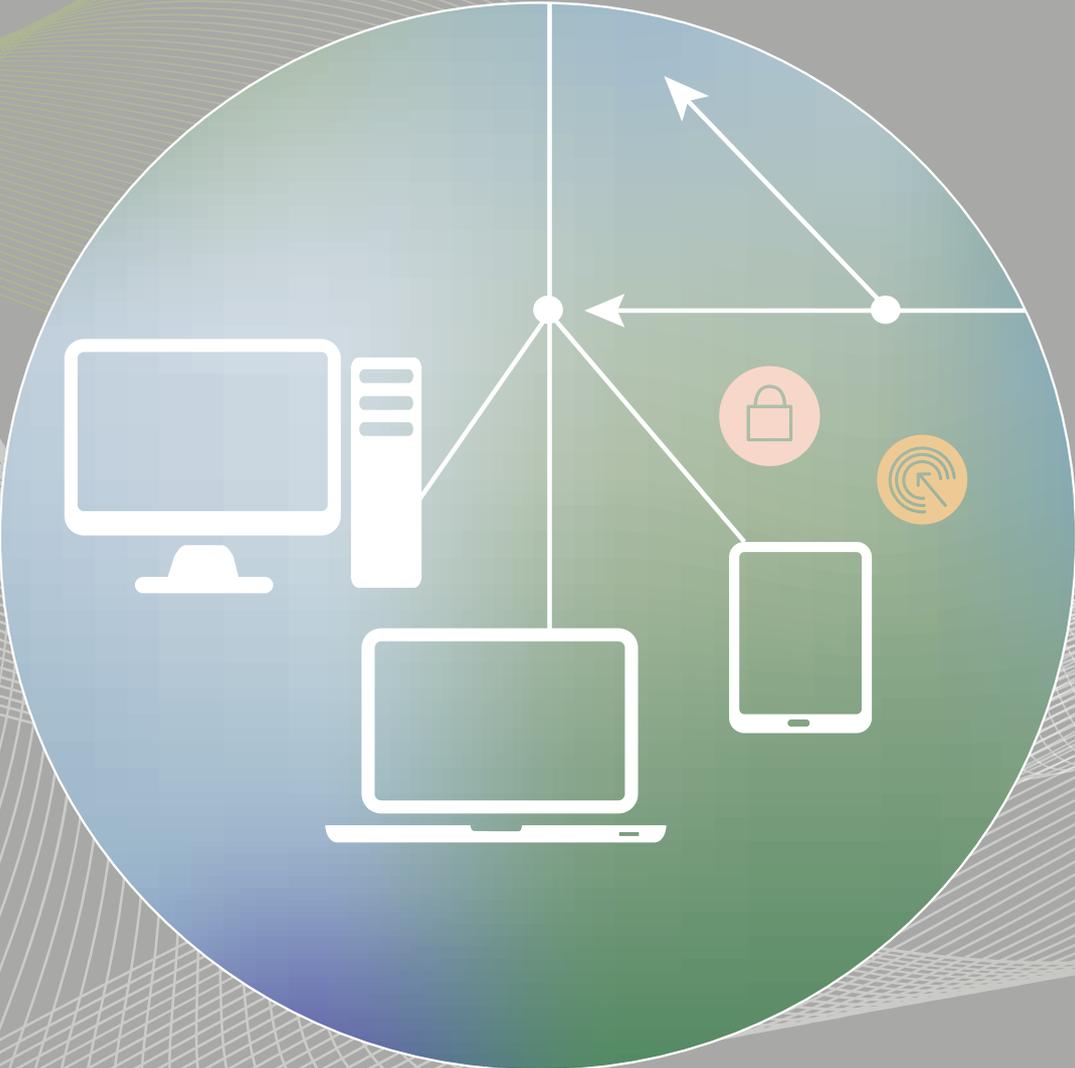




Services

Integrating automated Dangerous Goods management solutions



National and international rules and regulations regularly change, which directly impact logistic processes, related documentation and reporting requirements. It is very challenging to let these changes impact your workflow processes at a minimum, and at the same time to comply with the applicable rules and regulations changes. This means that all required reports, documents, workplace instructions, product labeling and safety measures have to be prepared and have to be up-to-date. Next to this, differences between various regulations should be known. For example, goods can be dangerous according to the Globally Harmonized System of classification and labeling of chemicals (GHS), but might not be considered dangerous for certain transport regulations.

