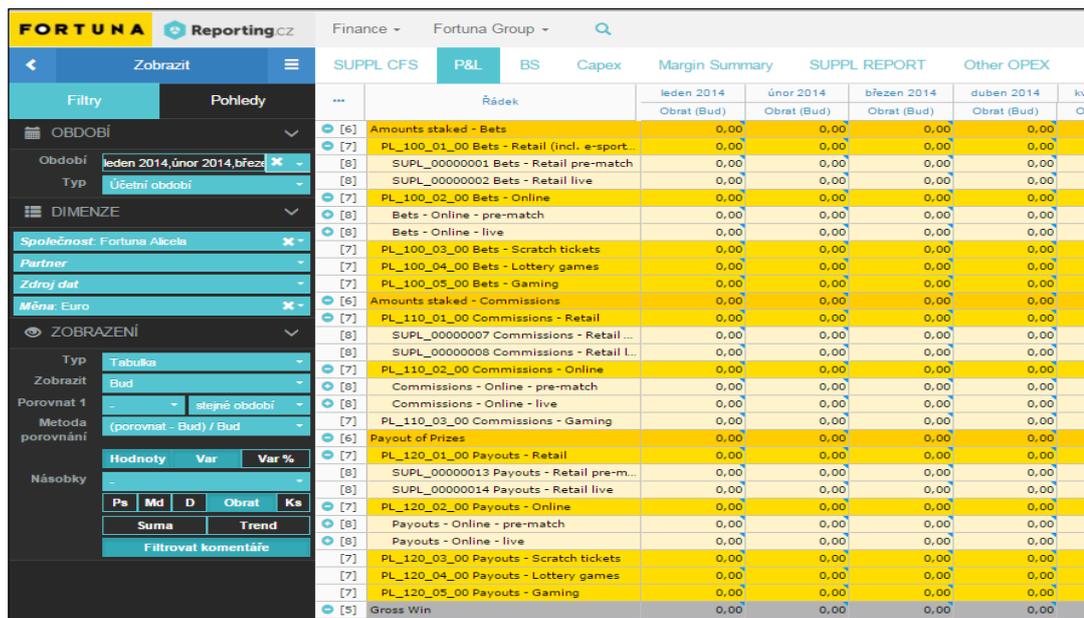


Architecture, technology and general properties of the solutions

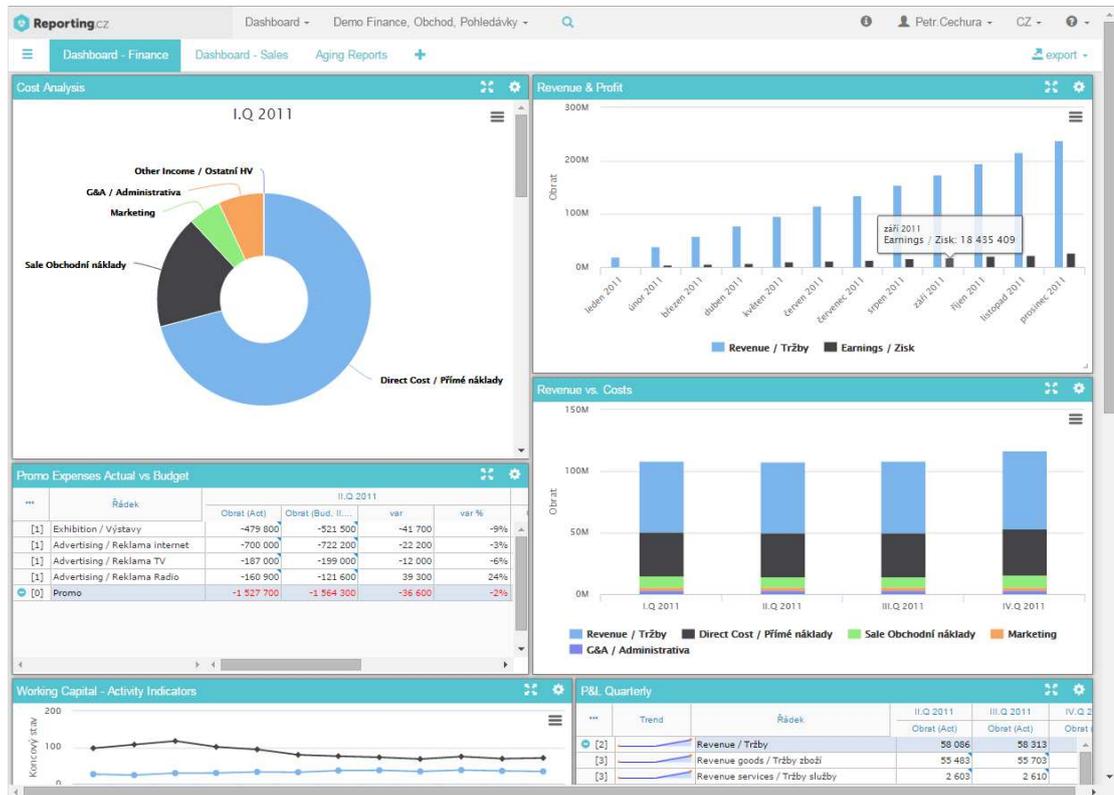
- We operate and provide customers reporting in the **form of cloud services**. Data are transmitted via a secure internet (https) batch (usually a regular or ad-hoc on demand), data warehouses (DWH), where they are processed and stored for display via the Internet on user browsers (again https), regardless 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.

