Damas MMS:G

Gas Dispatch System

Damas MMS:G is a comprehensive commercial dispatch system designed and developed to meet the needs of gas transmission system operators (TSOs) and gas market operators. Damas MMS:G covers all standard processes from the management of market participants and gas grid, to trading on primary and secondary markets, to nomination and matching processes, to balancing, invoicing, and settlement. Damas MMS:G is fully compliant with European legislation and follows the latest developments and trends in the gas market.

Fig. 1 – Damas MMS:G Architecture

Benefits

Damas MMS:G was designed in accordance with current gas market trends and complies with both current and upcoming legislation. Thanks to the adoption of cutting-edge technologies and best-in-class IT services Damas MMS:G offers, among other things, the following benefits:

- Modularity, offering deployment of the entire Damas MMS:G system to cover the **end-to-end** commercial dispatch process, or only **specific Damas MMS:G modules** covering your preferred agenda,
- Proven and ready-to-use **integrations** to adjacent TSOs, all European auction platforms (PRISMA, GSA and RBP), internal systems (SCADA, SAP, ...), and European authorities (ENTSO-G and ACER),
- **Compliance with European Network Codes** enables commercial operation in line with industry standards,
- Advanced **reporting and monitoring** tools,
- **Quick delivery**, as the solution is based on a balanced mix of off-the-shelf product configurations and features to meet your specific needs,
- **Easily deployable in the cloud or on-premise**, which ensures secure, efficient, flexible, and reliable operation of the solution,
- **24/7/365** support and availability,
- **Easy to use** via its modern responsive user interface that supports a whole range of devices from mobile phones to large widescreen monitors,
- **Highly secured** and compliant with all applicable safety requirements, e.g. OWASP standards.

Our Solution

Effective and secure commercial management of the transmission capacity is a key task for each and every gas TSO. Gas dispatchers responsible for fulfilling these tasks need a powerful tool to support them: a system that is fast, reliable and easy to use. Damas MMS:G is an all-in-one capacity management solution for gas TSOs covering and automatizing all steps that are essential for commercial management of transmission capacities. Damas MMS:G is fully configurable and scalable to provide support for any gas TSO.

A major added value of Damas MMS:G is its explicit focus on gas transmission sector specifics: the solution meets and supports all formats required by the market, such as Edigas 4.0, 5.1. and 6.0. as well as all common communication protocols (AS2/AS4, https/SOAP), which enables its smooth integration to adjacent TSOs, all European auction platforms (PRISMA, GSA and RBP), natural gas trading platforms, and European institutions (ENTSO-G or ACER) for reliable reporting of all mandatory data.

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Fig. 2 – Damas MMS:G Benefits

Functional Description

The modularity of the solution contributes to its high flexibility and scalability. Relevant data is internally exchanged between individual system modules usign well-documentes API. The interaction of Damas MMS:G with external systems and subjects (e.g. shippers, or TSOs) is facilitated by a variety of available communication channels and protocols through Unicorn's proven communication product - Enelane.

After its easy initial one-time set-up (the gas energy grid, counterparties, interconnection points and configuration of its product catalogue), the system is ready to fully support commercial operation processes of your TSO.

The solution is made up of the following modules that closely interact with each other to provide gas dispatchers the seamless and reliable support of all dispatching activities:

Trade Domain

The Trade Domain is the heart of Damas MMS:G responsible for reliable trading on both Primary and Secondary markets. Damas MMS:G automatically generates available and tradable capacities, offerings them across all auction platforms (PRISMA, GSA or RBP) in the European market based on user settings. Once the capacities are traded, the system automatically processes trading results from auction platforms, performing validations (such as financial security checks) and creating matching capacity contracts. The solution fully supports the capacity reduction mechanisms known as the Congestion Management Procedure.