DGOffice offers a complete set of tools to support organizations in all aspects of the management of dangerous goods. The modular design ensures that only the software modules required are used. All of them share the same promise: provision of adequate, error-free and up-to-date information and documentation against the smallest time-investment imaginable.

DGOffice is designed to operate together with the most common administrative computer systems and can be integrated within your own network environment.



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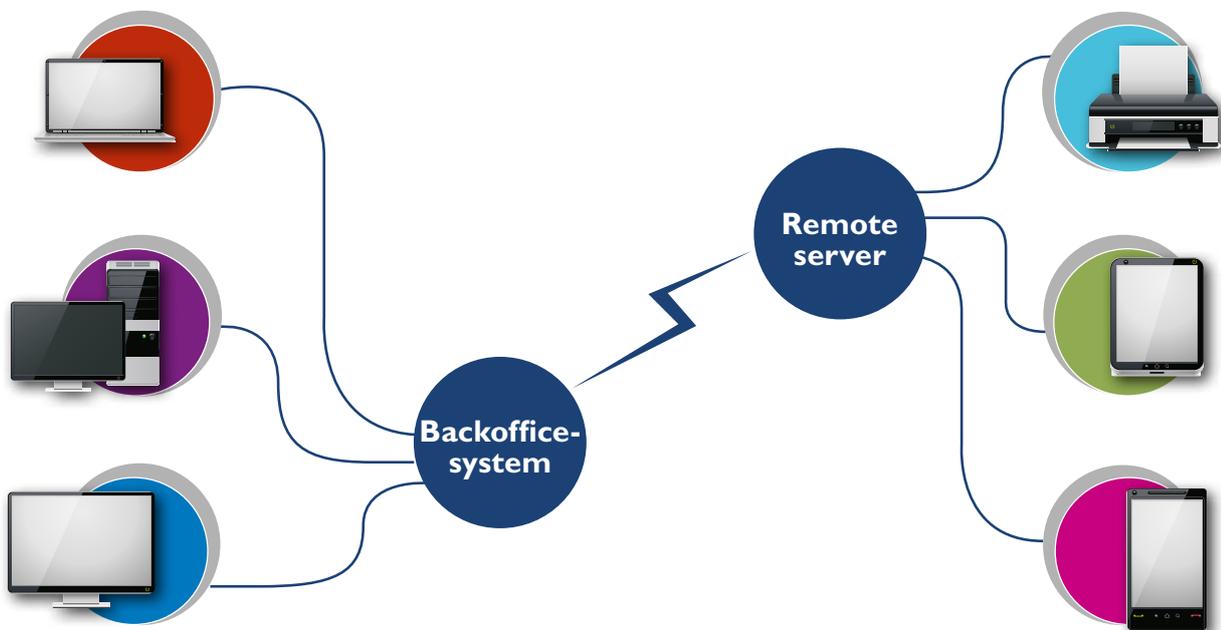
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More information about the DGOffice software modules can be found in our other brochure named 'Safety first'.



Dangerous Goods Management Integration

In order to fully benefit from the DGOOffice tools, integrating an automated dangerous goods logistics solution, such as DGOOffice Remote Server, to existing back office systems creates tremendous additional value. Moreover, back office systems will become more effective and efficient.



Remote Server | Get the most out of your current back office system

DGOffice Remote Server is a remote support system that can integrate dangerous goods management solutions into existing work environments. It adds dangerous goods logistic solutions to existing back office systems like Warehouse Management Systems (WMS), Customer Relation Management (CRM) or Enterprise Resource Planning (ERP) solutions such as SAP.

