DLDS
DINODC LOGISTICS DATA SERVICES LTD
Logistics Redefined

LDB ANALYTICS : January Report 2018

Logistics Redefined

EXECUTIVE SUMMARY

DLDS's Logistics Databank Project(LDB) is currently providing Container visibility services for more than 70% of India's Container Volume and as on date has provided services for more than **6.5 million EXIM Containers of India** in the western corridor starting from the port till the ICD's through a single window(www.ldb.co.in).

Pan India launch of DMICDC's Logistics Databank Operations was announced on 18th Dec 2017, this will enable in bringing Visibility & Transparency across the Indian Supply Chain and reduce the Container Transportation time and the costs.

With launch of LDB mobile App for android users, EXIM Containers can be tracked efficiently by the stakeholders.

Since the commencement of the Operations, DLDS Analytics reports have been able to bring in visibility to the stakeholders enabling them in improvising the key performance Indicators as below:

- Port Dwell Time Improvement of **42.86%** of Import bound Containers and **15%** improvement in Dwell time of Export bound Containers.
- Dwell time of ICDs & CFSs in western corridor has improved by **26.7%.**
- The LDB Congestion Analysis helped in reducing the transit time between Ports to CFS by around **12%.**
- LDB Analytics showcased that , Truck Transit Time between Toll Plazas improved by **25-27 %** in comparison to Pre GST scenario.

EXECUTIVE SUMMARY

Performance of JNPCT Terminal in terms of overall Dwell Time , witnessed significant improvement in Jan 2018 in comparison to Dec 2017, due to improved handling of Export bound Containers.

Dec 2017	JNPCT Export Dwell Time Improvement	Jan 2018
	28.7 %	
	JNPCT Import & Export Dwell Time Improvement	
	29 %	

- Over all performance across the JNPT Port Terminals(JNPCT, APM, NSICT, NSIGT) witnessed an improvement of 13.4% reduction in Dwell time for handling the Export bound Containers.

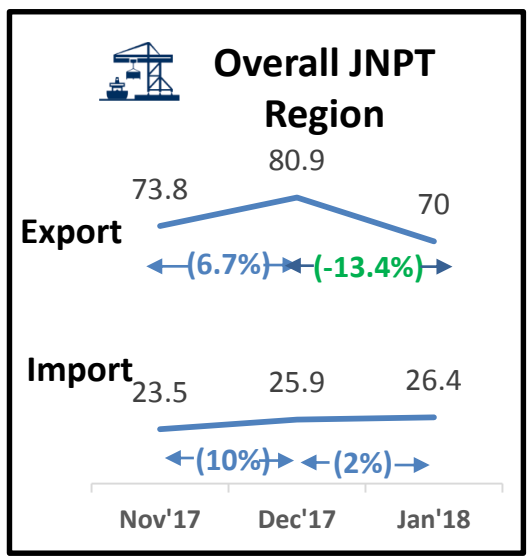
- Improvement in the Import dwell time in Gujarat region in Jan 2018 in comparison to Dec 2017.

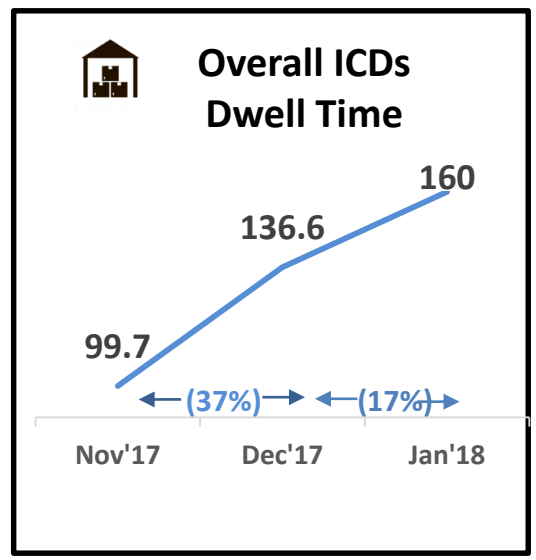
Dec 2017	Gujarat region Import Dwell Time Improvement	Jan 2018
	13%	

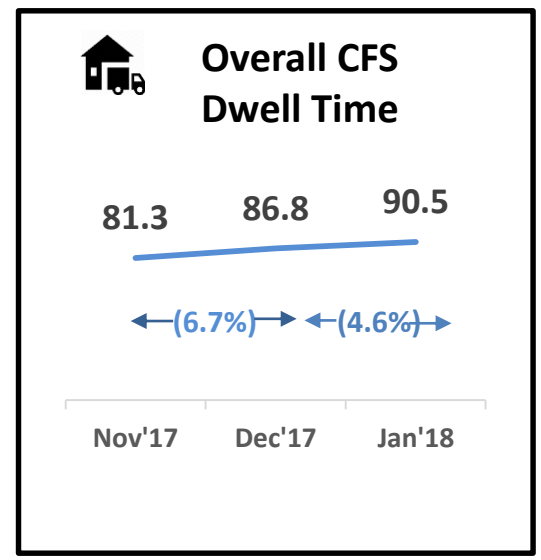
LDB Performance trend across JNPT Region (Dec 2017-Jan 2018)

DLDS Logistics Redefined
DMICDC LOGISTICS DATA SERVICES LTD

Performance Benchmarking | **Performance Index** | **Container Clearance Time analysis**



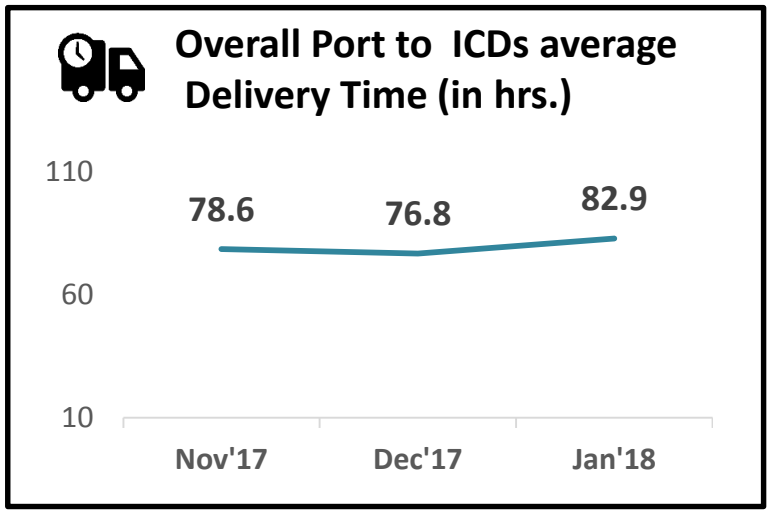


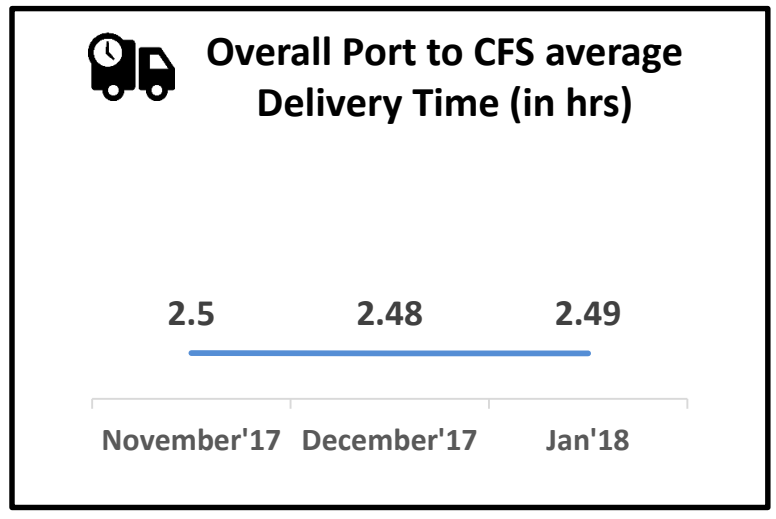


Dwell Time

- **13.4%** improvement in JNPT region export cycle performance in January'18 month as compared to the previous month
- **17%** decline in overall ICD dwell time performance as compared to the previous month

Congestion Analysis | **Bottleneck Identification**





Transit Time Reduction

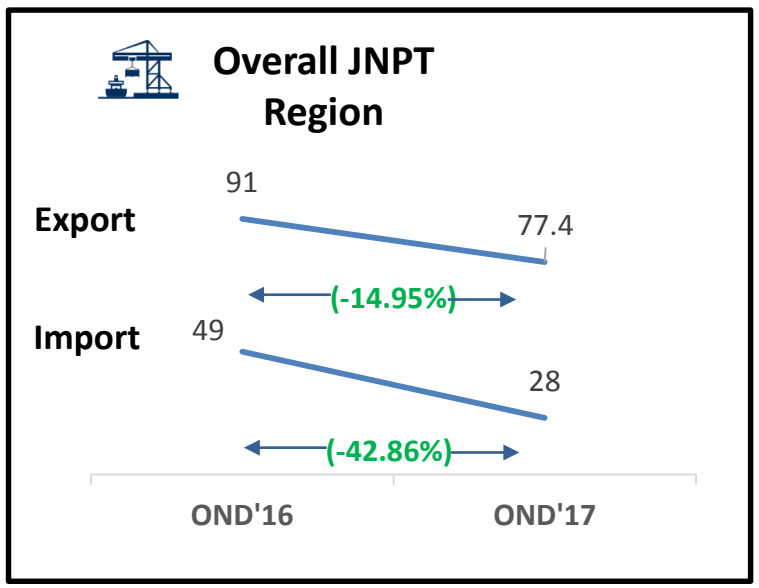
- **Transit time between port and CFS/ICDs has been in the same range in January'18 month as compared to the previous months**

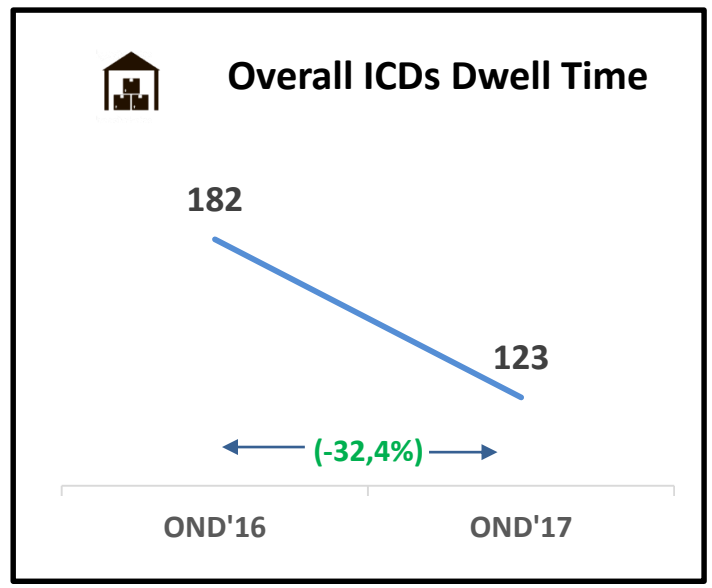
LDB Performance trend across JNPT Region (OND 2016-OND 2017)

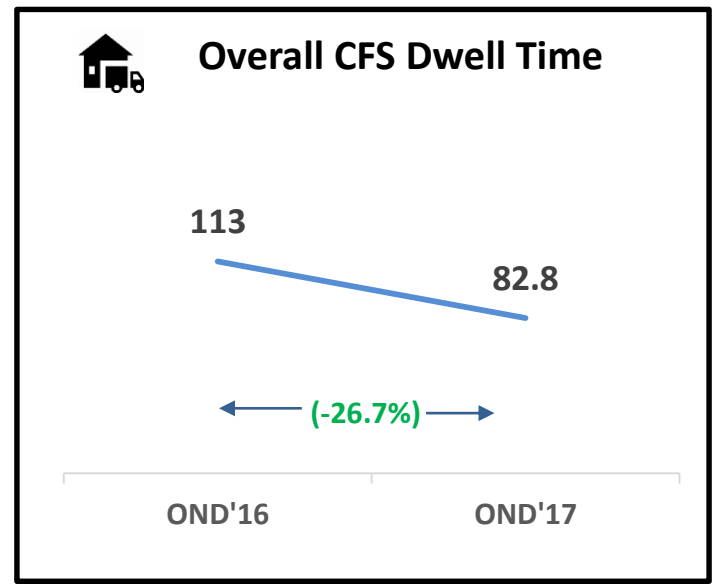
DLDS Logistics Redefined
DMICDC LOGISTICS DATA SERVICES LTD

Performance Metrics

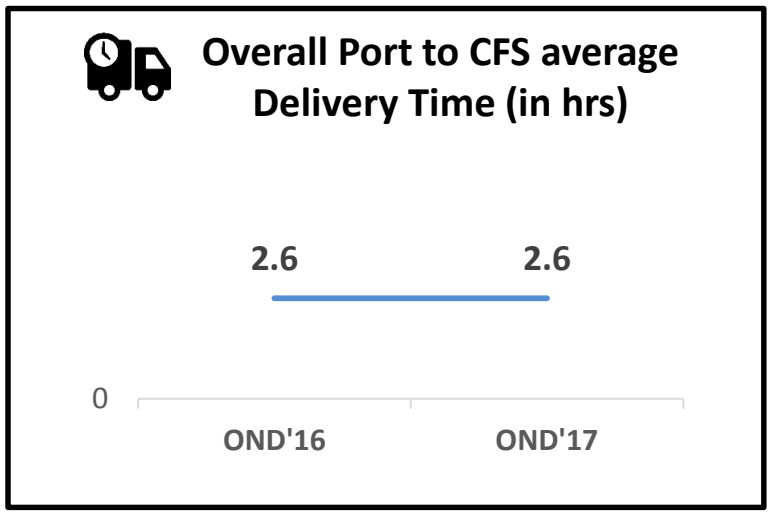
The below graphs depicts the Y-o-Y progress of dwell time performance of JNPT region port terminals, ICDs and CFS under LDB







