

# School Zone time clocks System - Upgrade

**PALM BEACH COUNTY**

**Fattoush Jafar, PE, PhD**



# What is school zone?



# What is school zone time clocks system?

A system to remotely change the times in the school zone flasher controllers to adjust to updated School Bell Times.

As of 2017 we had 88 school zones throughout PBC with total of 184 flashers



# Old System:

- Beeper (pager) communication system – Naztec Chronomax Time Switch - added into the control cabinets
- Antiquated and nightmare to maintain.
- PBC one of very few agencies using this system



# Old System:

- One-way communicates. Field verifications and public feedback was the method of check.
- PBC Traffic Operations needed 240 manhours (1 person crew for 6 weeks) to verify time has been implemented in each location.
- Schedules provided by school district only 1 week or 2 weeks in advance. This mean, we had to have more than on crew dedicated to implement the times. Sometimes times implemented without field verification.



# Mike after programing all 88 school clocks



# What kind of system do you want?

- Remotely change schedule
- Remote monitoring - Display real time status of controller
- Flexibility to program more than one schedule (to include holidays or after school events)
- Issue real time alerts via Text Messages and emails to County Staff immediately when an issue arises
- Ability to override system timing

# Research

Found 2 systems meeting our requirements:

- Temple Inc. - Applied Information Glance 500-070 School Zone Controller
- RTC – M2M Cellular Communications Modem



- Had representatives come in present their products.
- Reviewed both systems.

## - Temple Inc. – ai 500-070



Turning data into information...

www.appinfoinc.com

### AI-500-070 School Beacon Timer Switch and Cellular Modem

#### Overview

The AI-500-070 series provides a cost-effective, easy to integrate means of adding monitoring and control to School Beacons Flashers. It is designed for extreme temperature applications and has low power requirements, making it suitable for solar powered applications. The simple Integrated School Beacon Timer Switch and Cellular Modem can be retrofitted into existing School Beacon cabinets to upgrade the school beacons to the latest technology.

The unit provides an easy way to monitor the school beacons status and health such as AC power, battery backup, monitor beacon current, cabinet door open, local override control and temperature.

The unit works in conjunction with the Glance Platform, providing an cloud-based School Beacon solution. Simply connect the unit to your school beacons to add monitoring and control to your equipment. The unit allows you to remotely configure schedules for the school beacons from the Glance cloud based software.

#### Features

- ✓ Low cost Internet connectivity solution
- ✓ Small form factor
- ✓ Low power consumption
- ✓ Compatible with Glance platform
- ✓ GPS enabled for self-locating
- ✓ Monitor beacon lamps current to determine when a beacon has failed
- ✓ Remotely change schedule to multiple devices
- ✓ Ability to control secondary school beacons upstream
- ✓ Email & text messages when faults are detected
- ✓ Integral battery back-up for power fail reporting
- ✓ Local manual override switch



## M2M CELLULAR COMMUNICATIONS MODEM

Communicates With School Zone Flashers Using Cellular Technology

*The RTC M2M is a compact communications modem that allows the user to connect an RTC Time Switch to a central computer using RTC Connect software.*

*The M2M provides full, two-way communications from a central computer to any Model AP22 or CPR2102 Time Switch.*

*This eliminates the cost and maintenance of additional infrastructure.*



*Helping Kids Get To School Since 1987*



**RTC – M2M**

# Bottom line – How much can we get for our money?

## Requested proposals

184 clocks, 82 cabinets, cell service for 5 years

- RTC = > \$417,420.00 (Cabinets will cost extra)
- Temple = > \$337,900.00 (including cabinets)

# Current Status

- Got 10 year service
- More than 90% installed
- Utilizing Surtax funds to purchase units for school zones coming up