Nomination Domain

Damas MMS:G provides a gas dispatcher with a powerful tool to process incoming transmission capacity nominations coming via the web portal or via the AS2/AS4 channel in the Edigas format. In Damas MMS:G, the matching

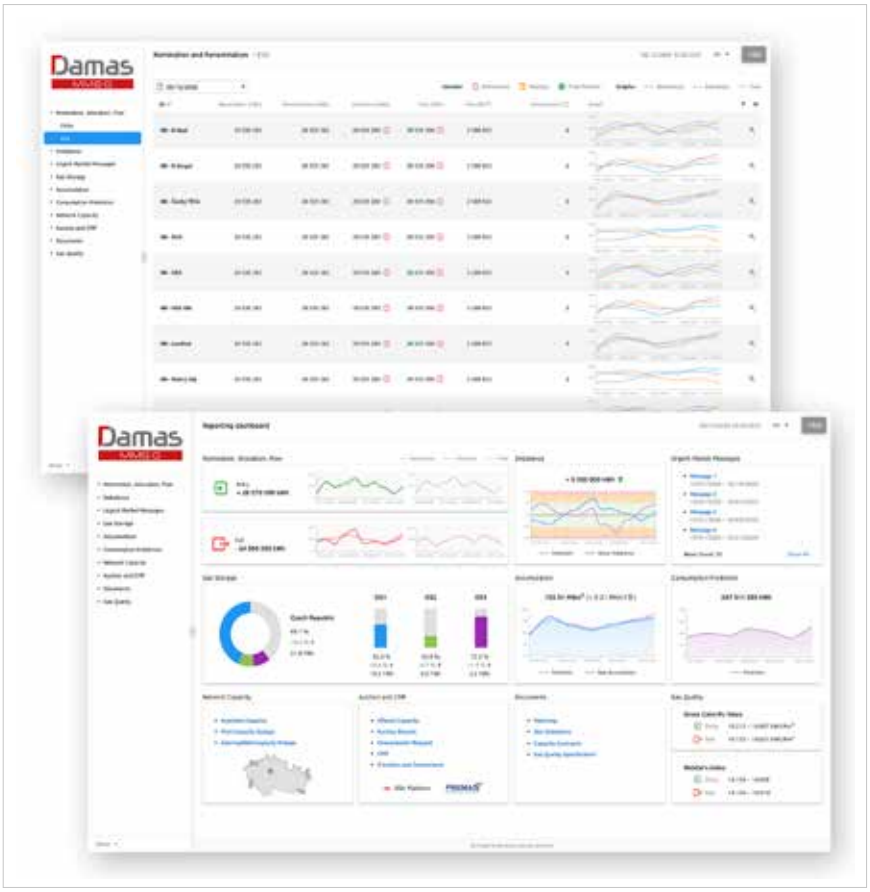


Fig. 3 – Examples of Damas MMS:G screens

procedure is usually handled automatically by the system, with support provided for manual corrections. If there are any mismatches, alarm is triggered and the dispatcher's cooperation is requested to handle the emergency situation.

