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# MATRIX

TODAY



Bala Sankaran

# Technology is an integral part of shipping

**B**ala Sankaran is the Co-CEO of Alpha Ori Technologies. Before that, he was the Vice President — Global Sales, Marketing Operations & Learning, at Twitter. Prior to Twitter, Bala spent six years doing various management roles in sales, sales operations, and advertisement agency business development functions at Google in New York City.

Bala honed his operations and strategy expertise working as a management consultant with McKinsey & Company, and has an MBA degree from the Wharton business school. You may well wonder, what is this business strategy, operations, and technology executive — with expertise in the digital media industry, specializing in go-to-market strategy and business development functions, doing — featuring in this maritime journal?

Well, he is a chief engineer! Yes, Bala holds a degree from the Marine Engineering and Research Institute (MERI), Kolkata. He has spent ten years sailing on chemical, crude and product tankers.

In his first and exclusive cover story, Bala Sankaran interacts with Nishit Doshi of *Maritime Matrix Today*, and talks about technology and its influence on shipping, about Alpha Ori Technologies, and of his seafaring experiences.



## How is technology helping to achieve the highest levels of operations on ships?

Technology has always been a tremendous disrupting and productivity enhancing medium in all industries, and shipping, as an industry, is no different! We believe three fundamental technological/industry forces are acting on our maritime industry and I am personally excited to be part of the journey to see how these forces will shape and enhance the industry to rapidly move forward.

Force 1: Maturing of key technologies such as internet of things (IoT), big data and machine learning from an alpha state to a more beta state.

Force 2: Decreasing cost of ship-shore satellite data connectivity.

Force 3: Increasing complexity in ship-shore operations necessitating owners and operators to look for better ways, to be more productive and profitable.

At the end of the day, running a more productive ship operation is all about closely monitoring various parameters and make informed choices based on what the data is telling and the expertise/experience people have in interpreting data. For instance: When a ship is near a port, we should not run the oily water separator, or the generator on a load too low, or look to run only one auxiliary engine instead of two.

With the advent of IOT technology, we can now connect disparate systems into one common platform to allow the technology to constantly monitor data and make rule-based decisions. For example, we can connect a ship's GPS to its oily water separator and prevent anyone from starting the oily water separator if the ship is within a certain distance from the coast! This will save many dollars in penalties that otherwise a ship owner/manager may incur due to errors. Add to this simple scenario technologies of big data and machine learning.



The Alpha Ori team at the 2018 Singapore Maritime Technology Conference



Team outing with the Cochin staff



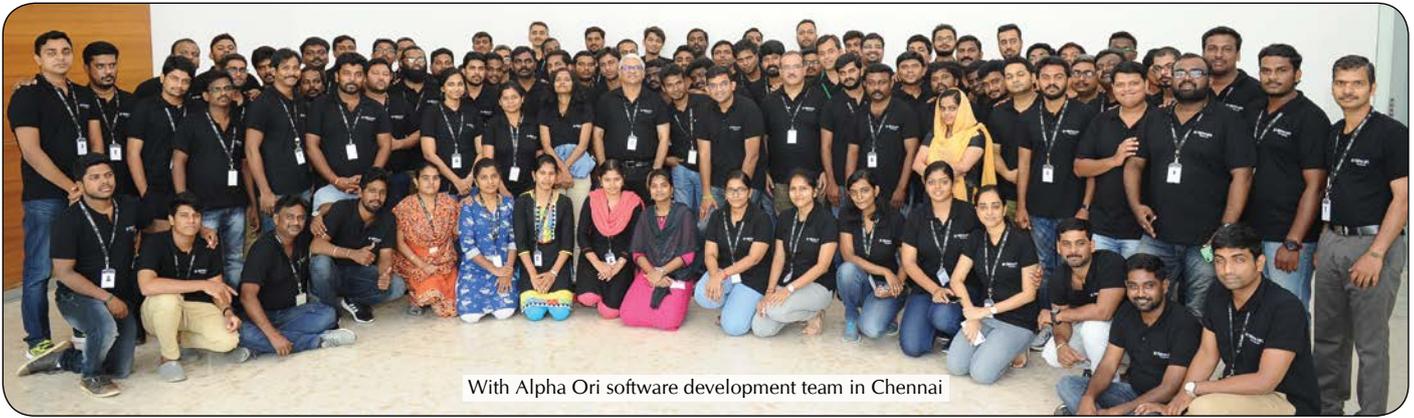
With wife Renu and daughters Diya and Disha