How it works

A user works on a corporate back office system and produces orders. Normally, article numbers or descriptions being used are not related to, for instance, UN or CAS numbers. The moment an order is closed and released for shipment to the customer, the system generates a file containing the basic order information, the company article number and the quantity. This file is sent to the DGOffice Remote Server via the local network or the internet. DGOffice Remote Server reads the file and processes the content. Based on this, the requested document(s) or information is generated and sent to the printer specified, returned as electronic files via email or back to the system.

The actual solutions are processed in a separate remote system, the DGOffice Remote Server. The interface connecting the two systems is running in the background and is triggered by user-initiated actions, e.g. on the order processing system. This can be anything from a new order to a change in the status of a shipment. The user does not have to take additional actions, other than collecting the processed documents from the printer, the email system or other specified file location.

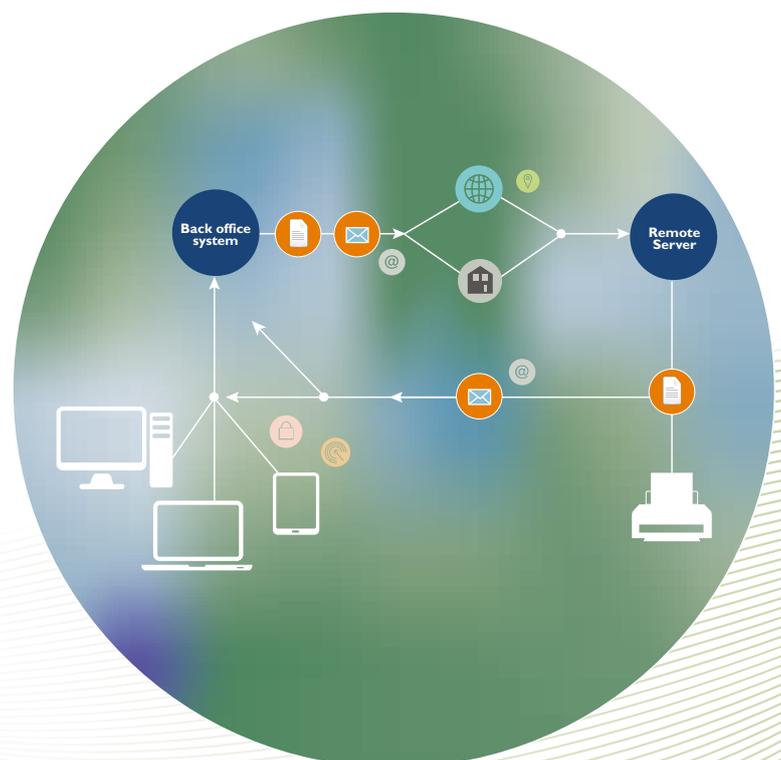
Capabilities

Solutions offered by DGOffice Remote Server:

- Automatic generation of dangerous goods declarations for shipments in any mode of transport;
- Printing the declarations on any printer defined in the users' network;
- Preparation of the declarations in PDF or XML (E-freight ready);
- Adding (version controlled) documents like SDS or Handling Instructions to declarations based on customer requirements;
- Instant or batch order processing.

A more in-depth view

In general, a typical order processing system works with articles. These articles have a unique identifier, such as the article number. All other objects specified for a single



DG automated solutions



article are linked to the article number on database level, such as the trade name, pricing, location or stock. When a customer orders a quantity of a specific article, the user will only have to enter the article number and the order quantity. Everything else is automatically added from the connected database.

The DGOOffice Remote Server has a similar setup, but for dangerous goods only. The database is built around unique identifiers. Selecting a specific ID will provide all related data available.

Article classification

Key in the DGOOffice Remote Server setup is the connection between the article number in the order system and the ID used for the dangerous goods data. This so called article classification can be done in two ways. The first option is to maintain all information in the order processing system, meaning a complete set dangerous goods information (including the key) needs to reside in the system. The dangerous goods key needs to be assigned to the article based on the characteristics of the article, which can be found on the SDS. Also, the chemical and/or technical name (if required), type of packaging and required quantity have to be defined.