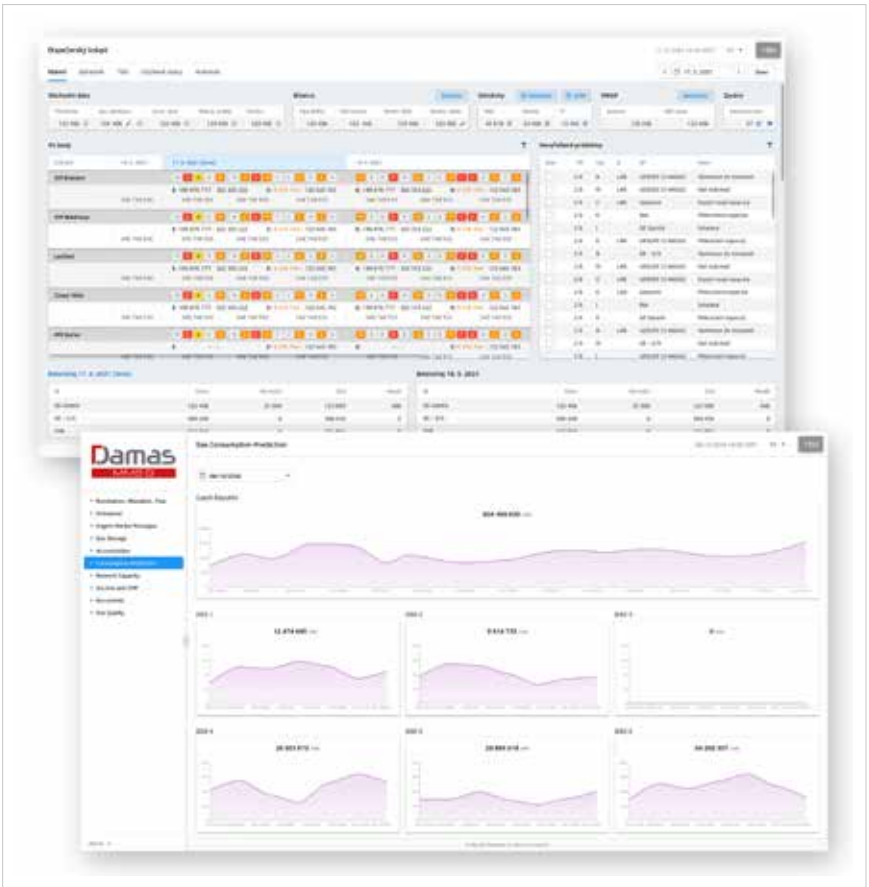
Damas MMS:G provides its users with a powerful tool: its Dispatching cockpit - a comprehensive dashboard enabling quick responses in case of unstandard situations.

Metering Domain

This domain holds special structures for metering lines and metering points for the TSOs. Damas MMS:G gathers data, such as physical flow, gross caloric value, Wobbe index, accumulation, consumption forecast, and more from measuring devices (SCADA or another system) and performs fast calculations for other modules using its in-built time series data engine.

Fig. 4 – Damas MMS:G Domain Coverage

Damas MMS:G fully supports the management of unavailability of grid components and their automated reporting to European Authorities through Urgent Market Messages.



Balancing Domain

The Balancing module uses inputs from other modules to evaluate the network balance. The balance is calculated on different levels, e.g. like balance of shipper pairs, interconnection points, BRPs or distribution systems. Damas MMS:G supports all known allocation methods (OBA, pro-rata, etc) and provides shippers with an option to trade flexibility and other balancing products on virtual trading point to prevent imbalance.

Invoicing Domain

You can use Damas MMS:G to issue invoices and payments, print invoices as PDF files, publish at the customer web portal, and send payment reminders. The module supports all basic types of invoice types (eg. standard, corrective, penalty, credit note), including the management of financial products, prices, and currency exchange rates.

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- National Grid plc
- OST (Operatori i Sistemitte Transmetimit)
- PTC SEE CAO LLC
- Réseau de Transport d'Electricité (RTE)
- Slovenská elektrizačná prenosová sústava, a. s.
- Swissgrid AG
- TenneT TSO GmbH
- Terna Rete Italia S.p.A.
- Transelectrica – Romanian National Power Grid Company
- UKRENERGO

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Unicorn is a renowned European company providing the largest information systems and solutions in the area of information and communication technologies. We are focused on providing solutions, which provide a high added value while also delivering a competitive business advantage to its clients. We have been serving our clients since 1990 and over the years, we have developed a number of high-end, large-scale solutions, which are being used to serve the IT needs of important companies in many of the key sectors of the economy. Moreover, we provide the Plus4U Internet service in which we offer a large portfolio of services based on robust software solutions for small and medium-sized enterprises and end-users.

Our goal is to educate people and society too. Therefore we established the Unicorn University in 2007 that also performs the Unicorn Top Gun Academy - the complex educational system for all our co-workers, for all of us.

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