

## Information Integration Framework

### Information Sharing in the High Tech Manufacturing Value Chain

High Tech Manufacturers operate in a global fractured industry where different people, working for different companies, using different systems, are all supposed to coordinate and selectively share information so that the end-customer is satisfied. Some examples are:

1. Regional sales managers may work with reps and the end-customer in one design location while customer service people may work with the contract manufacturer and distributor in a different production region to issue quotes and track orders.
2. Reps track contacts and opportunity information in their own software systems (RepCRM.com) but are expected to keep the manufacturer updated on a regular basis, often thru laborious redundant data entry procedures.
3. Orders sent to the manufacturer are entered into the manufacturer's ERP system. But orders fulfilled by the distributors are entered into the distributor's ERP system and then are sent to the manufacturer as monthly POS reports, which must then be integrated with the manufacturer's systems so that split commissions can be calculated and paid.

The Manufacturer's own organization often looks like a microsm of the above situation; with different groups needing to track and share different information, but using different disparate systems that may not talk to each other. For example:

- Sales may track contact information and emails in Outlook and the design-win funnel and quote logs in Excel. The actual quotes may be kept as word documents.
- Forecasts may be managed in Excel whereas the actual production planning based on the forecast data may be done in a backend manufacturing system for planning production runs.
- Orders may be entered to the back-end ERP system, which may be the same or may be different from the manufacturing system.
- Distributor POS processing and commissions calculations may be done in excel or in yet a third system.

Unfortunately, this is the reality across much of the industry today. At the same time, smart executives realize that sharing information effectively and securely allows your people, working across companies and time zones, to make smart decisions faster, avoid mistakes and give your Company a competitive edge in the marketplace. NEHANET can help you achieve that goal.

### Key Elements of the NEHANET Solution

NEHANET Corporation is the leading provider of complete end-to-end software solutions that automate sales, marketing, support and training processes across your entire business operations. Our solutions, ManufacturerCRM.com and RepCRM.com, are focused on the unique and different needs of manufacturers and representatives respectively. As such, our solutions focus on several key dimensions:

- **Automating business workflow and making data actionable.** For example, a rep enters a sample request and the regional manager approves it, and then customer service ships the sample. Or a rep enters a quote request, and depending on the price being requested, different roles in sales and marketing approve the quote; and after final approval, the rep emails the quote to the end-customer.
- **Gathering Information from disparate systems.** Multiple systems are a reality. However, NEHANET does a good job of bringing information together from different systems so that your sales and marketing people, in your company and at your reps and distributors, need to access only One System, NEHANET, to get the information they need.

This makes it easy for them to get the information they need, quickly and easily. It reduces the need for them to learn different systems. It helps improve your security procedures, in that you can define and control access to data from one system instead of having to do it in multiple systems. It may also save you money, in that you no longer need to purchase licenses for all your users on multiple systems.

Some examples are:

- Samples are requested and approved in NEHANET. Approved samples are then loaded into the ERP system as Zero Cost Orders and shipped out from the ERP system.
- Contacts, tasks and emails are managed by each individual in Outlook, but this information can also be consolidated and managed in NEHANET so you have a track record of what's happening and a single place to go to in case you need to retrieve it later.
- Quotes are entered in NEHANET. Orders are entered into the ERP system but are correlated and cross-checked against the quotes in NEHANET for accuracy and compliance with the terms and pricing.
- Forecasts are managed and rolled over in NEHANET. Approved forecasts are then loaded into the Manufacturing system so that production planning can be done effectively.
- Bookings, backlog and shipment information is entered into the ERP system and then loaded into NEHANET so that sales people and reps

have easy yet secure access to this information and can communicate it accurately and confidently to their customers as needed.

