

DEEP SYNCHRONIZATION

Marine Learning Systems supports vessel-based servers for use in disconnected or poorly connected environments. These servers synchronize with the central server when connectivity is available.

As a technology-first company, Marine Learning Systems has developed a completely new and highly advanced synchronization technology called Deep Synchronization. With Deep Synchronization, essentially all of the data in the LMS database is synchronized between shore and all vessels. This is far superior approach to the one taken by competitors, where typically only user information, registrations and scores are updated.

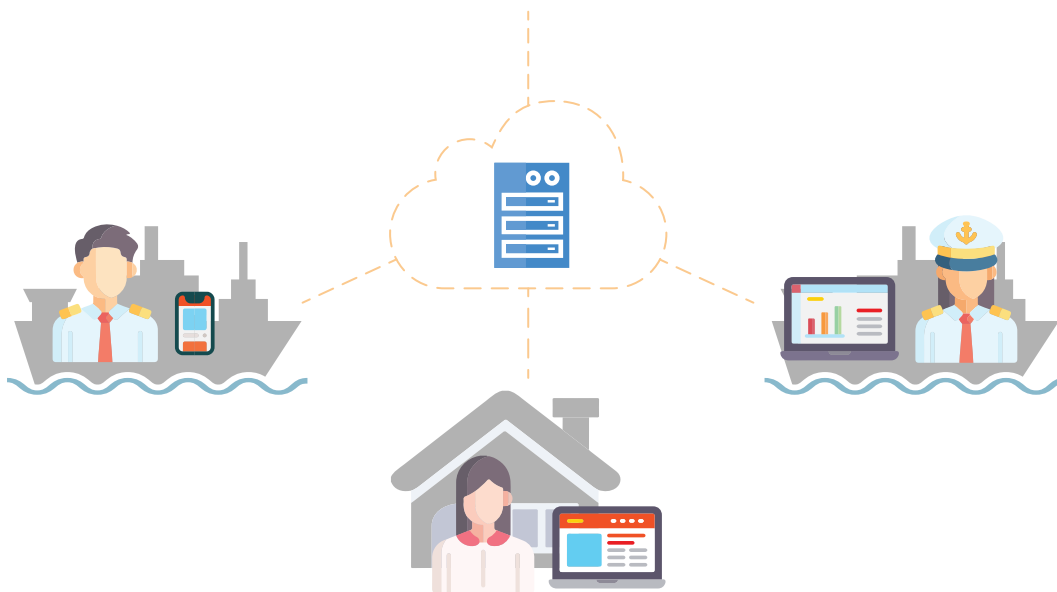
BUILT FOR ADMINISTRATORS

The LMS is administered as though it is a single, shore-based system. There is NO additional effort required to manage the vessel-based LMS, including when adding courses, updating the site, etc.

All system data, whether collected on shore or on vessel, is available at your fingertips in the shore-based LMS. This means that you always have access to current training progress across the entire organization.



It also means that audit investigations can be easily conducted and that sophisticated learning analytics can be developed in a way that others can never support.



BUILT FOR USERS

Users see the most up-to-date system regardless of where they access the LMS. Their records and learning progress is always synchronized, allowing them to move from vessel to vessel or to shore, transparently.

UNDERSTANDING DEEP SYNCHRONIZATION

SYNCHRONIZE ACROSS ALL VESSELS:

New courses that are added or any change made to an existing course.

Non-course content that is added or updated, such as management communication videos, deck plans, safety bulletins, HR documents, etc.

Updates to your LMS look-and-feel, colors, or navigational structure.

User profile updates (role, vessel assignment, rank, etc.) that are made either manually or via our extensive enterprise integration capabilities.

All individual training and learning progress, and assessment results.

Fine-grained user activity and audit records, for example: each answer choice made on exams and their timing, acknowledgements, exam start and stop times, logins, logouts, time spent on the system, what content was viewed, etc.

All software updates, including new features and custom client configurations.

With Deep Synchronization, the central LMS and all the vessels have essentially **ALL LMS data**, regardless of where in the fleet the records were generated. When any data is updated on a vessel or on shore, that change is synchronized across the fleet. The implications are enormous.

SO THAT:



Learning content updates done on shore are sent seamlessly across the fleet.



Every resource is automatically sent to all vessels for immediate access by your officers and crew.



Changes are reflected automatically across the fleet and everyone sees the most up-to-date site.



Crew records are always up to date across the fleet and crew are registered in the training they need, regardless of their location.



Trainees can move from vessel to vessel, or vessel to and from shore, even in the middle of courses.



Sophisticated learning analytics can be accessed on shore, using fine-grained data collected across the entire fleet. All records are at your fingertips for detailed audit and investigation purposes.



Software changes are applied using a fully automated process.

WHY DON'T OTHERS SUPPORT DEEP SYNCHRONIZATION?

That is simple: because Deep Synchronization is a hard, complex problem. It cannot be added to other LMSs as a new feature, which is why no one else supports it. Our LMS has been developed from the first line of code to support Deep Synchronization with advanced techniques to address high-cost, low-bandwidth and high-latency networks.

We are a technology-first company staffed by Computer Science and Education PhDs at the leadership level with research backgrounds including distributed databases and communication protocols. This is why Marine Learning Systems stands alone in maritime Learning Management Systems technology.