

## Maven System

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## Maven Overview

Maven software is a complete solution for the Cab/Taxi rentals industry. The solution is an Enterprise grade Intranet based solution with n-tier client-server architecture. The solution is built on the industry standard and reliable Microsoft .Net technologies which supports both the server and client platforms in a seamless manner. The Maven Client system has easy to use interface for the users using a rich client technology.

## Solution Components

### Maven Server

This is the heart of the Maven software, which integrates controls and synchronizes the different solution components. Maven Server runs under IIS server leveraging its rich stacks of protocols. The various solution components in Maven Server are listed below:

- Core Business Logic Services
- Database Layer Services
- SMS Messaging Gateway Services
- Email Management Services

#### Core Business Logic Services

All the core business logics required by the industry are served. The module has a very flexible architecture to incorporate changes into the system in a future date. The scalable architecture also ensures a smooth adaptation into the increased business transactions. The core business logics are listed below,

- Security & Authentication
- Master Database
- Tariff module
- Booking requisitions.
- Duty Slip generation and closures
- Invoice & Annexure
- Fuel Indent & Vehicle maintenance
- Accounts
- Reports
- Email & SMS messaging
- Employee Management
- Audit Trailing

#### Database Layer Services

Maven runs on the SQL server 2005 the latest database server from Microsoft which is powering major high performance enterprise databases around the world. Database Layer Services runs in this database server by leveraging various inbuilt database related technologies thus enhancing the speed, security and reliability.

#### SMS Messaging Gateway Services

Services handling the Short Message Service (SMS) through SMS gateway. SMS message are sent to the destined mobile devices. The layer will synchronize between the various send & receive message components and the SMS gateway integration. It takes care of the message buffering mechanism and other application and SMS gateway related synchronization activities.

### **Email Management Services**

Email server connectivity, manages the various emails sent from the system to the various destined email address.

## **Maven Client**

Maven Client is a rich client tool to connect to the Maven Server. Maven Client is built using Windows forms and Microsoft Rich client technology. It runs on dot Net frame work 2.0 the latest frame work offering form Microsoft. The client tool has a security based approach where the menus are loaded for every login based on his menu level permission. Maven Client is the actual interface for all the users to the Maven software. Various features supported by Maven Client are as below,

- Internal Messaging
- User Management & Security
- Customer Management
- Vendor/Agent Management
- Tariff Management
- Vehicle Management
- Driver Management
- Master Database Management
- Trip Bookings
- Trip/Duty Management
- Invoice/Annexure Generation
- Fuel Indent & Vehicle Maintenance
- Accounts
- Reports
- Employee Management
- SMS Messaging
- Email Messaging
- Alerting Services

### **Internal Messaging**

Is a messaging tool which helps the users of Maven to communicate in a simpler and faster manner within the organization. Unlike emailing the messages are transferred in the internal network and hence it is faster and will not use the internet bandwidth. The tool is very handy for internal announcements and task assignments within the organisation employees.

### **User Management & Security**

User access to the Maven software are created and managed through this module. Users accessing the system can be defined and their access levels to every menu in the Maven Client can be configured here.

## Customer Management

To serve your customer better, Maven helps you to manage your Customers database in an organized manner. Important business information about your customers can be captured like;

- Customer Complete communication address.
- Authorized Booking persons and the authorized finance persons
- Their various Branches available.
- Various Departments of the organization.
- Their frequent traveling employee details.
- Their invoicing related details, etc

## Vendor /Agent Management

Your business Vendors/Agents information is maintained in an organized manner. Your vendor/agents important business information maintained in Maven are like;

- Vendor/Agents complete communication address.
- Their contact person details.
- Tariff details, invoicing related details etc.

## Tariff Management

Tariff management is made simple and well organized by this module. Tariff can be categorized into various flexible options like;

- General Tariff for both local and out station.
- Customer Wise Tariff for both local and out station.
- Agent wise tariff for both local and out station.
- Vehicle wise tariff for both local and out station.
- Contract tariff.

