

# Vigna HWY905 Software



IDII

Industrial Data & Information Inc.

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## Vigna: Experienced & Ready

**Vigna** is American based company headquartered in New Jersey, where management is located with the core development team. Vigna is currently providing 24x7 support to customers (in North America, Europe, Pacific Rim) from this NJ location and from India. Vigna has 32 employees, with 16 located in India. Vigna has extensive experience in the supply chain as the key individuals worked in the distribution software industry for Fortune 500 companies.

## Product Overview

**Impressive!** This new product suite called HWY905 (“Highway 905”) is fully web-based with 40 plus man years of development and it *definitely shines* in the depth of functionality. Both the WMS & TMS were demonstrated to IDII and it was striking to view well designed feature rich software. TMS & WMS software has great coordination of information flows.

Development of this new software product started in 2005. Five plus modules are offered, which are currently in use in a high transaction volume client requiring a service level agreement of fast response time. This new product suite is available either as a hosted Software-as-a-Service (SaaS) or can be hosted on the client’s servers. Vigna offers their software at a reasonable price, but packed with functionality.

## Five Modules Offered

**All modules are web-based**, with the same *intuitive* “look and feel”, and all are offered as a SaaS. There are five products in the HWY905 suite. Briefly, these five solutions are Transportation Management System (TMS), Shipment Management, Freight Payment, Warehouse Management System (WMS), and Global Procurement.

**Bonus of Four More Modules for Free.** There are additional modules that are included within the TMS, Shipment Management, and the WMS. These are provided as standard, as part of the base system.

The competition offers these modules at additional cost, where Vigna is providing value added at no additional charge. In our opinion, the HWY905 suite contains nine modules by the time one begins to tally the true number. These additional modules are Load Builder, Carrier Web Portal, Transportation Optimization, and Document Imaging.

## Functionality Highlights by Module

### HWY905 Shipment Tracking & Alert

This is really a shipment management set of major functions. In a fast sentence – it contains web-based functions for shipment visibility, track & trace, POD, and Carrier web portal. Handles damaged shipment information as well. Customers can view their shipments, perform track & trace, and view the Proof of Delivery (POD) via this set.

### HWY905 Transportation Management System (TMS)

This module supports has freight audit, manual tender, automatic tender, carrier route setup, rate shop, **all transportation modes**, zone skip, electronic carrier advices, and more. The TMS supports carrier allocation by percentage for daily, weekly, or monthly which enhances the ability to rate shop. In addition the TMS has pool point management, load management, and optimization filters.

**Optimization Filters.** The TMS system creates the load (record) and automatically tenders to the carrier selected. Carrier gets an EDI 204 and has 30 to 45 minutes to accept. If carrier accepts, carrier acknowledges via an EDI 214. Based on the settings, if the carrier does not accept or reject the load within the time period, the process repeats for the next preferred carrier of choice.

**Transportation Optimization.** This is included within the HWY905 TMS module. Ready to optimize what can be shipped? Optimize across all modes? This multi-modal transportation optimizer does that. This is standard, part of the TMS, while the competition charges for this.

### HWY905 Global Procurement Solution

This is a major module, where one can enter a vendor purchase order (PO) for procurement of goods, send the PO, manage the PO, receive acknowledgements, import/export system, handles landed cost, manage customs, and send an ASN. While managing the incoming shipment – one can make decision here on whether to divert product to customer or go to warehouse as planned.

