

Digital Continuity with Obbligato PLM



Introduction

Industry 4.0 is challenging the status quo and creating new opportunities for the digital transformation of business processes and business models. Product design and development, production, supply chain, logistics, and services within and between companies is now being intermeshed intelligently to make end-to-end product lifecycle management even more flexible and efficient. Leading companies in the manufacturing industry are expanding their PLM systems and adding intelligence along the value chain to allow them to rethink the products and processes they offer, rethink their operations, and invent new services.

In an era of digital continuity, product data is still often managed in data silos of ALM, PLM, ERP and legacy systems that are only partially, if at all integrated. Secure

and efficient access to consistent and up-to-date product data over the entire product lifecycle is clearly needed. PLM is an enabler for Industry 4.0 because it integrates the development of products, production, and services. Using PLM in collaborative processes has become increasingly important to harness the power of data to foster innovation, make new and differentiated “smart” products, improve supply chains, create new customer experiences, and deliver new sources of value.

As a world leader in technology consulting, IT, engineering and R&D services, Capgemini is uniquely positioned to work with clients across the end-to-end value chain of Intelligent Industry, from the business models, to products, operations, and services.



Discovering Obbligato PLM

In 1991, NEC introduced Obbligato, the PLM platform for clients who wanted to adopt digital manufacturing by managing their entire product data and lifecycle. In APAC, Obbligato has been dominating Japanese market share in PLM for 24 consecutive years, being successfully deployed at for more than 1,000 clients.

Obbligato, the PLM platform, has strong bill of materials (BOM) management capabilities and features covering the product conceptualization, engineering, and manufacturing phases of the product lifecycle. Obbligato has a solid architecture, which provides clients with a user-intuitive interface that is designed to configure easily and functions according to business needs. It has loosely coupled architecture that connects the user to echo systems in order to exchange product data and manage traceability of the product.

Obbligato PLM architecture is well matured in adapting the recent trends and technology. Its loosely coupled architecture can integrate with all echo systems, including CAD, ERP, and legacy systems. It has a rich customization stack, which makes it possible to customize both client and server to meet customer-specific requirements. Overall product manufacturing processes, such as BOM and bill of process (BOP), can be seamlessly managed in the Obbligato PLM.

Obbligato features

Strong framework

With 25 years' presence, and being a Japanese-developed PLM product, Obbligato has a strong and stable framework backed by the latest technologies to provide clients with a user-friendly application. The framework provides multiple configuration options to configure product data models and processes according to business needs. It has different levels of customization, making business adaption and implementation capabilities. It places great importance on security to ensure that data is not lost or corrupted. Cloud support is forthcoming in upcoming upgrades so that it can be deployed and configured with minimal time and effort. Obbligato focuses on IoT-enabled and AI-enabled integration for its future endeavours. With these significant features, Obbligato is a strong PLM tool for all manufacturing and engineering solutions.

Wide range of application stack

The Obbligato PLM offers a wide range of applications covering different phases of product lifecycle management. Product requirements management, traceability of parts, and BOM ensure that the requirements are accurately transferred into design. Obbligato offers secure and efficient management of MS office and CAD files with revision management along with maintaining their relationships with respective parts. BOM management is the backbone of Obbligato PLM. It offers a variety of features to build the engineering BOM (E-BOM), provide options to build the manufacturing BOM (M-BOM) and the BOP. This facilitates seamless transition of product data from engineering to manufacturing, in addition to document management, cost management, project management, and data leakage prevention.



Some of the key features of BOM/BOP management in Obligato are:

Centralized management of BOP

- Accumulation of manufacturing knowledge that can help in staff training
- Productivity improvement with standardization and diversion of manufacturing processes.

Integrated management of BOM and BOP

- Standardization of equipment by promoting product design that is conscious of equipment and processes
- Productivity verification results and early feedback on product design
- Impact on parts, processes, and equipment due to design changes or defects that can be quickly traced.

Linking PLM-SCM-MES

- Production instructions and information to the manufacturing site
- Fast and accurate communication
- Quick and leak-free design change support throughout the manufacturing process.

Global sharing of BOM and BOP

- Global short-term launch of new manufacturing site
- Helps in understanding demand fluctuations, unforeseen circumstances for fast and flexible production transfer
- Helps maintain consistent manufacturing quality across production lines.

Industry-wide solutions

Obligato is now being used by 1,000+ customers in major industries, including industrial equipment manufacturers, heavy machinery, automotive and transportation, medical device manufacturers, CPG, food and beverages. With extensive PLM implementation experience and wide industrial knowledge and expertise, the Obligato PLM solution team has designed and developed industry-standard template solutions that can help clients with a quick PLM launch.

Obligato license management

The Obligato on-premises deployment model offers a floating license model for specific applications in Obligato PLM. In addition, Obligato is available on subscription models, such as SaaS.

Collaboration between Capgemini and NEC, Japan

Over the past years, Japanese companies with worldwide operations have started global PLM rollouts to use PLM as a platform for their digital manufacturing journeys. Obligato has strong internationalization (I10) and localization (L10N) support. This enables local language support for global companies, helping to establish a single instance of Obligato PLM by using industry-standard business processes. A step towards PLM being a single source of product data.

In order to make global customer rollouts successful, NEC signed a system integration partnership with Capgemini. This enables NEC to extend their network to support customers not only in Japan, but also globally. With Capgemini's global spread and PLM capabilities, Obligato customers now receive 24/7 support to seamlessly run their business operations in PLM.

Obligato is also available as a subscription-based model for customers who may want to use Obligato in the SaaS mode. Obligato SaaS is widely used by customers in Japan, China and Thailand to provide low-cost ownership and on-demand product data management for their product lifecycles. A SaaS portal is available to customers. Customers can view their chosen services, track their consumption, get reminders and updates as they become available.

Capgemini has been working with NEC since 2018 as their development and system integration partner. We have seen Obligato emerge as a modern PLM application supporting digital continuity across global operations.

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