystems.com](mailto:support@aparcsystems.com) . After-hours service and support requests can be submitted by email or by telephone and issues will be addressed by our call support staff at the beginning of the next business day.

### OFFICE HOURS (all times are Pacific Time Zone)

**CORE** office hours: 8:30 am – 5:00 pm Monday to Friday

**ON CALL WEEKDAY:** 5:30 am – 8:30 am and 5:00 pm – 8:00 pm Monday to Friday

**ON CALL WEEKEND:** Saturday 10:00 am – 4:00 pm; Sunday 1:00 pm – 4:00 pm

**STAT HOLIDAYS:** Limited Support – voicemail checking only

Service Level Response Times			
	Acknowledgment	Tier 1 Fix (over the phone support)	Tier 2 Fix (technician needs to be engaged)
<b>Core Hours</b>	Within 1 hour	<3 hours	Same business day if call is received before 2:00pm PST
<b>Outside Core Hours</b>	Within 2 hours	<6 hours	Next business day

- Aparc has no obligation to provide support services for any hardware or software components that are:
  - a. not listed in the contract or attachments;
  - b. un-installed; re-installed or modified without our prior written consent;
  - c. operated or maintained other than as specified;
  - d. used on a platform other than as specified;
  - e. repaired or maintained with components, modules or other parts that have not been supplied by Aparc;
  - f. Damaged by you and/or a third party or by any natural disaster (i.e. lightning), or vandalism.

Our support services do not include the replacement of consumable items such as tapes, diskettes, ribbons, paper or any applicable travel expenses.

Shipping costs to service areas is a shared cost, i.e., Aparc will ship at Aparc's cost a covered replacement part. Client will ship the broken part(s) at Client's cost back to Aparc, or deliver to Aparc's Vancouver Head Office at its own expense.

If any repairs or services are required other than the agreed upon service, they will be performed under the written authorization of the client via email or letter and our regular or overtime service rate(s) will be charged for such repairs, based on the hour of day or circumstance as requested by the client.

## 9.0 Payment Plan and Key Dates

Payment is due annually and will cover services and support for the term specified in the agreement. All payments will include all applicable taxes and coverage for all additional items listed in Schedule A of the master agreement, for which SMA services will be rendered. The furnishing of consumable items (i.e. Ticket Stock) is not included under this Agreement. Failure to pay the invoice as specified will result in interest penalties and charges, of no less than 1.5% per annum (18% annually) as well as a restart fee of one hundred and twenty-five dollars (\$125) per pay station.

## 10.0 Legalities

### Access

The customer shall permit Aparc's representative to have full and complete access to the equipment at an agreed upon and reasonable time for the purpose of performing the agreed upon service.



### **Limitation of Actions**

An action arising out of or related to this Agreement or any services performed or parts delivered, must commence within one year after the cause of action has occurred.

The client's failure to present a written claim respecting any complaints or issues with performance of a service within ninety (90) days after performance of service or supply of parts shall constitute a waiver of all claims.

### **Indemnity**

The client hereby releases, and shall defend, indemnify and hold harmless, Aparc and Aparc's officers, agents, sub-contractors, and/or employees, and assigns Aparc-related parties from any and all claims, suits, or causes of action for damages for bodily injury or property damage, arising out of or in any way connected with, or alleged to be arising out of or connected with, the client's negligent operation of the equipment described in this Agreement. "Bodily injury" shall mean physical injury to any person, emotional distress, death and/or loss of consortium. Such duties as set forth herein shall be owed to Aparc and to the Aparc-related parties to the full extent allowed by law except to the extent the injury or damage is caused by negligence, liability or fault on the part of Aparc or any Aparc-related party, whether vicarious, direct, active, passive, sole, or concurrent.

Aparc hereby releases, and shall defend, indemnify and hold harmless, the client and their respective officers, agents and/or employees, from any and all claims, suits, or causes of action for damages for bodily injury, or property damage, arising out of or in any way connected with, or alleged to be arising out of or connected with services described in this Agreement, or otherwise arising out of any act or omission of Aparc. Such duties as set forth herein shall be owed to the client to the full extent allowed by law except to the extent the injury or damage is caused by the negligence of the client.

### **Warranty Disclaimers**

All replacement parts installed are delivered with the Manufacturer's warranty. Aparc makes no warranty that the service rendered shall be fit for any particular purpose, nor is there any other warranty expressed or implied except as expressly stated and no warranty is given concerning the effectiveness of the materials used, recommendations given or the services rendered.

The client acknowledges that this Agreement constitutes the entire Agreement and there are no warranties of any kind, express, implied, statutory or otherwise, not expressly set forth herein. This warranty is expressly in lieu of any other warranty, expressed or implied, including without limitation any warranty of merchantability or fitness for a particular purpose.

EXCEPT FOR THE EXPRESS WRITTEN REPRESENTATIONS AND WARRANTIES CONTAINED IN THIS AGREEMENT, NEITHER APARC NOR CLIENT MAKES ANY REPRESENTATIONS OR WARRANTIES TO THE OTHER, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED



WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL OTHER REPRESENTATIONS AND WARRANTIES ARE HEREBY DISCLAIMED.

Further, Aparc does not represent or warrant that any of its respective Deliverables provided under this Agreement functions without interruption and without error or that such Deliverable will operate in every combination desired by the other Party with any data, computer systems and programs of its choice or Client's that the remedying of one program error does not result in the occurrence of other program errors.

Aparc shall be released from its warranty obligations, to the extent that any infringement, errors, fault or non-compliance arises due to circumstances for which Aparc is not responsible, including without limitation: (a) modification of the Licensed Material after delivery to Client, if such modification was not made or authorized by Aparc; (b) use of the Licensed Material contrary to the Documentation provided by Aparc; or (c) use of the Licensed Material other than in Target Environment or use of the Licensed Material in combination with products and systems not contemplated in the applicable Documentation or Specification; or (d) infringing element or defects contained in any Client provided Material. Further, Aparc shall not be considered to be in breach of the warranties to the extent that Aparc offered to Client a correction or Upgrade and Client failed to implement such correction or upgrade within the timeframe of (90) days. In such cases, the work put in by the Aparc in order to determine the cause of the fault and to remedy the fault shall be invoiced in accordance with the Aparc's current rates of charges.

This shall also apply to consequential services or supply of products in relation to such work, including but not limited to the delivery of a corrective code or a corrected version of the defective part of the Licensed Material or for instructions as to how the error can be avoided. The Aparc shall also be released from its warranty obligations if the Client does not complain of a program error promptly or does not put into productive operation a corrective code provided by the Aparc in fulfillment of its warranty obligations or a correct Update or Version of the pertinent part of Licensed Material which it has supplied.

The defense obligation contemplated herein is contingent upon the tender by the party seeking indemnity of a claim which wholly or partially comes within the ambit of the above, and the indemnifying party shall pay promptly when due and as incurred, all attorneys' fees and costs generated in the defense of the indemnifying party in connection with the entire action, including bonds and the costs of appeal. No obligation of the indemnifying party shall be lessened, reduced, delayed or affected by the existence of other potential or actual indemnities of insurers, or by the indemnified parties' rights against any third party for contribution, subrogation or proportion.