Transit Time Metrics



Dwell Time Reduction

- Significant improvement in Port dwell time for both Import and Export cycle by 42.86% and 14.9% for OND'17 quarter.
- CFS and ICD dwell time performance has also seen an improvement of approximately 27%

DMICDC Logistics Data Services : LDB Coverage

DLDS Logistics Redefined
DMICDC LOGISTICS DATA SERVICES LTD

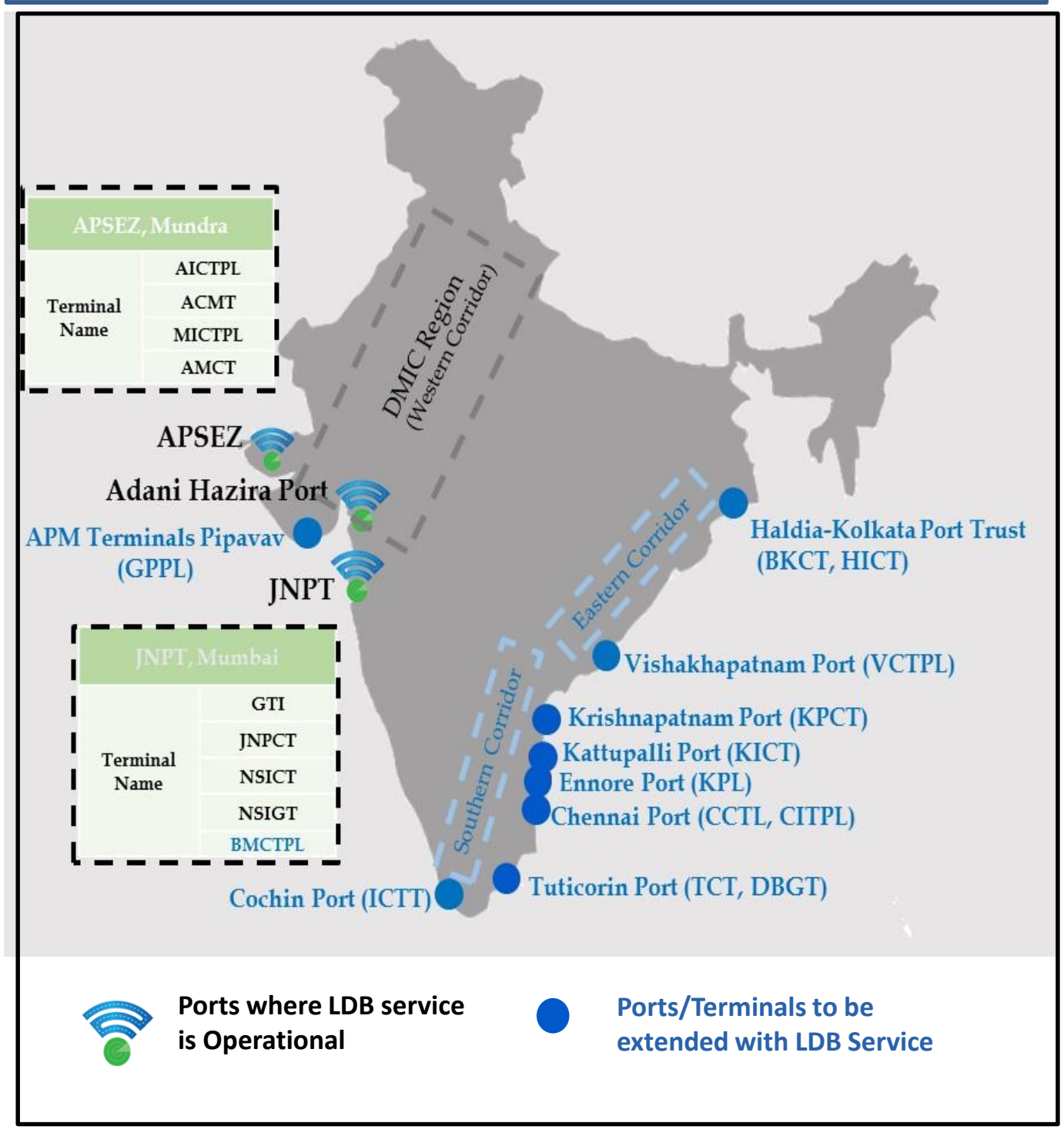
9
Port Terminals

10
In-land container Depots

46
Container Freight Stations

18
Toll Plazas

LDB coverage



Performance Benchmarking

Performance Benchmarking : Port Terminals

Performance benchmarking for JNPT Region Port Terminals for month of January'18

Port Terminals

Top Performing Terminal	
Gateway Terminals India (GTI)	Dwell Time : **45.8** hrs.

Low Performing Terminal	
Nhava Sheva International Gateway Terminal (NSIGT)	Dwell Time : **57.8** hrs.

Performance benchmarking for APSEZ Region Port Terminals for month January'18

Port Terminals

Top Performing Terminal	
Adani Hazira Port Private Limited (AHPPL)	Dwell Time : **55.4** hrs.

Low Performing Terminal	
Adani International Container Terminal (AICT)	Dwell Time **: 73.4** hrs.

Performance Benchmarking : Container Freight Station

Performance benchmarking for JNPT Region CFS for quarter January'18

CFS

Top Performing CFS's	
JWR CFS, Navi Mumbai	Dwell Time : **54** hrs.

Low Performing CFS's	
Vaishno Logistics CFS, Navi Mumbai	Dwell Time : **153.1** hrs.

Performance benchmarking for APSEZ Region CFS for quarter January'18

CFS

Top Performing CFS's	
Adani CFS Eximyard, Mundra	Dwell Time : **51.1** hrs.

Low Performing CFS's	
Hind Mundra Terminals CFS, Mundra	Dwell Time : **106.1** hrs.

Performance Benchmarking : Inland Container Depot

Performance benchmarking for ICDs for quarter January'18

ICD

Top Performing ICD	
CMA CGM Agencies ICD, Dadri	Dwell Time : **87.6** hrs.

Low Performing ICD	
CONCOR ICD, Aurangabad	Dwell Time : **193.4** hrs.

Performance Benchmarking : Western Corridor

Performance benchmarking across the Western corridor

Port Terminals

Top Performing Terminal	
Gateway Terminals India (GTI)	Dwell Time : **45.8** hrs.

Low Performing Terminal	
Adani International Container Terminal (AICT)	Dwell Time **: 73.4** hrs.

CFS

Top Performing CFS's	
Adani CFS Eximyard, Mundra	Dwell Time **: 51.1** hrs.

Low Performing CFS's	
Vaishno Logistics CFS, Navi Mumbai	Dwell Time **: 153** hrs.

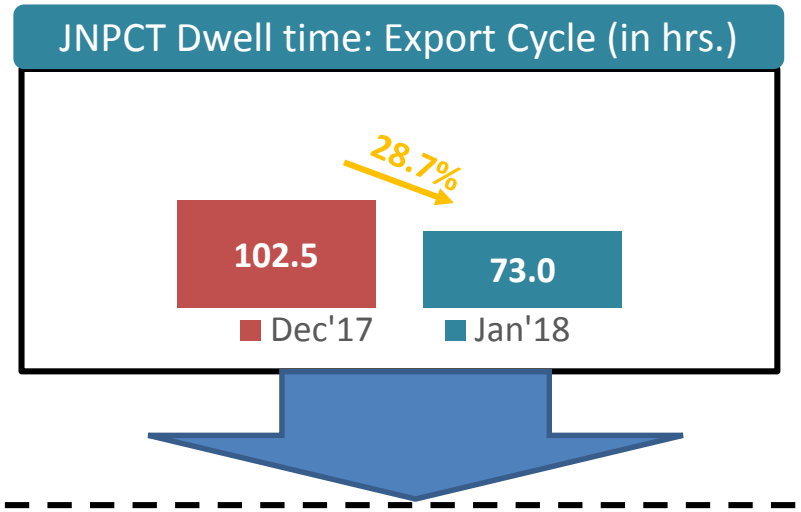
Key Findings

KEY FINDINGS :

1 **JNPCT port terminal has seen improvement in its export cycle port dwell time by around 28.7% in January 18**

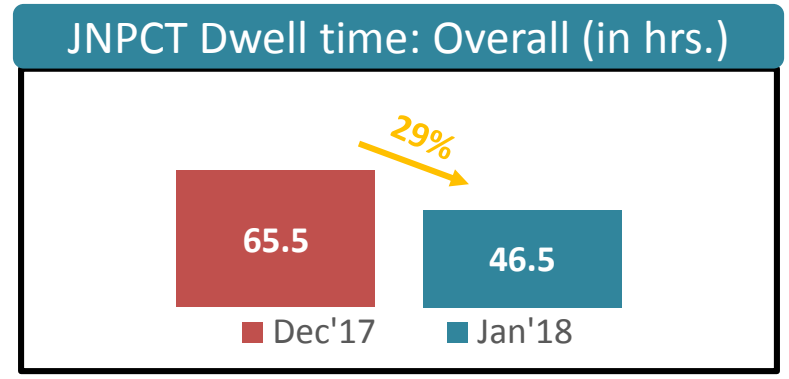
JNPCT port terminal has reduced its overall dwell time by **29%** in January ’18 as compared to December’17. This improvement is majorly due to reduction in export cycle dwell time of both train and truck. The container clearance was done efficiently for both truck and train bound containers which led to this reduction in dwell time

- **JNPCT has reduced its export dwell time by 28.7 %**

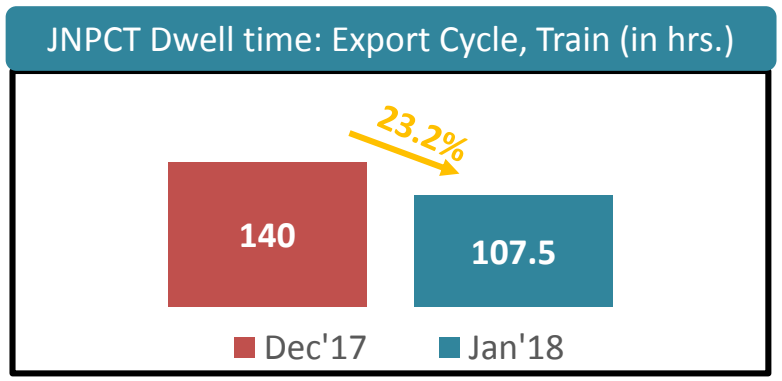


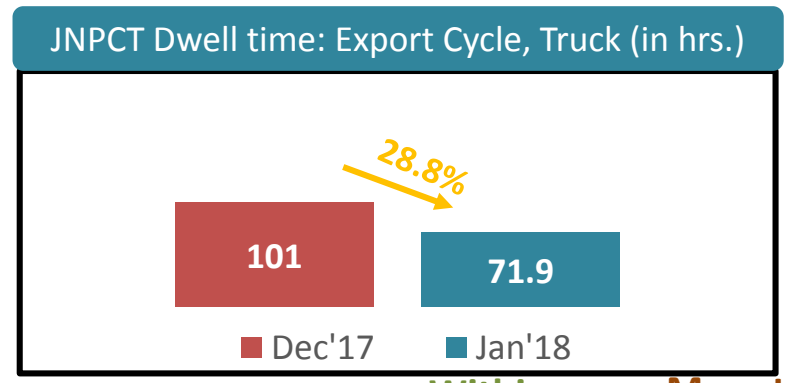
Impact

- **JNPCT has reduced its overall dwell time by 29%**



Further Analysis





	Within 5 days	More than 5 days
JNPCT : Export Train (jan’18)	57%	43%
JNPCT : Export Train (Dec’17)	38%	62%

	Within 5 days	More than 5 days
JNPCT : Export Truck (jan’18)	90%	10%
JNPCT : Export Truck (Dec’17)	76%	24%

KEY FINDINGS :

2 JNPT region port terminals has seen increase in its import cycle port dwell of train bound containers in Jan'18

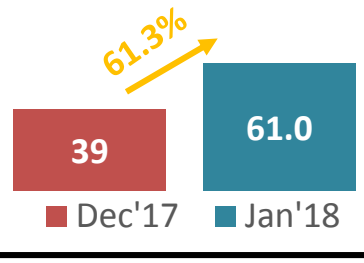
All terminals in JNPT region has increased its import cycle port dwell time through train in Jan'18 as compared to Dec'17.

However the overall import cycle dwell time has not been affected as train bound containers in import cycle accounts for only **9% of import traffic of the JNPT region port terminals.**

Less containers were process within initial days i.e. within 5 days in month of Jan'18 in comparison to previous month which has led to increase in import dwell time of rail bound containers

JNPCT

JNPCT Dwell time: Train (in hrs.)

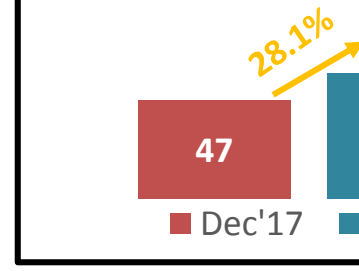


Container Clearance

	Within 5 days	More than 5 days
Jan'18	76%	24%
Dec'17	83%	17%

GTI

GTI Dwell time: Train (in hrs.)

