



## **SIGMA 4, INC.**

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*Developing the future...bit by bit*

December 1, 2003

Janetta B. Hicks  
District Attorney's Office  
201 W. Picacho  
Suite B  
Las Cruces, NM 88005

Subject: Bid Submittal Pub. No. 31202 (Scalable Criminal Database)

Dear Ms. Hicks,

Sigma 4 is pleased to submit the attached response to your Advertisement For Bid on a Scalable Database/Management System.

We feel confident that our "Orion...the Hunter" system is capable of meeting your current and future requirements.

Given the broad nature of your request we have provided an overview of the features of "Orion...the Hunter". If you have further questions please give us a call.

We look forward to providing a local solution to your needs.

Sincerely,

STANLEY F. SOB CZYNSKI, PRESIDENT

# **ORION...THE HUNTER**

## **A. Introduction**

"Orion...the Hunter" is a powerful, portable customizable Relational Database System that efficiently stores and handles fragmented investigative information on criminal and terrorist activities. Orion identifies relationships among the stored information, and can provide an easy exchange of information among multi-sites and multi-agencies.

Orion was originally developed for the Italian Federal Police (Carabinieri) in 1995 to catalog, track and prosecute the Mafia in Italy and has been recently updated for the law enforcement and counter terrorist community. Orion is currently deployed with the High Intensity Drug Trafficking Agency (HIDTA) in Las Cruces, NM. HIDTA is a presidentially created, multi-agency (to include FBI, DEA, Customs and State and Local Police) task force operating in and along high traffic areas to combat drugs.

## **B. Hardware/OS Requirements**

Orion can be used on both desktop and laptop computers. Field use on a laptop computer can be synchronized with the main system upon return to the office. Each system requires at least 100Mb of RAM and a monitor resolution of 1024x768 with 16-bit color. Hard drive size is based on projected storage needs but high speed, high capacity drives are recommended. Orion uses Client/Server technology and is designed to operate on the following OS configurations:

Wintel - Pentium III or better, running Windows 98, 2000, XP or NT (Compatible with Citrix Meta Frame and Windows Terminal Server.)

Macintosh - G3 PPC or better, running OS 9 or OS X

## **C. Security**

Access to the Orion system is authorized by an organization's System Administrator with each user granted module access based on the access level appropriate to their job requirements and/or usage needs. Access controls such as RSA or biometrics can be added based on a client's needs.

All access, data entry and modification are automatically logged and tagged with the date, time, User ID and Agency of the user making the modification. In addition, when record data is modified a snapshot of the data record as it was before the modification is created and stored, providing a complete audit trail of data evolution.

Orion allows CFR 28 conformity at the agency level, configurable by the System Administrator.

## **D. Configurations**

Orion can be used in various configurations dependent on the client's needs.

**Standalone** - Orion can be operated in a standalone configuration allowing it to be used as a high-powered mobile investigative/analysis tool.

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**Client/Server LAN** – For multi-user office use, Orion can be used in a Client/Server Local Area Network (LAN) configuration. Used in this fashion, the program and data file are maintained on a central "Server" computer with each user accessing and interacting with the program through client programs installed on each user's computer. The computers are all connected over an inner-office LAN, usually Ethernet based.

**Client/Server WAN** – When users are not all located within the same local office area, Orion can be used in a Client/Server Wide Area Network (WAN) configuration. Used in this fashion, the program and data file are maintained on a central "Server" computer with each user accessing and interacting with the program through client programs installed on each user's computer. Any inner-office computers are all connected over the LAN, usually Ethernet. Any computers located outside of the local office area are connected to the main system by a WAN. The WAN may be a dedicated network or may use the Internet as its communications network.

**Server/Server WAN** – This configuration links multiple Client/Server systems together for multi-office or multi-agency data sharing. Each office or agency maintains its own Client/Server LAN or WAN system; however, there is another Server that acts as a Hub linking all of the sites together. This configuration allows each site to maintain its own localized data while providing a means to access related data that was entered by another site. These methods reduce local data storage requirements and are an improvement over systems that operate only when access to the main system is available but are effectively dumb terminals if communication with the central system goes down.