The second option is that the article classification is handled entirely by the Remote Server, using the Own Products Module. A major benefit is that it saves time and money because no additional development work is required in your back office system. Moreover, in terms of data safety, maintenance can take place on the Remote Server, without having to access your main system.

Connecting and processing data

Once the order is ready and shipment papers have to be made, the back office system generates a message for the DGOOffice Remote Server. This message needs to be in XML or another defined format. If there is no message generator tool available in your system, some additional

programming is required. The message contains the shipper and consignee information, the method of transport required as well as the article information and the dangerous goods key. Depending on the way article classification is handled, additional information might be needed. A specification of the message format and content is available on request. In the message the type of output and where it should be delivered is specified. For instance, the declarations can be sent to a local or a remote printer. Messages can be processed instantly or stored for batch processing.

Generating results automatically

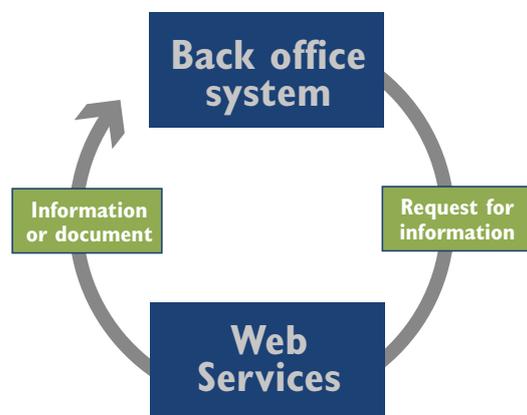
The DGOOffice Remote Server generates the required information or documentation as specified in the message. If the articles are maintained in the Own Products Module, it will take all relevant information from there. However, it can be overridden by the message itself. In case declarations are requested in the message, DGOOffice Remote Server will generate those including all required translations and additional information. An interesting option is to utilize the DocMan Module. Here, additional documentation like SDSs, Handling Information or Work Place Instructions (WPIs) can be printed along with the declarations. If version control is used for these documents as well, the customer will automatically receive the latest version. If the DGOOffice Own Products Module is used for classification, the additional documentation can be connected to articles, taking automation of the documentation process to a higher level. Output data can be printed documents or electronic versions of the declarations in PDF or XML format.

Web Services | Interfacing systems

The DGOOffice Web Services can be used to interface with your existing system to eliminate double work, enhance quality, reduce errors and improve efficiency. The general setup is to enable you to send requests for information to the service, and the service replies with the information.

Additionally, a basic dangerous goods related database table can be loaded in your application, which can be connected to your products, shipments or another main process element to reduce the information requests. When the process requires specific information or when a document has to be generated, the application produces an XML, ASCII or other format file. This file is automatically transferred to the DGOOffice Web Services. The Web Service processes the file and creates the

requested information or document while taking the regulations and customer specifications into account. Finally, the Web Service returns it to the application.



Databases | Smart data

DGOOffice develops, maintains and distributes all kinds of data regarding dangerous goods, its production, storage, handling and transport.

All data is based on (inter)national rules, regulations and laws. Besides that, DGOOffice is constantly improving the data set by adding relevant data and creation of so called smart data, which provides the additional value to the regulatory data.

Examples of smart data:

- Cross referencing between the various modes of transport and variations in regulations;
- Auto segregation and stowage parameters inside packages, overpacks, pallets, containers, trucks and even vessels and warehouses.

