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industry
i2.0

Technology Management for Decision Makers

A vision for innovation

Tarang Jain,
Managing Director,
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TELECOM

We explore the latest technologies in telecom such
as Wi-Fi, Wi-Max, EVDO, which will revolutionise
the way we communicate

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Jasubhai

you have seamless mobility. Nokia has come out with handsets that allows you to switch between these two seamlessly.

How will these technologies, that are largely consumer driven, impact the manufacturing industry? If you look at any process driven manufacturing industry, you will have many employees communicating – shop floors are connected to shop floors and communication becomes important among employees who have to take decisions on the spot. Now, there are certain limitations that fixed line communications have on the shop floor because you can communicate only from one location whereas people are mobile on the shop floor. Only supervisor may sit at one place but he has to move across the shop floor and instruct employees to take quick decisions. If he has a communication device with him, it is always helpful.

A maintenance person who is working at a height normally uses VHF handsets but these are typicallyone-way communication devices and it is also not a secured mode of communication as the waves travel all across and the neighbouring industries can also catch these signals. This creates a major security issue especially in these times when enterprises are spending millions to protect their information. VHF handsets are also very bulky and cumbersome to carry. Advanced telecommunications will enable your obile devices to be connected to your wired network in a secured way .

eDiagnostics

Through implementation of eDiagnostics, you can reduce the cost of providing support to your equipment. What happens if you have imported some machinery and the only people who know how to repair it are based abroad. In that case, eDiagnostics makes more sense as it not only saves costs but also time and can keep your operations running 24x7.

Remote Maintenance will not happen without a communication infrastructure. So a wired or wireless communication infrastructure is necessary in a manufacturing plant if there are enough machinery which has to be maintained and repaired and there is no local expertise. There are two ways you can do this – one, a local person who knows something about it or the Indian representative can take help of the expert who is sitting out in Germany or US over a video conference and he can explain what is to be done. The other way out is that some of these machines have capability to get connected electronically and they digitise this information, transmit it over telephone lines to the other location where using computers experts could actually program and re-

Integration of GPS/GPRS systems with RFID based SCM Solutions

Software from companies like SkandSoft Technologies' Real-time Information Management platform SETU can help goods to be tracked right from the time it is manufactured till the time it's sold at retail outlets.

The process starts as the RFID tagged Items (I-4566) are loaded onto RFID Tagged Cases (C-4589), at this point the two are associated by the SETU software, then the RFID Tagged Cases are loaded onto the RFID Tagged Pallet (P-3042) and the two are again associated.

Now, the Pallets are finally ready to be shipped by truck (ABC-123) that has a built in GPS/ GPRS system. As the pallets are loaded onto the truck, the SETU software associates the Pallet Number 3042 to the truck number ABC-123. The Truck (ABC-123) departs location A to location B that is 12 hours away.

By clicking on the particular item number, SETU can give the users a Real-time view of the location of that particular item in transit on a particular truck, it can even display on the GIS map its current location and expected delivery time to the next way point. Software's like SETU are so advanced that they request for periodic updates from the Truck's onboard GPS/ GPRS systems and plot the progress at timed intervals. Now, if the Truck is supposed to take 12 hours from destination A to B, and if the truck does not arrive at predetermined waypoints within the allotted time or the truck (ABC-123) is going to destination C by mistake, SETU will start sending out SMS, emails, etc. with the current location of the truck to the concerned persons (Truck Driver, Logistics Manager, etc) requesting them to take appropriate action. The possibilities of the use of such technologies are only limited by the imagination.

By **Mr. Homi Limbuwala**, VP of Business Development at SkandSoft Technologies (homi@skandsoft.com)

pair some of the machines that are there in India. By remotely connecting your manufacturing facilities to suppliers for diagnosis and repair in real time, you can minimise equipment downtime, increase factory productivity, and reduce support costs.

Manufacturing today is not centralised and is becoming distributed. If we look at the auto industry, once an automobile industry comes up, ancillary industries too come up. What the ancillary industries are doing is producing small parts of the main product, that are finally assembled into a product. This is a type of remote manufacturing. Everything is not getting manufactured in one location but at different locations. To ensure everything works smoothly, a good communication network is important.

