

# 511 Regional Rideshare Program

## Standard Operating Procedures



### Information Technology Department

Version	Document Description	Date
1.0	Initial Draft	September 30, 2011
1.1	Added Schoolpool Translation Process	March 19, 2012
1.2	Added Schoolpool Skinning section	April 4, 2012
1.3	Annual updates to various places	September 13, 2012
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1.5	Annual updates, cloud based hosting, SB1339, etc	September 26, 2014
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1.7	Updates per client comments	October 22, 2015
1.8	Updates per Commuter Benefits client comments	March 18, 2016

**THIS SOP REFLECTS PROCEDURES FOR THE RIDESHARE PROGRAM FY12-FY16 SCOPE OF WORK.**

**THE FY17-FY20 SCOPE OF WORK IS DIFFERENT. NOT ALL THESE PROCEDURES WILL BE APPLICABLE IN THE FUTURE.**

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This SOP covers all aspects of information technology supporting the 511 Regional Rideshare Program for Fiscal Year 2015-2016. This includes:

- The 511 Ridematch Service, which provides a tool for commuter carpool and vanpool ridematching and trip tracking
- Other online tools, including the Commuter Benefits Program, SchoolPool, Bicycling, and Park n Ride
- Online surveys used by employers
- Web tools server hosting
- Project office network and servers
- Phone service support
- Email addresses

### **511 RIDEMATCH SERVICE (RMS)**

The 511 RideMatch Service (RMS) is a self-serve Internet-based ridematching system that gives end-users the power to customize their searches for sharing a carpool or vanpool to work and logging commute trips in the trip diary to earn rewards. The RMS provides a secure login to a confidential database that has a self-cleaning mechanism to ensure those appearing on matchlists are current. The system is available at (<https://www.ridematch.511.org> or <https://ridematch.511.org>). On-line match profiles are available 24-hours a day, 365 days a year and provide visual mapping.

### **Functionality**

Features and functionality of the 511 RideMatch System include:

- Online registration
  - User self-registration
  - Administrator created on behalf of user
- Public-facing tool that matches people seeking to share a carpool or vanpool
  - Match with everyone, company only, or no one (e.g., in database, but matching preferences turned off)
  - Radius-based matching and route-based matching
- Public-facing tool where commuters track their commute trips (“trip diary”)
  - Users see their emissions and cost savings in addition to being eligible for rewards/promotions
  - Employers can participate and compete in commute challenges
- Ability to provide administrative functionality to external parties
  - Ability to add/edit user records
  - Report generation on participation and emissions
  - Access to different levels of data/reporting
- Vanpool module to track vanpools and associated drivers/coordinators
  - Track if VP has open seats
  - Track VP ownership and size
  - Track FasTrak number

- Track Passenger List
- Track Medical Reimbursements
- 
- Ability to allow employer to use the RMS interface on internal employer websites by creating customized sites that reflect an employer’s graphical look (referred to as “skin sites”)

## Technology

The ridematching system used by 511 for online ride matching is a custom web application that is built with open source tools and software. The skill sets necessary to maintain the system include strong javascript programming in a JBOSS/Wildfly J2EE application environment and strong Postgres Database Administration. The source code and final compiled application are owned and copyrighted by MTC.

The tools used to create the JAVA source code are all publicly available:

- Eclipse Java Development Environment; <http://www.eclipse.org/org/documents/epl-v10.php>
- JBOSS Application Server Version 8  
<http://docs.jboss.org/jbossas/admindevel326/html/apa.html>
- Apache Web Server; <http://www.apache.org/licenses/>
- NGINX Web Server 1.6.2 <http://nginx.org/LICENSE>
- Hibernate; <http://hibernate.org/license.html>
- POSTGRES RDBS w/ GIS Extensions; <http://www.opensource.org/licenses/postgresql>
- Google Maps API; <http://code.google.com/apis/maps/terms.html>
- JQUERY; <http://jquery.org/license>
- Sizzle CSS Selector Engine - v0.9.3; <http://sizzlejs.com/>
- Open WYSIWYG color chooser; [openWebWare.com](http://openWebWare.com)
- Farbtastic Color Picker 1.2; <http://acko.net/dev/farbtastic>
- Reverse Geocoder; Copyright 2007-2008 Nico Goeminne; [nicogoeminne@gmail.com](mailto:nicogoeminne@gmail.com)
- Displaytooltip.js; <http://blog.innererwut.de/files/tooltip/tooltip-v0.2.js>
- Commons Logging Package v.1.1.1; <http://www.apache.org/licenses/LICENSE-2.0>
- Apache log4j; <http://www.apache.org/licenses/LICENSE-2.0>

## Maintenance

Parsons Brinckerhoff has an annual maintenance agreement with “Media Beef,” an independent software support firm to help maintain the RMS (The PB-Media Beef RMS Maintenance Agreement.) Note that Appendix A provides a list of all the separately maintained documents referenced in this SOP.

Media Beef’s key responsibilities related to RMS maintenance are to:

- Create and maintain a dedicated test environment for the 511 RideMatch service and 511 Schoolpool websites.
- Provide on-call support for the diagnosis and resolution of functional system errors in the day-to-day operations of the websites, with a response to inquiry time not to exceed two (2) hours.

- Identify a point of contact person or persons who shall be available after-hours and weekends.
- Notify PB and Client of any emergency server maintenance at least twenty (20) minutes in advance.
- Review current backup systems in place for both the website code and TDM database, and shall provide additional system backup support if needed.
- Provide on-call support for minor text and graphic revisions, with a response to inquiry time not to exceed one (1) business day.
  - All code or graphic revisions will be first launched to the test environment servers for client approval before deploying to the main (production) web servers.
  - Perform all non-emergency maintenance which may affect the accessibility of the website outside of the Client’s service hours of 8:00 AM to 6:00 PM Pacific Time, Monday through Friday.
- Deliver source code to Client at upon termination or expiration of this Subcontract.

See section on Hosting, SchoolPool, and Commuter Benefits for other aspects of Media Beef’s role.

<b>RMS Emergency Contact List</b>			
Name	Email	Office	Cell
Michael Hemry	[REDACTED]	[REDACTED]	[REDACTED]

**Translation**

Machine Translation is performed by Google Translation.

**Operations**

The 511 Rideshare Contractor (PB) maintains an instructional process guide for System Administrators detailing various processes (“RMS Process Guide for System Administrators”).

