



PACIFIC STATES MARINE FISHERIES COMMISSION

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Request for Proposals

Alaska Fisheries Information Network Database Development

Actual Issue Date: **May 9, 2011**

Deadline for Submissions: **May 20, 2011**

“To promote the conservation, development and management of Pacific coast fishery resources through coordinated regional research, monitoring and utilization”

Schedule

May 9, 2011 Request for Proposal (RFP) issued and distributed

May 16, 2011 Deadline for written questions regarding this RFP

Please email questions to marredondo@psmfc.org

May 18, 2011 Deadline for when responses to questions will be made available

Responses to questions will be posted on the Pacific States Marine Fisheries Commission RFP webpage.

May 20, 2011 Deadline for submission of proposals

Proposals need to be submitted by e-mail to: marredondo@psmfc.org

Subject line for submissions: *2011 AKFIN Database Development RFP*

Faxed and hard copy proposals **will not** be accepted.

May 25, 2011 Proposal review

May 27, 2011 Project finalist selected

Introduction

Alaska Fisheries Information Network (AKFIN) is a program of Pacific States Marine Fisheries Commission (PSMFC) that maintains a data warehouse comprised of Alaska State and federal commercial fisheries data, as well as fisheries economic data collected through other projects within PSMFC.

PSMFC/AKFIN is seeking to subcontract with an information technology (IT) company to provide continued support in the following key areas:

- perform ad-hoc and routine data requests for staff and authorized data users;
- maintain and develop new database structures and objects such as (1) designing new tables and views, (2) develop SQL and PL/SQL code (3) SQL performance tuning;
- program applications using Oracle Application Express (APEX) and Microsoft .NET;
- develop and maintain an Oracle Business Intelligence reporting tool;
- perform routine validation and data quality checks;
- maintain and develop Linux scripts; and
- assist with future enhancements as needed during the life of this contract.

Background

AKFIN is a regional data program that consolidates and supports collecting, processing, analyzing, and reporting of fisheries statistics for North Pacific and Alaskan commercial fisheries. AKFIN integrates information into a single data management system. Extract, translate, and load (ETL) applications have been developed to process the data from the source agencies. These routines first standardize the data and then perform quality checks as well as gather data metrics. The Staff develop Oracle based objects that combine data from the different sources and build value-added features to improve the usefulness and interpretation of these data, and then distribute this information to authorized individuals using various methods, such as custom datasets, web-based BI tools, or the AKFIN website. The resulting data helps fishery managers, scientists, and associated agencies manage the fisheries resources more effectively and efficiently.

More specifically, AKFIN reports catch data, harvest and value from commercial fisheries in Alaska using the best available data from data source agencies. Once these data are incorporated into its system, AKFIN reports information from several critical perspectives, which are used to identify and quantify impacts related to changes in fisheries management. These include species, area, gear, vessel, processor, community, and fishery participants by season.

General database statistics:

- 500 source tables
- 32,000 columns
- File size using Oracle Data Pump Export utility is 32 GB
- Largest table < 18 million rows

Economic Data Reporting Background

Other data collected by PSMFC and housed in the AKFIN data warehouse include the Economic Data Report (EDR) projects. An EDR is required from any owner or leaseholder of a processing plant or catcher vessel that harvested or processed crab in the Bering Sea and Aleutian Islands crab fisheries or any person who held an Amendment 80 Quota Share (QS) during the previous calendar year.

The EDRs are received by Pacific States Marine Fisheries Commission (PSMFC), data entered and uploaded to a database which makes it available to authorized users, including National Marine Fisheries Service (NMFS) and North Pacific Fishery Management Council staff in a confidential format. Specifically, all identifiers associated with data submitters (except for Amendment 80) are eliminated and replaced with anonymous vessel and processor identifiers for purposes of confidential analyses. The reason the EDR data is housed in AKFIN is because it needs to be linked to existing state and federal data already compiled by AKFIN.

Scope of Work

AKFIN is in a unique role that requires considerable foresight in terms of predicting what the future data needs will be for present and future users and how best to dispense those data. At the same time, AKFIN must maintain the products and services already established. Accomplishing all of these needs requires subcontracted support that: (a) are dependable and available within short notice, (b) have a deep understanding of Alaska's commercial fisheries data, (c) can complete assigned projects in a timely manner with unbendable deadlines, and (d) have the necessary senior level knowledge and resources to complete the projects on time and budget.

The scope of this contract is to provide daily ongoing support in a number of different areas, which include data analysis, programming, and database development using the tools currently used by the program. These tools are:

- Oracle SQL and PL/SQL
- Oracle BI (Answers, Dashboard, Publisher and Discoverer)
- Oracle Application Express (APEX)
- Linux and Microsoft OS commands
- Scripting in the Linux environment
- Microsoft .NET programming

The subcontractor would also be tasked with maintaining the database used to house EDR data, create and update online web forms for data collection and auditing, scripts to load data into AKFIN Oracle database, standardize and link EDR data to other data sets in AKFIN such as fish tickets, Commercial Operators Annual Report, pot registry and observer data in the confidential format.

Contractor Qualifications

Foremost, this project requires an IT consulting firm that has demonstrated expert knowledge of the activities and systems of fisheries management agencies. The staff of this firm shall be stable and have a successful record of completing projects similar in size and scope to support a medium sized

organization with fewer than 50 users. The IT staff shall have five or more years working with commercial fisheries data.

Technical requirements demand the contractor have experience with Oracle database 10g or above, SQL, PL/SQL, Oracle BI Administration and report development, APEX, Microsoft .NET, Linux environment, and a thorough knowledge of data warehousing principles.

Proposal Requirements and Scoring

Requirements

To successfully respond to this RFP the applicant must:

- Demonstrate an ability to complete IT projects in a timely manner. This project has fast approaching and unbendable deadlines. The contractor must have IT resources available that are capable of completing this project on a rapid timeline.
- Make contract staff available to meet with agency staff on-site and at short notice, as needed. The stakeholders in this project fully expect to work with the contractors in a close and dynamic relationship to develop, evaluate, and modify the joint electronic reporting system and administration tasks. Mentoring staff to maintain and upgrade this system is also required.
- Understand the realities and limitations of self-reported fisheries information in Alaska. For instance, when NMFS first deployed halibut and sablefish IFQ card swipe terminal systems, it experienced significant problems with software compatibilities and data communications. The contracting agency must be responsive to such events and remain flexible in finding solutions to encountered problems.

Scoring

- **Business Experience. (40 percent)** The contractor must demonstrate knowledge of Alaska and/or West Coast fisheries, have worked with commercial fisheries data in the past two years, and must have experience with Oracle Database environment, Microsoft .NET, APEX, and Oracle BI (Answers/Dashboard or Discoverer).
- **Cost (30 percent)** Provide total cost per hour that you would bill PSMFC for work on the proposed project. Identify position titles, their hourly wage and tasks each position would be involved with.
- **Technical Approach (30).** Describe your ETL solution for transferring data stored in XML files, MySQL database, and Excel spreadsheets into the Oracle data warehouse.