The Alps expedition



Voted 'Hottest Company' in the Silicon Valley



With Alpha Ori software development team in Chennai



With Renu

We now can not only store second to second data but also continuously perform complex analytics to understand what is about to happen given what just happened. This will be a huge step in the right direction for our industry. The ability to predict with a certain level of confidence, in our opinion, will save a lot of dollars for the industry and make ship operations more efficient.

Finally, with rapidly reducing costs of ship-shore data transfer, all this becomes economically viable. For instance, our system collects more than five thousand data points from various parts of the ship and transfers it ashore every 3-5 seconds and the data needs are within the monthly subscription charges that a ship is already paying. This will further reduce in the next two years that will fuel the advent of remote monitoring and control of sailing vessels.

**Please tell our readers about Alpha Ori.**

Certainly. Alpha Ori Technologies (AOT) is a B2B technology company operating in IoT, ship enterprise resource planning (ERP) and big data science. We use cutting-edge technologies to solve real-world issues for probably every stakeholder in the logistics value chain.

Thousands of ships carrying hundreds of millions of tons of cargo...that's how much cargo is traveling around the world at any given time. The food you eat, clothes you wear, the fuel we use for various purposes, equipments you use to play games with, phones and tablets you use, etc. Chances are that they all have been on a ship carried from one continent to another. The shipping industry is a vital piece of puzzle in this age of globalization. Despite its growth and global presence, the shipping industry has been operating in the mechanical era/20th century model. We aim to change this status quo.

Our mission is to digitally connect the entire ecosystem within the ship, plug this ship into a digital cloud that connects to many other ships, and create the system, tools, business process that are



Successful completion of the Chicago Marathon

needed to activate remote monitoring and control of these digitally connected ships, while using collected data as a strategic weapon to drive economic value to the business.

We are a team of engineers, data scientists, academicians, technologists, business strategists, management executives and maritime professionals. We are a diverse group of like-minded professionals from varied cultural backgrounds, language proficiency, geographical residence (USA, Singapore, India, to name a few) each having unique experience and expertise gained from decades of working in many different high-tech industries. Together, we focus on a single goal — build technology solutions to usher the shipping industry into the digital era.

We like to be called dreamers, inventors, rebels, risk-takers, pioneers and geeks. We embrace those labels because in many ways, they're true. We dream big. We invent bigger. We play hard, party hard and have a lot of fun all around! Most importantly, we often do what many thought was impossible.

#### **What makes Alpha Ori different from other maritime digital enterprises?**

AOT was built with a fundamental premise that we can make the entire ship board operations more efficient and cost effective by bringing in relevant technology that works, and are customized to unique needs of our industry. To achieve this, we believe we have four fundamentally different and unique value propositions:

- Our team is a mixture of merchant mariners, pure-play technologists, academicians/industry SMES (maths professors, naval architects, class surveyors), that we are very proud to have assembled with a singular focus to answer the fundamental question — What/how can technology help marine operations?
- We are having a holistic approach to this problem. We collect more than five thousand data points from all parts of the ship with the ability to refresh data every 1-3 seconds. This enables us to create a platform that provides for a plugged-in feel of the entire ship and lends itself to creating very

interesting solutions that will address all parts of the shipboard operations.