**Enhanced Standalone** – Used when high-powered portability is required. In this configuration, a standalone desktop or laptop computer can be prepared for field use in two different ways: with an empty data file, allows the system to be used as a data accumulator during an investigation, or with a pre-populated data file, allows it to be used for interactive data entry and powerful analysis in the field. To pre-populate the data file the system accesses the office LAN or WAN Server and downloads required information. Either standalone system allows connectivity back to the main office system from the field or upon returning from the field to obtain more information from the office or upload newly acquired information to the office as desired.

**Web Based** – Limited access to the Orion system can also be provided through a web-based interface.

## E. Connectivity

Maximum power of the Orion system is achieved by customizing it to access other existing database systems (i.e. NCIC, DMV, etc.). Orion then acts as a common interface to access and query the other systems without the need for other terminal hardware or software. Orion can also act as an automated "robot" to repeatedly query other systems as desired to research and obtain related information pertinent to an investigation. This information can then be downloaded and added to the Orion database for local use. This process allows fragmented pieces of the investigative puzzle stored on multiple systems to be brought together into the Orion system where they combine to provide a larger view of the investigative image.

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Orion's feature set allows it to be customized to connect to, but not limited to the following types of database systems:

Oracle ODBC OCI OLE SQL Ingres Java

Built-in features can be activated to allow custom communication solutions via the following formats: HTML, XML, SOAP, Java, JavaScript, Perl Script, WebServices and Serial interface.

## F. Program Design

Orion is a modular program consisting of Major, Detail and Search modules accessible from a tool palette. These modules work hand in hand with each other to store, relate and access information. In addition to the normal module data, users may enter as many notes about a data record as they desire.

User interface and functionality are consistent across all modules differing only in module-specific features. Liberal use is made of data driven pop-up lists to assist data entry and conform data for improved search and trend results.

## G. Orion's Modules

**Major Modules** - These Modules are the functional heart of Orion. The four Major Modules store the most important categories of investigative information. Each Major Module record contains related data from all other Major and Detail Modules.

**Company** - Stores and relates all information obtained on Companies associated with criminal or terrorist activity.

**Event** - Stores and relates all criminal or terrorist event information. The terminology "Event" refers to an agency's case, surveillance, incident, etc.

**Group** - Stores and relates all information obtained on Groups associated with criminal or terrorist activity.

**Person** - Stores and relates all information obtained on Person(s) associated with criminal or terrorist activity

**Detail Modules** - The twelve Detail Modules store data of a specific category. All Detail Modules incorporate a "quick-look" capability that allows a user to see Major Module records associated with a Detail Module record with just one click.

**Document** - Stores document information (i.e. Driver License, Passport, Shipping Manifest, Electronic Files, etc.)

**Drawing** - Contains integrated mini-CAD capability to allow creation and storage of crime scene drawings, organizational charts, etc.

**Marking** - Stores information and photographs of markings, (i.e. tattoos, company logo, marking on a drug shipment, etc.).

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**Phone** - Stores phone numbers and phone logs.

**Photo** - Stores photo images and information, includes a photo lab feature for enhancing a photo. The original photo cannot be altered to maintain original integrity, so an enhanced photo would be saved as a new photo.

**Place** - Stores location address or description information, including Lat / Long.

**Report** - Contains integrated Word Processor, to create and store reports with hot-linked information.

**Seizure** - Stores confiscated material information (i.e., Drugs, Counterfeit Money, equipment, etc.)

**Trash** - Stores miscellaneous item information found at crime scene or in a person's pockets that is either insufficient data for record entry or not appropriate for any of the other Modules.

**Vehicle** - Stores vehicle information on any type of conveyance or trailer.

**Video** - Stores and playback video information, primarily short snippets of video such as from a surveillance.

**Weapon** - Stores information on any type of weapon.

**Search Modules** - The Search Modules allow a user to quickly and effectively search thru all data in the system.

**Hunter** - Powerful cross module search interface allows Analysts to "surf" data and easily find unknown relationships. Provides the ability to search multiple modules with only fragmented information.

**Request for Information (RFI)** - Advanced automated Hunter. Provides automated search and data monitoring features; allows the system to be tasked to continually look for and notify users of any relationships found. RFI is also used to log all internal and external requests for information. Entering an RFI tasks Orion to watch for any new data matching the request and notify the user of the outstanding RFI. RFI can be enhanced by adding custom solutions to allow communication with other external databases and systems, increasing the power of automated searches.

## H. Trend and Analysis Features

Orion contains charting and report features allowing a user to build data extracts to suit their reporting needs. Additional high level or special extracts can be custom developed by Sigma 4, based on a client's requirements.

## I. Licensing

"Orion...the Hunter" is a commercial product developed by and copyrighted to Sigma 4, Inc. It is "licensed" to clients in the same manner as other commercial software.

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## J. Costs

The cost of Orion is dependent on the configuration(s) selected. Prices for the Standalone and Client/Server versions are provided below. Prices for the larger configurations are dependent on a client's needs and are available upon request.

Standalone (each) .....	\$6000
Client/Server (1 server w/2 clients) .....	\$15000
Additional Clients x1 (each) .....	\$6000
Additional Clients x5 (each) .....	\$5500
Additional Clients x10 (each) .....	\$5000
First 90 days of support.....	FREE
Each subsequent year of support.....	15% of configuration cost (includes unlimited phone support and upgrades)
Training (5 days required) .....	\$5200

## **SIGMA 4 COMPANY PROFILE**

**NAME:** Sigma 4, Incorporated  
**TYPE:** Privately Owned, Subchapter S Corporation  
**ESTABLISHED:** 1987      **INCORPORATED:** 1990  
**ADDRESS:** 1155 S. Telshor Blvd., Suite 201, Las Cruces, New Mexico 88011  
**WEB:** [www.sigma4.com](http://www.sigma4.com)      **EMAIL:** [sigma4@sigma4.com](mailto:sigma4@sigma4.com)  
**PHONE:** Voice - (505) 532-5768, FAX - (505) 532-5769

Sigma 4 was founded in 1987 to address a need in the local area for computer services, where Sigma 4 could develop a client base and a reputation for innovative concepts and client satisfaction. Sigma 4 was incorporated in 1990 allowing it to expand and attract additional highly skilled personnel.

In 1993 Sigma 4 was awarded its first three software development contracts. These contracts, with Jet Propulsion Laboratory, US Navy and National Physical Science Consortium gave an opportunity to demonstrate unique technology that Sigma 4 had developed and allowed it to earn a reputation based on these innovative methods. Since then, software systems design and development have become a main focus of Sigma 4, along with Internet services from hosting to site design.

The knowledge base of Sigma 4's development team has afforded it the opportunities to accept larger, more complex development projects.

Sigma 4's commitment is to provide high quality services to its clients. Our belief in reliability and continuity of support, builds solid professional relationships and continued growth.

We believe to accomplish these ideals it is imperative to constantly update and improve our abilities, by staying abreast of today's technology and having a vision of tomorrow's.

## **SERVICES OFFERED**

Custom Database Development  
Internet E-Commerce and Web Sites  
Geographic Information Systems  
Business Process Discovery & Re-Engineering  
Technical Support  
On-site Training  
User Documentation  
Data Conversion

## **PARTIAL CLIENT LIST**

High Intensity Drug Traffic Agency  
Food & Drug Administration  
National Physical Science Consortium  
USWest DEX/Qwest DEX  
Liberty Mutual Insurance  
Carabinieri (Italian Federal Police)  
Lockheed Martin Engineering & Sciences  
US Navy, Pt. Mugu  
Jet Propulsion Laboratory  
New Mexico Border Authority  
City of Las Cruces, NM  
US Army, White Sands Missile Range

## **PROJECTS DEVELOPED**

### **Orion...the Hunter**

Criminal/Terrorism Investigation Support and Analysis System

### **Client/Server Database Systems**

Insurance Quote and Sales Support System

Mission Planner and Simulation System

Data Conversion and Mapping System

Risk Analysis System for Long Range Missile Launch

### **Internet Based Database Systems**

Product Security Technology Database

Graduate Student Grant Application System

Commercial Real Estate Information System

Classified Ad System

Cattle Auction and Post-sale Support System