



www.essenrfid.com





Large petroleum refinery adopts **RFID**-enabled VEHICLE ACCESS CONTROL SYSTEM

Real-time vehicle tracking system for security, parking and access control for employees, visitors and trucks

Automated entry and exit logging at multiple gates

Accurate identification, messages and alerts

Management of further location-wise access restrictions



INSIDE:

RFID Antenna/Reade

ntegrated

Key Requirements Solution Implementation Working **Benefits** Links

TECHNOLOGY

Solution: EPC Gen2 compliant vehicle tracking solution

Tag Type: Parka[™] UHF Passive

Reader/Antenna: Xtenna™ Xtenna Proximity[™]

Method: Multiple Tracking via Integrated Reader/Antenna modules

Integration Platform: **RFID Middleware:** Xtenna[™] WebToolkit Xtenna[™] Studio Application: Essen RFID's Vehicle Access Control System Database: SQL Server 2005 Exp. ed.

Tag Manufacturer/Supplier: Essen RFID, with US based chip inlay

Reader/Antenna Manufacturer: Essen RFID, with US based module

Systems Integrator: Essen RFID

For further details contact: Essen RFID 24-B, Jolly Maker II Nariman Point Mumbai 400021 India www.essenrfid.com







KEY REQUIREMENTS:

Mangalore Refinery and Petrochemicals Ltd. (MRPL) is a state-of-the-art oil refinery and a subsidiary of ONGC. The infrastructure complex consists of several plant units spread over a large area. Numerous vehicles enter, exit and traverse within this area on a daily basis. Due to the nature of plant operations including the presence of highly restricted areas, security is of prime concern to the managing authorities.

Vehicles entering the premises consist of employee vehicles, visitor vehicles and trucks. The company was previously deploying manual procedures and records for managing entry/exit at the gates and was unable to keep track of vehicles once they were inside the premises. There was also difficulty in recording complete details of trucks and drivers. The company therefore needed an automated solution that would overcome these shortcomings, keep efficient track of vehicles and enhance security.

Main challenges in implementation:

- Tracking the movement of each vehicle.
- Have automated information regarding each vehicle/driver entering and exiting the premises.
- Allow entry at specific locations only to those vehicles that are authorized to enter at those locations.
- Generate alerts if unauthorized vehicle entry is attempted.
- Managing details of visitors and tracking their vehicles within the premises.
- Tracking the movement of trucks within the area and at entry/exit.
- Automated operation of boom barrier at the gates.
- Maintaining track records and entry/exit logs of all vehicles in the premises.

SOLUTION:

Essen RFID provided a comprehensive solution for intelligently tracking vehicles entering and exiting the refinery complex through its RFID-based Vehicle Access Control System.

IMPLEMENTATION:

Xtenna[™] RFID Antenna-Readers are installed, one each for each of the 'Entry' and 'Exit' gates of the facility. A PARKA[™] Tag is issued to each vehicle and affixed to its windshield. For visitors' vehicles, the tags are temporarily affixed with a clip-holder. All tags are registered using an Xtenna Proximity[™] Antenna-Reader. The tracking system incorporates a boom barrier installed at each gate that is operated through a trigger switch and RFID controller that automates operations for vehicle entry/exit. SQL Server is used as the back-end database to store the system's tracking data.





WORKING:

Process Flow:

- 1. All relevant vehicle owner (employee) details are obtained for the system database.
- 2. Details of each vehicle are also entered into the system database.
- 3. A permanent RFID tag is assigned to each vehicle. Essen RFID's PARKA[™] Tag is used for this purpose. The tag is read by the Xtenna Proximity[™] Antenna-Reader and is registered in the database as assigned to the particular vehicle. The tag is affixed on the vehicle's windshield.
- 4. When a vehicle enters the facility, its tag is detected at the 'Entry' gate by the Xtenna[™] Antenna-Reader that has been mounted at the gate. Xtenna[™] reads the tag, and verifies that it is a registered tag that has been assigned to an authorized vehicle. It then logs the entry time and transmits this data back to the server.
- 5. The server then triggers the switch controlling the boom barrier, which opens and the vehicle is allowed inside. Once the vehicle has passed through the detection area and its tag detection has ceased, the boom barrier closes till it has detected another registered tag.
- 6. As the vehicle's tag gets read at the Entry gate its time log gets stored in the database. Similarly, the Xtenna[™] mounted at the Exit gate detects the tag of the exiting vehicle and its departing time gets logged in the server database.

