



STATE PROCUREMENT OFFICE EMERGENCY PROCUREMENT REQUEST

1. TO: Chief Procurement Officer
2. FROM: Health/State Labs/EHASB-Air

Department/Division/Agency

Pursuant to §103D-307, HRS, and Subchapter 10, Chapter 3-122, HAR, the Department requests approval for the following:

3. Date 4/22/08	4. After the fact <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
5. Nature of the Emergency Emergency Vog monitoring on Big Island to protect the health, welfare, and safety of the public from unhealthy levels of Vog emissions from the Halemaumau and Pu'u O'o vents at the Kilauea Crater area.	

6. Vendor: DR DAS LTD. Address: 194 Clouse Lane Granville, OH 43023	7. Price: \$59,271.00
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8. Description of goods, services, or construction to be purchased
See attached request.

9. Reason for Vendor Selection
Recommendations from several state/county government users.

10. Direct questions to: Henry Yee Phone: 808-453-6620

11. I certify that the information provided above is to the best of my knowledge, true and correct.

Chaymond S. Jenkins, MD

APR 28 2008

Department Head or Designee _____ Date _____

Reserved for SPO Use Only

12. Chief Procurement Officer's comments:

DOH has not provided sufficient justification as to why it is now an emergency requiring immediate action. Agency may submit a request for exemption if justification can be provided as to why this could not be procured through normal procurement methods and would not be practicable or advantageous to competitively solicit.

13. APPROVED DISAPPROVED NO ACTION REQUIRED

Chaymond S. Jenkins 5/6/08
Chief Procurement Officer Date

14. E.P.No. 08-030-D





INFORMATION AND COMMUNICATION SERVICES DIVISION
COMPUTER HARDWARE OR SOFTWARE REQUEST

1. REQUEST CLASS Budgeted Unbudgeted
 2. DEPT. REQUEST NO. *68-417*

3. DEPARTMENT/DIVISION/BRANCH
 HEALTH/SLD/EHASB/AIR SURVEILLANCE
 4. PROG ID/ORG. CODE
 HTH710/MH

5. REQUESTOR'S NAME
 TERRI SHINSATO
 6. TELEPHONE
 453-6620
 7. REQUEST DATE
 23-Apr-08
 8. TYPE OF ACQUISITION (CHECK ONE OR BOTH)
 HARDWARE SOFTWARE

9. ITEMS TO BE ACQUIRED (A LIST MAY BE ATTACHED IF THERE IS NOT ENOUGH SPACE)

LN	MOF	MANUFACTURER	MODEL	DESCRIPTION	QTY	UNIT COST	TOTAL COST/ITEM
1	A	Dr. DAS	Envista-999	Air Monitoring Data Acquisition Sytem, Envista Core System (Licenses)	10	1,507.50	15,075.00
2	A	Dr. DAS	Envista-5U	Envista User - 5 Additional Seats	1	6,750.00	6,750.00
3	A	Dr. DAS	ERPT-2000 Reporter	Open Source based program with localized reporting capability	1	2,696.00	2,696.00
4	A	Dr. DAS	EnvistaWEBGIS	Envista Web Edition (Licenses)	10	2,800.00	28,000.00
5	A	Dr. DAS		Design/Trainng/Installation: 5 Days	1	6,000.00	6,000.00

10. ANNUAL MAINTENANCE COST \$7,750
 11. FUNDING SOURCE G 107 H 491
 SUBTOTAL 58,521.00

12. MANDATED by LAW: Is the acquisition of the requested items required by any Federal, State, or County laws, regulations, and/or statutes. Check Yes or No. If Yes, Explain below
 YES
 NO
 SHIPPING & HANDLING 750.00
 TAX
 GRAND TOTAL 59,271.00

13. EXPLAIN HOW THE HARDWARE/SOFTWARE WILL BE USED. INCLUDE A BRIEF DESCRIPTION OF THE SYSTEM. IF ACQUISITION IS A REPLACEMENT OR EXPANSION TO EXISTING HARDWARE/SOFTWARE, EXPLAIN WHY.
 14. TAX RATE USED 0.045

THE SOFTWARE WILL REPLACE AN EXISTING AIR MONITORING DATA ACQUISITION SYSTEM THAT HAS BEEN IN PLACE FOR OVER TEN YEARS.

15. DESCRIBE THE EXPECTED BENEFITS TO THE STATE IF THIS ACQUISITION IS APPROVED.	16. REQUEST DATE 23-Apr-08	17. DEPT. REQUEST NO. <i>08-417</i>
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THE REPLACEMENT SYSTEM WILL OPTIMIZE PRODUCTIVITY AND MEET THE GROWING DEMANDS FOR AIR MONITORING DATA IN THE STATE OF HAWAII.

18. WILL THE HARDWARE/SOFTWARE USE THE STATE'S TELECOMMUNICATION INFRASTRUCTURE, OR FACILITIES MAINTAINED OR MANAGED BY ICSD?
IF YES, PLEASE EXPLAIN.

YES, THE SYSTEM WILL BE PUBLISHING AIR MONITORING DATA ON THE WEBSITE FOR PUBLIC ACCESS.

19. RECOMMENDATION OF USER AGENCY DP COORDINATOR. SIGNATURE & DATE <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED	<i>G. B...</i> 4 125 108
20. ACTION OF REQUESTOR'S DEPARTMENT HEAD. SIGNATURE & DATE <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED	<i>Shirley Jackson</i> 4 125 108
21. ADMINISTRATOR. ICS DIVISION. SIGNATURE & DATE <input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED	/ N A / 1 1
22. STATE COMPTROLLER. SIGNATURE & DATE <input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED	/ N A / 1 1

Air Monitoring Data System Replacement Project Plan

By:

DR DAS LTD
194 Clouse Lane
Granville OH 43023

4/3/2008

Submitted to:
Henry Yee
Hawaii DOH
henry.yee@doh.hawaii.gov

Overview

DR DAS is pleased to offer Hawaii Department of Health a replacement for their existing EMC based data collection management and reporting system. We believe that the Envista Air Resources Manager (ARM) system developed by Envitech Ltd can be effectively implemented to fully achieve the objectives of your organization.

DR DAS is the exclusive North American distributor of Envitech products since 1997. Envitech Ltd. is a global supplier of air monitoring software to agencies like the Hawaii DOH.

As the North American distributor for Envitech Ltd for 10 years, DR DAS assists organizations in implementing Envitech software. We provide project design, analysis, implementation, training and support. We also develop additional software components to meet local requirements of our customers if these specific features are not available within the Envista system. Almost every major project we have done has included an analysis of the system requirements vs. the COTS capabilities of the Envista ARM system. And each project has included expansion of the system to address features that customers around the world have requested. In this way the products available to our customers steadily increase in value, capability, performance and ease of use.

Envista ARM is the latest generation of air monitoring software supplied by Envitech Ltd. Envista ARM offers a flexible architecture with web and smart client applications that interact with a back end MS SQL Server 2000/2005 or Oracle 9i/10g database. This new software was developed to keep the applications current with the advances in technology, specifically the .Net Microsoft environment and server technology. It was first deployed with the Washington State Department of Ecology where it serves the State and its 6 regional programs, and is now expanding to support additional programs in Alaska with Washington Ecology acting as the host for database and web services for these customers. The State of Oregon recently received an update to Envista.

The earlier version of this system was called ENVIEW 2000. It has been supplied to numerous USA and Canadian air monitoring programs. In the first half of this year all these programs are being updated to Envista. Envista upgrades have now also been implemented for several major USA State monitoring programs other than Washington and Oregon. These are New York, Connecticut, New Jersey, New Mexico, Pima County (Tucson AZ) and Maryland.

