



**Reliance- Hazira
IT
Systems**

Vision

Help Business Provide World Class Products and Services to their customers by pace setting use of Information Technology to give business:

- A competitive edge among the global players**
- To be the leader in its areas of business**
- Maximize profits and satisfy stake holders' needs**
- To be the preferred supplier to its customers**
- To show case the total process industry automation solution**

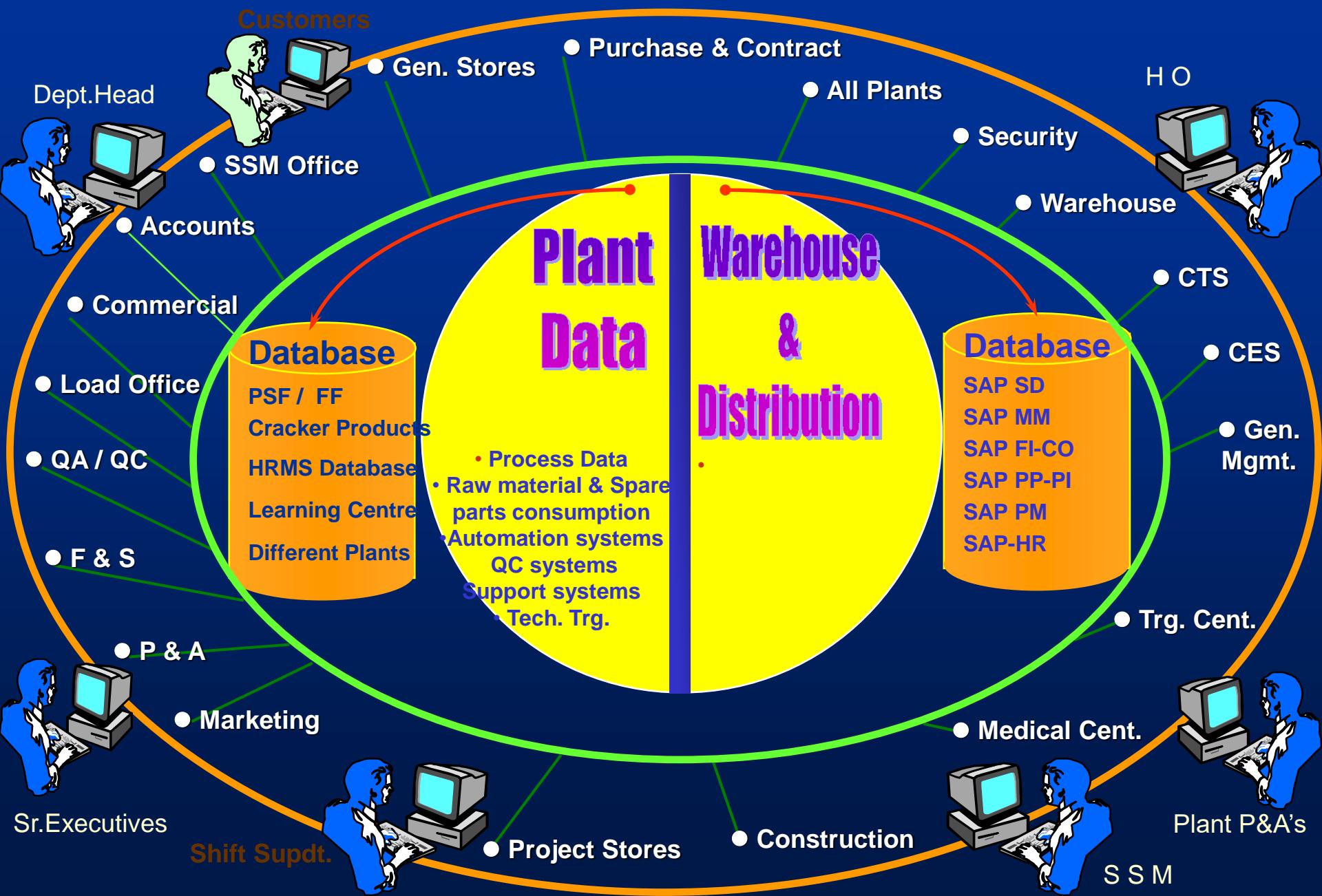
Objectives

- To provide integrated information systems to manage & operate company's operations
- To create an intelligent enterprise having real time business, logistics, manufacturing and services
- To create a strategic tool for speedy & flexible response to business changes
- To provide uniform systems across the sites accessible from anywhere
- To provide support services and infrastructure for online transactions and facilitate process control and optimization environment

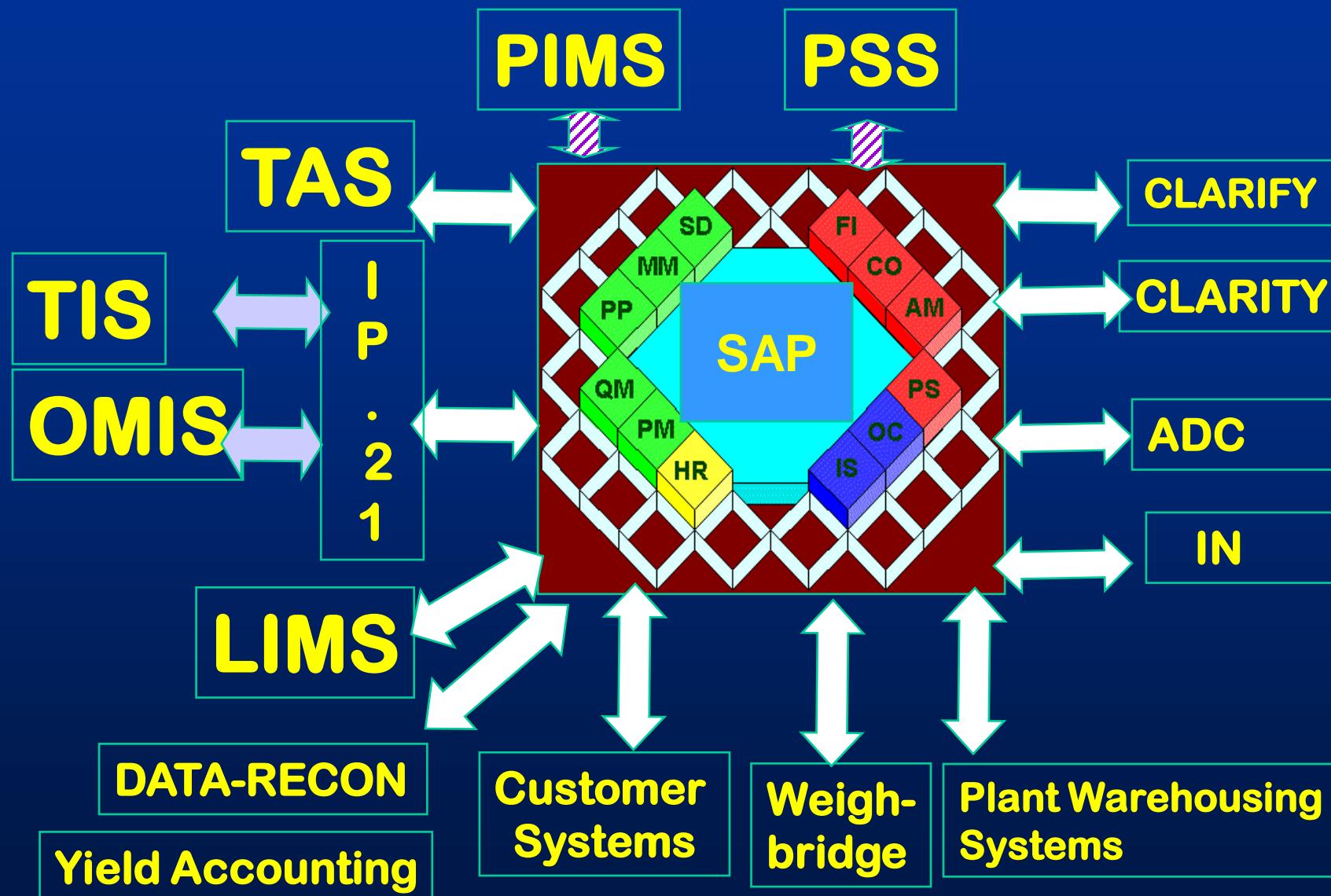
IS / IT Strategy

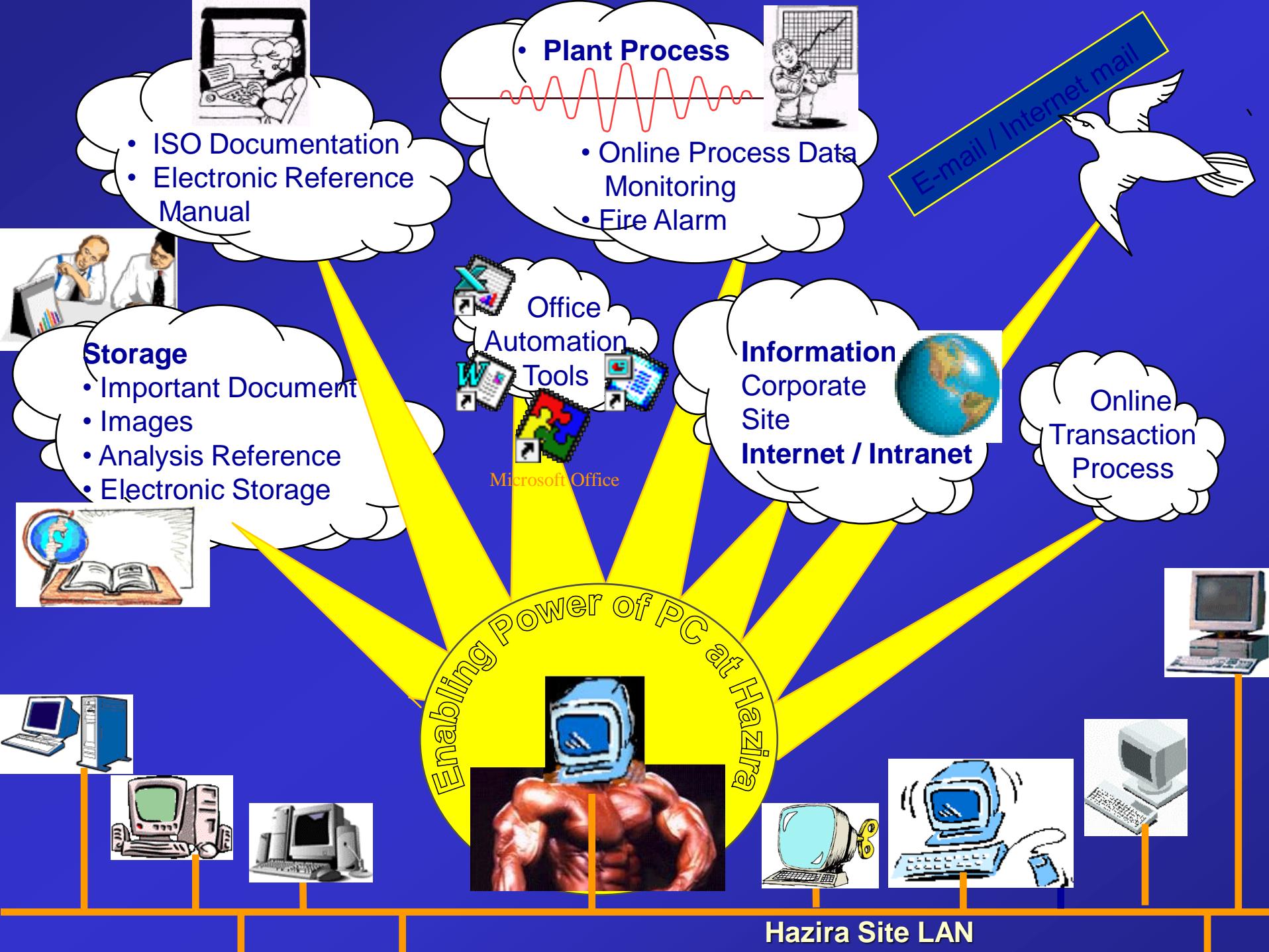
- One Point data acquisition for all business process.
- Integrated system
- Minimised dependency on manual controls by providing system based controls
- Standard GUI for all business processes
- Data integrity and system security
- Flexibility and short delivery time in implementation of solutions
- Elimination of manual records / registers / documents
- Provide right information at right time and right place
- Interactive and collaborative environment
- Cost effective solution
- Provide traceability in modification and updation of data.
- Enabling tool at all level
- Decision support system

Integrated Management of Information & Data



Interfaces between SAP and Other Systems





Hazira Home Page

Reliance Hazira Site... - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media | Links > Address http://intranet.hazira.ril.com Go

HAZIRA Search FAQ Chat Guest Book Sampark email - us myHazira Site Map IT / IS

Monday, May 21, 2007 | HEALTH TIP : Use of Baking /cooking soda can actually neut...

Employee Information **Blood Group Search** **Surat City Information** **Policy Browser** **Phone Book (Hazira)** **Phone Book (DAKC)** **Birthday Wish** **World Time Server**

PHOTO GALLERY

Email

AT YOUR SERVICE

- SSM Report
- POY Prod System(POYPRS)**
- PSF-Autefa Daily Report**
- Plant Snap Shot
- Technical Library
- Quality Circles
- WebPager
- RELSAP
- Knowledge Management System
- POY PRS Application (CP10)**
- PSF PRS Application**

MISC.

- Six Sigma - Initiative
- PSF Market Complaint System
- QC Report & Graph
- Corporate Capex Portal
- Poy Chem. Lab
- C E A S
- Liveries Management System
- Quiz Management System
- Vehicle Identification System
- Reliance Hazira CSR Portal
- Satisfaction Survey
- Medical Information System
- Permission Monitoring System
- Kaizen - Suggestion System
- Non Sup Appraisal System
- RAIS(Vehicle Booking)
- CP10 Project Documents
- Energy & Fuel Cell
- KAIZEN - Knowledge Portal
- Visitor Gate pass System
- FCO Tracking System
- TQM Factorial Analysis

ACTIONS

- Hazira Overview
- Induction Manual
- IBR ACT
- MSDS
- OISD Standards

APPLICATIONS

- Traffic Safety
- Utility Cost
- Templates
- TQM
- Medical Library

GYANMANDIR

- Hazira Emergency Action Plan
- DuPont Safety Management Evaluation
- CII-EXIM Bank Award for Business Excellence -2006
- Obsolete Equipment - OYS
- Deming Hazira DTQMP
- International chemical safety cards
- AICHE 2007 Conference

MEDIA RELEASE

| Media Archive |

DOCUMENTS

Other Sites

Kurvin Kapadia - Inbox ... Microsoft PowerPoint - ... Reliance Hazira Site... Local intranet

Start 1:46 PM



- Increase productivity of resources (funds, manpower, energy, material and machine)
- Enhance the capability of manpower at various level
- Minimize the cycle time of operation
- Minimize cost of communication and collaboration
- Optimization of cost of manufacturing and distribution
- Customer satisfaction
- Employee satisfaction
- Protection against obsolescence of manufacturing
- Processes and practices

Brief Description of IT Systems



- **The key responsibilities of IT Dept includes**

- Develop and implement integrated systems
- Network operations and maintenance
- Data Centre Operation
- System Administration
- System Security and Disaster Recovery systems
- Operate automation systems at Polyester Complex



- **The Campus Area Network at Hazira includes ...**
 - 1 Gbps Fast Ethernet Backbone fiber optic network (49 Km)
 - Star-Mesh Topology with two core switches configured for auto fall back
- **Hazira CAN is connected to the other manufacturing sites through ..**
 - 2Mbps leased line
 - 512Kbps VSAT link
- **Every supervisory staff (more than 1900) is equipped with a PC connected on CAN**
- **On each PC, the following can be accessed**
 - SAP
 - E-mail
 - Intranet / Internet
 - Plant Process Systems
 - Office Automation Systems
 - Manufacturing Applications
 - Human Resource Support Systems

Brief Description of IT Systems



- All the commercial systems are managed through ERP system SAP
- All the manufacturing sites and marketing operations access on the network to single server located at Jamnagar running SAP
- All the plant DCS & Automation Systems are connected on the network for seamless flow of process data
- The network provides for communication through ...
 - Video Conferencing
 - E-mail services
 - Internet and Intranet Access
- The IT systems are managed for providing support on 7 x 24 x 365 basis by ...
 - Engineers from IT Dept
 - Vendor Engineers

Current Manufacturing Systems

- Lag Area Manual Packing (POY)
- Automatic Bobbin Handling System (POY) SALMOIRAGHI
- OLM System (POY)
- PSF Production and Warehouse Management AUTEFA
- Project Materials Management System (PMMS)
- Project Accounts
- POY Production Reporting
- POY Quality Control
- POY Chemical Lab
- PSF PT Lab
- PSF / FF Production Reporting
- POY Process Data Acquisition & Reporting
- Plant Snap Shot
- SSM Reporting
- Permission Monitoring System
- Integrated Solution through IP21

Current Manufacturing Systems

- Integration with SAP
- Auto Warehousing System (CP-10 and CP-11) SMC
- Bale Transport System -BTS (CP-11) AUTEFA

Current Business Systems

- Enterprise Resource Planning Software : SAP
- Modules of SAP in operation
 - SD (sales & distribution)
 - MM (Materials Management)
 - PM (Plant maintenance)
 - PP-PI (Production planning – Process-Information)
 - FI-CO (finance and costing)
 - HR (Human resource)

Support services Applications

- HSEF Contribution System
- Non Sup Upgradation System
- Non Sup Appraisal System
- Six Sigma Portal
- Energy and Fuel Knowledge Portal
- Performance Diary
- Quality Circles
- Liveries Management System
- Duty Chart System
- Vehicle Identification System
- Visitor Gate Pass System
- HSEF Incident Tracking System
- Kaizen Suggestion System
- Permission Monitoring System

Support services Applications

- Common Master Maintenance
- Common Login
- Event Log Management System
- Chemical Lab Transaction Process and Reports
- Medical Insurance System
- Quiz Management System
- Hazira homepage / Gyanmandir
- Contractor Employee Attendance System
- Question Bank System
- Reliance Administrative Information System
- Legal Compliance System
- RHETA Billing System
- RGTL Payment of Award System
- TQM Factorial Analysis
- Internal Customer Satisfaction Survey System

Current Office Automation Application

- MS Office
- Lotus Notes
- Trend Micro Anti-Virus Software

Interface between SAP & Mfg. System

- **POY Dispatch System**
 - To transfer the Pallets and Cartons data to SAP for POY
- **PSF Warehouse & Dispatch**
 - Production data to SAP
 - Sales order and truck details to Warehouse system
 - MPN data to SAP for invoice preparation
 - DCPI details from SAP for handling market complaints and dispatch reports
 - Customer master from SAP
 - Material master data to SAP
 - Cancelled invoice data from SAP

Interface between SAP & Mfg. System

- **Terminal Automation System**
 - Transfer of tanker wise details for auto-loading
 - Transfer tanker wise details to SAP for invoice preparation
- **Weigh Bridge**
 - Transfer of weight captured from WB to SAP
- **IP 21**
 - Transfer of Utility and Raw material data to SAP for process order confirmation
- **HRMS**
 - Transfer of employee master data from SAP
- **Time Attendance System**
 - Transfer of Attendance data to SAP

Tools used in application development

- **Development Tools**

- Visual basic
- Crystal Report
- Oracle forms / Developer 2000
- ASP with VB/Java Scripts
- JSP with Java Scripts
- ASP.NET

- **Programming Language**

- C/C++/VC++
- Embedded C

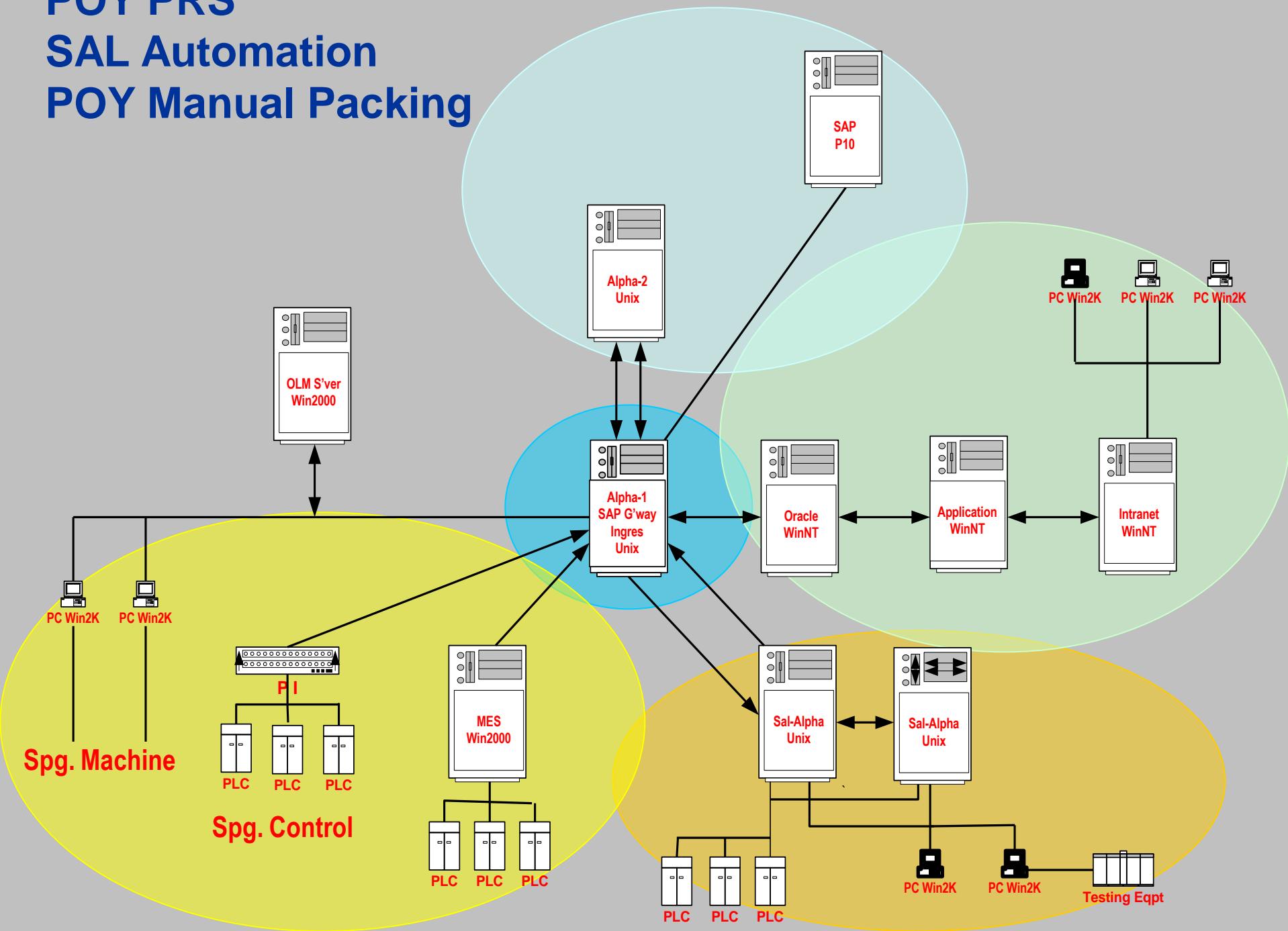
Tools used in application development

- RDBMS
 - SQL Server 6.5 / 7.0 / 2000
 - Oracle 8i/9i/10g
 - Open Ingres 2.0
- DBMS
 - Foxpro (Conventional & Visual)

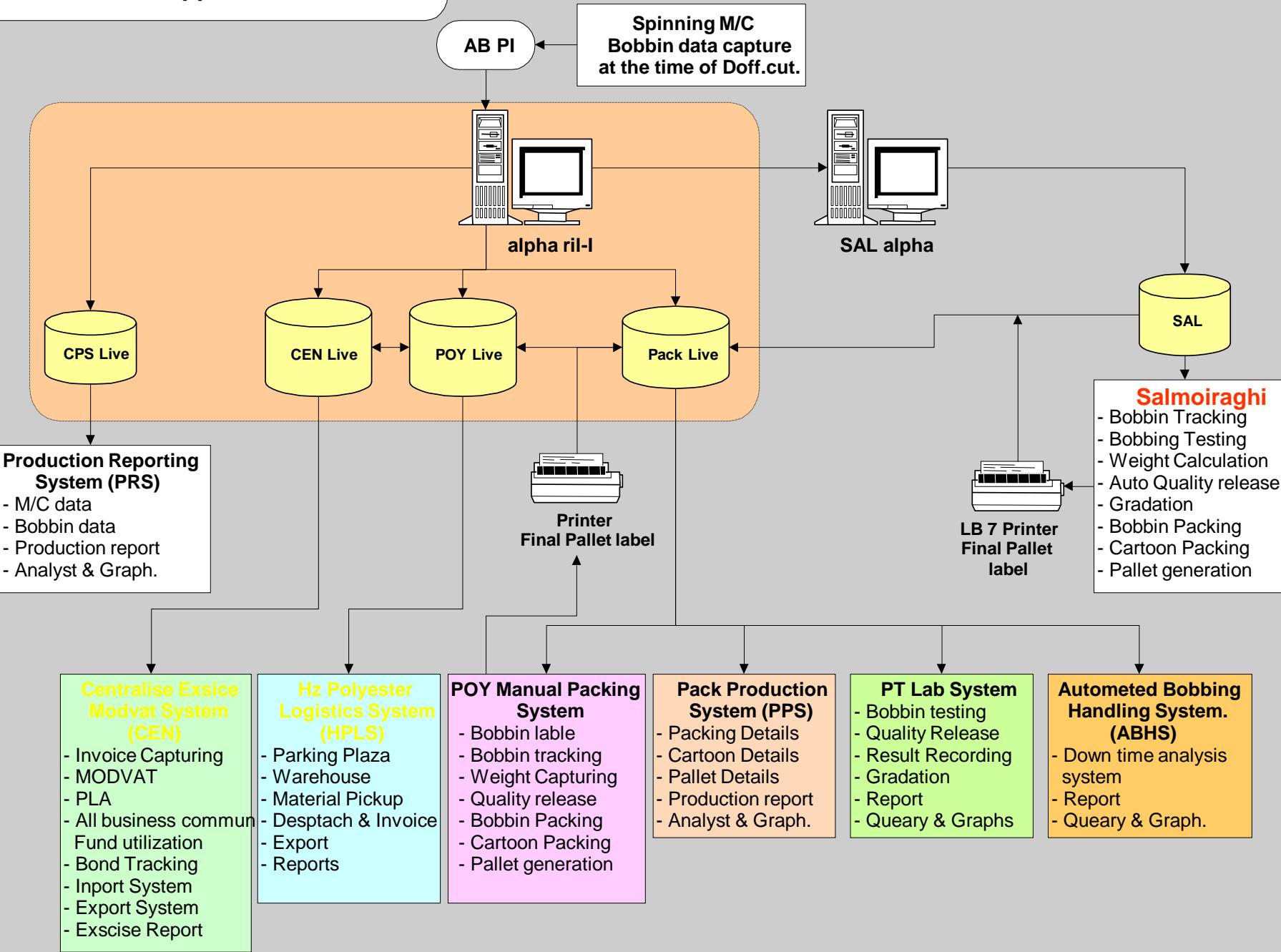
POY PRS

SAL Automation

POY Manual Packing

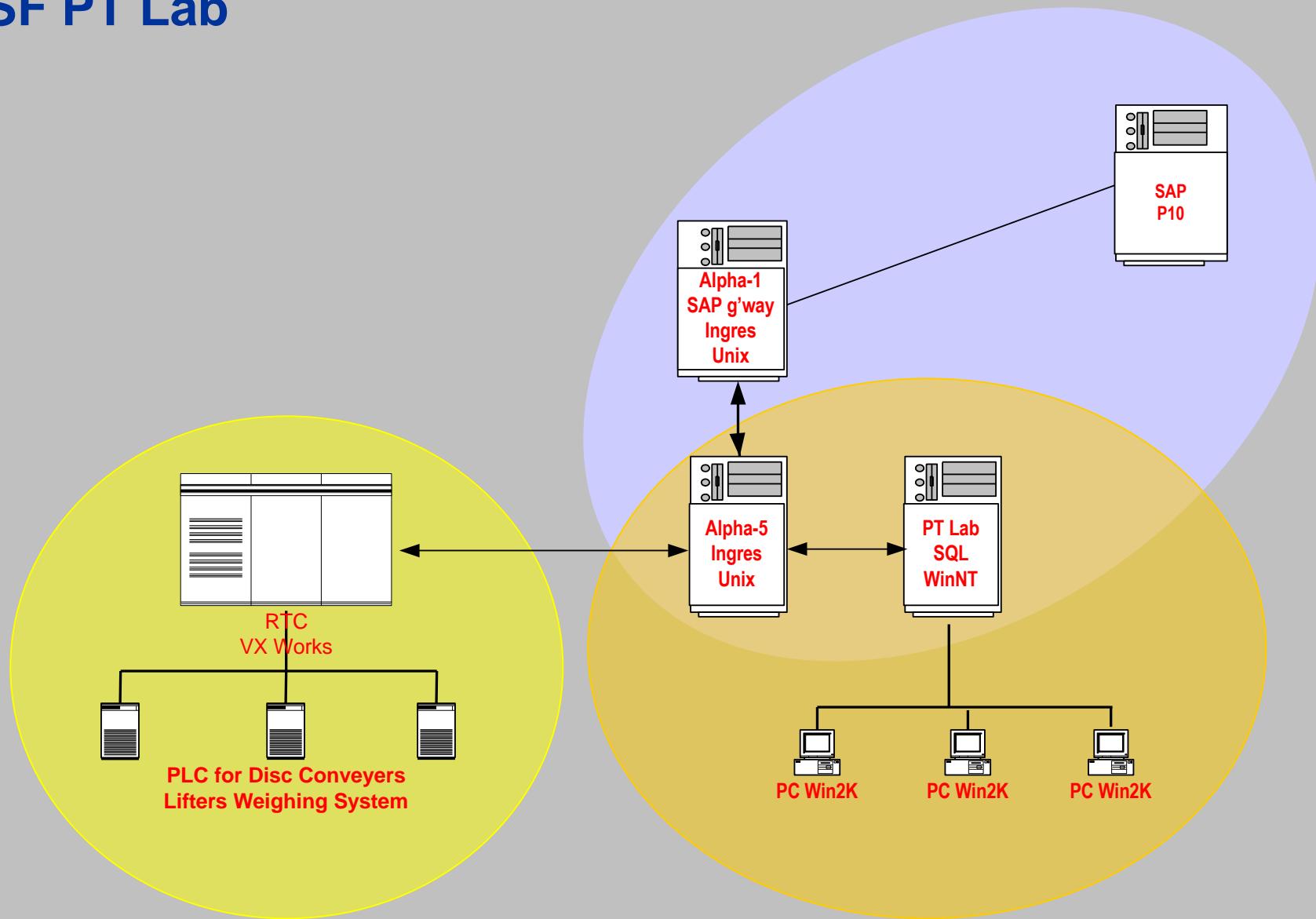


POY Business Applications - HAZIRA



AUTEFA PSF Bale Warehousing

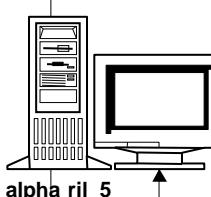
PSF PT Lab



In Flow

Production Reporting System (PRS)

- Baler data
- Bale Production data
- Production report
- Analyst & Graph.