Operational Flow:

The Vehicle Access Control System consists of:

Windows application for operations such as vehicle registration and vehicle de-registration, tag assigning, etc.

Web application for administration functions such as user management, dashboard reports, etc.

The Windows application has various operational modules, such as:

Masters:

- Location Master
- Template Master
- Employee Master
- Visitor Master
- Truck Master

Transactions:

- End Trip
- Dashboard



Location Master: This module contains information about the various RFIDenabled locations within the facility where RFID devices have been installed. The settings consist of Location Name, Location Code, RFID Reader IP Address, etc. The Location Master provides a clear indication of total RFID locations in the refinery complex along with their IP address details.

Vehicle Access Combol System 1.0.00								Xtenna
Actions	Location Detail	s in grid view.						
🛛 🚭 Masters	Location Id	Location_Name	Location_Code	Device IP	Active	Location Type	Antenna_ID	
- Employee Master	> 1	MAN GATE IN	LODI	192.168.123.213	Active	IN	12	
- Template List	2	MAIN GATE OUT	LODE	192.168.123.214	Active	OUT	12	
- Inuck Master	2	TECHINAL RESEARCH UNIT GATE	LOD	192.168.123.215	Active	DETECTION	12	
Location Master	4	REGISTRATION GATE	L004	192.168.123.212	Active	REGISTRATION	12	
Control Tro	Location Code Location Code Location Type	ILCOT MAIN GATE IN	es vo					
192.168.123.212				_				
DeviceIP: 192.168.123.212 Status Time: 12:14:30 Tags read: 2	Location ID	1		to Excel				
011a42443030320000000000 011842453231000000000000000		las un las un	Linux and					
	12 Location Made	Truck Master 👷 Terplate List	W Violor Mader	Engkyee H	are .	AL DASHEGAD		•
192.168.123.213	Application Lo							
192.168.123.214	Log							
192.168.123.215								
192.168.123.217								
192.168.123.218								

Template Master: This module is used to assign a group of locations into a single template. Once the template is created with a name and selected location, it is used to map the employees or visitors or trucks.

For instance, a template named as "Employee Template" for employees contains Location-1 and Location-2. During employee registration the user then assigns a template to that employee. If the employee is found elsewhere other than Location-1 and Location-2, the system will generate and send an alert for unauthorized access.

* Vehicle Access Control System 10.00 Venier:10.00 Venier:10.00 User:admin TRPL							Xtenn
Actions	Template Details in g	rid view.					
Masters Active Master Active Master Visitor Master Template List Jinck Master	TEMP_UST_ID 1 2 3	TEMPLATE MANE TEMPLATE EMPLOYEE TEMPLATE VISITOR TEMPLATE TRUCK	TEMPLATE_ACTIVE Y Y Y	OREATED_BY admin admin admin	MCOFIED_BY admin admin admin		
Location Master Transaction End Trip Dashboard	🔄 Data Entry Form.	Carcel	√ Dem	ZMAN	ATEIN Type IN IP :15 ATE OUT Type OUT I	2 168 123 213 - 792 168 123 214	
192.168.123.212	Template Name TEM Template ID 1	PLATE EMPLOYEE	S Active	-2040 -2040 -0.000	NG BAY GATE OUT 130 NG BAY GATE OUT 130 NG BAY GATE OUT 130	Type HYBRID IP:15 Type HYBRID IP:15 IT Type HYBRID IP: HYBRID IP:152.168 e HYBRID IP:152.16	
DeviceIP: 192.168.123.212 Status Time: 12:13:41 Tags read: 2							
011a4244303032000000000 011842453231000000000000	e Templatelist e	Vulue Master 📑 Emplo	ree Maiter 😼 DASP	<		>	
192.168.123.213	Application Los						
192.168.123.214 192.168.123.215 192.168.123.217	Log						
192.168.123.218							



Employee Master: This module is used to register employees' vehicles. The information entered here includes employee name, employee code, contact, address, vehicle type, vehicle license plate number, etc. While registering the employee, a template is assigned for that employee. If the template is not available, the operator can create template by selecting the "Add New Template" option in the list.

