

OFFICIAL RECORD DOCUMENT # [4.B-16 DREYFOUS PROPOSAL_TAB 16 PROJECT PLAN & SCHEDULE](#)
PRDE-OSIATD-2018-003-WIRELESS EQUIPMENT AND SERVICES

NEVESEM, Inc. dba Dreyfous & Associates

Wireless Equipment & Services Project Integration Plan

**RFP NO: PRDE-OSIATD-2018-003-WIRELESS
EQUIPMENT & SERVICES**

Project name: PRDE-OSIATD-2018-003-WIRELESS EQUIPMENT & SERVICES

Project Organization:

- **General Experience**
- **Planning**
- **Design & Documentation**
- **Implementation**
- **Closing**

- **General Experience:**

A New Vision in Educational Services and Materials, Inc. (NEVESEM, Inc. dba Dreyfous and Associates) was established in San Juan, Puerto Rico in 1993, and has been consistently pursuing its mission of providing educational and technological products and services of excellence.

Throughout the years the company has had the opportunity to successfully develop, implement and fulfil significant projects within the public and private school systems. In 2014 we were selected to service RAD #5 (Red de Apoyo Diferenciado) for the Department of Education of Puerto Rico. For the last two years we have been implementing “Proyecto Trei” for three public school districts servicing over 400 schools. For “Proyecto Trei” we developed the tools necessary to help teachers prepare their lesson plans as well as providing quick access to digital curricular content aligned to the Puerto Rico Core Standards for grade levels K-12.

We have 18 years of experience as internet service providers (ISP) through the E-Rate program for private schools and public libraries. Dreyfous and Associates has installed over \$25 million dollars in telecommunications equipment such as routers, switches, access points, servers and cabling among others. We currently provide CIPA compliant

filtered internet access, voip services, network equipment, on-site technical assistance and managed services to over 300 non-profit organizations in Puerto Rico.

Our centralized Network Operational center (NOC) is home to our Datacenter which stores our array of virtual and physical servers, security equipment, telecommunication services (Firewalls, Content Filters, Routers, Switches, Access Points, Wireless Controllers, Redundant UPS, Electric Generators) and data storage (SAN) interconnected to redundant Fiber Optic connectivity, and point to point antennas to distribute internet that originates from a variety of internet service providers (AT&T, Claro, Liberty, Critical Hub, Blackburn Technologies). We also provide a Help Desk call center that offers technical support and troubleshooting services to all of our customers.

Our IT department is composed of 20 employees with over 18 years of experience providing technical services to all the non-profit educational institutions and public libraries that we service to guarantee a prompt resolution to technical challenges and provide a consistent and continuous service.

Our experienced and qualified personnel have the following qualifications and certifications.

- Microsoft Education Partner - MCTS
- Cisco Systems - CCNA
- Fortinet Partner – NSE-1
- Mikrotik – MTCNA, MTCRE
- Ruckus Wireless – Elite Partner
- Ubiquiti - UBWA
- HP Business Partner
- Iboss Partner
- Grandstream VOIP Certified Partner

- **Planning:**

Project Description:

This project consists in the purchase, installation, configuration & maintenance of 70,000 indoor (56,000) and outdoor (14,000) wireless access points for the PR Department of Education schools during the 2019-2020 school year. The equipment is expected to provide full wireless coverage in all of the Department's schools and non-instructional facilities (including Region Offices), and to support approximately 160,000 tablets and laptops being purchased for Department schools.

Project Objectives:

The objective of this Request for Proposals (RFP) is to:

- (a) install wireless equipment in the Department's 857 schools and 37 non-instructional facilities (including 7 Region Offices),
- (b) provide managed wireless support and onsite warranty services
- (c) provide technical training to OSIATD technicians.