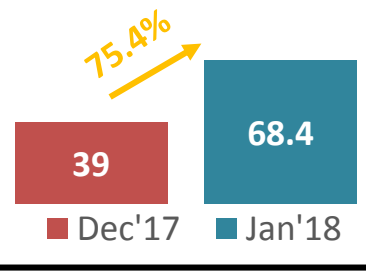


Container Clearance

	Within 5 days	More than 5 days
Jan'18	77%	23%
Dec'17	88%	12%

NSICT

NSICT Dwell time: Train (in hrs.)

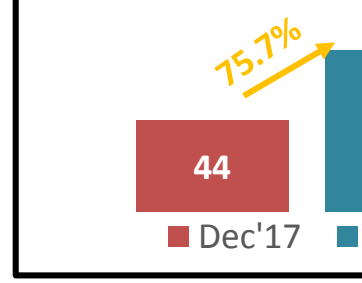


Container Clearance

	Within 5 days	More than 5 days
Jan'18	75%	25%
Dec'17	90%	11%

NISGT

NSIGT Dwell time: Train (in hrs.)



Container Clearance

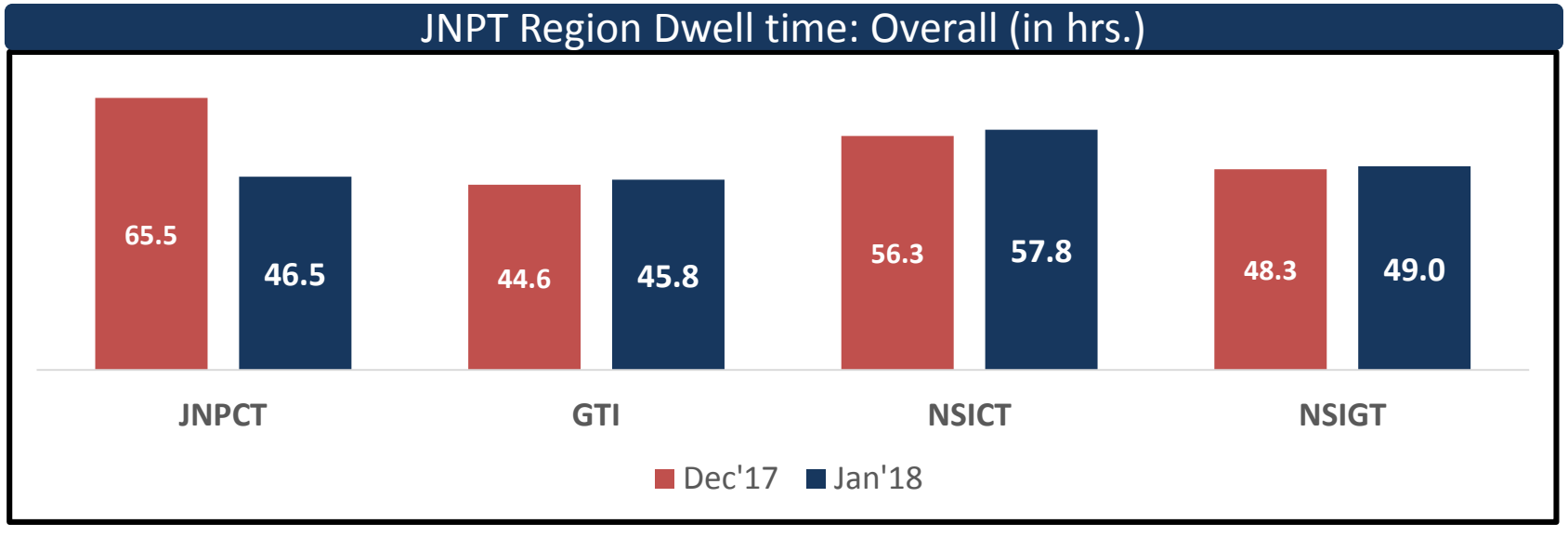
	Within 5 days	More than 5 days
Jan'18	73%	27%
Dec'17	82%	18%

PERFORMANCE TREND METRICS

JNPT PORT DWELL TIME TREND

JNPT port dwell time trend :

The below table shows the overall port dwell time (i.e. import and export cycle combine) trend of all the JNPT* Port terminals for quarter Jan'17. Port dwell time is the time duration between the entry of the container in Port terminal to the time it moves out of the Port terminal

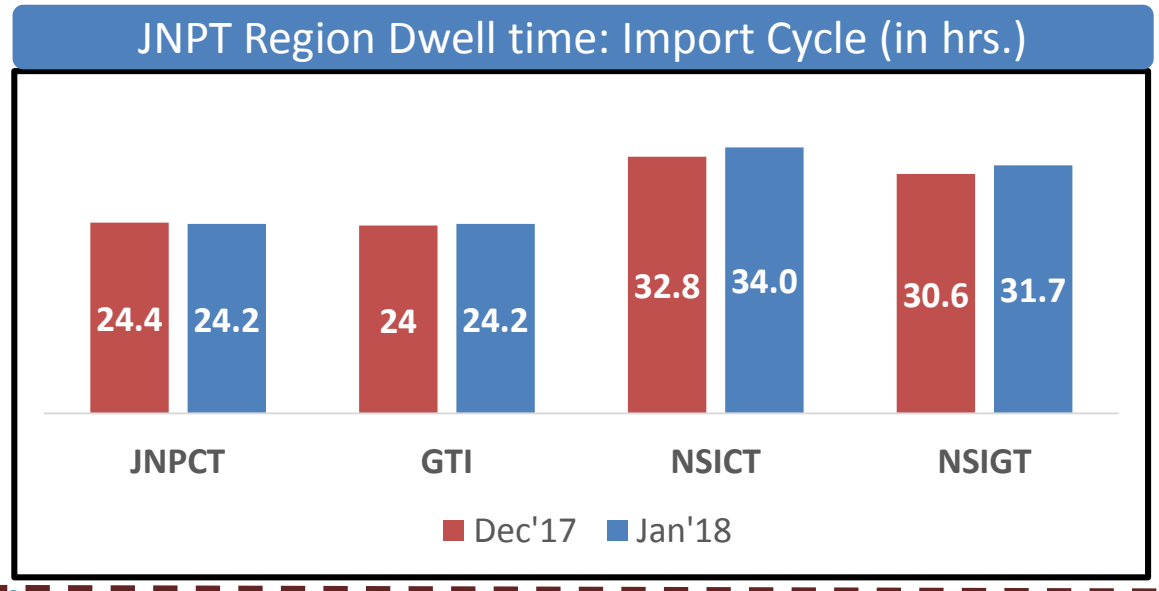


The overall JNPT region average dwell time for Jan'18 is 48 hrs as compared to last month dec'17 is 51 hrs

The below tables showcase the Import and Export cycle dwell time for both rail and truck bound containers for month of Dec'17 and Jan'18

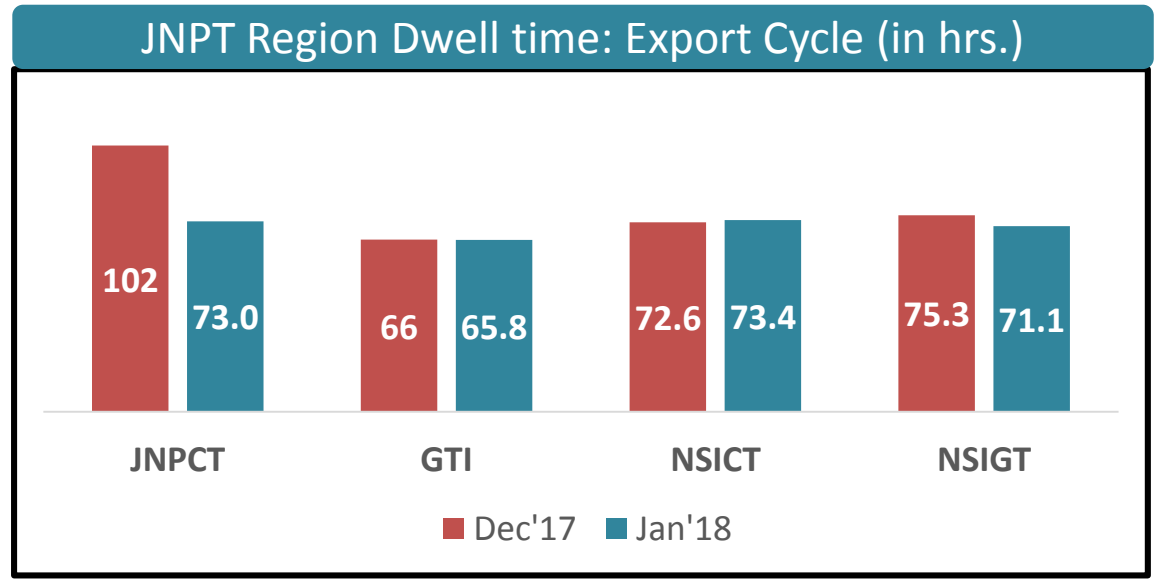
JNPT Import cycle Trend

The average import cycle dwell time of JNPT region port terminals for Jan'18 is 26.4 hrs.



JNPT Export cycle Trend

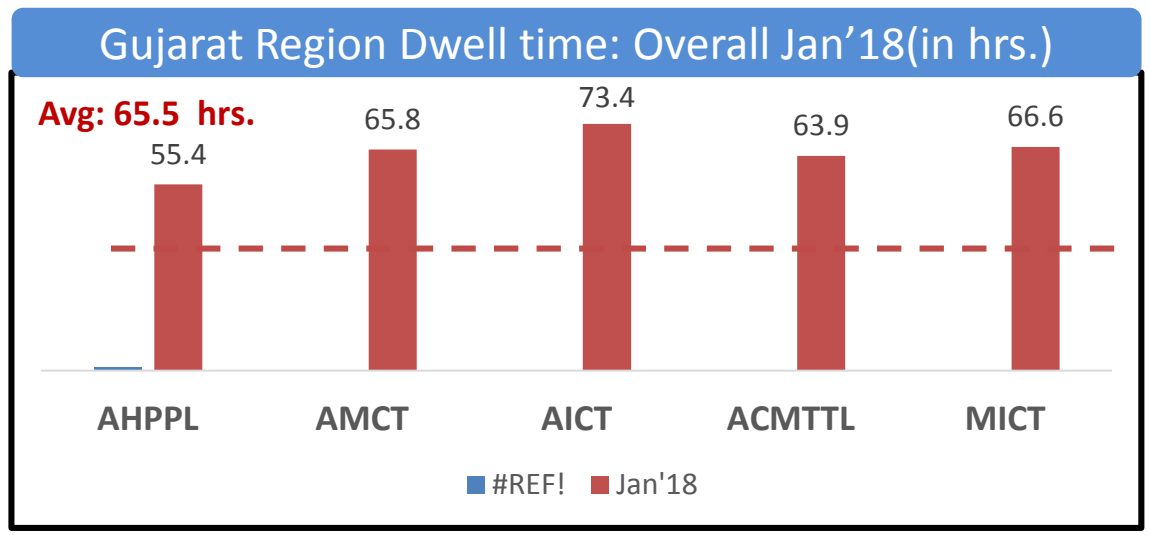
The average export cycle dwell time of JNPT region port terminals for Jan'18 is 70 hrs



Gujarat PORT DWELL TIME TREND

Gujarat port dwell time trend :

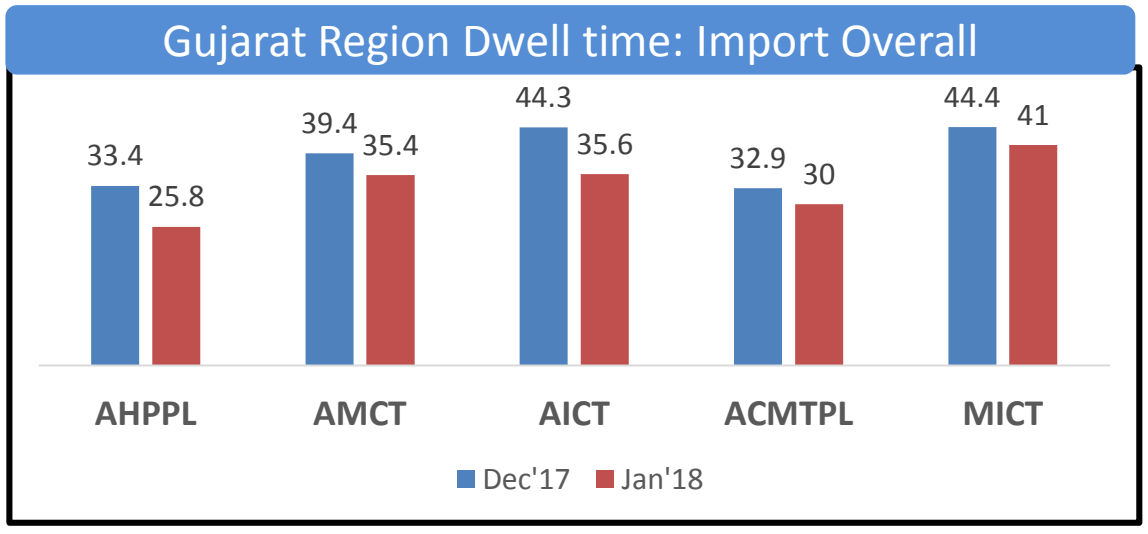
Port dwell time is the time duration between the entry of the container in Port terminal to the time it moves out of the Port terminal



The average Gujarat region port terminals for jan'18 is 65.5 hrs.

