

# Florida Department of Environmental Protection

## Application Maintenance Outsourcing (AMS)

### Enterprise 24x7 Inc. Project Summary

#### Overview

Florida state agencies are constantly challenged to find new ways to reduce Information Technology costs. The FDEP had in excess of 250 custom written applications using a wide-range of technologies. Those applications support one or more bureaus, programs and divisions within the agency to track and report the information related to the regulations, rules and statutes they are charged with administering. Enterprise 24x7, Inc was hired, along with its two teaming partners, to provide outsourced application maintenance support for a subset of those applications, with the understanding that the contract would be expanded to include more applications over time.

- Potable Water System (PWS) -Oracle Forms portion only - Oracle Forms 10.1.2
- Source Water Assessment and Protection Program (SWAPP) - Oracle PL/SQL database, procedures & packages, and ASP 3.0
- Interactive Notice of Intent (iNOI) - Java 1.4, JSF, JavaScript
- Environmental Resource Permitting Compliance/Enforcement (ERPCE) - Oracle Forms 10.1.2, ASP 3.0
- Beaches and Coastal Management Systems (BCMS) – Oracle PL/SQL database, procedures & packages, Oracle Forms, Reports, ASP 3.0, and (very minimal) Java 1.4. (Note that JAVA was limited to an application for generating 3 reports for the public.)
- Storage Tank Contamination and Monitoring (STCM) - Oracle Forms 10.1.2, ASP 3.0
- Oil and Hazardous Materials Incident Tracking (OHMIT) – Java
- Asset Management Tracking system – FoxPro
- Uplands Tracking system – FoxPro
- Classic ASP transactional applications:
  - Asbestos Tracking
  - Electronic Access System for Inspection Information Retrieval (EASIIR) ASP 3.0; Microsoft Access 2000/2002 application, the underlying code VBA (visual basic for applications)
  - General Permit Compliance Information (GPCI)
  - Land Acquisition Contract Assembly Program (LACAP)

The FDEP defined maintenance as the modification of a system to improve performance, the adaptation of a system to a changed environment, and/or change of non-business requirements or routine activities required to sustain proper application performance. The FDEP defined the following categories under the maintenance project:

- Corrective Maintenance - a problem which impairs or prevents functionality of the application. This requires a reactive modification of a software product performed after it is moved to production to correct discovered faults. Addresses “the repair of defects not identified during the warranty period to enable applications that are in production to provide the required functionality and to meet service levels.” Examples include, but are not limited to:
  - Unable to commit from Java screen for system in production
  - Inability to insert record using Oracle Form for system in production

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- Improvement - An improvement which results in minor impact to the existing product and/or database. Examples include, but are not limited to:
  - Modify verbiage on reports or screens
  - Modify sorting order on screen or drop-down list
- Adaptive Maintenance - ensures that application performance is not affected by changes to interfacing applications, new applications or packages and technical environment changes, which if not addressed proactively, could impact applications in production". It addresses the activities that relate to sustaining the application performance (integrity) when introducing new interfaces or complete upgrades. Upgrades in this case for an application are the result of Change & Release management. Examples include, but are not limited to:
  - Database Upgrade
  - Database server replacement for Java Apps
- Preventive/Perfective Maintenance – events that ensure applications continue to operate at peak efficiency. Examples include, but are not limited to:
  - Capacity planning regarding expected growth (or decline) in infrastructure related capacity (processor, memory, bandwidth, storage)
  - Preparing for performance requirements during known peak periods (like month-end or events).
  - Data tuning of the application and underlying database and infrastructure components
- User Support - Those user support activities, which cannot be designated as system impairment (bug), improvement, new feature, or upgrade and can be done in a relatively short period of time. Typically, these are routine activities. Examples include, but are not limited to:
  - Account Management
  - Analyzing Data
  - Creating Ad Hoc Reports
- Mandated enhancements – Application enhancements mandated by the Secretary, Deputy Secretary, Environmental Protection Agency (EPA), or Legislature which require a turn-around time period of three months or less and add new functionality or enhance existing functionality in an existing system.

### E24X7INC Services

The E24X7INC team consisted of an Engagement Manager, a Project Manager, a Customer Service Development Analyst, a Business Analyst and a QA/QC Analyst. The two partners with E24X7INC provided additional Customer Service Development Analysts and additional reach-back support team members for larger enhancement efforts which were undertaken outside the fixed price Maintenance efforts.

The E24X7INC **Project Manager (PM)** researched incident tracking tools and proposed a Triage solution that leveraged NetResults Tracker for incident tracking, management and reporting. The PM customized the approved tool to align to the agreed upon maintenance categories and service level agreements for response and reporting for each classification. The tool was further customized to allow for reporting to application owners during active incidents and to generate the agency required monthly and quarterly performance reports.

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The project team was expanded as new applications were moved under the maintenance project. The agency subsequently moved the maintenance processes in-house, leveraging the categories, SLAs, contractors and approach used during the outsourced effort.

#### Technologies Leveraged

- Oracle Forms
- Java/JEE
- JSP
- ETL
- MSOffice
- Oracle Database
- SQL Server
- VB, C++
- Crystal Reports
- NetResults Tracker
- PL/SQL
- FoxPro
- .NET
- XML