An example of a standard report with possible user definitions and parameterization:



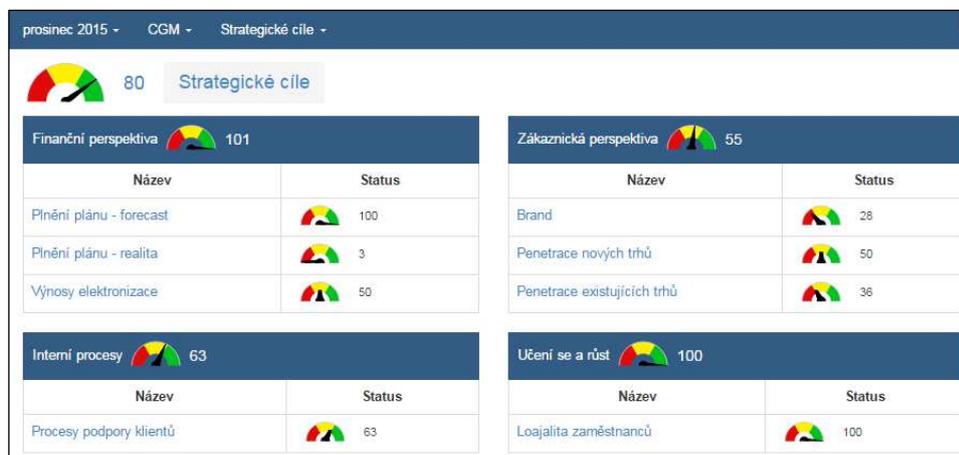
FILTRY		Pohledy		leden 2014		únor 2014		březen 2014		duben 2014		kvě
OBDOBÍ		Rádek		Obrat (Bud)		Obrat (Bud)		Obrat (Bud)		Obrat (Bud)		Ob
[6]	Amounts staked - Bets			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_100_01_00 Bets - Retail (incl. e-sport...			0,00	0,00	0,00	0,00	0,00	0,00			
[8]	SUPL_00000001 Bets - Retail pre-match			0,00	0,00	0,00	0,00	0,00	0,00			
[9]	SUPL_00000002 Bets - Retail live			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_100_02_00 Bets - Online			0,00	0,00	0,00	0,00	0,00	0,00			
[8]	Bets - Online - pre-match			0,00	0,00	0,00	0,00	0,00	0,00			
[8]	Bets - Online - live			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_100_03_00 Bets - Scratch tickets			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_100_04_00 Bets - Lottery games			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_100_05_00 Bets - Gaming			0,00	0,00	0,00	0,00	0,00	0,00			
[6]	Amounts staked - Commissions			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_110_01_00 Commissions - Retail			0,00	0,00	0,00	0,00	0,00	0,00			
[8]	SUPL_00000007 Commissions - Retail			0,00	0,00	0,00	0,00	0,00	0,00			
[8]	SUPL_00000008 Commissions - Retail L...			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_110_02_00 Commissions - Online			0,00	0,00	0,00	0,00	0,00	0,00			
[8]	Commissions - Online - pre-match			0,00	0,00	0,00	0,00	0,00	0,00			
[8]	Commissions - Online - live			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_110_03_00 Commissions - Gaming			0,00	0,00	0,00	0,00	0,00	0,00			
[6]	Payout of Prizes			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_120_01_00 Payouts - Retail			0,00	0,00	0,00	0,00	0,00	0,00			
[8]	SUPL_00000013 Payouts - Retail pre-m...			0,00	0,00	0,00	0,00	0,00	0,00			
[8]	SUPL_00000014 Payouts - Retail live			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_120_02_00 Payouts - Online			0,00	0,00	0,00	0,00	0,00	0,00			
[8]	Payouts - Online - pre-match			0,00	0,00	0,00	0,00	0,00	0,00			
[8]	Payouts - Online - live			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_120_03_00 Payouts - Scratch tickets			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_120_04_00 Payouts - Lottery games			0,00	0,00	0,00	0,00	0,00	0,00			
[7]	PL_120_05_00 Payouts - Gaming			0,00	0,00	0,00	0,00	0,00	0,00			
[5]	Gross Win			0,00	0,00	0,00	0,00	0,00	0,00			