If an employee has more than one vehicle, a new window opens allowing the operator to register multiple vehicles for that employee.

Vehicle Access Control System 10.00									¢	Xtenna
😤 Actions		imployee Deta	is in grid	Eview.						
Masters Active Master Strikter Master Visitor Master Visitor Master Of Template List opt Truck Master		00 00 1 00 2 Ki	2006 201 201	ENAME P.SUBRAMANYAM RAMACHARAN REDOV VINAL HEREE	CONTACT_NO +91-9070540210 +91-9070540210 +91-9070540210	EPAN_NO TQ2FD4F9F47 OV640CF0X3 P110FTV(%1	EVEH_LIC_NO KA-06-8A-4759 KA-40-50-9023 KA-40-50-9023	VEH_NAME ACCORD ZEN AGEN ECCEPTET	ETAGID 010901424147000000000000 E200810000000000000000000000000000000000	NO_OF_ALLOW_VEH
Location Matter Tonaction Ded Tip Dashboard		ta Entry Form Ioyee Into. to I Deck if Englige Royee Name Royee Code	P.SU	fed :	Vehicle Details to be No. of allowed Vehicle License Plate No.	provided : 1 (KA-06-BA-4759	÷	C Load Inaction	e Engligee List	>
192.168.123.212 DeviceIP: 192.168.123.212	Add	Incl No.	+91-	VGLORE	Vehicle Model Vehicle Type Device IP	4-WHEELER 192.168.123.2	v 15 v	V De		
Status Time: 12:12:45 Tagi read: 2	Loci	ation Templat	* TEM	PLATE EMPLOYEE v	Vehicle TAG ID	0109014241470	00000000200 Cear Tag	Q (200		
011a4244303032000000000	Ema	ngloyee Maa		DASHBQAD						
192.168.123.213	4	Application Lo								
192.168.123.214	Log									
192.168.123.215 192.168.123.217										
192.168.123.218										

Visitor Master: This module is used to register visitors' vehicles. The information entered here includes the visitor's name, address, contact, vehicle type, vehicle license plate number, etc. A template can also be assigned to the visitor, limiting the locations within the facility that he can enter.

The operator can capture a photo of the visitor using a webcam and upload it into the system. During registration, the visitor is required to provide the employee's details to whom he intends to meet. An email and message will be sent to the registered mobile and email of the employee about the visitor's details.

The operator can also select the maximum number of visiting hours for a visitor. If the allowed hours are exceeded then the system will send an alert to the authorities.







Essen

 \square

ESSEN

Truck Master: This module is used to register the trucks entering the refinery complex. The operator inputs necessary information regarding the truck as well the driver, along with vendor and material information.

Each truck is assigned a location template. The vendor and material are selected from a list when the truck arrives for loading, along with the maximum number of hours allowed inside the facility. The source and destination of the truck can also be entered here.