# System screen shot

glance Sheldon Parford - Palm Beach Co FL powered by Applied Information

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Name	Status	A	
Palm Beach Co FL - 03070 Limestone Creek ES			
3070 Church St ES	Online	0	
3070 Church St WB	Comms Fail	0	
Palm Beach Co FL - 14239 Jupiter Farms ES			
4239 Alexander Run NE	Online	0	
4239 Alexander Run SW	Online	0	
Palm Beach Co FL - 14238 Jupiter Farms ES			
4238 Molen Ln NB	Comms Fail	0	
4238 Molen Ln SB	Comms Fail	0	
Palm Beach Co FL - 14239 Jupiter Farms ES			
4239 Haynie Ln NB	Comms Fail	0	
4239 Haynie Ln SB	Comms Fail	0	
Palm Beach Co FL - 14701 Jupiter FS			
4701 Loulatches Dr NS	Online	0	
4701 Loulatches Dr SB	Online	0	
Palm Beach Co FL - 15500 Lighthouse ES			
1500 Central Blvd Median NB	Online	0	
1500 Central Blvd Median SB	Online	0	
1500 Central Blvd Shoulder N	Online	0	
1500 Central Blvd Shoulder S	Online	0	
Palm Beach Co FL - 17110 Beacon Cove ES			
7110 Central Blvd Median NB	Online	0	
7110 Central Blvd Median SB	Online	0	
7110 Central Blvd Shoulder N	Online	0	
7110 Central Blvd Shoulder S	Online	0	
Palm Beach Co FL - 12530 Dwight D Eisenhower ES			
Alarms	Critical	High	Low
1	1	0	0

Map: Satellite

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3870 Church St SB

Name: Palm Beach Co FL - 3870 Limestone Creek ES Status: Online

Current Status: Online  
Control Alarm: Online  
Control Schedule: Standard Schedule  
Power Status: OK  
Control Error Status: OK  
Temperature: 6 Hours  
Time Since Last Contact: 20 Minutes 10 Seconds 11/30/2018 1:40:02 PM

	Now	Min	Max	Avg
AC Voltage (V)	115.2	114.2	119.7	117.4
Monitor Battery (V)	14.1	14.1	14.1	14.1

Status

Cabinet Door: Closed  
Beacon Status: Control Schedule - ON  
Lamp Status: OK

Inputs

Status

Beacon Control: On  
On  
Schedule

Next Scheduled Event...

Time	Schedule
3:05 PM Friday, November 30, 2018	Beacon OFF
6:50 AM Monday, December 3, 2018	Beacon ON
8:30 AM Monday, December 3, 2018	Beacon OFF
1:45 PM Monday, December 3, 2018	Beacon ON
3:05 PM Monday, December 3, 2018	Beacon OFF
6:55 AM Tuesday, December 4, 2018	Beacon ON
8:30 AM Tuesday, December 4, 2018	Beacon OFF

Alarms: Critical High Low  
1 1 0 0

# Current status

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Search

Name	Status	A
<b>Palm Beach Co FL - 03870 Limestone Creek ES</b>		
3870 Church St EB	Online	0
3870 Church St WB	Online	0
<b>Palm Beach Co FL - 04236 Jupiter Farms ES</b>		
4236 Alexander Run NB	Online	0
4236 Alexander Run SB	Online	0
<b>Palm Beach Co FL - 04238 Jupiter Farms ES</b>		
4238 Mellen Ln NB	Comms Fail	0
4238 Mellen Ln SB	Comms Fail	0
<b>Palm Beach Co FL - 04239 Jupiter Farms ES</b>		
4239 Haynie Ln NB	Comms Fail	0
4239 Haynie Ln SB	Comms Fail	0
<b>Palm Beach Co FL - 04701 Jupiter ES</b>		
4701 Loxahatchee Dr NB	Online	0
4701 Loxahatchee Dr SB- spa re	Online	0
<b>Palm Beach Co FL - 05500 Lighthouse ES</b>		
5500 Central Blvd Median NB	Online	0
5500 Central Blvd Median SB	Online	0
5500 Central Blvd Shoulder NB	Online	0
5500 Central Blvd Shoulder SB	Online	0
<b>Palm Beach Co FL - 07110 Beacon Cove ES</b>		
7110 Central Blvd Median NB	Online	0
7110 Central Blvd Median SB	Online	0
7110 Central Blvd Shoulder NB	Online	0

Alarms Critical High Low

<https://glance.appinfoinc.com/>

# QUESTIONS ?