PSF live

Bale table

Autefa

Bale table
RILProduction System

- Pre Label
- Merge Master
- Creel Change Entry

Bales to Manual W/H

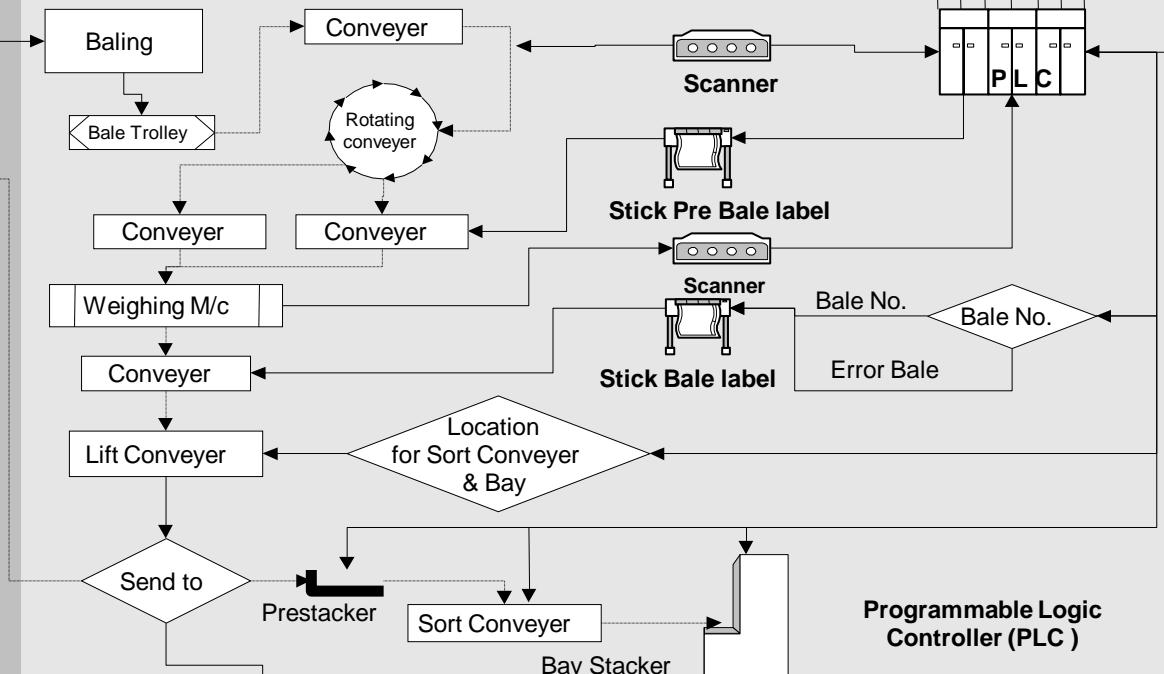
- Error label
- Damaged/ Odd shape
- Floor assigned at baler

Manual W/H at 11M

- Shift the bale from End Conveyer
- Stack the bale as Shift, line no and Baler wise in transit area
- Change Bale label after release if any change

Production Receipt

- Generate Location Advice
 - Update bale location as per Autefa stacking position
 - Generate Location advise for manual W/H shift bales
- Print Bale location label
- Print Location advise report
- Shift the bales from transit area to Respective location
- Production Handover Report
- Update stacking position after shifting of bales.
- Reconciliation

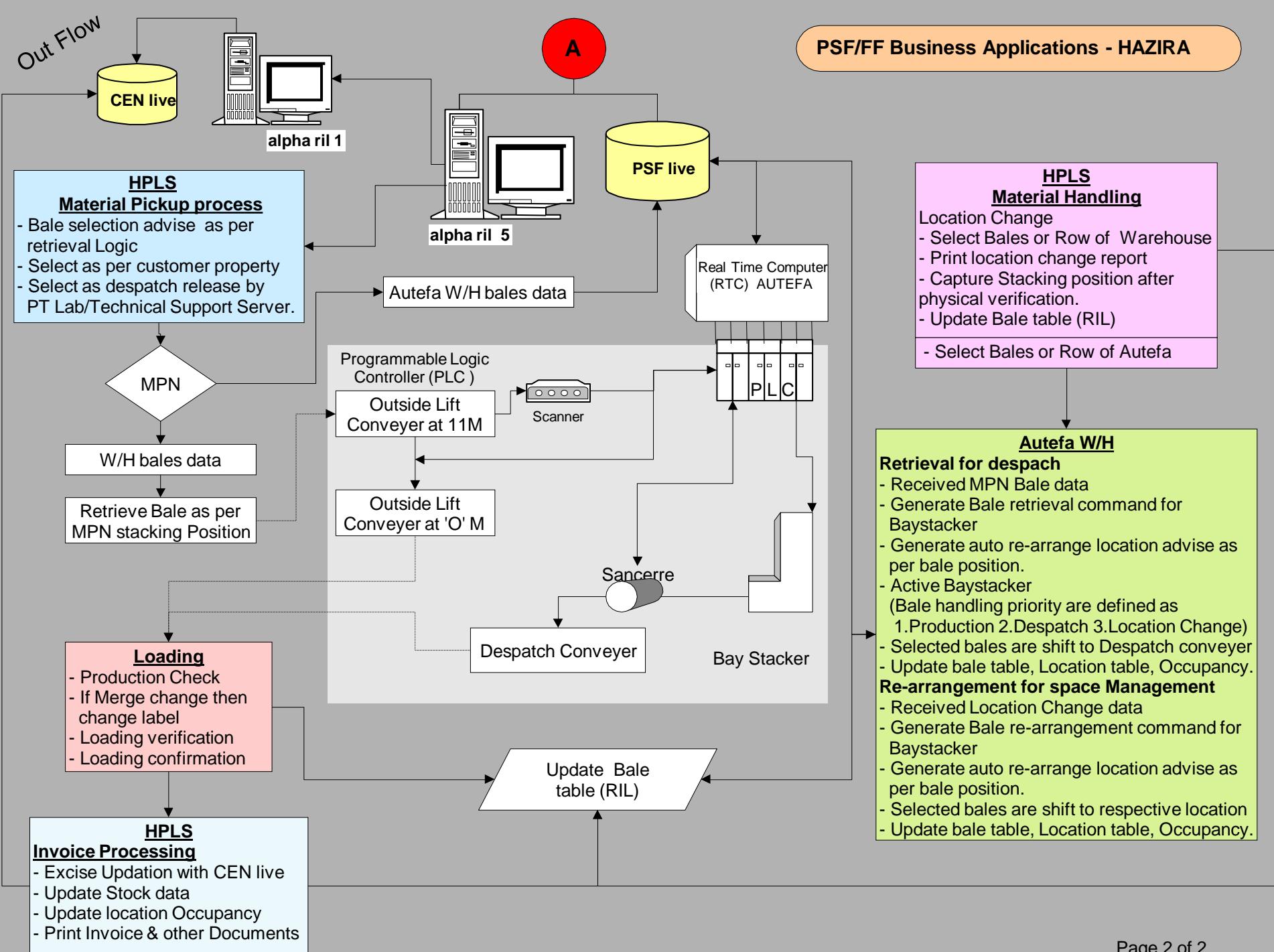
PT Lab System

- Bale sample testing
- Bale wise Result Capturing
- Gradation
- Shift & Line wise product Release
- Reports & Graph

Programmable Logic Controller (PLC)

Autefa W/H at 'O' M

- Bale stack by pre-stacker, on to Sort conveyer.
- 3 Bale accumulate and decides stacking position
- Baystacker Lift the bales from sort conveyer and stacked to actual position
- Update location in autefa bale table



HRSS / Medical Insurance

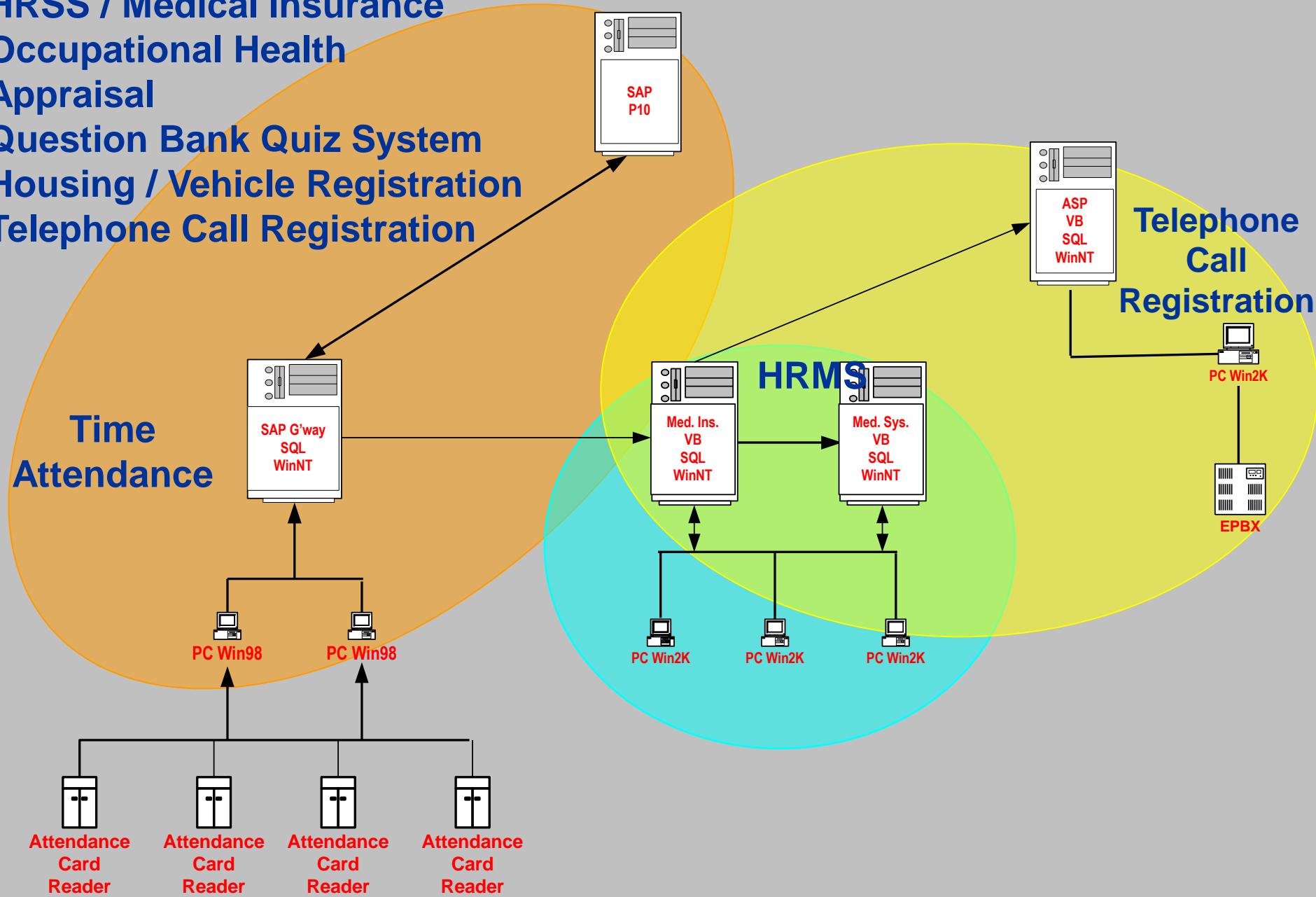
Occupational Health

Appraisal

Question Bank Quiz System

Housing / Vehicle Registration

Telephone Call Registration

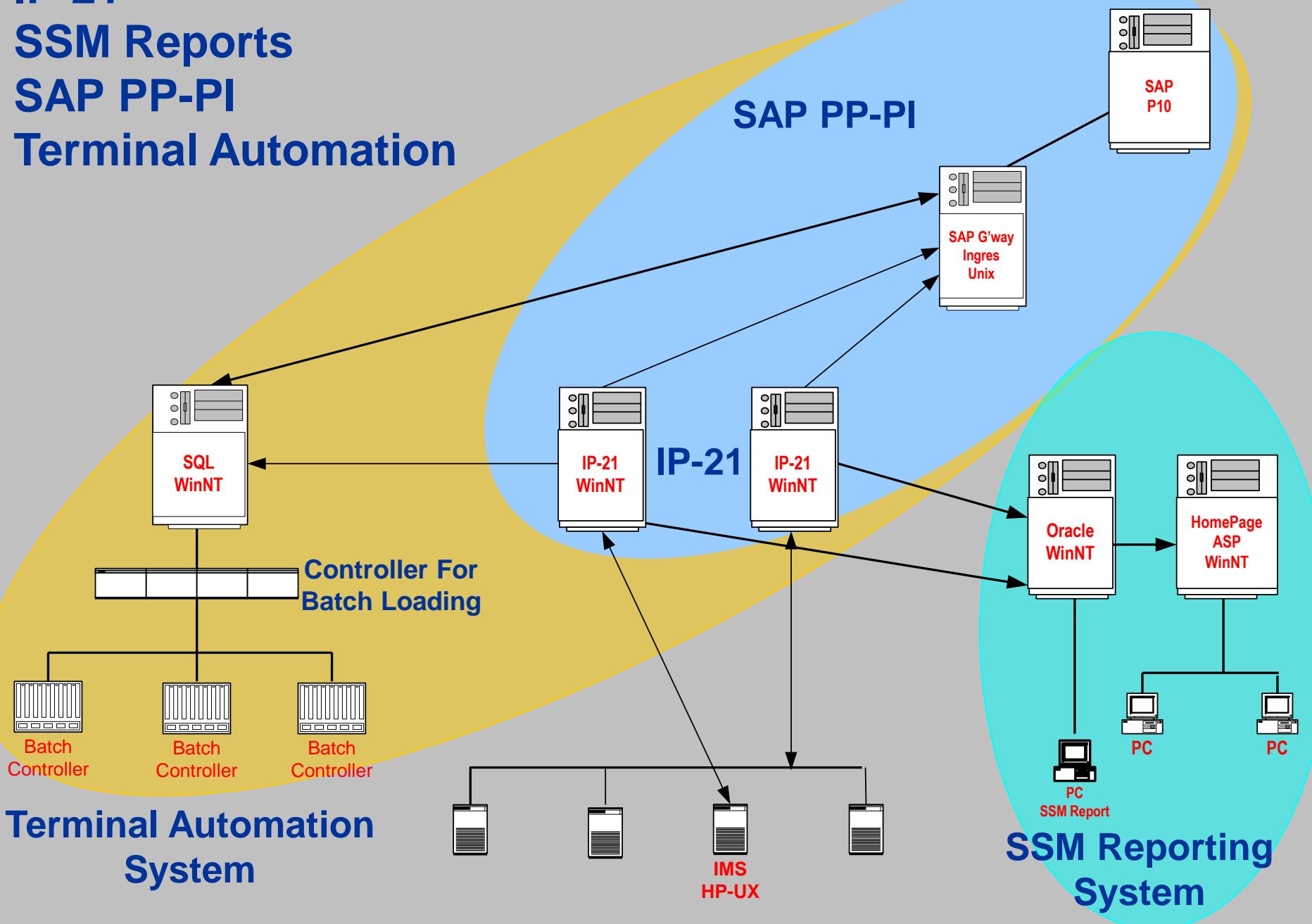


IP-21

SSM Reports

SAP PP-PI

Terminal Automation



Projects on Hand

- Integrated PSF Manufacturing System
- Integrated Solution through IP-21
- Auto ware housing system for POY and PSF in new polyester plants
- Auto Bobbin handling system (SALMOIRAGHI – New Plant)
- POY and PSF manufacturing systems
- Integration with SAP

Issues in Application Management

- Heterogeneous platform
- Development skills for heterogeneous tools
- Lack of standardization across the applications
- No documentation
- Shrinking strength - leads to acquire multiple skills
- Increased requirements for manufacturing application
- Issues related to upgradation and migration

Our Journey ...

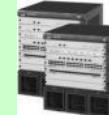
Discovering New Problems

	1991 to 1994 Pre TQM Phase	1994 to 1999 Introduction Phase	1999 to 2002 Promotion Phase	2002 onwards Development Phase
Problems	Implement application System for Manufacturing Process	Integration of Business System	Implement decision support systems both in business and manufacturing area	Anywhere, anytime computing
	Implement Application System for Manufacturing Support	Integration of manufacturing and business system	Implement Document management system	Knowledge portal
	On-line connectivity with Head office			Online learning systems
	Integration of Manufacturing Support Systems			RFID systems
	On-Line Connectivity with HO & Marketing			Decision Support System

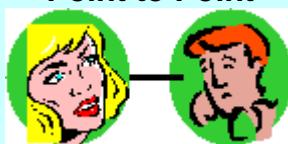
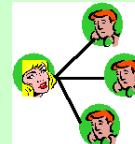
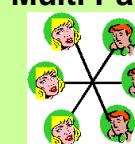
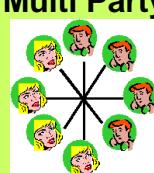
Planning for Database

	1991 to 1994 Pre TQM Phase	1994 to 1999 Introduction Phase	1999 to 2002 Promotion Phase	2002 onwards Development Phase
Database Systems 	Project Materials Management System	Centralized Excise Fund Management System	SAP Modules	PSF Manufacturing System
	F&A, Payroll	Dispatch System for Polymer & Polyester Systems	Process Data Acquisition (IP-21)	POY Manufacturing System
	Tankfarm Management System (Liquid Products)	Truck / Tanker Tracking System	Quality Circle Portal	Auto Warehousing System
		Automatic Warehousing System	Hazira Site Intranet Home Page	Business Information Warehouse
		On-line Employee Attendance System		
		HR Activities		

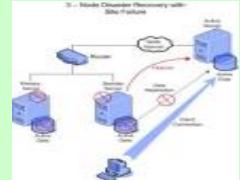
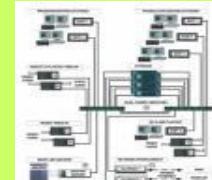
Information System at RIL Hazira

	1991 to 1994 Pre TQM Phase	1994 to 1999 Introduction Phase	1999 to 2002 Promotion Phase	2002 onwards Development Phase
Availability of access to PC % of Employee	10 % 	50 % 	75 % 	90 % 
PC Population	300 	1000 	1400 	1700 
Laptops	Nil	Nil	25 	68 
Server Population	5 	25 	35	55
Network Switches	125 (Hubs) 	13 (3-Com) 	190 (Cisco) 	210 (Cisco) 
Network Cable Length (Fiber)	9 Km	23 Km	56 Km	79 Km
Network Bandwidth	2 Mbps	10 Mbps	100 Mbps	1 Gbps

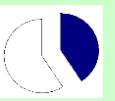
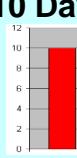
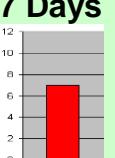
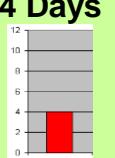
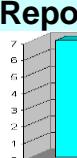
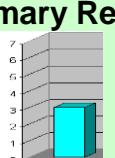
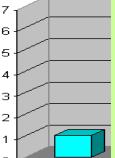
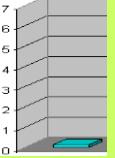
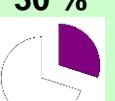
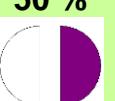
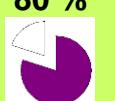
Information System at RIL Hazira

	1991 to 1994 Pre TQM Phase	1994 to 1999 Introduction Phase	1999 to 2002 Promotion Phase	2002 onwards Development Phase
WAN Connectivity	Dialup 9600 bps 	V-SAT 128 Mbps Lease Line 2 Mbps 	V-SAT 128 Mbps Lease Line 2 Mbps 	Lease Line 2 Mbps 
Video Conferencing	Point to Point 	Multi Party 	Multi Party 	Multi Party 
e-mail users	300 	500 	850 	1200 
Web Mail Access	Nil	Nil	Nil	40 
Data Volume through e-mail	100 MB 	10 GB 	40 GB 	60 GB 
Avg. Paper consumption per month	1500 reams 	1250 reams 	1070 reams 	920 reams 

Ensuring Reliability

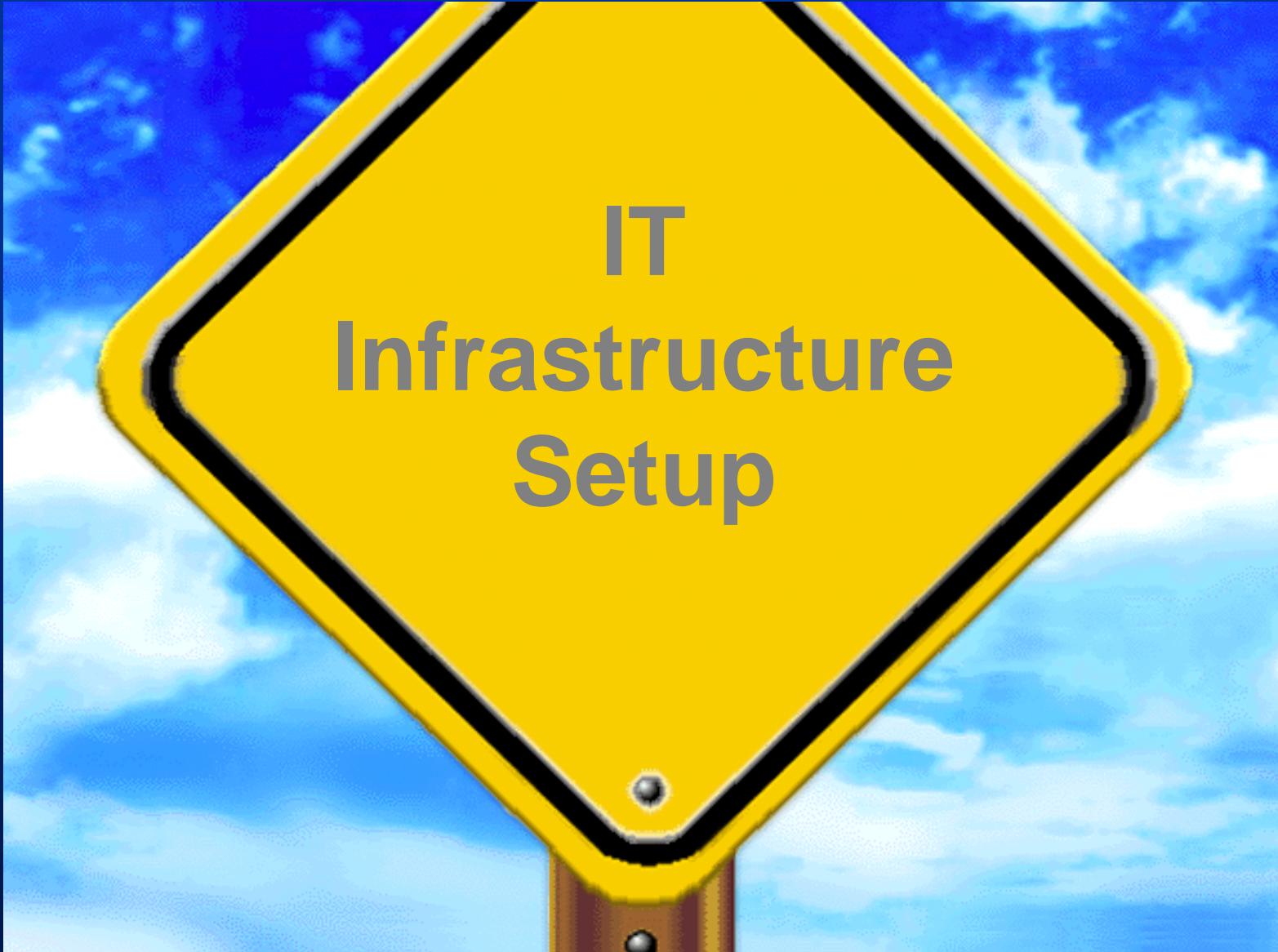
	1991 to 1994 Pre TQM Phase	1994 to 1999 Introduction Phase	1999 to 2002 Promotion Phase	2002 onwards Development Phase
Data Backup	Magnetic Tape 	DAT 	DAT + DLT 	SDLT 
Disaster Recovery Servers	None	Two 	Four 	Six 
Redundant Switch	None	None	Two	Two
UPS	Standalone UPS (2 Nos) 	Standalone UPS (10 Nos) 	Plant UPS + Standalone UPS 	Two Different Plant UPS + Standalone UPS 
Antivirus Server	None (Reactive Approach)	None (Reactive Approach)	Manual Control	Automatic Updation
Offsite Backup	1 Location	2 Locations	2 Locations	4 Locations
No. of WAN Links	1 Link	2 Links	2 Links	3 Links

Cycle Time Reduction in Data Acquisition & Dissemination

	1991 to 1994 Pre TQM Phase	1994 to 1999 Introduction Phase	1999 to 2002 Promotion Phase	2002 onwards Development Phase
Process Data Acquisition	5 % 	45 % 	80 % 	100 % 
Business System Integration	Batch Mode for Project Materials Management System	Finished Product Dispatch System for Excise Fund Management	ERP – SAP (FICO, SD, MM, PP-PI)	SAP & HR Systems
Delivery Order Completion Cycle Time	10 Days 	7 Days 	4 Days 	Same Day 
Real Time System & Business System Integration	Only Weighbridges	Automatic Packing System with Logistics System	SAP with Plant DCS	Automatic Warehouse System with SAP
Cycle Time for preparation of product wise daily contribution report	Weekly Summary Report 	Twice a Week Summary Report 	Daily Summary Report 	Reports within 3 Hrs 
Percentage of calls responded within an Hour after registering at IT Help Desk	10 % 	30 % 	50 % 	80 % 

Approach to Data Analysis

	1991 to 1994 Pre TQM Phase	1994 to 1999 Introduction Phase	1999 to 2002 Promotion Phase	2002 onwards Development Phase
Approach	<p>System Integration through batch transfer of data to achieve uniform version of same information</p> 	<p>Ensure single point data capture in all system</p>	<p>Provide access to similar type of information to functional groups working across the group companies e.g Purchase price of same material across the sites</p>	<p>Provide access to data from anywhere</p>
		Implement seamless integration procedure for data exchange between heterogeneous systems	<p>e.g</p> <p>1 Inventory of spares and catalyst.</p> <p>2 Quality performance of similar product</p>	Provide access to data to business partners like important vendors and customers, service providers

A yellow diamond-shaped road sign with a black double border and a black post at the bottom. The sign is set against a background of a bright blue sky with scattered white clouds.

IT Infrastructure Setup

Hardware Installation

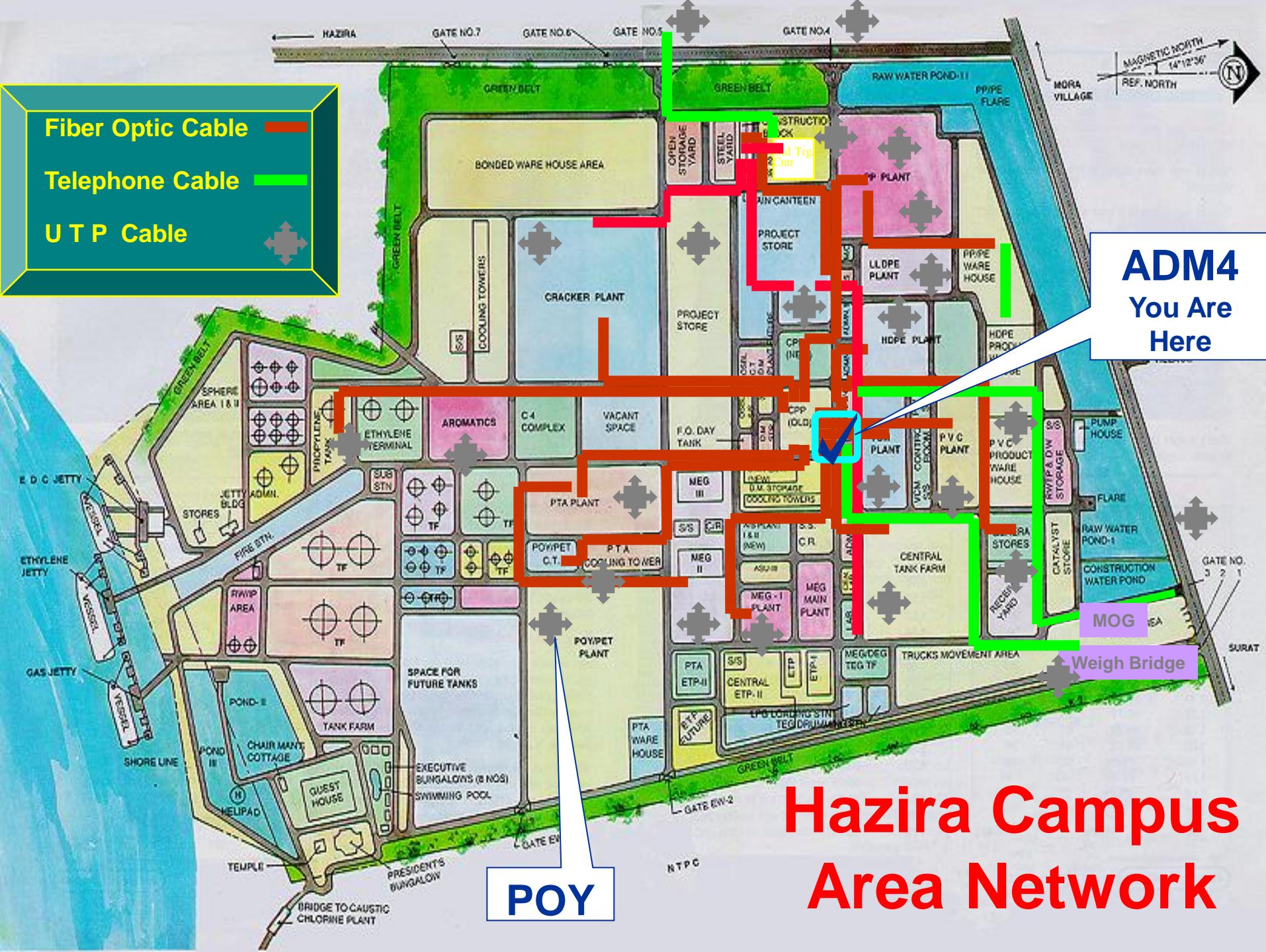
- **Intel Servers** : **32 Nos.**
 - Windows 2000 : **10 Nos.**
 - Windows NT 4.0 : **21 Nos.**
 - Novell 3.12 : **1 No.**
- **Alpha Servers** : **17 Nos.**
- **Desktops** : **1500 Nos.**
 - Windows 2000 : **900 Nos.**
 - Windows 9x : **400 Nos.**
 - DOS for Plant Interface: **200 Nos.**

Hardware Installation

- Printers : **704 Nos.**
 - DMP : **300 Nos.**
 - DeskJet : **300 Nos.**
 - LaserJet : **90 Nos.**
 - Thermal : **12 Nos.**
 - Line Matrix : **2 No.**
- Attendance Card Reader : **88 Nos.**
- Barcode Scanners : **25 Nos.**

Functional Distribution of Servers

● IIS	:	3 Nos.
● MSSQL	:	5 Nos.
● Oracle	:	3 Nos.
● Print Queue	:	4 Nos. (54 Queues)
● DHCP & WINS	:	2 (1000+ IP Add.)
● Proxy	:	1 No.
● Domain	:	1 No. (800 user ID)
● Antivirus	:	1 No.
● Lotus Notes	:	1 No
● Quota (Parking space)	:	1 No.
● Installable Software	:	1 No.
● P&I Diagram	:	1 No.
● Polymer Lab GCs	:	1 No.
● IP-21	:	2 No.
● Mfg. Applications	:	13 Nos.