**RideMatch Admin Access**

There are four administrative access levels to the online RMS System:

- 1) System Administrators (SYSAdmin)
- 2) Rideshare Administrators (RSAdmin)
- 3) Vanpool Administrators (VPAdmin)
- 4) Employee Transportation Coordinator (ETC)

The RMS’ built-in reporting system maintains an “RMS Admin Access Report,” describing who has the above administrative access privileges. The administrative levels are explained below:

- 1) System Administrators (SYSAdmin) can change anything in the database and use all modules including skin creation, county and employer benefits, special event creation and communications administration. SYSAdmin access is intended for the IT Staff and system developers. The 511 RRP IT Manager grants SYSAdmin access as appropriate.
- 2) Rideshare Administrators (RSAdmin) can add, delete, or change any commuter record. They can also manage and create company locations and create e-mail notifications to select commuters using the communications tool. RSAdmin access is intended for 511 RRP staff, delegated county rideshare agencies (San Francisco, Contra Costa, San Mateo and Napa/Solano), and the 3 partner agencies (Monterey, Santa Cruz, and San Benito). The RRP provides RSAdmin Access to partner agencies once the agency signs MTC's "RMS Database Access Memorandum of Understanding (MOU)".
- 3) Vanpool Administrators (VPAdmin) are identical to RSAdmin (above) but have additional access to the Vanpool module where they can manage/create/delete Vanpools and associate commuters as VP drivers. VPAdmin access is intended for 511 RRP Vanpool Staff and Solano Napa Commuter information (SNCI) Vanpool Staff.
- 4) Employee Transportation Coordinator (ETC) can add, delete, or change commuter records and worksite locations that are affiliated only with their employer. ETC access is intended for Employee Transportation Coordinators at a company the outreach staff from 511 RRP, delegated counties, or partner agencies work with. The RRP provides access to an ETC only after the ETC's employers signs MTC's Memorandum of Understanding (MOU) for Customization and Admin Access document.

## **Reports**

Various built-in reports are available to admin users, based on their access level, when they are logged into the RMS system. PB maintains a list of available reports, "RMS Reports." Key reports include system participation, trip diary participation, vanpool reporting, placement call sources, and administrative clean-up (e.g., duplicates, employer locations).

## **RMS Registration**

A person is registered in the ridematching system in one of two ways; either by registering themselves online, or by completing a matchlist (paper) request form ("MLR") from which an administrator creates the registration on behalf of the user. A user cannot use the system until he/she activates the account. Each way has a slightly different activation process.

- Self Registered: The user completes an online registration form and during form entry process they are either emailed or texted an activation code which they

must enter to continue/submit. All self-registered records go in a status “A” (Active).

- Admin Registered: When an administrator enters a new registration, the record goes in as status “NR” (Non-Activated). The system emails the user an activation code. When the user enters the activation code they are walked-through a process to create a password and their record becomes status “A” (Active).

### Database Consistency Checking

The 511 Commuter Services Department (CSD) processes daily reports to show inaccurate (e.g. typos, misspellings), duplicate records (e.g. same commuter registered more than once), new commuters having trouble activating and those who have not accessed the system after a designated period of time. A placement call is made and the inconsistencies are fixed through the admin interface. The “Commuter Services Department” SOP provides additional information.

### Database Record Management

Commuter records in the RMS are categorized as follows:

RMS RECORD TYPE	Description
Non-Activated Registrants (NR)	People who complete an MLR at an event, but who do not activate their accounts after rideshare staff enter their info in the system.
Active Registrants (A)	People who have registered in the RMS, activated their accounts and use the system. Active registrants fall into two groups: <ul style="list-style-type: none"> <li>• Those with their matching preferences “on.” These are people who will appear on matchlists.</li> <li>• Those with their matching preferences “off.” Often these people have already found a carpool, but want to stay in the database to use the trip tracking tool, or so they don’t have to re-register in the future. These names will not appear on matchlists.</li> </ul>
Unsubscribed (U)	Active people who choose to unsubscribe
Abused (I)	Records deemed to be trouble-causing
Junk (P)	Duplicated or test records

Rideshare program staff work with database records as follows to encourage matching and prevent stale records from appearing on commuter’s matchlists.

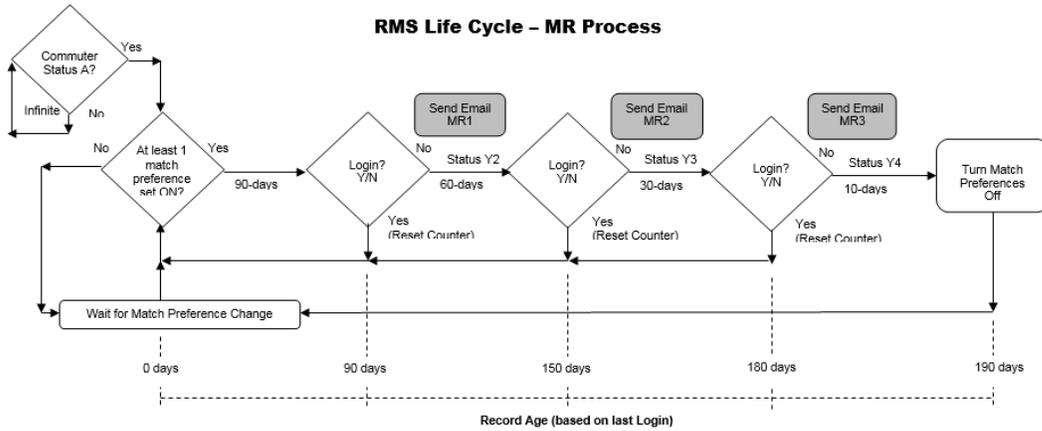
#### Non-Activated Registrants (NR)

- 1) Marketing sends them promotional emails for 3 months;
- 2) They are contacted for up to 18 months via placement calls.

After 18 months in the system as an NR, some of the personally identifiable information associated with the record is automatically removed as follows:

- email address to “<commuterid>@blank-email.com”,
- the first name to “Not Registered”,
- the last name to “User”,
- phone numbers to zeros.

The record, and its home and work locations, however, are maintained to access aggregate historical trip data in the future.



Note: “MR” is an internal code referring to the communications process for active registrants. “MR1,” “MR2,” and “MR3” refer to steps in this communication process.

Active Registrants (A)

*Matching Turned “On”*

All active registrants with matching preferences turned on are included in placement calls and marketing emails.

To ensure that “stale” names do not appear on matchlists, the RMS has an automated “life-cycle” process. When an active matcher has not logged in for 90 days, an automatic email “MR1” is sent to encourage the user to log in. If another 60 days pass with no account activity (150 day running), automatic email “MR2” is send. If another 30 days pass with no account activity (180 days running), automatic email “MR3” is generated, informing the person that they will no longer be matched with other. After 10 more days (190 day running), the record moves to “active non-matching” status per the database consistency live cycle process.