## Vehicle Management

All the details regarding every vehicle are maintained by this module. Vehicle details like their Registration details related data, fuel, repair and maintenance related data etc.

## Driver Management

Driver details like their name, contact details, license details, badge number related details can be maintained through this module.

## Master Database Management

Various master databases are managed through this module. The master databases supported are as below,

- Customer details, their Branches, departments, employees, Booking Persons, Finance Persons etc.
- Vendors details, their contact details, contact persons etc
- Tariff details, rack tariff, local tariff, outstation tariff, tariff for customers, tariff for agents, tariff for vehicle, contract tariff, etc.
- Vehicles details, their certificate details, certificate expiry details etc.
- Driver details, their driving license, badge number, expiry details etc.
- Countries, States, Cities.
- Hotels, Guest Houses, Resorts,
- Airports, Railway Stations, Bus Stations, Flights, trains, Buses etc

- In house employees details etc.

### Booking

Module to enter the booking requisitions into the system. An easy to use booking form where most the required parameters are to be selected from a predefined data set hence minimizing the number of typing errors into the system. Booking made for the day and also for any date range can be viewed from here. The various booking stages like new booking, pending booking, active booking, and cancelled booking are displayed here.

### Trip/Duty Management

Trip/Duty generation for the booking is done by here. Print out of the Trip/Duty slips can be printed from here. The completed trip/duty can be closed by entering the opening and closing kilometers.

### Invoice/Annexure Generation

Considering the tariff available for every customer and the vehicle other parameters like Service taxes, Education cess and discounts the invoice are generated for the closed trips. Module also supports the feature of grouping the invoices called here as annexure. This address the requirements by the several organizations demands while approving the invoice bills.

### Fuel Indent & Vehicle Maintenance

Module to manage the fuel usage, their associated expense, vehicle maintenance, repairs etc by various vehicles. Cash advance against various vehicles etc are also maintained here.

### Accounts

Financial details like Invoices against customers, their details, pending payments, payment received are maintained.

### Reports

Variety of reports based on customers, agents, vehicle, and periodic sales can be generated, and these reports can be taken print, exported to various formats like Microsoft Excel, Adobe Acrobat etc. The list of various reports generated is;

- Periodic Sales Report
  - Customer wise
  - Agent wise
  - Vehicle wise
- Customer based Reports
  - Bookings made by customer
  - Sales statement for every customer
- Agent based Reports
  - Bookings given to agents
  - Business statement for every agent
- Vehicle based Reports
  - Sales statement done by every vehicle.
  - Vehicle wise fuel consumption.
  - Vehicle maintenance reports.

### Employee Management

Module helps in managing the company employee details like;

- Employee contact details

### SMS Messaging

SMS messaging to your customers and contacts about their booking and trip details are made easy through this module. Automated SMS messages can be sent to your customers. SMS messages delivery status are also captured into the system for audit trailing.

### Email Messaging

Email messaging to your customers and contacts about their booking and trip details are made easy through this module. Automated email messages can be sent to your customers.

### Alerting Services

Expiry details of various vehicle documents like Fitness certificate, Emission certificate, TAX certificate etc are tracked by the system. These details are alerted to the user of the system on a regular basis. Even when the customer crosses their credit limit and credit days the information is alerted to the user.

**Note:** There are other hosts of features in the application. And Exira is constantly innovating new features into the application in a very regular basis.

## Technology, Deployment and Maintenance

- Maven Software is built on the Microsoft dot Net technologies. The solution leverages the various protocol stack provided by IIS server and dot Net frame work 2.0.
- Maven Software uses Microsoft SQL Server 2005 for the backend database.
- Maven Software uses the Microsoft ClickOnce technology hence the need of individual deployment of the Maven Client in all the organizations computer nodes in not required.
- Maven Software has to be maintained on one single server running Windows XP Professional as a minimum OS configuration. The client nodes can be run on all the Windows flavors running dot Net frame work 2.0

**Note:** Kindly refer the below annexure to understand above the following technologies.

- Microsoft Dot Net Technologies.
- Microsoft SQL Server 2005.
- Microsoft ClickOnce Technologies.