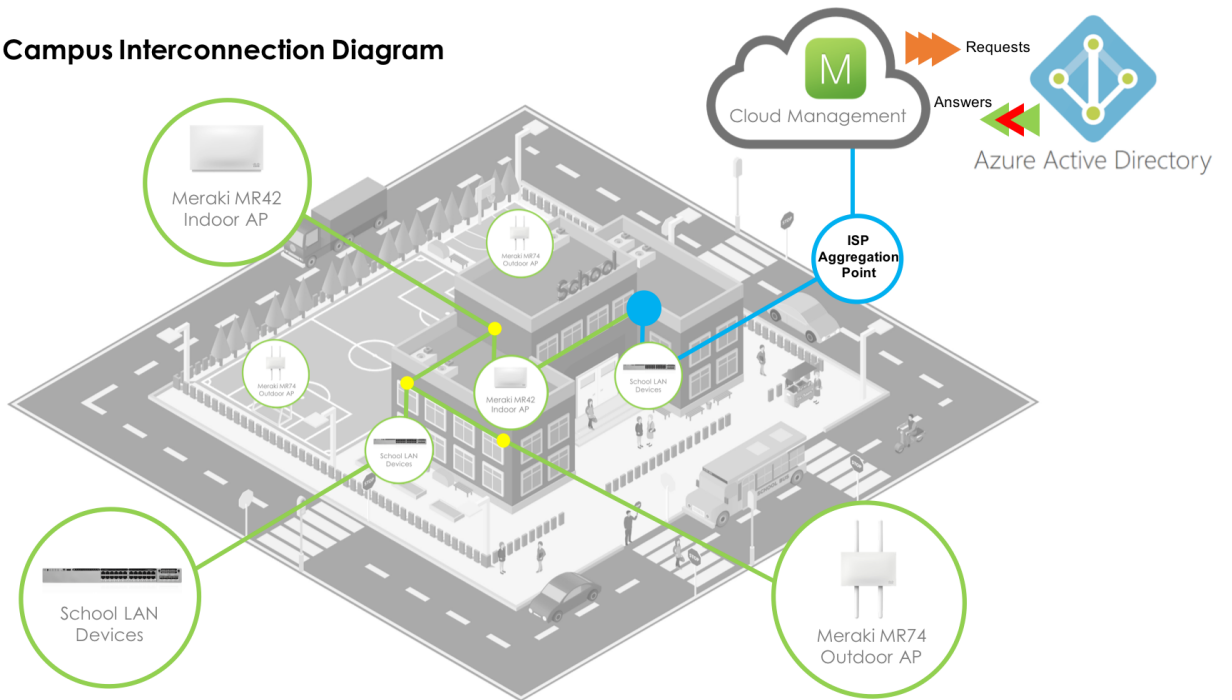
Services and equipment are required to be provided at school sites Territory-wide.

The Department's goal is for installation of the wireless access points to begin in early 2019.

- **DESIGN & DOCUMENTATION**

- **Network Design:**

School Campus Interconnection Diagram



SSID 1 – ADMIN
SSID 2 – FACULTY
SSID 3 – TEACHERS

- **Documentation:**

- **Technical Documentation Document – Attached**

- Includes:**

- Network Diagram
 - Wireless Network Information
 - Wireless Management – Cloud
 - SSID - vlan
 - Access Points – make, model, location, serial, ip address
 - Support Services – client portal user account & website
 - Floor Plan – school map
 - Photos – equipment & installation

- **Implementation Plan:**

In order to provide an orderly implementation of the requested solution and considering the personalized characteristics of the client and the importance and magnitude of the project, it is suggested that the action plan be divided into different stages/phases.

The solution provides different phases that can be simultaneously implemented during the time waiting for the dispatch and arrival of the required equipment (Hardware). The implementation plan is composed of five phases consisting of the following simplified descriptions.