Envitech Ltd's advanced air monitoring and data management software programs are used worldwide. We estimate more than half of all new networks established worldwide use their products. This is the primary system used throughout the UK and New Zealand. Australia is a recent growth market. In Canada the federal agency (Environment Canada) has been using the products and providing funding for provincial governments wanting to upgrade their programs.

Envitech software is the core part of the overall solution offered by DR DAS in support of ambient, emissions, and meteorological/hydrological monitoring applications. Envitech's uniquely flexible software, built using standard Microsoft development environments and MS Office applications, offers

DR DAS and its customers in the USA, Canada, Mexico and the Middle East a strong solution base with long-term value.

For this project DR DAS will have the full technical and financial support of Envitech. We believe that we can rapidly install our system to meet your needs and then work with your organization in ongoing development and revision plans.

Our applications are .Net using smart clients and .Net services as well as ASP.Net web applications. The services are used for the data collection, on the fly QA reviews and automated import/export of data sets via FTP and database connections. The Envista ARM smart client has the hard core data analysis and editing features while the optional Envista ARM Web Edition is designed to support intranet and public users who needs access to current and historical air quality data.

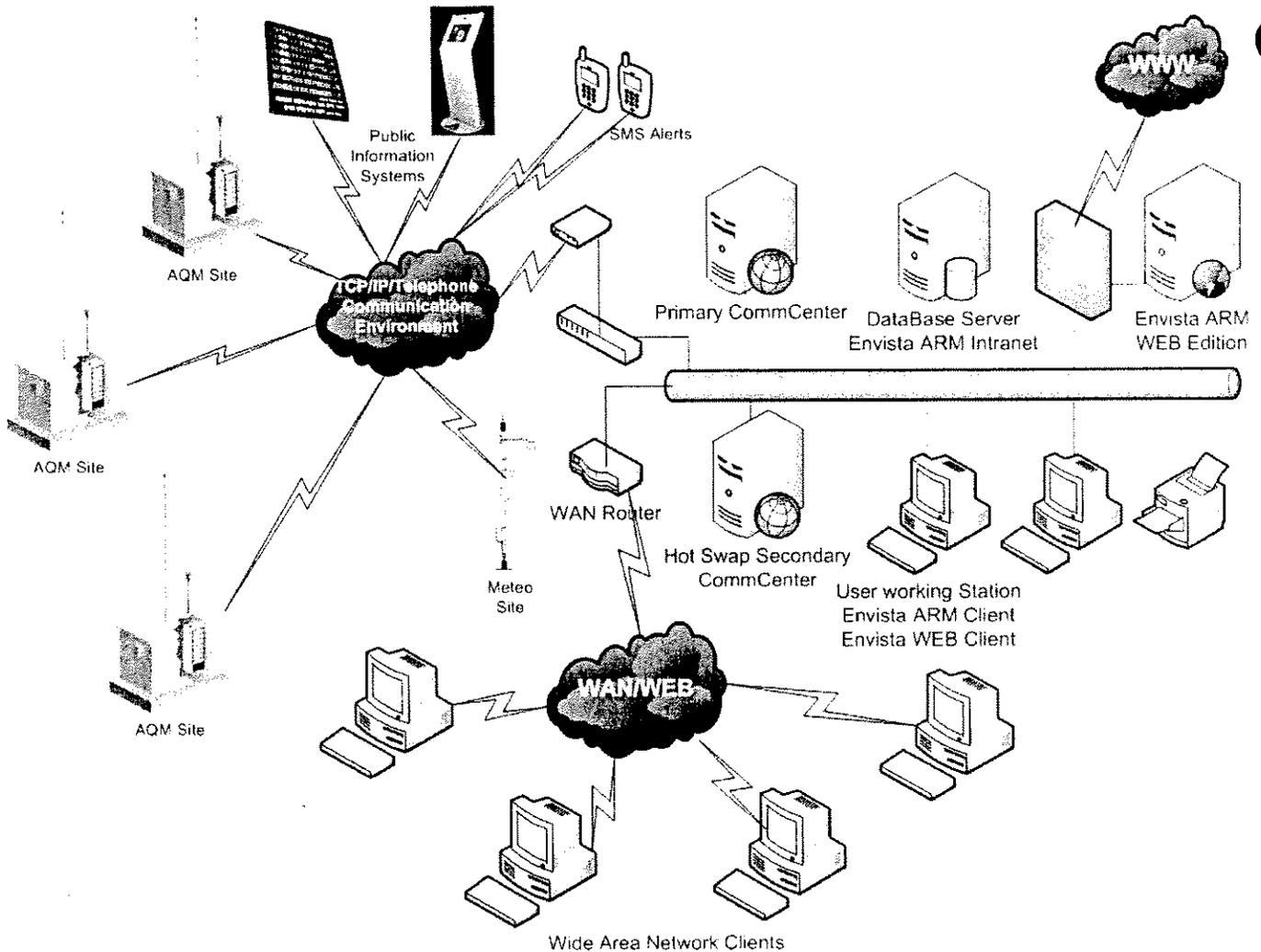
Suggested Scope of Supply

DR DAS will supply Hawaii DOH with an Envista ARM System. It will be installed on Hawaii DOH hardware. The system will support data collection from many logger types including the EMC, Campbell and Odessa units now installed in your air monitoring and meteorological stations. The system will be supplied with a database that can be installed on your SQL or Oracle server. In addition DR DAS will support initial installation and training. Remote technical support and upgrades during the first year are included in the system cost. An annual support fee is charged in following years. This annual support fee includes an optional annual visit for system review, upgrade, installation and refresher training.

The figure below illustrates a comprehensive system architecture. Simpler designs are often used.

DR DAS

data acquisition systems



The heart of the system is a database server. This can be either Oracle or MS SQL Server. In small system the server can be just a workstation running Express Editions of the database products. When Oracle is used the servers can be Linux, Unix, Solaris or Windows.

The communications server(s) shown in the diagram need to be Windows operations system machines. These need not be servers but since they host the 24x7 communications functions, implementation on a Windows 2003 Server in a server area is suggested.

For the optional Envista ARM Web edition Microsoft IIS is required. The same machine that runs CommCenter could host the Intranet implementation of the Envista ARM Web edition.

Envista ARM is a smart client and will be installed on multiple workstations in the organization. Updates and licensing is distributed from a central server. The updates and the licensing service would also be installed on the communication server.

Client PCs may run Windows XP or Vista.

The complete DR DAS Open AQM Central system solution supports up to 999 remote sites. It consists of the software components as detailed below. The first five (5) components are considered the core of the system and are always required. The remaining programs are optional.

Core Components

- **CommCenter** - Multi port communications software, incorporating a wide range of communications media and protocols needed to poll traditional air quality data loggers supplied by EMC, ESC, Dasibi, Odessa/Monitor Labs, Campbell Scientific and DR DAS. In addition protocols for direct communication with many analyzers are available, opening the possibility to include monitoring stations in a network without inclusion of a traditional data logger. This software is supplied in executable form only. One (1) License is included in the budget we have developed.
- **Envista ARM** – smart client application for data review, editing, analysis and reporting. Developed in support of air monitoring programs in over a dozen countries, this application offers extensive tools for production of data graphics in various file and hard copy formats. A license allowing the primary and 5 additional concurrent users is included in the offer.
- **Envista ARM Setup** – client application for network/database configuration. A license allowing unlimited use is included in the offer.
- **Enview Database** – Database Tables, Views and Procedures designed to host configuration data, measurements and information products in support of air monitoring programs.
- **Utilities**
 - FTP, database to database import and export utilities.
 - Ad Hoc report generator
 - Auto report generator.