*Matching Turned “Off”*

All active registrants with matching preferences turned off are included in placement calls and marketing emails. These registrants stay in the system as active non-matchers until they the change their status (e.g., turn their matching preferences on, or unsubscribe).

### Unsubscribed (U)

Unsubscribed registrants receive no communication from the RRP. After six months, the system automatically changes select PII associated with the record as follows:

- email address to "<commuterid>@blank-email.com",
- the first name to "Unsubscribed",
- the last name to "User",
- phone numbers to zeros.

The record, and its home and work locations, however, are maintained to access aggregate historical trip data in the future.

### Abused (I)

No communication is sent to people with "abused" records. The records remain in the system so we don't allow person to re-enter and we prevent any matching with them.

### Junk (P)

Automatically deleted (purged from the system) within 24 hours after a record is marked as a "P".

### **Customized RMS Websites (Skinning)**

The Rideshare Program will develop a customized interface of the 511 Ridematching System for local employers and agencies to place on their companies'/agencies' intranet or web sites that has the look and feel of their sites. For guidelines and MOU documents see, "Customized RMS Website Guidelines and MOU Documents". Note: these documents are also posted online at <http://511.org/developer-resources.asp>. For a listing of customized RMS websites see the monthly progress report or R:\Information\_Technology\RMS\Skinning\Skin\_Site\_Listing\RMS\_Skin\_Site\_Listing.xlsx.

### **Customizations**

Various enhancements are made to RMS yearly. An RMS Enhancement Team (representatives from marketing, IT, employer services, CSD) meets annually to discuss potential enhancements for the upcoming year. The potential future enhancements are approved by MTC prior to contracting with the RMS developer. For a list of current RMS customizations being considered, see "RMS Customizations FY2015-2016" and "RMS Customizations FY2014-2015".

### **511 SCHOOLPOOL SERVICE**

The 511 SchoolPool Service is a self-serve Internet-based matching service that helps parents share the responsibility of getting children to school. The 511 SchoolPool service matches parents who make similar school trips – whether it is by driving (Carpool), bicycling, or walking. The system is available at (<https://www.schoolpool.511.org>). On-line match profiles are available 24-hours a day, 365 days a year and provide visual mapping.

## **Technology**

The 511 SchoolPool Service is a custom web application. The main coding in the application is duplicated from the programs 511 RideMatch Service (RMS) and the source code and final compiled application is owned and copyrighted by MTC. As with the 511 RideMatch Service (RMS) above, all anomalies experienced, either through staff monitoring or end-user notification are dispatched immediately to Media Beef. The 511 SchoolPool Service maintenance is covered under the 511 RideMatch Service agreement (see "RMS Maintenance Agreement"). See RMS Emergency Contact List above for support contact numbers and information.

## **Admin Access**

There is administrative access to manage participating schools, manage parents and children, and run reports. Currently, SchoolPool administration is being done by MTC. Schools desiring to participate are encouraged to go to the 511 suggestion form at <http://511.org/about-511-suggestions.asp> to notify MTC.

### **System Administrators (SYSAdmin)**

- 1) System administrators can add or change all records in the database. There is a school admin module where the sysadmin can add or change participating schools. There is also a parent admin module where the sysadmin can add new or change existing parents/children information including running matchlists.

### **District Administrators (DistAdmin)**

- 2) District administrators can add or change records of parents only associated with the schools within the district. The participation reports only show information related to the district's schools.

### **School Administrators (SchoolAdmin)**

- 3) School administrators can add or change records of parents only associated with the school. The participation reports only show information related to the schools.

## **Customized Schoolpool Sites (Skinning)**

Schools have expressed interest in obtaining ridematch software that has the look and feel of their school's Web site. The 511 Schoolpool Service can easily facilitate these requests.

## **Reports**

There are reports that show parent/child participation and trip diary participation.

## **Translation**

Machine Translation is performed by Google Translation.

## **Customizations**

Customizations are defined by MTC's School Outreach contractor.

## **511 RIDESHARE AND BICYCLING WEB SITES**

(hosting and server information noted below)

### **Web Master Info**

The 511 RRP Marketing Manager manages and coordinates 511 Rideshare content as well as some bicycling content. See the Communications SOP for further info.

### **Remote Access**

FTP Account info and Remote Desktop Account info maintained in password database (appendix K, "Password Database File").

### **Web Traffic Analytics**

Web hits and tracking is monitored with a package called Urchin. The Web stats can be accessed at: [REDACTED]. The admin password is maintained in the "Password Database File".

### **HOV, Tolls, & Park and Ride Lot Map Information**

The Rideshare Web site includes an interactive map on the home page showing 2 and 3-person HOV lanes, Park and Ride lots, and Bridge toll information at <http://rideshare.511.org/carpool/carpool-map.aspx> and a static text pages at <http://rideshare.511.org/carpool/carpool-lanes.aspx>, <http://rideshare.511.org/carpool/park-rides.aspx>, and <http://rideshare.511.org/carpool/bridge-tolls.aspx>.

- *Adds/Moves/Changes*

Go to the secure admin page here: [REDACTED]. Account info maintained in the password database "Password Database File". The tools include features to create, edit, or delete the HOV, Park and Ride, or Toll information displayed in the text pages.

- *Data Feed*

The information that populates the map and static page is stored in a MS SQL database. XML Data feeds have been created to populate the interactive map and facilitate information sharing with others who wish to utilize the information. The urls to the XML feeds are:

- HOV: <http://rideshare.511.org/511maps/data/hov.aspx>
- Park and Ride Lot:  
<http://rideshare.511.org/511maps/data/parkandride.aspx>
- Bridge Toll: <http://rideshare.511.org/511maps/data/toll.aspx>

- *Notification of changes to others*

This information is also maintained on the 511 Traffic and Parking maps. 511's Traffic/Transit contractor is monitoring the data feeds mentioned above for changes. Data transition should be coordinated through Sarah Husain at [REDACTED].

### **Vanpool Empty Seats List**

There is a database driven table of vanpools with seats available. The vanpool team maintains the list through an admin tool (see Vanpool SOP for access, account name and password). Database name is "[REDACTED]", table name is "[REDACTED]".

### **Carpool to BART requests**

There is a webform for carpoolers requesting BART Carpool Permit Parking. When a user completes and submits the form, their information is captured to a database and a permit in PDF version is presented to the user. The database info is forwarded to BART on a quarterly basis (see CSD SOP). Database name is "[REDACTED]", table name is "[REDACTED]".

