Architecture, technology and general properties of the solutions

- We operate and provide customers reporting in the **form of cloud services**. Data are transmitted via a secure internet (https) batch (usually a regular or ad-hoc on demand), data warehouses (DWH), where they are processed and stored for display via the Internet on user browsers (again https), regardless of the operating system (Win, Android, iOS), type of browser (IE, Chrome, FF, Opera) and device type (PC, tablet, smartphone).

- **An alternative** to a fully cloud version we usually offer is the setup where the data is stored in the **database on the customer** side. However, to meet the customer requirement it is necessary to build a secured VPN tunnel (IP Sec, SSL, SSTP…) and have installed MS SQL Server (we recommend the MS SQL Standard Edition 2012 or higher version) with a reserved database for Reporting.cz.

- We **completely cover the entire reporting cycle** with our own technology, from data collection to so-called data uploaders, their integration and ETL transformation according to agreed upon rules, storing them in a full-fledged data warehouse (DWH) and presenting them to end users on the basis of clearly defined access of rights and roles.

- **Presentations to end users** takes place either through standard tables and graphs with a number of active and intuitively controlled functions for advanced detailed analysis (filtering, sorting, drill to detail) or in the form of a so-called Custom View, which are views tailored to specific needs in terms of content and visualization.

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*An example of a standard report with possible user definitions and parameterization:*
Example of standard dashboard (a combination of frequently used tables, charts and graphs, organized into tabs) that creates and takes into account the access rights and roles that are can be instantly shared with others by the mouse of the user or person in charge of the preparation:

An example of the so-called Custom View, reports tailored in terms of the content and form of advanced visualization:

- visualization of a Balanced Scorecard:
- **Creating reports, including formatting** and adding the calculated indicators and sharing them after a short training for business users without the need for programming

- Business users with the appropriate authority can **manage access rights**, again without programming

- **Planning** is included in the reporting (financial plans, budgets and forecasts), business planning (such as itemized products through retailers, etc.), and the possibility of entering actual and planned values of **non-financial indicators**.

- **Master data management** is also part of the reporting (for example, management and maintenance of converters from local to central structures in the consolidation process, updating exchange lists and recording information, which are temporarily or permanently available in other source systems for various reasons)

- **Information on IT security** can be found in the **risk management documentation**. It is possible to attach helpdesk operation rules, managing application development and safety rules and Deloitte statements on conducting an assessment of IT security to the quotation by prior arrangement.

- **User authentication** is performed based on name, password, a captcha code from a picture, and possibly simultaneously a request addressed to the verification code. We support SSO and OTP, two-stage authentication.

- In case of multiple users who will have access to the reporting set, you can set up **synchronization with Active Directory** (AD) - for example by creating a security
group whose members should have access to the reporting. The list of members of this group will be sent regularly with other data to reporting and where the user will be either created or cancelled based on the update. Another user rights in the context of reporting (access to the administration, and define access rights to reports and data) are set directly in the application of the authorized administrator (not necessarily IT).

- Reporting is easily extended to other companies and a variety of data sources, and is transparent and open at all stages of data processing. The customer can order to take partial or full control over the data collection, transformation and creation of reports. Or on the contrary, they can leave it entirely to us if they do not want to care for any of the mentioned activities themselves for any reason.

The integrated ETL allows you to import and export data to process, and transform and integrate them according to various requirements:

- We support the national context. The application is fully localized for Czech and English speaking users. It can be easily extended to other languages upon agreement.