Vehicle Access Control System 1000							Xte	nna
Actions	Truck Detail	s in grid view.						
Masters Asters Aster Stricter Master Stor Master Orenplate List	711UCK_1 > 1 2	D LICENSE_PLATE_NO KA-40-6F-0159 KA-06-8A-6901	TRUCK_VENDOR_ID 2 3	18UCK_MAX_CAPACITY 5000 10000	VIAY KIA AZAZ KHU	AME DRIVER_LICENSE AAR DL-001 AN DL002	TAGID 080500044A31301041000000 010E38540632313239000000	DRIVER_AC MANGLOR MANGLOR
Cocation Master	C Data Entry Fe	rm.		-				
Dashboard	Driver Info. to b Driver Name Driver License	e provided : VSAVY KUMAR DL-001	Vehicle Details to be License Plate Max Capacity	provided : kX-43-6F-2159 5000		Blace		
192.168.123.212	Contact No. Address	+91-6769213557 MANGLORE	Location Template Truck Vendor	TEMPLATE TRUCI v VENDOR-2 v	S Releash	√ Dear		
DeviceIP: 192.168.123.212 Status Time: 12:14:8	Truck ID	1	Device IP Vehicle TAG ID	192.168.123.215 v 0805000A4A3130304	🖋 Read Tag 🖉 Cear Tag	Cancel		
011542453231000000000000 01164244303032000000000	Trip Details to Material Cod	House Provided :	s Aloved 5	v Dathelina	Source Destination	MANGLORE HIDERABAD		
192.168.123.213	A 1-1-1-1		La carda		·			
192.168.123.214	- Abbic soor	ung						-
192.168.123.215								
192.168.123.217 192.168.123.218								





End Trip: This module is used to end the current trip of visitors as well as trucks. Once a visitor or truck exits the 'Out' gate after completion of the trip, the security person will take the RFID tag back from the driver/visitor, keep the tag on the Reader and select the Reader IP from the list provided on the module. Once the IP is selected it will display the details of the trip along with all alerts (if any) generated for that vehicle. Clicking on "Tag Return" will end the trip. Once the trip has ended for this vehicle, the same tag can be assigned to another vehicle or trip.

Vehicle Access Control System 10.00									4x	tenna
Actions	Tag Det	ela -								
Masters -& Employee Master -& Visitor Master	Device IP Tag ID	192.168.123.215 010E38343632313	239000000	() Cear Tag	Trip Start Time(mm/r Total Alert Count :	88 ⁷ 7777) : 24-08-2015 12	84.00			
- Template List 	Data Dop Owner infor	ley Form. matton : Owner Type	TRUCK	Owner Name : A	ZAZ KHAN Con	lact No : +91-740375	6696			
Dashboard	Trip Detail	ls in grid view. Alets	-		The second second second		True un	Canada ma	Last ut	Location
	 A20 	AZ KHAN DLO	ek olanos ek	-01-7420756696	KA-06-8A-6921	M-001	0	0	0	MAIN GATE I
192.168.123.212					10.00					Harden Galante C
DeviceIP: 192.168.123.212 Status Time: 12:15:20 Tags read: 2	ĸ									,
01154245323100000000000 011a42443030320000000000				H Dep R	dum .					
	🐙 End Trip	Location Ma	eter 😼 Truck I	Master 🙀 Tengi	ate List 🙀 Visitor M	acter 🗋 Engkyee Marter	CASHBOAD			
192.168.123.213	Applicat	ion Leg								
192.168.123.214	Log									
192.168.123.215										
192.168.123.217										
192.168.123.218										

Dashboard: This displays the overall view of the application and is the default view after login to the windows application. It shows the total number of vehicles inside the refinery complex, and their category such as employee, visitor and trucks, along with the alerts generated by the system for each vehicle.

When the operator clicks on any tab shown on the dashboard it will display a list of vehicles under that category in the grid just below the tab.

ESSE



Within the list, clicking on the "+" will further display the details related to that vehicle. For instance, clicking on the "Employee" tab, a list of all employee vehicles will be displayed on the grid below the tab section. Further clicking the "+" next to a particular employee it will display a list of locations where the employee has passed through.

Similarly clicking on the "Alerts" tab on the dashboard it will display a list of vehicles for which alerts have been generated. Further clicking the "+" next to a vehicle will display all the alerts generated for the selected vehicle.