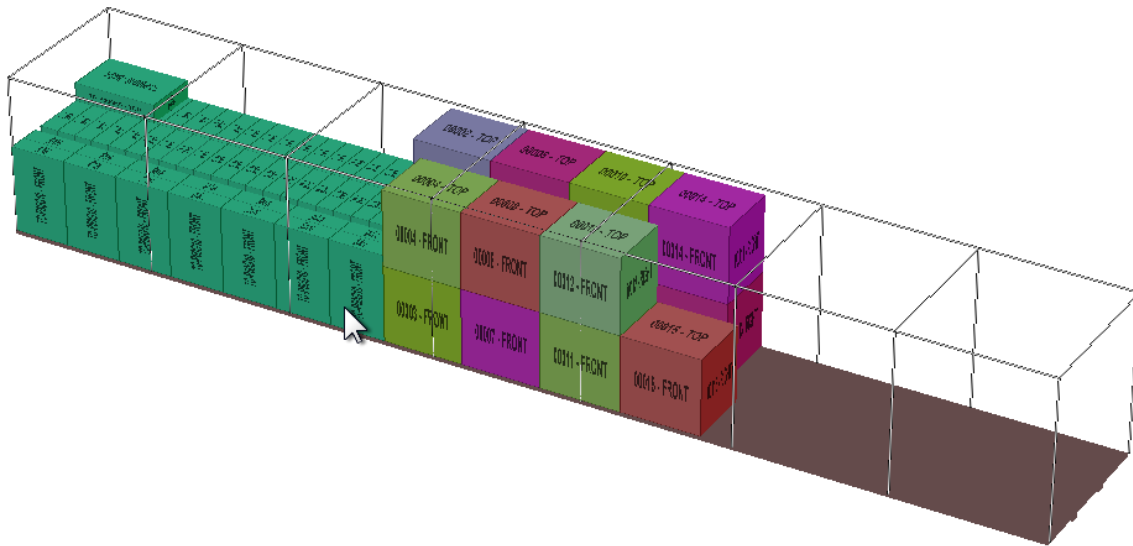
## HWY905 Warehouse Management System (WMS)

This Warehouse Management System (WMS) contains many good features to manage inventory, warehouse slots, and warehouse workers. Our highlights include:

- Work orders with a simple Bill of Materials (BOM). In HWY905, work orders are called shop orders (production orders). Many warehouse operations perform kitting and repacking, which is done via a BOM.
- Dock door appointments that include an ETA with lane assignment.
- Inventory adjustments with General Ledger (GL) code connection for the ERP host as well as a damage code to cover damaged goods.
- Most WMS solutions allow incoming receipts to be done by ASN or against a document such as a PO. In addition to this, HWY905 WMS has a feature to **receive a container**, which has multiple purchase orders in it.
- A very strong design item in HWY905 WMS is the Inventory Type code, which is used for describing the condition of the inventory only. There are many warehouses that have the same inventory item, but in many physical states (damaged, good condition, expired, and so forth). By leveraging inventory types – one can allocate the right inventory to that outbound order. Most other WMS solutions do not have an inventory type, or attempt to co-mingle it with the inventory hold codes. Vigna has done it right, by having two codes – one for inventory type and one for inventory holds.
- 3PL billing is included in the WMS and it is in use by four 3PLs that are billing Panasonic for work performed. As with any software solution in the 3PL world, the 3PL billing functionality that is currently in HWY905 will need to be examined in detail. In our opinion, the 3PL billing functionality will expand in future releases as new customers utilize it.
- A weakness in the system is on inventory recalls. Vigna needs to put elbow grease on the inventory recall area, where food & other ingestible products could be recalled.
- Customer setup shows two windows, one for the warehouse workers (can ship on these dates to this customer) and one for the customer (can delivery on these dates). Many high volume warehouses need this level of when to ship & when to deliver.
- In outbound shipments, the WMS taps into the Load Builder Optimization tool (a math model) to correctly determine & model where to locate each load within the container. The warehouse worker reviews this using the Load Viewer tool. This all feeds into the Trailer Closure function. Nice and tight integration! There is more about this tool on the following page.

**Load Builder.** The WMS contains a tightly integrated Load Planning tool. This is a standard part of the WMS solution. Regardless, of the transportation mode, this load builder tool will help you build any container type (air container, truck container, cargo container, pallet, etc.). The Load Builder tools are provided as part of the WMS solution. Here is a screen snap shot of this load planning tool:

Jazz3D



**Capture Driver's Signature.** One can electronically capture the driver's signature on the BOL and store the BOL as PDF automatically.

**A document imaging system** is part of the HWY905 suite. This saves both CSR & clerical time & effort in finding out who picked up the shipment, in our BOL discussed previously. No more calls to the traffic group, to have them manually dig through the paper work.

All reports generated throughout all modules are saved as PDFs and kept in the archival system for a designated time period. Normally this time period is seven years. An administrator can manage which reports are archived and archival settings.

The **shipment tracking module** (alias Track & Trace) interfaces with carriers. In this manner, one may have instant visibility on where the shipment is, who signed for it, and when it was delivered. In today's demanding logistics management, as well as customer service representatives (CSRs) that are on the phone with the customer, it is mission critical to have the step-by-step shipping details on-demand.