Network Infrastructure

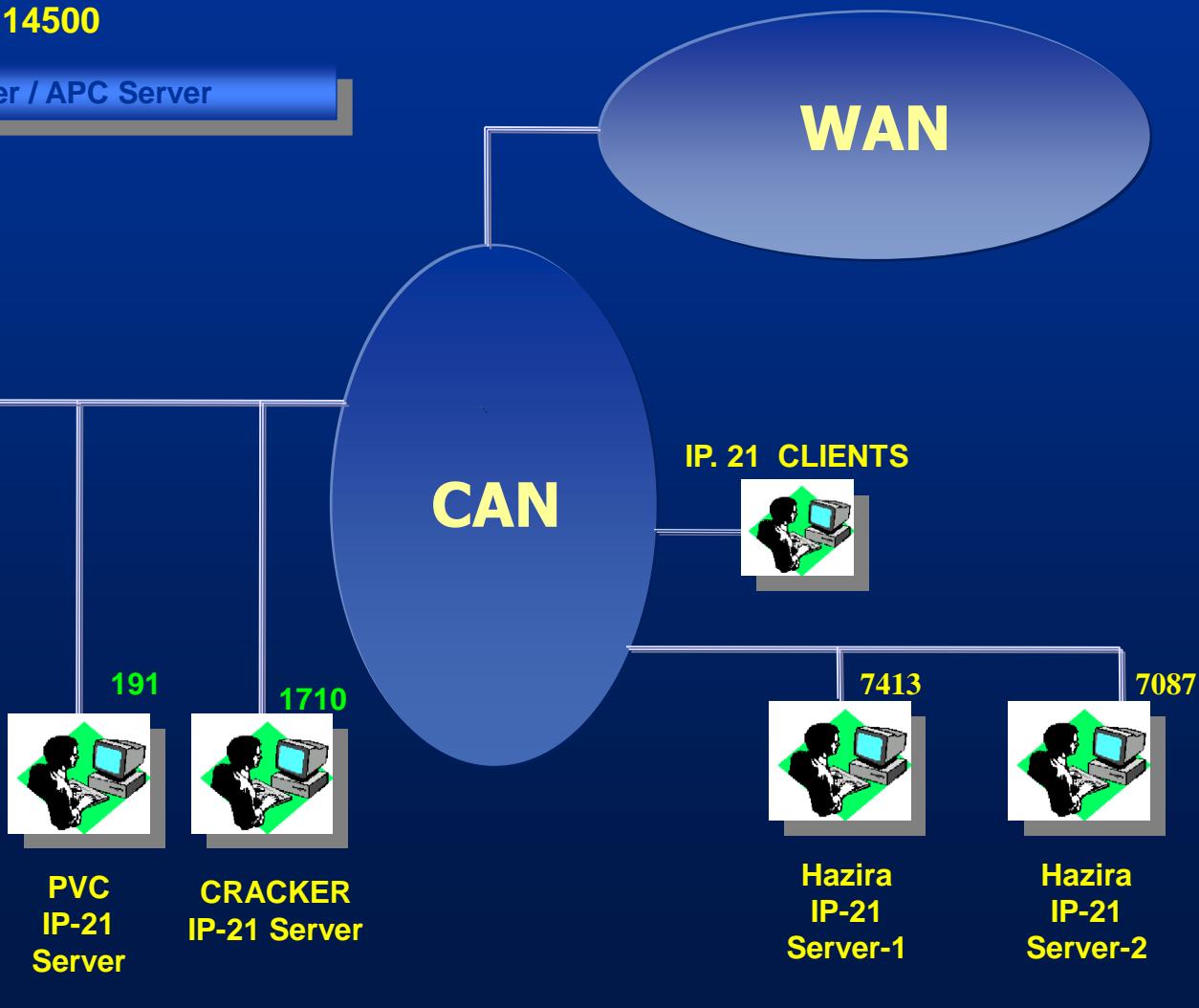
- **Network Switches** : 260 Nos.
 - Catalyst 6506 : 2 Nos.
 - Catalyst 2912 MFXL : 17 Nos.
 - Catalyst 2924 M XL : 44 Nos.
 - Catalyst 3548 XL : 14 Nos.
 - Catalyst 3524 XL : 7 Nos.
 - Catalyst 2950 C XL : 114 Nos.
 - Catalyst 3750 XL : 9 Nos.
 - Catalyst 2950 G XL : 59 Nos.
- **No. of segment with Single mode fiber** : 46 Nos.
- **No. of segment with Multimode fiber** : 116 Nos.
- **Length of Fiber Cable laid in Campus**
 - Single Mode : 45 Kms.
 - Multi Mode : 52 Kms.
- **Number of UTP nodes** : 7500 approx.

IP-21 Network Architecture

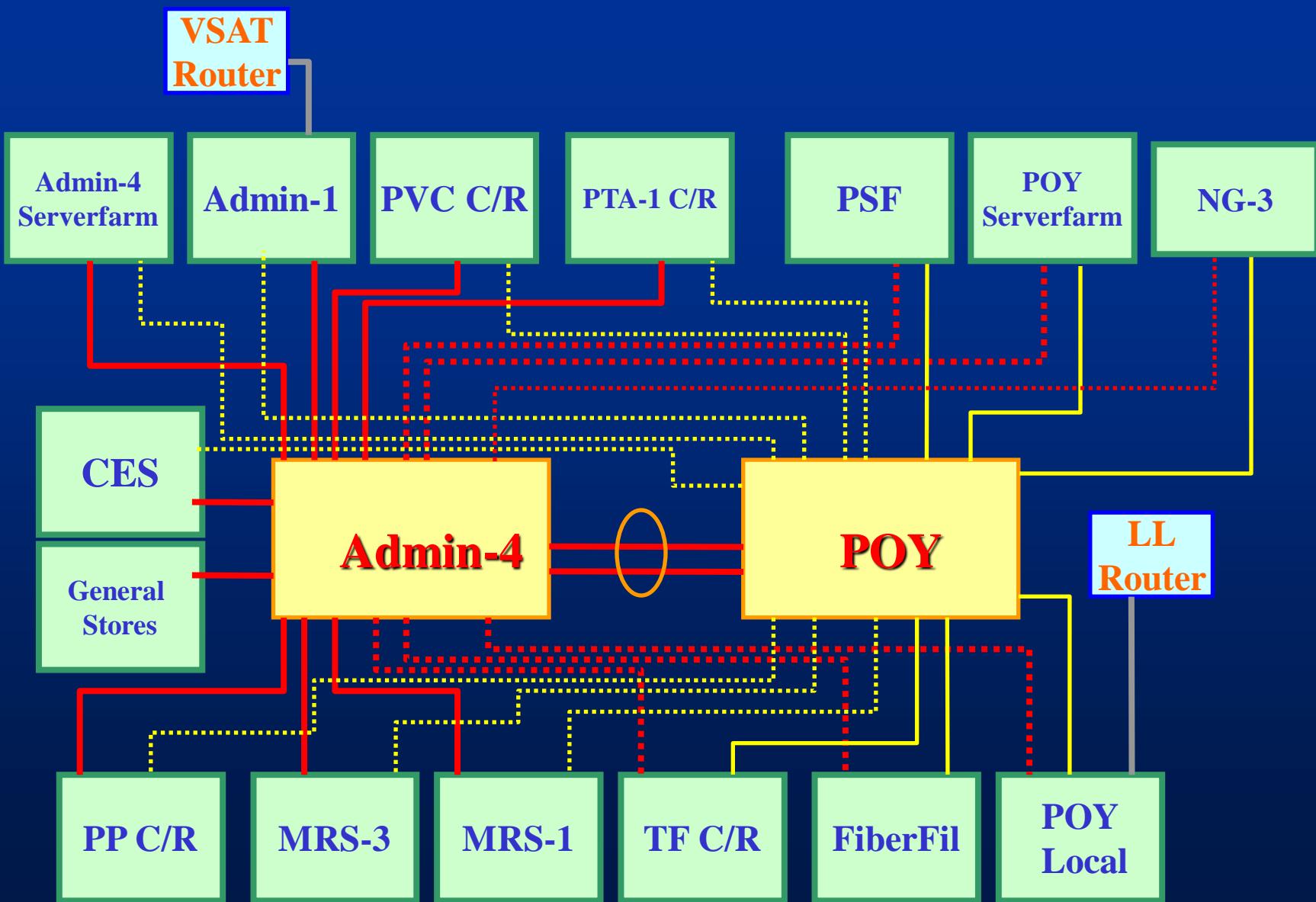
Total no. of Tags configured - 14500

Plant DCS History ABB IMS Server / APC Server

Petrochemical Complex	MEG	1916
	Aromatics	656
	ET/TF-2	307
Polymer Complex	PP	923
	PTA	379
	VCM	833
	POY	3368
Polyester Complex	PSF	1695
	PE	1081
	PET	424
	CPF	180



Campus Network Layout



CAN - Salient Features

- Layer 3 switching & VLAN Implementation
- Fully Redundant Core Switches
- Redundant Star network in the campus
- 1 Gbps uplinks between Core Switch and 11 Distribution Switches
- 100 Mbps downlink connection from the Distribution switches to Edge Switches
- 100 Mbps switched to the desktop
- DHCP used for assigning IP Address to PC's to reduce IP Address Management
- Single Mode Fiber cable laid for the entire Gigabit Backbone in the campus & it's respective redundant route
- Single Mode Fiber cables run between ADMIN-4 & POY to the respective 11 locations
- Multimode cable laid across the site for 100 mbps switched connectivity

IP Addressing Scheme

- IP Addressing range at Hazira
 - IP Address 10.2.*.*
 - Subnet mask 255.255.255.0
- Total 59 VLAN's created based on geographic location
- Specific range of IP Addresses assigned to various devices connected on Network
 - Network Switches
 - PCs and Servers
 - TAS Readers
 - Gateway for each VLAN
 - Laser Printers
 - UPS Module
 - IMS Station

DHCP & WINS Servers

- 2 nos. of DHCP servers have been installed at both Core Locations to assign IP Address to PC's
- Scopes for each VLAN has been defined on each of the DHCP servers
- 75% scope is defined on primary DHCP and 25% scope on secondary DHCP
- 2 nos. of WINS servers have been installed at both Core locations for name resolution

HSRP Configuration

- 2 nos. of Multilayer Switch Feature Card (MSFC) has been installed on both the Core Switches.
- HSRP configured for all VLANs.

Eg.

Consider VLAN 10.2.4.0

	IP Address	Priority
MFSC1 Switch 1	10.2.4.31	120
MSFC2 Switch 1	10.2.4.32	115
MFSC1 Switch 2	10.2.4.33	110
MSFC2 Switch 2	10.2.4.34	105

HSRP IP Address 10.2.4.35

VLANs based on Specific Function

- **4 VLANs created to provide specific functionality**
 - PCs for Vibration Monitoring System
 - Access to server Outside Hazira only
 - Access to ESS server only
 - IMS installed at Spinning Control to communicate only with IP21 server

No unauthorized access to Network

Disabled all unused ports on Switch



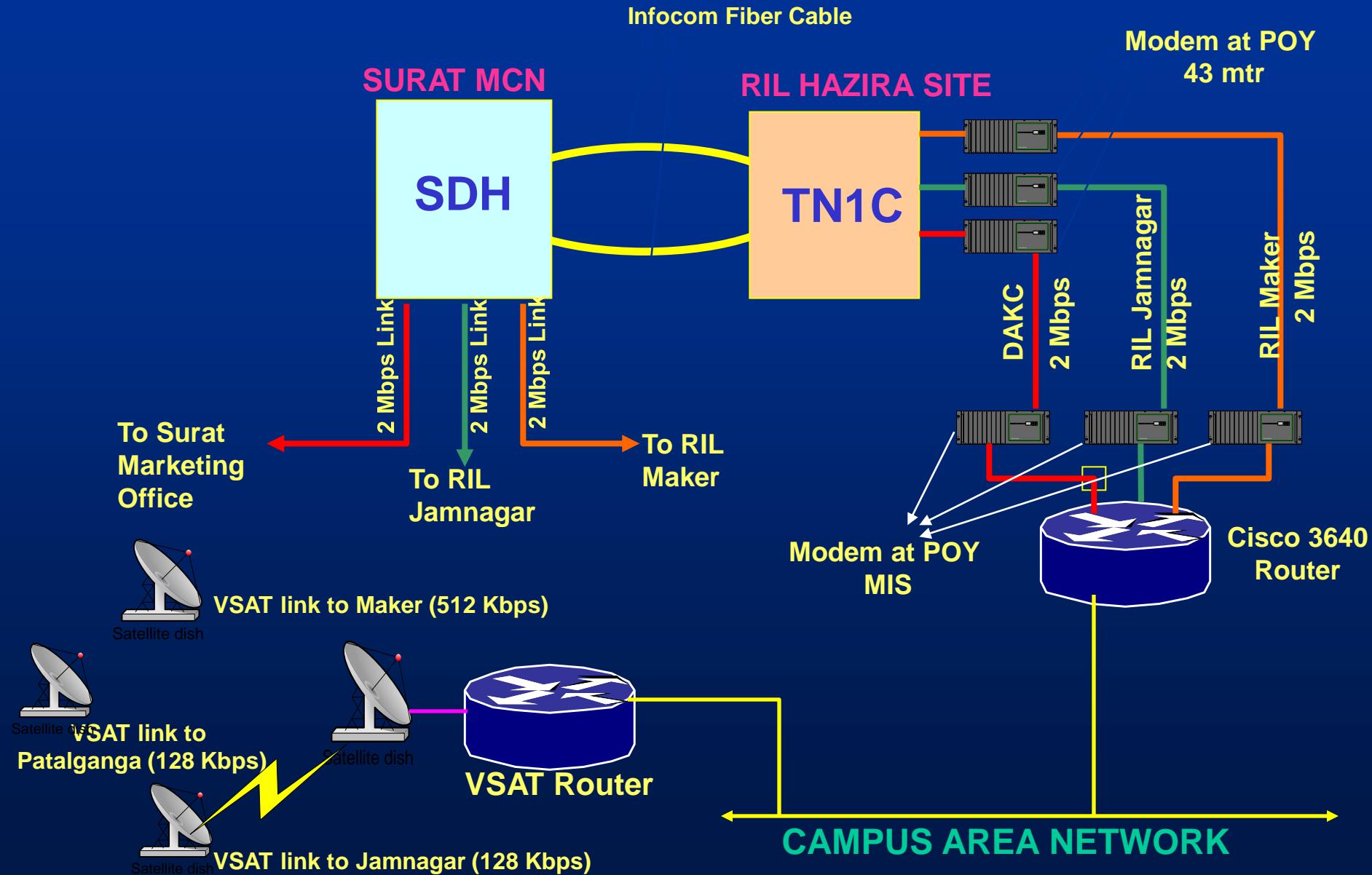
- Fa0/1 port of the switch is disabled
- If PC connected on port Fa0/1
- No communication with PC

- User cannot shift the PC to another location without knowledge of MIS Dept.
- Restrict visitor from accessing our Network

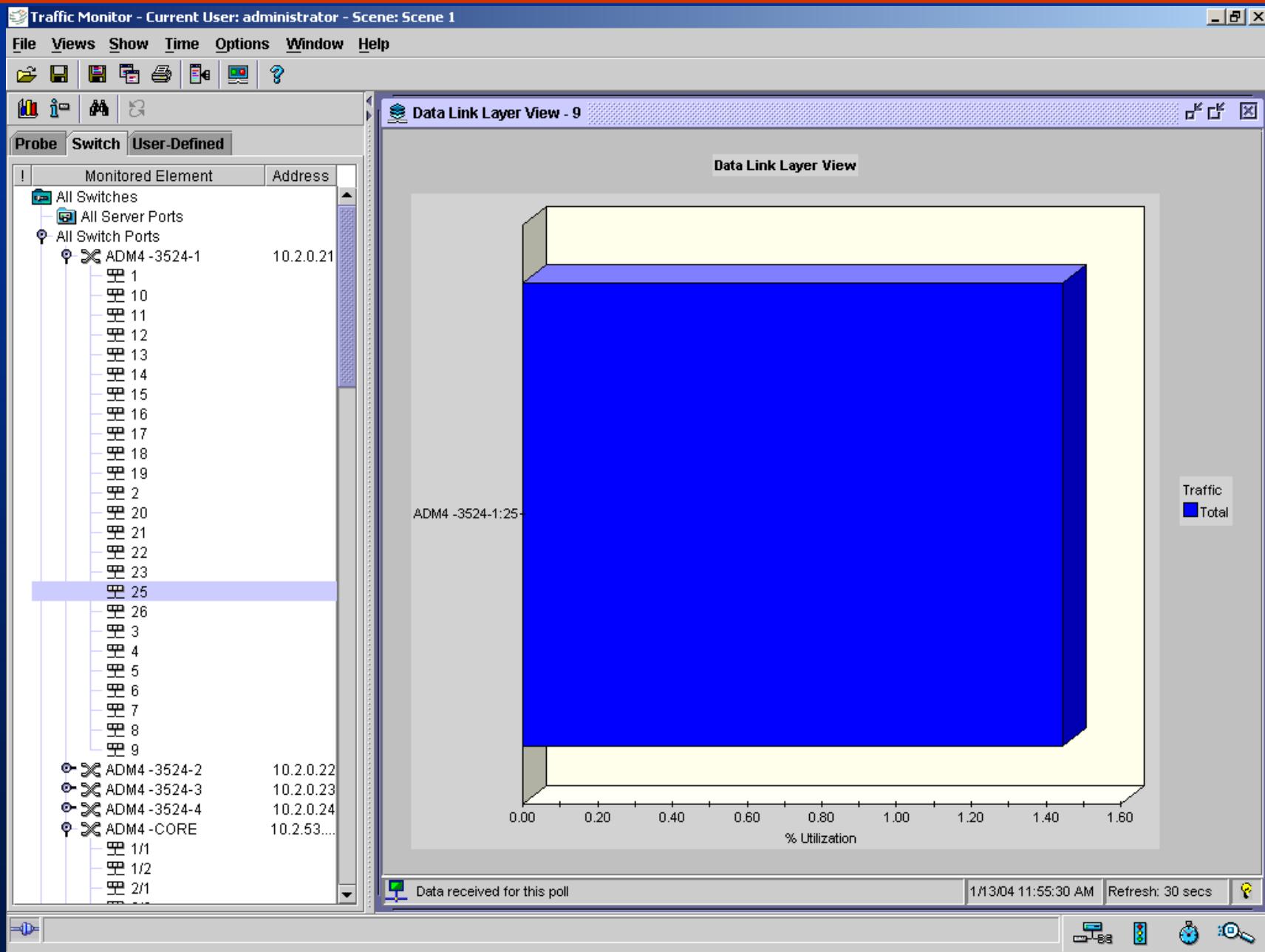
Network Management

- Ciscoworks used as Network Monitoring tool
- Backup of IOS of Core switches taken on the server whenever modifications are done on the Core Switches and monthly.
- Backup of IOS of all Layer 2 switches done whenever changes are modifications are done.
- Backup of both DHCP and WINS servers taken daily.
- SOP is available to replace the failed switch with new one by loading IOS. This helps in reducing downtime by avoiding doing configuration on switch.
- SOP is also available to replace the failed DHCP and WINS server using backup.

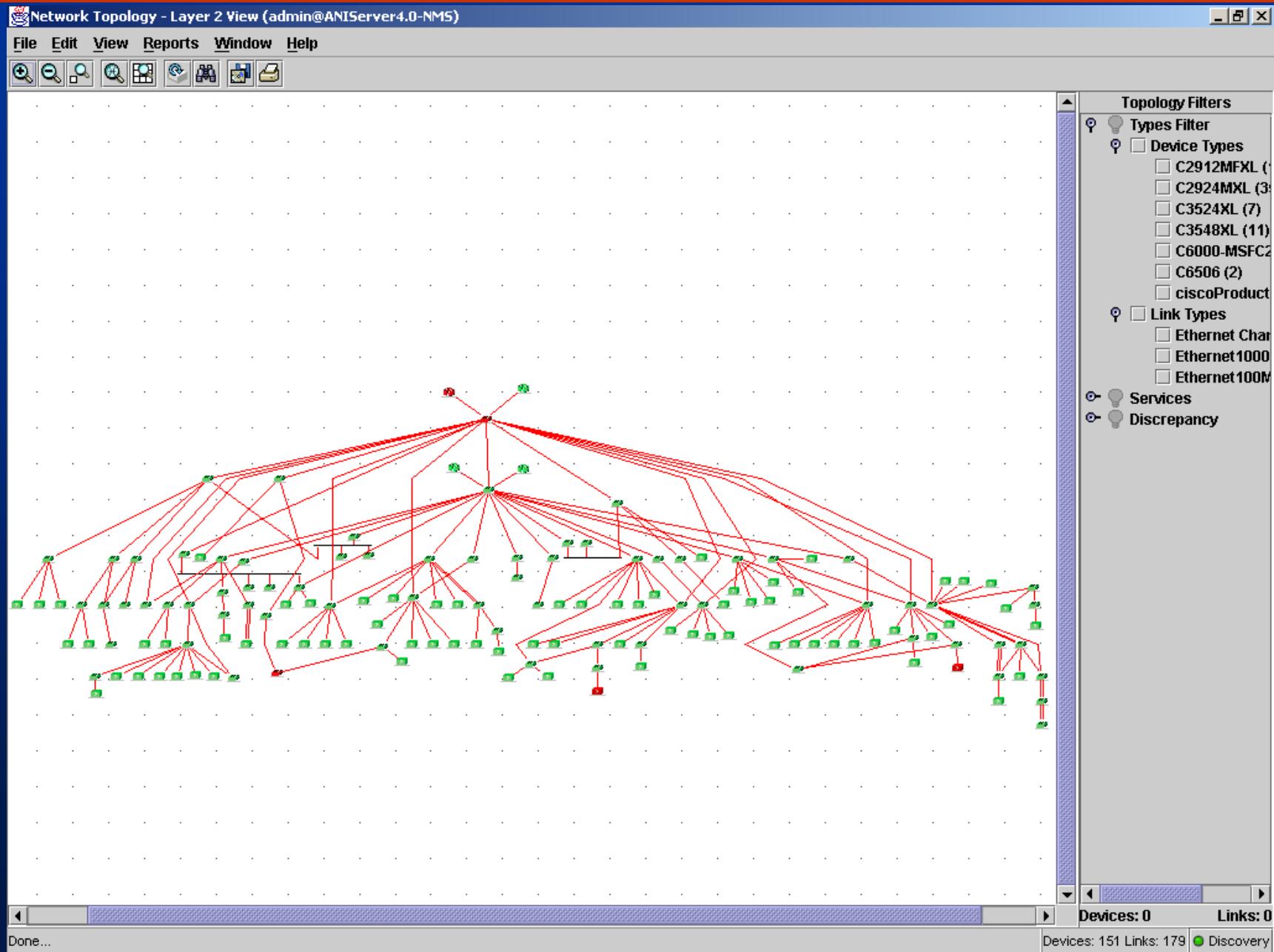
WAN Setup



Network Traffic Monitoring



Network Map From Campus Manager



CiscoView for Network Monitoring

File Edit View Favorites Tools Help

Address <http://10.2.161.16:1741/CSCONm/servlet/com.cisco.nm.cvwservlet.CvServlet>

Select Device
10.2.53.201

Network Status

Switch Load % IP Traffic IP Errors ICMP Traffic ICMP Errors UDP Traffic UDP Errors TCP Traffic TCP Errors SNMP Traffic SNMP Errors

Bytes/Interval

Category Summary Refresh Rate (sec) 10

Telnet CCO Cisco Support Preferences About Help

Stop Cancel Print Help

Applet started.

Local intranet

The screenshot displays the CiscoView interface for monitoring network traffic and device status. On the left, a 'Select Device' dropdown is set to 10.2.53.201. Below it is a large window titled 'Network Status' showing a hierarchical tree of network components. To the right of this are nine line graphs arranged in a 3x3 grid, each representing different types of network traffic or errors over time intervals. A legend at the bottom of each graph identifies the data series. At the bottom of the interface are buttons for Stop, Cancel, Print, and Help. The top menu bar includes File, Edit, View, Favorites, Tools, and Help. The address bar shows the URL http://10.2.161.16:1741/CSCONm/servlet/com.cisco.nm.cvwservlet.CvServlet. The bottom status bar indicates 'Applet started.' and 'Local intranet'.

Reload Report

CiscoWorks2000 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media

Address http://10.2.161.16:1741 Go Links >

Logout ? Help

Home Server Configuration Resource Manager Essentials

24-Hour Reports Change Audit Report Syslog Messages Reloads Report Offline Device Report Inventory Change Report Configuration Sync Report Software Upgrade Report Availability Change Audit Configuration Management Contract Connection Inventory Software Management Syslog Analysis Administration

Device Fault Manager Campus Manager VPN Management Solution Management Connection Content Flow Monitor Device Manager

Have questions about Software Service ?

Resource Manager Essentials - Microsoft Internet Explorer

File Edit View Favorites Tools Help

CISCO SYSTEMS Reloads Report - 2 Days Back Close Save As CSV Format Reports 2 Days

Device Name	Device Type	Reload Reason	Reload Time
10.2.0.118	Catalyst IOS 2950	power-on	12 Jan 2004 16:42:27 +33000
10.2.0.126	Catalyst IOS 2950	power-on	13 Jan 2004 08:02:56 +33000
10.2.0.131	Catalyst IOS 2950	power-on	12 Jan 2004 09:10:37 +33000
		power-on	13 Jan 2004 09:04:50 +33000
10.2.0.158	Catalyst IOS 2950	power-on	12 Jan 2004 07:44:52 +33000
		power-on	13 Jan 2004 07:58:15 +33000
10.2.0.159	Catalyst IOS 2950	power-on	12 Jan 2004 12:21:57 +33000
10.2.0.170	Catalyst IOS 2950	power-on	11 Jan 2004 18:20:38 +33000
		power-on	12 Jan 2004 09:14:23 +33000
		power-on	13 Jan 2004 09:10:52 +33000
10.2.0.181	Catalyst IOS 2950	power-on	13 Jan 2004 04:14:37 +33000

Generated: 13 Jan 2004 12:14:27 +33000
Cisco Systems, Inc. ©

Applet started.

Local intranet Local intranet

SysLog Report

CiscoWorks2000 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media Print Links

Address http://10.2.161.16:1741 Go Links

Logout ? Help

Home Server Configuration Resource Manager Essentials

Availability

- Reachability Dashboard
- Availability Monitor
- Reloads Report
- Offline Device Report
- Protocol Distribution Graph
- Change Audit
- Configuration Management
- Contract Connection
- Inventory
- Software Management

Syslog Analysis

- Severity Level Summary**
- Standard Reports
- Custom Reports
- Custom Report Summary
- Unexpected Device Report
- WorkFlow Report

Administration

Device Fault Manager

Campus Manager

VPN Management Solution

Management Connection

Content Flow Monitor

Device Manager

Visit the [CCO Software Center](#)
(login required)

Syslog - Severity Level Summary

CISCO SYSTEMS

Syslog - Severity Level Summary

Back Next Close Save As CSV Format Print Help

	Device Name	Emergency	Alerts(1)	Critical(1)	Errors(3)	Warnings(1)	Notificat	Informati	Total
1	10.2.0.28	0	0	0	9	1	10	0	20
2	10.2.0.87	0	0	0	1	1	1	0	3
3	10.2.0.20	0	0	0	7	0	7	0	14
4	10.2.53.204	0	0	0	0	0	1	0	1
5	10.2.0.2	0	0	0	16	3	8	0	27
6	10.2.0.48	0	0	0	25	0	16	0	41
7	10.2.0.17	0	0	0	7	0	3	0	10
8	10.2.0.15	0	0	0	6	0	7	0	13
9	10.2.0.19	0	0	0	1	0	1	0	2
10	10.2.0.21	0	0	0	0	3	0	0	3
11	10.2.0.146	0	0	0	11	0	11	0	22
12	10.2.0.35	0	0	0	7	0	8	0	15
13	10.2.0.23	0	0	0	41	59	45	0	145

Warning: Applet Window

SysLog Messages

CiscoWorks2000 - Microsoft Internet Explorer

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Address http://10.2.161.16:1741

Logout ? Help

Home

Server Configuration

Resource Manager Essentials

24-Hour Reports

- Change Audit Report
- Syslog Messages**
- Reloads Report
- Offline Device Report
- Inventory Change Report
- Configuration Sync Report
- Software Upgrade Report
- Availability
- Change Audit
- Configuration Management
- Contract Connection
- Inventory
- Software Management
- Syslog Analysis
- Administration

Device Fault Manager

Campus Manager

VPN Management Solution

Management Connection

Content Flow Monitor

Device Manager

Want information on the entire CiscoWorks2000 family of products?

Syslog 24 Hour Report

CISCO SYSTEMS

Configuration Changes Report

Back Next Close Save As CSV Format Print Help

	Device Name	Timestamp	Facility[-Su]	Severity	Mnemonic	Description	De
1	10.2.0.23	13 Jan 2004 11:20:46 G...	SYS	5	CONFIG I	Configured from console by vty0 ...	*
2	10.2.0.23	13 Jan 2004 10:58:37 G...	SYS	5	CONFIG I	Configured from console by vty0 ...	*
3	10.2.0.23	13 Jan 2004 10:54:37 G...	SYS	5	CONFIG I	Configured from console by vty0 ...	*
4	10.2.53.204	13 Jan 2004 10:04:05 G...	SYS	5	CONFIG I	Configured from console by vty0 ...	*

<< Prev 500 | Next 500 >>

Help Desk Operations

Working Window :

End User Support provided on 24 x 7 basis

Call Registration :

By users through ...