### **Customer's Insolvency**

If the client or client's agent, shall become bankrupt or insolvent during the term of this Agreement, or is unable to meet obligations as they become due, the client shall be deemed to have breached this Agreement, and Aparc may terminate this Agreement by serving written

notice of termination. Such termination shall not affect any claim for damages available to Aparc.

### **Arbitration**

Any controversy between the parties to this Agreement involving the construction or application of any of the terms, provisions or conditions of the agreement, shall under written request of the client, served by the first class mail to Aparc, be submitted to arbitration in accordance with the rules then in existence in the State or Province where the equipment is installed, however, that:

- a. the parties shall be entitled to all discovery rights in any applicable arbitration proceeding, subject to the jurisdiction of the State or Province where the equipment is installed and
- b. in the event that the client is made a party to any other court proceeding arising from or related to the equipment or service that are subject to this Agreement, the client shall have the right to elect to adjudicate any action through court proceeding. The cost of arbitration shall be borne by the losing party.

### **Governing Law and Jurisdiction**

The laws of State or Province where the equipment has been installed shall govern the construction and performance of this Agreement. The client irrevocably consents to the institution of any legal action or proceeding against it or any of its property arising out of or in any way connected with this Agreement in State or Province where the equipment is installed and submits to the non-exclusive jurisdiction of the aforesaid courts in any such legal action or proceeding.

### **Attorney's Fees**

If any contract action is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursement in addition to any other relief to which the party may be entitled.

### **Termination of Agreement**

This Agreement may be terminated by either party upon delivering at least 90 days notice in writing to the other party, or within a shorter period and in such a manner, as mutually agreed in writing by both parties. If in the opinion of the Client Aparc has breached a material term of this Agreement, the Client must notify Aparc in writing of such breach and require such breach to be remedied within 30 days, and to the satisfaction of the Client. Should such breach not be rectified within the prescribed period, or to the satisfaction of the Client, the Client may terminate this Agreement in writing and without further notice.

### **Assignment of Duties**

Aparc shall not without obtaining prior written consent of the Client, duly executed, transfer or assign this Agreement or any obligation, right or privilege under it, and Aparc shall not be relieved of any terms, obligations or duties under this Agreement, by entering into a sub-contract.

### Staffing

Aparc will employ sufficient personnel and maintain adequate staffing levels to ensure all services pursuant to this Agreement are carried out in an efficient and professional manner, and will ensure that all staff members identify themselves clearly during service calls, and carry identification acceptable to the Client. Aparc will also comply with all Provincial and Federal laws relating to employees and volunteers, and in particular and without limitation, any requirements of WorkSafe B.C.

### Conduct

Aparc &/or its' representatives will conduct themselves professionally and with integrity, so as not to embarrass or discredit the City throughout the performance of their duties and obligations, as well as conduct all public relations and customer service in a neutral and respectful manner.

### Records

Aparc will provide the Client with detailed records pertaining to all service work performed on its' parking equipment. This shall include provision of quotes for any service work outlining the specific parts and labour required to undertake said work. Further, no such work shall be undertaken unless written approval is received by the Client and invoicing for all such service work will be submitted to the Client within 90 days of completion. In the absence of invoice receipt within the prescribed period, Aparc will waive all rights to collect on charges for work previously completed.

Software programming, firmware updates and other application changes undertaken by Aparc, as it relates to both Client & Host applications, may be done so at Aparc's discretion. However, Aparc must provided the client with 15 days written notice of any application changes and said notice must outline any material impact on Client operations. Further, should the Client choose to decline an application change, they may do so, but by doing so bear responsibility for the associated outcome. Aparc must provided the client with written notice of any application changes within 5 days of their implementation and said notice must outline any material impact on Client operations. Further, should the Client choose to decline an application change, they may do so, but by doing so bear responsibility for the associated outcome.

## 11.0 Agreement

In consideration of an annual payment of \_\_\_\_\_, which remains a guaranteed fee for the term of five (5) years, Aparc Systems will provide the client with services described herein, effective from \_\_\_\_\_ to \_\_\_\_\_ .

### **Client: Authorized Signee**

Name & Title (Print): \_\_\_\_\_

Signature: \_\_\_\_\_  
Client (Authorized Signee)

Date: \_\_\_\_\_

### **Aparc Systems Inc: Authorized Signee**

Name & Title (Print): \_\_\_\_\_ Kris Emmons – Business Development Manager

Signature: \_\_\_\_\_  
Aparc Systems Inc. (Authorized Signee)

Date: \_\_\_\_\_





## 12.0 Alternative WAIVER of SMA:

On behalf of \_\_\_\_\_; (I/WE) \_\_\_\_\_ with full authority hereby waive Aparc's SMA Program and agree that all SMA requirements will be administered and billed according to the following terms:

- Any hardware manufacturer hardware defects after 12 months of delivery will not be covered.
- Minimum charge of two (2) hours for any telephone or on-line service or maintenance call performed during Aparc's normal business hours by Aparc at their normal hourly rate, which is currently \$150.00 per hour and is subject to change over time.
- Minimum charge of two (2) hours for any service or maintenance on-site visit completed by Aparc at their normal hourly rate, which is currently \$150.00 per hour and is subject to change over time during normal business hours (9:00AM – 5:00PM PST, Monday – Friday). Travel costs will be billed separately and at market rate if necessary.
- Turn-around call backs from Technical Support will occur on a first-come, first-served basis, after clients with SMA priority.

### **Client: Authorized Signee**

Name & Title (Print): \_\_\_\_\_

Signature: \_\_\_\_\_  
Client (Authorized Signee)

Date: \_\_\_\_\_



## Appendix D: Product Information

**City of St. Louis**  
Request for Proposals  
Integrated Parking Management System

**SIEMENS**



[siemens.com/mobility](https://www.siemens.com/mobility)

## Sitraffic Prisma pay-and-display machine

The epitome of attractiveness in parking technology

Card payment options  
save time and  
reduce the amount of  
cash stored in  
the PDM



An attractive  
advertising medium  
that enhances  
public space with its  
eye-catching  
design



Stainless-steel  
Piezo-electric keys  
with large symbols  
for enhanced  
user-friendliness



# Sitraffic Prisma: Esthetic design that pays off, convenience that convinces users and operators

**Sitraffic® Prisma is a treat for the eye – and for the budget. On the one hand, the PDM's prism form and distinctive design make it an attractive eye-catcher. And on the other hand, its profitable sideline function as a highly visible advertisement medium enables Prisma to pay for itself much faster than conventional pay-and-display machines (PDMs) – and that's only one of the many advantages that make Sitraffic Prisma stand out in the crowd. The machine also comes with a modern user interface that sets new standards in terms of handling convenience ...**

## **One main language and up to five additional languages**

Sitraffic Prisma is truly intercultural. Even the foreign-language speaker finds Prisma easy to use thanks to its graphically structured user interface and multilingualism. In addition to the main language determined by the operator, up to four further languages, for instance English, French, Spanish and Italian, are available for selection by means of a special button. All in all, the user can choose up to five languages, which can be individually parameterized.

## **Ease of use is the key**

Thanks to the large Piezo buttons featuring language-neutral symbols (time, map, "STOP"), Sitraffic Prisma is especially easy to use. The ergonomic concept follows a logical and straightforward sequence of steps: from top to bottom. In order to prevent mix-ups or confusion, the parking ticket and the change are both issued via the same tray.

