# "IoS Open Platform" adaptive scheme to implement maritime data



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**Abstract:**

Thanks to rapid advances in the development of information and communication technologies, it is now possible to collect large volumes of data on a diverse range of items related to ship operations. However, the approach to data capture is still very fragmented with similar data being sent to several vendors and analysis still being carried out almost entirely on a ship-by-ship basis. To make larger gains, an effective platform capable of centralizing and managing such diverse data is essential. However, creating and maintaining this kind of platform is costly, time-consuming and unrealistic for some organizations. Furthermore, special care needs to be given to the handling of data to ensure confidentiality of information; hence it is also necessary to establish a secure yet effective platform from an impartial perspective. ClassNK and its subsidiary Ship Data Center Co. Ltd. has investigated how the industry can utilize so-called big data teaming up with shipping companies, shipbuilders, suppliers, ICT companies, and other related parties. For sharing and the data in the industry, shipping companies as the data source have pointed out the necessity of the general rule for data property and distribution as well as the secure data center. Responding the needs, ClassNK and Ship Data Center has designed the scheme which shipping companies are able to provide the data with less concern, and data users in the industry can utilize for development and improvement for their product and services. The paper describes the above-mentioned scheme of "IoS Open Platform" consist of the data center with various functions to encourage the data use and "set of rules" to store, exchange, utilize the data, as the model of data sharing and distribution in the industry.