RETAIL OUTLETS (RO)

Retail Outlet A Warehouse — R7
Retail Outlet A Retail Floor — POS-A
R6

Retail Outlet B Warehouse — R9
Retail Outlet B Retail Floor — POS-B
R8

Adaptive Retail Solution On

SCTU
Your Bridge to
Real Time iNFORMATION
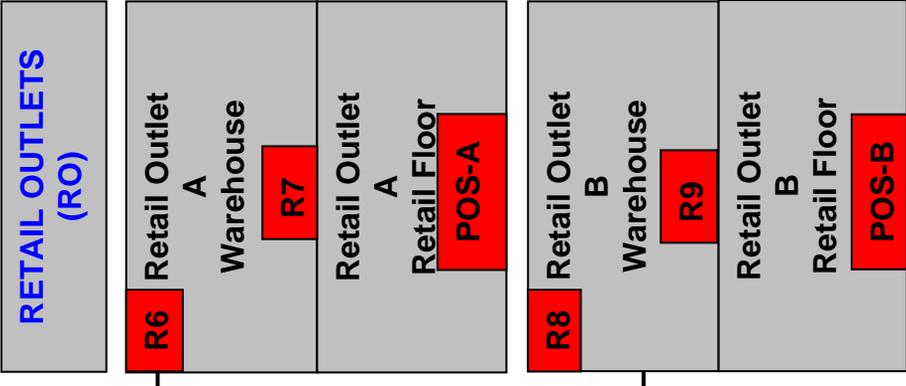
REGIONAL DISTRIBUTION CENTRES (RDC)

CASES RECEIVED FROM RCC ARE RESIZED IN SMALL CASES AND PACKED IN SMALL PALLETS TO BE SENT TO RETAIL OUTLETS (RO)

BP1
- BC1-20 Kg — T
- BC2-20 Kg — T
- BC3-20 Kg — T

SP1
- SC1-10 Kg — T
- SC2-10 Kg — T

R3
R4
R5

SP1 (truck)
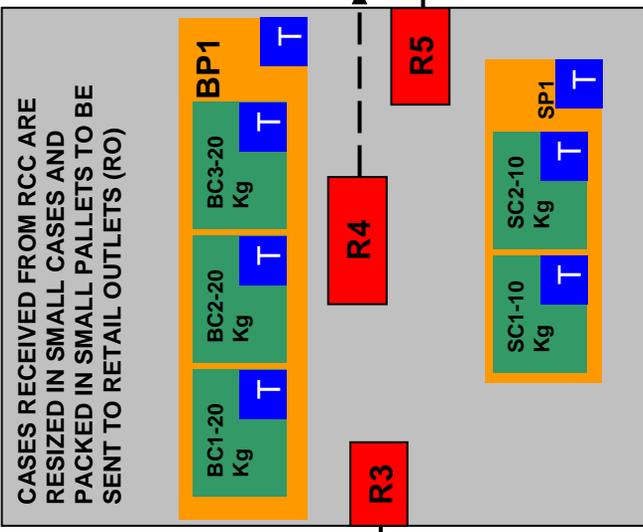
REGIONAL COLLECTION CENTRE (RCC)

FARM PRODUCE – PACKED IN CASES & RFID TAGGED. CASES ARE THEN CARRIED IN RFID TAGGED PALLETS

- BC1-20 Kg — T
- BC2-20 Kg — T
- BC3-20 Kg — T
R1

BP1
- BC1-20 Kg — T
- BC2-20 Kg — T
- BC3-20 Kg — T
R2

BP1 (truck)

Legend

RFID TAGS — T
ACTIVE TAGS WITH BUILT IN GPS/ GSM — A

RFID READERS — R
POS/ BARCODE READER — POS

C1 = Potatoes
C2 = Tomatoes
C3 = Onions
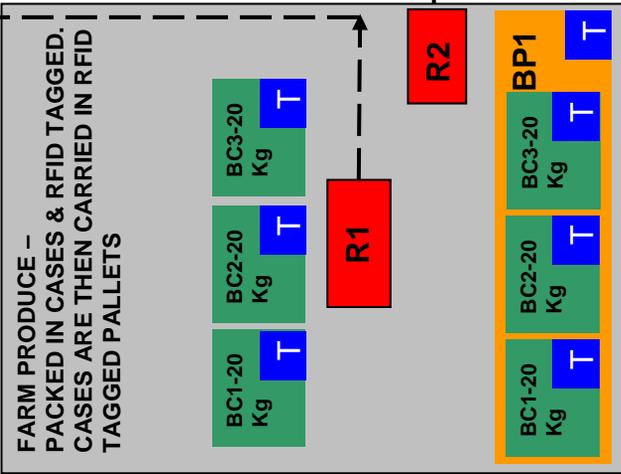
PALLETS
BP – BIG PALLET
SP – SMALL PALLET

CASE CONTAINING FARM PRODUCE
BC – BIG CASE
SC – SMALL CASE

BP1
BC1-20 Kg