## **Different tariffs:**

### **Easy to select and easy to change**

With the tariff selection button, the user can choose among up to 12 applicable tariffs, including general or special tariffs and flat rates. Moreover, the operator has the option to issue smartcards encoded with special conditions for specific groups of users. Tariff modifications are just as easy: Since all pertinent tariff information (in the form of freely programmable text messages, in function of the day of the week and the status of the present user) is displayed on the second screen, the changes can be carried out right from the office via GPRS link. No tiresome on-site replacement of stick-on tariff information is needed.

# Sitraffic Prisma: always on the safe side

**Safety and security – a multi-faceted topic with pay-and-display machines: The units must provide a wide range of cashless payment facilities; they must be able to brave the elements for long-term value retention, and they must be safely protected against vandalism, tampering, theft and robbery. When it comes to meeting all these demands, Sitraffic Prisma is an excellent choice.**

**Card payment: easy, safe – and immediately credited to the operator's account**

The option to pay parking fees by means of "electronic purses" (such as GeldKarte, Moneo, Quick) or EC and credit cards provides benefits for both the user and the operator. The user need not rummage for coins anymore; and the operator's risk of seeing the PDMs tampered with, smashed up and broken into are greatly reduced. Welcome side effect: "electronic cash" is directly transferable to the operator's bank account via radio data link and thus immediately at his disposal. Sitraffic Prisma can transmit data via mobile radio – a very practical solution in conjunction with the Siemens system for submitting electronic payment data.

**Large choice of stored-value card systems**

Besides electronic purses and credit cards, Prisma can also be equipped for accepting customer- or city-specific stored-value cards from systems based on magnetic-stripe, chip or contact-less Mifare technologies. With its Master-Slave structure, the management system allows the establishment of many independent points of sale while securing payment flows and prefinancing procedures at all times. Users can replenish their value cards at the pay-and-display machines.

**Efficient protection against wind, weather and vandalism**

Sitraffic Prisma is protected by in a stainless-steel casing with up to 2.5 mm-thick walls, ensuring effective protection against external influences and value retention over many years. The casing is equipped with an anti-graffiti coating so that unwanted "works of art" are easy to remove.

**Option: stainless-steel top with integrated "P"**

The optional stainless-steel top section (height 306 mm) is protected against vandalism and scratching and features the letter "P" for "Parking" on all three sides so that it is clearly visible from any direction. In a mains-supplied Prisma, the P-top automatically lights up when darkness falls.





When the cash box is taken out of the PDM, it is safely locked, preventing any unauthorized access to the cash

The high-security lock system and an extra anti-drilling protection ensure maximum security

The safest thing!  
When the card payment option is used, no cash is involved and the money is immediately credited to the account



In many different ways, Sitraffic Prisma is protected against vandalism and theft. A few examples:

- Doors locked by a system featuring multiple mechanical friction-type connections
- Cash boxes equipped with two-stage lock; separate doors for technical and cash box compartments
- Electronic tamper-proof anti-pin system allows coin insertion only during car park opening hours
- Use of piezo buttons so that there are no operating elements with moving parts
- Casing openings protected by impact-proof covers
- Lock systems with anti-drilling and core-drawing protection (class B approval by the VdS Property Insurers' Association)
- Solar panel mounted at a height of 1.7 m; or external mast-mounted panel as an option

## Software tools for Sitraffic Prisma:

### SityCCD for:

- PDM programming
- Parameter data
- Tariff definition

### SityControl for:

- Transaction data
- Cash box data
- Statistical data
- Status messages
- Service and maintenance

### SityCollect:

- Payment data control center
- Payment data from "electronic purse" transactions

### Sity Online Clearing:

- Back-office function for online credit card payment
- Interface between PDM and acquirer (Bank)
- Management of card transactions



With the city-map-based display and clear color coding, the status of the individual PDMs can be seen at a single glance

The operations protocol logs all and any status changes of the machine as well as any opening and closing of the door, including a precise time stamp



Status messages, cash box data and revenue statistics are all made available conveniently right in the office



# Sitraffic Prisma: always directly connected to the control center – via radio link and in real time

Sitraffic Prisma offers all advantages of modern data transmission technology. For small systems, a GSM link allows for fast and easy installation. Together with our high-performance software tools SityCCD, SityControl and SityCollect, this makes for a complete system with uncommon advantages that works without additional hardware architecture – “Plug & Park” so to speak. For more extensive applications, a GPRS mobile radio network can be implemented that is available in online mode 24 hours a day, even with solar-powered PDMs. All data on every single transaction are directly transmitted to the control center.

In conjunction with the wide array of analysis and reporting functions offered by our SityClient software, the operator can rely on a total system with a particularly high performance capacity sufficient for controlling several thousand PDMs. The advantages provided by both systems are clear: easy installation (because no data or power cabling is needed) and convenient monitoring right from the office.

## **Complete revenue overview at any time**

The centralization allows convenient monitoring and control of all connected PDMs right from the office. Status messages, cash receipt data and revenue statistics are transmitted to the monitoring center. Long before the cash boxes and account statements arrive, the operator already has an accurate overview of the day's proceeds.

## **Fault warnings save time**

The pay-and-display machines can be programmed to send a warning message if no cash transactions have been effected for a certain period of time. This makes it possible to reliably detect even problems that have nothing to do with actual machine operation (for instance: chewing gum, fake “out of service” signs etc).

## **Remote parameter configuration**

Per remote configuration, the monitoring center can provide Sitraffic Prisma with new parameter data such as tariff changes or advertising texts including activation date etc. Thanks to the separate tariff display, no on-site modifications are necessary.

## **Smooth integration into existing networks**

Many municipalities have already implemented Virtual Private Networks (VPN) for interlinking various municipal departments. Sitraffic Prisma can be seamlessly integrated into such networks because its system structure is based on open industrial standards.

# Technical data Sitraffic Prisma

Basic design	
Control	Microprocessor
Data retention	<ul style="list-style-type: none"> <li>• Device data in the flash</li> <li>• Sales data via lithium battery (10 years useful life)</li> </ul>
Printing	<ul style="list-style-type: none"> <li>• Thermal printing</li> <li>• Optical paper path monitoring</li> <li>• Paper cutter for full and part sections</li> </ul>
Coins	<ul style="list-style-type: none"> <li>• Electronic coin slot lock</li> <li>• Electronic coin tester for 16 different coins</li> <li>• Intermediate cash box for up to 32 coins</li> <li>• Optical coin tester (option)</li> </ul>
Display	<ul style="list-style-type: none"> <li>• User-parameterizable layout</li> <li>• LCD screen, illuminated</li> <li>• Graphical display, 240 × 64 dots</li> <li>• Text display, 20 characters × 4 lines</li> <li>• Graphical display, ¼ V6A (option)</li> </ul>
Controls	Piezo-electric keys
Coin cash box	<ul style="list-style-type: none"> <li>• Removable cash box made from stainless steel with 2-stage lock and separate locking mechanism</li> <li>• Volume: 5 liters</li> </ul>
Standards and certification	<ul style="list-style-type: none"> <li>• DIN ISO 12414:1999</li> <li>• CE</li> <li>• ADA (for lateral impact)</li> <li>• IP 44 acc. to EN 60529 standard</li> <li>• Locks according to VdS class B</li> <li>• 2002/96/EF WEEE</li> <li>• 2002/96/EF RoHS</li> </ul>