Included Optional Components

- **Reporter** - A VB6 client application supporting AIRS, OMS and AQI as well as numerous other reports easily expanded/modified to meet new and changing requirements. Reporter is provided with source code allowing for customer modification. One (1) License is included in the offer.

Other Optional Components

- **Envista ARM Web Edition** - multi-tier ASP.net web application providing core database connectivity, data presentation and reporting capabilities. This application can be used for internal users or for a public web site. Core data access and reporting features are common with the Envista ARM software.

Product manuals and brochures for these products are available for download from a FTP folder created for this purpose for another customer which just last month finalized their purchase of Envista and 20 EnvidasFW loggers. The folder is called BC Environment RFI. To access our ftp site located at <ftp://212.150.51.218/> you should paste this URL into your browser. When prompted log in as drdasusers with a password of drdasusers.

Login As [X]

Enter a user name and password to login to this FTP server.

FTP Server: 212.150.51.218

User Name:

Password:

After you login, you can return to this FTP server easily by adding it to your Favorites List.

Login Anonymously Save Password

This will access the site with read only privileges and you will be in the drdasusers folder. The RFI response material is in the BC Environment RFI folder.

Data Logger Support

DR DAS supports a number of data acquisition options. (1) Existing EMC, ESC, Odessa and Campbell users can interface to their existing equipment through the CommCenter serial communications software. (2) DR DAS offers the EnvidasFW data logger. This PC based unit offers advanced serial and Ethernet instrument interfaces as well as analog connections typical AQM equipment. Because products from EMC use some of the same components as EnvidasFW, computers, and ADAM 5000 I/O systems can be reused for an EnvidasFW solution.

Data logger communications are supported with the communications program **CommCenter**. CommCenter supports leased line, dial up phone, cellular and RF communications. Alternatively DR DAS's EnvidasFW data loggers can autonomously submit their data via XML documents.

For purposes of this offer we are assuming that the Lane County will supply the PCs and ADAM 5000 units. As an option we show the pricing for a complete industrial PC based unit supplied complete by DR DAS.

Suggested Project Budget

A total budget of \$75,846 USD is suggested. This includes the central and 15 loggers replacing EMC loggers. The DOH would be providing the PCs and the ADAM 5000 units from the EMC loggers. The price for complete new loggers from DR DAS is quotes as an option.

Item	Qty	Unit Price	Extended Price
ENVSTA-999 Envista Core System (1 ENVISTA ARM license, CommCenter, DB-Scheduler, FTP/EXPORT/IMPORT, Setup Manager, Enview database, Ad Hoc Reporter and Report Scheduler) - 999 Monitoring Stations	1	\$15,075	\$15,075
ENVSTA-5U Envista User Additional Seats - 5	1	\$6,750	\$6,750
ERPT-2000 REPORTER - Open Source VB6 based program with localized reporting capability for regulatory and intra organization purposes. This does the AIRNOW submissions	1	\$2,696	\$2,696
EnvidasFW - without PC and ADAM 5000	15	\$2,972	\$44,575
Design/Training/Installation Services Includes labor travel and expenses.	1 lot (5 man days are budgeted)	\$6,000	\$6,000
Shipping	15	\$50	\$750
1 yr remote support and software upgrades 1 st year	1	Included	\$0
1 yr remote support and software upgrades - year 2 and beyond *	0	\$7,750	\$0

- Includes a 3 day site visit budgeted at \$3,500. Full support and upgrades for the system can be ordered for \$4,250 without the visit. Assumes 15 loggers at \$50/yr.

As an option we offer the ARM Web Edition for both an intranet and public information site.

ENVSTAWEBGIS-C1-U ENVISTA Web Edition without GIS - Air Quality Agency Web Site for Unlimited Stations - Single Server license	1	\$28,000	\$28,000
EnvidasFW – complete	1	\$5,993	\$5,993

Installation and Training

DR DAS will visit Hawaii DOH to install the system and to provide training and testing. We would expect the central system to run in parallel with the existing system. Initially the system would poll

existing loggers and historical data importing will be arranged and tested so that Hawaii DOH can fully upload historical data to the new system.

As part of initial installation and training several EnvivasFW systems will be deployed to sites where they will collect data serially while the old logger continue analog collection. This will allow staff to become familiar with the new loggers in an operational environment. If communications allows these EnvivasFW units can also be polled.

Experience

DR DAS located in Granville, OH, USA supplies Open Architecture, Microsoft-based, solutions for central air quality data collection and management including our universal data acquisition and control units for air quality monitoring stations. Our solutions integrate with associated systems such as GIS, models and emission inventories. DR DAS supplies and supports its multi-lingual products in the Americas and the Middle East.

DR DAS has delivered numerous major industrial and government applications over the past 10 years. In each case a team was formed to deliver the best core competencies needed for the project. These projects all share common core components, yet uniquely meet an owner's requirements.

DR DAS Partial Project List

Washington Department of Ecology-Air Quality Program

DR DAS and Envitech developed a new .Net version of the Envieu 2000 system that had been installed worldwide in over 100 air monitoring agencies. The new system, named Envista ARM, has allowed WA Ecology to migrate from expensive leased line to cellular and DSL TCP/IP communications. It has implemented on-the-fly QA to maintain the integrity of data flowing realtime to the new public website, to AirNow and to their Exchange Node. ESC data loggers were replaced at 70 sites. An ESC central system was replaced and all data migrated to the new ENVIEW database schema. MS SQL Server is the back end database. Advanced QA and data analysis tools were implemented using the ENVISTA Air Resources Manager (ARM) products. The public web site was implemented with the Envista ARM web Edition, a .Net application running under IIS. It features realtime data, data downloads and GIS. AQS and AirNow data feeds are currently implemented in DR DAS applications but are in the process of being migrated to the Windsor Solutions Exchange Node using web services developed by DR DAS.

New Jersey DEP

DR DAS and Envitech developed a new .Net version of the Envieu 2000 system that had been installed worldwide in over 100 air monitoring agencies. The new system, named Envista ARM, has allowed NJ DEP to migrate from expensive leased lines to cellular and DSL TCP/IP communications. It has implemented on-the-fly QA to maintain the integrity of data flowing realtime to the new public website, to AirNow and to their Exchange Node. ESC data loggers were replaced at 30 sites. An ESC central system was replaced and all data migrated to the new ENVIEW database schema. Oracle 10g is the back end database. Advanced QA and data analysis tools were implemented using the ENVISTA ARM products. The public web site was

implemented with our EnviWeb product using PHP and Apache. It features realtime data, data downloads a map displays. AQS and AirNow data feeds are currently implemented in DR DAS applications but the DEP staff are in the process of migrating to the Exchange Node.

New York Department of Environmental Conservation

DR DAS and Envitech implemented the Envieu 2000 system that had been installed worldwide in over 100 air monitoring agencies. This was replaced with Envista in October 2007. The new system allowed NY DEC to move off a very expensive old mainframe environment and to improve communications with cellular and DSL TCP/IP communications. It has implemented on-the-fly QA to maintain the integrity of data flowing realtime to the new public website, to AirNow and to their Exchange Node. ESC data loggers were replaced at some sites and retained at other sites. An ESC central system was replaced and all data migrated to the new ENVIEW database schema. Oracle 10g is the back end database. Advanced QA and data analysis tools were implemented using the Envieu 2000 products. The public web site was implemented with our EnviWeb product using PHP and Apache. It features realtime data, data downloads and map displays. AQS and AirNow data feeds are currently implemented in DR DAS applications but are in the process of being migrated to the Windsor Solutions Exchange Node using web services developed by DR DAS.

