December 4, 2020

From: Bernie Adams, Systems Integration Specialist

To: Chris Patrick, Precision Time Systems

Subject: Estimate for Hoboken Additions for GOVONLINE Permits Processing

This document will detail the theory of operation/statement of work for the requested additions to the Hoboken NJ GOVONLINE/CIPS to TIBA SmartPark interface. Additions relate to specific GOVONLINE/CIPS permit types and the handling of vacation parking.

The desire is to automate the process where-by additions or changes to GOVONELINE for specific permit type will result in the addition or update of access data in the TIBA SmartPark parking system. The additions/updates will allow the usage of the vehicles associated with the assigned license plates in the various Hoboken parking facilities.

It is understood that the processes detailed below are new requests. The estimate found at the end of this document covers: programming; testing; creation of install package; installation and operation documents; remote support for installation and setup of the applications by PTS; training; warranty and adjustments for 45 days after initial installation at Hoboken. Any time expended after the 45 days warranty period will be billed as time and materials.

To the best of our ability, we will utilize coding from the defunct Snow Event project to offset some of the costs of developing the new features. For completeness, we have included a brief description of the previously completed project for sending the license plate access transactions from Smart Park to CIPS. Only minor adjustments will be required to incorporate this into the new project. The estimated cost reflects this and the other operations and implied programs described below.

**OVERVIEW OF OPERATIONS**

GOVONLINE is the system utilized by HOBOKEN Parking Authority for issuing and updating of various parking permits for businesses and residents. The underlying API system to GOVONLINE is the Caryl Technologies CIPS. Each permit is assigned a parking permit type. The current parking permit types in use by GOVONLINE are:

• Business Daily Debit

• Business Monthly 24/7

• Business Monthly HUMC

• Business Monthly Limited

• Business Parking Permit (On Street)

• Resident Monthly 24/7

• Resident Monthly Limited

• Resident Monthly Reserved

• Resident On-Street Driveway

• Resident On-Street Standard

• Resident On-Street Temporary

• Resident Parking Permit (On Street)

• Resident Senior

• Resident Vacation Spot

• Restricted on-street business permit

• Standard on-street business permits

• Visitor On-Street

• VTPB8

• VTPR24

• VTPR4

• VTPR8

Not all Permit types sold or assigned under GOVONLINE are allowed to utilize the various Hoboken parking facilities. This quote only concerns several of the GOVONLINE permit types related to resident usage.

The permit types of interest are:
• Resident On-Street Driveway

• Resident On-Street Standard

• Resident On-Street Temporary

• Resident Parking Permit (On Street)

• Resident Senior

• Resident Vacation Spot

The permit type “Resident Vacation Spot” will be handled differently from the other permit types. A separate section will describe the processing for those permits. For the license plates related to all the other GOVONLINE permit types listed above, they are allowed to park in the Hoboken parking facilities from 6PM to 8AM for a special rate of $5. If they do park outside those hours, regular parking rates are applied. A specific access profile will be assigned to these permits when added to the SmartPark system.

For proper operations within the TIBA SmartPark system for access via a vehicle license plate, any individual license plate should be unique. If a license plate is duplicated, when that license plate is recognized at an entry or exit lane, it is unpredictable as which monthly record will be utilized to verify the license plate is allowed access/egress.

The GOVONLINE/CIPS to TIBA AMC interface will be scheduled via the windows scheduler. The frequency to run the process will be determined by the Hoboken Parking Authority (I.E. once every 2 minutes). When the process runs, it will request from CIPS (API command “GetCurrent PermitListByDate”) all permits that have changed since the last time we requested permits.

CIPS will send back to the AMC interface all permits with a change date greater than a specified date and time. The permit list returned will be filtered to only process the permits that are one of the 6 permit types listed above.