- **Call Registration Software is on Intranet Site :**
<http://kms.ril.com>
- **Voice Mail at Help Desk (extension No 36177)**

Help Desk Call Registration Software

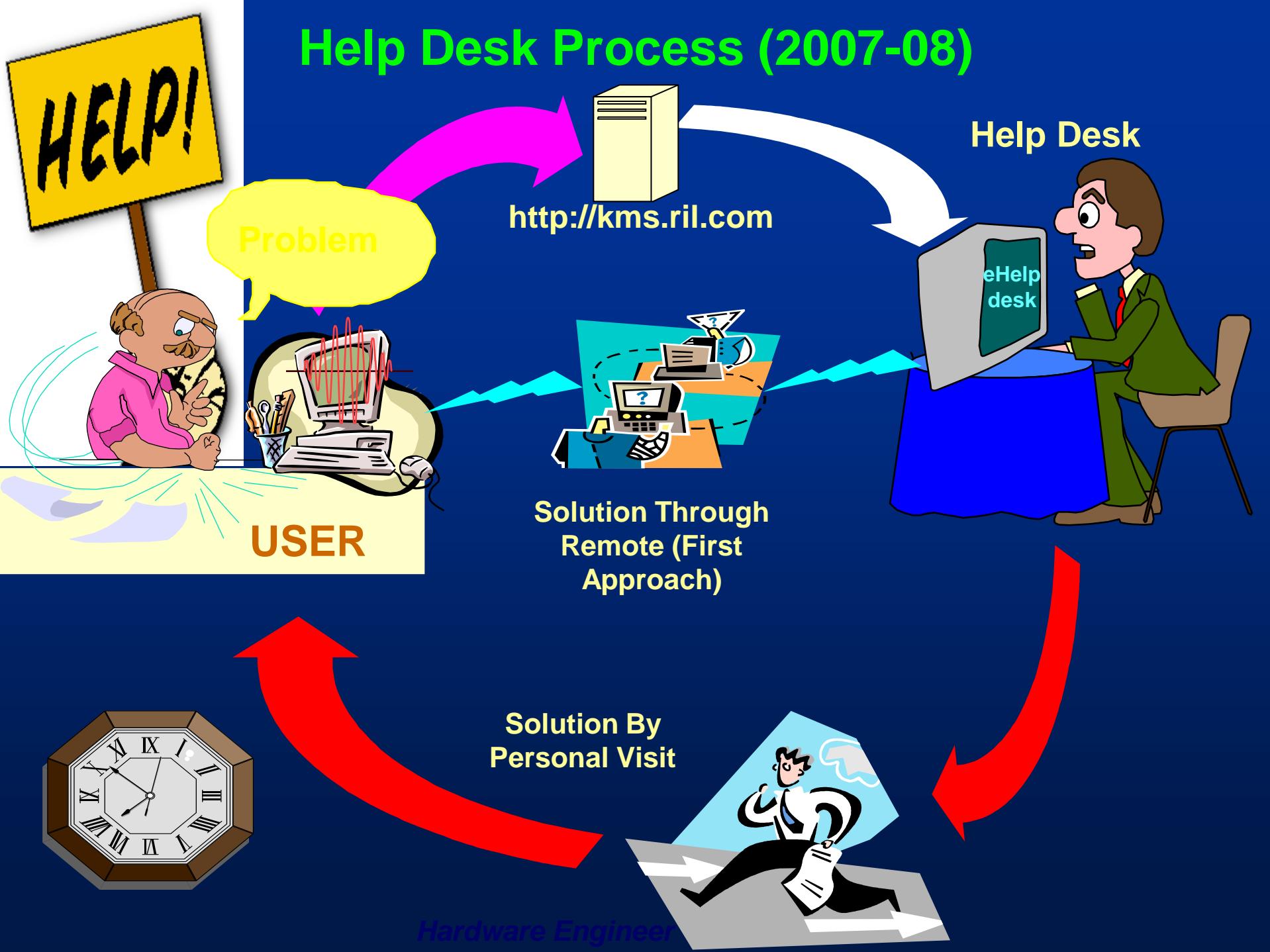
- **Salient Features**

- Online Call Registration by users through Intranet Site : <http://kms.ril.com>
- Automatic E-mail message to respective Vendor
- Automatic E-mail message to respective Engineer
- Various Daily, Monthly analysis can be viewed online



on

Help Desk Process (2007-08)



Process for Fixing Software Calls

User registers call in Help Desk System

Problem



- Help Desk Engineer calls user
- Takes control of his PC through Remote
- Tries to solve the problem
- Confirms with user on status of call



Yes



No



If problem is not resolved through Remote, an engineer is dispatched to user location

Yes

Engineer Completes the call in the Help Desk system

90% of SW calls are solved through Remote

Help Desk Call Registration Software

Vendor wise Pending Calls

1 :: eHelpDesk :: - Microsoft Internet Explorer

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Back Forward Stop Home Search Favorites Mail Print Word Excel Powerpoint Access Database User

Address http://10.22.129.165/ehelpdesk/ithelpdesk/Vendor_Wise_Pending.aspx Go Links »

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Vendor Wise Pending Calls

Vendor Name: * SSM Infotech Solutions Pvt. Ltd.

Name of Vendor : SSM Infotech Solutions Pvt. Ltd.

Call Status										
ASSIGNED	07050786	RIL/CEL/1535	PTA I CONTROL ROOM	RAJEEV P JOSEPH	9998011310		NOT CATEGORISED - OTHERS	22/05/2007 12:07 PM		Yet To Define
ASSIGNED	07050785	RIL/586/1861	PE I CONTROL ROOM	S RAVICHANDRAI	36591		NOT CATEGORISED - HARDWARE	22/05/2007 11:36 AM		Yet To Define
ASSIGNED	07050784	RIL/586/2836	CES	JAMANADAS S TRADA	35392		PC WORKING SLOW	22/05/2007 10:46 AM		Yet To Define
ASSIGNED	07050782	RIL/586/2260	11 MTR PSF ADMIN BLOCK	MANUJI A RAJPUT	36087		LOTUS NOTES NOT WORKING	22/05/2007 10:10 AM		AMI MODI
ASSIGNED	07050781	RIL/586/3309	PVC CONTROL ROOM	SACHIN R MALAVE	35632		AUTOVIEW TO BE INSTALLED	22/05/2007 09:56 AM		AMI MODI
ASSIGNED	07050780	RIL/586/2301	MRS III	D IFFI AKRISHNAI	35604		FTP NOT WORKING	22/05/2007 09:56 AM		AMI MODI

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start Workspace - Lo... eHelpDesk Active Director... Microsoft Powe... asms Network 12:15 PM

Help Desk Call Registration Software

Engineer wise Pending Calls

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Welcome : HIREN G PUROHIT

Engineer Wise Pending Calls

Engineer Name: * AMI MODI

Name of Engineer : AMI MODI

Call Status	Call No	RIL No.	Location	User Name	Ext. No.	Registered By	Problem
ASSIGNED	07050781	RIL/586/3309	PVC CONTROL ROOM	SACHIN R MALAVE	35632		AUTOVIEW TO BE INSTALLED
ASSIGNED	07050780	RIL/586/2301	MRS III	D LEEAKRISHNAN	35604		FTP NOT WORKING
ASSIGNED	07050774	RIL/586/3549	F - S BLDG.	SHANKARBHAI G PATEL	35066		AUTOVIEW TO BE INSTALLED
COMPLETED	07050745	RIL/586/2145	PTA II CONTROL ROOM	KANAIHA LAL BANERJEE	09374509941		ESS NOT WORKING
PENDING	07050744	RIL/586/2513	SECURITY GATE #4	UMESH SINGH PARMAR	2835096		LOTUS NOTES CERTIFICATE EXPIRED
PENDING	07050736	RIL/586/3552	F - S BLDG.	JNANA R DASH	36023		QUESTION BANK SOFTWARE TO BE CONFIGURE
PENDING	07050696	RIL/586/3437	MRS III	OM PRAKASH SONI	2836207		NOT CATEGORISED - OTHERS
PENDING	07050692	RIL/586/2049	CENTRAL LAB	RAVINDRA R. TUPE	9998986774		INTERNET TO BE CONFIGURED
COMPLETED	07050682	RIL/586/2728	CENTRAL LAB	VARADHAN T.E.	36223		NOT CATEGORISED - SOFTWARE
PENDING	07050661	RIL/CEL/1733	PTA II CONTROL ROOM	ANAND JOSHI	36240		LOTUS NOTES NOT WORKING

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Help Desk Call Registration Software

Asset wise Performance Summary

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ASSETWISE PERFORMANCE SUMMARY

ASSET NO	TOTAL CALLS	PENDING CALLS	COMPLETED CALLS
RIL/486/1224	2	0	2
RIL/486/1238	1	0	1
RIL/486/125	1	0	1
RIL/486/133	1	0	1
RIL/486/1331	1	0	1
RIL/486/1339	4	1	3
RIL/486/266	1	0	1
RIL/486/325	1	0	1
RIL/486/326	1	0	1
RIL/486/339	3	0	3
RIL/486/346	1	0	1
RIL/486/364	4	0	4

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Help Desk Call Registration Software

Call Resolution Summary

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Call Resolution Summary

Select complaint category: ALL

MONTH YEAR	TOTAL CALLS	PENDING CALLS	CALL COMPLETED	IN < 1 Hr	IN < 2 Hr	IN < 4 Hr	IN < 8 Hr	IN < 24 Hr	IN > 24 Hr
JUL 06	36	0	36	2	2	2	3	1	26
AUG 06	565	2	563	90	33	54	52	112	222
SEP 06	981	2	979	137	85	134	112	231	280
OCT 06	949	1	948	162	120	117	109	286	154
NOV 06	1026	1	1025	160	99	129	161	190	286
DEC 06	1162	4	1158	201	125	166	97	255	314
JAN 07	1211	10	1201	242	174	160	150	244	231
FEB 07	1046	6	1040	211	134	188	103	239	165
MAR 07	1206	22	1184	195	136	145	158	278	272
APR 07	1113	79	1034	109	71	137	161	242	314
MAY 07	789	173	616	42	38	81	78	194	183

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Help Desk Call Registration Software

Customer Satisfaction Summary

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Address http://10.22.129.165/ehelpdesk/ithelpdesk/User_Satisfaction_New.aspx Go Links

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User Satisfaction Summary

Month Year	Unsatisfied	Very Poor	Poor	Average	Good	Very Good	Excellent	Total Calls	Pending
JUL 06	0	0	0	0	20	13	3	36	0
AUG 06	6	4	2	5	128	280	138	565	2
SEP 06	6	4	3	30	302	427	208	982	2
OCT 06	3	3	0	11	202	514	224	958	1
NOV 06	9	4	8	16	258	504	226	1026	1
DEC 06	4	5	7	17	281	632	212	1162	4
JAN 07	13	3	5	18	317	535	310	1211	10
FEB 07	4	6	3	20	279	498	230	1046	6
MAR 07	6	5	11	16	324	599	223	1206	22
APR 07	13	7	13	30	329	486	156	1113	79
MAY 07	4	2	5	19	176	322	88	790	174

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Help Desk Call Registration Software

Customer Satisfaction Trend Analysis

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Customer Satisfaction Trend Analysis

Vendor Name: SSM Infotech Solutions Pvt. Ltd.

Satisfaction Level												
TOTAL	1034	1181	1039	1200	1156	1018	953	977	558	36	0	0
Unsatis	13	6	4	13	4	9	3	6	6	0	0	0
Very Poor	7	5	6	3	5	4	3	4	3	0	0	0
Poor	13	11	3	5	7	8	0	3	2	0	0	0
Average	30	16	20	18	17	16	11	30	5	0	0	0
Good	329	323	279	317	281	257	199	301	128	20	0	0
Very Good	486	598	497	534	632	500	514	425	277	13	0	0
Excellent	156	222	230	310	210	224	223	208	137	3	0	0

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http://10.22.129.165/ehelpdesk/ithelpdesk/CSS_Trend_AnalyseCalls.aspx?inputDetail=TOTAL/134203/OCT 06

Trusted sites

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Help Desk Call Registration Software

Vendorwise Penalty Summary

..:: eHelpDesk ::.. - Microsoft Internet Explorer

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Address http://10.22.129.165/ehelpdesk/ithelpdesk/Vendorwise_Penalty_Rep.aspx Go Links

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VENDORWISE PENALTY SUMMARY

Vendor : SSM Infotech Solutions Pvt. Ltd. Month : May Year : 2007

CALL NO	ASSET NO	VENDOR	REGISTERED FOR	LOCATION	CALL TITLE	CALL REGISTERED ON	CALL APPROVED ON	CALL COMPLETED ON	CALL RESOLVED ON	COMPLETED DOWN TIME	RESOLVED DOWN TIME	COMPLETED HRS	RESO HRS
07011157	RIL/JET/304	SSM Infotech Solutions Pvt. Ltd.	MAHESH KUMAR L BEHERA	ADM2	PRINTER PAPER PICKUP PROBLEM	30/01/2007 01:16:25 PM		03/05/2007 03:06:01 PM	03/05/2007 03:06:01 PM	2234	2234	2233:49	2233:49
07020542	RIL/586/2086	SSM Infotech Solutions Pvt. Ltd.	PINAKIN K MAVANI	MRS III	MONITOR PROBLEM	15/02/2007 03:16:24 PM		17/05/2007 03:41:32 PM	17/05/2007 03:41:32 PM	2184	2184	2184:25	2184:25
07020596	RIL/586/2185	SSM Infotech Solutions Pvt. Ltd.	MADHUKARA K	MEG I CONTROL ROOM	PC WORKING SLOW	16/02/2007 04:52:08 PM		15/05/2007 10:48:50 AM	15/05/2007 10:48:50 AM	2106	2106	2105:56	2105:56

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Discussions Discussions not available on http://10.22.129.165/ Trusted sites

Done

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Help Desk Call Registration Software

Spare Stock Report

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Address http://10.22.129.165/ehelpdesk/ithelpdesk/Spare_Stock_Report.aspx Go Links

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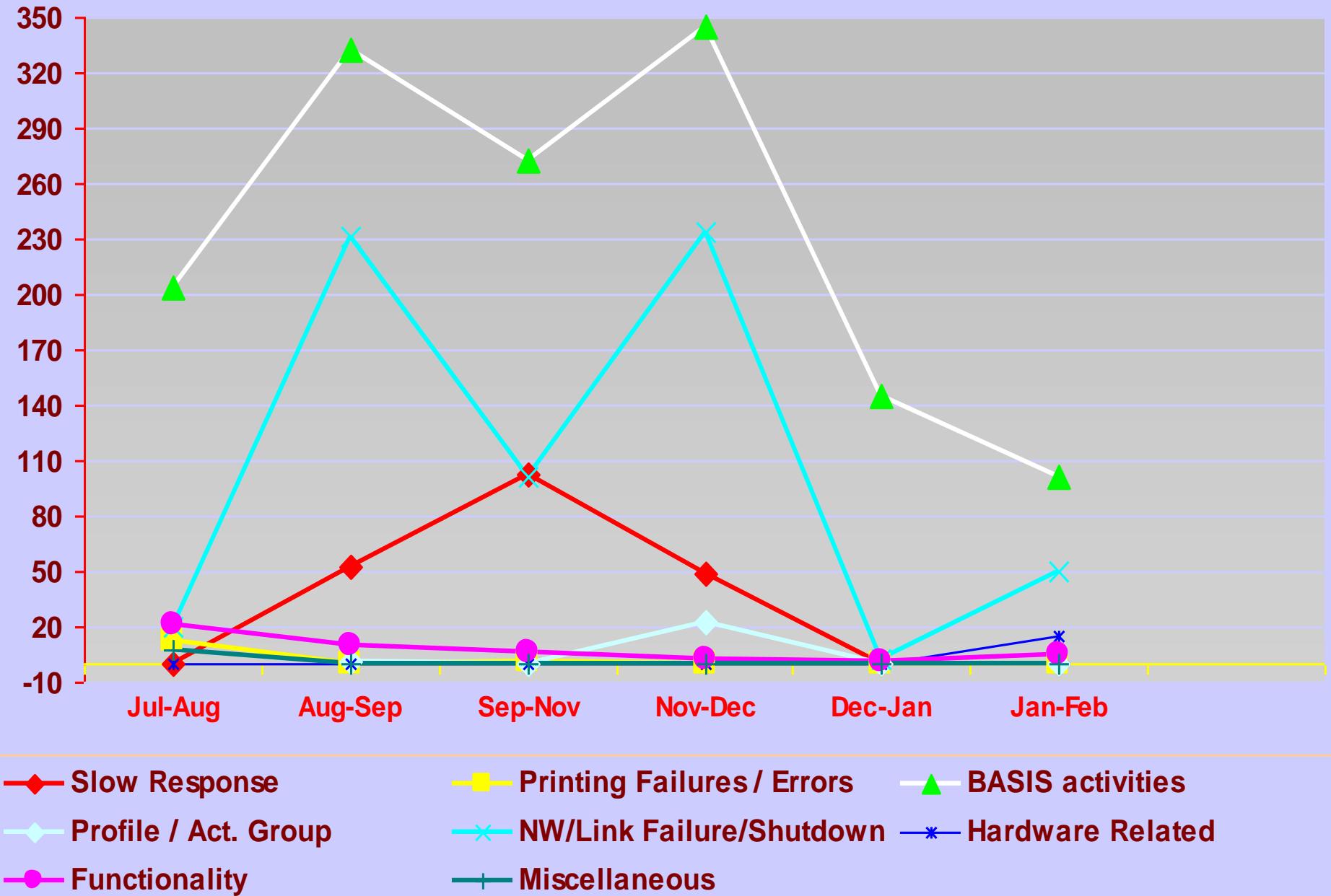
Spare Stock Report

Vendor Name	Spare Type	Spare SubType	Opening Balance	Inward This Month	Issued This Month	Outward This Month	Closing Balance
SSM Infotech Solutions Pvt. Ltd.	CONTROL PANNEL	DESK JET	1	0	0	0	1
	CPU	HP VECTRA	1	0	0	0	1
	DVD ROM	SAMSUNG	1	0	0	0	1
	FLOPPY DRIVE	1.44 MB	7	0	0	0	7
	HARD DISK	PATA	12	0	0	0	12
	KEYBOARD	PS/2	33	0	0	0	33
	MOUSE	IBM USB	2	0	0	0	2
	MOUSE	PS/2 SCROLL	15	0	0	0	15
	PRINT HEAD 24 PIN	DMP	1	0	0	0	1
	SMPS	P4	5	0	0	0	5
TEFLON	LASERJET	1	0	0	0	1	

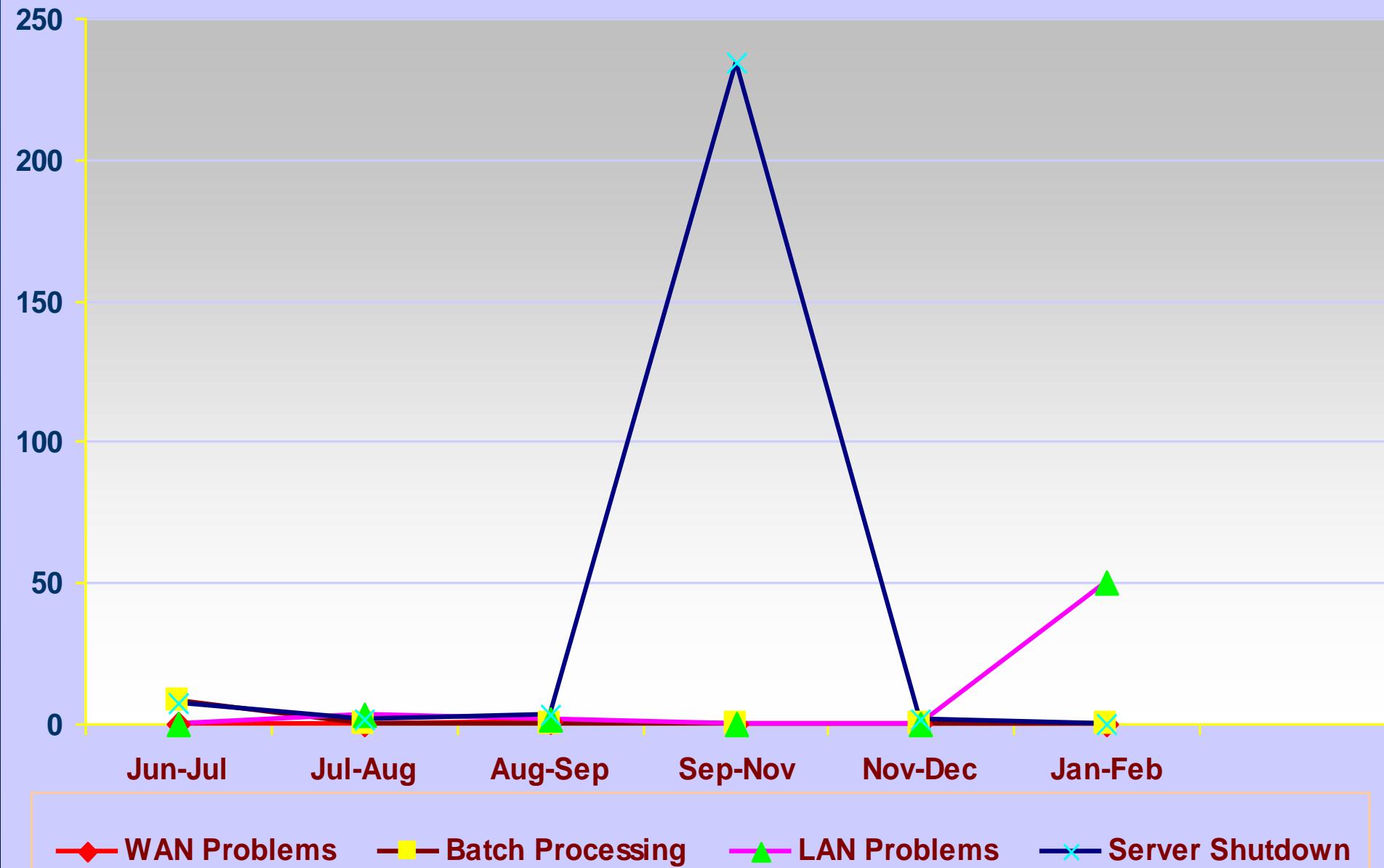
Discussions not available on http://10.22.129.165/ Trusted sites

Done Workspace - Lotus N... eHelpDesk ... Microsoft PowerPoint... asms Active Directory User... 2:32 PM

Analysis of Calls Related to SAP

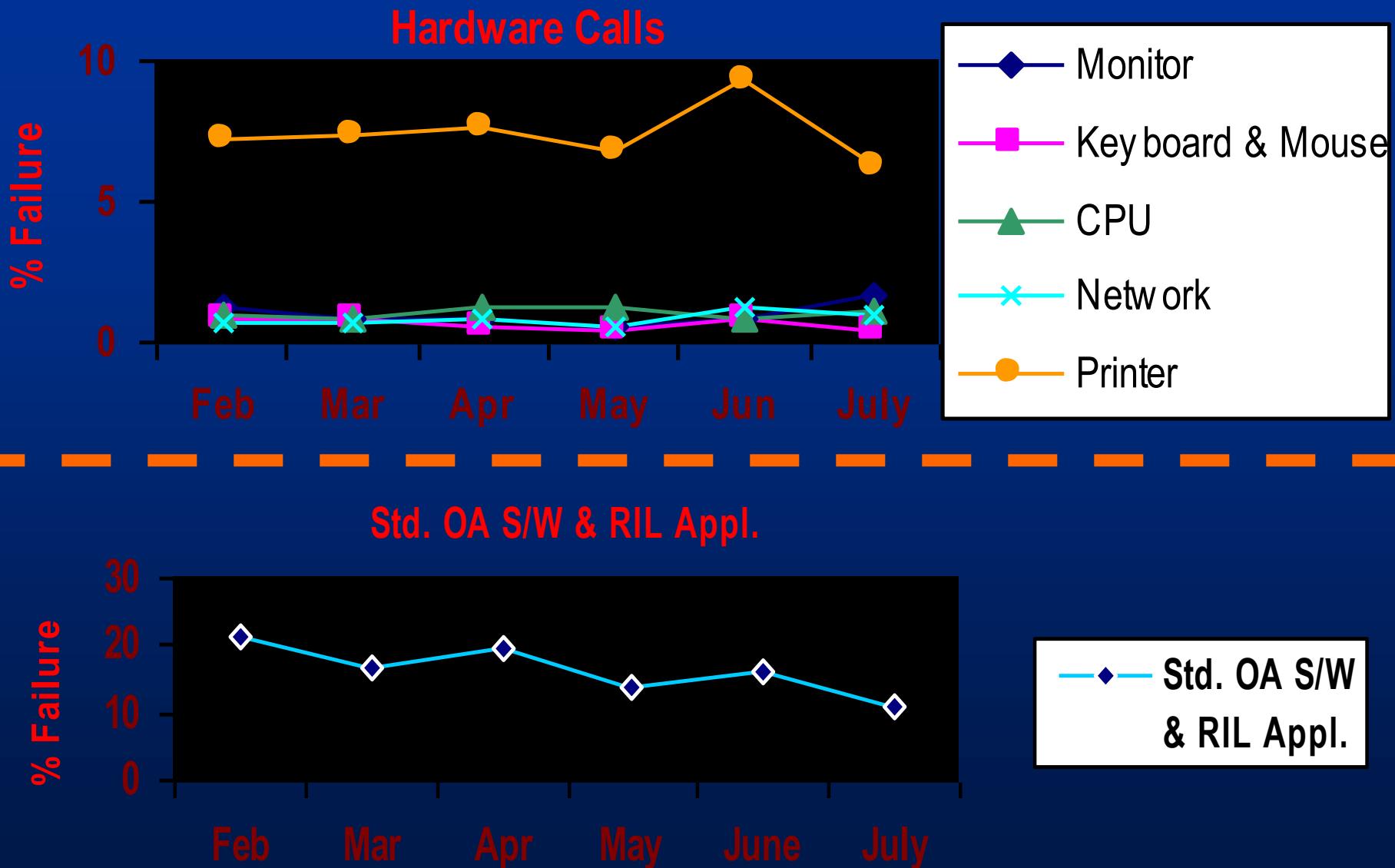


Non-Availability / Slow Response of SAP System





Help Desk Calls



Windows 2000 Domain Policy

- **Need for migrating to Domain Control**
 - File sharing was open to all
 - Unauthorised software installation
 - Control Panel was open for Screen saver/display properties/background page
 - Network properties were being modified many times
 - Floppy drive access
 - Common PCs for ESS being misused by playing games, deleting some system files

Policies achieved through Domain

- File sharing disabled (Users can use ftp command to transfer files, thus preventing virus through sharing)
- Unauthorised software installation not possible
- Control Panel Screen saver/display properties/ background page disabled
- Network properties disabled
- Floppy drive access disabled
- In Common PCs for ESS only ESS can be viewed & printouts can be taken (no other software nor C drive / A drive access can be done)

Backup Strategy

- **Backup of all Windows NT/2000 & Novell Servers taken on DLT through network sharing**
- **Three types of backups taken (2 sets)**
 - **Monthly Full backup (every month)**
 - **Daily differential backup (every day)**
 - **Weekly differential backup (every week)**
- **After implementing the new backup strategy we have been able to eliminate night shift operation at ADM4**

Asset Management

Objective:

- Inspection & testing of incoming material
- Identification & traceability
- Installation
- Physical Verification
- Disposal

Asset Management

Identification and trace ability:

- Whenever a new hardware item is received at MIS dept., a unique Asset No. is provided for identification. It is written on the new hardware after its inspection and testing.
- The numbering scheme is as shown below:

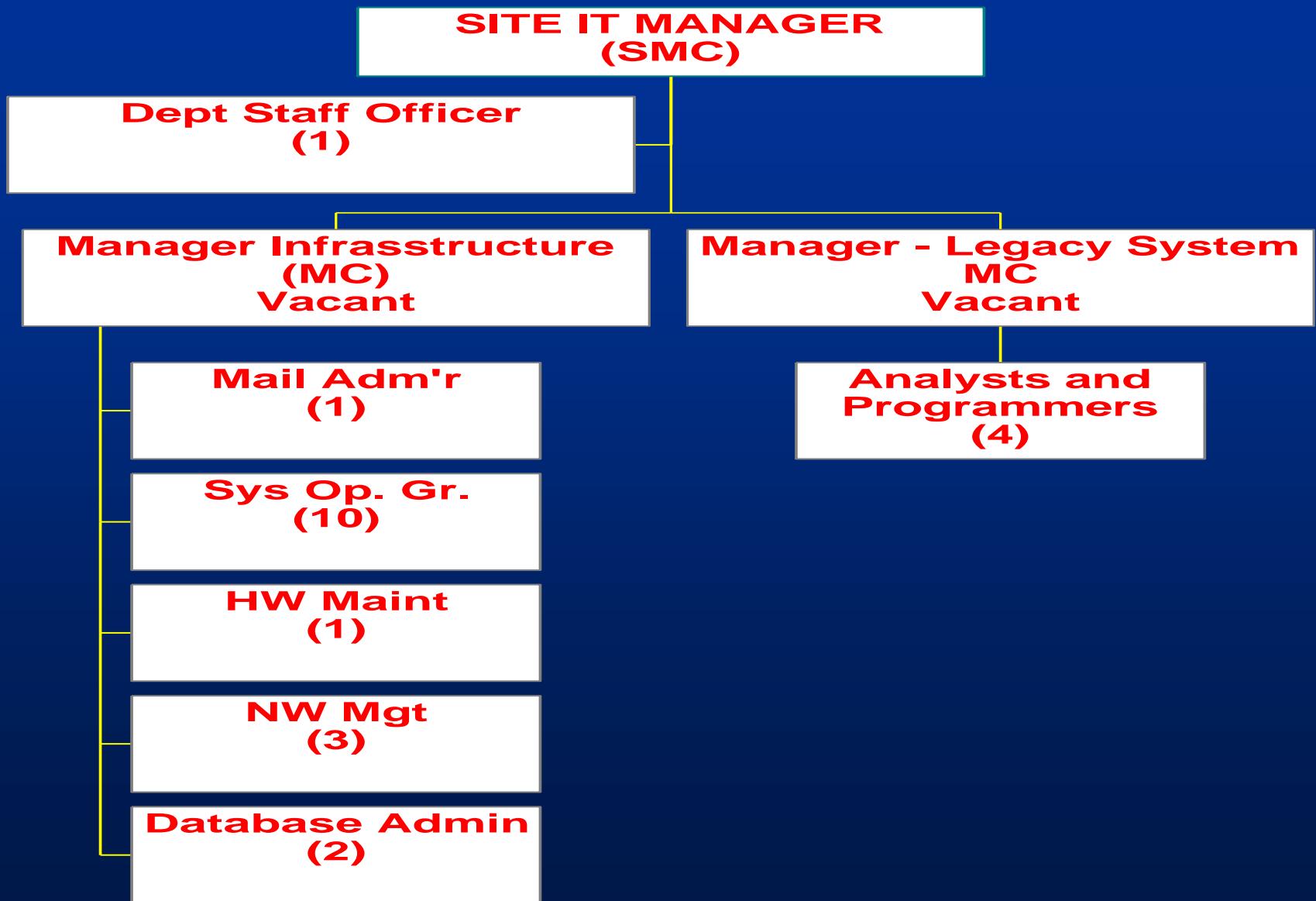
PCs	: RIL/Processor/NNN
Printers	: RIL/Type/NNN
Switches	: RIL/SW/NNN
Scanners	: RIL/SCN/NNN
Modems	: RIL/MDM/NNN
DLT Drives	: RIL/DLD/NNN
DAT Drives	: RIL/DAD/NNN
DLT Tapes	: RIL/DLT/NNN
DAT Tapes	: RIL/DAT/NNN

NNN is running serial no

Vendors supporting outsourced activities

Vendor	Scope of Work	Engineers
● M/s Wipro	PC/Printer Maintenance, Help Desk	18
● M/s HP India	Alpha Servers	1
● M/s Data Craft	Cisco Switches AMC	1
● M/s CMS	Attendance Card Readers	1
● M/s Efficient Data	Thermal Printers	On Call
● M/s Lipi Data	Line Matrix Printers	On Call
● M/s TCS	Oracle ATS	On Call
● M/s Mastek	Ingres ATS	On Call

Organogram of MIS Dept.



Integration between Business & Manufacturing Systems

A few Examples ...