## Dash Boards

HWY905 has dashboards that show metrics aka business intelligence. It is nice to see a “new” product” with metrics that the logistics management can utilize. We compare that to our prior experiences, where other software development companies, will push dashboards & analytical reports to version 2, 3, or 4 of the product. Therefore, we have a positive view on HWY905 for having dashboards in its first production release.

The screenshot displays the HWY905 Inventory Management dashboard. The top navigation bar includes the HWY905 logo, a menu with options like Home, Receive, Putaway, Inventory, Orders, Pick, Ship, Return, Label, Replenish, Reports, Settings, and WIP, and a user profile section with 'Help', 'Support', and 'Logout' links. Below the navigation bar, the dashboard is divided into four main sections, each with a 'WHSE Plant' dropdown menu set to '005501'.

**Location Details:** This section shows a table with columns for 'WHSE Plant', '# of Locations', 'Cube', 'Weight', and 'Value'. The data row shows 3824 locations, 7651.421296 cube, 67523.087 weight, and 740548.600 value.

**Cycle Count Locations:** This section shows a table with columns for 'WHSE Plant' and '# of Locations'. It includes sub-sections for 'For Cycle Count', 'For Operator Count', and 'For Supervisor Count', all showing zero counts.

**Inventory Aging:** This section shows a table with columns for 'WHSE Plant', 'Cube', 'Weight', 'Value', and '# of Items'. It includes sub-sections for 'Older than 30 Days' and 'Older than 60 Days'. The 'Older than 30 Days' row shows 2386.409763 cube, 20929.578 weight, 232186.500 value, and 1459 items. The 'Older than 60 Days' row shows 6233.727523 cube, 54856.450 weight, 549632.100 value, and 2662 items.

**Product Details:** This section shows a table with columns for 'WHSE Plant' and '# of Items'. It includes sub-sections for 'No. of Products with Inventory' (3827 items) and 'No. of Products with Velocity, High Value' (4 items).

**Inventory Dashboard is shown above.** Vigna is currently on expanding the dashboards with additional graphics & options during the first half of this year.

## Data Manipulation

**Import & Export Data.** Throughout the WMS, TMS, and other modules, one may easily export data types to Excel. Data types are entities of all types: parts, bins, customers, vendors, carriers, carrier routes, carrier transit times... to name a few of them. HWY905 allows export for all types of entities. In addition, a very nice feature that is throughout the suite for all entities is the ability to import data from Excel spreadsheets. This import function will either create new records, or update existing records for the entity being imported. A common requirement in the WMS world is to import a list of bins, when one is setting up a new warehouse or re-warehousing an existing warehouse.

On the TMS side, importing the latest carrier transit times is very important as well. Imported records are validated to maintain data purity. This is very important for those that have to setup new parts, bins, or other entities on a frequent basis. By the way, all reports may be exported to Excel as well.

**Data Mapping Tools.** As a SaaS hosted product, HWY905 data maps via Mercator, Boomi, and Websphere. Supported interfaces include adapter sets (data maps) to Oracle and SAP.