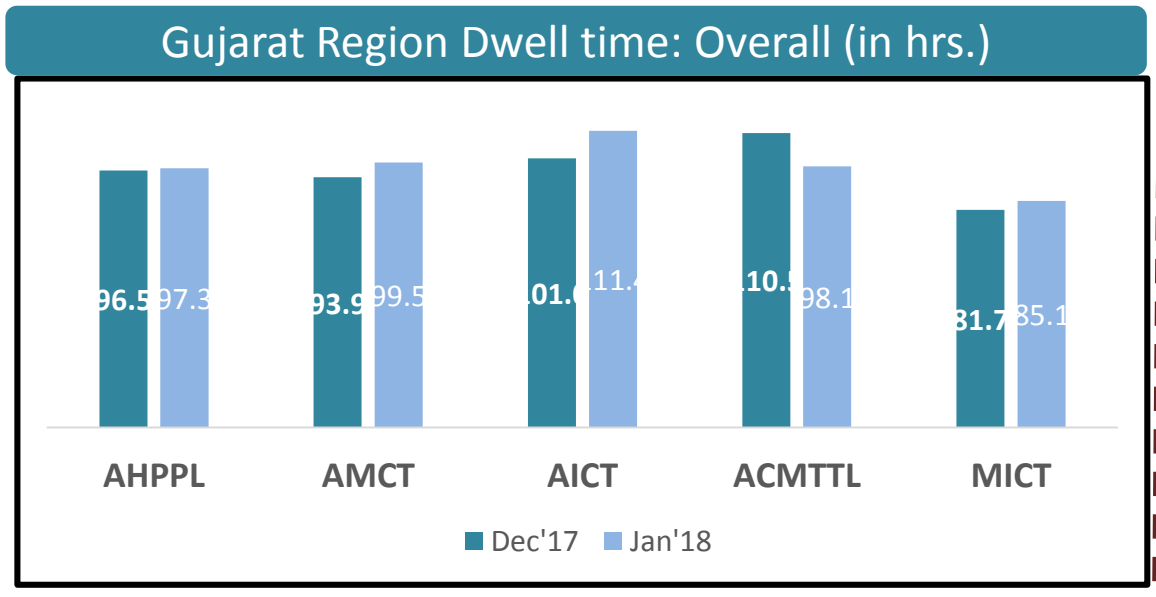
Gujarat Region Import cycle Trend

The below tables showcase the Import dwell time for both rail and truck bound containers (combined) for Jan'18 is 34.2 hrs



Gujarat Region Export cycle Trend

The below tables showcase the Export cycle dwell time for both rail and truck bound containers (combined) for month Jan'18 is 99 hrs

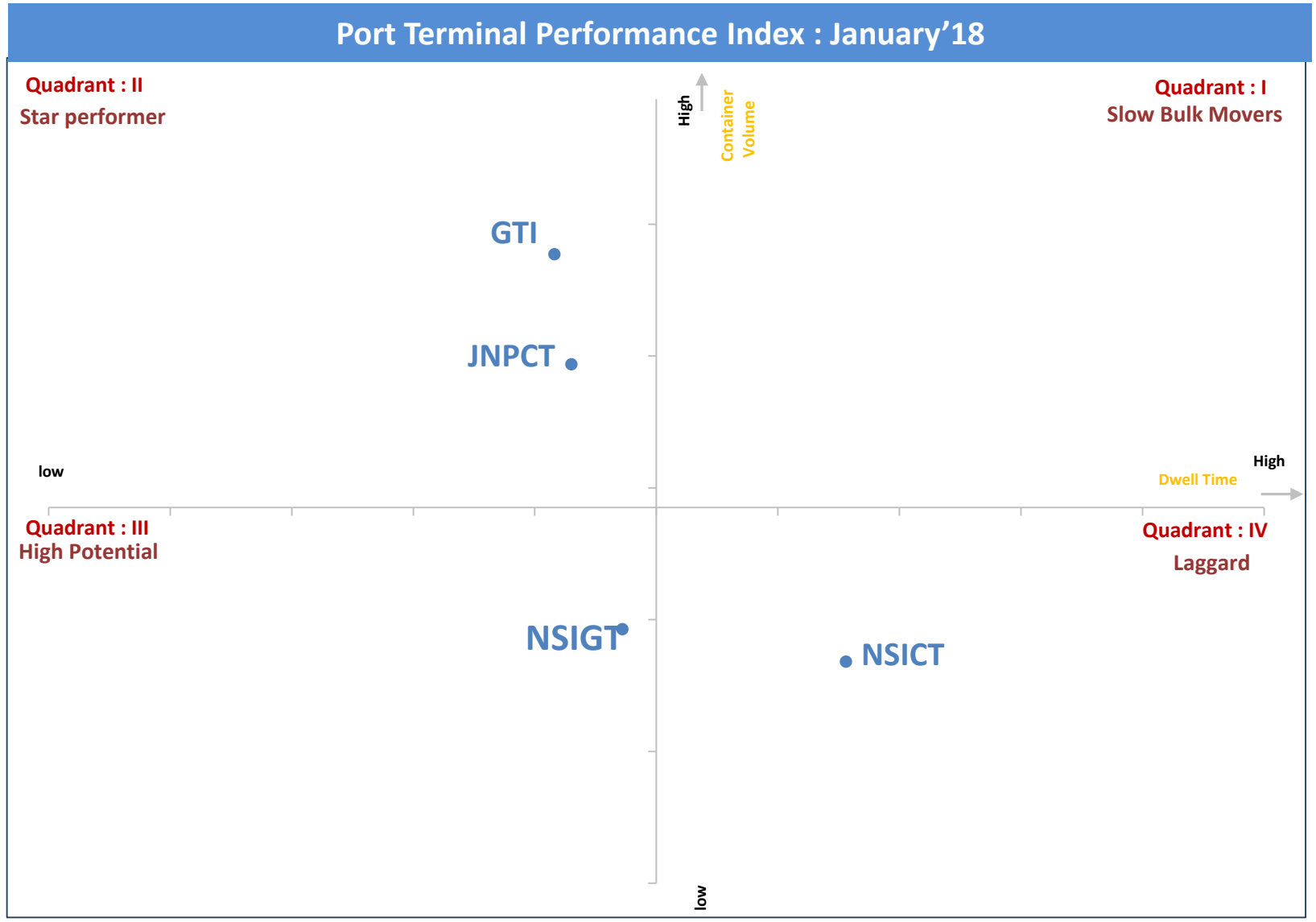


JNPT region PORT Terminals : Performance Index

In order to assess the relative performance Port, Container Freight Station and Inland Container Depot ,the relative dwell time as well as the volume of containers handled by them are depicted graphically in the form of an index to portray the performance of a particular organisation on the basis of these two combined factors.

The figure depicts the Frequency Index i.e. volume by dwell time performance for JNPT Port terminals for January ’18. The Quadrant II represents the high performing ports with high frequency Index i.e. high container volume at lower dwell time

Slow Bulk Movers : consist of Ports which have catered higher container volume at higher dwell time	Star Performer: consist of Ports which have catered relatively high container volume in lower dwell time	High Potential : consist of Ports which have catered relatively lower container volume in lower dwell time	Quadrant IV : consist of Ports which have catered relatively lower container volume at higher dwell time

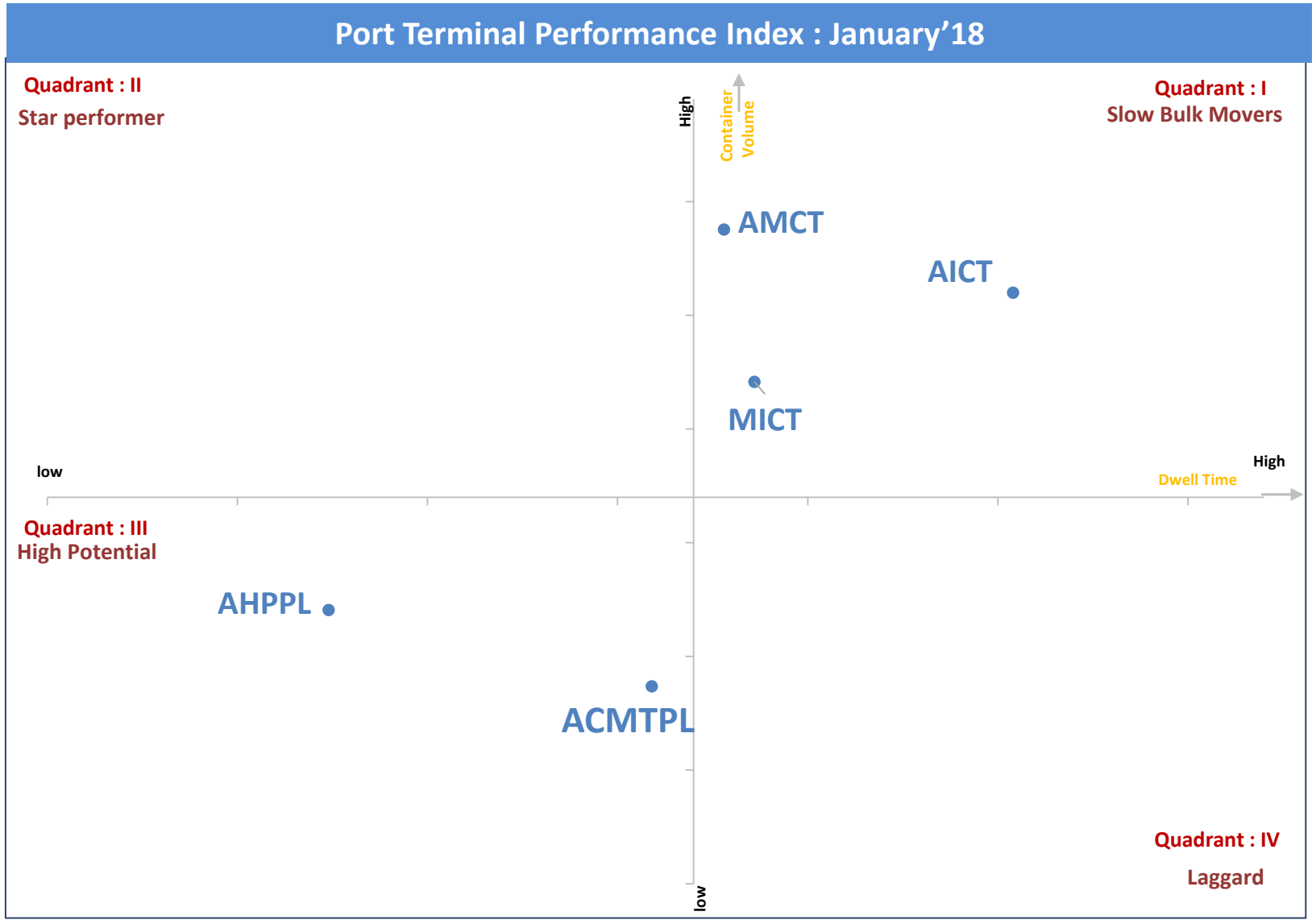


Gujarat region PORT Terminals : Performance Index

In order to assess the relative performance Port, Container Freight Station and Inland Container Depot ,the relative dwell time as well as the volume of containers handled by them are depicted graphically in the form of an index to portray the performance of a particular organisation on the basis of these two combined factors.

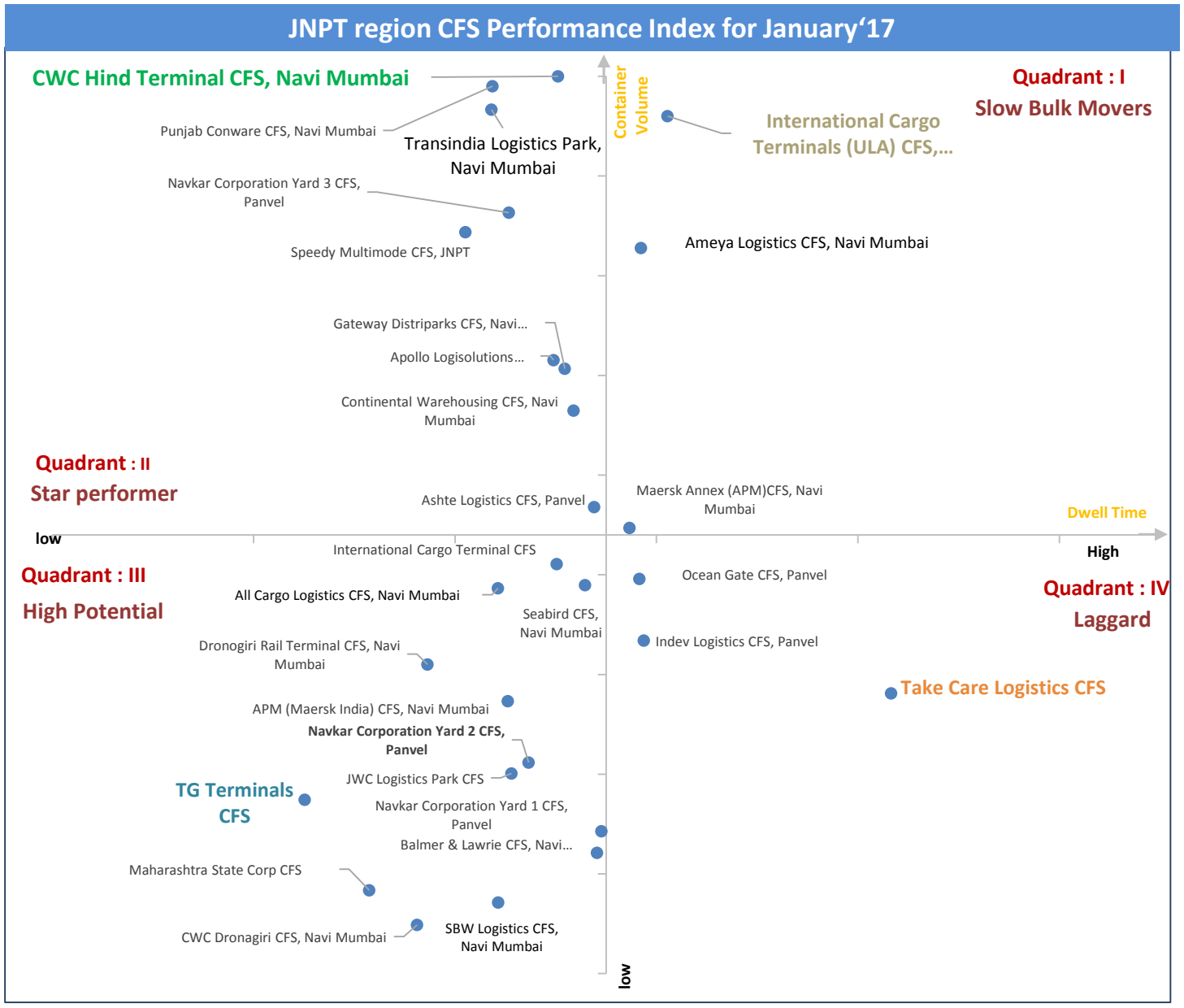
The figure depicts the Frequency Index i.e. volume by dwell time performance for APSEZ Port terminals for January'18. The Quadrant II represents the high performing ports with high frequency Index i.e. high container volume at lower dwell time