Cycle Time reduction and Data Accuracy

Interface between SAP and POY
Automatic Bobbin Handling
System

Brief Description

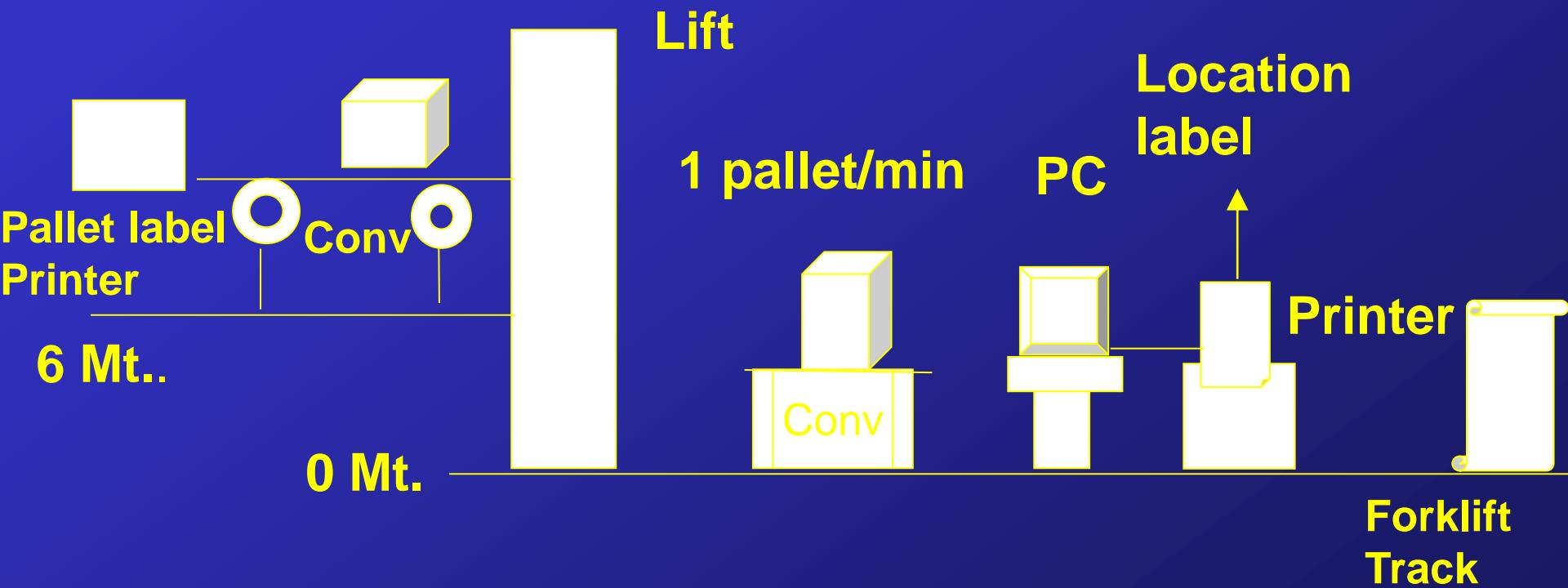
- POY bobbins are packed in Salmoiraghi Automation system
- Output from Automation :
 - 40 pallets per Hr.
 - 480 Cartons per Hr.
 - 1920 Bobbins per Hr.
- Data on bobbins are transferred to SAP
- Location in Warehouse is computed in SAP and printed near the entrance to the POY warehouse

Data Transfer

- Pallet No.
- Danier
- Grade
- Merge
- Weight Code
- Carton No.
- No. of Cartons
- No. of Bobbins
- Gross Weight
- Net Weight
- Date of Mfg.
- Spinning Machine No.
- Spinning Position No.
- Doff No.

Interface between Automation System in Polyester and SAP

POY - Material Flow









QUALITY POLYESTER

INDUSTRIAL RAW MATERIAL

PLEASE DO NOT MIX YARNS
TWO
DIFFERENT MERGE NUMBER

Reliance Industries Limited

(Fibre Division)

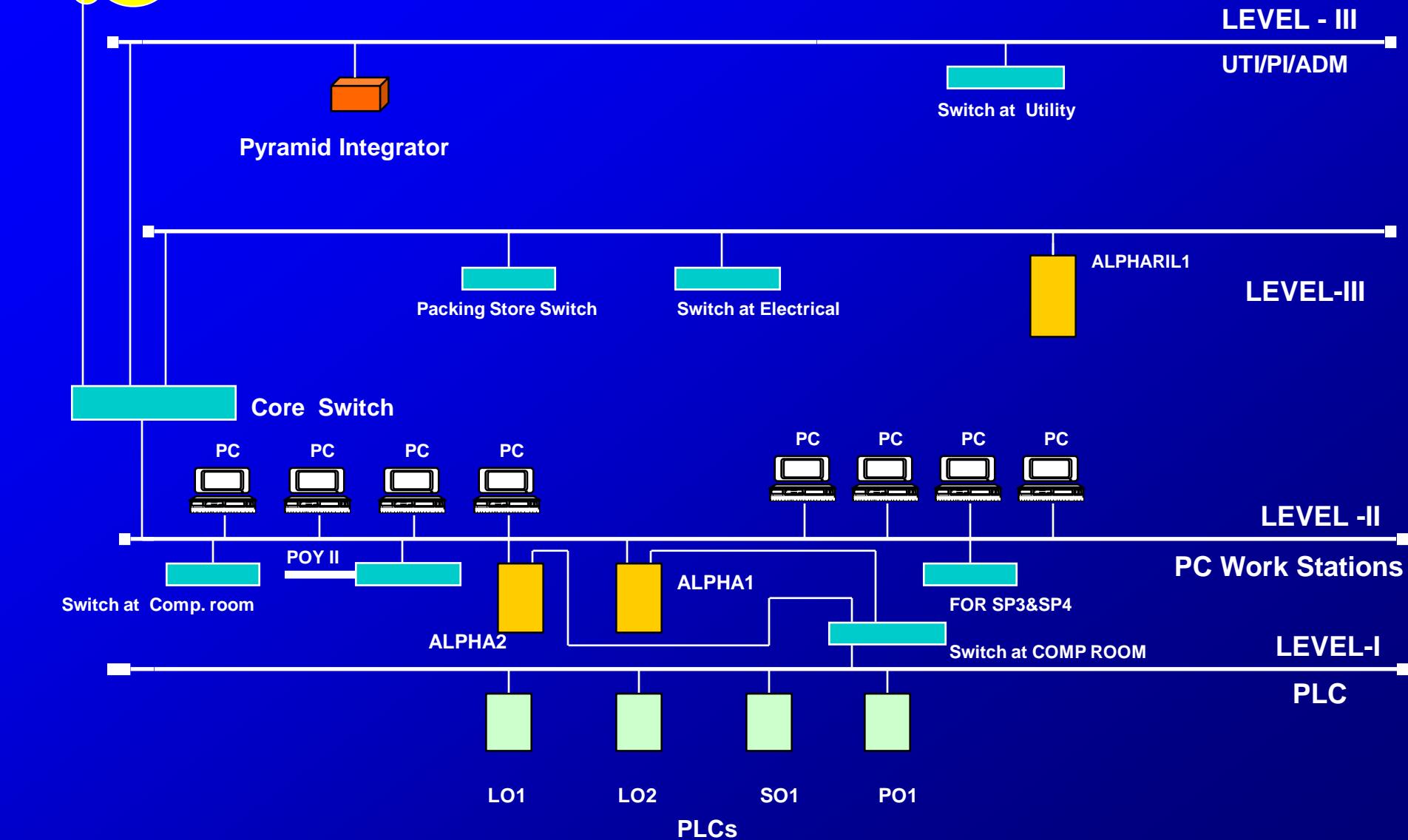
MAKER CHAMBERS IV, 222, NARIMAN POINT, MUMBAI - 400 021, INDIA.

C2 / 005
25158878

ice



Network diagram indicating interface between POY automation plant and SAP Servers at Jamnagar



Benefits

- Achieve speed in transfer of pallets to POY warehouse
- Eliminate transit space for storing incoming pallets in POY Warehouse
- Achieve dynamic assignment of location for storing the pallets in warehouse
- Achieve speed in removal of pallets in the warehouse from the predefined location
- Achieve reduction in cycle time in all warehouse related operations
- Maximum utilisation of space in the warehouse

Cycle Time reduction, Data Accuracy

Interface between SAP and Terminal Automation System

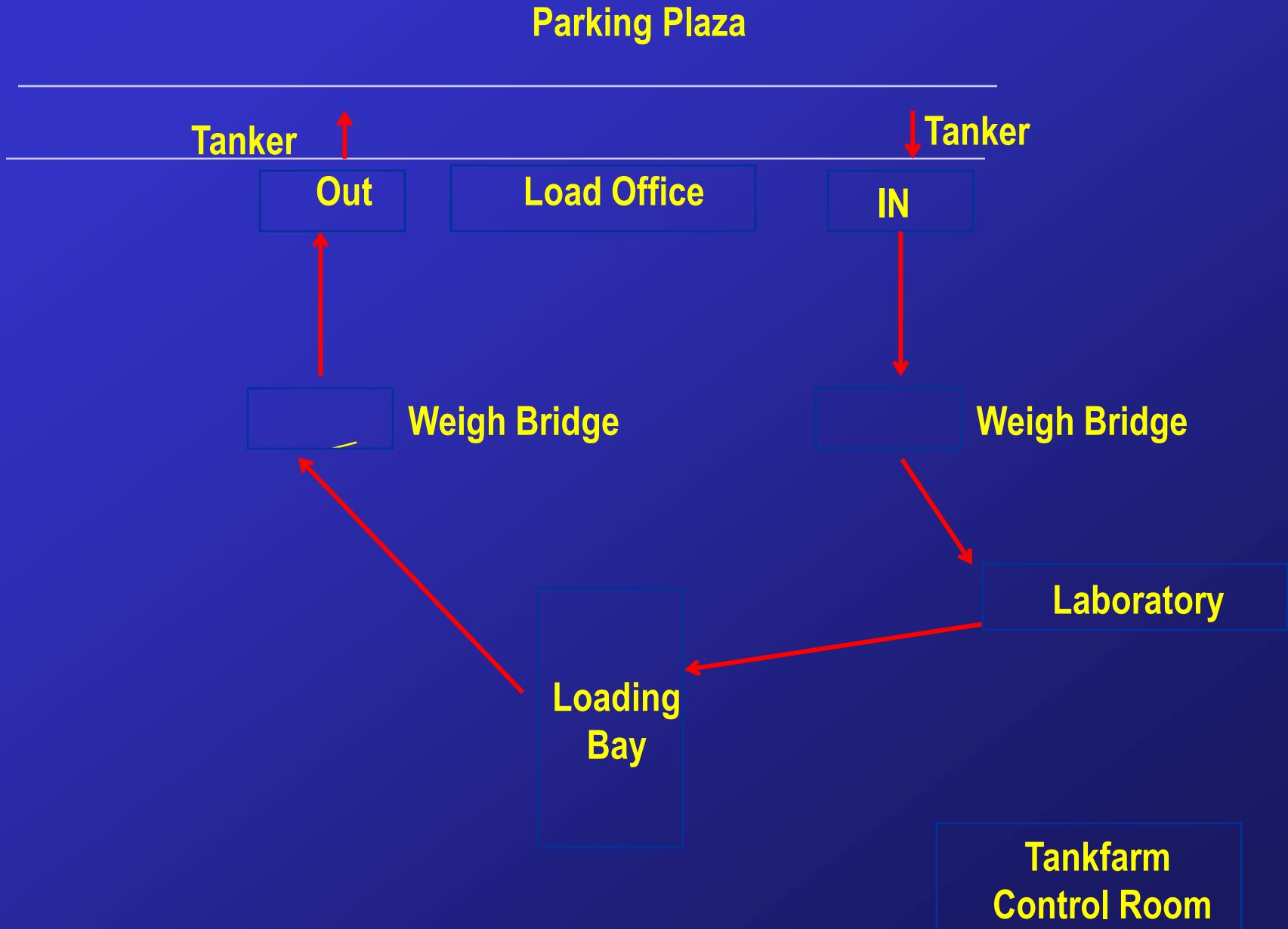
Brief Description

- Liquid Products are loaded in the road tankers through Terminal Automation System (TAS)
- Output from TAS :
 - 38 tankers per Hr.
 - LPG, MEG, Benzene, TOL, CIX, DEG, TEG, CB etc.
- Data on tanker capacity, identification of tanker are transferred from SAP to TAS
- The data is used while loading the tanker in TAS
- The weight of the loaded tankers are captured in weigh bridge and transferred to SAP
- Based on the weight, commercial invoice is prepared at Load Office

Data Transfer

- Tanker No.
- Entry ticket No.
- Compartment No.
- Capacity of each compartment
- Product Code
- Quantity

Movement of Road Tanker



Tanker loading in progress at gantry



Batch controller for each loading station



Screen at TF Control Room indicating progress of tanker loading



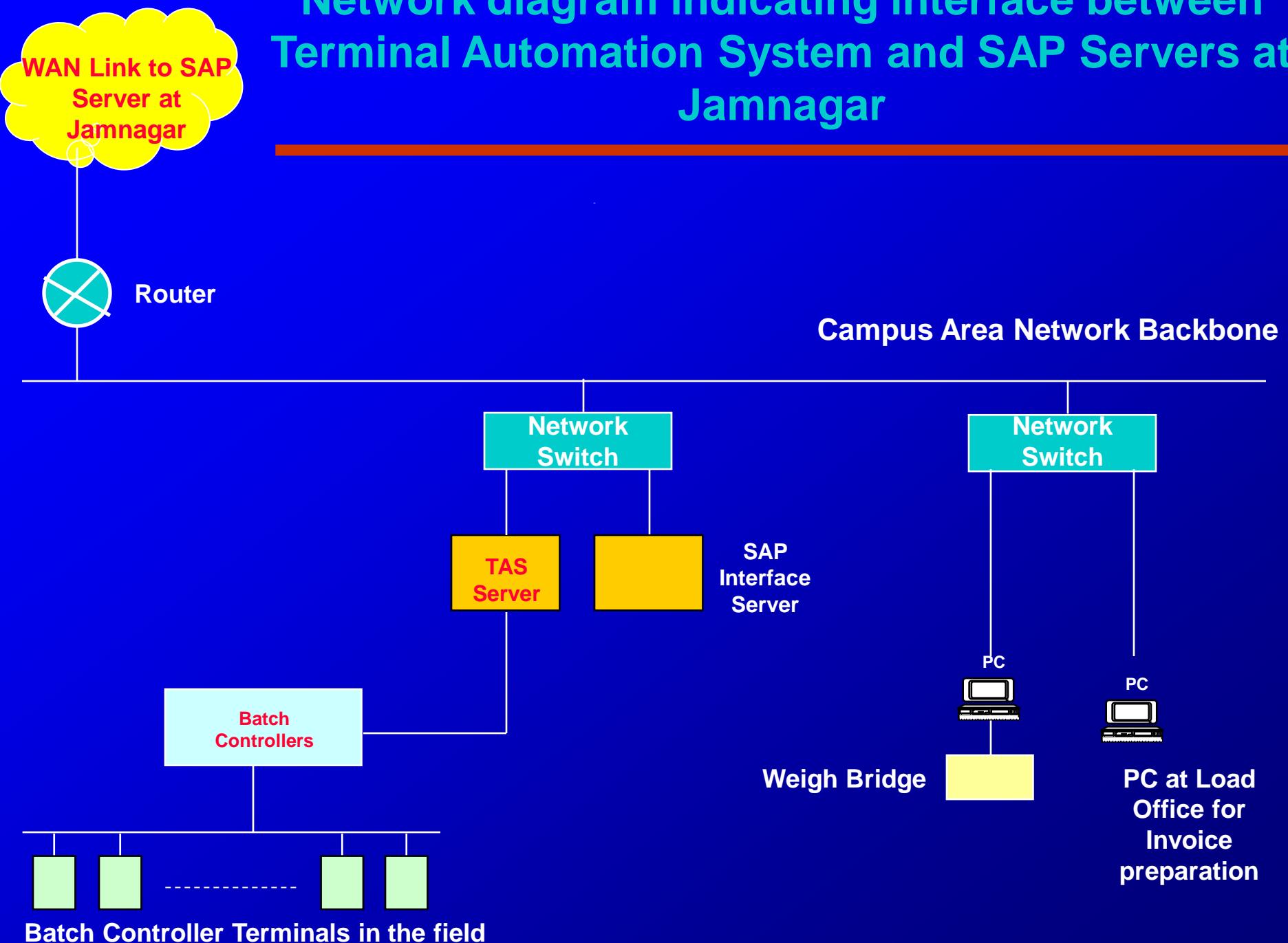
Tanker at Weigh Bridge



PC connected with weigh bridge and SAP for on-line capturing of weight



Network diagram indicating interface between Terminal Automation System and SAP Servers at Jamnagar



Benefits

- Loading of correct product in the specified tanker
- Automatic filling of Liquid Products for correct qty
- Error free data on weight of product for preparation of invoice
- No manual intervention
- Overall improvement in efficiency of operation

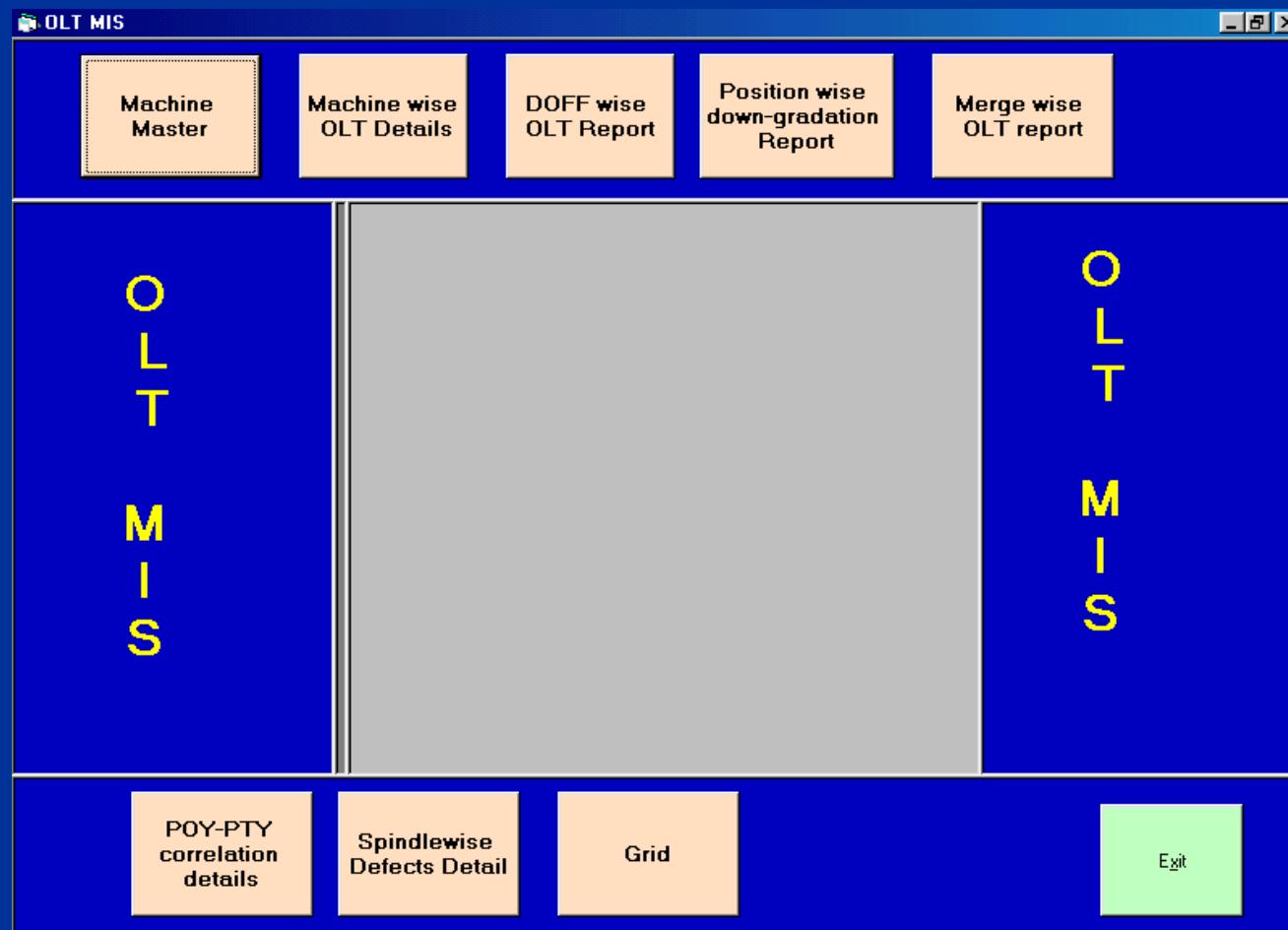
Cycle Time reduction and Customer Satisfaction

Interface with manufacturing process at customer site (M/s SIPL) to monitor the performance of product manufactured at POY Hazira

Brief Description

- Daily 100 MT of POY Bobbins dispatched to M/s Silvassa Industries Pvt. Ltd. From Hazira
- At SIPL POY is texturised on machines provided with On-Line Testing (OLT) facility
- The OLT system provides on-line the quality performance of the products running on texturising machines
- The quality parameters include speed (Mtr/Min), efficiency, no. of breaks, grade of texturised yarn etc.
- The systems at SIPL is connected to Hazira on WAN
- At Hazira end, these parameters are monitored directly and necessary corrective actions taken on the specific POY Spinning Machines

TEXTURING M/C MONITORING REPORTS



The screen displays various reports which contain performance parameters history trends

TEXTURING M/C v/s POY PRODUCT MASTER

The screen displays status of different POY products running on different texturing m/c's

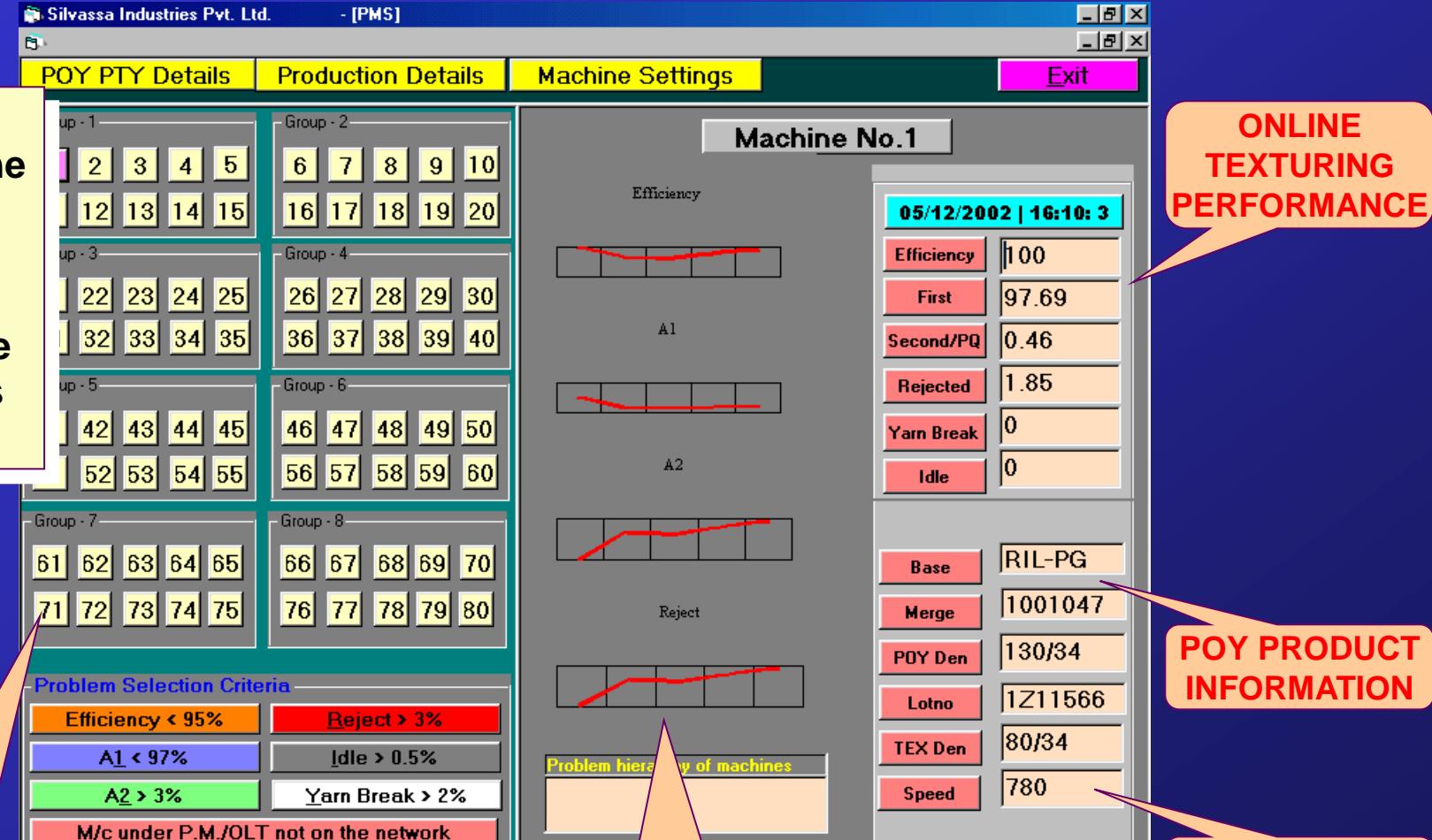
Date	M/c No.	Base	POY Denier	Batch No.	Merge No.	TexDenier	Speed
05/12/2002	01	RIL-PG	130/34	1Z11566	1001047	80/34	780
05/12/2002	02	RIL-HZ	100/34	1F20120	1202684	63/34	780
05/12/2002	03	RIL-HZ	110/34	1F20119	1002932	68/34	780
05/12/2002	04	RIL-HZ	100/34	1F20120	1202684	63/34	780
05/12/2002	05	RIL-HZ	100/34	1F20120	1202684	63/34	780
05/12/2002	06	RIL-RSL	80/34	1G30117	1403424	52/34	643
05/12/2002	07	RIL-HZ.	110/34	1F20119	1202932	68/34	780
05/12/2002	08	RIL-CIPL.	140/48	1G41553	1104433	84/48	703
05/12/2002	09	RIL-HZ	100/34	1F20120	1202684	63/34	780
05/12/2002	10	RIL PG	235/34	1L14152	1001029	155/34	643
05/12/2002	11	RIL-CIPL	140/48	1G41552	1104433	84/48	703
05/12/2002	12	RIL-HZ	110/34	1F20118	1002932	68/34	785
05/12/2002	13	RIL-HZ	100/34	1F20121	1202684	63/34	780
05/12/2002	14	RIL-HZ	110/34	1F20118	1002932	68/34	780
05/12/2002	15	RIL-PG	130/34	1Z11539	1001047	80/34	780

TEXTURED
PRODUCT
BATCH NO

TEXTURING
SPEED

TEXTURING PROCESS MONITORING

The screen displays online texturing process performance data for all the POY products



TEXTURING
M/C NO

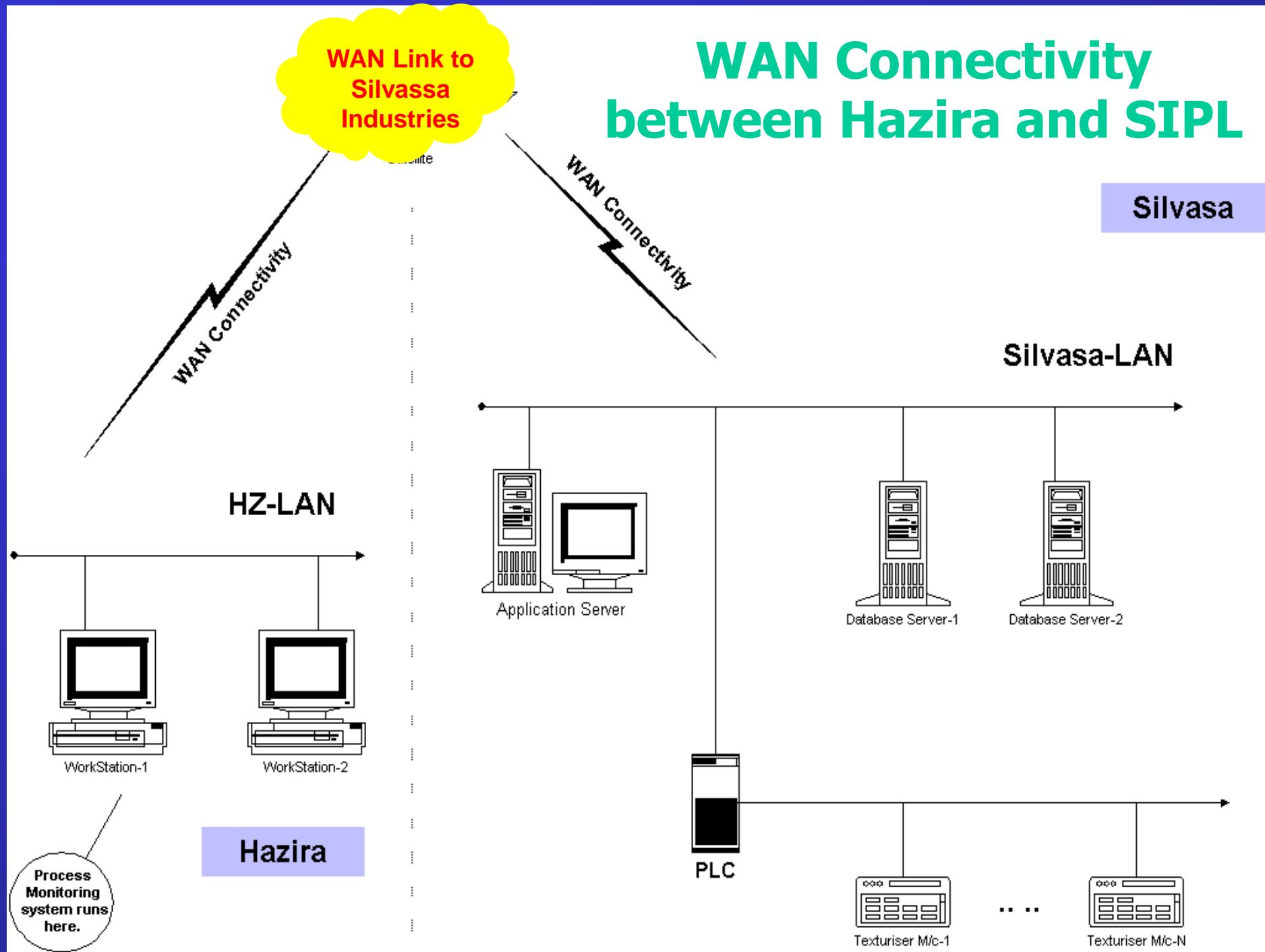
TEXTURING
PERFORMANCE
TREND

ONLINE
TEXTURING
PERFORMANCE

POY PRODUCT
INFORMATION

TEXTURING
SPEED

WAN Connectivity between Hazira and SIPL



Benefits

- Reduction in cycle time in improving product performance
- Customer satisfaction

Automatic warehousing System Overview

- It is a real time System designed for automatic handling of PSF Material from production to despatch in following manner
- Taking complete care of PSF production to avoid any duplication, damage and manual intervention
- Storing production automatically in warehouse to avoid mixing of material.
- Segregation of different of type product in tandem with warehouse requirements.
- Single screen online view of entire system
- Despatching of product.