Connecticut DEP

DR DAS and Envitech implemented the Envieu 2000 system that had been installed worldwide in over 100 air monitoring agencies. This was replaced with Envista in October 2007. The new system allowed CT DEP to move off a resource limited ESC EDAS system and to improve communications with cellular and DSL TCP/IP communications. It has implemented on-the-fly QA to maintain the integrity of data flowing realtime to the new public website and to AirNow. ESC data loggers were replaced with EnvidasFW loggers at some 20 sites and retained at a few others sites. An ESC central system was replaced and all data migrated to the new ENVIEW database schema. MS SQL Server 2005 is the back end database. Advanced QA and data analysis tools were implemented using the Envieu 2000 products. AQS and AirNow data feeds are currently implemented in DR DAS applications.

Maryland Department of Environment

DR DAS and Envitech implemented the Envieu 2000 system that had been installed worldwide in over 100 air monitoring agencies. This was replaced with Envista in October 2007. The new system allowed MD DOE to move off a resource limited ESC EDAS system and to begin planning for improved communications with cellular and DSL TCP/IP communications. It has implemented on-the-fly QA to maintain the integrity of data flowing realtime to the new public website and to AirNow. ESC data loggers were replaced with EnvidasFW loggers at some 20 sites and retained at a few others sites. An ESC central system was replaced and all data migrated to the new ENVIEW database schema. MS SQL Server 2005 is the back end database. Advanced QA and data analysis tools were implemented using the Envieu 2000 products. AQS and AirNow data feeds are currently implemented in DR DAS applications but are in the process of being migrated to the Exchange Node using web services developed by DR DAS.

New Mexico Environment Department, Air Quality Bureau

DR DAS implemented the Envieu 2000 system, including the installation of thirty-one (31) AQM and meteorological stations around the state of New Mexico, based on Envidas FW data loggers. This system is scheduled for replacement with Envista in Spring 2008. For many problematic telephone communication sites cellular TCP/IP service was implemented, reducing cost and greatly improving reliability. Oracle 9i is the back end database. The user-defined alerts system notifies personnel of system issues via email. A public information website was implemented. <http://air.state.nm.us>

Ontario Ministry of the Environment, Air Monitoring Section

DR DAS implemented the Envieu 2000 system and supplied over 70 Envidas FW data loggers for AQM and meteorological stations around the Province of Ontario. For many problematic telephone communication sites cellular TCP/IP service or DSL was implemented, reducing cost and greatly improving reliability. Oracle 10g is the back end database. The user-defined alerts system notifies personnel of system issues via email.

U.S. EPA, OAQPS

DR DAS installed EnvidasFW at EPA's instrument evaluation site in Research Triangle Park, NC. EnvidasFW collects data serially from many instruments at the site. Access to the site is via Verizon DSL service. Station web site is used by EPA personnel to do daily data review. From inside the EPA firewall the CommServ program is used to poll the EnvidasFW data loggers via TCP/IP over the SSL port 443. The Software Manager program is used for data analysis, QA review, editing and creation of graphics. DR DAS's EIS website is used for presentation of data to EPA personnel.

Pima County Department of Environmental Quality, Arizona

DR DAS installed a new central data collection, management and reporting system. CommServ is used to poll ESC and Odessa data loggers. SiteView HMI is used to monitor and manage network operations. Software Manager is used for data analysis, QA review, editing and import of particulate data to the SQL Server database. The GIS option is included. A software tool written for the project was used to import ten years of historical data from Access tables to SQL. The County used DR DAS's EIS website as the basis for presentation of realtime data and AQI to the public. The EnvVoice program is used to support English and Spanish versions of a automated telephone system for air quality inquiries. AQI, AirNow, and AIRS reports are created with the DR DAS Reporter program. The system was installed in 2000.

References

Washington Department of Ecology-Air Quality Program

300 Desmond Drive
Olympia, WA 98504
Contact: Kathy Sundberg, Project Manager
Phone: 360-407-6844
Email: ksun461@ECY.WA.GOV

New Jersey DEP

401 E State Street
Trenton, NJ 08625

Contact: Charlie Pietarinen, Project Manager
Phone: (609) 633-7648
Email: Charles.Pietarinen@dep.state.nj.us

New York Department of Environmental Conservation

625 Broadway
Albany, NY 12233-3256
Contact: Brian Lay, Project Manager
Phone: (518) 402-8503
Email: bjlay@gw.dec.state.ny.us

Connecticut DEP

9 Windsor Ave.
Windsor, CT 06095
Contact: Pete Babich, Project Manager
Phone: 860-724-6082
Email: pete.babich@po.state.ct.us

Maryland Department of Environment

1800 Washington Blvd.
Suite 730
Baltimore, Maryland 21230
Contact: Chris Smith, Project Manager
Phone: (410) 537-3719
Email: csmith@mde.state.md.us

DR DAS and Envitech Staffing

The following personnel are anticipated to be having significant involvement in this project or in software programming related to project needs:

Managers and Project Leaders

Andrew Montz, Owner and Project manager (DR DAS LTD)
David Farhi, Director, primary owner, (Envitech Ltd.)
Shay Cohen, Implementation and testing task leader (DR DAS)
Michael Foley, environmental data exchange system interface task leader (DR DAS contractor)
James Love, application developer (DR DAS contractor)
Roy Algaly, application programmer (Envitech Ltd)
Ofer Adivi, web application programmer (Envitech ltd)

All of the above listed vendor staff are available for the life of this project. Mr. Adavi will likely be working from DR DAS in Granville for part of the year. He will have the primary technical role for system installation. He will be scheduling large blocks of time on-site at BC Environment offices. Mr. Montz will also participate in installation and test activities.

Mr. Farhi will provide project oversight and review. He will be available to take over for Mr. Montz, should unanticipated circumstances arise.

Other project support personnel will be involved in product revision, test, and QA. Individuals supporting DR DAS products will be Mr. Foley and Mr. Love.

Mr. Algaly and Mr. Adivi are Envitech developers who will be working for DR DAS in this project. They have been assigned for 80% of their time to support North American requirements resulting from the growth in this market and the implementation of North American features in the new .Net version that started being used this past fall in European projects. Major projects they have supported are New York, New Jersey and Washington Ecology. These are winding down and full resources can be applied to this new BC Environment project.

Resumes are included as Attachment A:

Product Descriptions

The following sections of our response present information on Envista ARM, Envista ARM Web edition and CommCenter Features. In addition the implementation of the On The FLY QA and Alerts system is discussed. Finally a brief presentation on the ENVIEW database schema is provided. This information is in Attachment B to this document. Because of its size this document is provided separately along with the manuals and brochures on our FTP site for download.

Attachment A: Vendor Staff Qualifications

Following are the resumes of the staff that are anticipated to work on this project.

Andrew Montz, project manager

David Farhi, director, primary owner, Envitech Ltd.

Shay Cohen operations group leader

Michael Foley, application developer

James Love, application developer

Roy Algaly, application programmer

Ofer Adivi, application programmer

ANDREW C. MONTZ

Owner DR DAS LTD

194 Clouse Lane
Granville OH 43023
(740) 587-2995
amontz@dr-das.com

EDUCATION

MS Meteorology, Pennsylvania State University, 1973.
BA Physics, Dartmouth College, 1968.

