

# Jebel Ali Port: Container Terminal 4



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The problem with port operations is that development is almost always reactionary. Ports react to changes in the maritime sector, rather than spearheading them. Which is to be expected: ports have to evolve according to the needs of their customers. Try reaching too far ahead, and you just might find yourself implementing an idea for which there are no takers.

But all that is changing. Given the rapid pace at which the shipping and technology sides of the maritime industry is currently evolving, ports are finding that they need to be a lot more proactive and respond quicker to changes in customer needs, as well as predicting what their customers are likely to want five or ten years in the future.

## DP World

The UAE's DP World is taking bold, proactive steps to deal with the issues highlighted above. The flagship Jebel Ali Port is on target to complete work on its mammoth 4 million TEU Container Terminal 3 by the end of 2015, and this will take the port's overall capacity to 19 million TEU.

Even before T3 is fully turned on, DP World has announced an even larger state of the art successor, Container Terminal 4 (T4), on a reclaimed island at the entrance to Jebel Ali Port. T4 will be a huge addition that will increase Jebel Ali Port's capacity by 3.1 million TEU by 2018 under Phase 1, driving the overall total to 22.1 million TEU.

As the world's largest man-made harbour, Jebel Ali is the port of choice for ocean going ships in the Middle East. But matching and exceeding client expectations is just one part of what's on offer: T4 is the grand idea that is expected to change the way ports work, and they

plan on doing this through two key ways; by embracing the latest technology, and by adapting to a newer and bigger TOS.

## A future vision

Terminal 4 will be equipped with semi-automated quay cranes – by now a pretty standard fare at major DP World facilities – providing operational efficiencies for customers, comfortable and safe working conditions for employees and environmental benefits for the community at large by reducing the carbon footprint.

Under Phase 1, T4 will feature a 1,200 metre long quay with an 18 metre draft, and 13 of the world's largest and most modern quay cranes, remotely operated from a sophisticated control room off the quayside. Some 35 ARMG cranes will keep order in the yard, supported by an army of ITVs (internal transfer vehicles). With a price tag of US\$1.6 billion, T4 will boast a total of 110 cranes when fully completed.

At present, Jebel Ali has the capability to accommodate ten mega container ships simultaneously, and the new state-of-the-art facility at Terminal 4 will increase this number significantly.

## Optimisation

Optimising technology utilisation at ports the world over has been slow. This is not surprising for a variety of reasons. The cost and logistics of revamping a port so that it is completely networked, automated, and able to track cargo in real time while keeping all the processes bug free and secure is daunting. But the need for it is real. Customers expect it.

Then there is the all too popular idea of the Internet of Things (IoT), a concept that hopes to embed physical objects with electronics, networking capabilities, and so

on, and use all this embedded technology to create a giant, interconnected network of real world objects. The benefits of doing this are fairly obvious.

Imagine a port where all containers, cargo, and equipment are connected together via their own local port-wide network. This will give the port operators a direct way to not just integrate traditional non-computer based aspects of their operations with their digital systems, but also allow for real time monitoring and manipulation of these objects, leading to greatly increased operational efficiency.

This is one area where T4 is expected to break new ground. Being built from the ground up in our modern era, T4 will openly embrace the Internet of Things. The quay cranes will be semi-automated and remotely operated, and beyond that, T4 will allow for real time monitoring of other key terminal operational aspects such as tracking container locations, equipment information and KPIs.

## Next generation ships

DP World plans to future proof T4 by making it ready for the new era of smart containerships. Currently, Jebel Ali is capable of handling ten mega containerships simultaneously, the only port in the Middle East with such a capability. Clearly, DP World has made sure its flagship property keeps its leadership position secure.

DP World is determined to cope with the arrival of the new capacity mega-ships across its global portfolio. Technology holds the key to this ambition. In a major breakthrough in 2013, we introduced the quad lift system for the first time in the UK at London Gateway. It's a technology DP World's engineers developed and perfected at Jebel Ali.



### About the author

Mohammed Ali Ahmed is an industry leader in international marine terminal operations and development, logistics and related services. His leadership, insight, vision and operational expertise has strengthened DP World's culture of service, excellence and innovation. With two decades of port and management experience, Mohammed Ali Ahmed is the Chief Operating Officer for DP World, UAE Region. Under his portfolio comes in addition to the leading Jebel Ali Port, Mina Rashid (port) and Mina Al Hamriya (port) in Dubai and the Fujairah Container Terminal on the United Arab Emirates Indian Ocean coast.



### About the organisation



موانئ دبي العالمية  
**DP WORLD**

DP World's flagship facility Jebel Ali Port is strategically located in Dubai. It provides the Middle East region with an integrated multi-modal hub offering sea, air and land connectivity, complemented by extensive logistics facilities. Jebel Ali Port plays a vital role in the UAE economy, and is a premier gateway for over 90 weekly services connecting more than 140 ports worldwide. It has market access to over 2 billion people. Expansions currently underway at the port will bring total handling capacity to 22.1 million TEU by 2018. Jebel Ali is ranked the 9th largest container port worldwide, and recognised as the world's most productive port in 2014. It has been voted "Best Seaport in the Middle East" for 21 consecutive years. DP World, UAE Region portfolio includes Jebel Ali Port, Mina Rashid Cruise Terminal and Coastal Berth, Mina Al Hamriya in Dubai city and Fujairah Container Terminal.

### Enquiries

[www.dpworld.ae](http://www.dpworld.ae)

As DP World sees it, in the on-going search for solutions to changing customer needs, terminal operators must also proactively work to come out on top in terms of efficiency and costs. DP World's committed pipeline of developments and expansions reflect a clear intent of staying ahead of the ships.

The new terminal will reinforce Jebel Ali's role as the premier gateway serving the wider region of two billion people;

from the Middle East to the Indian Subcontinent, and from East Africa to Central Asia.

The global property consultancy Knight Frank concludes in its recent UAE Industrial and Logistics Research Report that Dubai is well positioned to be a point of entry to Africa's \$3 trillion economy. The additional capacity that Jebel Ali Port is building couldn't be coming at a better time.