### **Employer Registration**

There is a webform for employers to sign up and request MTC news. The employer information is captured in a database and an email sign-up notification is sent to: [REDACTED]. Database name is "rideshare", table name is "[REDACTED]".

### **Employer Green Business Registration**

There is a webform for employers to sign up indicating they are Green Business certified. The employer information is captured in a database and an email sign-up notification is sent to: [REDACTED]. Database name is "rideshare", table name is "[REDACTED]".

### **Event Request**

There is a webform for employers to request an employer event be held at their premise. The employer information IS NOT captured in to a database but the information is placed into the body of an email sent to the employer services staff. The email is sent to: [REDACTED].

## **511 COMMUTER BENEFITS**

<https://commuterbenefits.511.org> is a custom web application built by Media Beef using open source tools and software. The site allows employers to maintain their program compliance information.

## Employer Registration Process (flow)

See ("[Commuter Benefits Registration Process](#)") document for screenshots and a brief explanation of the process employers go through to register in the 511 Commuter Benefits website.

## Technology

Media Beef designed and created the 511 Commuter benefits website and registration application and a sub contract is maintained with them to provide software and database support. The skill sets necessary to maintain the system include strong JavaScript programming and strong database administration. The source code and final compiled application is owned and copyrighted by MTC.

The tools used to create the JAVA source code are all publicly-available:

- Apache Web Server; <http://www.apache.org/licenses/>
- NGINX Web Server 1.6.2 <http://nginx.org/LICENSE>
- Symfony2 <http://symfony.com/doc/current/contributing/code/license.html>
- iCheck <https://github.com/fronteed/iCheck/>
- jQuery <https://jquery.org/license/>
- jQuery Migrate <https://jquery.org/license/>
- jQuery Form <https://github.com/malsup/form#copyright-and-license>
- jQuery UI <http://jqueryui.com>
- SonataAdmin <http://knpbundles.com/sonata-project/SonataAdminBundle>
- MySQL <http://www.mysql.com>
- CentOS <http://www.centos.org/legal/trademarks/#license-and-attribution>

## Maintenance

Commuter Benefits Emergency Contact List			
Name	Email	Office	Cell
Michael Hemry			

Media Beef's key responsibilities related to Commuter Benefits maintenance are to:

- Create and maintain a dedicated test environment for the 511 Commuter Benefits website. The test site is: <http://mtcdev.mediabeef.com/>
- Provide on-call support for the diagnosis and resolution of functional system errors in the day-to-day operations of the websites, with a response to inquiry time not to exceed two (2) hours.
  - Identify a point of contact person or persons who shall be available after-hours and on weekends.
  - Notify PB and Client of any emergency server maintenance at least twenty (20) minutes in advance.
  - Review current backup systems in place for both the website code and the database, and provide additional system backup support if needed.
- Provide on-call support for text and graphic revisions (at T&M cost), with a response to inquiry time not to exceed one (1) business day. Major program

enhancement costs are estimated by Media Beef and reviewed by PB and the client; once the cost estimate is approved, Media Beef provides a time line for development, testing, and implementation.

- All code or graphic revisions will be first launched to the test environment servers for client approval before deploying to the main (production) web servers.
- Perform all non-emergency maintenance which may affect the accessibility of the website outside of the Client's service hours of 8:00 AM to 6:00 PM Pacific Time, Monday through Friday.
- Deliver source code to Client upon termination or expiration of the Subcontract.
- See section below on Server Hosting for additional aspects of Media Beef's role.

## Operations

The 511 Rideshare Contractor (PB) maintains an instructional process guide for System Administrators detailing various processes ("[Commuter Benefits Process Guide for System Administrators](#)").

### Commuter Benefits Admin Access

An administrative console is accessible at [REDACTED].

There are four administrative access levels to the Commuter Benefits system:

- 1) System Administrators
- 2) Program Administrators
- 3) Region Administrators
- 4) Jurisdiction Transportation Coordinators

The administrative levels are explained below. The "[Commuter Benefits Process Guide for System Administrators](#)" details the process to assign users to the following levels.

- 1) System Administrators can change most information in the database including elevating users to admin access (see "[Commuter Benefits Process Guide for System Administrators](#)"). System Administration access is intended for the IT Staff and system developers. The 511 RRP IT Manager grants access as appropriate.
- 2) Program Administrators are identical to System Admin Access but cannot elevate users to admin access. Program Administrator access is intended for the Commuter Benefits Admin staff, who maintain their own operations manual (see "[CommentSense & Commuter Benefits Administrative Site Manual](#)") related to their function.
- 3) Region Administrators can view the employer and location information of all employers in the database regardless of county location. An "[Administrator](#)

[Console Guide](#)” was developed for region administrators’ reference when viewing the database.

- 4) [Jurisdiction Administrators](#) can view the employer and location information of only the locations that are within their county. An [Administrator Console Guide](#)” was developed for jurisdiction administrators’ reference when viewing the database.

**Reports**

For more details on Reporting, please see the “Reports Section” in the [Commuter Benefits Process Guide for System Administrators.](#) This document provides information on data exporting (to **JSON, CSV, XLS, and XML**), types of reports (ad hoc, summary, special request).

- On the fly (ad hoc) reporting can be also be performed using filters within the admin console. One can display (and export) results based on criteria such as county, is benefits required, who started and/or completed the registration, if they are due for annual review, or what benefit option.
- Also, built into the admin console are a few summary reports showing summary registration statistics (see [Administrator Console Guide](#)” for further information)
- The client requires a custom report in a specific format, to be shared on a regular basis with both the Air District and MTC executive management, to identify program performance to date. The client may also require additional reports, based on specific needs (e.g., requests by executive management, reporting to the Legislature). The best way to do the special reporting is to export the “Employer” and “Location” database tables and perform the filters and charting in Excel or other data manipulation application.

**SERVER HOSTING**

**Facility**

The Rideshare, Bicycling, RideMatch, Schoolpool, and Commuter Benefits websites are located on server instances in a Rackspace Private Cloud (RPC) maintained by Media Beef. The RPC service level agreements (SLAs) are world class with 100% network uptime guarantee, 1-hour hardware replacement, and 24x7x365 access to the RPC support team.

<b>RMS Emergency Contact List</b>			
Name	Email	Office	Cell
Michael Hemry			

## **Maintenance/Monitoring/Reporting**

### *Administrative Tasks*

- Examine performance and system metrics: operating system resources are measured to monitor standard performance attributes to identify potential bottlenecks. Anomalies are reported to the appropriate people for resolution.
- Monitor network connectivity: tools to track overall network connectivity are monitored. Reports are reviewed to identify potential network problems and appropriate actions are taken.
- Weekly operating system patches
- Daily and weekly offsite backups with a 14-day retention policy
- Disaster Recovery: perform full disaster recovery simulations at least once every six months. Backup server images are created daily and saved in a minimum of three physical locations.