Distributor/Sold To Customer	Actuals						
	Aug 2006	Sep 2006	Oct 2006	Nov 2006	Dec 2006	Jan 2007	
	Rev (US\$)	Rev (US\$)	Rev (US\$)	Rev (US\$)	Rev (US\$)	Rev (US\$)	
Abadra Inc	Requested BackLog	-	-	2,400	3,600	7,200.00	4,320.00
	Committed BackLog	-	-	-	-	-	-
	Actual Bookings	140,519.50	136,833.25	39,840.00	-	-	-
	Booking	659,480.00	499,420.00	681,680.00	638,520.00	525,580.00	1,906,580.08
	Billing Constraint	23,680.00	15,080.00	83,840.00	37,480.00	80,480.00	40,440.00
Go Gets	659,480.00	499,420.00	681,680.00	638,520.00	525,580.00	1,906,580.08	
Book:Bill Ratio	0.00	0.00	1.04	-	0.00	0.00	
TOMEN	Requested BackLog	-	-	12,420	9,970	9,660.00	12,420.00
	Committed BackLog	-	-	12,420	9,970	9,660.00	12,420.00
	Actual Bookings	-	-	2,163,150.00	-	-	-
	Booking	285,550.00	441,080.00	482,420.00	427,880.00	331,650.00	1,284,800.04
	Billing Constraint	49,800.00	29,600.00	54,080.00	20,680.00	52,800.00	171,600.00
Go Gets	285,550.00	441,080.00	482,420.00	427,880.00	331,650.00	1,284,800.04	
Book:Bill Ratio	0.00	0.00	1.04	-	0.00	0.00	
DAE Components	Requested BackLog	-	-	90,200	118,800	72,600.00	7,200.00
	Committed BackLog	-	-	90,200	118,800	72,600.00	7,200.00
	Actual Bookings	101,129.25	118,042.50	4,951,326.70	-	-	-
	Booking	1,501,541,720.00	1,501,711,800.00	1,501,872,800.00	1,501,819,000.00	1,501,571,040.00	1,501,877,900.01
	Billing Constraint	16,520.00	87,400.00	28,400.00	83,600.00	28,320.00	73,820.00
Go Gets	1,501,438,529.25	1,501,595,123.20	1,497,222,874.50	1,501,919,000.00	1,501,498,440.00	1,501,669,740.01	
Book:Bill Ratio	0.98	1.01	1.14	-	0.00	0.00	
Ware Inc	Requested BackLog	-	-	15,462	72,726	60,014.00	70,481.00
	Committed BackLog	-	-	15,462	72,726	60,014.00	70,481.00
	Actual Bookings	-	-	6,171,920.30	-	-	-
	Booking	2,237,801,030.00	3,283,434,780.00	2,481,580,940.00	2,847,730,300.00	2,481,514,890.00	2,847,738,300.01
	Billing Constraint	260,680.00	487,000.00	473,580.00	820,720.00	431,300.00	821,120.00

- ✓ Report showing Bookings, Backlog and Constrained Billings Forecast

The NEHANET Information Integration Framework (described below) provides two levels to accomplish the above. The first is a web services based loose coupling framework whereas the second is a tight direct integration framework.

- **Integrating Information Views across Disparate Systems.** Bringing information into NEHANET is sometimes not the optimal solution. It may be better to let the information stay where it is; and provide an integrated view to the end-user which makes it appear like the information is integrated and easy to access.

For example, companies often have information on their websites (both public and internal websites) such as pricing, sales announcements, presentations etc that sales people and other end-users of NEHANET need easy access to. At the same time, it may not make sense to load this information into NEHANET. Thus, NEHANET, thru its dashboards and analytics engine provides an easy way to provide a unified view at the end-user level of this information, which actually comes from disparate underlying systems.

**The NEHANET Information Integration Framework:**

NEHANET provides a complete end-to-end web services architecture and open framework for rapid and seamless integration of data from external applications into and out of NEHANET applications. By making data integration straightforward and network-aware, the framework allows customers to integrate with the NEHANET application across the internet and move data in and out from back-end ERP applications as well as Outlook and other programs.

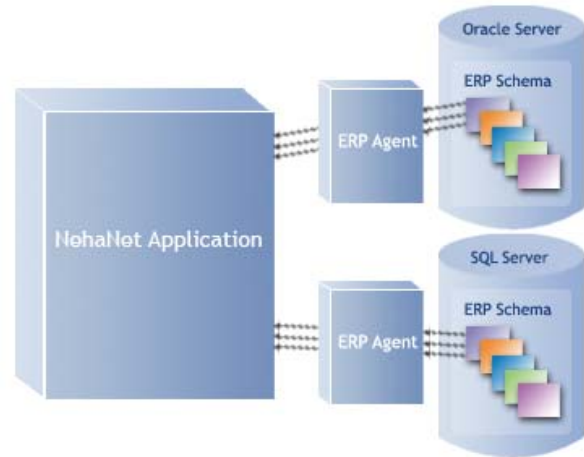
The NEHANET Information Integration Framework supports three different mechanisms:

- A manual data import/export mechanism for customers who transfer small amounts of data infrequently or wish to review and audit upon transfer and find a manual system to be the simplest option.