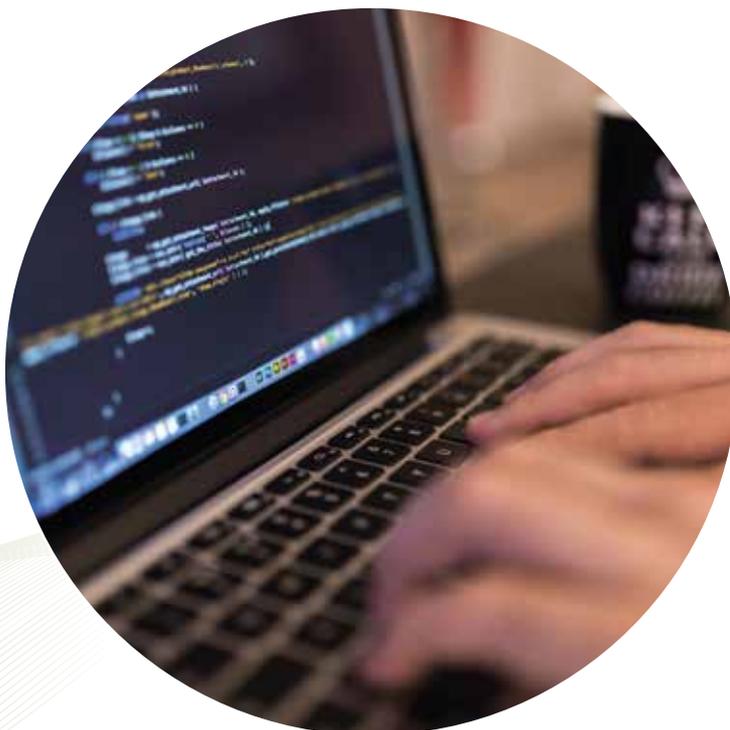
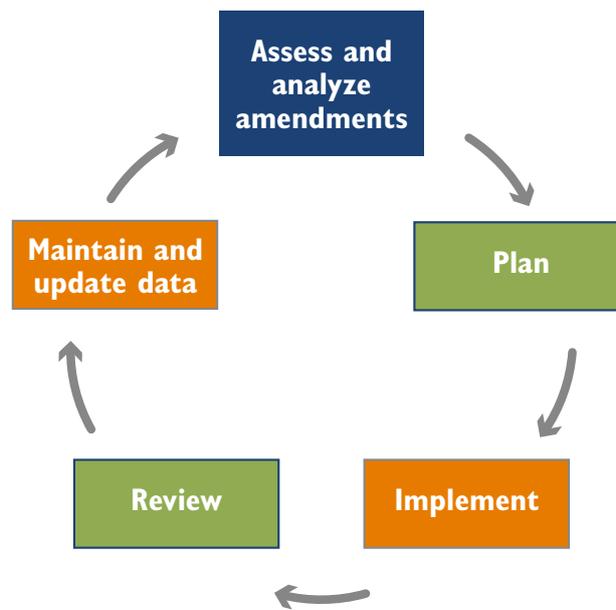
This data is available for integration in existing applications, as extension of our web services, or as part of our interfacing service.

Maintenance | Take care of data

Mostly, companies take care of their data maintenance themselves. This means that a specialist has to be in house. One who has to stay updated on the continuously changing regulations, understands what is and what is not applicable, and knows how to implement it correctly.

For dangerous goods, the data is changing at least every two years. Nevertheless, often it changes a couple of times during this two-year period as result of amendments. Old data can result in errors, delays and sometimes liability issues.

DGOffice can maintain your data, keep you updated on the latest changes and help you with classification issues or SDS translations. Also updating your product data and internal procedures are supported.





DGOffice.net is the online software solution that contains everything to manage all your dangerous goods related activities. It saves time, money and reduces failure because it takes care of all the necessary paperwork. Its modular design allows you to pick just the software modules you require. When your needs change, expand at the mere click of a button. DGOffice is designed to operate together with the most common administrative computer systems and can be integrated within your own network environment. To continuously comply with the applicable rules and regulations, DGOffice is updated constantly.

DGM Software Development Group is the electronic solutions provider of the International Dangerous Goods Management Support Group. Its development offices are located in the Netherlands, Denmark and Norway, while sales and support offices and representatives can be found throughout the world. All activities are performed in accordance with the global quality and safety standards. Across the globe thousands of users benefit from DGOffice, supporting their transportation, handling, storage, production and trading of dangerous goods and hazardous materials.