### *Reporting tasks*

- Quarterly Network Traffic Load Report that graphically represents the amount of network bandwidth utilization of the enterprise by server and globally compared to current allowances.
- Monthly System Performance Report that graphically represents the CPU and memory resources allocated as compared to baseline level of acceptability.

## **Equipment Description**

The following equipment is managed on the RPC infrastructure

### **Dedicated Hardware Firewall (Load Balancer / Proxy)**

- Cisco ASA 5505 Sec+

### **Server Specs**

The 511 RideMatch and the 511 SchoolPool Service are hosted on (2) servers (one for the web services and one for the database)

- RideMatch1 (Web Application)
  - IP Address
    - Public: XXXXXXXXXX
  - Hardware
    - Linux cloud server
      - Web Server
      - 2 vCPUs and 4GB RAM
  - Software
    - Linux
    - Apache
    - JBoss Middleware
- RideMatch2 (Database)

IP Address

- Public: [REDACTED]

Hardware

- Linux cloud server
  - Web Server
  - 4 vCPUs and 8GB RAM

Software

- Linux
- PopstGres SQL Database w/GIS extensions

The 511 Rideshare and the 511 Bicycling websites are hosted on the same web server:

- RideShare2014

IP Address

- Public: [REDACTED] >> Rideshare
- Public: [REDACTED] >> Bicycling

Hardware

- Windows 2012 cloud server
  - Web Server
  - 4 vCPUs and 6GB RAM

Software

- MS Windows 2012
- MS SQL 2012
- MySQL
- IIS
- .Net Framework
- PHP
- Perl
- FastCGI
- Urchin 6 (Tracking)

The Commuter Benefits site is hosted on (2) servers (one for the web services and one for the database):

- Comben1 (Web Application)

IP Address

- Public: [REDACTED]

Hardware

- Linux cloud server
  - Web Server
  - 8 vCPUs and 8GB RAM

Software

- Linux
- Apache

○ Comben2 (Database)

IP Address

- Public: None

Hardware

- Linux cloud server
  - Web Server
  - 4 vCPUs and 2GB RAM

Software

- Linux
- MySQL

## DOMAIN NAME REGISTRATION

www.Rideshare.511.org >> [REDACTED]

www.Bicycling.511.org >> [REDACTED]

www.ridematch.511.org >> [REDACTED]

www.schoolpool.511.org >> [REDACTED]

commuterbenefits.511.org >> [REDACTED]

\* 511.org domain is managed by the 511 Traffic Contractor's System Admin.

## SECURE SOCKET LAYER (SSL) CERTIFICATE

The program maintains SSL certificate with 128bit encryption on the 511 Rideshare, 511 RideMatch, 511 SchoolPool, and the Commuter Benefits web sites. The SSL creates an encrypted link between a web server and a web browser (applicant). The link ensures that all data passed between the web server and browser remains **private and secure** and is **recognized by millions of consumers** by a secure padlock which appears in their browser

Common name: WWW.RIDEMATCH.511.ORG

Certificate provider: VerSign<sup>1</sup>

Organization: PB Americas, Inc

Organizational unit: RIDESHARE

Expires 5/25 every third year starting in year 2008

Common name: WWW.SCHOOLPOOL.511.ORG

Certificate provider: VerSign<sup>1</sup>

Organization: PB Americas, Inc

Organizational unit: RIDESHARE

Expires 6/20 every second year starting in year 2010

Common name: WWW.RIDESHARE.511.ORG

Certificate provider: VerSign<sup>1</sup>

Organization: PB Americas, Inc

Organizational unit: RIDESHARE

Expires 8/22 every third year starting in year 2008

Common name: COMMUTERBENEFITS.511.ORG

Certificate provider: RapidSSL<sup>2</sup>

Organization: PB Americas, Inc

Organizational unit: RIDESHARE

Expires 3/24 every third year starting in year 2014

<sup>1</sup>VerSign, Inc. <http://www.verisign.com>

Account username: [REDACTED]

Password: (see IT password database)  
²RapidSSL. <https://www.rapidssl.com>  
Managed by Media Beef)

## ON-LINE SURVEYS

Employer Transportation Surveys are requested through 511 RRP Employer Services Reps. There are 6 survey types/templates; Standard, Expanded Schedule, Relocation, Shuttle, EcoPass, Registration (see Evaluation SOP for more information on survey types and reporting).

### Creating a New Employee Transportation Survey

The survey files are kept in the “R:\information technology\on-line Survey/templates” folder.

- **Create new folder containing the production files.**

1. Right-click on the desired template folder and select copy.
2. Right-click in the work area and select paste.

A new folder was created. This folder contains the files you will modify for the production site.

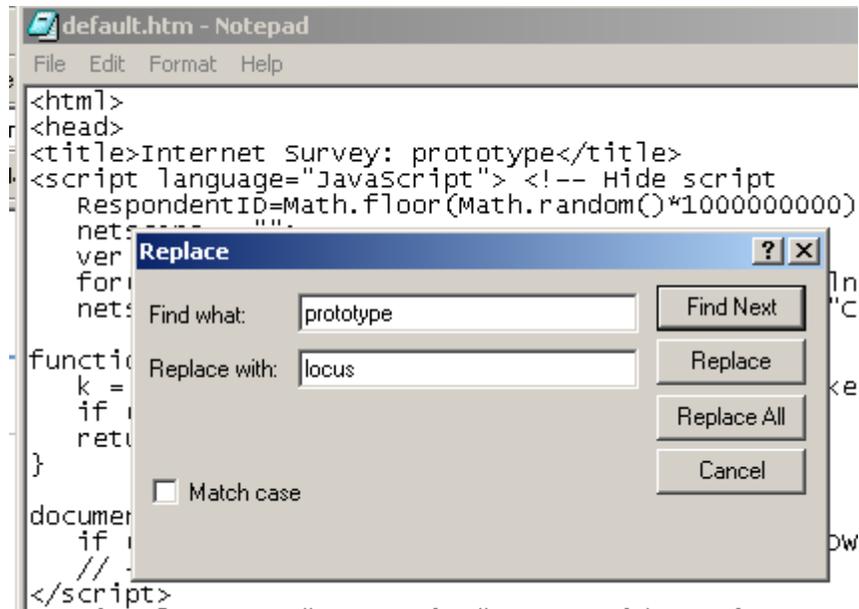
3. Rename the folder to the name of the survey company. For example, if the company were called “Locus”, name the folder “locus”.