INTRODUCTION : AUTO WAREHOUSE

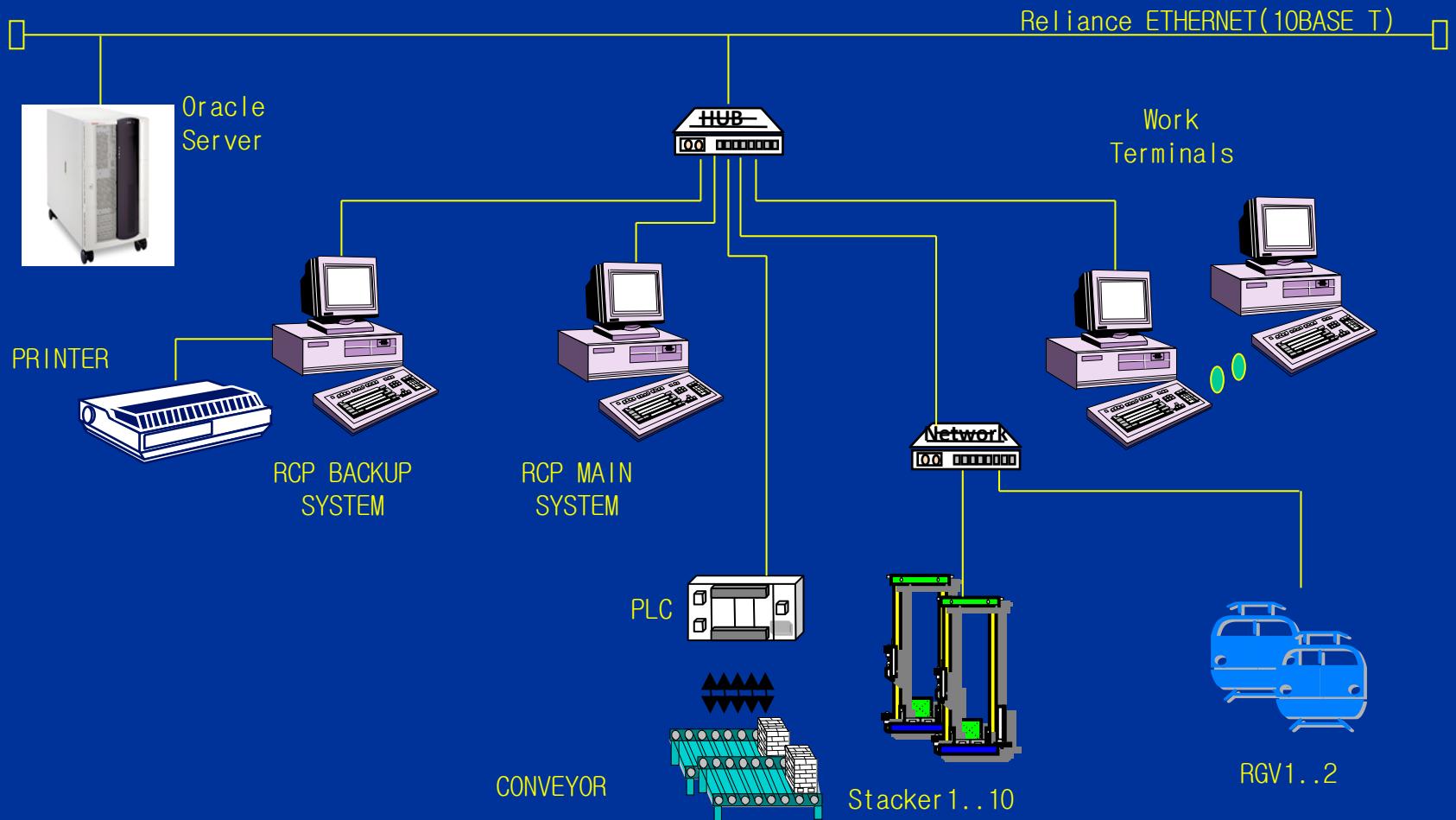
OVERVIEW : AUTO WAREHOUSE



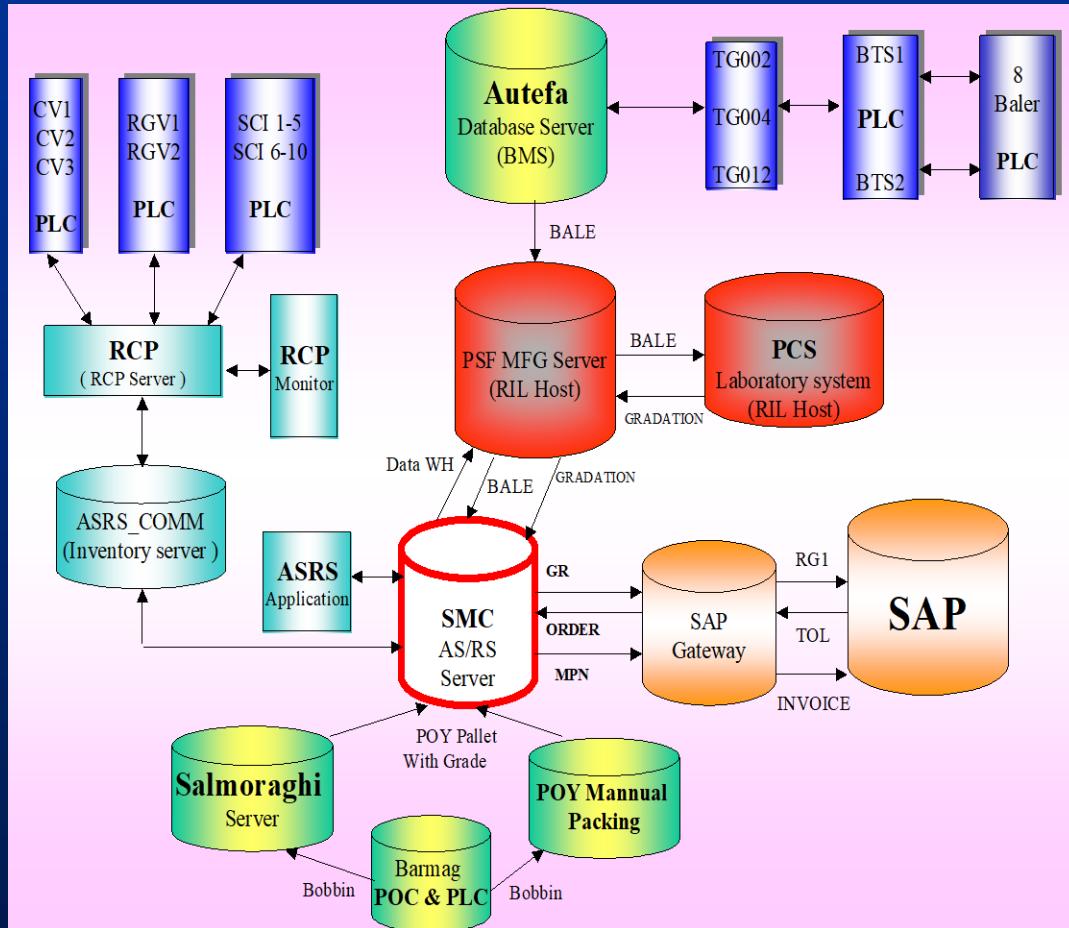
Advantages of Automatic warehouse

- Higher stock keeping capacity within limited space
- Protection of storage goods from theft and damage
- Automation of dangerous and hard work of storage and retrieval process
- Easy and appropriate inventory control with computer system
- Simple expansion of warehouse
- Faster and more reliable operation of warehouse
- Easy management of inventory with various managing methods such as FIFO and ABC analysis
- Real time inventory control
- Prevention of safety accident
- Pleasant and convenient work environment
- Easy and fast maintenance through modular and standard design
- Economy in investment and operation

SYSTEM CONFIGURATION



Complete data flow diagram



Concept

1	Manage POY/FDY, Bale.
2	POY/FDY is one wrapped on the pallet and Bale is two lump on the pallet.
3	Storage size is all same for POY/FDY and bale
4	Stacker crane are 10. RGV are 2. Display board are 5. Fixed mounted scanner are 3. Gun type scanner are 3. PLC are 3.

Store in POY/FDY at ground floor

1	There are two conveyor place for store in POY/FDY on the user pallet.
2	When arrived store in pallet, the fixed mount scanner will be read the bar code and interface with RELIANCE poy management computer and get the pallet detailed information.
3	If interface with RELIANCE computer for store in, use the terminal that storing by key in data directly.
4	The pallet will be moved from ground to first floor.
5	At first floor, there are two dispenser for supplying as/rs empty pallet. If that is out of order, other side dispenser will be used.

Store in & out at ground floor Emergency conveyor

1	The store in and out will be done using installed Terminal.
2	At here, Only stacker crane 4 can use it.

Supply empty pallet for POY/FDY

- | | |
|---|--|
| 1 | Supplying empty pallet is done stacker crane 4 and 8 only. |
|---|--|

First floor POY/FDY out conveyor usage

- | | |
|---|--|
| 1 | Empty pallet or POY/FDY store in and out emergency. |
| 2 | The conveyer can move two direction. One is store in, other store out. |

Store in Bale

- | | |
|---|--|
| 1 | When arrived store in pallet on smc conveyer, interface with RELIANCE bale management computer
and get the bale detailed information. |
| 2 | If size over error or data error or other error happed, the bale will be moved
reggrading area conveyer . |
| 3 | The normal bale will be moved other size check area. |
| 4 | At here, the bale will be rechecked size and read bar code by fixed mounted scanner . |
| 5 | If size over happen, the bale will be moved reject conveyer through RGV. |
| 6 | Even if the bale grade is not supplied, it is possible to store in. |

Supply empty pallet for bale

- | | |
|---|--|
| 1 | Stacker crane 3 and 4 and 8 are possible supplying empty pallet. |
| 2 | Supplying empty pallet position is two place. |

Regrading for bale

- | | |
|---|---|
| 1 | Stacker crane 3 and 4 and 8 are possible supplying regrading pallet. |
| 2 | If other stacker crane has the regrading bale, It will be store out ground floor and move to
3 4 8 stacker crane using RGV and supply regrading bale |

Store out to dock

- | | |
|---|---|
| 1 | There are five docks. One dock has two shipping conveyer. |
| 2 | The one order is one dock and one truck. |
| 3 | The display board will show truck no and pallet quantity. |

INTRODUCTION : AUTO WAREHOUSE

CUT VIEW : AUTO WAREHOUSE

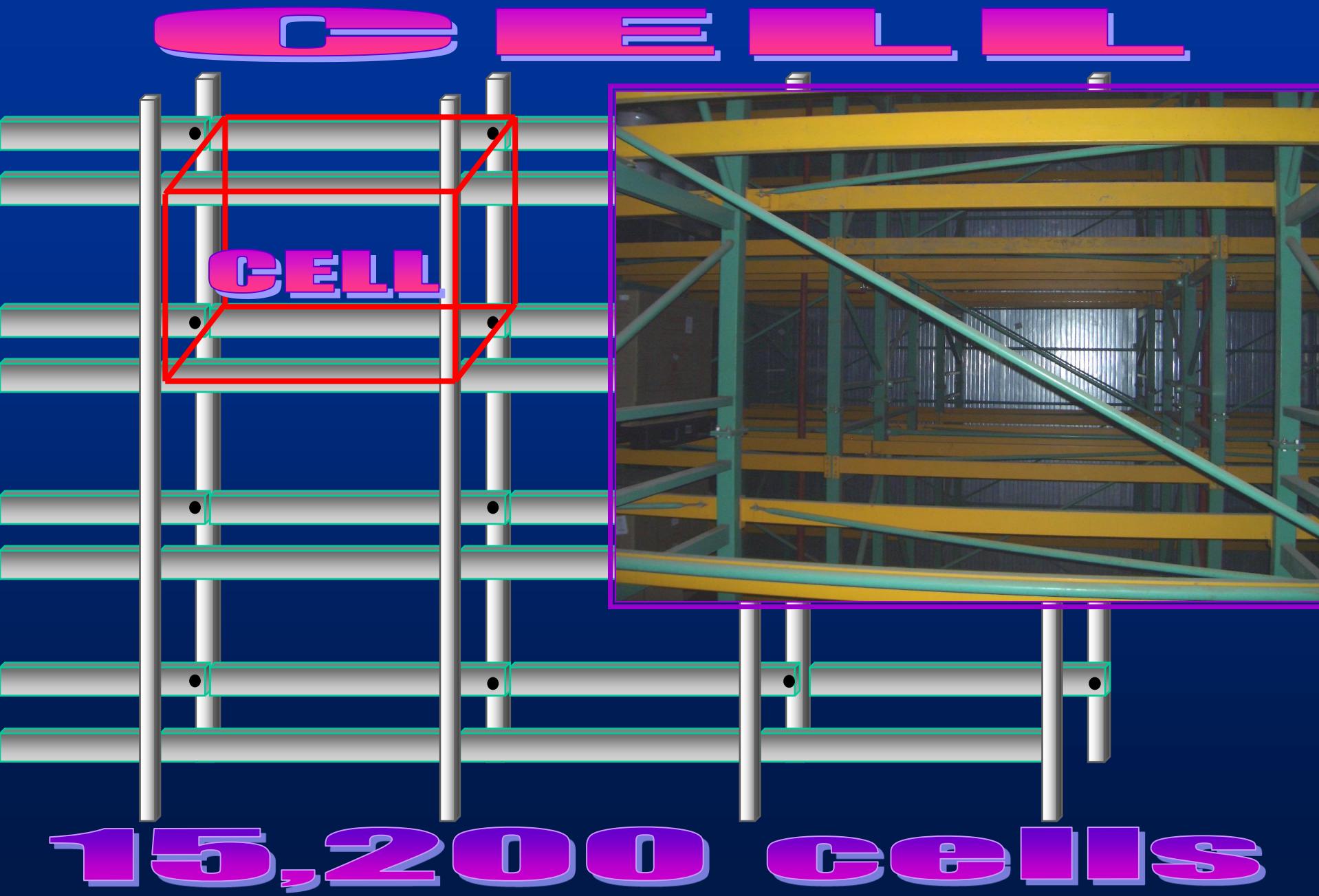


**INTRODUCTION : AUTO WAREHOUSE
SKELETON : AUTO WAREHOUSE**



RACK SYSTEM

INTRODUCTION : AUTO WAREHOUSE



INTRODUCTION : AUTO WAREHOUSE LOCATION



30,400 Locations

INTRODUCTION : AUTO WAREHOUSE

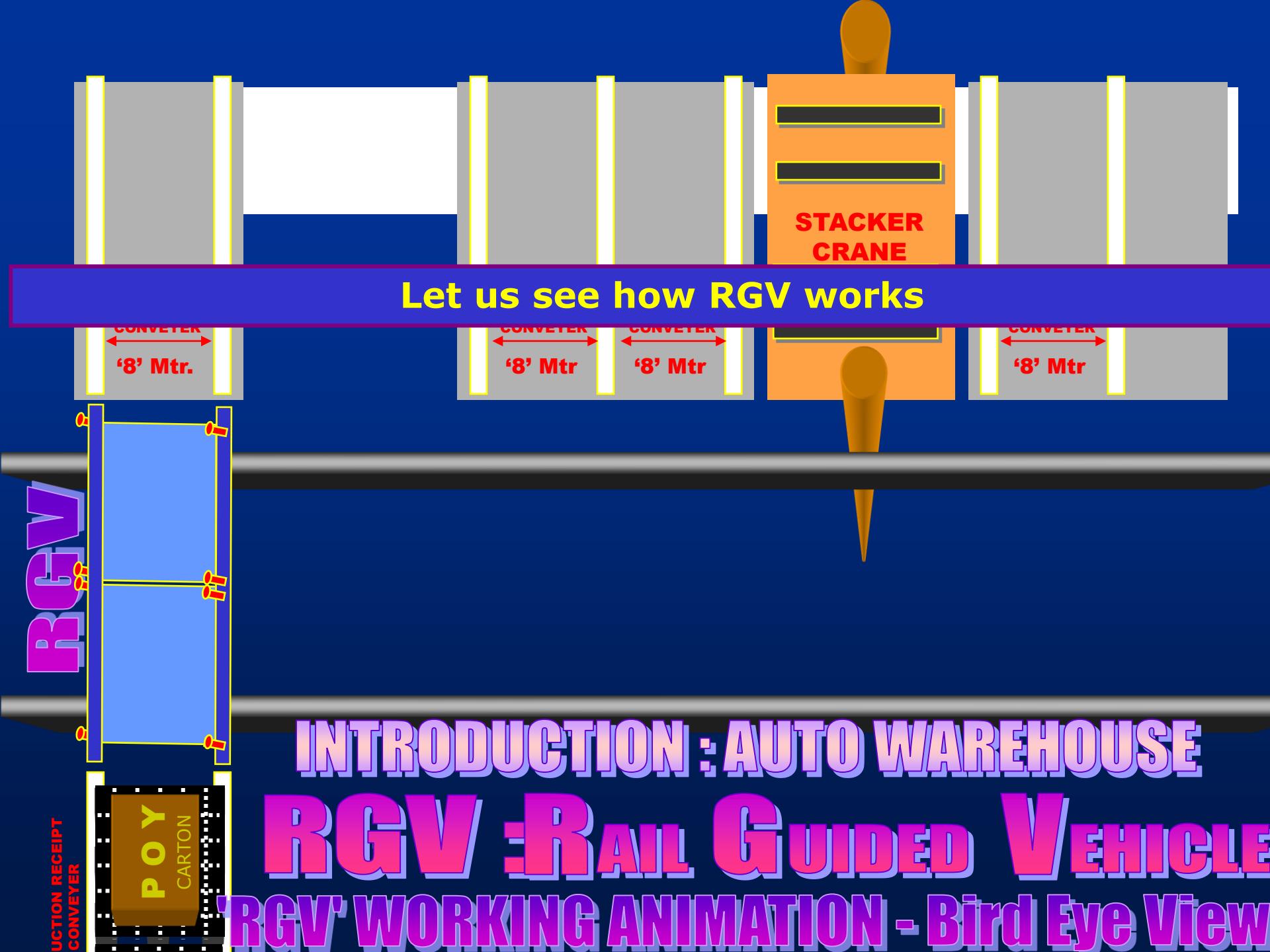
RGV : RAIL GUIDED VEHICLE



Production
Receipt
Conveyer



2 'RGV', EACH FOR 'POY & 'PSF' PRODUCT



STACKER CRANE

Let us see how RGV works

RGV

POY
CARTON

RECEPTION
CONVEYER

INTRODUCTION : AUTO WAREHOUSE

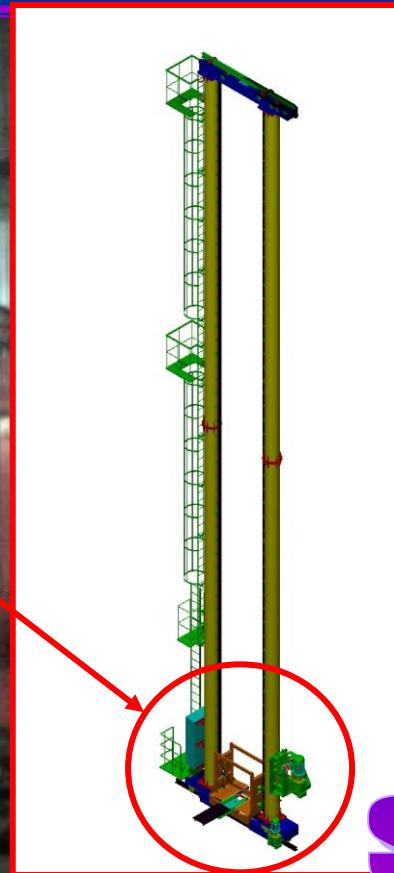
RGV : Rail Guided Vehicle

'RGV' WORKING ANIMATION - Bird Eye View

INTRODUCTION : AUTO WAREHOUSE STACKER CRANE



S C C
(**STACKER CRANE**)



**TOTAL
STACKER
CRANES :**
10

INTRODUCTION: AUTO WAREHOUSE STACKER CRANE 'SC' WORKING ANIMATION (Bird Eye View)

'0' Mtr.
WAREHOUSE

STACKER CONVEYER
'0' Mtr

STACKER CRANE

STACKER CONVEYER
'0' Mtr

POY CARTON

STACKER CRANE

STACKER CONVEYER
'0' Mtr

STACKER CONVEYER
'0' Mtr



INTRODUCTION : AUTO WAREHOUSE CONVEYER SYSTEM



POY PSF

Production
Receipt
Conveyor



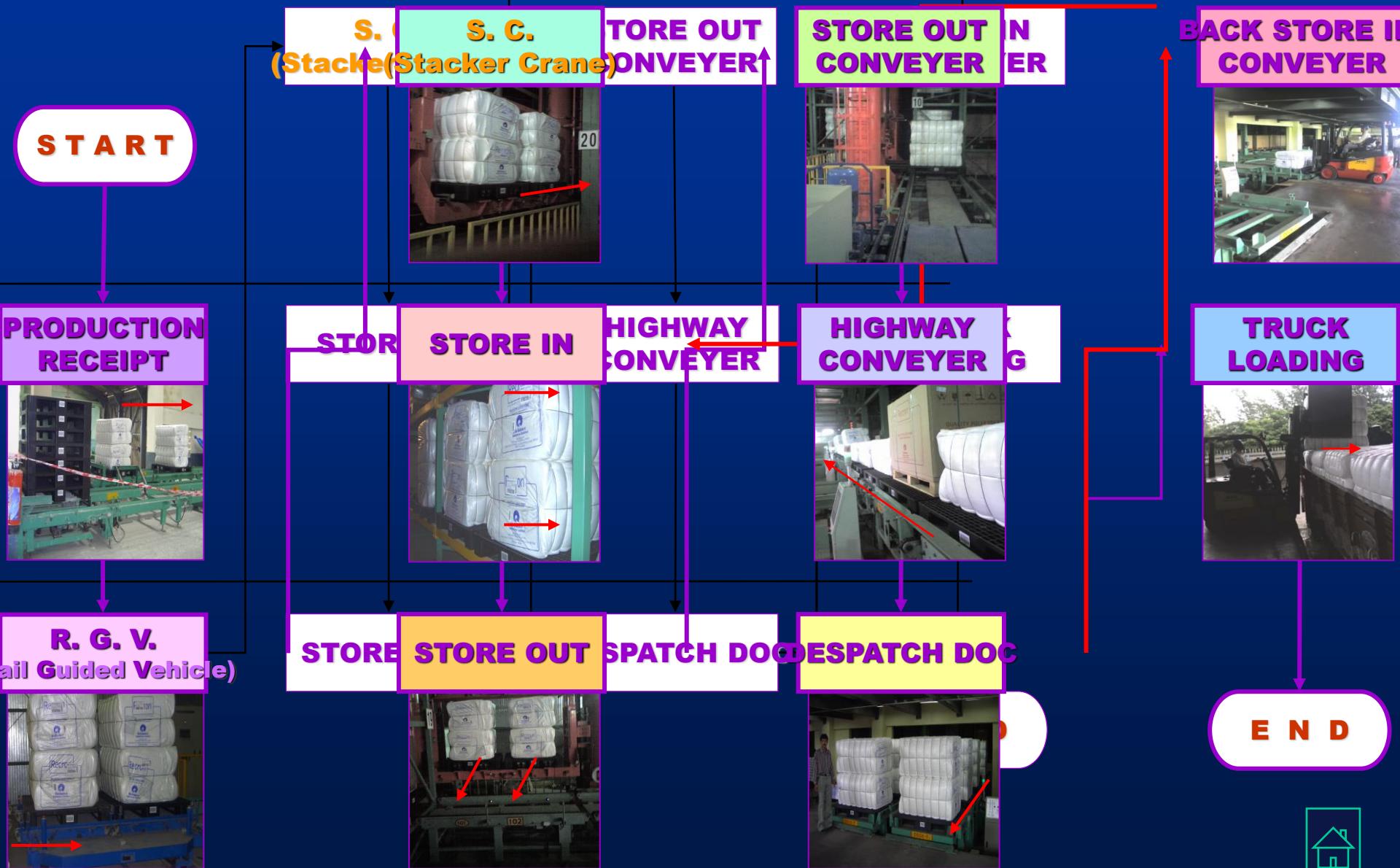
LOADING DOCK

Dispatch
Conveyors



HIGHWAY CONVEYORS

HIGH LEVEL FLOW DIAGRAM AUTO STORAGE AND RETRIEVAL SYSTEM



PROJECT OBJECTIVE

INCREASE IN CUSTOMER SATISFACTION

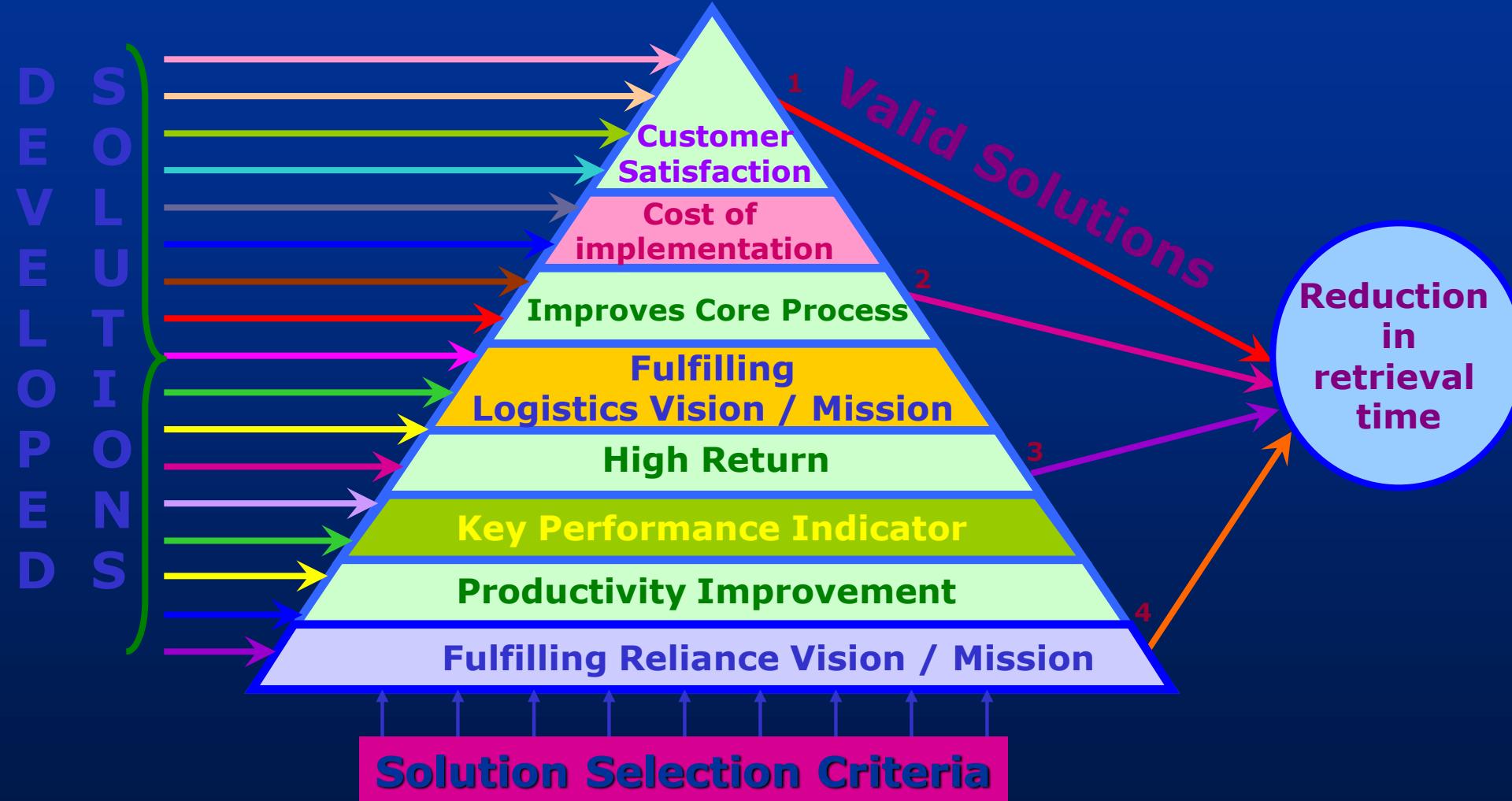
OPTIMUM UTILIZATION OF RESOURCES

ACHIEVEMENT OF PRESET CYCLETIME

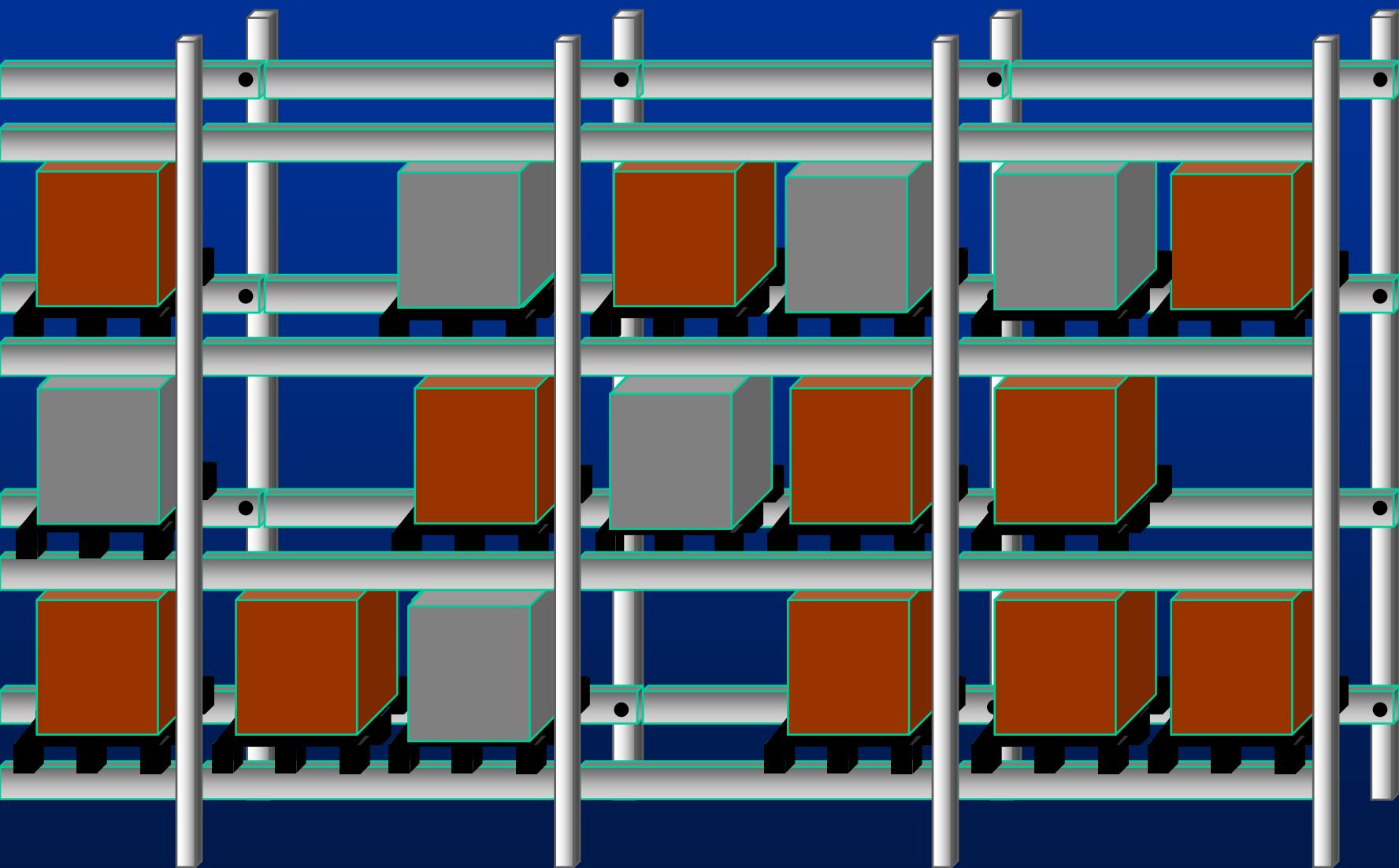
ORDER EXECUTION IN TIME

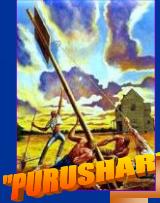
SAFE TRUCK MOVEMENT

SOLUTION DEVELOPMENT CRITERIA TO SELECT FINAL SOLUTIONS



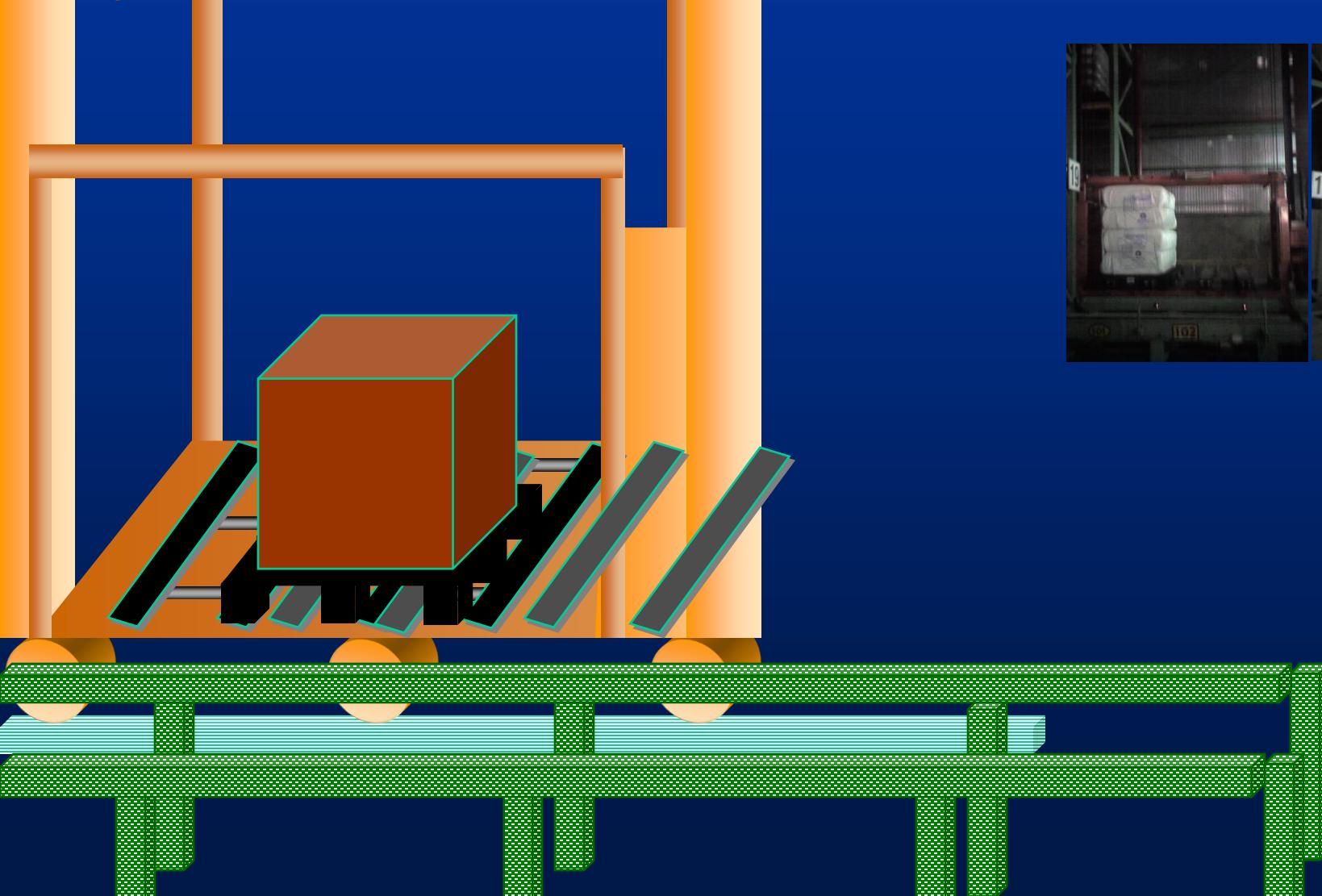
TRIAL IMPLEMENTATION : ACTION-1 MAXIMUM TWIN PALLET STORE OUT