- A loosely coupled Web Services based integration framework that is ideal for customers who want an automated system that works in near real-time mode across machines, firewalls, networks and disparate customer systems.
- A tight database-to-database direct integration framework that removes the need to actually move any data back and forth, but provides the end-users with the information in a single application, securely and conveniently.

**Open Web Services Based Framework**

External applications can make authenticated calls to NEHANET to upload and download data on demand. The method call requires user authentication so customers may setup different levels of integration if needed depending on the user role (for example, useful in Outlook integration). The data format is XML and is based on SOAP open standards. The key elements of this Framework are:



**NEHANET Integration Agent**

NEHANET provides an Integration Agent that can be deployed on the same machine as the ERP system. The Integration Agent monitors for any changes that are made to the data and transmits that data to the NEHANET system. It can also receive data from any NEHANET system and update the local ERP/MRP system if required.

The IntegrationAgent is only required for older non-web services capable ERP/MRP or CRM systems. ERP/MRP or CRM systems that are already web services enabled can directly connect to NEHANET thru their web services stack and exchange data after they are authenticated.

**Data Mappings**

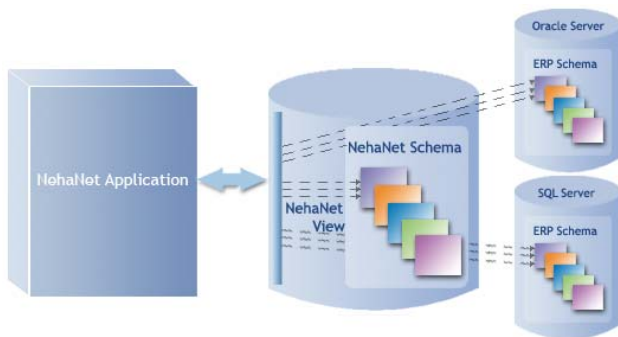
The NEHANET Integration Framework provides multiple tools and procedures to reconcile data between NEHANET and the third party application. It supports Part and Customer Alias mappings, with intelligent partial mappings and lookups using the region table to translate the data values used in the 3rd party system to the correct values expected in the NEHANET system. For example, the POS data may refer to Cisco; and that gets translated into Cisco System since that is the name already in place in the NEHANET application. Any data that does not map

over is flagged as un-reconciled in the system. Clicking on the Reconcile button invokes the reconciliation wizard wherein a current customer or part can be chosen, or a new customer or part can be created. This association is then remembered for subsequent use. The reverse process is used during data export, i.e.: the name that was imported into NEHANET is saved in the external information section and gets exported back out again. Verifying

### Database-to-Database Direct Integration Framework

Customers running the NEHANET application on the same network as their ERP system can benefit from the NEHANET Direct Integration Framework.

The Direct Integration Framework directly connects to the underlying database of your ERP system or other application; allowing the NEHANET application to get real-time information right from your system, while eliminating the need for any copying of data or maintaining duplicate data in different systems.



The Direct Integration Framework ensures that Customer, Parts and Order information are always retrieved and updated on a single database source. This ensures that no customer, part and order information is duplicated and removes problems keeping data in sync that often occur in loosely coupled systems. In addition, the flexible

architecture allows the customer to dynamically substitute one View Adapter for another if required; to control where the data masters are kept; and to control whether the View Adapters are read-only or read-write.

Configuring the Direct Integration Framework is straightforward and involves specifying the database details of the external application, and implementing View Adapters against your external database. NEHANET ships with certain View Adapters which can be customized as needed to fit your database schema. If required, View Adapters can be written for your specific database configuration and schema by NEHANET Services or one of our IT partners.

Bottom line - your users are assured of always getting the most accurate information, inside NEHANET, without having to access multiple systems.

### Learn More Now

NEHANET Corporation, the provider of ManufacturerCRM.com and RepCRM.com is the leading provider of specialized complete end-to-end software solutions that automate sales, marketing, support and training business processes across your entire business operations.

And now, this leading system can serve as a single repository of information for your sales people by bringing together information from disparate systems into one location that is both secure and easy to access.

It may be well worth your time to arrange for an in-depth demonstration and impact analysis to determine how such a powerful yet inexpensive system can make an immediate impact on your business. Execution is vital in any business. Why deprive your business of the benefits from this system and a potential source of competitive advantage?

Email [sales@nehanet.com](mailto:sales@nehanet.com) or call (888) 552-4470 today.

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