

Navigation as a Service

Foreword

Industry 4.0, IoT, and Digitalization only to name a few, are the buzzwords these days. All these new ways of improving the business want to be heard and followed. All over the world shipowner are competing each other to reach the top, to have the hottest gadgets, to achieve more than all others.

This is good, very good indeed, because a technological stagnancy will result in a lack of opportunities and a loss of profit. The other side of the coin is that all these new helping items want to be purchased. We have experienced an astonishing jump on the technology side, remember ten or more years ago, how difficult it was to track the vessel from shoreside. AIS-Live, Marinetraffic and were right started, and not always trustworthy. Getting connected to the ship was reduced to times where mobile signals could reach the shore. Nowadays where we just can use the Wifi Signal on board to make telephone calls makes it easier to reach the ship even when it is in the middle of the ocean. Without using Inmarsat and generating high costs. And that's just a one of hundreds of improvements what we could discover on the technology. Unfortunately, there's one sector which has almost no improvement seen: The financial sector. As a shipowner, or it's representant, the only choice you have is to buy it or to leave.

In my eyes this is an inacceptable situation. How can any advance in technology raise when nobody can afford it?

Today I want to change this situation to owner's favor. There is another possibility to get the new technology and still be able to operate within the normal budget. You can call it #Navigation-as-a-Service or, as we do it, #Long-term-rentals.

-C.Hinsch CEO Ranger Navigational Rental 11/2021

Navigation as a Service

Let us assume the ship you manage needs a new Voyage Data Recorder. I have chosen this example as it was very common in the past years due to certain IEC regulation changes and a high value invest.

Your ship needs a new VDR. You look around what is available on the market:

JRC, Highlander, Danelec, Wärtsilä, Sperry Marine, Furuno, and many, many more.

Every Maker has his own advantages and disadvantages, we don't want to discuss this here at the moment. You call your favorite Service provider and ask for advice and a quotation. (your regular process)

Your Service provider is doing his best to serve you and is recommending a VDR which will fit seamlessly into your ship. The only point is that it will cost around 23.000€ including commissioning onboard. Plus extra 2500€ for the Initial Performance Test and certificate.

Huh. That's quite a big investment. You have also new Handheld VHF's, a Gyro overhaul and preparations for the class inspection for that ship on the to-do list and the end of the year is close already. I know that you could fill up that list very easily until the end of this page. Anyhow the point is: Your Budget for Bridge maintenance is already quite low. Not good...

Until now you just had the choice of making it somehow possible or walk away to grab anywhere else another offer which is lower.

End of the story: You are not happy, as your budget is eaten up by the VDR (the cheap one) and your Service supplier is sad, because he could not provide his service to you with the equipment you needed.

But what, if you could combine the best of the two?

Relief your Budget?

Get the System you want?

From your normal Supplier?

Keep this in mind, because I want to share some more with you:

Investment costs is one part, the second is are the operating costs! Again, let us assume that you made it somehow possible to buy that VDR. It is now onboard, and the ship is sailing. Over the years there will raise some operating costs as usual. Every year the Annual Performance Test for about $4000 \in (1500 \text{ for the certificate, rest for the man hours}).$

At year 3 the Beacon Battery needs to be replaced as it is outdated. So, the invoice from the company would be around $4500 \in$. In the following years there are also some repairs and reworks from a retrofit, a new Float Free Capsule and so on. You can see the details in the table below.

Year 1	25.500,00€	APT		
Year 2	4.000,00€	APT		
Year 3	4.500,00€	APT	Beaconbattery	
Year 4	5.500,00€	APT	Microphone failure	
Year 5	7.000,00€	APT	FFC renewal	Capsule Foil
Year 6	6.500,00€	APT	Beacon exchange	
Year 7	7.500,00€	APT	Rework after Retrofit	
Year 8	10.000,00€	APT	Repairs	
Year 9	8.500,00€	APT	Rework after retrofit	Beacon Battery
Year 10	7.000,00€	APT	FFC renewal	Capsule Foil

After 10 years you end up at approximately 86.000€. That is a realistic sum.