Casing	
Material	2.5 mm high-grade stainless steel 1.4301
Surface	Traffic blue, RAL 5017 (special paint finishes on request)
Dimensions	<ul style="list-style-type: none"> <li>• Isosceles triangle, 500 mm</li> <li>• Height: 1770 mm without "P" sign on top</li> <li>• 2000 mm with "P" sign on top</li> </ul>
Total weight	approx. 95–120 kg, depending on features
Options	<ul style="list-style-type: none"> <li>• Stainless-steel top with "P" sign</li> <li>• up to three advertising frames for the insertion of advertising panels</li> </ul>

Power supply	
Lamp version/ mains-powered version	<ul style="list-style-type: none"> <li>• 230 V AC/50 Hz and 110 V AC/60 Hz</li> <li>• 12 V DC, &lt; 4 mA in stand-by mode</li> <li>• Power draw: 20 W in load mode</li> <li>• 12 V/7.2 Ah or 75 Ah battery</li> </ul>
Solar version	<ul style="list-style-type: none"> <li>• 12 V DC, &lt; 4 mA in stand-by mode</li> <li>• Solar module 12 V/17 to 26 W</li> <li>• 12 V/54 Ah battery</li> </ul>
Battery version	<ul style="list-style-type: none"> <li>• 12 V DC, &lt; 4 mA in stand-by mode</li> <li>• 12 V/75 Ah battery</li> </ul>

Ambient conditions	
Ambient temperature	–25 °C/–15 °C (with/without heating module) up to +55 °C
Humidity rating	acc. to IEC 68
EMC rating	acc. to CE standards
Function	acc. to EN 12414

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Some of the pay-and-display machines depicted and described in this brochure feature optional or customer-specific extras. Subject to deliverability and technical changes without notice.

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The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

[www.siemens.com](http://www.siemens.com)



## TicketManager™ Enforcement System

The ideal parking system is a balance of paid-parking revenue and citation yield. The challenge faced by parking managers is maximizing ticketing activity while ensuring their operation remains efficient. To meet this goal, Aparc developed the TicketManager™ Parking Enforcement System.

Like two sides of the same coin, TicketManager™ combines an in-field enforcement system with powerful back-end management and reporting tools to create the perfect solution for maximized citation yield. TicketManager™ is designed for both on-street and off-street patrol, can easily accommodate permit holders, and can be integrated into almost any parking application.

As one of the most widely adopted citation management systems in North America, TicketManager™ processes millions of tickets per year. This robust, well-refined technology is so effective at improving citation yield that it has been integrated into some of the largest and most complex parking systems in the world. By adding TicketManager™ to your parking system, your Officers will operate at peak citation efficiency while generating more revenue at lower costs than ever before.

**Contact Aparc Systems today at 1.877.878.1118 to learn how our industry leading integrated solutions can optimize your parking operation.**

### Benefits

- Internet connected handheld increases citation yield by providing Officers real-time information to quickly identify violating vehicles
- Predefined commonly used text and drop-down fields simplify input of ticket details to eliminate errors
- Integrated photo evidence reduces dispute frequency
- Powerful management tools to optimize enforcement activity
- Real-time Officer tracking ensures employee efficiency and safety
- On-demand reporting provides detailed citation activity information for improved efficiency







## INTEGRATED PARKING & ENFORCEMENT SOLUTIONS

### Aparc Central Management System Parking Management Made Easy

At the heart of Aparc's parking management system is the Central Management System, a cloud based application that provides access to industry leading management tools and reporting functionality. From customizable activity and revenue reports, to real-time mapping of pay station locations with automated alerts, the Central Management System offers one location to maximize efficiency, reduce operating costs, and increase the revenue generating potential of your parking operation.

The Aparc Central Management System seamlessly integrates data from advanced parking and enforcement hardware in the field with reporting tools to give you a real-time status of your operation. Preconfigured and customizable reports help you make the best management decisions to optimize your operation.

The Aparc Central Management System has been deployed to optimize some of the largest and most complicated parking operations in North America. Modular and scalable in design, the system can be added to as you expand your operation or add new parking technology.

**Contact Aparc Systems today at 1.877.878.1118 to learn how our industry leading integrated solutions can optimize your parking operation.**

#### Benefits

- Provides real-time business intelligence for your entire parking operation in one, centralized location
- Automated alerts instantly notify management of hardware failures and revenue anomalies
- Pre-defined activity and revenue reports allow for easy analysis and operational improvements
- Modular and scalable design can be expanded for a future-proof system
- Maximize staff productivity with efficiency and accountability tools



# Aparc Central Management System



## Business Intelligence

- Web dashboard provides single source for all management data and reports
- Customizable, real-time reporting
- Live pay station monitoring with alerts



## Enforcement

- Comprehensive solution including handhelds and back-end software
- Officer tracking for efficiency & safety
- Officer guidance for maximized yield



## License Plate Recognition

- No attendants required
- Lower operational expenses
- Increased efficiency
- Replaces gated equipment



## Payment Technologies

- Payment by phone, text, app, NFC and QR code
- Coin, cash & credit via pay station



## Electric Vehicle Charging

- Online station administration
- Easy to locate, reserve and pay
- Fast and simple installation



## Online Permitting

- Create unlimited passes
- Real-time integration with enforcement
- Eliminates counterfeiting & pass-back
- No printed materials



## Pay Stations

- Hardware agnostic solution can be integrated with most pay stations
- Can accommodate Pay-by-Space/Plate and Pay-and-Display configurations



## Online Citation Payment & Dispute

- Frees administrative resources
- Increases payment compliance
- Highly secure transactions
- Integrates into websites seamlessly

The Aparc Central Management System provides the management tools and business intelligence for your entire parking operation. It is the gateway to Aparc's Integrated Parking and Enforcement Solutions, incorporating the many elements of today's best parking technology. Maximize efficiency, reduce operating costs, and increase the revenue generating potential of your parking operation.

**Visit us online at [aparcsystems.com](http://aparcsystems.com) or call us at 1.877.878.1118 to learn more about our industry leading integrated parking solutions.**



# TicketManager™ Enforcement System

## Increased Citation Efficiency

TicketManager™ Enforcement puts the power of fast and accurate citations in the palm of your Officer's hands. Using an internet connected handheld device, the system provides Officers real-time access to payment information with color coded graphics to instantly identify violating vehicles. Predefined text accelerates and simplifies data entry while integrated evidence gathering reduces future violation disputes.

With TicketManager™ Enforcement at their side, your Officers will yield more citations per hour with greater accuracy than ever before.



## Reduced Operating Costs

TicketManager™ Back-Office is a browser-based management and reporting system for all of your enforcement activity. This cloud-based solution provides anywhere-access to the TicketManager™ system while minimizing software and infrastructure costs. Tracking Officer activity in real-time using GPS enabled handhelds allows for greater employee efficiency and safety. Powerful activity reporting tools will help you set attainable quotas and make continuous improvements to your system.

By using TicketManager™ Back-Office to improve the efficiency of your parking operation, your cost per citation will be significantly reduced.