- a. **Infrastructure Requirements**
- b. **Operational impact analysis (Risk Assessment)**
- c. **Responsibilities matrix for vendor & the Department**
- d. **Project Implementation Roles & Staffing**
- e. **Schedule Plan - Milestones**
 - 1. **Planning - Kick off meeting**
 - 2. **Implementation**

a) **Infrastructure Requirements:**

THE DEPARTMENT WILL PROVIDE THE WIRING INFRASTRUCTURE FOR THE ACCESS POINTS INTEGRATED TO THE WLAN (WIRELESS LOCAL AREA NETWORK), AS WELL AS THE SITE SURVEYS AND HEAT MAPS IDENTIFYING THE LOCATION OF THE ACCESS POINTS. THE DEPARTMENT WILL ALSO PROVIDE ALL CABLING RUNS/DROPS, SWITCHES, UPS UNITS, AND CABINETS FOR THIS PROJECT.

b) **Operational impact analysis (Risk assessment):** This deliverable provides a list of project risks. Project risks are circumstances or events that exist outside of the control of the project team and have an adverse effect.

- **Classroom not ready for installation (ex: roof leaking water)**
- **Reduction in installation time due to limited access to client's locations**
- **Reduction in installation time due to client's personnel availability**

c) Responsibilities matrix for vendor & the Department:

Observations:

- All activities/task that are part of the implementation process (Installation, configuration, migration) will be conducted by specialized and trained personnel for each specific task.
- The management of the project will be guided by the tech industry best practices and frameworked by the recommendations of the PMI.
- A project manager will be assigned to manage and supervise all activities. In conjunction with the client all implementation processes will be validated.

Responsibilities:

The proposed solution for this project will be approached with a shared vision where the PRDE participates actively in the implementation of all established objectives.

This will allow:

- Diminish the levels of uncertainty in the structure of the proposed timeline in the implementation of the project. The PRDE will be a participant in the development of said timeline.
- Speed up the transfer of technologies from the beginning of the project as the PRDE will assign adequate personnel to provide support and assistance to our team during the process of gathering of information, action plan structure and overall implementation of the project.
- We will be responsible for the implementation and startup of the new network.

THE PRDE will:

- Explicitly assign the appropriate human resources that will supervise and provide support to each of the areas detailed in this proposal. The selected team must be present during the Kick off meeting.
- Attend all meetings that are requirements for the successful implementation of the project
- Provide all documentation and information requested by our implementation team that is required for the completion of the project. (Lay out plans, heat maps, Frequency analysis, among others)
- Provide adequate access to all environments and facilities during the implementation of the project. In the case that there is confidential information to be shared, a confidentiality

agreement can be signed by both parties to ensure the proper management of said confidential information.

- Manage the platform after the implementation is completed, in coordination with the support of all information gathered during said implementation.
- Provide all electrical requirements and database connectivity points necessary for the installation and startup of the new network.
- Report all incidents, situations and optimization requests through the provided communication channels.

Nevesem will:

- Present during the Kick Off meeting all team leaders (Implementation, management, commercial) involved in the project.
- Participate of all required meetings for the successful implementation of the project
- Assign the appropriate specialized human resources for the installation, configuration, network start up and required training for all stages/phases of the project.
- Complete all implementation tasks in accordance to the final details and framework established in the Kick Off meeting.
- Comply with all established timelines and service level agreements.
- Accompany, train and empower the PRDE in the acquisition and management of newly acquired network.

d) Project implementation roles:

The expected roles in the wireless equipment implementation project include:

- **IT manager—IM** - Responsible for the technical vision and overall design.
- **Logistics manager—LM**- Responsible for the procurement, distribution, and return of appropriate equipment.
- **Project manager—PM** - Responsible for the management of the project & team.
- **Installer—INS**- Responsible for access point installation.
- **Technician—TEC** - Responsible for base-level technical configuration of the new environment, turning services up, wifi survey, documentation, testing & certification.

- **Quality assurance—QA** - Responsible for verifying work activity, installation photos (equipment + asset tagging) & quality.

Additional roles include:

- **Operations liaison**—Operations liaison to coordinate between the two organizations.
- **Site leader**—Each of these teams will need a designated site leader to coordinate local activities.
- **Department of Education Personnel – DEP – PRDE Project Manager**

Estimated project staffing: The staffing of a project will rise and fall during the project lifecycle. It peaks during the wireless LAN implementation phase and tapers off during the final cleanup. Smaller teams can easily execute the project, but it will extend the duration.