EMPLOYMENT HISTORY

Owner, DR DAS Austin, TX, 1997- Present
Vice President, Monitor Labs-Odessa Engineering Division, Austin, TX, 1996 - 1997
Vice President, Odessa Engineering, Austin, TX, 1984 - 1996
Chief Operations Officer, Odessa Engineering, Austin, TX, 1991- 1992
President, MEF Environmental, Austin, TX (merged with Odessa Engineering), 1982 - 1984
Environmental Quality Specialist, Texas Air Control Board, Austin, TX, 1982 - 1983
Program Manager, Atmospheric Sciences, Radian Corporation, Austin, TX, 1979 - 1982
Environmental Engineer, United Engineers and Constructors, Boston, MA, 1978
Air Quality Policy Analyst, New York State Public Service Commission, Albany, NY, 1973 -1977
Naval Officer, Shipboard Department Head, San Diego, California, 1968-1972

CONTRACT EXPERIENCE

Mr. Montz has directed and provided major technical support for the efforts of environmental agencies to improve their air quality monitoring programs. As owner and chief scientist of DR DAS, Mr. Montz develops and installs environmental monitoring information systems and provides training and customer support for those systems. In collaboration with Envitech, he provides advanced web-enabled data collection and environmental information delivery systems. Mr. Montz is now managing director of Envitech/DRDAS.

Project Name and Dates	Reference Contact	Project Description
New Mexico Environment Department, Air Quality Bureau Air Monitoring System Jan 2004 - Jan 2005	Erik Aaboe 505-955-8081 (phone) 505-827-2836 (fax) erik_aaboe@state.nm.us	Upgrade of the State's Air Monitoring Network including retrofit of 31 stations and implementation of all data collection, management and reporting at Santa FE HQ and Las Cruces Regional Office.

Mr. Montz acted as Contract and Technical Manager for this major project, which was awarded after open competitive bids and demonstrations. Mr. Montz worked with affiliate Envitech and several sub contractors to create a final design with procurement, communications, implementation and testing plans. Prototype upgraded stations were developed for test and training. The new central system was put in parallel communication with the old logger, and then was placed in service with all interfaces to EPA and the web sites. Station upgrades were

DR DAS

data acquisition systems

rolled out by New Mexico with the central communication changed when the station upgrade was complete. Mr. Montz helped rewrite all the NM air monitoring QA procedures and SOPs to reflect the new system capabilities, especially the new QA On The Fly processes and the alerts system. Now communications at sites are being changed to Cellular data services where long distances charges are large and/or POTS service is poor.

Ontario Ministry of the Environment Air Monitoring Section Air Monitoring System Upgrade March – June 2005	Tony Munoz 416.235.5769 (phone) 416.235.6037 (fax) Tony.Munoz@ene.gov.on.ca	Implementation of central data collection, management and reporting at Toronto HQ. Supply of replacement software for 60 existing stations in the Province.
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Mr. Montz acted as Contract and Technical Manager for this major project, which was awarded to DR DAS/Envitech after the successful testing of an evaluation system running in parallel with the Province's existing MS SQL based solution supplied by EMC. For this project the Province, using materials provided by Mr. Montz, created and executed all the detailed design and implementation planning by itself. Mr. Montz reviewed the final design. Mr. Montz assisted with prototyping an upgraded station that was used for test and training. The new central system was operated in parallel communication with the old EMC loggers and then, after completion of training by Mr. Montz and Envitech staff, was placed in service with all interfaces to EPA and the web sites. Provincial staff is currently rolling out station upgrades. Communication with sites will be changed to DSL in the near future. The system is under maintenance until June 2006, renewable thereafter.

U.S. Army Aberdeen Proving Ground, Aberdeen, MD Global Air Monitoring in support of Military Operations 2003-2005	Chris Weir 410-436-7712 (phone) 410-436-2407 (fax) chriswier@apg.amedd.army.mil	Equipped 5 stations with EnvidasFW and Sabio calibrators. Replaced central with Envitech Software Manager and CommServ. Implemented XML data push technology. Remote TCP/IP access to overseas sites in Kuwait, Afghanistan and Iraq.
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Mr. Montz installed new PC-based data acquisition systems in Army shelters being deployed to overseas locations. Full serial data acquisition was implemented with the goal of having all diagnostic data available to Stateside technical staff via Army Intranet. Using the XML Pusher application developed for the project, the stations were configured to report information to a web site and MS SQL Server located at Walter Reed Army Medical Center in MD. Envitech Software Manager programs proved detailed data analysis and management tools. SiteViewWeb Intranet provided data access to Stateside and Theater personnel. In an add-on contract, the SiteViewWeb application is being redesigned to conform to US Army requirements for Extranet applications.

Pima County Department of Environmental Quality Tucson, AZ Air Monitoring Central Data Management System 2000-2005	Tom Coffin 520-740-3965 (phone) 520-882-7709 (fax) tcoffin@pima.co.az.us	Installed new central data collection, management and reporting system with Envitech DR DAS Open AQM with ESC loggers.
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In this project, the first Envitech/DR DAS data management replacement for a USA air-monitoring agency, Mr. Montz acted as Contract and Technical Manager. For this application Mr. Montz, assisted by Mr. Jim Love and Roger Schneider, developed the features of the program

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reporter, which supports the USEPA specific reporting requirements such as AIRS, AIRNow and AQI. Envitech staff and Mr. Montz worked on-site in Tucson. The new central system was operated in parallel communication with the old Odessa Engineering central software. After installation, test, repair and retest cycles were completed, the system was placed in service with all interfaces to EPA and the web sites. The County is currently evaluating use of the EnvidasFW data logger application instead of further acquisitions of ESC8832 when replacing existing 8816 units. The system is under maintenance until Jan 2008, renewable thereafter.

U.S. EPA, OAQPS Research Triangle Park, NC 2002-2003	Tim Hanley 919-541-4417 (phone) 919-541-1903 (fax) hanley.tim@epa.gov	Developed an Intranet data collection system for EPA's OAQPS. System supports evaluation of emerging instrumentation and data acquisition systems evaluations.
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In consultation with OAQPS Monitoring and Data Analysis Division Staff, Mr. Montz helped design and implement an Internet-accessible air monitoring data acquisition system. The Envitech EnvidasFW data system was installed to interface serially with many particulate and trace gas monitors under evaluations. For EPA managed tasks to add new device drivers and implement concurrent diagnostics data collection and reports for the trace gas monitors. Working with EPA IT a successful solution was designed for polling the remote station over the Internet using Port 443 for secure access. No additional firewall holes were created. The logger supports an internal web site (EnvidasWeb) accessible on the Internet. Within OAQPS, station status, datasets and calibrations are accessible on the scientists' desktops using the SiteViewWeb application. Graphs, tables and Excel exports are available. Designed and programmed in part by Mr. Montz, SiteViewWeb allows scientists to follow their experiments and tests live! OAQPS currently uses this system to provide orientation for emerging technologies when conducting training sessions for state and local agencies.

Oregon Department of Environmental Quality Portland, OR Implementation of Internet Push Technology 2003-2004	Jeff Smith, AQ Monitoring Mgr. 503-229-5983x234(phone) smith.jeff@deq.state.or.us	Adapted XML Pusher program to interface with Odessa loggers. Envitech/DR DAS central database supports Oregon air monitoring network and receives station data via XML.
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My Montz designed and managed the program revisions to allow the XML Pusher program to interface with existing data loggers in Oregon. State supplied PCs were loaded with Envitech/DR DAS datalogger database and the XML Pusher program. The units collect the data from the exiting logger every 5 minutes and push data via XML to a State IIS web site supplied by Envitech/DR DAS. Existing phone lines are used to dial an ISP and submit data hourly. Data collection costs in Oregon were drastically reduced while cutting AIRNow submissions from > 30 minutes to < 5 for 40 station on dialup lines. The PCs are ready for loading of Envitech's EnvidasFW when budgets permit. Technical papers on this project appear on the EPA and DR DAS website.