## Return on Investment

TicketManager™ is the original and most widely used real-time citation management system in the industry. This proven system provides such an impact on revenue and operational efficiency that the cost of implementation is typically returned within 12-18 months of use.\* Post installation, many operations hire more Officers to capitalize on the earnings potential TicketManager™ provides.

**Visit us online at [aparcsystems.com](http://aparcsystems.com) or call us at 1.877.878.1118 to learn more about our industry leading integrated parking solutions.**

\*Statistical average based on 7 years of Aparc customer-provided data.



ON STREET



OFF STREET



ENFORCEMENT



BUSINESS INTELLIGENCE



PAYMENT TECHNOLOGY



LICENSE PLATE RECOGNITION



EV CHARGING



WAYFINDING



ONLINE PERMITTING



ONLINE CITATION PAYMENT & DISPUTE



## SharpX

The World's Smallest High-Resolution License Plate Recognition Camera with Integrated Illumination

The AutoVu SharpX is the latest IP-based license plate recognition (LPR) camera by Genetec. It allows law enforcement agencies to quickly identify vehicles of interest with the highest degree of accuracy available. Advanced license plate recognition technology has been touted as a true force multiplier, and for good reasons.

Whether an agency is on the lookout for wanted felons, uninsured or prohibited drivers, or any vehicles of interest, the AutoVu SharpX can scan thousands of vehicles per shift, and alert officers when a suspect's vehicle is within the vicinity.

### Why Every Law Enforcement Agency Needs AutoVu SharpX

Smallest high-resolution (1024x946) LPR camera on the market

Plate capture across three lanes of traffic (XGA)

Highest read rates in the industry

Up to 5,000 plate captures per minute

Scalable architecture includes up to one dedicated processor per camera

Plate capture up to differential speeds over 200 MPH (320 km/h)

Plate highlight feature for vehicle identification when many vehicles are within the field of view

International plate reading support

Compatible with Genetec's Unified Security Platform

**Discreet Form Factor** – The AutoVu SharpX is the smallest high-resolution LPR camera on the market with integrated illumination. The AutoVu SharpX's robust IP67 aluminum body stands at 1.65 inches (42 mm) tall, limiting light bar occlusion and making it less obvious to vandals. Its clever design also offers universal mounting for the grill, light bar, trunk or just about anywhere.

**Unsurpassed Reading Accuracy** – The AutoVu SharpX uses a progressive scan sensor with 1024 x 946 (XGA) resolution to capture the plate images for analysis. This sensor provides two to three times higher image resolution than most solutions found on the market today, ensuring better readability in bad weather, with dirty or obstructed plates, with difficult angles and across three lanes.

**Superior Night and Day Performance** – The AutoVu SharpX is designed with a state-of-the-art color context camera to provide the best images in a variety of environmental conditions. From morning to late night, officers can expect quality images to help identify the make, model, and even the color of a suspect vehicle.

**Unified within the Security Center** – The AutoVu system and SharpX camera are integral parts of the Security Center, Genetec's Unified Security Platform. This means an officer can easily incorporate the SharpX into a city-wide surveillance system or merge a stand-alone LPR system into the unified platform later on as needs arise.





# AutoVu SharpX

The World's Smallest High-Resolution License Plate Recognition Camera with Integrated Illumination

Specifications	AutoVu SharpX	AutoVu SharpX VGA
Camera lens options	• 12 mm, 16 mm, 25 mm, 35 mm, 50 mm	• 12 mm, 16 mm, 25 mm, 35 mm, 50 mm
Camera sensor	• LPR Camera XGA 1024×946 progressive scan @ 30 fps, monochrome • Color camera 640×480 @ 30 fps	• LPR Camera VGA 640×480 progressive scan @ 30 fps, monochrome • Color camera 640×480 @ 30 fps
Temperature	• -4°F to 131°F (-20°C to 55°C) operating environment • -40°F to 185°F (-40°C to 85°C) storage • includes hi-temp auto shutoff protection	• -4°F to 131°F (-20°C to 55°C) operating environment • -40°F to 185°F (-40°C to 85°C) storage • includes hi-temp auto shutoff protection
Extended Temperature Option	• -40°F to 131°F (-40°C to 55°C) operating environment	• -40°F to 131°F (-40°C to 55°C) operating environment
Vibration	• MIL-STD 810G 514.6	• MIL-STD 810G 514.6
Shock resistance	• IEC 60068-2-27	• IEC 60068-2-27
Housing and mounting	• Extruded aluminum housing with universal T-slots on either side for universal mounting	• Extruded aluminum housing with universal T-slots on either side for universal mounting
Illuminator	• Pulsed LED illuminator for effective use in 0 lux (total darkness) environments • Up to 100-foot (30-meter) range with reflective license plates • Different illumination wavelengths available	• Pulsed LED illuminator for effective use in 0 lux (total darkness) environments • Up to 70-foot (21-meter) range with reflective license plates • Different illumination wavelengths available
Water resistance / sealing	• IEC 60529: IP65 + IP67	• IEC 60529: IP65 + IP67
Dimensions	• 1.65 (h) × 4.75 (w) × 4.75 (d) inches (4.2 × 12 × 12 cm) • Excludes cabling and mounting bracket	• 1.65 (h) × 4.75 (w) × 4.75 (d) inches (4.2 × 12 × 12 cm) • Excludes cabling and mounting bracket
Weight	• 1.5 lbs (0.7 kg)	• 1.5 lbs (0.7 kg)

## Specifications – AutoVu LPR Processing Unit

External interface	• 2 × 10/100/1000 Base-T Ethernet ports • 2/4 × LPR camera inputs
Dimensions	• 12.6 × 8.6 × 4.72 inches (32 × 22 × 12 cm)
Processor	• Intel® Atom™ Processor N450. One dedicated processor per camera (XGA) or per 2 cameras (VGA) to ensure maximal, per-camera, processing performance
Power supply	• 12/24 VDC @ 60 W typical (76W for 4 camera model)
Temperature	• -40°F to 150°F (-40°C to 65°C) • -40°F to 185°F (-40°C to 85°C) storage • includes hi-temp auto shutoff protection



**Powerful and Scalable Processing** – Often a mobile LPR solution includes a trunk unit with a single processor which is divided amongst several cameras. Each AutoVu SharpX system comes with up to 4 dedicated Intel processors, ensuring that individual camera performance will not suffer with the addition of more cameras. A fully equipped vehicle can read up to 5,000 plates per minute.

## About Genetec

Genetec is a pioneer in the physical security and public safety industry and a global provider of world-class IP license plate recognition (LPR), video surveillance and access control solutions to markets such as transportation, education, retail, gaming, government and more. With sales offices and partnerships around the world, Genetec has established itself as the leader in innovative networked solutions by employing a high level of flexibility and forward-thinking principles into the development of its core technology and business solutions. Genetec's corporate culture is an extension of these very same principles, encouraging a dynamic and innovative workforce that is dedicated to the development of cutting-edge solutions and to exceptional customer care. For more information, [genetec.com](http://genetec.com).