Slow Bulk Movers : consist of Ports which have catered higher container volume at higher dwell time	Star Performer: consist of Ports which have catered relatively high container volume in lower dwell time	High Potential : consist of Ports which have catered relatively lower container volume in lower dwell time	Quadrant IV : consist of Ports which have catered relatively lower container volume at higher dwell time



JNPT region CFS : Performance Index

The below graph depicts the Performance Index for all CFS for Jan'18. The Quadrant II represent the best CFS with high frequency Index i.e. high container volume at lower dwell time



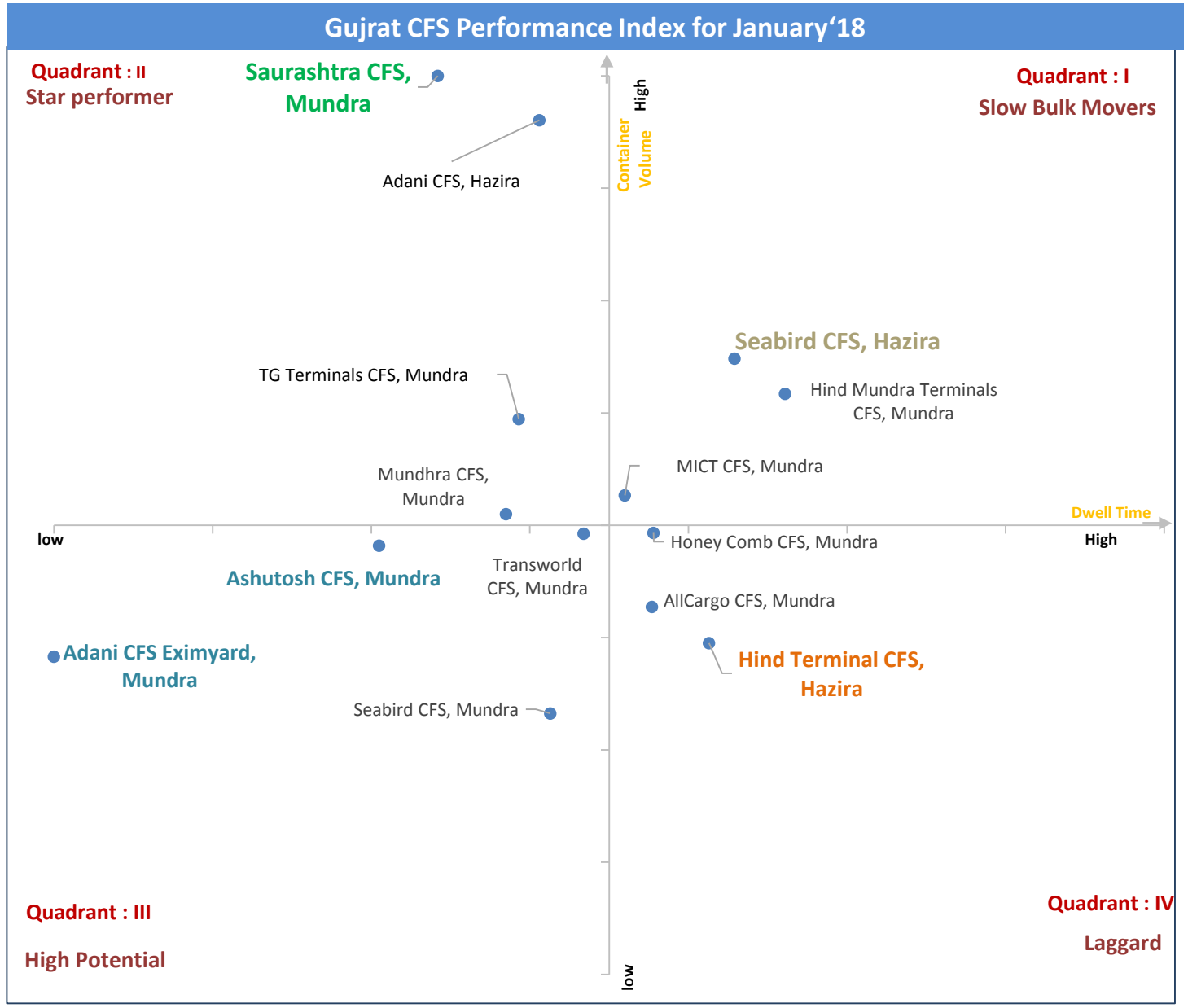
Legends

Top in category

- **Star performer**
- **Slow bulk mover**
- **High potential**
- **Laggard**

Gujrat region CFS : Performance Index

The below graph depicts the Performance Index for all CFS for month of January'18. The Quadrant II represent the best CFS with high frequency Index i.e. high container volume at lower dwell time



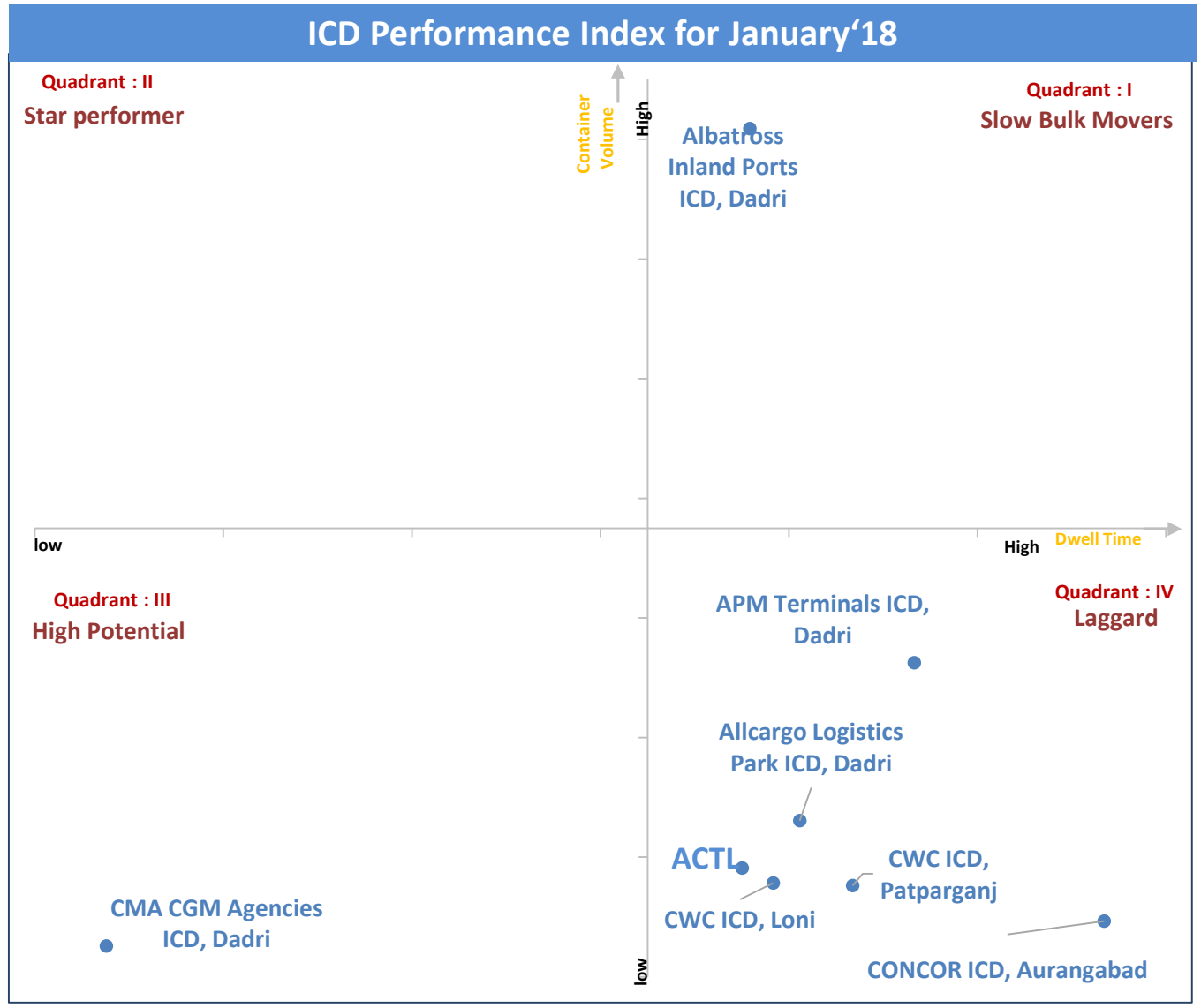
Legends

Top in category

- **Star performer**
- **Slow bulk mover**
- **High potential**
- **Laggard**

ICDs : Performance Index

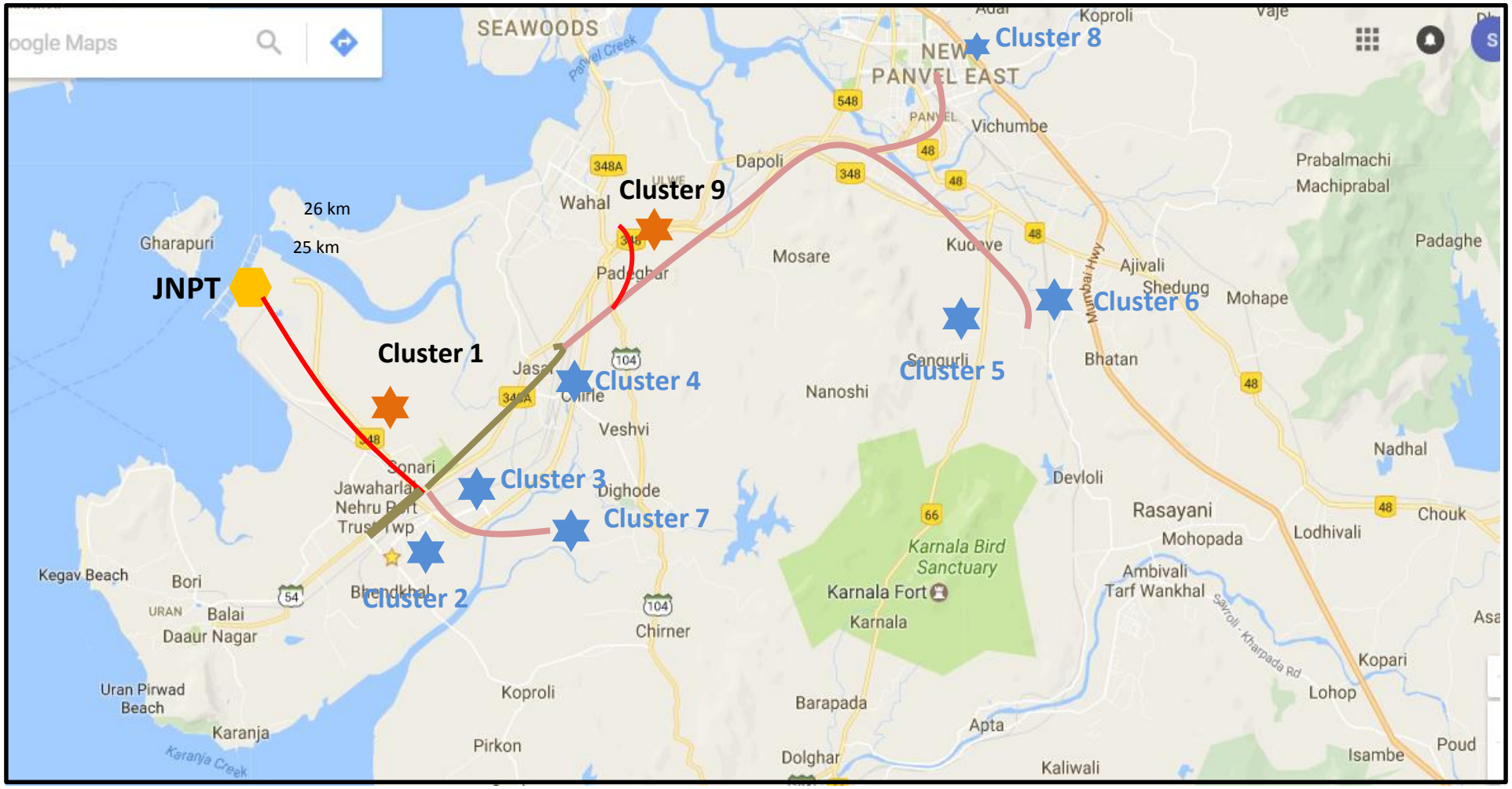
The below graph depicts the Performance Index for all ICDs for Jan'18. The Quadrant II represent the best ICD with high frequency Index i.e. high container volume at lower dwell time