Oklahoma Department of Environmental Quality Oklahoma City, OK EnvidasFW loggers used with an ESC EDAS Central 2002-2005	Phil Bowers 405-702-4135 (phone) 405-702-4100 (fax) phil.bowers@deq.state.ok.us	Provides support to the EnvidasFW loggers used by OK DEQ. These have been replacing ESC units in the stations when the data set requirements need the more capable EnvidasFW features.
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Working with OK DEQ, Mr. Montz has supplied and supported 15 EnvidasFW loggers used by the State. These loggers emulate ESC 8800 protocols to work with the State's EDAS central.

Pennsylvania State Institute for the Environment University Park, PA Local Air monitoring Network with Public Information Systems 2003-2004	Jon Ferdinand 814-865-4092 Jfx123@psu.edu	Used EnvidasFW and ENVITECH Central Data Management System to support the data collection and public information needs of the PSU Air Quality Learning and Demonstration Center.
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Penn State operates the Air Quality Learning and Demonstration Center used for the education of Pennsylvania teachers and student regarding air pollution and its effects on Pennsylvania plant life. With the assistance of Mr. David Farhi, Mr. Montz implemented data acquisition, central data management and realtime distribution of data and instructional material though a web site and public information kiosk. Monitoring data was also interfaced and displayed on a 6 ft LED display at the center. The system also interfaces with 5 ozone sites run by Penn State for PA DER. These PA DER sites have ESC loggers.

City of Cedar Rapids Public Works Dept Cedar Rapids, IA Realtime Energy Metering System 2001-2005	Dean Archer, Energy Manager 319 286 5891 (phone) 319 286 5827 Deana@cedar-rapids.org	Designed, developed an installed the DR DAS Energy Aggregation and Information System with XML data servers and OPC Server interfaces. Backend HP cluster used for redundant database and web site availability.
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My Montz designed and managed the program to provide a realtime aggregated energy reading and management system for Cedar Rapids. The data collection requirements of the Cedar Rapids system are completely analogous to the data collection demands of the New Jersey radiation program. The Cedar Rapids system also utilizes the realtime feed of data to other systems in the manner envisioned in the EPA Exchange Server designs. Mike Foley assisted by developing caching data servers for the city's gas and electric meters. XML data was pushed every 4 seconds to the central database. Jim Love developed the OPC interfaces with the PLC SCADA systems, which had realtime data on the Water, Wastewater and Public Works department meters. Data from all these sources was supported in a normalized database that allowed detailed web-based analysis of energy demand. A live aggregated electric use XML output was available for output to servers at energy suppliers.

SKILLS

- Customer Relations and Contract Negotiation
- Crisis Management
- Production Management
- Training Course Development and Presentation
- Documentation and Documentation Management
- Software Needs Analysis, Design Review and Development Management
- Programming DOS, Windows, UNIX, VB, VB.Net, ASP, ASP.Net, Access, Access, SQL Server
- Monitoring Network Design
- Quality Assurance Project Plan Development
- Atmospheric Modeling
- Hearing Testimony – air quality permits

PROFESSIONAL AND HONORARY SOCIETIES

Instrument Society of America, Professional Member of American Meteorological Society. Member of the Air and Waste Management Association, Sigma XI, Chi Epsilon Pi, Twice awarded the Navy Achievement Medal.

PUBLICATIONS

"Use of XML and "Internet" Technologies for Environmental Data Acquisition and Exchange", presented at the AWMA Annual Conference, San Diego, CA June, 2003

"Use of XML and Internet Technologies in Global Greenhouse Gas Emission Tracking", presented at 6th Annual Conference on Air Quality & Global Climate Change, Tucson, AZ, January 27-30, 2003

"XML Documents and Gateways - An Efficient Data Collection Mechanism for Energy Monitoring from Non-IP Enabled Meters", presented at Instrument Society of America Annual Meeting, Chicago, IL, October 21, 2002

"Opportunities to use Regional Air Monitoring Infrastructure in Support of Emergency Response", presented at the AWMA Conference on Environmental Security After 9-11, San Francisco, CA August 2002

"Effects of Ozone Prediction Accuracy and Choice of Chemical Mechanism on NMHC Control Requirements as Calculated Using EKMA", JAPCA., July, 1984.

"Spatial and Temporal Variation of Hydrocarbon Species Emissions in Houston, Texas", presented at the 75th Annual Meeting of the Air Pollution Control Association, 1982

"Control Agency Emission Data Management", presented at the Air Pollution Control Association Specialty Conference, Kansas City, Missouri, April 1982.

"Administrative Control of PSD Increment Use", presented at 72nd Annual Meeting of the Air Pollution Control Association, 1979.

DAVID FARHI

Managing Director, Principal Owner, Envitech Ltd.

1 Korazin St.

Givataim, Israel 51110

011-972-3-5731944 (tel)

011-972-3-7310221 (fax)

david.farhi@envitech.co.il

EDUCATION

Practical Electronic Engineer (P.E.)

Hi-Tech Senior Teaching

Marine Radio Officer

EMPLOYMENT HISTORY

Owner, Envitech Ltd., Israel, 1989- Present

Service Manager, Israelectra (Philips) Scientific & Industrial Division, Israel, 1986 - 1989

Teacher - Electronics, Microcomputers, Assemble, C, and Project Guide. ORT Singalovski High School, Tel-Aviv Israel 1984-1986

Audio and RF Technician, Israeli Radio, Tel-Aviv, Israel, 1982-1986

Marine Radio Officer, ZIM Israeli Ship Lines, Haifa Israel, 1980 - 1981

Naval Radio Officer, Israeli Navy, Ashdod Israel, 1977-1980

CONTRACT EXPERIENCE

Mr. Farhi is the director and principal owner of Envitech, Ltd. He oversees all aspects of the company including contract management, technical development, and a global sales and distribution network.

Project Name and Dates	Reference Contact	Project Description
Israeli Electricity Corporation- Environmental Department 1995-2005	Dov Drimler +972-3-6980543 (tel) +972-3-6991013 (fax) ue744@iec.co.il	Network of 52 EnvidasFW around Israel, Enview2000 provides central collection, data management and reporting for all 135 AQM sites in Israel.
Group Environnement S.A. France 1995-2005	Mr. Serge Aflalo, Export Manager + 33-1-39223819 (tel) + 33-1-39653808 (fax) s.aflalo@environnement-sa.com	More than 200 loggers based on Envidas DOS and Envidas FW installed around the world. More than 100 Enview for Windows and Enview2000 systems installed worldwide for project.
Casella Group/Monitor Europe UK Glasgow 1998 - 2005	Peter R Lawson, International Sales Mgr +44(0)1698812080 +44(0) 1698812122 peterlawson@casellameasurement.com	Approximately 300 loggers based on Envidas DOS and EnvidasFW installed around UK. More than 200 Enview for Windows and Enview2000 installed around UK
Israeli Meteorological	Mr. Jacov Mishaely	Network of 125 Campbell

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Service Organization 1997-2005	+972-3-9682180 (tel) +972-3-9604065 (fax) jacobm@ims.gov.il	loggers around Israel, Enview2000 Central Collect from all meteorological sites by telephone and cellular TCP/IP.
HNU-Nordion Ltd. Oy Helsinki FINLAND 2000-2005	Lea Julin +358-(0)9- 5657240 +358-(0)9- 5626801 lea.julin@hnunordion.fi	65 loggers based on EnvidasFW installed in network around Finland. More than 15 Enview2000 installed around Finland
Haifa District Municipal Association for the Environment 2000-2005	Bella Ben-David Air Resources Coordinator +972-4-8428201 (tel) +972-4-8428197 (fax) bellabd@envihaifa.org.il	Network of 16 EnvidasFW loggers with Enview2000 and 14 eDisplay kiosks

SKILLS

Customer Relations and Contract Negotiation
Project Management
Production Management
Training Course Development and Presentation
Documentation and Documentation Management
Software Needs Analysis, Design Review and Development Management
Programming DOS, Assemble, C, Pascal, Windows, Access, SQL Server
Monitoring Network Design
Data Acquisition Systems
Quality Assurance Project Plan Development
Atmospheric Modeling
Environmental analyzers and Calibration Systems
Industrial X-Ray Systems
Electronic Microscopy
Marine/Land Radio Communication Systems
SQL Server DB Administration
Windows NT, 2000, 2003 Servers Administration

EXPERIENCE

More then 25 Years of:
Data Acquisition software Design and Install.
AQM/CEM/WQM Stations Design, Supply and Integrate.
Analog and Digital Communication Systems.
Data Reporting and Analysis Software's
Air Dispersion Models and Forecasting Systems
Worldwide installation of DAS and central AQM, CEM, and meteorological systems.