If you choose a used VDR, you probably know how these reach the market, you will end up in nearly the same sum. The initial costs may be little less around $9000 \notin$ to $13.000 \notin$ but due to the already done working hours of the equipment, the repair costs will be higher. From our experience the total sum will be around $75.000 \notin$ after 10 years.

About a return of investment (ROI) you can hardly speak.



You can see at the Graph on the previous page that buying new and used will raise the total costs to 100k€ in the end. The grey graph indicates the **Long Term Rental**. This is something we haven't covered so far.

How could it be that this graph is only at $45k \in after 10$ years instead of being that high?

Going back to our assumed case that you need a new VDR. Your supplier handed over his quotation to you. Your first impression might be anger and unconsciousness, but you **remember that there is a solution**. You keep cool and pick up the phone. You call us!

We check your quotation and after 24 Hours we can say if **Ranger Navigational Rental takes over** your quotation. We will offer you the same system, from the same supplier with some benefits at the side.

We offer you now a rental for the VDR for 4422,36€ a year. **368,53€ per Month**, for a system that perfectly fits your ship, from a supplier you already worked together many times. How does that work?

We take your quotation and buy this at your supplier, the supplier will get instantly the money after the successful finish of the job. Inside the monthly rental charge a yearly visit from your supplier is included to perform maintenance tasks, like **software updates**, **renew consumables**, carry out **maintenance procedures**. All this is already included.

What happens, if something fails in the VDR? A failure can always occur. To be honest, is just an electrical Unit like any other System. It can fail and it will fail somewhen. In the first years, it is covered by the warranty from the manufacturer. After this period, **you can decide**. You can order the repair on your own, or you can order the repair at us. We will get a certified representative or even the initial service supplier onboard to get it fixed. **Nothing is more important for us, that your ship can sail**. We will cover the repairs and at the end we recalculate your monthly rate. In some cases, it might be, that the monthly rate will raise a little. Have a look at the below drawn table. Here we have the same VDR with the same failures and services.

Year 1	4.422,36€	APT		
Year 2	4.422,36€	APT		
Year 3	4.422,36€	APT	Beaconbattery	
Year 4	4.422,36€	APT	Microphone failure	
Year 5	4.560,00€	APT	FFC renewal	Capsule Foil
Year 6	4.560,00€	APT	Beacon exchange	
Year 7	4.560,00€	APT	Rework after Retrofit	
Year 8	4.740,00€	APT	Repairs	
Year 9	4.740,00€	APT	Rework after retrofit	Beacon Battery
Year 10	4.800,00€	APT	FFC renewal	Capsule Foil

You can see that the yearly sum just increased by nearly $400 \in$ within the ten years.

Where is the hook?

All Services must be announced at our office. If you decide to do the service on your own or want it to be managed by us. We need to keep our records up to date. **We only use certified representatives** of the manufacturer or the maker himself.

What happens when at the end the rental contract?

The standard rental contract is, depending on the volume, 12, 48 or 72 months long. If this contract reaches the end, you can decide to extend it with another 12, 48 or 72 months. Just as long as you think it is necessary. If you decide to end the contract, the **Unit will be taken ashore** as it is ours.

The ship will be sold, what now?

Again, **you are in full control** of the situation. You can end the contract as per definition inside the contract or you can, shift the contract to the new owner. (only with his agreement)

Can I only rent VDR?

No, that was just a detailed example. We offer everything what is needed on the Bridge. From a single coffee machine up to the full integrated Bridge.

Can I also rent a main engine?

Sorry, No. Everything which belongs to the ECR isn't our business.

Where can I get in contact with Ranger Navigational Rental?

That is easy:

Just drop your Anchor at Port of Hamburg.

Or you call reach us over:

Email: sales@navigational-rental.com

Telephone: +49 40 696 328 74

www.navigational-rental.com