	Business planning	Technical planning	Implementation	Conclusion
<i>Project management staff</i>	1	2	10	13
<i>Technical staff</i>	1	2	10	13
<i>Installation staff</i>	1	10	100	111

e) **Schedule Plan**

Estimated project duration: All IT projects require business planning, technical planning, implementation, and project conclusion.

This wireless LAN implementation project follows the time line projected below:

	Work time	Elapsed time
<i>Business planning</i>	1 to 2 weeks	2 to 3 weeks
<i>Technical planning</i>	2 to 3 weeks	3 to 4 weeks
<i>Implementation</i>	3-4 months	4-5 months
<i>Conclusion -Total</i>	5 months	6 months

Professional Services and Project Management:

This proposal includes installation services, configuration, network start up and management in accordance to the following activities and scope of work.

Inspection:

- Verify and validate hardware equipment availability for each provider/manufacture
- Perception inventory. This task will be conducted within the Nevesem's facilities prior to the delivery of all equipment for the purpose of creating a registry database of t serial numbers and physical condition of each equipment.
- Evaluate the area of installation provided by the client
- Verify and validate network ports, electric access and existing cabling required for each installation.
- Create the engineering design

Project milestones: <i>Planning – Project Kick Off</i>		
<i>Task Name</i>	Assigned Resource	Estimated Time (hrs)
1. Generate Project documentation & design	IM	80
2. Equipment purchase & lead time confirmation	LM	16
3. Contact customer for introductory project discussion and to schedule Kick Off meeting	PM	2
4. Provide customer with necessary project documentation & design	PM	8
5. Allocate resources and form implementation team	PM	40
6. Conduct Kick Off meeting (on-site or via teleconference)	IM PM DEP	16
a. Meet PRDE implementation team		
b. Review locations list (857 Schools & 37 NIF)		
c. Discuss school access & installation coordination process		
d. Review project scope, design, cloud controller configuration & access point distribution and placement (Surveys & Heat Maps)		
e. Review customer & Nevesem roles and responsibilities		
f. Risks Assessment discussion		
g. Review actions, tasks & ownership		
h. Review & schedule training for PRDE staff based on RFP		
i. Define mechanism and frequency of future project communications		
j. Document any open issues and/or action items		
k. Estimate project timeline (goal)		
7. Publish and distribute Project Plan & project implementation schedule	PM	4

Implementation		
<i>Task Name</i>	Assigned Resource	Estimated Time (hrs)
1. Confirm receipt of ordered equipment (serial numbers), inventory & classification	LM	40
2. Cloud controller configuration:	IM	80
a. Location Creation (School – 857 & NIF - 37)		
b. Register access point serial numbers per location		
c. SSID creation – 3 per location		
d. Password configuration		
e. Security Policy configuration		
f. Access Point Groups creation		
g. Captive portal configuration – PRDE Logo and colors		
h. Alerts & notifications configuration		
i. Azure AD authentication configuration & testing		
j. Mobile App configuration & testing		
k. Syslog server configuration for 1-year log retention		
3. Schedule installation dates with PRDE staff & implementation group	PM	16
4. Provide install documents & equipment to installers (contractors)	PM	40
5. Equipment installation & asset tagging	INS	4-5 months

Closing

<i>Task Name</i>	Assigned Resource	Estimated Time (hrs)
1. Equipment installation photos & asset tagging verification – Quality Assurance	QA	4 per location
2. Service turn up & testing	TEC	4 per location
3. Post deployment verification – wifi survey	TEC DEP	4 per location
4. Tune wifi network as needed	TEC	1 per location
5. Final documentation of network settings and equipment configuration	TEC	2 per location
6. Train PRDE (OSIATD) support staff	TEC	8
7. Project Completion - Installation documents signature (Equipment packing list, Installation certification)	PM DEP	1 per location