Name ▲	Size	Type
locus		File Folder
prototype		File Folder

- **Modify/personalize the survey form to the company name**

4. Open the folder just created, in this case locus.
5. Right click on the file “default.htm” and select “open with” and use Notepad.
6. In Notepad, click Edit-Replace (or use CTRL+H) to display a search and replace box.
7. In the Find what: area type “prototype”
8. In the Replace with: area type the name of the company, e.g. “Locus”



9. Click “Find Next” to find the first instance and select “Replace” to modify the text. The cursor will automatically jump to the next matching text, select “Replace” to modify that text. There will be three total replacements.
10. When finished, close the “replace dialog box” and close Notepad saving the changes.
11. Do the same thing for the file “survey.pl”. There will be one place where the word “prototype” needs to be replaced.

### Posting the survey to the web server

Surveys are posted to the web servers “Survey” folder using an ftp client. The host, username, and password are available in the IT Password Database (appendix K, “Password Database File”).

*That’s it; the survey is now live.*

### Survey URL Address

The url survey participants will enter into their browser is:

[http://rideshare.511.org/survey/\[company\]](http://rideshare.511.org/survey/[company]).

In this example it would be <http://rideshare.511.org/survey/locus> .

### Reading Survey Data

Once the survey is completed, survey participant’s data is posted

The Evaluation Manager, who analyses the data, will retrieve the data in one of two ways.

[REDACTED]

[REDACTED]

**RIDESHARE EMAIL AND DISTRIBUTION LISTS**

The project team has email addresses that end in rideshare.511.org (e.g., eastlund@rideshare.511.org) and these re-direct to the team’s company email addresses. These email addresses and distribution lists are managed by the 511 Traffic Contractor. Any rideshare.511.org email change requests go to: Giedrius Praspaliauskas ([REDACTED]) and Richard Tom ([REDACTED]).

**Staff Alias/Forwards**

After PB email is acquired, request 511 Traffic Contractor to create a [pbid]@rideshare.511.org alias forwarding to the PB email name.

**Group Distribution Lists**

The following distribution groups are maintained. See [REDACTED] for members of each group.

[REDACTED]



**PHONE SYSTEM**

**Phone Manufacturer**

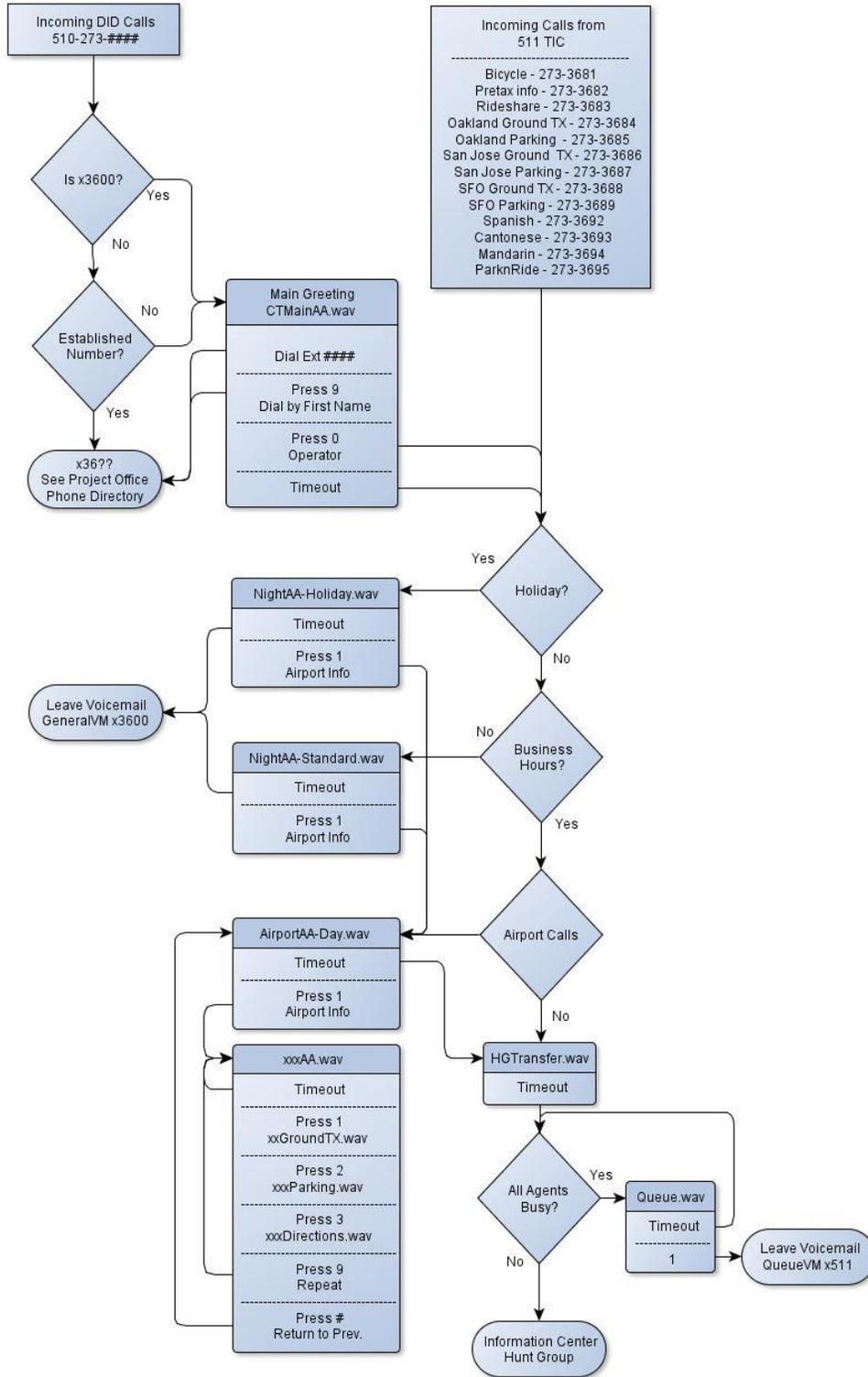
Avaya IP Office 406 Base unit, IP 400 Expansion Module, 5410 Digital handsets, Voice Mail Pro Server, Customer Call Reporter (CCR) Server for Reporting and Wallboards.