## Operating Environment

### Maven Server Environment:

- Operating System - Microsoft Windows Server 2003.
- Database Server - MS SQL SERVER 2005
- Microsoft Dot Net Frame Work 2.0.
- IIS 6.0 or more Web server on Maven Server machine
- Email server SMTP connectivity.
- Reliable hardware machine
- SMS messaging gateway connectivity

**Maven Client Environment:**

- Operating System – Microsoft Windows XP and above
- Microsoft Dot Net Frame Work 2.0 and above

**Note:** All the required software for deployment has to be provided by the customer.  
MS SQL 2005 Express Edition Database server supporting a database size of up to 4GB will be arranged by Exira.

## Benefits of Maven

1. A complete solution addressing all the various business details and developed by using the vast industry domain experience.
2. Only solution for the industry developed adhering to the enterprise application development standards.
3. Secure, reliable, robust and scalable solution ensuring the long term investment interest of the customer.
4. Completely built on Microsoft latest technologies hence ensuring the long term support from Microsoft itself. Also the need of having in house technical expert in various technology domains for the maintenance reasons is eliminated.
5. Reducing the need of increasing the existing infrastructure except an addition of few freely available solution frameworks. Hence minimal investment cost on the infrastructure upgrade.
6. Quick and easy deployment without disturbing the existing systems.
7. Application has to deploy on a single server machine hence it is secure and maintenance will be easier.
8. Application can be upgraded and scaled to any level. Various other organization processes can be easily integrated in the future.
9. Exira Software is continuously working on making the Maven Software better. Exira is dedicating a considerable amount of resources for innovation and betterment of Maven Software. A host of upgrades will be incorporated into the system on a continuous basis thus helping our customer in running their business better.

**Note:** Anything not covered here just ask us. We may already have some or if not we can make it.

## Annexure

### Microsoft Dot NET Technologies

.NET is the Microsoft Web services strategy to connect information, people, systems, and devices through software. Integrated across the Microsoft platform, .NET technology provides the ability to quickly build, deploy, manage, and use connected, security-enhanced solutions with Web services. .NET-connected solutions enable businesses to integrate their systems more rapidly and in a more agile manner and help them realize the promise of information anytime, anywhere, on any device.

The Microsoft platform includes everything a business needs to develop and deploy a Web service-connected IT architecture: servers to host Web services, development tools to create them, applications to use them, and a worldwide network of more than 35,000 Microsoft Certified Partner organizations to provide any help you need.

### Microsoft ClickOnce Technologies

ClickOnce is a new application deployment technology that makes deploying a Windows Forms based application as easy as deploying a web application. With ClickOnce running a Windows Forms application is as simple as clicking a link in a web page. For administrators, deploying or updating an application is simply a matter of updating files on a server; no need to individually touch every client.

ClickOnce applications are fundamentally low-impact. Applications are completely self-contained and install per-user, meaning no admin rights are required. You don't have to worry about a ClickOnce application breaking other applications.

ClickOnce applications can be deployed via web servers, file servers or CDs. A ClickOnce application can choose to be installed, meaning it gets start menu & add/remove program entries, or an app can simply be run and cached. ClickOnce can be configured in several ways to check automatically for application updates. Alternatively, applications can use the ClickOnce technologies to control when updates should happen. ClickOnce applications run in a secure sandbox provided by the CLR Code Access Security model.

### Microsoft SQL Server 2005.

SQL Server 2005 is a comprehensive database platform providing enterprise-class data management with integrated business intelligence (BI) tools. The SQL Server 2005 database engine provides more secure, reliable storage for both relational and structured data, enabling you to build and manage highly available, performant data applications that you and your people can use to take your business to the next level.

The SQL Server 2005 data engine lies at the core of this enterprise data management solution. Additionally, SQL Server 2005 combines the best in analysis, reporting, integration, and notification. This enables your team to build and deploy cost-effective BI solutions with which they can drive data into every corner of your business through scorecards, dashboards, Web services, and mobile devices.