“Everyone has a plan, until they get punched in the face.” This quote is attribute to former world heavyweight champion Mike Tyson, and today, it is quite a similar reality for terminals preparing strategies in a hyper-competitive market. As of this level of competition, the maritime transportation industry faces both challenges and opportunities. On one hand, revenues are under pressure, and on the other, digitization offers unmet opportunities to improve and change the way organizations work both internally, as well as with their partners. Decreasing waste in joint processes across various actors, activities and even organizations, provides opportunities to unlock efficiencies and decrease costs. One of the ways to improve joint processes is to share more accurate and timely data across actors involved to provide better visibility, and in the end improve the ability to take smarter decisions that impact the bottom line. However, what is needed is a shift from optimizing parts of the process to holistically improving the overall output of the process – end to end, for the greater good.

**SMART SOLUTIONS**

If I think of how smart solutions have helped us in our personal lives to stay up-to-date at all times, aware of changes the moment they occur, with smart suggestions, resulting in fewer frustrations, I think of a shared family calendar. A calendar accessible from anywhere, from different devices with a good user interface, configurable to my personal needs, always updated with the latest status and truth, and proactively notifying me of changes made to our joint schedule by someone else or at the moment I need to start moving to get there on time. These smart tools change how we live our lives.

**THE WORKING NETWORK**

Let’s take a look at the joint process around the container vessel visit. There are approximately 600,000 container vessel visits a year delivering and receiving containers. And each visit involves quite a complex multi-party process where many things can and do go wrong. The aim, of course, is to sync all different activities in the best possible way, meaning that the berth is available at the actual time of arrival (ATA), the stowage is agreed the moment the terminal can physically start working on the vessel and third party activities take place in a way that they do not impact the container handling. Involved actors span from the carrier, the vessel, the terminal and other third parties that deliver services or are important stakeholders of a vessel visit. All these actors strive to deliver a good, stable service and by that provide predictability. To do this efficiently and effectively, they must stick to their plan.

Involved actors on the carrier side can be the Marine Planner, the Central Planner and the Port Captain who are responsible for the vessel schedules and berthing times, the stowage and managing the port stay and related activities. At the terminal, there is the Berth Planner, the Vessel Planner and many other actors that prepare or support the handling of containers during the vessel visit. Finally, on board the vessel, the Chief Mate and other third parties like agencies, repair men and other ancillary service providers have stakes.

What is important to consider is that all these actors are involved in this one joint process of getting the vessel to the
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port, into the port and out on time, where every actor contributes at one specific or multiple points in the process, as seen in the illustration. In the end, this process is interconnected with dependencies that impact other actors’ activities. Currently, with each actor acting to improve only their piece of the process, the result is waste which results in unintended consequences, such as increased waiting time, mistakes and rework, to name just a few.

The participants involved do carry out many critical activities, from creating the best possible stowage for a stable, reliable performance to getting as many containers handled as possible during a port stay to sailing with the best possible stability conditions.

While each participant works to meet important targets with some common interests, at the end of the day the different actors prioritize to push to achieve what is best for them which most often results in suboptimal overall results. Why is this the case? Is it because of a lack of a common incentive, missing tools that support better joint decision making, no shared single source of truth, lack of standardization, communication between parties, or not being aware of the effect of a delay on other activities? We believe it is a combination of all of them.

SECURING SUCCESS

So what makes a vessel journey a success? It all comes down to coordinated activities happening in time without causing delays anywhere in the process. In the example of a vessel journey, this could be the vessel arriving on time without having to speed up or delay prior to the port, getting there at the moment the berth is available, with gangs and equipment being able to handle the containers and the stowage plan reviewed and agreed to by all parties. This allows the terminal to execute sequences that are supported by the yard, getting as many as possible containers handled within the planned time and resulting in a stowage that matches stability requirements.

The importance of all this is that waste comes at a cost and therefore has a negative business impact on everyone. Take rising fuel costs, for example. This has a huge impact on the carriers and shippers that, ultimately, pass increased costs on to the consumers. Reliable and efficient vessel journeys are, therefore, ever so important.

So what could possibly go wrong? Well, unfortunately, a lot. We see disconnected planning processes and solutions focused on helping actors address specific optimization problems, getting the best result for a part of the process, but not overall. We find that actors are often unaware of others’ activities and their status on a process level, both internally as well as across different organizations.

At the container level, for example, the carrier may not even be aware of which containers that are booked for a vessel are actually already at the facility, containers that have a load permission by customs, and so on. And even within a terminal, one actor can sit on information that is relevant for another actor to take the next step or prepare accordingly. These cases, as an example, lead to a lot of unnecessary last-minute requests and negotiations, and cause delays, rework, mistakes and in the end result in added costs. In some cases, the costs for various organizations from the carrier, the agencies and the terminals are involved.

Another example is the lack of sharing EDI files on time, which are needed by the different actors to perform their tasks. And yes, this is difficult due to the dynamic nature of vessel schedules, short transit times and the number of different agreements that carriers and terminals have that vary per service and terminal.

In the worst case, the examples above (that actually happen all the time across all ports and carriers) result in actors not being aware of changes or events that impact their work. Tasks get prioritized in the wrong way, impacting others’ work, leading to rushing to get activities done, introducing mistakes and slipping important fine-tuning steps. Furthermore, unnecessary inquiries and negotiations cost everyone time and cause frustrations. The plan seemed great, until reality interfered and punched us in the face.

Often, the target of reducing port stays focuses on improving productivity by investing in faster equipment or in multi-lift capabilities. And while this is not wrong, it will never allow us to tackle the waste that sits in other parts of the process, such as in the preparation phase. Poor vessel visits are often the result of a suboptimal planning phase, where waste lead to a bad plan to execute. Sharing information late, starting to plan late, miscommunication, mistakes and skipping important fine-tuning steps can all be traced back to not having the right means or information to prepare vessel calls in the best way.

Going back to the initial example of how a joint calendar impacted our personal lives, wouldn’t a common joint planning workflow with real-time visibility into activities and their status help with raising more awareness so that everyone can work more productively and focus on what really matters, according to the latest priorities? Why don’t we leverage features that we are so used to in our personal lives?

ABOUT THE AUTHOR

Patrick Bremer is the Team Lead of Applied Innovation at Navis. He has held a variety of positions within container terminals and has been a part of the ATOM Labs team in Rotterdam, the Netherlands for 3 years. He and the other experts on the ATOM Labs team help to bring a customer-centric approach to innovation at Navis. The ATOM Labs team collaborates with other internal teams, departments, and customers to accelerate innovation within Navis.

ABOUT THE ORGANIZATION

Navis understands that as operational processes become more complex, efficiency, collaboration and productivity are essential. As a trusted technology partner, Navis offers the tools and personnel necessary to meet the requirements of a new, and ever-evolving, global supply chain. The Navis N4 terminal operating system is a platform that can integrate partner technologies, enabling terminals to optimize productivity and enhance the service delivered to its customers.

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