**Phone System Support Numbers**

<b>Device</b>	<b>Provider</b>	<b>Hours/Support_Type</b>	<b>Phone</b>	<b>Account</b>
Phone (Avaya) Hardware and Programming	AdvanTel Networks	8x5	[REDACTED]	[REDACTED]
511 Call Transfers	511 (TIC)	Call Giedrius Praspaliauskas	[REDACTED]	

# Customer Service Call Flow

Note: This reflects all incoming calls to 511 Rideshare office.



## Phone Reporting

- **Automated Crystal Reports**

A series of reports are provided to the Customer Service Department via a program called Navarre Report Manager V6 running as a service on server [REDACTED].

- **Avaya Customer Call Reporter (CCR) Reports**

The CCR application is installed on the Avaya Server. Reporting access is via web browser at [REDACTED]. *CCR Administration account and password is maintained in the IT password database.* The 511 Contact Center Manager has a separate login access to create needed reports..

- **TIC Stats Web Reports**

We access TIC reports detailing 511 Calls transferred from 511 to the RRP system from here: [REDACTED]

*Account and password info available in IT password database (“Password Database File”).*

Each month the IT Manager downloads the two reports for entry in to the monthly progress report.

## Circuit/Account Numbers

Circuit	Provider	Support Number	Account
Data 10x10 EOC	Birch/cBeyond	866-424-5100	[REDACTED]
PRI Circuit	AireSpring/Paetec	888-288-5010	[REDACTED]
Analog Lines (Fax)	AT&T	800-332-1321	[REDACTED]
U-Verse Internet	AT&T	888-288-8839	[REDACTED]

## Power Outage

When a power outage happens, there is an Uninterruptible Power Supply – Battery Backup (UPS) that keeps the entire phone system (PBX), and the Avaya Server (Voicemail and CCR) alive for a short period. The UPS will automatically shut the systems down in about 30 minutes. The IT Manager may monitor the process as it happens or as it is scheduled. When power is restored, the phone system (PBX) will automatically restart however the Avaya Server may have to be manually powered-up.

### **Sending hunt group call to voice mail during Holiday**

This process is performed by the Commuter Services Department (CSD). See the CSD SOP for detailed steps.

### **Change Call Answer Hours during Emergency**

This process is performed by the Commuter Services Department (CSD). See the CSD SOP for detailed steps.

### **Threatening Calls Accessing Phone Reports for Call Detail**

*In the event of a threatening call, a phone report will be needed to verify the time, origin (if Called ID is available), and destination of the call. And a copy of the VM wav file if the caller left a message.*

### **Phone Report**

The phone report to run is a crystal report located at:

R:\Information\_Technology\Telephone\!Call Details for Threatening calls

### **Voice Mail Wav Files**

If the call is on the voice mail system, you can copy and retain the file. The call will either be in the **511 Queue** VM box or the **3600 Main** VM box.

1. At the computer go to **Start – Run** and type the following into the box:  
[REDACTED]
2. A login box will appear and you need to login in as  
“[REDACTED]”, password maintained “Password Database File”.
3. A file browser will open; browse to the location of the wav file and compare the file date of the wav file to the time on the call report to ensure you copy the correct one.
  - If the message is in the **511 VM Queue** go to [REDACTED]  
[REDACTED] and copy the wav file to your computer.
  - If the message is in the **Main (3600)** go to [REDACTED]  
[REDACTED] and copy the wav file to your computer.

### **Phone System Backup**

Backups of the Avaya phone system programming are by automated copy of program files to shared folder on server \\rrbp-db1\phone\_system\_backups.

## PROJECT OFFICE NETWORK

### WAN Conectivity

Main: 10x10 EOC; Provider = Birch; account [REDACTED]

Backup: DSL; Provider = AT&T; account [REDACTED]

Cisco Firewall Access: *IP Address, Account and password listed in IT password database ("Password Database File")*.

### Virtual Private network (VPN) Access

RRP staff can access the RRP servers through VPN access. VPN is provided through a Cisco ASA firewall with a VPN client installed on the remote machine. The IT manager will approve, install, and configure the remote client. Client Login credential via [REDACTED]

### Network Diagram

Private document maintained by IT Manager ("Network Diagram")

### Office Cabling

Each location shown in the diagram below has (2) Cat5e Data, A&B, and (2) Voice, A&B, terminating to a rack-mount patch panels. See diagram maintained by IT Manager ("Office Cabling Plan")

## INTERNAL PROJECT SERVERS

- System Requirements

- Dell PE R710
- Dual 2.4Ghz Xeon
- 8Gb RAM
- (3) 1TB hot-swap Drives in Raid 5 config
- Windows Server 2008r2
- Active Directory Peer
- DNS Forwarder
- DHCP Pool 192.168.10.100-199/24
- File and Print Server

- Dell PE R710
- Dual 2.66Ghz Xeon
- 16Gb RAM
- (3) 250Gb hot-swap Drives in Raid 5 config
- Windows Server 2008r2
- Active Directory Peer
- DNS Forwarder
- DHCP Pool 192.168.10.200-249/24
- Database Server

- MS Sql
- Postgrez
- FileMaker Pro
- SMTP

### **Backup Procedures**

The 511 RRP maintains daily, weekly, and quarterly backups on its two production servers located in the network room. Currently the backup software in use is Symantec Backup Exec 2010 R3, Version 13.0 rev 3.46.06a and the backup hardware is (1) Dell PowerVault 124T LTO4 Drive Autoloader with 8 tape slots. The software and hardware is installed on and controlled by the server “RRBP-FS1”. A remote agent is installed on the other production server “RRBP-DB1” which is backed-up remotely. Daily, weekly, and month-end backups performed are full backups. Full backups have the advantage that regardless of whether the entire system needs to be restored or only a few files, all of the most current information is located on one tape. The disadvantages of full backups are that many tapes contain redundant information if files do not change frequently (however, the low cost of tape back-up media minimizes this disadvantage) and they are time-consuming (thus the scheduling of these backups for late at night when the servers are not likely to be heavily used). A file’s archive bit is changed by the backup software to indicate that the file has been backed up.

### **Rotation Scheme – Grandfather-Father-Son Method**

One of the most commonly used tape rotation schemes is called Grandfather-Father-Son. This scheme uses three media sets, daily, Friday, and monthly. The first media set “Daily”, represents the “Son” in this scheme. The backup job titled “Daily backup” runs “Monday” through “Thursday” at 11:00 PM and performs a full backup. The tapes will be reused (overwritten) the following week. A second media set “Friday”, represents the “Father” in this scheme. The backup job titled “Friday backup” runs each Friday at 11:00 PM and performs a full backup. The tapes will be reused the following month. Note, on each Monday, the previous Fridays tape will be removed and stored off-site. The final media set “Monthly”, represents the “Grandfather” in this scheme. The backup job titled “Monthly backup” runs on the last day of the month at 11:00 PM and perform a full backup. The tapes are removed and stored (archived) for three months. The tapes will be reused quarterly. On the first day of the month the monthly backup tape is removed and stored on a shelf in the server room. This rotation scheme will back up data on a daily, weekly, and monthly (quarterly) basis. In some instances, upon the direction of the operations manager, a monthly tape may be pulled from the archived data and stored for permanent record retention.