Vehicle Access Control System 1.0.0 Wenice: 1.0.0 Wenice: 1.0.0 (ber: admin MRPL											Xtenn
Actions	1	Overview									
Masters Aster Single Master Single Master Single Master	0	erali informatio	n.)		Total Veh	icle Inside	Premis	es : 7			
		Total Vis	tors	То	tal Trucks	Т	tal Em	ployee	Total	Alerts	
Location Master		<u></u> 2 2		ut	2		<u>&</u> 3		<u>A</u> 1	4	
Cashboard	49	Data Display Fo						_			
		OWNER, MOB	u o	WNER, TYPE	LICENCE, P	LATE					
	-	+91-90705402	10 81	APLOVEE	KA-06-BA	-4759					
	•	+91-90765432	10 61	APLOYEE	84-40-50	-9623					
43 144 133 313	- ·	+91-09070541	0 0	APLOYEE	KA-06-M9	6-0167					
94.199.129.214		+91-67565329	10 VI	SITOR	KA-40-0F	4159					
DeviceIP: 192.168.123.212	- ·	+91-12365600	16 V	SITCH.	KA-40-H0	5613					
Status Time: 12:15:40	÷	+91-6769(1)5	17 T	OCK.	KA-40-0F	(1))					
Tags read: 2		*90-34637344									
011842453231000000000000 011s42443030320000000000											
		End Trip	🗟 Locatio	Mader	😼 Truck Marter	😼 Template List	No.	or Master	Engloyee Marter	CASHBOAD	
92.168.123.213		Application Lo	9								
92.168.123.214		9		-							
92.168.123.215											
92.168.123.217											
192.168.123.218											

If the system generates an alert while the application is running, a pop-up alert will be displayed for immediate action.

		A	Vert pop Up				An
P Alert Details	s in grid view.						🔍 Xtenn
0	LOCATION_NAME	ALERT_MESSAGE		OWNER_NAME	owner_type		•
1 1	TECHINAL RESEARCH UNIT GA	TE THE LOCATION IS	SUN-AUTHORISED TO THIS KA-06-BA-6901.	AZAZXHAN	TRUCK		
2 8	EMPLOYEE OFFICES GATE IN	THE LOCATION IS	SUN-AUTHORISED TO THIS KA-06-BA-6901.	AZAZ KHAN	TRUCK:		
3 (EMPLOYEE OFFICES GATE OUT	THE LOCATION IS	SUN-AUTHORISED TO THIS KA-06-BA-6001	AZAZ KHAN	TRUCK		
						Total Alerts	
						13	
5					,		
٤	•	+91-8760013557	TRUCK KA-43-6F-4159		3		
c DeviceIP: 192	. 168, 123, 212	×91-6760213557	TRUCK KA-40-67-8159		3		
(DeviceIP: 192 Status Time: 1	2.168.123.212 12:5:14	+91-0709213557	TRUCK KA-40-6F-9159	_	,		
< DeviceIP: 192 Status Time: 1 Tags read: 2	2.168.123.212 12:5:14	+91-6700213557	TRUCK KA-40-6F-8159	-	,		
< DeviceIP: 192 Status Time: 1 Tags read: 2	2 168 123 212 12:5:14	-91-6200213557	TRUCK KA-4)-67-4159		,		
< DeviceIP: 192 Status Time: 1 Tags read: 2 011a4244303 011a4244303	2 166,123 212 1225:14	-91-6769213557 Template List 201	TRUCK Kåvd)-6F-8159	MSHBDAD			
Control Con	2.166.123.212 1225:14 1012000000000	-91-6769213557 Template List 42 1 Application Log	TRUCK KA-43-6F-8159 Inch Marker 😢 Location Marker 🕫 D	ASHEOAD	,		
Control Contro	2.168.123.212 12:5:14 1012000000000	-91-6769213557 Templere Lint 162 1 Application Log	TRUCK KA-43-6F-9159 Inch Marker 😢 Location Marker 😢 D	ASHEONO	3		
 Control (19) Contr	2 168 123 212 125514 1012000000000 100000000000 1 1 1 1 1 1	+91-8749213557 Template List 42 1 Application Log P	TRUCK KA-41-6F-8159 Inch Marker 😢 Location Marker 😢 D	MSHEOND			
 Control Control C	2 168.123.212 1225:14 103.2000000000 100000000000 100000000000 1000000	-91-8768213157 Templan List स्थि 1 Application Log	TRUCK KA-43-6F-4159 Tuck Marker 😢 Location Marker 😢 D	ASHEAND			
 Device IP: 192 Status Time: 1 Tags read: 2 011a4244300 01184245323 92.168.123.21 92.168.123.21 92.168.123.21 92.168.123.21 	2.166.123.212 12:5:14 101:2000000000 110000000000 3 4 5 7	+91-8749213557 Templem List 182 1 Application Log	TRUCK Kå-di-di-di-ditsi nuck Marter 🕷 Location Marter 🕷 D	MSHEMD	,		
 Control (1971) Contex Timer 1 Status Timer 1 Tags read: 2 O1184244303 O1184243323 O1184243433 <l< td=""><td>2 168 123 212 1225(14 1012000000000 110000000000 1 4 5 7 7</td><td>-91-8768213557 Template List R2 1 Application Log</td><td>TRUCK KA-4)-6F-8159 Inch Marker RE Location Marker RE D</td><td>MSHBQAD</td><td>,</td><td></td><td></td></l<>	2 168 123 212 1225(14 1012000000000 110000000000 1 4 5 7 7	-91-8768213557 Template List R2 1 Application Log	TRUCK KA-4)-6F-8159 Inch Marker RE Location Marker RE D	MSHBQAD	,		



