

## WÄRTSILÄ SIMULATION CLOUD SERVICES



### **An innovative Smart Simulation Solution enabling you to deliver remote simulation-based training on demand**

As the maritime industry embraces greater use of blended learning techniques, *Wärtsilä SMART Simulation* can now be a part of your strategies for online training, expanding your educational solutions portfolio, and allowing you to reach trainees requiring simulation based training in new markets anywhere in the World through simulation cloud services.

Wartsila's quality and trusted simulation platforms are now available via the cloud as a complementary service to traditional simulation-based training on physically installed systems, allowing training outside of the regular schedule, and beyond the physical confines of the classroom.

Our navigational and technological simulation platforms have each been adapted and enhanced for deployment in the Cloud environment on virtual machines, with user interfaces optimized for use via a remote desktop connection on a variety of devices. Flexible simulation configurations for navigational, engineering, cargo handling and communications training are provided.

The initial focus of the offered solution is on Instructor led training, but student led instruction can also be accommodated.

A major advantage of the offered solution is that the cloud-based simulation offers exactly the same platforms as our physically installed simulators, sharing the same simulation software to maximize commonality and efficiency.

Wärtsilä Cloud Services provide global reach, extending Simulation beyond the physical classroom to expand our user horizon into new markets through cloud-based software as a service (SaaS) and advanced collaboration solutions.



## BENEFITS

Wärtsilä simulation cloud services provide several tangible benefits for users;

**Accessibility and convenience - ease of access and use, anytime, and anyplace.**



**Device independence - Run your training on a Windows 10 or Mac PC, a tablet or other mobile devices.**



**Sustainability - less infrastructure and less travelling provide efficiency and sustainability.**



**Compatibility - You can use your existing exercises, same engine room models, ship models and exercise areas you would use on your physical installation. The same software ensures full compatibility.**



**Savings – Less infrastructure costs and travel expenditures provide immediate savings.**



**Flexible configuration – Use the number of workplaces you need, when you need them, and with the specific simulation tasks or equipment interfaces needed.**



**Less risk – Build business using online simulators first, then further expand the training portfolio by investing in physical simulators when the customer base is identified and committed.**



**SaaS Model – No need for a sizable capital investment in simulation before training begins, as services are charged on an ‘as used’ basis.**



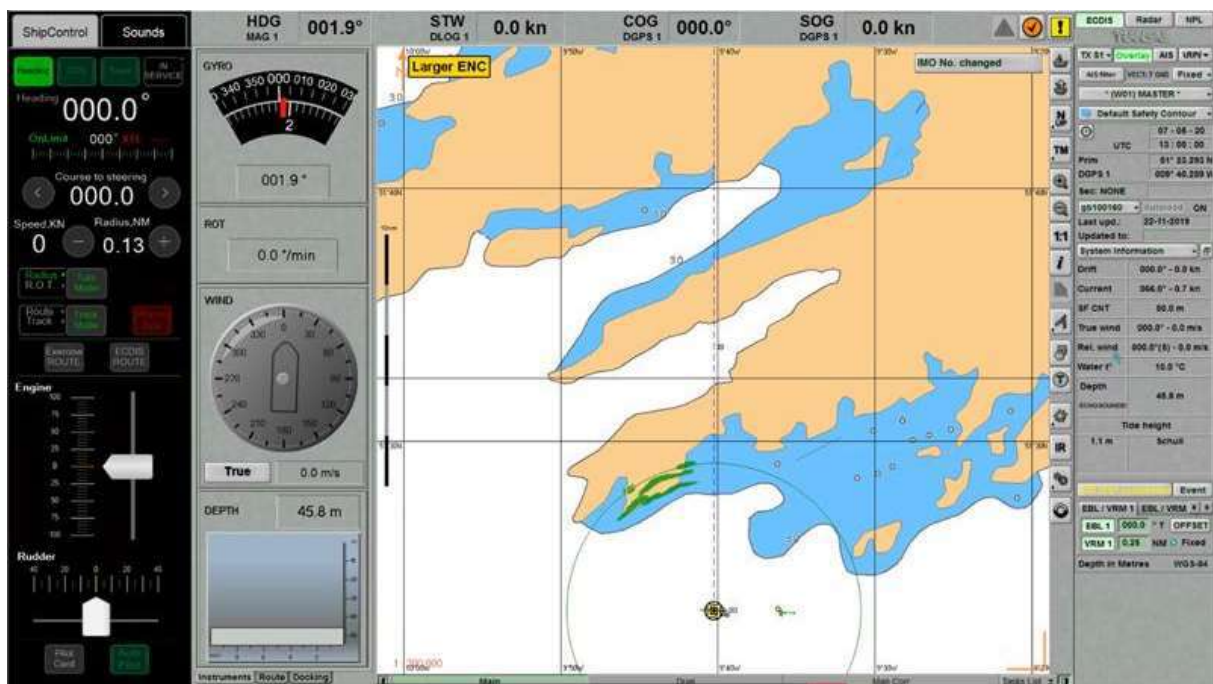
**Collaboration - The online capability creates a good base for enhanced collaboration and sharing of content. A training provider can easily appoint an external instructor who has a competence which the training provider doesn't have. Rather than bringing that instructor in physically, he or she can run that training remotely, saving on associated travel and other costs, whilst potentially opening up new business and markets. Train or instruct from anywhere in the world. No restrictions as long as there is an internet connection.**



## TRAINING APPLICATIONS

Cloud systems may be utilized for preparation, conduct or debrief of exercise scenarios, using the same Instructor interfaces as your physically installed simulators, with exercise, log and databases files saved in the same format and accessed in the same manner.