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:



- customer segmentation for information support for business people in the field:

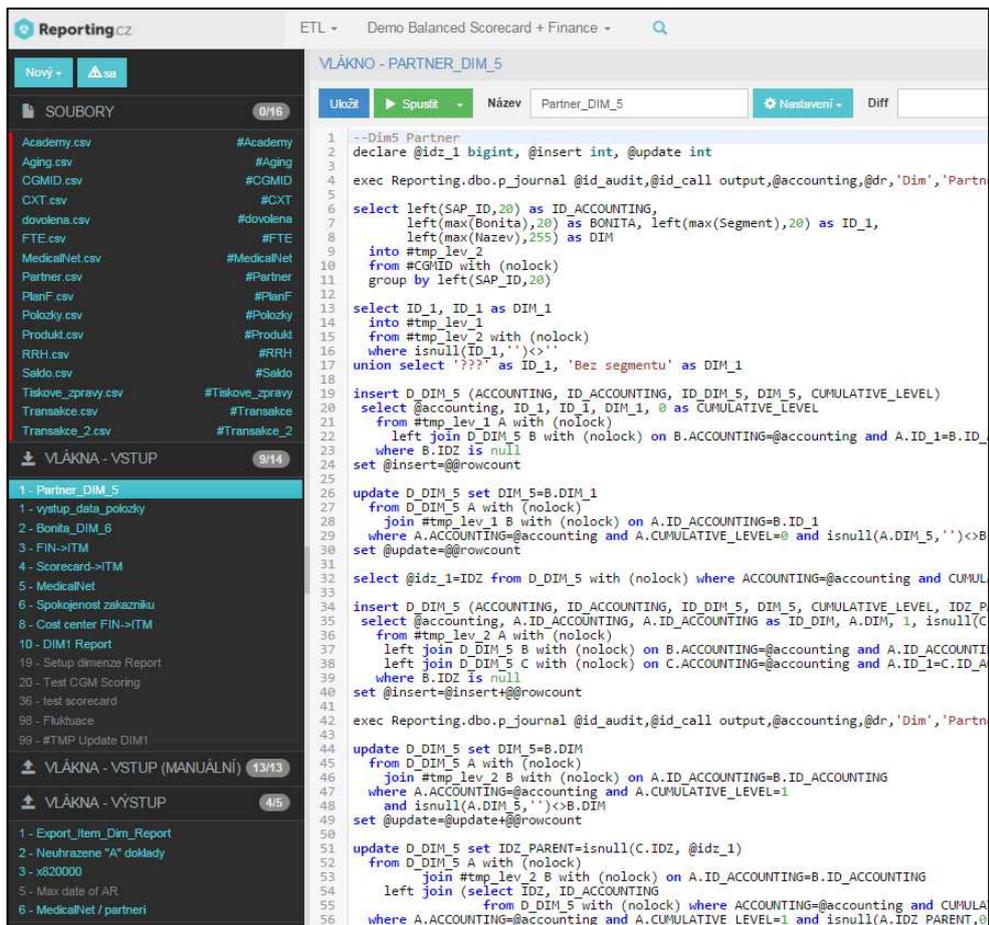


- [Creating reports, including formatting](#) and adding the calculated indicators and sharing them after a short training for business users without the need for programming
- Business users with the appropriate authority can [manage access rights](#), again without programming
- [Planning](#) is included 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:



The screenshot displays the Reporting.CZ application interface. On the left, there is a sidebar with a file explorer showing various CSV files and folders. The main area is a SQL script editor titled 'VLÁKNO - PARTNER_DIM_5'. The script contains T-SQL code for data processing, including variable declarations, table updates, and joins. The code is as follows:

```

1  --Dim5 Partner
2  declare @idz_1 bigint, @insert int, @update int
3  exec Reporting.dbo.p_journal @id_audit,@id_call output,@accounting,@dr,'Dim','Partn
4
5  select left(SAP_ID,20) as ID_ACCOUNTING,
6         left(max(Bonita),20) as BONITA, left(max(Segment),20) as ID_1,
7         left(max(Nazev),255) as DIM
8  into #tmp_lev_2
9  from #CGMID with (no lock)
10 group by left(SAP_ID,20)
11
12 select ID_1, ID_1 as DIM_1
13 into #tmp_lev_1
14 from #tmp_lev_2 with (no lock)
15 where isnull(ID_1,'')<>'>'
16 union select '???' as ID_1, 'Bez segmentu' as DIM_1
17
18 insert D_DIM_5 (ACCOUNTING, ID_ACCOUNTING, ID_DIM_5, DIM_5, CUMULATIVE_LEVEL)
19 select @accounting, ID_1, ID_1, DIM_1, 0 as CUMULATIVE_LEVEL
20 from #tmp_lev_1 A with (no lock)
21 left join D_DIM_5 B with (no lock) on B.ACCOUNTING=@accounting and A.ID_1=B.ID_
22 where B.IDZ is null
23 set @insert=@@rowcount
24
25 update D_DIM_5 set DIM_5=B.DIM_1
26 from D_DIM_5 A with (no lock)
27 join #tmp_lev_1 B with (no lock) on A.ID_ACCOUNTING=B.ID_1
28 where A.ACCOUNTING=@accounting and A.CUMULATIVE_LEVEL=0 and isnull(A.DIM_5,'')<>B
29 set @update=@@rowcount
30
31 select @idz_1=IDZ from D_DIM_5 with (no lock) where ACCOUNTING=@accounting and CUMUL
32
33 insert D_DIM_5 (ACCOUNTING, ID_ACCOUNTING, ID_DIM_5, DIM_5, CUMULATIVE_LEVEL, IDZ_P
34 select @accounting, A.ID_ACCOUNTING, A.ID_ACCOUNTING as ID_DIM, A.DIM, 1, isnull(C
35 from #tmp_lev_2 A with (no lock)
36 left join D_DIM_5 B with (no lock) on B.ACCOUNTING=@accounting and A.ID_ACCOUNTI
37 left join D_DIM_5 C with (no lock) on C.ACCOUNTING=@accounting and A.ID_1=C.ID_A
38 where B.IDZ is null
39 set @insert=@insert+@@rowcount
40
41 exec Reporting.dbo.p_journal @id_audit,@id_call output,@accounting,@dr,'Dim','Partn
42
43 update D_DIM_5 set DIM_5=B.DIM
44 from D_DIM_5 A with (no lock)
45 join #tmp_lev_2 B with (no lock) on A.ID_ACCOUNTING=B.ID_ACCOUNTING
46 where A.ACCOUNTING=@accounting and A.CUMULATIVE_LEVEL=1
47 and isnull(A.DIM_5,'')<>B.DIM
48 set @update=@update+@@rowcount
49
50 update D_DIM_5 set IDZ_PARENT=isnull(C.IDZ, @idz_1)
51 from D_DIM_5 A with (no lock)
52 join #tmp_lev_2 B with (no lock) on A.ID_ACCOUNTING=B.ID_ACCOUNTING
53 left join (select IDZ, ID_ACCOUNTING
54 from D_DIM_5 with (no lock) where ACCOUNTING=@accounting and CUMULA
55 where A.ACCOUNTING=@accounting and A.CUMULATIVE_LEVEL=1 and isnull(A.IDZ_PARENT,0
56
    
```

- 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.

Data processing scheme