The admin web application gives an overall view of the system to the administrator. Since it is web-based, it can be viewed from any computer after valid login. It consists of the following:

Dashboard: This provides a summary view of the application for viewing employee, visitor and truck transaction events.



Employee Vehicles: This is used to track employees' vehicles inside the refinery complex. When the admin user clicks on any particular vehicle for information, a new list displays full details of that vehicle's movement across the facility premises along with timing details. The screen also has a download option to export the details to an Excel file.

Etriptoyee Vehicles ← PTrack ← B Messages ← B Messages ← B Alents ← S Logout ← C Lo	Dashboard	۰.	Empl	ovee	Vehicles				
Finck C B Vointros C B Messages C B Reports C A Uner Management C A Annis C B Logond	Employee Vehicles		empt	oyee	Territes				
Waters C Messages C Messages C B Reports C A Uner Managumant C A Uner Managumant C A Uner Managumant C B Logent C Sr No Tag_16 Location Name Log Time Device Type License 2 0199914/2414700000000200 MAIN GATE IN 24-06-2015 06.29:11 N D 2 0199914/2414700000000200 TECHENAL RESEARCH UNIT GATE 24-06-2015 06.29:11 D D D 2 0199914/24147000000000000 TECHENAL RESEARCH UNIT GATE 24-06-2015 06.29:11 D D D 2 0199914/24147000000000000 TECHENAL RESEARCH UNIT GATE 24-06-2015 06.29:11 D D D 3 3 RAMACHARAN REDDY +91-9676543210 EMPLOYEE 3 RAMACHARAN REDDY +91-9676543210 EMPLOYEE	/ Truck	•	Employe	e Vehicle D	etalls				Download : O
CBI Messages C Sr No Owner Name Mode No Owner Type CBI Reports C 1 9.5080.401.001.001.001.001.001.001.001.001.00	Visitors	•							
Bit Reports Sr No Tag_Id Location Name Log Time Decortion Decortion & User Management 4 01090142414700000000200 MAIN GATE IN 24-06-2015 06.29:11 N License & Alanta C 2 01090142414700000000200 TECHENAL RESEARCH UNIT GATE 24-06-2015 06.29:11 DETECTION EMPLOYEE ES Logout C 2 VMAIL NEGOE -91-8015643210 EMPLOYEE	Messages	¢			SrNo	Owner Name	Mobile No		Owner Type EMD CVEE
L User Managament 4 01090142414700000002000 MAIN GATE IN 24-05-2015-06.29:11 IN 4 Alonis C 01090142414700000000200 TECHENAL RESEARCH UNIT GATE 24-06-2015-06.29:11 DETECTION CI 2 010901424147000000000000 VMAUL REGOR -91-8017654147 EMPLOYEE ES Logout 3 RAMACHARAN REDDY +91-80176543210 EMPLOYEE	Reports	¢		Sr No	Tag Id	Location Name	Log Time	Device Type	License Plate No
2 0100014241470000000200 TECHINAL RESEARCH UNIT GATE 24-08-2015 06:29:11 DETECTION © Aloris CI 2 VMAL REGOE +91-8097654147 EMPLOYEE Eb Logiont CI 3 RAMACHARAN REDOY +91-8097654210 EMPLOYEE	A Lines Management			1	010901424147000000000200	MAIN GATE IN	24-08-2015 06:29:11	N	
A Aless C	a cost management	-		2	01090142414700000000200	TECHINAL RESEARCH UNIT GATE	24-08-2015 06:29:11	DETECTION	
Eb Logiont C	Alerts	•			2	VIMAL HEGDE	+91-8987654147		EMPLOYEE
	Do I assess					Research and Research			
	Co Cogola	•	٥		3	KAMACHARAN REDOY	+91-9676543210		EMPLOYEE