A sample of the data of interest returned by GOVONLINE is shown below:

 <PermitData>

 <PermitNumber>C2020-383891</PermitNumber>

 <PermitType>Resident On-Street Standard</PermitType>

 <PlateNumber>WDW53N</PlateNumber>

 <PlateState>NJ</PlateState>

 <PermitStatus>AT</PermitStatus>

 <DecalNumber>23918</DecalNumber>

 <PurchaseDate>2020-10-22T13:36:37.8090889-04:00</PurchaseDate>

 <ValidFrom>2020-04-13T00:00:00</ValidFrom>

 <ValidTo>2021-04-13T00:00:00</ValidTo>

 <VehicleID>0</VehicleID>

 <PermitOwnerID>200484</PermitOwnerID>

 <LastUpdated>2020-04-13T12:42:18.06</LastUpdated>

 <LastUpdatedBy>917-923-2115</LastUpdatedBy>

 <PermitID>11526027</PermitID>

 </PermitData>

 <PermitData>

 <PermitNumber>C2020-404983</PermitNumber>

 <PermitType>Resident Vacation Spot</PermitType>

 <PlateNumber>K48MWH</PlateNumber>

 <PlateState>NJ</PlateState>

 <PermitStatus>AT</PermitStatus>

 <DecalCount>0</DecalCount>

 <DecalNumber />

 <PurchaseDate>2020-10-22T13:32:58.6337074-04:00</PurchaseDate>

 <ValidFrom>2020-10-30T00:00:00</ValidFrom>

 <ValidTo>2020-11-08T00:00:00</ValidTo>

 <VehicleID>0</VehicleID>

 <PermitOwnerID>202969</PermitOwnerID>

 <LastUpdated>2020-10-19T11:37:53.307</LastUpdated>

 <LastUpdatedBy>908-310-4514</LastUpdatedBy>

 </PermitData>

**SETUP ITEMS FOR PROCESSING**

To support the processes described below, there are several setup items that will be required to be defined before first use. The setup items are based on the expectation that the various process programs will be installed on the actual TIBA SmartPark server. This greatly simplifies operations and setup.

The setup items that will need to be specified from the TIBA Smart Park system are as follows:

* + - TIBA Smart Connect Vendor Information for API access: Facility number; vendor id; user name; password; terminal id; version number
		- Company ID to be assigned to all new monthlies created from GOVONLINE permits
		- Access Profile ID for the Resident On Street/Senior monthly records
		- Access Profile ID to be used for the Resident Vacation Spot time period
		- SQL Server instance name (I.E. .\TIBASQL)

Processing values to be tracked by the interface(s)

* + - Last sequential number used for the badge for new monthlies
		- Last date and time changed permits requested

**PROCESSING GOVONLINE PERMIT TYPES (non “Resident Vacation Spot”)**

All permits of interest other than pemit type “Resident Vacation Spot” are handled identically. As each permit returned by GOVONLINE is processed the following actions will occur:

Value in the field <PlateNumber> is extracted from the permit record. I.E. WDW53N

Process looks in SmartPark to see if the plate is assigned any plate record on an existing monthly record.

If the plate is **NOT** found in any of the plate fields:

NEW monthly record is added to SmartPark via the Smart Connect API command

Company id is set to a default value defined in the settings of the interface

Access Profile Number is set to the default value specified in the settings of the interface

Name fields are set to default values

Badge value is set to a unique 8 digit sequential number maintained by the interface

IDNum value is set to the value from the <PermitOwnerID> field

Monthly ID (accounting #) is set to the license plate from the <PlateNumber> field

Valid From is set to the value from the <ValidFrom> permit field

Valid To is set to the value from the <ValidTo> permit field

Plate ID, Plate State are added to the monthly record from <PlateNumber>/<PlateState> permit fields

Mtype is set to ‘2’ for Standard

Pass Back Flag will be set to the default value specified in the settings of the interface

Wallet Balance is set to zero

If the plate is FOUND:

Check if matching plate is assigned to a monthly added by the interface

Badge number in sequential range (sanity check)

Monthly ID (accounting #) matched the license plate from the <PlateNumber> permit field

If the check fails, then the permit from GOVONLINE is ignored

If checks are successful denoting a monthly originally added by the interface

Maintain all existing values currently on the monthly

– only need to update –

Access Profile Number is set to the default value specified in the settings of the interface

Valid To value to the value from the <ValidTo> permit field

Mtype is set to ‘2’ for Standard

**PROCESSING GOVONLINE PERMIT TYPE “Resident Vacation Spot”**

Permit type “Resident Vacation Spot” is utilized by the residents to notify the Hoboken Parking Authority of the time period when the resident will be on vacations and that their vehicle will reside in one of the parking facilities for the duration. During this designated period, the resident will be assessed $5 per day for parking. Each resident has a limited number of Resident Vacation Spot permits they can use each year. The license plate designated on this permit must coincide to one of the existing Resident permit types. Enforcement of the rules surrounding the number of and usage of this permit type is the responsibility of GOVONLINE.