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## Appendix E: Key Personnel Resumes

**City of St. Louis**  
Request for Proposals  
Integrated Parking Management System

## Aparc Key Personnel Resumes

### VANESSA DAI

#### SUMMARY

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Resourceful People and Project Manager, experienced in developing, communicating, marketing, and implementing projects across a variety of areas. Skilled in strategic planning, client management and project execution. Keen learner who adapts, responds and innovates in fast-paced settings. Passionate about aligned, efficient and sustainable results. Proven ability to deliver outcomes, locally, nationally and internationally.

#### WORK EXPERIENCE

---

##### **2013– Present, Project Manager, APARC SYSTEMS, Vancouver, Canada**

Working with senior management, establishes and oversees Project Management Office, including the hiring and coaching of resources, the development of standards and processes and the delivery of projects, on-time and on-budget.

##### **2002– 2012, TEEKAY CORPORATION, Vancouver, Canada**

###### **Manager, Communications Projects, 2007 – 2012**

Managed corporate communications projects and personnel. Member of Public Affairs team, reporting to Executive Vice President and General Counsel.

- Led redevelopment of corporate website, ensuring alignment with brand and producing content management efficiencies
- Planned and supported global rollout of new intranet, increasing organization's ability to gather and share information
- Generated and delivered communications and marketing plans, driving line of sight to vision, objectives and goals
- Created and implemented local corporate social responsibility program, raising community profile and employee engagement
- Led development of global community investment framework, aligning corporate giving with brand and business
- Downsized department, optimizing customer satisfaction, increasing efficiencies, and reducing costs
- Oversaw and managed resource team of six including hiring, coaching and performance management

###### **HR Projects Manager, 2003 – 2007**

Working with global teams, planned and executed organizational-wide employee engagement projects.

- Reporting to Vice President, Corporate Resources, instituted onboarding program across all offices, standardizing brand message and employee experience

- Oversaw training program for a major corporate restructuring initiative, ensuring operational preparedness and continued service
- Centralized training information and options, increasing efficiencies and employee development capabilities
- Facilitated delivery of customer service course for 150+ staff across the globe, embedding and reinforcing a company core value

**Project Specialist, 2002 – 2003**

Prepared organization for ISO 9001, ISO 14001, OHSAS and ISM certification.

- Supported standardization of operational processes, policies and job descriptions, ensuring compliance and increasing efficiencies
- Managed and rolled out training program to 150 end-users, ensuring organizational readiness for certification

**2001, Account Executive, Entertainment Promotions, Vancouver, Canada**

Managed accounts with annual sales revenue of \$450,000.

- Fostered and cultivated relationships, recommitting 95% of outstanding clients

**2000, Business Developer, Morgan Drake Limited, Lugano, Switzerland**

Sourced suppliers and products for export market including negotiation of deliverables and logistics.

- Established a number of new partnerships across Europe, increasing inventory count and mix

**1999, Account Executive, Entertainment Promotions, Vancouver, Canada**

Managed sales territory with approximately 150 accounts and annual sales revenue of \$450,000.

- Sourced and signed new clients, growing account base by nine percent
- Developed customized marketing and implementation plans for clients, increasing sales by 15%

**ADDITIONAL RELATED EXPERIENCE**

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Business Manager, T. Eaton Company, Vancouver, Canada

**EDUCATION**

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**PMP Certification**, Project Management Institute

**BA, Communications**, Simon Fraser University, Vancouver, Canada

**Certificate of Liberal Arts**, Simon Fraser University, Vancouver, Canada

## Steven E. Womack

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### PROFESSIONAL SUMMARY

**Operations/Project Management Professional** with more than twenty-three years' successes in engineering environments with design, sales, project management and managerial experience in the transportation sector. Strong technical and business qualifications with a track record of hands-on experience in strategic planning, business unit development and product as well as project management. Well versed in all aspects of Project Management, project scope, budget, status communications, stakeholder relations, client relations, building & leading teams, and meeting delivery schedules. Experienced in managing major accounts and building profitable vendor/client relationships.

*Key Strengths and Competencies Include*

**Project Management // Budget Forecasting // Stakeholder Relations // Vendor Relations  
Contract Negotiations // Critical Problem Solving // Revenue Generation // ROI // Client  
Relations // Project Lifecycle // Major Account Management // P&L // TQM // ISO 9001**

### CAREER HISTORY

**Aparc Systems, Inc. – Vancouver, BC**  
**VP – Operations**

*01/2013 to Present*

Currently responsible for management and growth of the organization with respect to projects and business activities related to the design, installation, implementation and maintenance of computerized parking systems in North America. Directly managing staff for the following departments:

Project Management  
Client Care  
Operations  
Quality Assurance

**ACS Transport Solutions (a Xerox Company) - Parking Division, Norcross, GA** *01/2000 - 11/2012*  
**Director of Project Operations** *(01/2009 to 11/2012)*

Responsible for competitive bidding and subsequent management of **\$20M+** projects related to the design, installation, implementation and maintenance of computerized airport parking systems for some of the largest and most active airports in North America. Directly managed staff of Project Managers, Network Designers, Installation and Maintenance Personnel as well as Technical Writing Department.

**Project Manager** *(11/2000 to 12/2008)*

- Accountable for project cost control, scheduling, profit/loss reporting, forecasting and coordination with a staff of software programmers, production personnel and installation contractors. Emphasis on project implementation within budget and on time while building and or maintaining client and consultant relationships.

## Key Achievements

- Managed the replacement of the parking and revenue control system at HJAIA (Atlanta International Airport). The budget for the project was **\$22.7M** and involved the management of five subcontractors, over twenty key vendors and a software team of over 30 developers. Successfully installed a system that provides for 99.9% uptime.
- Turned around an underperforming **\$3.7M** Parking Guidance System PHL (Philadelphia Airport) Project. Established the trust of the client and collaborated on a 5-month plan that refined the system to meet unique requirements, implemented, tested and successfully met the acceptance criteria. The client is now ready to move forward with additional work at the facility.

## **L.B. Foster Company - Transit Products Division, Norcross, GA** **Project Manager**

*08/1996 to 11/2000*

Responsible for management of **\$20M+** annually in sales of electric third rail and rail fastening systems to the mass transit industry. Accountable for division cost control, profit/loss reporting, forecasting, annual planning and division staff of project engineers, laboratory technicians and warehouse personnel including performance appraisals and salary reviews. Substantially involved in corporate level strategic planning.

## Key Achievements

- Streamlined project administration and production operations directly resulting in record profit levels for 1996 through 2000.
- Major contributor to implementation of ISO 9001 documentation, which successfully received registration.
- One of the key components in the product line involved ductile castings. The automotive market has a tremendous influence on casting vendors -- setting the price and delivery schedule. This had an adverse effect on our ability to schedule delivery and pricing. Sourced two key vendors that provided competitive pricing and the ability to meet schedules regardless of automotive demand.