Visitor Vehicles: This is used to track visitors' vehicles inside the refinery complex. The admin user can view details of those vehicles whose trip has not been ended by the operator in the 'End Trip' module, i.e. only those vehicles that are currently within the premises. The screen also has a download option to export the details to an Excel file.

Dashboard	Visit	or De	tails				
Employee Vehicles	VISIC	1 00	cans				
/ Truck	Visitor D)etails					Download : 🛆
Visitors		Sr No.	Ounor Namo	Mahila Na	Oumer Tune	Tag Id	Vicitor Imaga
Messages 🔇		SENO	Owner Name	Mobile No	Owner Type	ragiu	visitor image
Reports C		1	GOPI KRISHNAN	+91-8756532980	VISITOR	0B0501443230320000000000	
User Management				tan in	owner type	mobile no	id number
* Alerts			0B050144	323032000000000	VISITOR	+91-8756532980	PNJ640SBNFJU
🖻 Logout 🔇			0B050144	323032000000000	VISITOR	+91-8756532980	PNJ640SBNFJU
	۵	2	RAMESH	+91-1597538420	VISITOR	010901424147000000002000	

Truck Details: This is used to track active trucks currently inside the refinery complex and displays both truck and driver details. When the admin user clicks on any particular truck for information, a new list displays full details of that truck's movement across the facility premises along with timing details. Once the operator has ended the truck's trip in the database, then the particular truck trip becomes inactive and will not be displayed in detail view. The screen also has a download option to export the truck details to an Excel file.

Employee Vehicles Control Device	Download : 🕰				alle	k Dot	True		
Intel Sr No Driver Name Driving License No Mobile No Allowed No Of Hours Tage II IB Reports 1 A2A2 K04M DL020 +95-7403766666 5 0101303163321 IB Reports 1 A2A2 K04M DL020 +95-7403766666 5 0101303163321 IB Reports 1 92195 12214 01033343523132900000 Aug 24 295 5 434M OUT	Download : 4				lans	A Det	mue	٠	Employee Vehicles
Bit Values Sr No Driver Name Driving License No Mobile No Allowed No Of Hours Tag it Bit Messages 1 A2A2 KHAN Dclobel -917-7403756666 Allowed No Of Hours Tag it Bit Reports 1 DEVECE_IP TRUCK_TAG_ID Column1 DEVECE_IN Unable Name 192.5168,123214 0103334345232332000000 Aug 24 2155 634AM OUT	Tag ID					Details	Truck (/ Truck
Bit Messages Site No Universe number Missione No Missione No	1 ag IU	All second bits for bits second	N-53- N-	Databas Lineara Ma	Debug Name	1 - 1 -		•	Weiters
DEWsports DEVICE_IP TRUCK_TAG_ID Column1 DEVICE_1 A User Management 192.158.123.214 0105333436221323000000 Aug.24.2155.634AM OUT	010/38343632313239000000	5	+91-7403756696	DL002	AZAZ KOSAN	1			Messages
Liber Management < 192.168.123.214 01053834363231323900000 Aug 24.2015.634AM OUT	DEVICE_TYPE	Column1		TRUCK_TAG_ID	DEVICE_IP		<u> </u>	•	Reports
	OUT	Aug 24 2015 6:34AM	00000	010E383436323132396	192.168.123.214				User Management
192.168.123.213 010E38343632313239000000 Avg.24.2015.6.34AM IN	N	Aug 24 2015 6:34AM	00000	010E383436323132390	192.168.123.213				
A Alema C U 2 VULKY KUMAR DL-001 +91-8768213557 5 080500444313	06050004443130304100000	5	+91-8768213557	DL-001	VUAY KUMAR	2		٠	# Alerts
Named 6									





Messages: This module is used to broadcast messages from the admin to all operators using the Windows application.