The AMC GOVONLINE to SmartPark interface will keep track of any of the active Resident Vacation Spot permit types. When the interface is processing the permits returned from GOVONLINE and it finds a “Resident Vacation Spot” permit, processing will be as follows:

Using the value in the <PlateNum> field, determine if there is a SmartPark Monthly record with a monthly ID (accounting #) equal to the value from the <PlateNum> field. If a match is found, the “Resident Vacation Spot” values are stored in a separate table for analysis later. The field values from the permit record are recorded in the separate vacation table will be: <PlateOwnerID>, <PlateNumber>, <PlateState>, <ValidFrom>, <ValidTo>.

Since a given Resident can have multiple vacation requests permits, any given plate number can have multiple records in the vacation table.

**PERODIC PROCESSING**

The processing program will be scheduled to run periodically. Suggestion is to schedule it to run every two minutes. The process performs the following tasks:

1. Query CIPS to retrieve the permit types of interest (defined in the Overview of Operations) that have changed since the last query. Each permit type is processed per the steps defined above.
2. Extract all of the license plate access transactions from SmartPark that occurred since the last time the extract was performed. Send the individual transaction information to CIPS using the API **AddParkingStatus2** command. NOTE: IMAGE OF THE LICENSE PLATE IS UNAVAILABLE AND THUS WILL NOT BE INCLUDED WITH THE TRANSACTION.
3. Process the data in the Resident Vacation Spot table

Query all rows and order by license plate/valid from date

Skip row if the Valid From/Valid To dates are “in the future” (I.E. greater than current date)

Using the Plate Number value, find the matching monthly record in SmartPark

If the plate is not found in the SmartPark system, Delete record

If plate found, updates are performed as follows:

If “Valid To” date is less than current computer date

Set the Access Profile Number to the default access profile

Delete the record from the Resident Vacation Spot table

If current date is between the “Valid From” and “Valid To” dates

Set the Access Profile Number to the vacation spot access profile

Maintain all other values within the monthly record

**ASSUMPTIONS**



Precision Time Systems will be responsible for training Hoboken in the manual implementation of changes to access profiles to support any event such as snow emergencies. This would include changing the access profiles used for the regular Resident On-street/Senior monthlies and for the Resident Vacation Spot monthlies. Client will also be trained by PTS how to change the affected access profiles back to their default settings.

Additionally, Precision Time will be responsible for setup and testing of the required Access Profiles needed to support the above integration items (I.E. Access profiles for Resident On-Street/Senior and the Vacation Spot).

NOTE: IMAGE OF THE LICENSE PLATE IS UNAVAILABLE THUS CANNOT BE SENT TO CIPS.

The estimate includes: Incorporation of previously programmed items; new programming detailed above; testing of items internally and with Precision; creation of install package; create installation and operation documents; remote support for PTS on the installation, setup and live testing of the application; training; warranty and adjustments for 45 days after initial installation at Hoboken.

Any time and expenses expended after the 45 days warranty period, including but not limited to programming adjustments, analysis, troubleshooting, etc., will be billed as time and materials. This includes being asked to perform duties that normally would be performed by PTS. Proper documentation will be maintained on the additional charges and where possible, an estimate will be provided to be approved before any additional duties are performed.

Estimated cost: $4,250.00

Time Frame: 10 working days from receipt of signed approval with PO number

**ESTIMATE IS GOOD FOR 30 DAYS FROM THE DATE OF THIS DOCUMENT**

Accepted By – Precision Time Systems, LLC

Name/Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Dated: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PO Number: