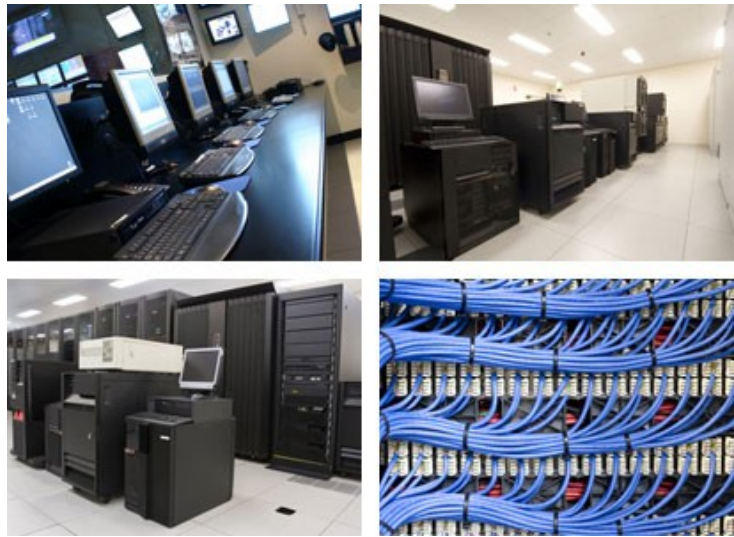


# EnergySync™ and AquaSys™

Technology and Architecture



## EnergySync™ and AquaSys™ modules

- Enterprise Inventory
- Enterprise Assets
- Enterprise Financials
- Enterprise Billing

## Service oriented architecture platform

The tightly integrated business engines that make up the typical IT landscape have been built to enable the high-performance transactions that drive operational efficiency. This is fine as long as business stands still. But it doesn't. When it comes time to incorporate a new business partner, customer, product, or service, IT is faced with a costly, highly complex integration project because the organization originally put little effort into maintaining a clear distinction between user interfaces, business logic, and data. The concept of Web services provides an answer to this problem. A Web service represents a self-contained, self-describing piece of application functionality that can be found, accessed, and used by other applications using open standards. No longer is it necessary for programmers to spend time making inflexible, point-to-point connections between applications. IT can now rapidly and cost effectively string together new processes by exposing existing application components as Web services and employing them for new purposes. Down the road, when IT makes changes to the process to accommodate new business requirements, the behaviour of the Web service stays the same. This facilitates reuse, simplifies change management, and increases organizational responsiveness. SOA takes Web services standards and service-oriented architecture principles and extends them to meet the requirements of enterprise business solutions. The fundamental premise of SOA is the abstraction of business activities or events, modelled as enterprise services, from the actual functionality of enterprise applications. Aggregating

Web services into business level enterprise services provides more meaningful building blocks for the task of automating enterprise-scale business scenarios.

Enterprise services allow IT organizations to develop composite applications – defined as applications that compose functionality and information from existing systems to support new business processes or scenarios. All enterprise services communicate via the Web services standard, can be described in a central repository, and are created and managed by tools provided by SOA matrix.



## How SOAMatrix™ supports EnergySync™ and AquaSys™

By aligning IT with business requirements, SOAMatrix's SOA platform enables organisations to compose new business solutions rapidly while obtaining more business value from existing IT investments. As the foundation for enterprise solutions, SOAMatrix helps organizations evolve their current IT landscapes into strategic environments that drive business change.

Each component in Energy sync™ and AquaSys™ has a well-defined purpose and interface that describes what the component does, but not how it does it. This allows change

and evolution within a component without affecting other components. At the lowest level, components carry out basic functions such as retrieving or updating information in the database. Through successive layers, the business components come to represent complete business entities and activities such as customers and order management. Customers realize the benefits of this approach by choosing only the business components they need. Later, other components may be added or upgraded without disrupting the components already in place. This results in a very stable operational system in spite of change. A company's system can evolve in an orderly way without the "big-bang" approach required by a non-component-based, monolithic system.

Prasanna uses a combination of process modelling and Unified Modelling Language (UML) object modelling to design Energy Sync™ and AquaSys™. The process model describes what the application does, the object model describes the components that make up the application and how they relate to one another.

### Multi Tier Architecture

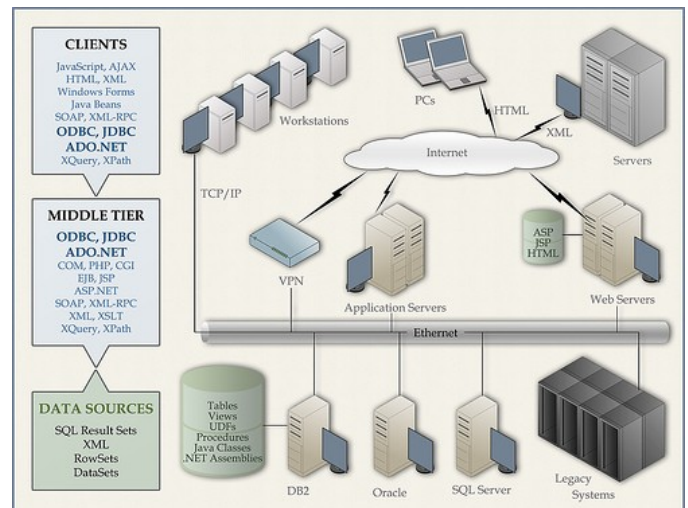
Energy sync™ and AquaSys™ have a layered, multitier architecture. Each tier has its own job to do and does it in a standard way with a clear separation from, and interface to, other tiers. Each tier has its own software objects. These are all derived from a common design model and implemented with technologies to suit their purpose.

The fully normalized data storage tier is based on the relational database model. This is the prevalent storage technology for today and the foreseeable future. The database server is configured so that no data can be accessed or modified except through the business logic. This guarantees data integrity and prevents "back-door" modification.



The business logic tier is the heart of the application. It implements business knowledge, functionality, and processes.

The presentation tier provides interaction with human users and client-side applications and devices. The same business logic can serve many different types of interfaces, such as web browsers, PDAs, and PCs. Interfaces in the presentation tier access the functionality of the business logic tier through access providers.



### Windows, UNIX and Linux platforms

Prasanna Technologies' ongoing goal is to offer customers a choice of hardware, operating systems, application servers, or integration technology platforms on which to run its Applications. Instead of trying to lock customers into a particular technology stack, we work actively to enable customers to choose and change over time.

Some companies predominantly use Windows platforms whereas others rely on UNIX or Linux. Consequently, Prasanna Technologies actively works to integrate its Applications into both Windows and UNIX/Linux environments. This includes the ability not only to run server-

side components on either platform but also to provide plug-and play support for important infrastructure on the respective platform. For example the front-end web server can be either Apache or Microsoft IIS.

Add-on and integration development can be done using Java/J2EE or .NET. Similarly, there is no need to choose between J2EE and .NET—companies can use both. Packaged applications in combination with continuously changing IT environments mean that most organizations will find themselves operating both J2EE and .NET-based applications. Interoperability between the two is both possible and available.

### User interfaces

Since the 1980s, applications have transitioned from green-screen, through Windows interfaces, to a combination of Windows, web/portal, and PDA clients. This increasing diversity of user interfaces will continue, allowing more people to use applications in more places and on more occasions, and using new devices and terminals. For companies this translates into more value and utility from the same application. EnergySync™ and AquaSys™ SOA makes it cost-efficient to provide a complete set of user interface technologies that suit different users, tasks, roles, and environments. The openness of the architecture also makes it easier to create and integrate other interfaces.

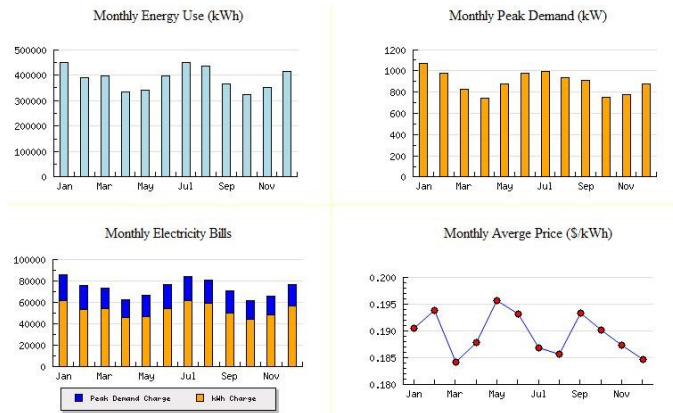
Default front end for all modules in web based to eliminate the hassles of software installation and setup on clients machines.

### Reports

- All Reports and MIS can be accessed from the web browsers. Reports can be exported to various formats such as pdf, xls, csv etc



- Reports/SMS alerts can be sent to concerned officers/ technicians based on critical events or pre defined schedules or when a certain event is triggered
- Custom reports can be built easily
- Centralised reporting, actual transactions can be drilled down from the overall statistics



### System requirements

**Operating System:** Windows, Linux, Macintosh, Solaris and HP-UX

**Database:** Derby, PostgreSQL, MySQL, Oracle, DB2, MS SQL server

**Browser:** IE 5.0 x and above, Mozilla firefox

**Prasanna Technologies uses products on Service Oriented Architecture platform from SOAMatrix™ which is a leading Service oriented architecture Product Company.**

## About SOAMatrix

SOAMatrix is a fast-growing privately held company focused on Service Oriented Architecture (SOA) product development and associated solutions, with a vision to create the best enterprise products/solutions based on SOA and meet current and emerging challenges of enterprises. SOAMatrix's prominent executives and experienced developers bring impressive records of success from such leading software companies as BEA, IBM, Oracle, Sun and Fiorano. SOAMatrix offers a complete SOA Solution and the only vendor providing an Enterprise Service Bus, Process Orchestration/Integration, management and Governance.

## SOAMatrix Products

### SOALayers™

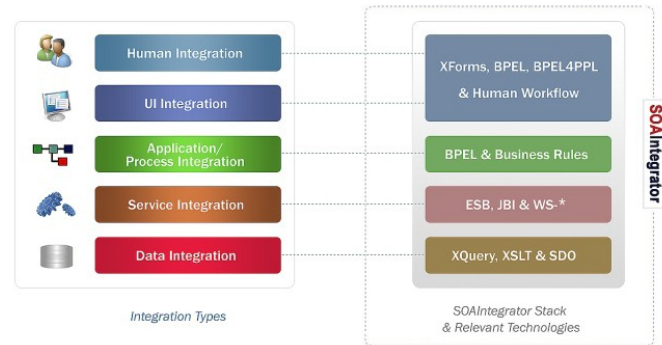
SOALayers is a comprehensive SOA platform from SOAMatrix comprising of all the layers of SOA stack including process, service and data integration, business rules, management and governance.

### SOAIntegrator™

SOAIntegrator is a comprehensive integration product that has the following components:

- Enterprise Service Bus (ESB) for service integration, mediation and loose coupling

- Orchestration engine for process orchestration and integration
- Rules engine for flexibility and agility
- Business process automation and management



## SOADirector™

SOADirector is an enterprise-class SOA management and governance product that enables users to secure, govern and manage web services and business processes. SOADirector is positioned between the service consumer and service provider, and gathers message data and enforces policy on every transaction to provide unprecedented visibility and control.

## SOAStore™

SOAStore registry/repository product provides design time governance capabilities that enable organizations to define and enforce organizational policies governing the content and usage of the artefacts throughout their lifecycles.

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