Vetra Sto	enna"	
El Dashboard	•	Sand Massara
Employee Vehicles	•	Jena message
✓ Truck		
Visitors	•	
GB Messages	•	
Gill Reports		
& User Management	•	
Alerts		SEND MESSAGE
Eb Logout	۰.	
		Message Details
		Orid View List View 1 admin Message Date 1 29 Ad 2015 Check the vehicle KA-06-BA-4759

Reports: This module allows the admin user to view the employee vehicle, visitor vehicle and truck details. The admin can also view the daily vehicle transactions and export the report data into Excel and PDF format.

User Management: This module allows the administrator to maintain the data integrity and security of the system. The module has three sections as follows:

Role Master: This is used to define a new role to the application. Details such as Role Name, Description, etc. are entered and saved into the system.

User Master: This is used to create the users who can access the application. When creating a User, his role has to be selected from the list which will help to maintain data security and integrity.

Role Mapping: This is used to map the existing role in the system to the various available modules of the application. For instance, the role of admin is mapped to all the modules, whereas the role of operator will only be allowed limited access to the application and not modify any crucial data.

Dashboard	٠	User Management	
Employee Vehicles	۰.		
Truck	۰.		
l Visitors		USER MANAGEMENT	
8 Messages		Role Master User Master Role Menu Mapping	
Reports	۰.		
User Management	с.	Role Name : admini	
Alerts	. C		
Logout	. C	Save Details	





Alerts: This module will allow the admin user to view all the generated alerts in the system, in order to initiate corrective measures.

Vetra 🖒 Xten	ina"			
Cashboard	¢	Alorte Dot		
Employee Vehicles	•	Alerts Det	alts	
Truck	•			
Visitors	٤	Grid View	List View	
Messages	•			
a Reports	۰.	1	KA-06-BA-6901 Name: 4747 KHAN Andrife: +91-7433754696 Exte: 24 Aug 2015	
User Management	٠		the location is un-authorised to this ka-06-ba-6901.	
Alerts	٠		••••••••••••••••••••••••••••••••••••••	
Eb Logout	•		KA-06-BA-6901	
		2	Name : AZAZ RAMN Hobble : +91-7403756696 Eate : 24 Aug 2015 the location is un-authorised to this ka-06-ba-6901.	
			KA-06-BA-6901	
		3	Name: AZAZ KNAN Mobile: -91-7403756096 Date: 24 Aug 2015 the location is un-authorised to this ka-06-ba-6901.	
			KA-43-GF-0159	

BENEFITS:

- Accurate identification and access for authorized vehicles.
- Real-time tracking of all vehicles entering and exiting the gates.
- Efficient tracking of employees' vehicles throughout the premises.
- Efficient management of visitors' details and tracking of their vehicles.
- Efficient management of truck and driver details.
- Efficient tracking across multiple entry/exit gates.
- Automated boom barrier operations at the gates through trigger switch, requiring no manual operator for lifting the barriers.
- Default 'no entry' for unregistered vehicles.
- · Automated entry and exit logging into server.
- Quick verification with employee via automated email when visitor's vehicle is at the gate.
- Efficient location-wise restrictions for different vehicles within the facility.
- Broadcast of messages to client machines.
- Vehicle/owner mapping in database provides instant search function.
- Automated alerts to authorized persons.
- Automated report generation enables ready record reference.
- Live status reports for vehicles.
- Easy administration functionality resulting in improved system management.
- Improved security at entry/exit points and overall security within premises.





LINKS:

Hardware:



Tags:

PARKA[™]

Software:



Reference Example:

http://www.essenrfid.com/Mailer/accessparking-flash-demo.pdf