<b>EDUCATION/PROFESSIONAL DEVELOPMENT</b>
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**Bachelor of Science, Electrical Engineering**  
*Southern College of Technology Electrical Engineering*

**Technology Management Master's Degree Program**  
*Southern College of Technology*

**Formal training programs include:**

Time Management  
Safety Training  
Total Quality Management  
Sales Training  
ISO9000 Training  
Ziegler-Miller Management Training

## Tom Britton

### WORK EXPERIENCE

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#### Aparc Systems

##### **Director, Software Development, March 2013 – Present**

- Responsible for management of all Software Development activities
- Implementation of new architecture for the software platforms
- Implementation of new software development processes
- Development of new modules and features for the corporate applications

#### Syscon Justice Systems

##### **Vice President Engineering, February 2011 – February 2012**

- Responsible for the management of all Information Technology, Architecture, Software Development and Testing disciplines
- Restructured the existing IT, software development and delivery organization to flatten the organization and achieve increased ownership and morale
- Set the technical direction of future products and services for virtually-deployed SaaS based architecture
- Implemented Service Oriented Architecture and Agile/Kanban development processes
- Drove virtualization of the internal IT systems and development environment.
- Completed a successful Proof of Concept project for the new product architecture

#### Spieker Point

##### **Partner, March 2010 – February 2011**

- Responsible for the development of business strategy to stabilize and grow the business
- Restructured the business to stabilize operations, reduce expenditures and increase sales
- Development of product-line strategies for future growth
- Led several e-commerce development projects based on open-source technology and Agile development methods

#### Haemonetics

##### **Vice President Operations & Technology, Haemonetics Software Solutions Division, 2008 – 2010**

- Responsible for leading all technical activities of the software business including all Software Development & Testing, Commercial SaaS Hosting, Customer Help Desk and Technical Services
- Re-development of flag-ship enterprise product onto a web-based SaaS platform utilizing Service Oriented Architectures and a mix of open-source and commercial technologies and agile development techniques.
- Development of new products for mobile and kiosk based businesses
- Development of new payment processing software and services
- Implementation of cloud-based development/testing environments

- Re-organization of the IT, Software Development and Application Support groups within the division
- Implementation of a ITIL-based new data center for hosting SaaS based services to our customer base Integration of a newly acquired US-based software development company
- Transfer of SG&A organization units and activities to corporate entities
- Haemonetics' Vice President of the Year award

**President, 5D Information Management, a Haemonetics Company, 2005 - 2008**

- Responsible for the P&L of the wholly-owned subsidiary
- Responsible for all aspects of software and services business across US, Canada and product-line strategy in Europe
- Retained VP Development responsibilities
- Maintained C-Level contact with major customers
- Leadership and growth of the Senior Management Team
- Grew the business revenues five-fold over 3 years to ~ \$30M
- Developed and executed very successful 3 Year Strategic Plan
- Re-branded the business and product lines in the portfolio emphasizing hosting and SaaS.
- Initiated development of a new enterprise product to replace aging product utilizing best-of-breed platforms and techniques
- Released several new product lines to the market
- Managed the delivery of business-critical 7/24 hosted SaaS based services to some of the major blood-based Pharmaceutical organizations
- Upgrade delivery services with the implementation of hosted services infrastructure.
- Revamped internal technology environment to support latest trends
- Grew the competencies and hired staff to meet increased customer expectations of several key groups –Senior Management Team, Technical Services, Software Engineering, Software Testing and Customer Support
- Expanded and grew license and support revenues and the customer base through the implementation of SaaS-based offerings
- Initiated consulting and professional services to complement product initiatives
- Acquisition of US-based software development company
- Top Sales awards '07, '08

**Vice President Development, 5D Information Management, a Haemonetics Company, 2005**

- Responsible for the planning and development and delivery of enterprise level software products and services for the regulated blood products industry within US, Canada and Europe
- Re-aligned the product strategy to reduce costs, achieve focus and meet customer expectations.
- Re-organized the leadership of several key areas



Intuit Canada

**Vice President of Product Development, Chief Technical Officer**

- Responsible for the development of the leading personal tax preparation, personal finance and small business software in Canada and the U.K
- Led the strategic planning for the organization and was deeply involved in business development.
- Responsible for driving technical innovation for the organization
- Managed the development and growth of a large group of highly-skilled software development professionals
- Implemented software development practices that enabled well over 100 software releases without any significant schedule, cost or quality issues
- Facilitated the growth of product lines from fewer than 10 to over 40 titles per year
- Drove the development and implementation of key technologies that allowed Intuit Canada to maintain competitive advantage including digital rights management, customer self-service, e-commerce and many others
- Led the implementation of customer advocacy programs across the company (Net Promoter), which increased sales through customer recommendations
- International representative of Intuit Inc.'s Chief Technology Council - senior representatives responsible to guide Intuit's technical directions
- Developed long-term product plans designed to significantly reduce development costs in mature markets
- Implemented "Process Excellence" into the product development organization, aligning development work to achieve company goals and objectives utilizing dashboards to measure ongoing performance
- Led teams through several re-organizations while at the same time leading the company in key employee satisfaction metrics

**EDUCATION**

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B.Sc. Adv. Computer Science - University of Saskatchewan

Past Board Member Alberta Ingenuity Center for Machine Learning

Numerous Leadership, Professional Development and Technical courses through my career

## Robert Suranyi

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### ***Skills / Qualifications***

#### **Senior Managerial Experience (18 years)**

- Project management, Resource scheduling
- Client management (communications, status report, coordination between client and internal resources)
- Providing administration duties for a programming department (time tracking & monitoring performance)
- Client Delivery for special needs and pro-active expectations

#### **Programmer Analyst Experience (36 years)**

Robert has been involved in the developed of dozens of systems over the past Twenty Six years, including:

- Parking violation issuance and management
- Various inventory management systems
- Integrated repair management system
- Job costing / time & attendance systems
- Capital asset management systems for general resale
- Marine toxicology maintenance system

### ***Relevant Work Experience***

- |                 |   |
|-----------------|---|
| 2007 to present | <i>APARC Systems, Vancouver, BC</i><br>Robert has led the development team since 2007 when Epic Data sold TicketManager™ Product and Business unit to what is now APARC systems. Robert continues to architect, design and develop new enhancements and functionality for the TicketManager and related Products. He leads a staff of six (6) developers and four (4) engineers that develop web centric modules that integrate to Siemens Pay Stations, Pay by Phone Systems, Space Sensors, and LPR Camera systems. |
| 1998 to 2007    | <i>Epic Data, Richmond, BC</i><br>Epic Data purchased Read Data Systems in 1998. Robert continued to manage a programming staff and work on various customer projects. During this time, Robert focused most of his energy into the Architecture, Design and Development of The TicketManager systems. He did most of the coding, both for the handheld units and the back-office, as well as conducted all of the end user training. The TicketManager system was install in various customer sites                  |

such as: The City of Vancouver, The City of Toronto, Imperial Parking, The City of Surrey, Robbins Parking, The City of New Westminster, etc.

1981-1997

Real Data Systems, Burnaby, BC

Robert was the Manager of Software Development for five years. He specializes in data collection integration and bar code application development. He managed the software development team at RDS and led the technology path for all projects.

Robert developed many of RDS' in-house tools for rapid application development and deployment. Robert kept abreast of the latest industry technology and business processes through extensive reading and interacting with clients and contacts.

Project management duties include keeping track of all aspects of a project, from client communications to ensuring the desired software and hardware solution meets the clients needs by coordinating with developers and account managers.