SHAY COHEN
Operations Group Leader

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011-972-3-7310221 (fax)
shay.cohen@envitech.co.il

EDUCATION

Practical Electronic Engineering (P.E.), Israel

EMPLOYMENT HISTORY

Service Manager, Envitech Ltd., Israel, 1997- Present
Service Engineer, Telephone Motorola, Tel-Aviv, Israel, 1996 - 1997
Patriot Missile Service Engineer, Israeli Air Forces Israel, 1992-1996

CONTRACT EXPERIENCE

As an Envitech employee for the past eight years, Mr. Cohen has managed the installation, integration, and servicing of large-scale monitoring and data acquisition networks around the globe. He is relocating to ENVI-DAS Inc. to assume responsibility for new projects and support for the rapidly expanding clientele in the USA and Canada. Recently, he has installed and trained customers on a system built for the State of New York that is running on a four-month evaluation basis.

Project Name and Dates	Reference Contact	Project Description
Ontario Ministry of the Environment Air Monitoring Section Air Monitoring System Upgrade March - June 2005	Tony Munoz 416.235.5769 (phone) 416.235.6037 (fax) Tony.Munoz@ene.gov.on.ca	Implementation of central data collection, management and reporting at Toronto HQ. Supply of replacement software for 60 existing stations in the Province.
Israeli Electricity Corporation- Environmental Department 1995-2005	Dov Drimler +972-3-6980543 (tel) +972-3-6991013 (fax) ue744@iec.co.il	Network of 52 EnvidasFW around Israel, Envieu2000 provides central collection, data management and reporting for all 135 AQM sites in Israel.
Group Environnement S.A. France 1995-2005	Mr. Serge Aflalo, Export Manager +33-1-39223819 (tel) +33-1-39653808 (fax) s.aflalo@environnement-sa.com	More than 200 loggers based on Envidas DOS and Envidas FW installed around the world. More than 100 Envieu for Windows and Envieu2000 systems installed worldwide for project.
Casella Group/Monitor Europe UK Bedlay View	Peter R Lawson, International Sales Manager, +44(0)169881200	Approximately 300 loggers based on Envidas DOS and EnvidasFW installed around UK. More than 200 Envieu for

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Tannochside Park, Uddingston Glasgow G71 5 PE 1998 - 2005	+44(0)1698812122 peterlawson@casel.lameasurement.com	Windows and Enview2000 installed around UK
Israeli Meteorological Service Organization 1997-2005	Mr. Jacov Mishaely +972-3-9682180 (tel) +972-3-9604065 (fax) jacobm@ims.gov.il	Network of 125 Campbell loggers around Israel, Enview2000 Central Collect from all meteorological sites by telephone and cellular TCP/IP.
HNU-Nordion Ltd. Oy Helsinki FINLAND 2000-2005	Lea Julin +358-(0)9-5657240 +358-(0)9-5626801 lea.julin@hnunordion.fi	65 loggers based on EnvidasFW installed in network around Finland. More than 15 Enview2000 installed around Finland
Haifa District Municipal Association for the Environment 2000-2005	Bella Ben-David Air Resources Coordinator +972-4-8428201 (tel) +972-4-8428197 (fax) bellabd@envihaifa.org.il	Network of 16 EnvidasFW loggers with Enview2000 and 14 eDisplay kiosks

SKILLS

Service Management
Project Management
Production Management
Training Course Development and Presentation
Software Needs Analysis, Design Review and Development Management
Monitoring Network Design, Install, Integration and Servicing
Data Acquisition Systems
Environmental analyzers and Calibration Systems
Radio Data Communication Systems
SQL Server/Oracle DB Administration
Windows NT, 2000, 2003 Server Administration

EXPERIENCE

More than 8 Years of:
Data acquisition software installation and integration.
AQM/CEM/WQM stations installation and integration.
Analog and digital communication systems.
Cellular communication systems.
Data reporting and analysis software development
Worldwide installation of DAS and central AQM, CEM, and meteorological systems.

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data acquisition systems

MICHAEL J. FOLEY Application Developer

2051 Ridgecrest Rd. Apt. 8
Grand Rapids, MI 49546
(512) 736-3465
foleymjf@hotmail.com

EDUCATION

BS Electrical Engineering, University of Michigan, 1987.

CONTRACT EXPERIENCE

Mr. Foley is an experienced developer using Visual Studio .Net For ENVI-DAS he has developed software for embedded Internet server appliances. He also assisted in the development of the public website for the Government of the Northwest Territories in Canada.

Project Name and Dates	Reference Contact	Project Description
Alcoa Rockdale, TX 1998-2003	Darrell Mynar 512-446-8945 (phone) 512-446-8755 (fax) darrell.mynar@alcoa.com	DR DAS Open AQM/CEM system with Campbell, EnvidasFW, Oil Systems PI interfaces. Plant intranet web site. CalPuff model display.

Developed device servers for Odessa dataloggers. Worked onsite to install system and train customers.

City of Cedar Rapids, IA 2001-2003	Dean Archer 319-286-5891 (phone) 319-286-5827 (fax) deana@cedar-rapids.org	DR DAS energy aggregation and information system with XML data servers and OPC server interfaces.
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Developed device servers for utility meters. Worked onsite to install system and train customers.

EMPLOYMENT HISTORY

- **Smiths-Aerospace.** Austin, TX. 2005-present.
Contract assignment to design Intelligent Appliance Server integration layers for command and control and data exchange networking. Design Web Service Interfaces to support Automated Expert System Interactions. Customers include Department of Homeland Security, U.S. Army, Boeing, Airbus.
- **Appliance-Labs, LLC.** Austin, TX. 1996-present.
Software engineering for web applications, web portal and web services development. Software engineering of embedded systems software for embedded Internet server appliance product line and design of digital hardware and firmware. Customers include Alcoa, BC Hydro Electric, Blue Fuels, Camden County Energy Recovery, City of Cedar Rapids, Fisher-Rosemount, Leviton, Lone Star Energy, Planergy, Schlumberger SEMA, Texas Dept. of Transportation, Univ. of Iowa.
- **Texas Instruments.** Dallas, TX. 1987-1996.
System software development for test equipment integration & automation. Lead software engineer for the F-16 Multiple-Mission-Computer power supply test systems. Lead Test Engineer for memory integrated circuit devices. System Administration for VAX/VMS &

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Windows platforms. Test Engineer for ASIC and digital integrated circuit devices. Customers included U.S. Air Force, Lockheed, NATO, Internal TI product groups.