TRANSIT TIME METRICS

JNPT REGION : CONGESTION ANALYSIS Jan'18

Congestion Analysis around Mumbai Region



Cluster 1	Cluster 2
JNPT Area	Bhendkhal area, Khopate road
Cluster 3	**Cluster 4**
Sonari area,JNPT road	Chirle area , JNPT road
Cluster 5	**Cluster 6**
Plaspa area, Coachi kanyakumari Highway	Salva apta rd area, Bangalore highway
Cluster 7	**Cluster 8**
Patilpada area, Khopate JNPT road	Taloja, Navi Mumbai
Cluster 9	
Padhegar area	

Note : Please find the respective CFS in each cluster in annexure section

Legends

- High Congestion
- Medium Congestion
- Low Congestion
- Cluster with bottleneck
- Cluster without bottleneck

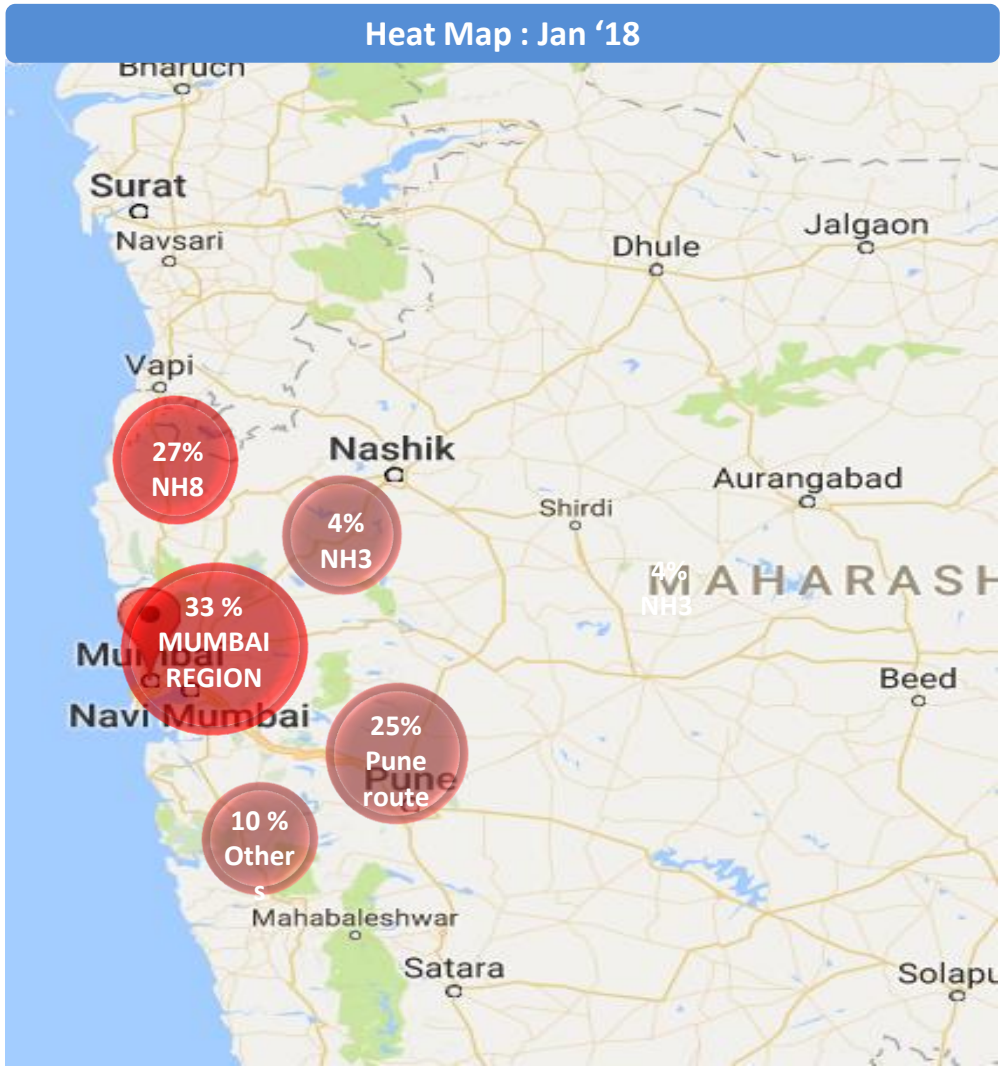
In the month of Jan 2018, Cluster 1 and 9 witnessed high congestions

GTI Terminal	JNPCT Terminal	NSICT Terminal	NSIGT Terminal
Congestion Level	Congestion Level	Congestion Level	Congestion Level
Export Cycle :-	Export Cycle :-	Export Cycle :-	Export Cycle :-
Import Cycle :-	Import Cycle :-	Import Cycle :-	Import Cycle :-

Note : Congestion is measured w.r.t actual time taken to cover the respective distance between clusters and terminals(

Container Heatmaps- JNPT Port terminal region via Truck

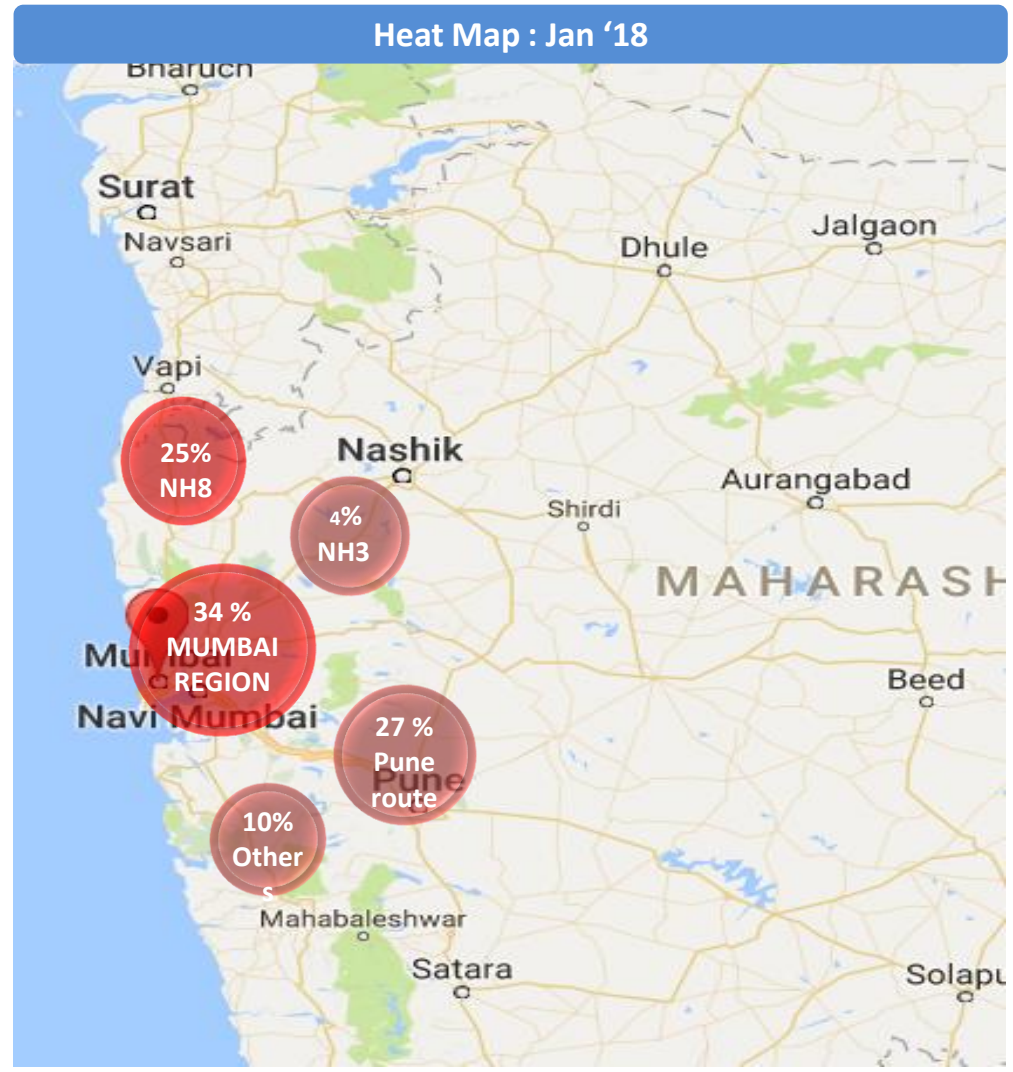
HEAT MAP : JNPCT Port Terminal



Region	Jan'18	OND'17
Mumbai Region	33%	50%
Pune	4%	18%
NH8	25%	19%
NH3	27%	3%
Others	10%	10%

The heat map above depicts the movement of containers in and around the Mumbai region.

HEAT MAP : NSICT Port Terminal



Region	Jan'18	OND '17
Mumbai Region	34%	47%
Pune	4%	20%
NH8	27%	20%
NH3	25%	3%
Others	10%	10%

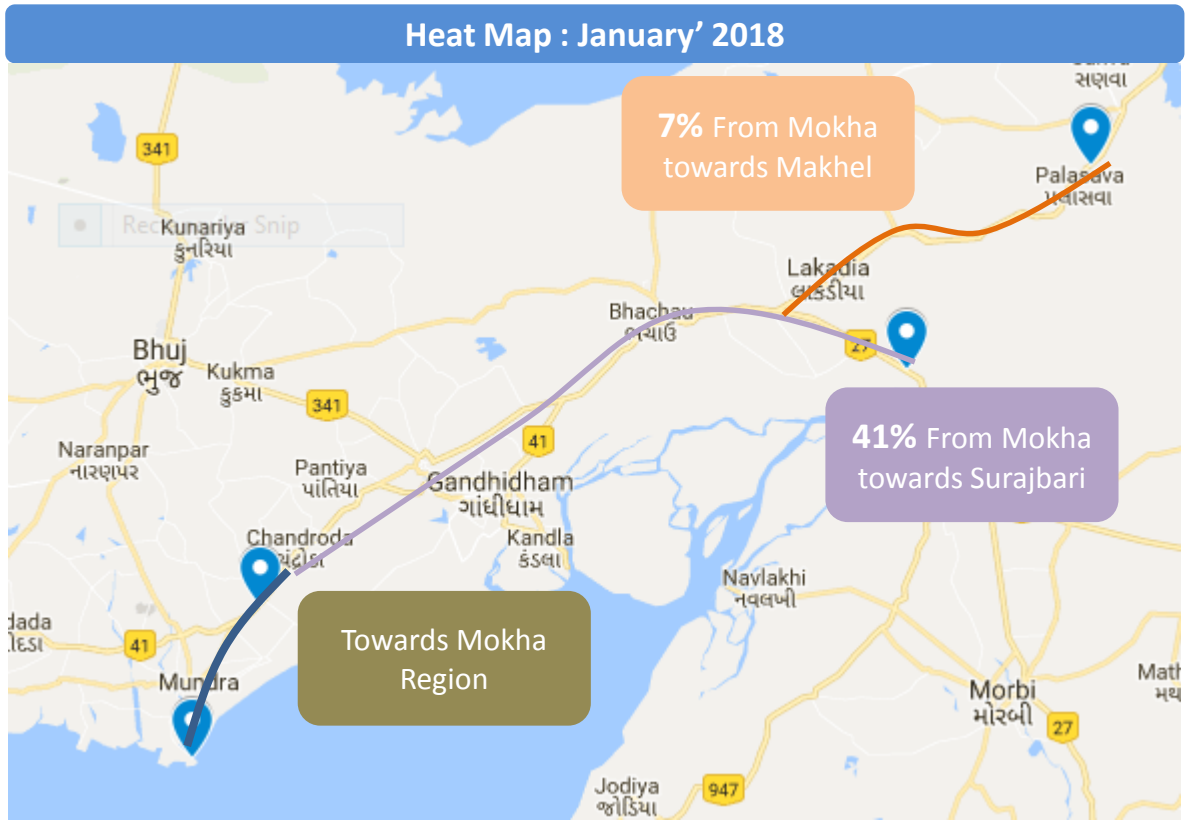
The heat map above depicts the movement of containers in and around the Mumbai region.