NTPRO cloud solutions currently support a variety of Instructor led classroom applications such as Radar, ARPA, ECDIS and other typical navigational training. Users may use copies of their own exercises from your physically installed simulators, or create exercises online using the cloud solution. All standard Wärtsilä library ship models and exercise areas are supported. We recommend use of exercises from versions 5.35 or 5.40 for best results, with logfiles available and supported in 5.40.

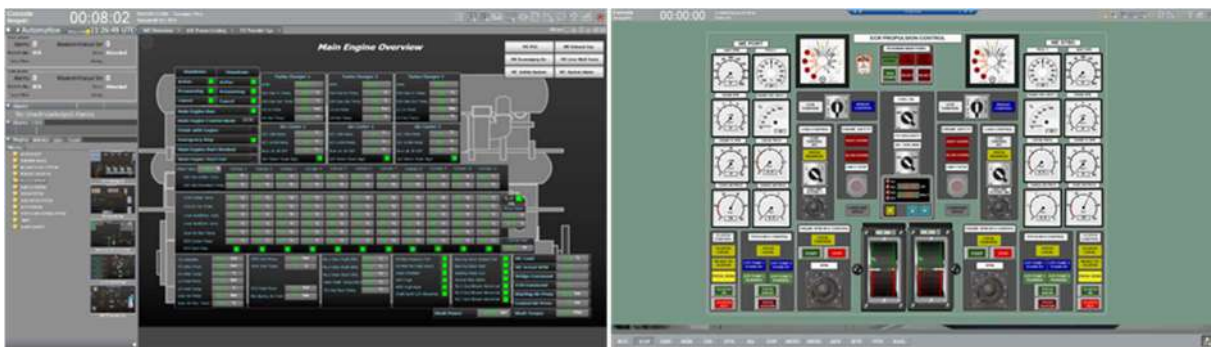
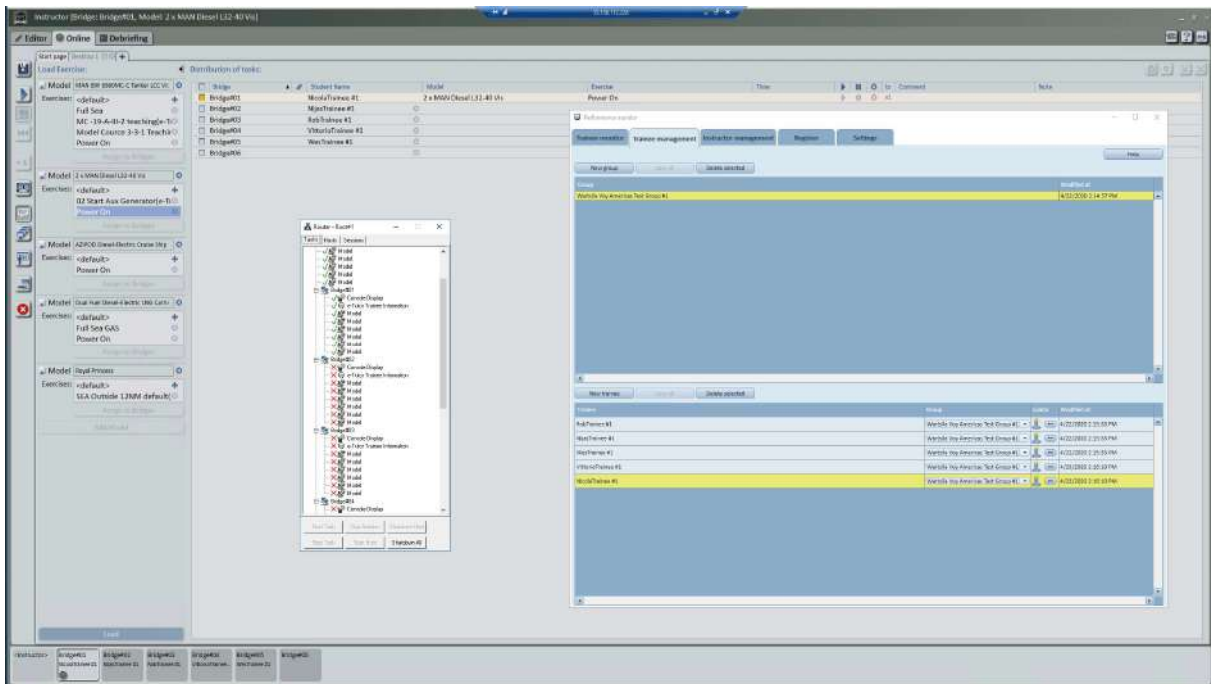


Student NTPRO bridges utilize either a single ECDIS or ARPA/Radar screen with available vessel controls on screen or can be configured with dedicated ECDIS or ARPA/Radar screen plus a second screen for visualization and ship controls. The visualization configuration will be available in August of 2020.