- Our team is also supported and mentored by many industry leading experts and organizations who bring in a wealth of expertise and connections in the industry. We do not see ourselves as a standalone technology company trying to disrupt an industry outside in. We are very much a part and parcel of the industry looking to use technology as a means to effect marginal change over time.
- We are open to working with many other industry competitors and collaborators to jointly offer solutions to our end customer. We believe the opportunity pie is big and growing and has space for everyone who provides value to the end customer. Our approach is collaborative and ready for business with all customers.

#### **Please tell us a bit about your seafaring experiences.**

Nishit, I must say that the ten years of my seafaring life were quite enjoyable. I started and ended my career in one company — Seaarland Management. I sailed on crude, product and chemical tankers. During my journey with Seaarland it was a growth phase for the company, it grew from 10 ships to at least 25 ships. I'd many opportunities to work on brand new ships with new technologies. Since it was a small company, everyone knew each other very well and we felt like one large family. My fondest experiences were taking over a ship from the yard as a chief engineer in South Korea, handing over a ship to a new buyer, and the many parties we have had with friends' onboard ships!

#### **What have been your three significant experiences in the maritime field?**

Over a period of ten years, I have had the good fortune to experience many interesting and memorable experiences. Few that come to my mind:

Taking over a ship from a shipyard as a chief engineer with the entire ship's complement was an excellent experience. We were in South Korea, and we stayed for over a month. We spent the day testing equipment in the yard and learning various things





about the ship. In the evening we played games, mainly cricket, and eventually fun in the bar!

We had a horrible storm during my first voyage between NYC and Ventspils during winter. It was so bad that 16-inch cargo pipelines were twisted like a cloth and water used to pour down from ventilation ducts! Given it was my first voyage, I would say the ocean gods gave me a proper welcome to remember.

One of the ships I was in got sold suddenly, and we had to wrap up all our operations and hand over the ship to the incoming crew. We were told to change one M/E liner and do all bearing inspections with the new crew in a short time. It was an interesting experience to handle so many emotions (the ship was like our home) and work, all at the same time, and that too in such short time! We formed a strong bond with the incoming crew (different nationalities) and it all worked out very well.

**Please tell us about your professional progression in your chosen career.**

I graduated from the Directorate of Marine Engineering Training (DMET), now known as MERI, class of 1993. After I quit sailing, I decided to invest in educating myself. I got an opportunity to do an MBA (Majoring in Finance/Accounting) at The Wharton School, Philadelphia. After that I'd a two-year stint as a management consultant in McKinsey & Company in NYC. Then Google came along... I was with Google for six years in their sales team — playing various roles in strategy, operations and sales. That is when I got an opportunity to build and lead the global sales operations and training team @Twitter. It was indeed an exciting opportunity. This was before their IPO and leading a team when the company was going through tremendous growth — quite an eye-opening experience. Five years later, my career took a turn towards 'home'...Back to shipping and am so excited to get an opportunity to

lead AOT, to drive some interesting solutions back to the industry that I have originally belonged to!

**How do you balance your work and personal life?**  
 Ah, this is very important to me. I travel a lot and if I do not focus on this, life will just pass by. I believe in focussing on my passions and ensuring I dedicate time. Weekends are important to unplug from the day-to-day, and the focus is on family and friends then. We have a lot of poker parties at home, and we ensure that we lead a very healthy social life. I run for exercise as well as pleasure (try to do a couple of marathons a year), and do one mountain climbing expedition a year without fail — I've climbed the Kilimanjaro, Grand Teton national park, Mount Rainier, Cotopaxi, Italian Alps, Swiss Alps, and Mount Elbrus. For next year, 2019, my goal is the Mount Everest base camp with a Labuche Kang climb.

Kudos to my wife Renu and our kids Diya and Disha for accommodating my crazy lifestyle and shooting for quality time instead of quantity alone.

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## Sankaran's Selection

- **Cuisine:** Indian
- **Drink:** Mojito
- **Game:** Poker
- **Music:** 70/80s rock
- **Movies:** Action and drama
- **Vehicle:** BMW 535xi, my present car
- **Travel destination:** The mountains
- **Books:** Current affairs — especially politics, security, and the stock market