Container heatmap- Mundra region via Truck

The below graphs display the container traffic bifurcation from Mundra region towards Mokha and Surajbari routes for overall Mundra region and South Basin Custom Gate

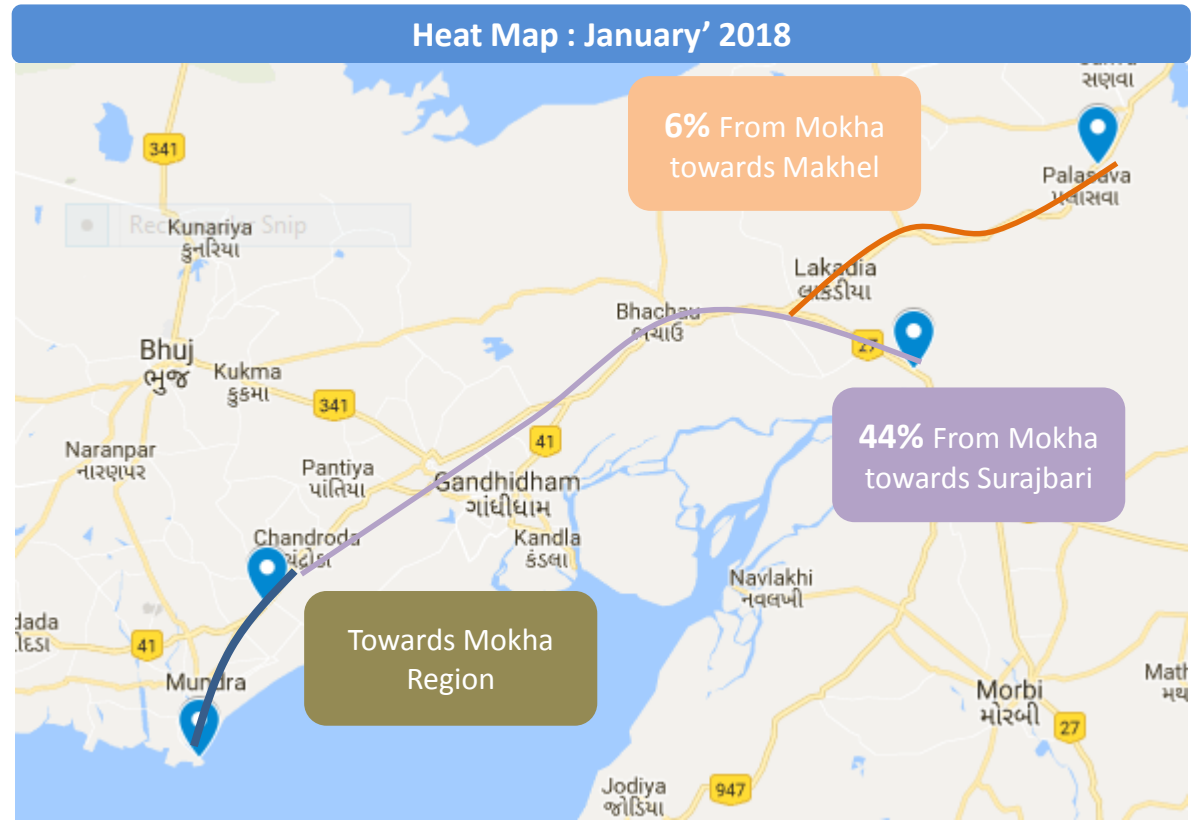
HEAT MAP : Overall Mundra Region

i.e. all 4 termainals at Mundra port region i.e. MICT, AICT, AMCT, AHPTL



From Mokha towards		
Region	January'18	December'17
Surajbari	**41%**	**39%**
Makhel	**7%**	**7%**

HEAT MAP : South Basin Custom Gate



From Mokha towards		
Region	January'18	December'17
Surajbari	**44%**	**42%**
Makhel	**6%**	**6%**

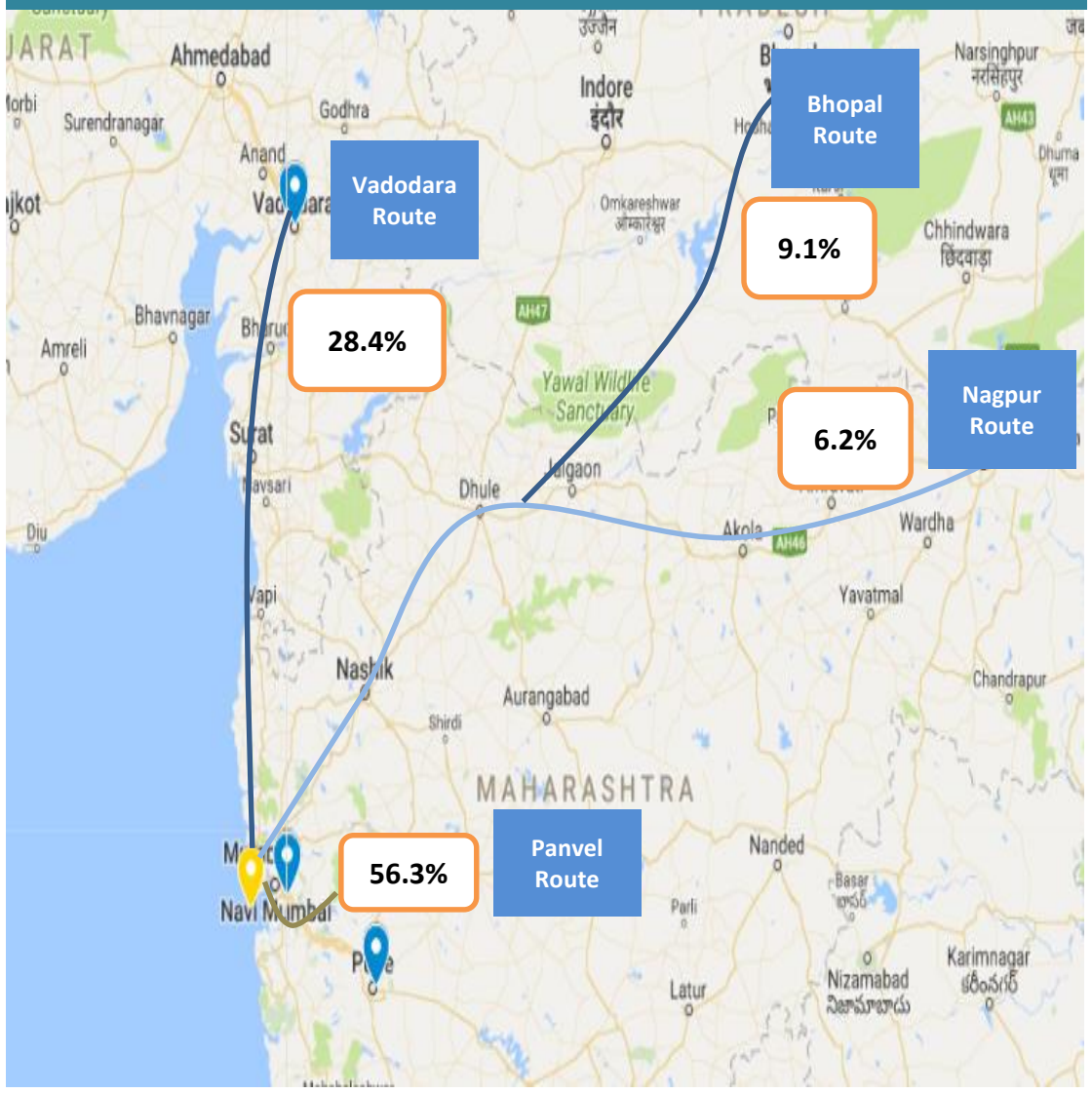
Container Heatmap- JNPT Port terminal region via Train

DLDS Logistics Redefined
DMICDC LOGISTICS DATA SERVICES LTD

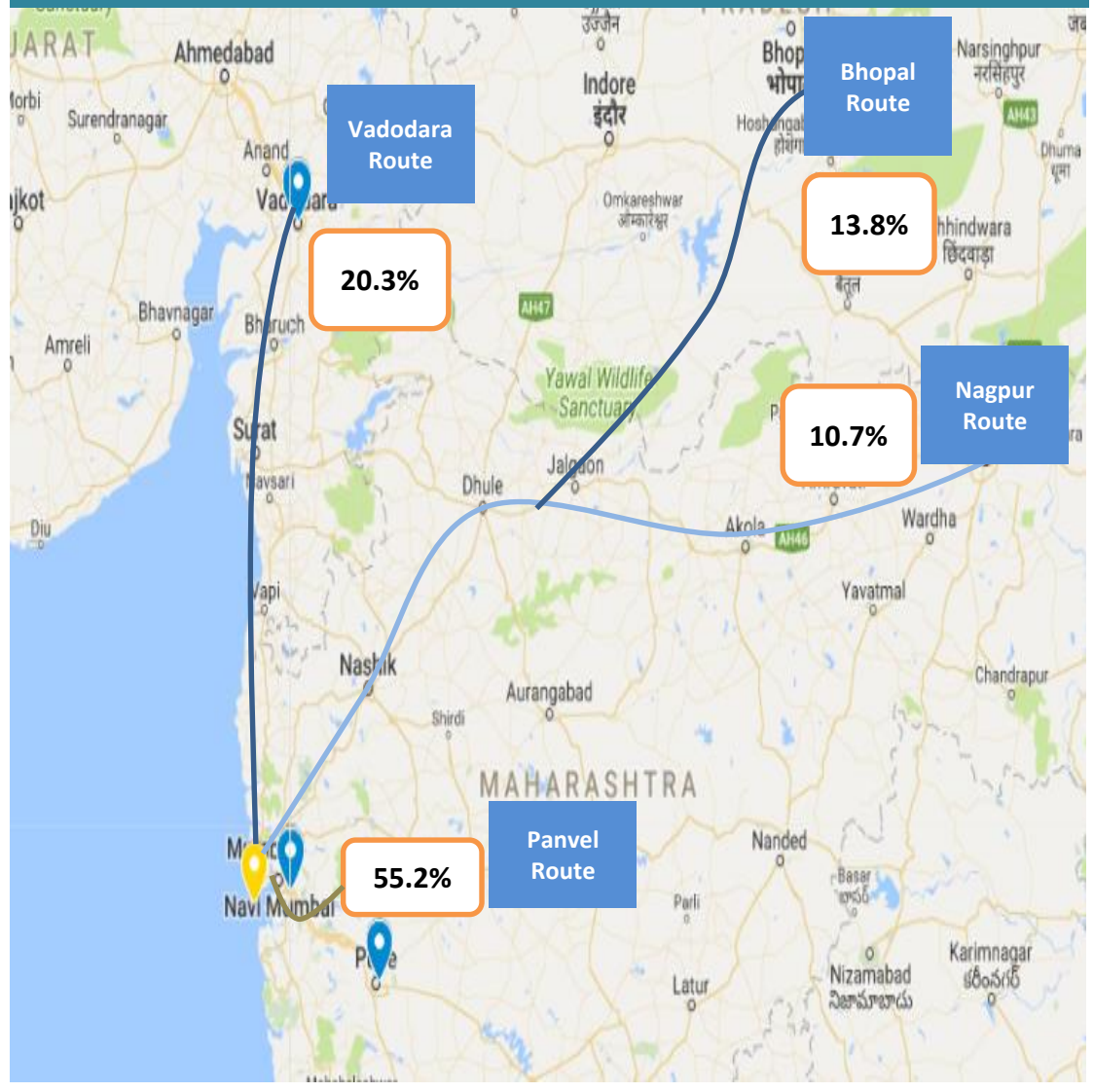
Container Movement around JNPT region via Train

The map shows the volume wise container movement through different railway routes in export and import cycle for Jan'18