Classrooms can be configured for one or two Instructors, and typically up to twelve student 'bridges' or workplaces. Both individual and group exercises can be operated, just like the simulators installed at a training centre.

TechSim supports both engineering and liquid cargo handling training on all currently available library models, including our recently released LNG Bunkering solutions. Again, TechSim users may use copies of their own exercises from your physically installed simulators, or create exercises online using the cloud solution.



Cloud Simulation may be used to give students the opportunity to familiarize themselves with equipment prior to attending courses at the training centre, as well as course preparation and skills refreshment.

Once students are on site, cloud simulation can continue to be used to solidify learning through additional simulation exposure after class hours are complete, for examination preparation, and for additional practice on scenarios to ensure a thorough understanding of instruction, and to ensure learning objectives are met. Use it to supplement classroom training for students who need more time to achieve the necessary level of competence.

## ACCREDITATION

Should you require support in achieving accreditation with local authorities for use of Cloud Simulation, we would be happy to assist you with demonstrations, documentation, or other necessary support services.

## USER EQUIPMENT REQUIREMENTS

Users should ensure that they access Wärtsilä Simulation Cloud Services via a consistent internet connection, ideally with a minimum 0.5-1Mbit connection for typical control interfaces, and 3-5Mbit/s for visualizations and 3D.

Currently we recommend accessing cloud simulation via a typical windows 10 PC with keyboard and mouse. Instructors and students can use a single monitor, preferably 20" or above, however we recommend use of dual monitors wherever possible, particularly for Instructors, to facilitate instructional oversight, monitoring and ease of operation of the simulator.

Testing of the solution on IPAD and MacBook's has also been successful and will be officially supported before the end of 2020.

Currently communications between Instructor and students, and between exercise participants can be achieved using a collaboration software solution such as TEAMS or ZOOM in parallel with the simulation.

Please note that Wärtsilä Cloud Simulation utilizes the latest versions of our simulators, so it is recommended to keep your physically installed simulators up to the latest production version via a Smart Support agreement, ensuring full compatibility.

## SCHEDULING OF CLASSES

Classes can be scheduled online via the Wärtsilä Simulation Cloud Services portal, and are available 24/7, 365 days per year. Once logged in to the portal users will be asked to input details of the date, time, duration, and configuration of the required class, and can adjust scheduled classes as needed. A confirmation email will be sent to users once the class is scheduled, and the class configuration will be automatically setup and prepared in the cloud on the necessary virtual machines in advance of the scheduled class start time. Instructors/organizers will receive the necessary files and information for all attendees to login and join the class. Once a class is complete the simulator will be automatically shutdown and associated notification sent to the Instructor/organizer.

## AVAILABILITY

Wärtsilä Simulation Cloud Services will be available from July of 2020 for Instructor Led training on our Navigational and TechSim platforms. It is expected that our GMDSS communications simulator will be available online before the end of 2020. Existing customers can sign up now in and start scheduling online training sessions in preparation for the summer classes.

If you require further demonstration of the solution for your team of Instructors, please do not hesitate to contact your local Wärtsilä Simulation Account Manager.

## STUDENT LED TRAINING

Although the initial focus of our cloud simulation is Instructor led training, it is intended that student led training will be available before the end of 2020, and will be provided via an online learning management system (LMS), or via a standard interface to your own LMS that will allow your LMS manager to exchange information directly with our Cloud services. More information can be provided regarding LMS interfacing upon request.

## SUPPORT

Support for Cloud services will be provided via our customer support portal and in line with your existing TRANSERV or Smart Support Agreement. Technical and operational support is available around the clock. Should you require immediate engagement with our support team, use online chat with PC or mobile devices to get answers to your questions immediately. Cloud based virtual machines used by Wärtsilä are remotely monitored for status and system health to ensure optimal performance at all times.



## SECURITY

As a Wärtsilä cloud services customer, you will benefit from an online infrastructure built to meet the requirements of the most security-sensitive organizations. Simulation and associated data is always maintained within a secure environment and fully managed by Wärtsilä's team of experts.

For a fixed monthly fee, each organization can enjoy dedicated storage for exercises, logfiles and other data, as well as unlimited 24/7 access for Instructors to prepare test and analyse exercise scenarios.



## GETTING STARTED

If you are ready to get started with Wärtsilä Simulation Cloud Services, please ask your Wärtsilä Account Manager to prepare a registration form for you to complete, and review our Cloud Services terms and conditions at <https://www.wartsila.com/transas>

Registration is per year, with agreements auto renewing three months prior to the completion of each year unless agreed otherwise in advance. Once the registration form is completed and submitted to your account manager, you will be contacted by one of our Project Office team to setup your registration on our portal at which you will schedule classes and interact with our support team should assistance be needed.

Fees for usage are charged as a service per hour per virtual machine, in arrears, based upon actual usage, notwithstanding any monthly fees for storage, access, processing, or other services detailed in the registration form.