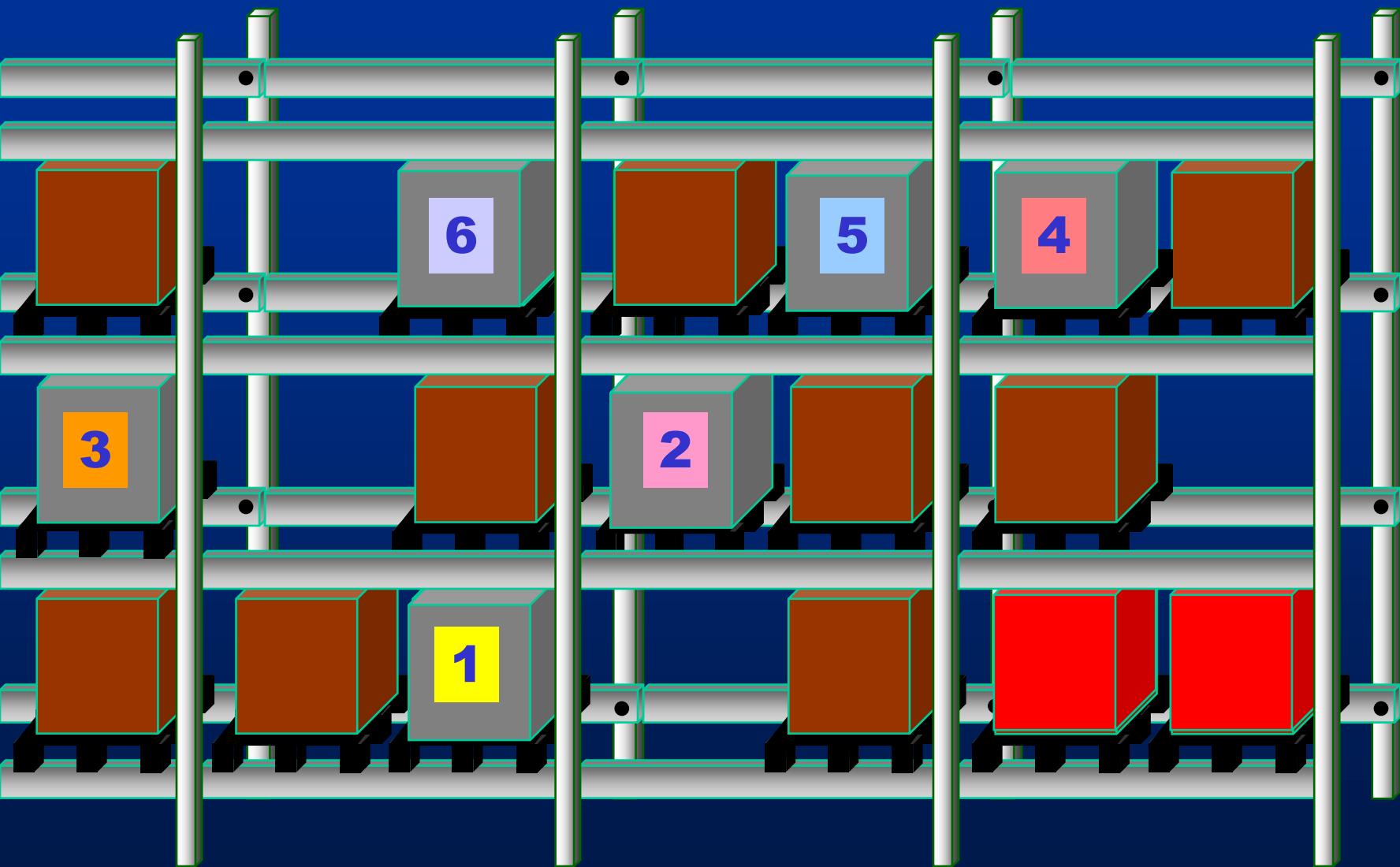


TRIAL IMPLEMENTATION : ACTION-1

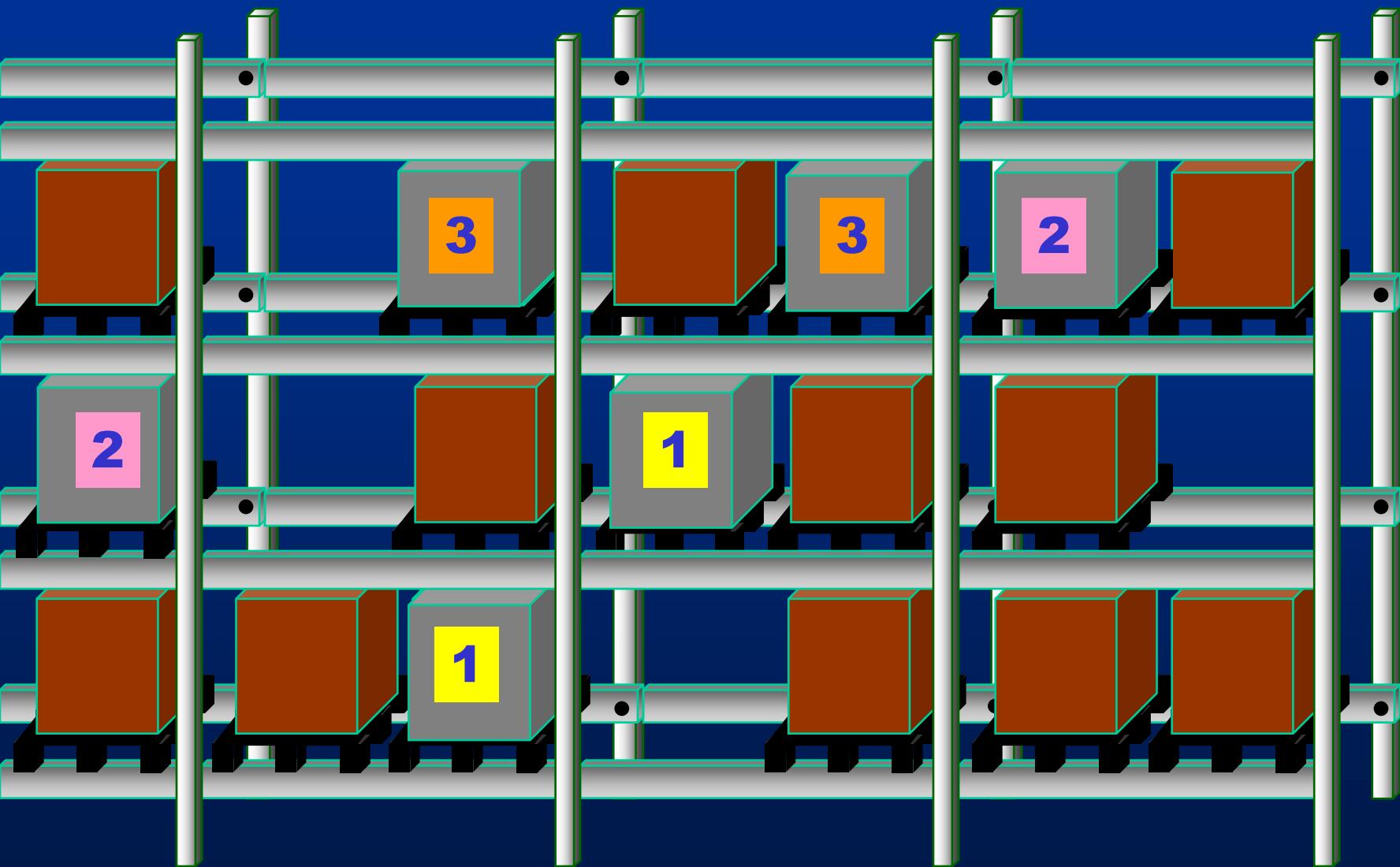
MAXIMUM TWIN PALLET STORE OUT



TRIAL IMPLEMENTATION : ACTION-1 MAXIMUM TWIN PALLET STORE OUT



TRIAL IMPLEMENTATION : ACTION-1 MAXIMUM TWIN PALLET STORE OUT

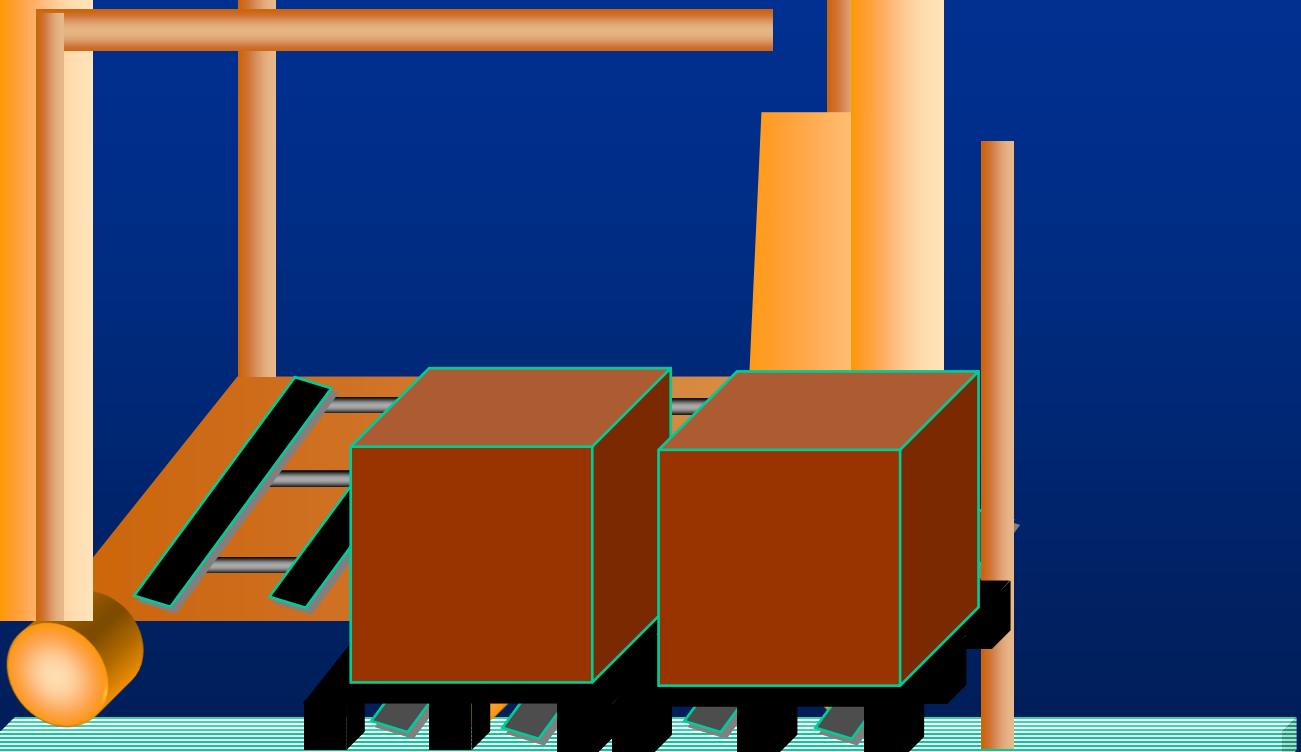


TRIAL IMPLEMENTATION : ACTION-1

MAXIMUM TWIN PALLET STORE OUT

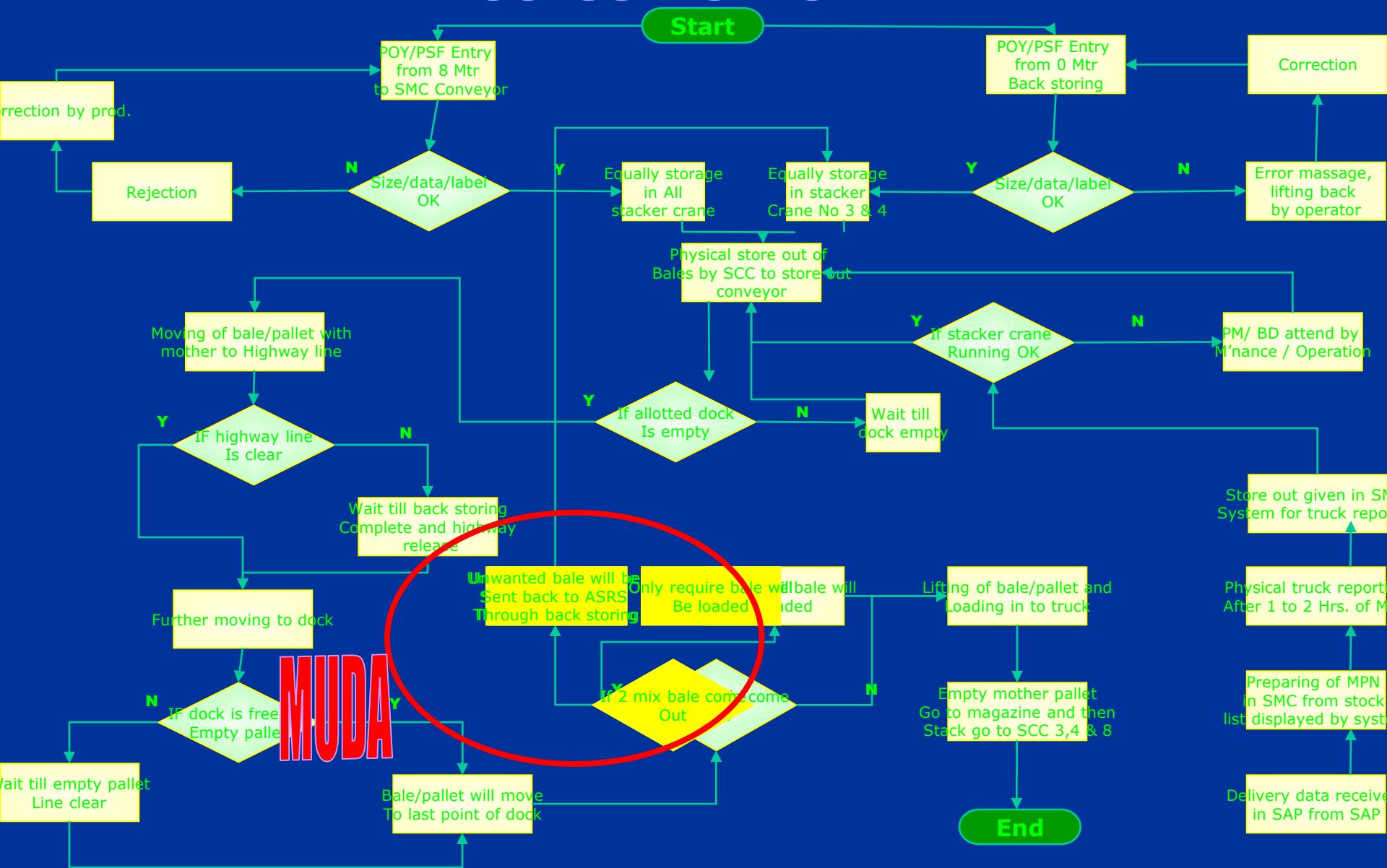


"PURUSHARTH"



TRIAL IMPLEMENTATION : ACTION-2

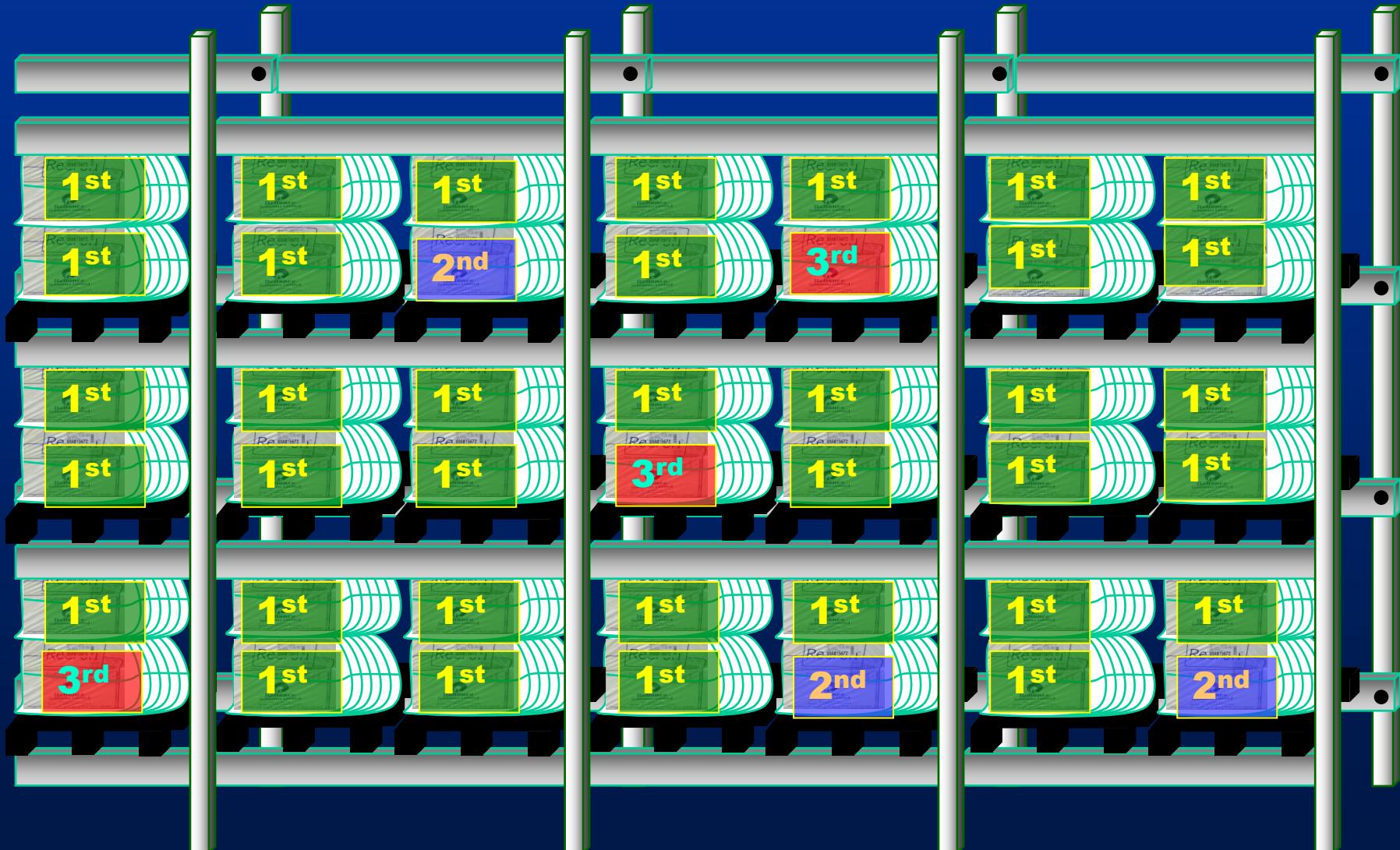
RETRIEVAL PROCESS FLOW CHART



TRIAL IMPLEMENTATION : ACTION-2

"NO RETRIEVAL OF MIX GRADE BALES"

PSF GRADATION SYSTEM



TRIAL IMPLEMENTATION : ACTION-2

"NO RETRIEVAL OF MIX GRADE BALES"



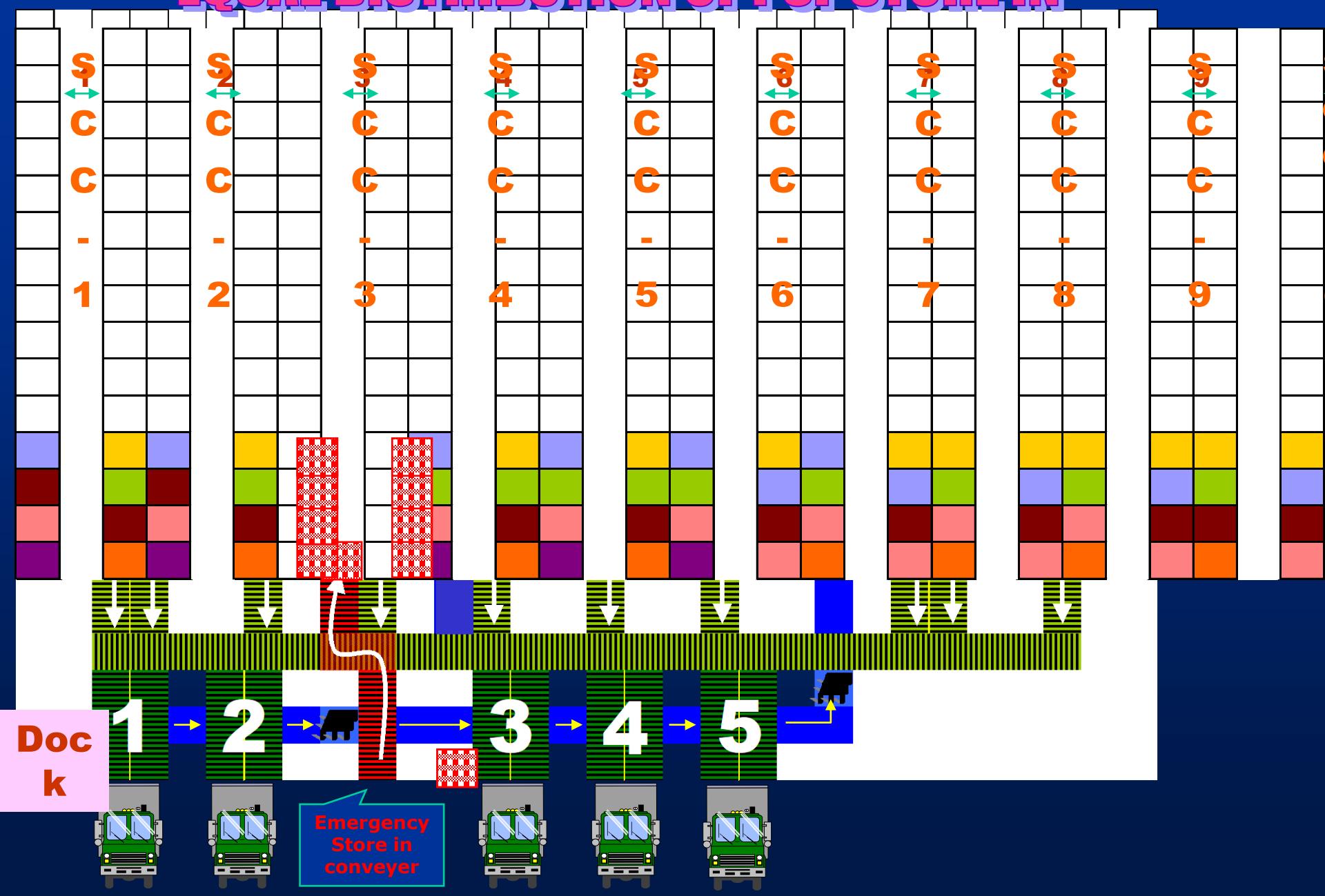
TRIAL IMPLEMENTATION : ACTION-2

"NO RETRIEVAL OF MIX GRADE BALES"



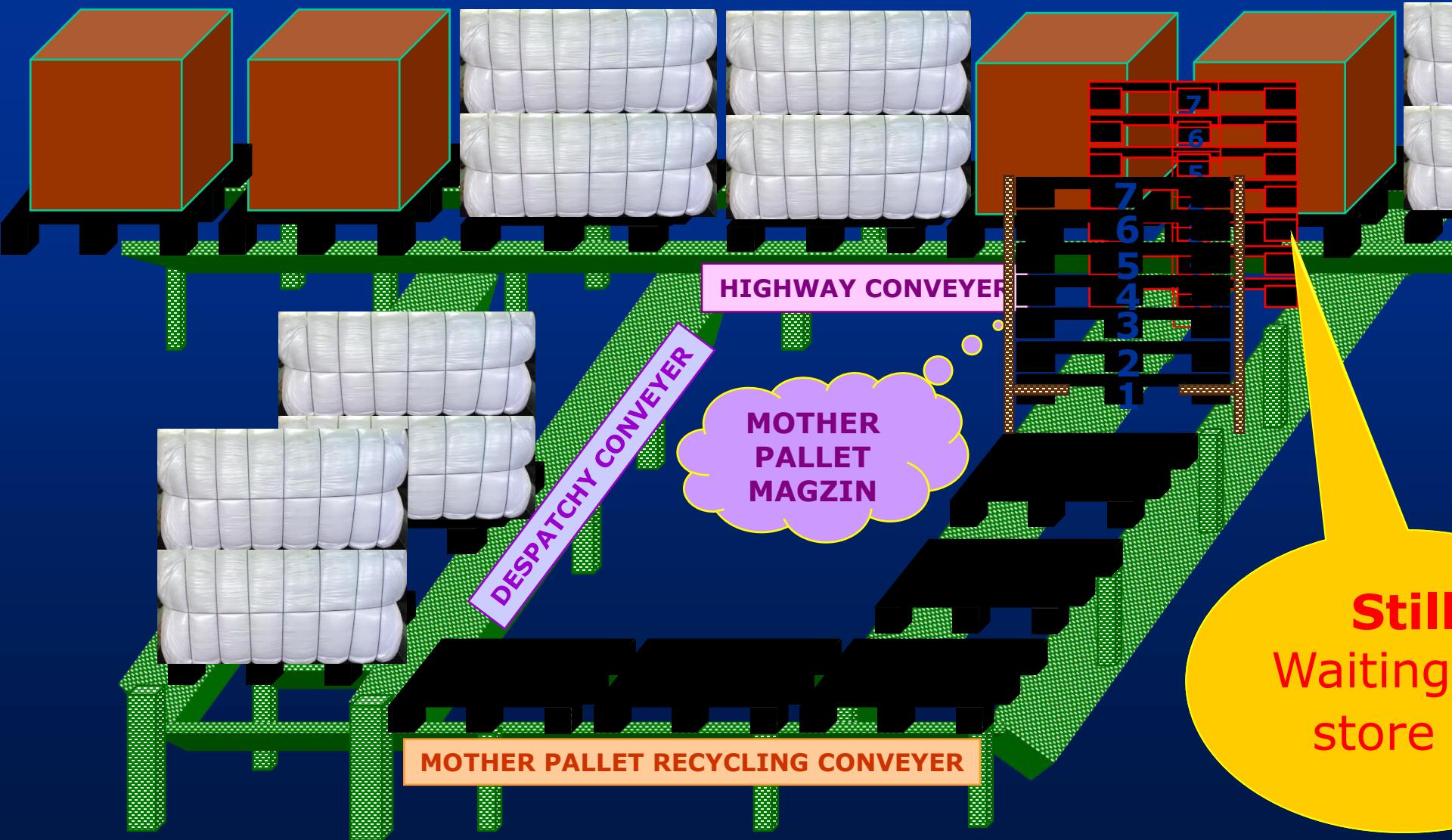
TRIAL IMPLEMENTATION : ACTION-3

"EQUAL DISTRIBUTION OF PSF STORE IN"