## Base Functionality

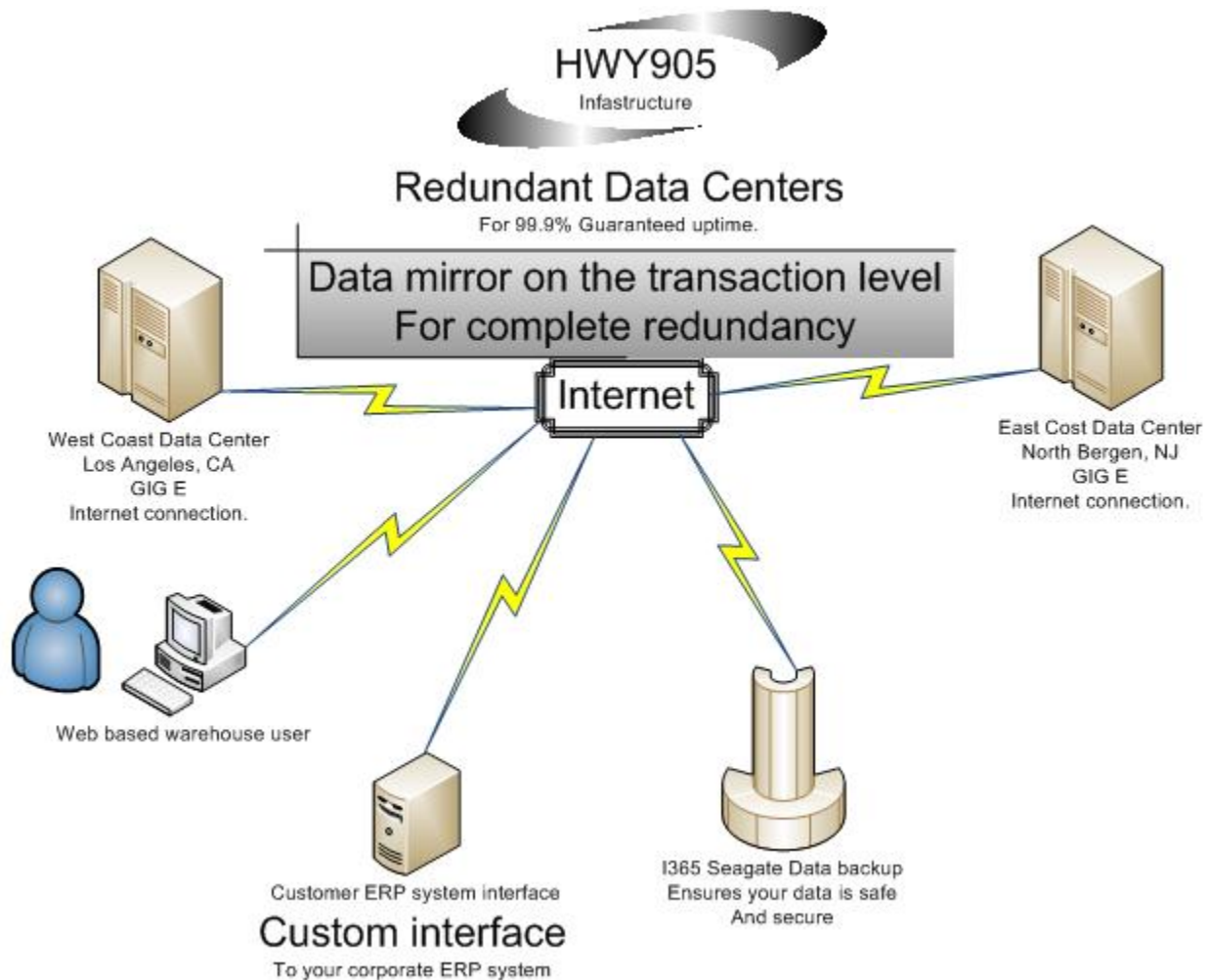
**Robust Security.** Highly advanced security has been built into the HWY905 product suite. The normally required functionality security by user & user group is there, but that is just the beginning. For example – an administrator for the company may lock a user to selected records, so that carriers may view only their data, or customers are limited to just their information.

**Archival of Reports.** All reports in the system are generated as PDF's and all reports are then stored in the document imaging system for seven years as required by SOX. An administrator can manage the archival through administrator imaging functions. This well thought out & built-in archival of reports is highly needed and the document imaging system is standard – no extra charge – it is part of the base system.

**Supply Chain Event Management (SCEM).** Advanced alert system where users can configure new alerts and specify effective dates, tolerance, and subscribers, and what to see on the alert with very good selection of the data to include and how to group it. Administrator configures new alert types, a major plus in our opinion.

## Software as a Service (SaaS)

HWY905 is web-based and is offered as a SaaS or customer hosted solution. Current customer base is having Vigna host the solution in a true SaaS mode. Vigna uses two GIG E certified data centers (east coast, west coast), with data replication between the two. See the following diagram.



Using this hosted SaaS model, Vigna is offering various support plans, including 24x7, to its current international customer base. In IDII's opinion, having multiple offices is a requirement in properly doing 24x7 for worldwide customers. In this manner, the support staff is sharp & alert, whenever one calls for support help. Vigna has multiple offices for 24x7 support. Another benefit of SaaS is that the customer base is always on the current production release. Vigna does vigorous multiple stage testing of a new software release, prior to release to production. Vigna becomes your IT staff in this SaaS model.

## Contact Information

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## About this Research

Analysis and research report has been done by Philip Obal of IDII. IDII has done in-depth reviews of WMS & TMS software including Vigna's HWY 905 solution.

## About IDII

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IDII is also available for consulting for business process evaluation, software selection, software implementation, speaking engagements, and detailed software company/product analysis. IDII publishes two complimentary newsletters on supply chain software.

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