The tape library has a cleaner tape in Slot 8 and cleans the drive automatically a minimum of once a month. The tape library has indicator lights that activate if more cleaning is needed. Cleaner tape is replaced every few months, as needed.

**NOTE:** Normally, backups are scheduled to run automatically. No manual interaction with the software is required for the three backup jobs. However, to export the Friday and Monthly backup tapes for storage or archival will require minimal software and hardware interaction as described below.

**Off-site backup tape storage**

One of the foundations of disaster recovery is provision for offsite storage of computer media containing backups of the 511 RRP data. By storing copies of important data at an offsite location, the 511 RRP minimizes the fallout from unforeseen events at the 511 RRP office. On Monday, the previous Friday’s backup tape shall be removed from the tape drive, using the process below, and stored off-site. Currently the IT Manager maintains the tapes at his/her residence.

**Archival of Tape for Permanent Retention**

Two tapes per year will be removed for permanent archive purposes. The two key dates are January 1<sup>st</sup> (new calendar year) and July 1<sup>st</sup> (new fiscal year). The Friday tape immediately following the key date will be permanently archived to shelf in the IT room.

**Removing tape from the drive**

Step	Action
1	Log into RRBP-FS1 server and run Backup Exec software <ul style="list-style-type: none"> <li>▪ Login Username: [REDACTED]</li> <li>▪ Password: [REDACTED]</li> </ul>
2	On the desktop launch <b>Backup Exec2010</b>
3	Select the <b>Devices</b> button from the top row
4	In the device tree, under [REDACTED] select <b>Slots</b> (you may have to expand (+) the selection to see this)
5	Find the media dated with Fridays date and note the Slot Number
6	<b>Right-click</b> Fridays media and select <b>Export</b> , click <b>Run Now</b> in the box that pops-up and select <b>OK</b> in the next box that pops-up
7	In the device tree, under [REDACTED] <b>right-click – Dell 0001</b> and select <b>Unlock</b> , click <b>Run Now</b> in the box that pops-up
7	On backup drive, select <b>Commands</b> and hit <b>Enter</b>
9	Select <b>Eject</b> and hit <b>Enter</b>
10	Select <b>Tape-&gt;Mailslot</b> and hit <b>Enter</b> .
11	Select <b>By Location</b> and hit <b>Enter</b>
12	Scroll to the correct slot and hit <b>Enter</b> , the tape will eject
13	Label tape with Fridays date, in pencil, and take off-site
14	Insert tape returned from previous week’s procedure. The tape will load into the open slot automatically

15	Back at the software, you will notice the slot is labeled <b>&lt;Unknown Media&gt;</b> . <b>Right-click</b> and select <b>Inventory</b> , click <b>Run Now</b> in the box that pops-up.
16	Exit Software and log-off server.

## LOCAL COMPUTERS

- **Applications**

Staff computers are loaded from a PB standard image. Additional software added to some computers is Crystal Reports v10 and Filemaker Pro V11, Adobe Creative Suite, Adobe Acrobat 9 Pro, Arc GIS 9.

- **Restore Procedures**

Using the “Active BootDisk” thumb drive application local computers can be restored from standard PB image files located on a stored external hard drive. The external hard drive and thumb drive application is maintained in the IT Manager’s office.

## IT PASSWORD DATABASE

All passwords are stored in [REDACTED]

[REDACTED] The password to open the file is known by the IT Manager (Jon Eastlund), IT Assistant (Gina Arias) and the Operations Manager (Lauren Isaac).

## POSTAGE METER INSTRUCTIONS

### Adding Postage

See Operations SOP for latest instructions

### Ordering Supplies

Ink and Tape supplies can be ordered through Pitney Bowes [www.pb.com](http://www.pb.com) and search for supplies by model number DM100i

## APPENDIX A – LIST OF SEPARATELY MAINTAINED REFERENCE DOCUMENTS

For security reasons and frequency of updates the following documents are referred to in this SOP but maintained separately as follows.

Document	File Name/Location
RMS Maintenance Agreement	R:\Information_Technology\RMS\Maintenance Contract\Media Beef Inc Subcontract.pdf
RMS Process Guide for System Administrator	R:\Information_Technology\RMS\Process Guides\Sysadmin.pdf
RMS Database Access MOU (MTC – Partner Agency)	
MOU for Customization and Administrative Access (MTC – Employer MOU)	R:\Information_Technology\RMS\Skinning_Documents\MOU for Customization and Admin Access.doc
RMS Reports	R:\information_technology\Procedures\SOP\SOP_Appendices\RMS_Reports.pdf
RMS Enhancements FY2014-2015	R:\Information_Technology\RMS\Enhancements\511 RMS Phase 2\FY14-15_IP_Version.xlsx
RMS Enhancements FY2015-2016	R:\Information_Technology\RMS\Enhancements\2015-2016 Enhancements\ 511 RMS Enhancements - 2015-2016.pdf
Email Group Distribution List	R:\Information_Technology\Email\511RRBP Email Forwards - Current.xls
Customized RMS Website Guidelines	R:\Information_Technology\RMS\Skinning_Documents\Custom 511 RMS Guidelines.pdf
Customized RMS Website Listing	See most current monthly Progress Report
RMS Event Matching MOU	R:\information_technology\Procedures\SOP\SOP_Appendices\511_EventMatchingGuidelines.pdf
Password Database File	
Network Diagram	R:\Information_Technology\Diagrams\RRBPOakland_Network.docx
Office Cabling Diagram	R:\Information_Technology\Diagrams\RRP_Data_Cable_Plan.jpg
Commuter Benefits Registration	R:\Information_Technology\SB1339\Admin-SOP\Commuter Benefits Registration Process.pdf
Commuter Benefits Process Guide for System Administrators	R:\Information_Technology\SB1339\Admin-SOP\Commuter Benefits Process Guide for System Administrators.pdf
Commuter Benefits Administrator Console Guide	R:\Information_Technology\SB1339\Admin-SOP\Commuter Benefits Admin Console Guide.pdf

*This document is kept in folder R:\Information\_Technology\Procedures\SOP*