### ***Education***

Bachelor Degree from the Science University of British Columbia 1981

## Key Personnel Resumes – Hudson and Associates

**Rick Calvin**

**Hudson and Associates, LLC**

**Project Manager**

### Summary

As *Manager-in-Charge*, Mr. Calvin brings to the program over 20 years of On and Off Street Parking experience. Working his way up from an entry level Parking Enforcement Officer (PEO) to his current position as Operations Manager, Mr. Calvin has a wide range of experience in meter collection services and maintenance, boot enforcement, as well as garage utilities and maintenance. Mr. Calvin is very proficient with analyzing meter software that produces special reports to manage the technology and data used to reconcile revenue collections. Mr. Calvin is responsible for daily operations and staffing support at Gateway Parking operations. In addition, he is responsible for maintaining meter inventory and technical training for all meter technicians.

### Education

- Northwest High School, St. Louis Mo.

### Professional Training

- Sexual Harassment Seminar
- Emotional Intelligence Seminar
- Drug and Alcohol Testing Program
- Effective Supervisory Practices
- Certified Duncan Electronic Mechanism Repairmen

### SKILLS

- Excellent Leadership Skills
- Exceptional Problem Solving
- Efficient Planning and Execution
- Effective Organizational Skills
- Results Oriented
- Strong Interpersonal Skills

### PROFESSIONAL PRACTICES

- Operations Manger
- Technician Training
- Meter Maintenance
- Report Management/ Reconciliation

### PROFESSIONAL EXPERIENCE

**Gateway Parking / Hudson and Associates, St. Louis Mo. 63110**

**Operations Manager**

**February 2013 to Present**

Responsibilities include overseeing all areas of parking operations including meter installations, removals, collections, repairs, maintenance and auditing. Assist with developing daily project and meter route schedules and assignments. Assist with policy and procedures implementation. Conducted special projects as requested by the City Treasurer. Investigate and responds to internal and external complaints about meter service or boot enforcement.

**Duncan Solutions, St. Louis Mo. 63110**

**Project Manager**

**September 2012 to February 2013**

Responsible for daily parking operations including meter installations, removals, collections, repairs, maintenance and auditing. Assist with developing daily project and meter route schedules and assignments. Assist with policy and procedures implementation. Conducted special projects as requested by the City Treasurer. Investigate and responds to internal and external complaints about meter service or boot enforcement.

**Gateway Parking Services, St. Louis Mo. 63110**

**Field Supervisor**

**June 2009 to March 2012**

Worked with management to implement policy and procedures for operations. Monitored meter collectors and boot enforcement officer performance during work shifts. Assist management with developing training exercises for new employees. Investigated and responds to internal and external complaints. Assisted with scheduling and assignments

**City of St. Louis Treasurer's Office, St. Louis Mo.**

**Deputy Director of Parking Operations**

**May 2003 to June 2009**

Responsibilities included managing and monitoring daily operations for On Street programs. Monitored various service contracts. Managed supervisors who were responsible for meter installations, removals, collections, repairs, and maintenance and boot enforcement. Conducted revenue audits. Assist with implementation of policy and procedures. Conducted special projects as requested by the City Treasurer. Investigated and responds to internal and external complaints.

**City of St. Louis Treasurer's Office, St. Louis Mo.**

**Maintenance Repair Supervisor**

**February 1998 to May 2003**

Supervised and coordinated project task for workers. Enforced policy and



**Hudson and Associates, LLC**  
**Shelia A. Hudson, Principal/CEO**

#### Summary

As Principal-in-Charge, Hudson oversees daily operation for Hudson and Associates, LLC Metropolitan St. Louis Region office. With over 20 years of program/project management experience in the transportation and infrastructure arenas, Ms. Hudson provides operations and staffing support to government agencies and private sector companies ensuring adequate manpower and resources are provided to meet and/or exceed various project programs, budget and schedule projections. Her responsibilities include coordinating project start-ups, staffing and operations management, developing customized programs, coordinating marketing and media strategies, and managing client/owner relationships.

#### Education

- B.S. Tennessee State University-Industrial Technology/Transportation Service and Management, Nashville, Tennessee
- Fellowship - Rutgers Institute/National Transportation Institute (NTI) - Leadership Management, Newark, New Jersey

#### Professional Affiliations

- Women's Transportation Seminar (WTS), National Board (1991-2004)
- Conference of Minority Transportation Officials - St. Louis Chapter
- Commissioner, Tax Increment Finance (TIF) - City of St. Louis
- Commissioner, Missouri Downtown Economic Stimulus Authority/St. Louis (MoDESA)
- Commissioner, Tower Grove Park, St. Louis, Missouri

procedures at the direction of management, Monitored meter maintenance, malfunctions and repairs to ensure service compiled with reports and requirements.

#### PROFESSIONAL PRACTICES

- Staffing and Operations Mgt
  - Report/ Reconciliation Mgt.
  - Project Management
  - Public Relations
- Engagement/Community

#### PROJECT EXPERIENCE

- St. Louis of St. Louis Treasurer's Office: On-Street Parking/ Meter Collection and Ticket Processing Services – St. Louis, MO
- ACS/Xerox: Project Manager-Parking Violation Bureau (PVB)/ Ticket Processing - St. Louis, MO

St. Louis Public Schools: Proposition S Program/Construction Management and Diversity Outreach/Compliance **Monitoring** - St. Louis, MO

- City of St. Louis: M/W/DBE Certification Analysis - St. Louis, MO
- St. Louis Lambert International Airport Renovation Project: Project Management/ Diversity Outreach - St. Louis, MO
- St. Louis Transit-Oriented Development (TOD) Study - St. Louis, MO
- St. Louis Delmar Loop Trolley Final Design Project - St. Louis, MO
- Port/North Riverfront Land Use Study (North Riverfront Commerce Corridor Land Use Plan) - St. Louis, MO
- New Mississippi River Bridge Project (MRB) - Design Phase, St. Louis, MO

Hudson and Associates, LLC, (HA) – Program Manger - St. Louis, Missouri – A subcontractor for two multi-million dollar On-Street Programs with the Parking Division, HA manage daily operations and staffing to support the meter collection and ticket processing services at Gateway Parking and the Parking Violation Bureau (PVB). Such services include operations management, revenue collection, maintenance and technician support, boot enforcement, dispatching, customer service and cashiering, as well as data entry to support the client's initiative or programs. With over 20 years of management and technical resources experience HA is responsible for staffing the most qualified employees to ensure that the program is operating efficiently and effectively.

ACS/Xerox – Project Manager – St. Louis, Missouri- As the site manager at the Parking Violation Bureau (PVB), Ms. Hudson was responsible for executing task and services as required in the services contract to support the ticket processing program. Efforts included managing daily operations, developing and implementing policies and procedures to support regulations and business practices, revenue collection and reconciliation reporting, as well as client relations management. In addition, Ms. Hudson managed citizen (customer) matters and managed staffing needs as required to support operation.

HNTB Corporation, St. Louis, Missouri - External Affairs Manager

As the External Affairs and Public Involvement Manager for the St. Louis office, Ms. Hudson directed all office external communications outreach, and public education campaigns for the St. Louis office. Ms. Hudson was responsible for developing and managing HNTB's regional government and community relations strategies. Her efforts included extensive government relations strategy-planning and implementation, public policy development, management of grassroots campaigns, and management and development of community outreach initiatives and promotional activities. Ms. Hudson also designed and implemented "project specific" outreach and communications activities designed to engage the public in the planning and execution of public-sector projects and program initiatives.