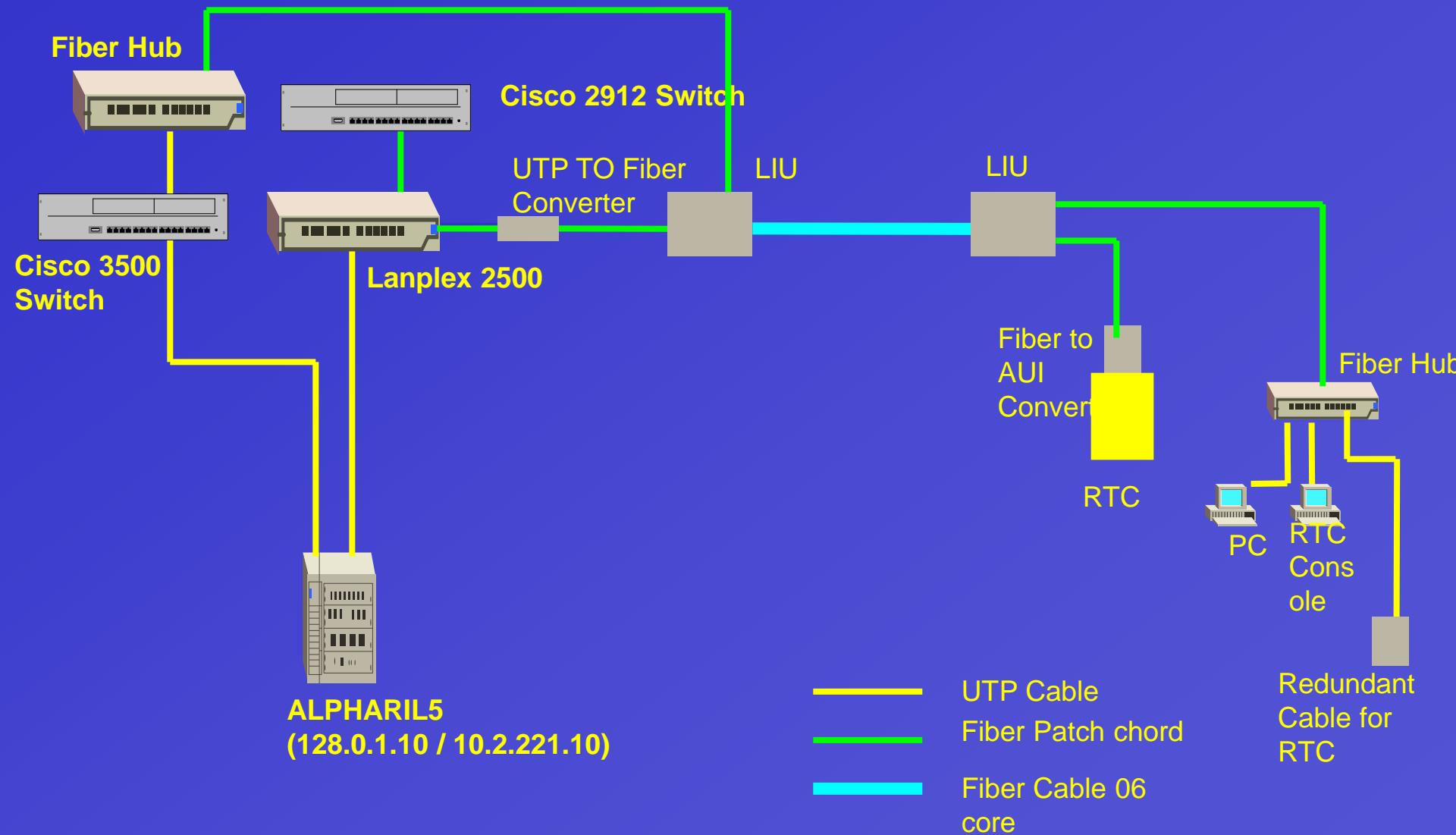


TRIAL IMPLEMENTATION : ACTION-4

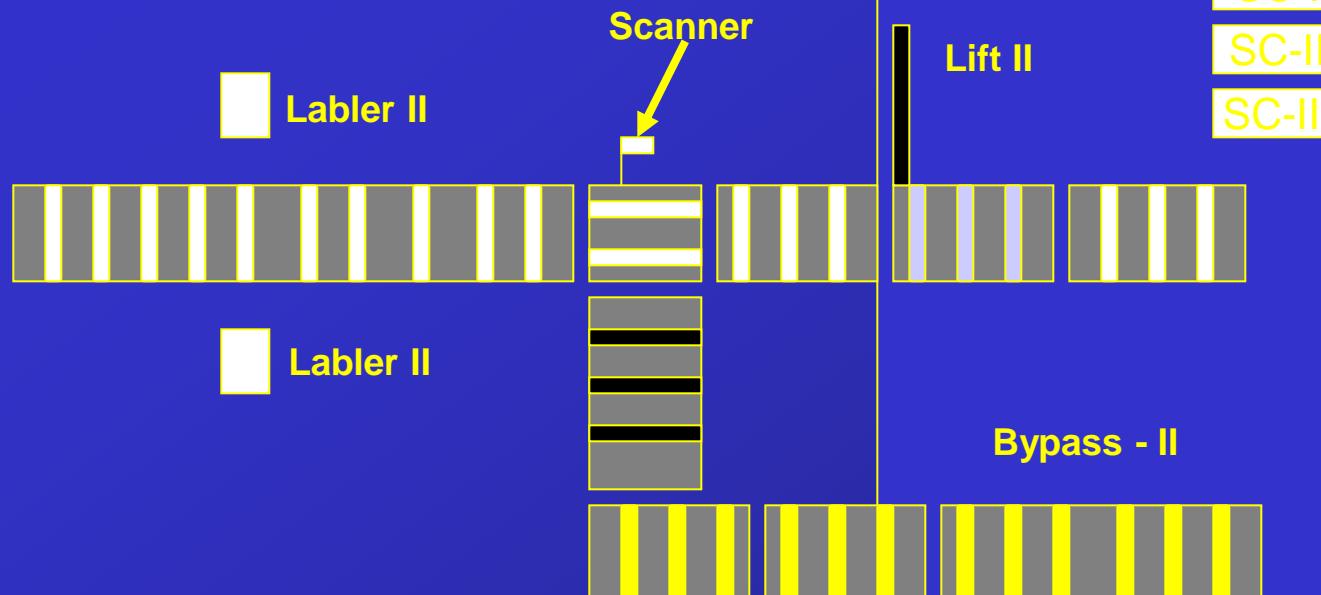
"FAST MOVEMENT OF MOTHER PALLET"



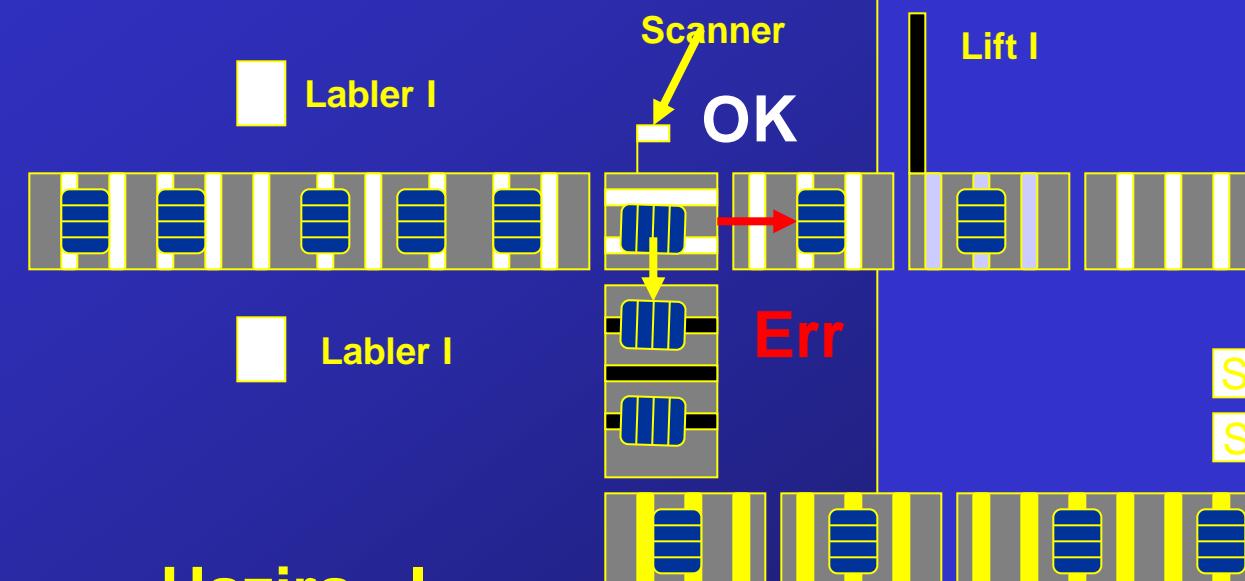
RTC NETWORK DIAGRAM



Hazira - II



A
u
t
e
f
a



w
a
r
e
h
o
u
s
e

Hazira - I

SC-I
SC-II
SC-III

SC-IV
SC-III

SC-II
SC-I

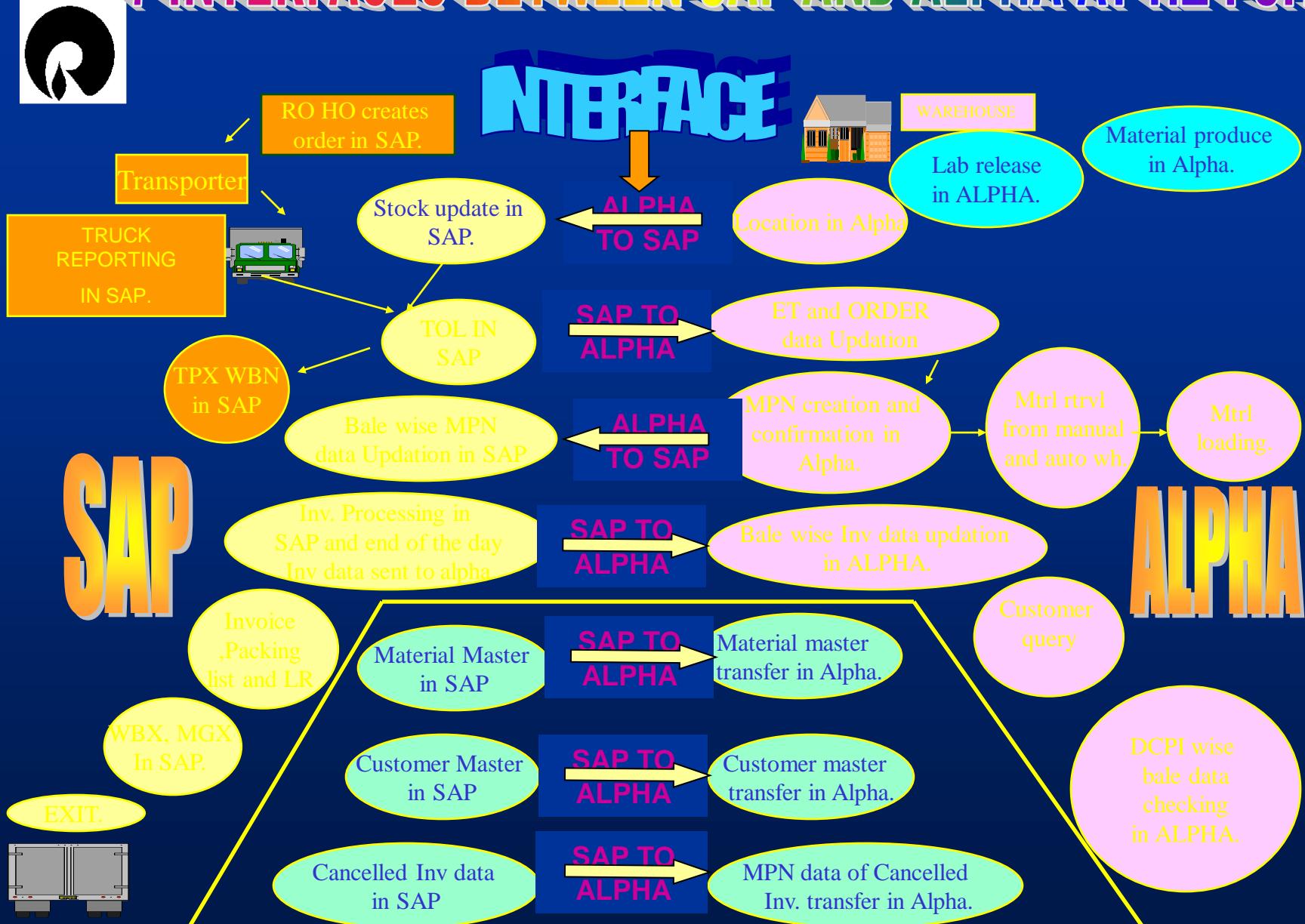
INTERFACE

- Transfer of data between two systems calls as interface
- At HZPSF – because of communication problem between RTC/PLC of Autefa and SAP, interface is designed between Ingres and SAP. Here Ingres system works as mediator between RTC/PLC and SAP

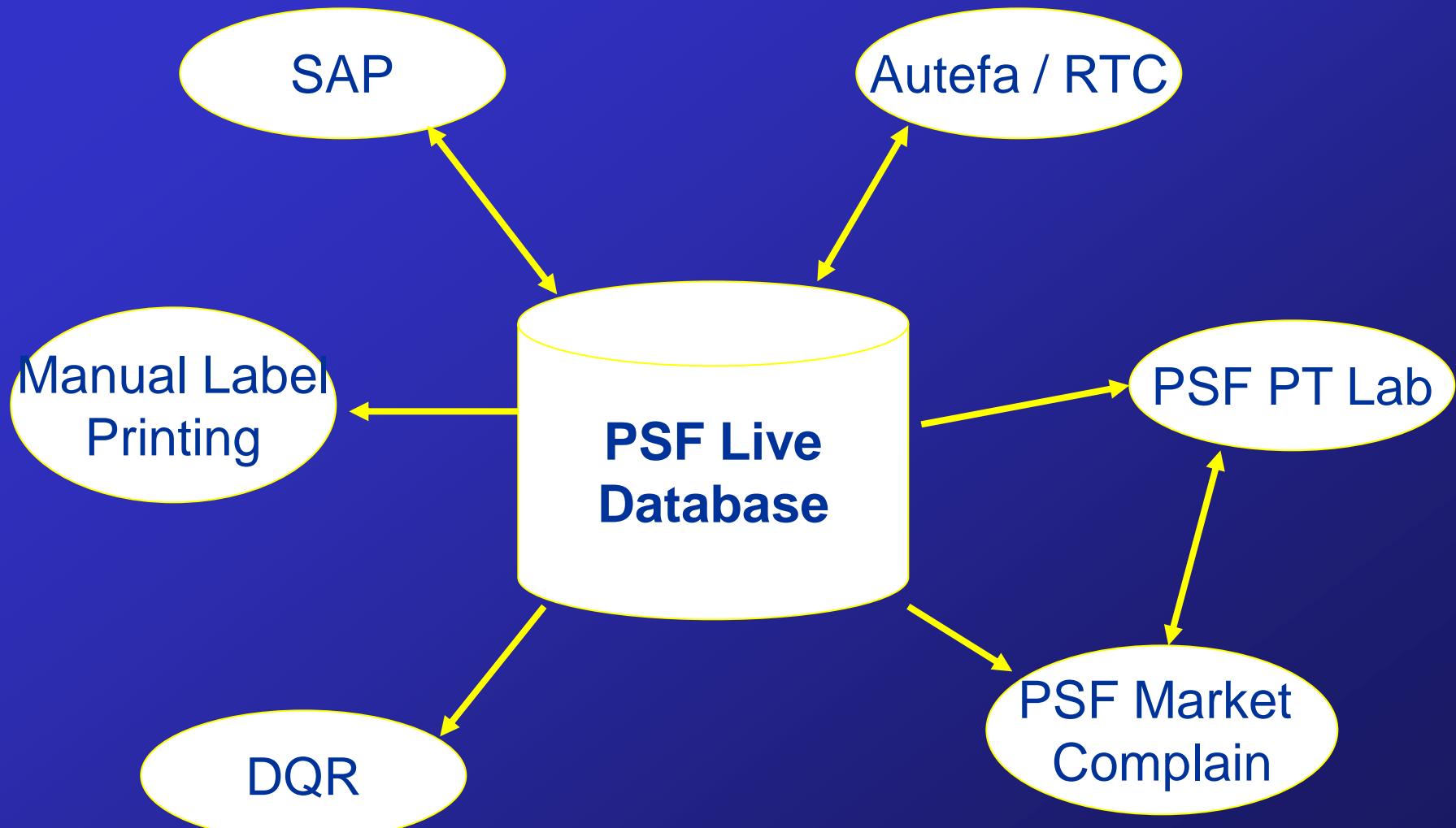
INTERFACE

- Here all Receipt, Warehousing and Material pickup for despatch, related activities are being done in INGRES system as it is having communication with RTC/PLC of Autefa
- Truck and despatch related document activities are being done in SAP by interface with INGRES system.

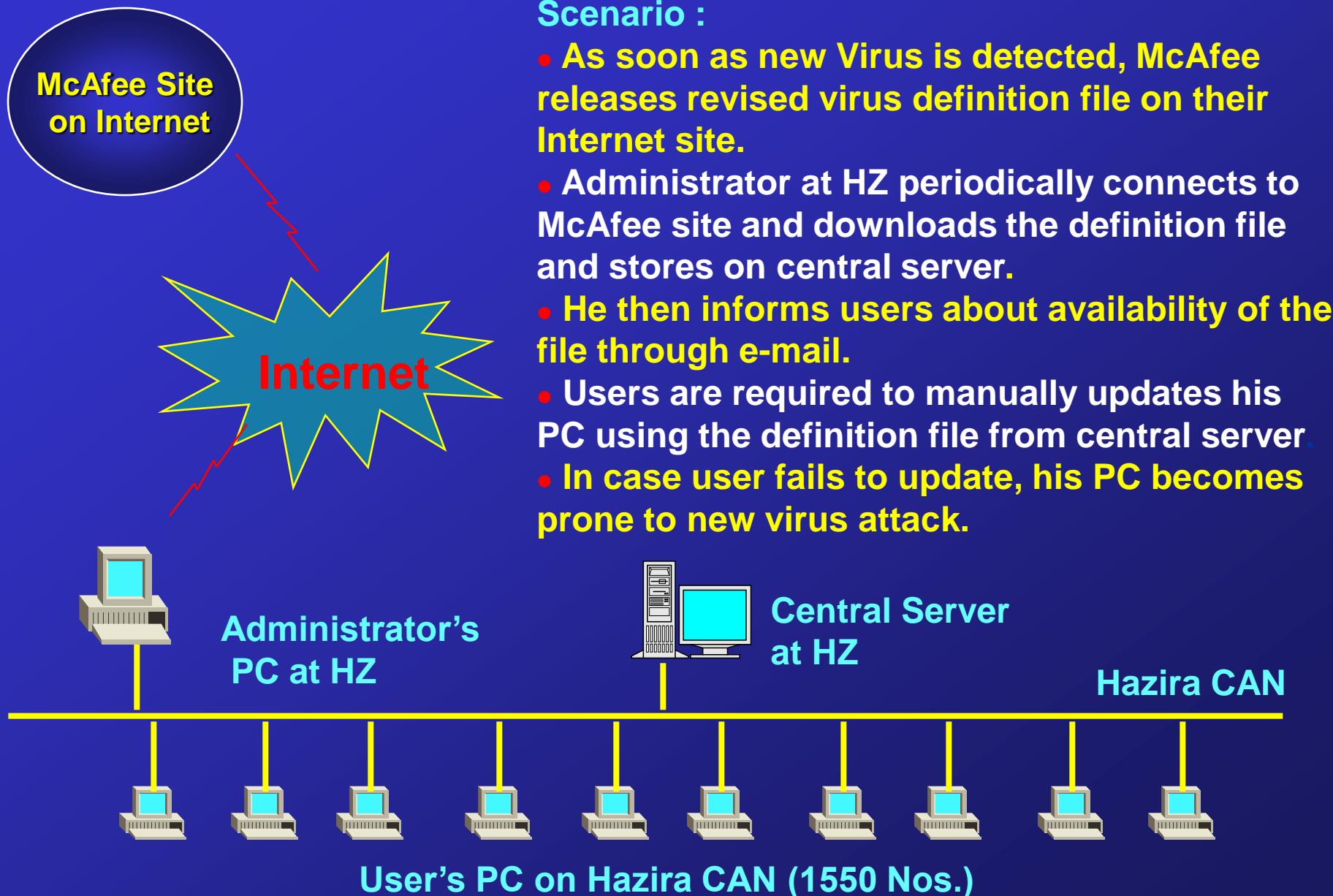
7 INTERFACES BETWEEN SAP AND ALPHA AT HZ PSF.



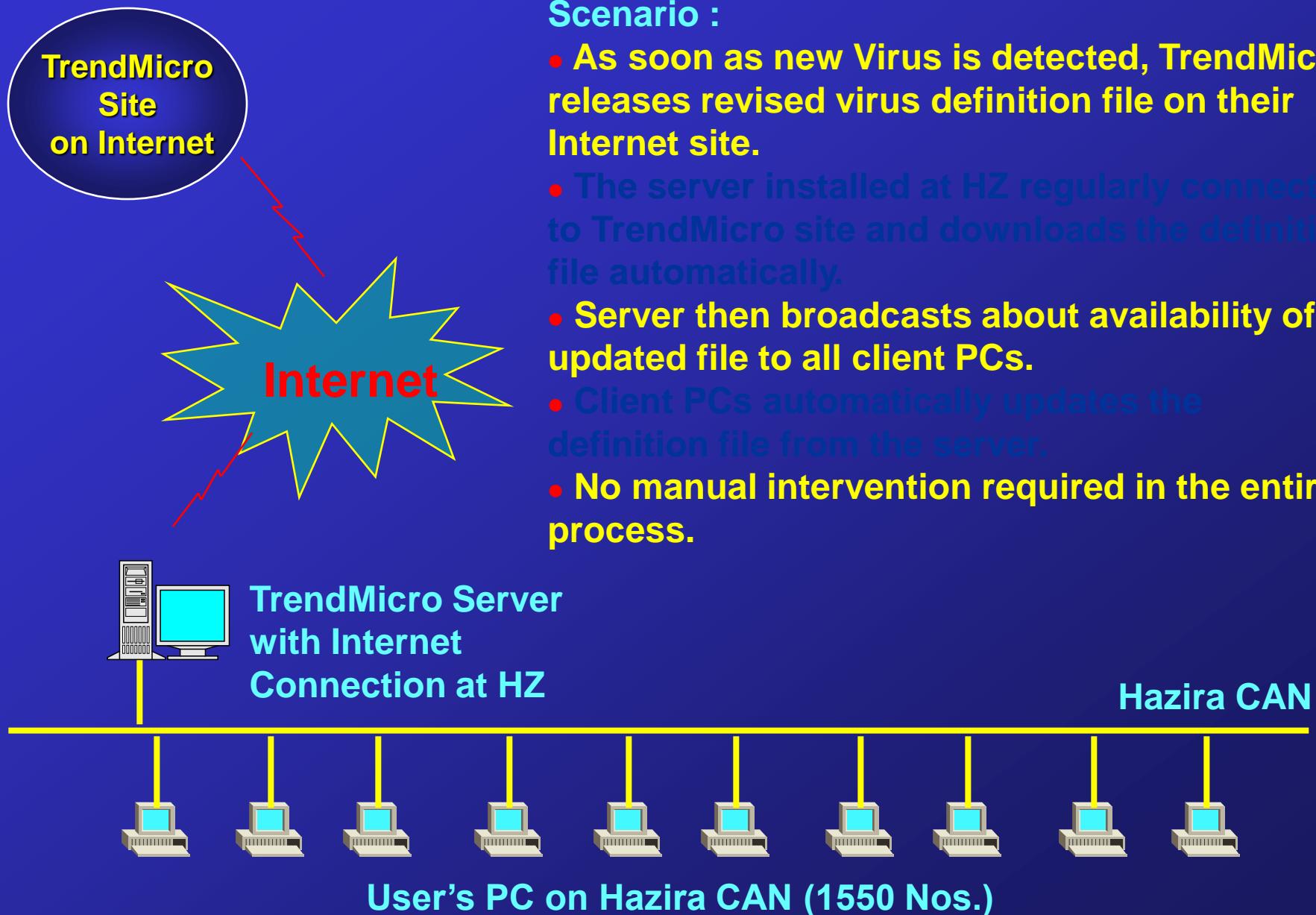
Integrated Overview of PSF Application



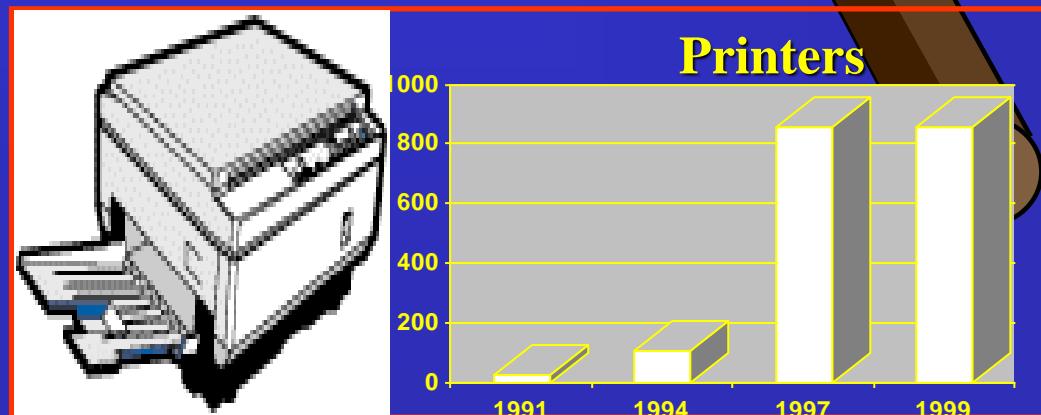
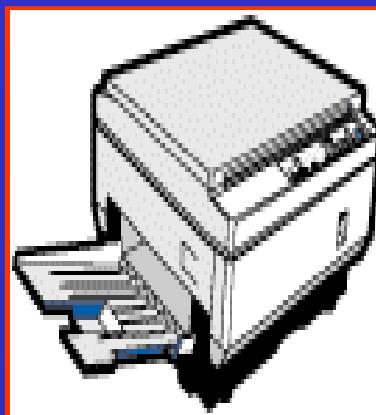
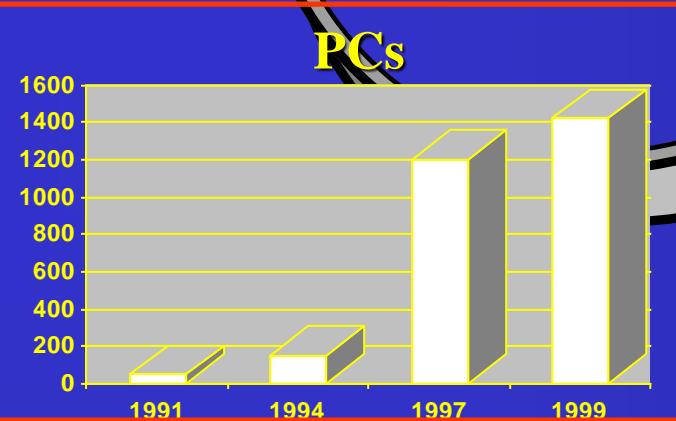
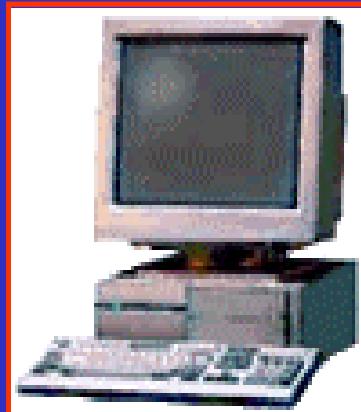
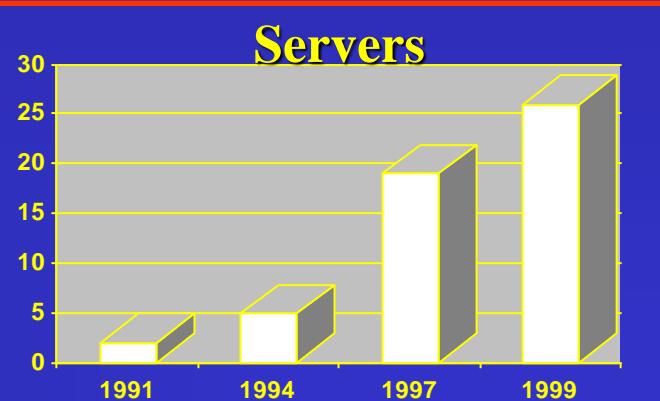
Deployment of antivirus software - Before Migration



Deployment of anti-virus software - After migration



Hardware Setup



Specific strategies and tactics employed to reduce :

- **Cycle Time**
 - **Summarizing**
 - **Disseminating**
-

Capture data at the source (one point data entry)

On-line updation (CAN / WAN)

Integrated Application

Intranet and E-mail

Interactive and GUI

Access through authorised password

Integration of Plant automation with MIS

• Improvement in Productivity of utilisation of funds for payment of excise duty : (was required before year 2001)

Daily duty payment Rs. 4 - 5 Crores.

Daily duty credit Amount Rs. 2.0 Crores.

- Obtain credit within 24 hrs. of materials received at site.
- Maintain single PLA account in place of 6
- Maintain Central MODVAT accounts for all products.
- Drastically reduce the cost due to loss of interest in under utilised funds resulting out of change in dispatch quantity across the products groups.

• Maximum utilisation of POY warehouse space & reduce cycle time in material handling :

POY Storage area 8000 Sq. ft.

Maximum storage capacity 12,000 pallets

Daily production 550 pallets

Daily dispatch 600 pallets

- Interim storage space for fresh pallets received in W/H is eliminated (6 - 10 %).
- Automatic allocation of space for each incoming pallets.
- Movement of pallets to desired location in single mission.
- Dynamic configuration of storage location in the W/H to suit changing business requirements

- ***Reduction in cost of operation through reduction in cycle time***

Auto e-mail of invoice details to customer resulted in deposit of funds in the banks by customer within 24 hrs. of goods delivered from the site

- Reduction in turn around time for Trucks / Tankers from 4-5 hrs. to 3 hrs. by autogeneration of pick-up note at the time of entry of truck (Avg. number of Truck / Tankers > 1000 / day)
- Automatic allocation of pipes, Tubes, Fittings ,Valves from bulk project material stock to different plants under construction during 1990 - 1998.

This procedure increased the utilisation of construction resources (Welders, Construction Equipment) and use existing stock to complete maximum inch-dia erection.

- ***Improve utilisation of skilled manpower in Commercial Dept***

Maintain Statutory records of finished products

Number of product W/H = 9

Number of daily Transaction = 1000 - 1500

Service window for dispatch = 16 Hrs. (6 days / week)

- All officers (2 per W/H) withdrawn from all W/H who were engaged in maintaining statutory records
- Only a few officers are engaged centrally for maintaining the system.

- *Provide Reliable Source for information on all operation carried through the system*

- Selective data can be made available from central database for operations ranging upto 5 years
- Selective data can be made available through the system on quality performance and related process condition over a long period of time in the past.

- *Protect the information resources of the company*

- About 100 GB of data consisting of business process transaction are stored accurately in electronic media and number of sets of back up taken daily. These are systematically labeled and stored for future.
- Multiple levels of password is maintained to deny access to unauthorised users.
- The complete infrastructure of servers and disk storage devices are maintained and monitored on 24 hr basis 365 days.

- *Empowering people at different levels*

- POY-Spinning department employee can access online their performance on daily/weekly basis
- Each employee in the site can access online their performance with respect to attendance and punctuality.
- Collaboration in planning, controlling and monitoring of various business events through electronic mail between all employees in the site, Ho and other sites.
- Access to process information
- Access to Internet



Thanks