SUMMARY OF TECHNICAL EXPERIENCE

- Appliance Servers for Web and Database Applications
- Communication Gateways
- Network Centric Data Acquisition Systems
- Embedded Servers
- Data Exchange Servers
- Data repositories and warehouses
- Device Management Portals
- Energy Management Systems

TECHNICAL SKILLS

- SOAP/Web Services Integration development
- XML Data Exchange Interfaces
- ASP.NET Web Portal Development based on Open Source Framework and SharePoint Services
- ASP.NET Web Development: Web Parts, Server Controls and modules
- Microsoft .NET Programming: ASP.NET, C#, VB.NET, Visual Studio.NET & Visio
- Database Design: SQL Server 2000. Database programming using SQL, Views, Triggers & Stored Procedures; Data and web interfaces using SQLXML, Stored Procedures & XSLT
- Web Page Design: HTML, JavaScript, CSS, DOM; XML, XSLT, Schema; Java Applets & ActiveX Controls
- Embedded Programming: Assembly, C/C++, Win32, MFC, PocketPC
- Network TCP/IP programming: Socket Network Programming: TCP, UDP, HTTP, SMTP, FTP
- Platform initialization, Network BIOS development & Remote Management
- Protocol & Device Driver Development: CAN, MODBUS, PSEM, DNP, FieldBus, OPTO22, CEBUS, X10, Digital IO, Analog IO, etc.
 - Altera Max+plus II Firmware Design & PADS schematic capture

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data acquisition systems

JAMES LOVE

Application Developer

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Grand Rapids, MI 49546
(512) 736-3465
foleymjf@hotmail.com

EDUCATION

Bachelors of Business Administration, University of Houston, 1990

CONTRACT EXPERIENCE

For ENVI-DAS, Mr. Love has enhanced the SiteView web network management tool, developed application servers to communicate with sensors and data logging devices, and participated in onsite customization, installation, and training projects.

Project Name and Dates	Reference Contact	Project Description
Oregon Department of Environmental Quality Portland, OR Implementation of Internet Push Technology 2003-2004	Jeff Smith, AQ Monitoring Mgr. 503-229-5983x234(phone) smith.jeff@deq.state.or.us	Adapted XML Pusher program to interface with Odessa loggers. Envitech/DR DAS central database supports Oregon air monitoring network and receives station data via XML.

Mr. Love developed an XML push application to accomplish automatic data transfer.

U.S. Army Aberdeen Proving Ground, Aberdeen, MD Global Air Monitoring in support of Military Operations 2003-2005	Chris Weir 410-436-7712 (phone) 410-436-2407 (fax) chriswier@apg.amedd.army.mil	Equipped 5 stations with EnvidasFW and Sabio calibrators. Replaced central with Envitech Software Manager and CommServ. Implemented XML data push technology. Remote TCP/IP access to overseas sites in Kuwait, Afghanistan and Iraq.
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Mr. Love developed an XML push application to accomplish automatic data transfer.

New Mexico Environment Department, Air Quality Bureau Air Monitoring System Upgrade with Oracle 9i under Solaris Jan 2004 - Jan 2005	Erik Aaboe 505-955-8081 (phone) 505-827-2836 (fax) erik_aaboe@state.nm.us	Upgrade of the State's Air Monitoring Network including the EnviWeb data centric public web site.
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Mr. Love was the lead programmer of SiteView HMI and SiteView web applications used for web-based network management.

Ontario Ministry of the	Tony Munoz	Implementation of Oracle 10g
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Environment Air Monitoring Section Air Monitoring System Upgrade Oracle 10g under Linux March - June 2005	416.235.5769 (phone) 416.235.6037 (fax) Tony.Munoz@ene.gov.on.ca	based central data collection, management and reporting at Toronto HQ. Supply of replacement software for 60 existing stations in the Province.
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Mr. Love was the lead programmer of SiteView HMI and SiteView web applications used for web-based network management.

ROY ALGALY
Application Programmer

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roy.algaly@envitech.co.il

EDUCATION

B.A, Computer Science, Rishon Le Zion Management Institute, Rishon Le Zion, Israel, 2003
Technician, Amal College, Rishon Le Zion, Israel, 1996

CONTRACT EXPERIENCE

Mr. Algaly is a lead programmer for Envitech, Ltd. He provides support for product modifications to meet customer requirements and specifications, and conducts onsite revisions, testing and training. He was the lead programmer for the latest version of Envitech's Envieu2000 software.

Project Name and Dates	Reference Contact	Project Description
New Mexico Environment Department, Air Quality Bureau Air Monitoring System Upgrade with Oracle 9i under Solaris Jan 2004 - Jan 2005	Erik Aaboe 505-955-8081 (phone) 505-827-2836 (fax) erik_aaboe@state.nm.us	Upgrade of the State's Air Monitoring Network including retrofit of 31 stations and implementation of all data collection, management and reporting at Santa FE HQ and Las Cruces Regional Office.

Mr. Algaly worked onsite to modify Envitech products to meet customer specifications and contract requirements.

Ontario Ministry of the Environment Air Monitoring Section Air Monitoring System Upgrade Oracle 10g under Linux March - June 2005	Tony Munoz 416.235.5769 (phone) 416.235.6037 (fax) Tony.Munoz@ene.gov.on.ca	Implementation of Oracle 10g based central data collection, management and reporting at Toronto HQ. Supply of replacement software for 60 existing stations in the Province.
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Mr. Algaly worked onsite to modify Envitech products to meet customer specifications and contract requirements.

EMPLOYMENT HISTORY

Application developer, Envitech Ltd., March 2004 to present

LANGUAGES

C#, C\C++, Visual Basic, VB .NET, JAVA SCRIPT, SQL

PLATFORMS

Microsoft Windows XP Pro., SQL Server 2000, Oracle 9i/10g, Windows 2000/2003 Server's

DEVELOPMENT ENVIRONMENTS

Microsoft Visual Studio 6.0, .NET Framework

OFER ADIVI

Application Programmer

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Givataim, Israel 51110
011-972-3-5731944 (tel)
011-972-3-7310221 (fax)
ofer.adivi@envitech.co.il

EDUCATION

B.sc, Computer Science, Netanya Academic College, 2004
Practical Engineer, Computer Science, Minhal College, 2002

CONTRACT EXPERIENCE

Mr. Adivi is Envitech's lead programmer for interface, reporting and GIS features

Project Name and Dates	Reference Contact	Project Description
Israeli Ministry of the Environment	Dr. Uri Stein, EDS Israel uri.stein@eds.com	Israeli national air quality data system with online forecasting and GIS based emissions inventory. Project in conjunction with EDS and Aria Technology (France)

Mr. Adivi was the lead programmer for the GIS based emissions inventory, user interface, reporting features, and forecast mapping.

Wakefield Metropolitan District Council Air Quality System Port Talbot, UK	Philip R. Jones, AQ Data Services 01639 896730 (phone) 01639 883357 (fax) phil.jones@aqdata.co.uk	Air quality system including utilizing online cameras for visibility.
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Mr. Adivi served as lead programmer for the Wakefield project, developing the administrator interface and integrating online cameras

EMPLOYMENT HISTORY

Web, GIS developer, Envitech Ltd., 2004 - present
Web developer, Arikom Computer Applications, Israel, 2002-2004

LANGUAGES

C#, C\C++ , Visual Basic, VB .NET, ASP 3.0, ASP NET, HTML, JAVA Script, SQL

PLATFORMS

Microsoft Windows XP Pro., SQL Server 2000, Oracle 9i/10g, Windows 2000/2003 Server's

DEVELOPMENT ENVIRONMENTS:

Microsoft Visual Studio 6.0, .NET Framework