IMPORT CYCLE



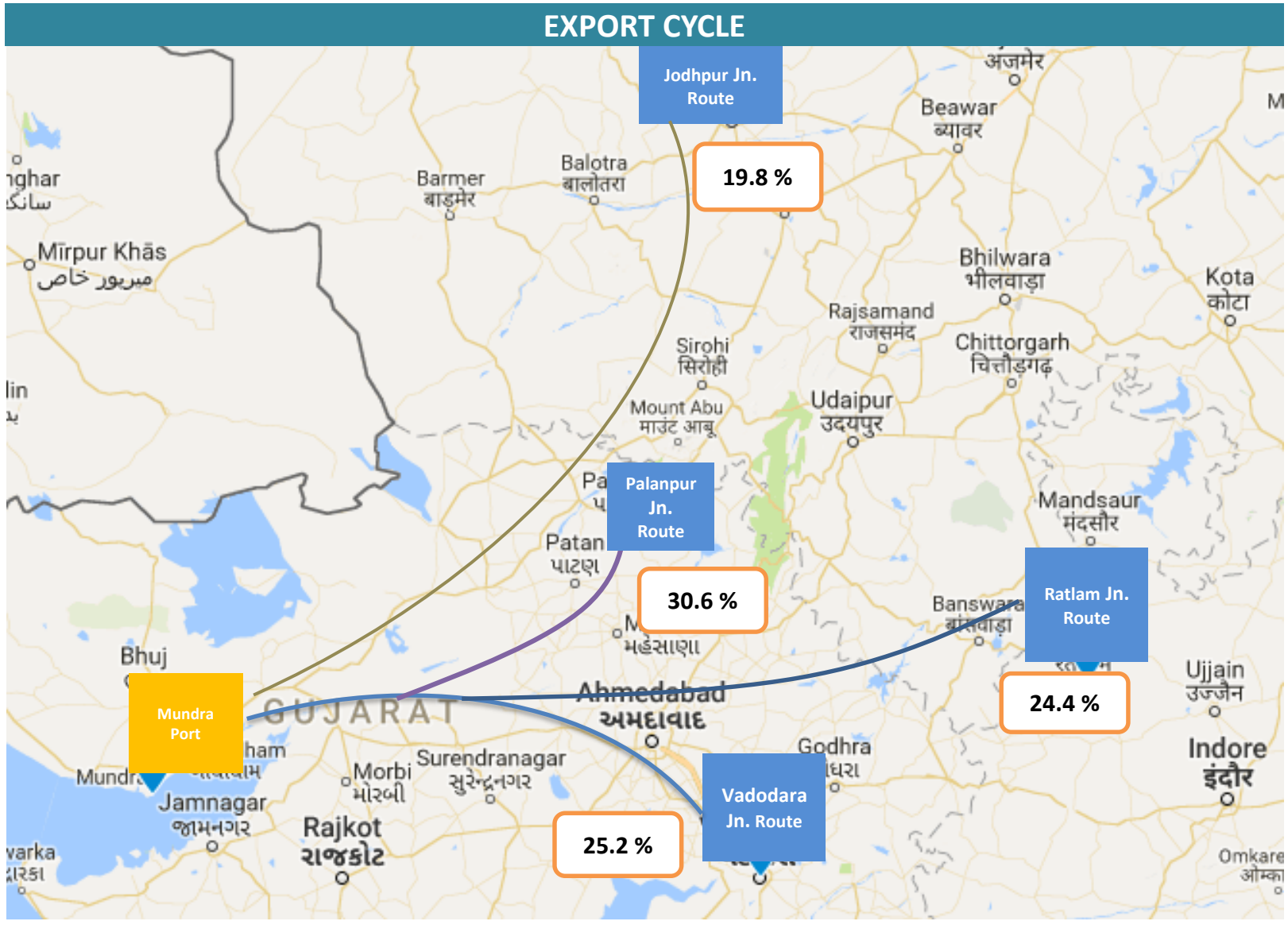
EXPORT CYCLE



Container Heatmap- APSEZ Port terminal region via Train

Container Movement around APSEZ region via Train : EXPORT CYCLE

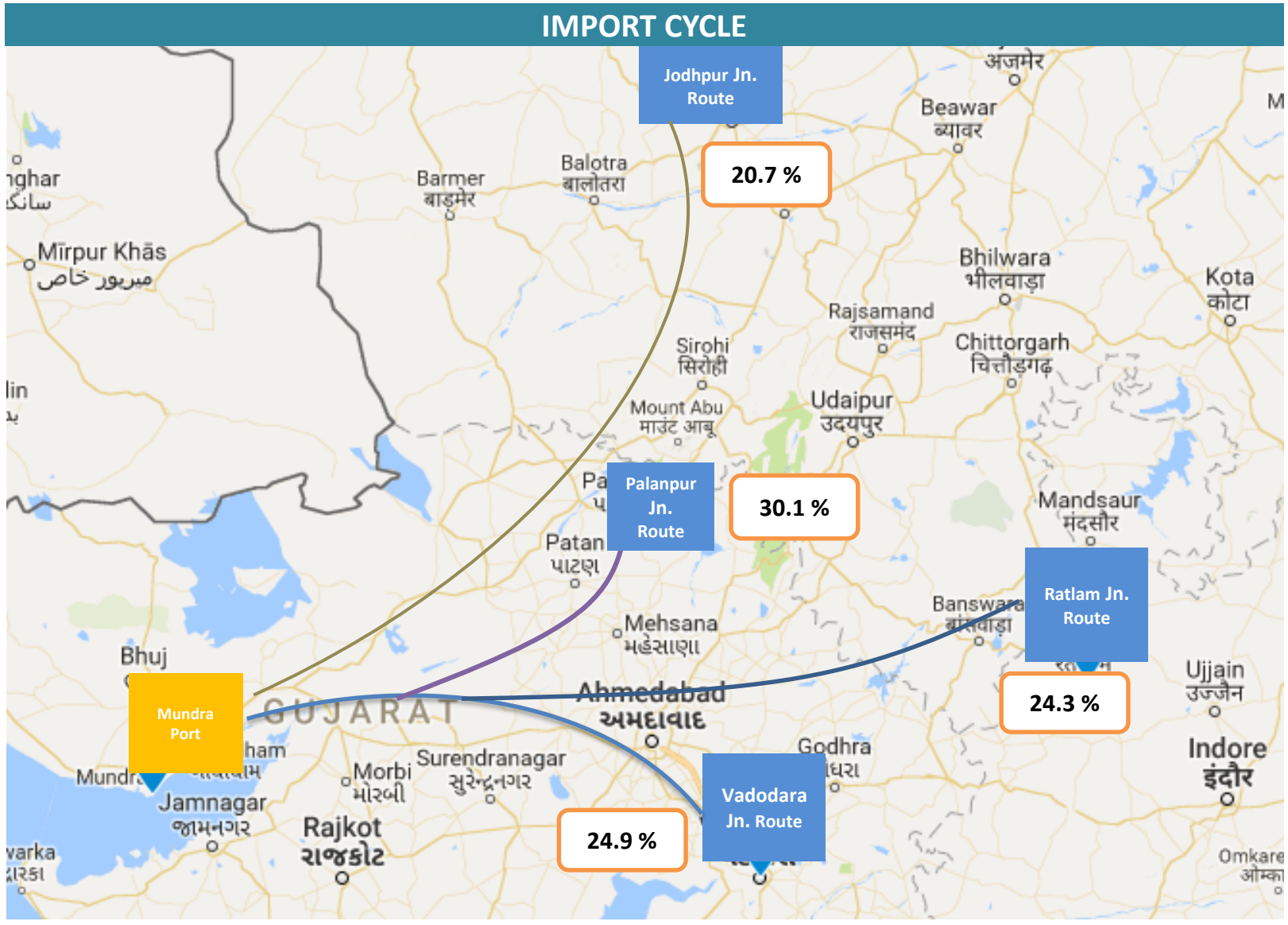
The map shows the volume wise container movement through different railway routes in export cycle for the month of January'18



Container Heatmap- APSEZ Port terminal region via Train

Container Movement around APSEZ region via Train : IMPORT CYCLE

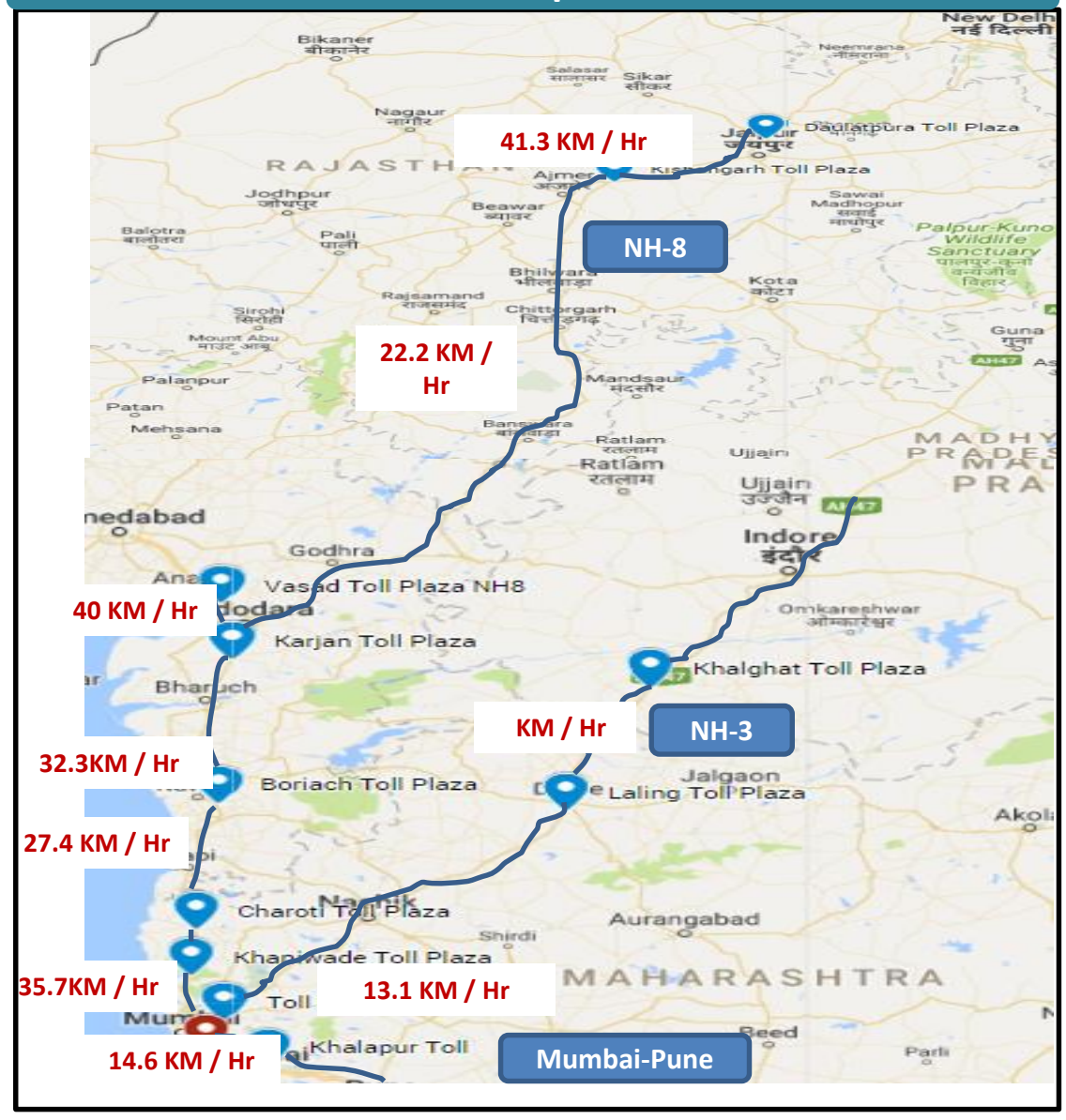
The map shows the volume wise container movement through different railway routes in import cycle for the month of January'18



Congestion Analysis : TOLL PLAZA (1/2)

Avg. Travel Time & Speed between Toll Plazas (Jan'18)					
Source	Destination Toll Plaza	Inter Distance (Km)	Avg. Travel Time (Hr)	Jan'18 Avg. Speed (Km/Hr)	Dec'17 Avg. speed (km/hr)
JNPT	Khaniwade	94	7.3	13.1	**13.6**
JNPT	Khalapur	60	5	14.6	**15.7**
Khaniwade	Charoti	50	1.4	35.7	**35.7**
Charoti	Boriach	126	4.8	27.4	**28**
Boriach	Bharthan	142	4.4	32.3	**33**
Bharthan	Kishangarh	686	30.8	22.2	**21.1**
Bharthan	Vasad	60	1.6	40	**37.5**
Kishangarh	Daulatpura	128	3	41.3	**40**
Dhule	Khalghat	186	77.3	2.2	**3.8**

Map

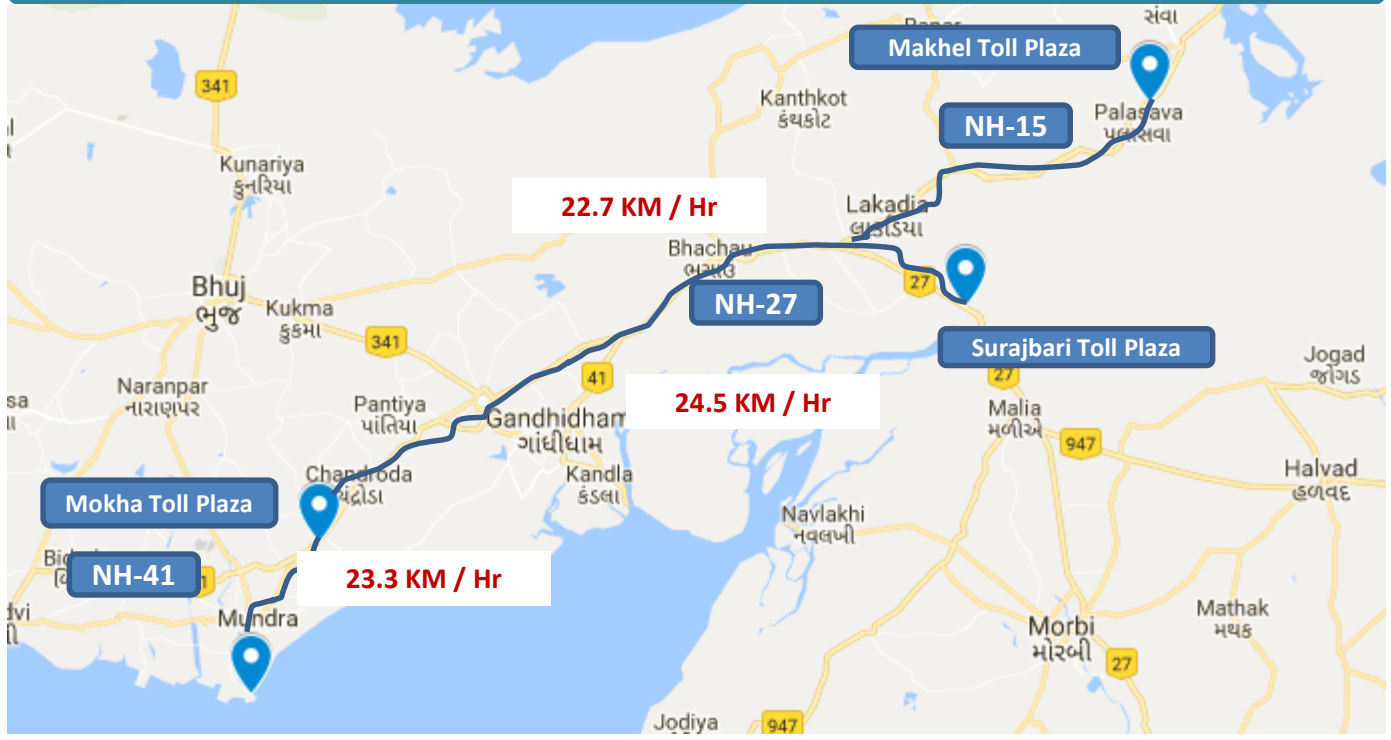


Congestion Analysis : TOLL PLAZA (2/2)

The below table shows all the toll plazas covered under DLDS in **Mundra region**.

Avg. Travel Time & Speed between Toll Plazas (Jan'18)					
Source	**Destination Toll Plaza**	**Inter Distance (Km)**	**Avg. Travel Time (Hr)**	**Avg. Speed Jan'18 (Km/Hr.)**	**Avg. Speed Dec'17 (Km/Hr.)**
MICT	**Mokha**	28	1.2	**23.3**	**21.5**
Mokha	**Makhel**	150	6.8	**22.7**	**23.4**
Mokha	**Surajbari**	115	5.3	**24.5**	**26.1**

Map



DLDS

DMICDC LOGISTICS DATA SERVICES LTD

Logistics Redefined

Thank You !!