VOTING Stimmunterlagen Offline

Building Block View

Author	Abraxas Informatik AG
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For digital Switzerland. For Sure.

abraxas

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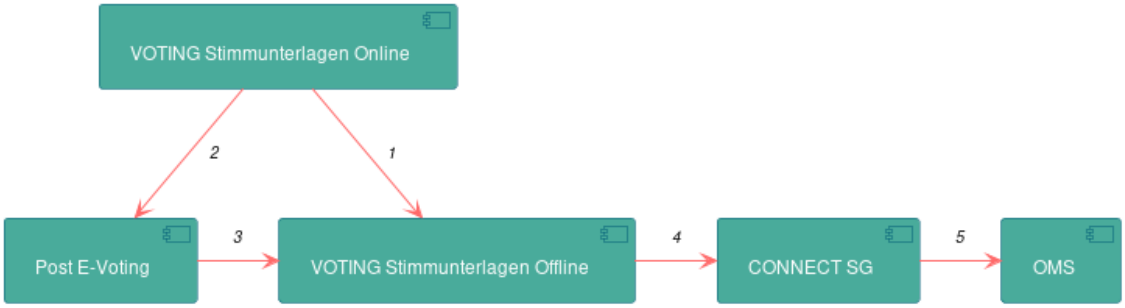


Picture 1 - Overview Level 1, Context

1.1 Components

Name	Description	Technologies
VOTING Stimmunterlagen Online	Web application for managing voting card layouts and voter register data.	Angular .Net
VOTING Stimmunterlagen Offline	Frontend / desktop app of VOTING Stimmunterlagen Offline written in Angular and Electron.	Angular Electron
Post E-Voting	Offline application for generating the digital votes, elections and the required e-voter codes.	<<*Blackbox*>>
CONNECT SG	Transmission systems based on message types. Used to transmit the generated and encrypted SRA to the OMS.	.Net RabbitMQ MSSQL
OMS	Output Management System for physically creating and addressing the SRA.	<<*Blackbox*>>

Table 1 - Context Components

1.2 Interfaces

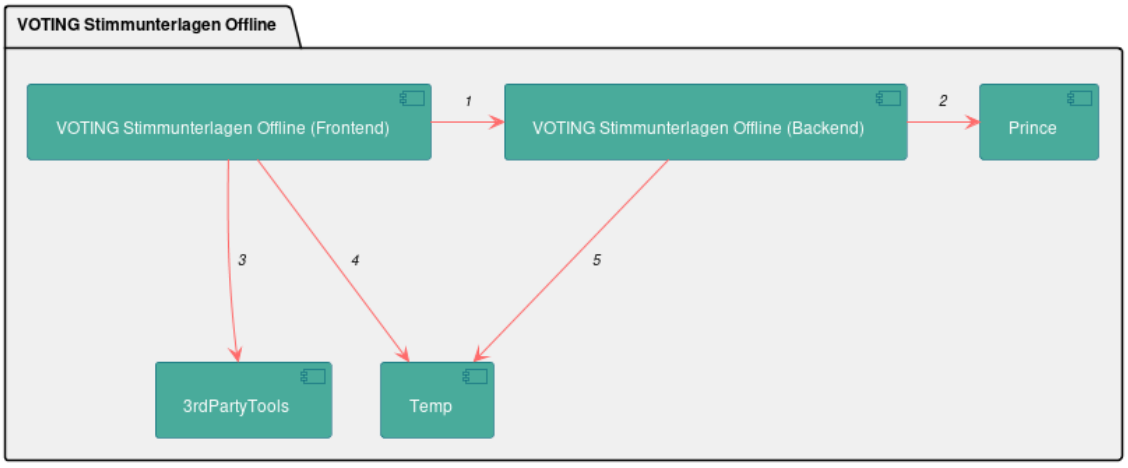
Nr	Consumer	Source	Description
1	VOTING Stimmunterlagen Offline	VOTING Stimmunterlagen Online	The sources required to create the SRA are transmitted. These consist of layout and event information.
2	Post E-Voting	VOTING Stimmunterlagen Online	The voters authorized for e-voting are transmitted as an eCH-0045 document.

3	VOTING Stimmunterlagen Offline	Post E-Voting	Transmission of information from E-Voting consisting of the configuration of the event (vote and election information), the register of e-voters (addresses, etc.) and the generated codes.
4	CONNECT SG	VOTING Stimmunterlagen Offline	The digitally generated and encrypted SRAs are handed over to CONNECT SG for transmission to the OMS.
5	OMS	CONNECT SG	CONNECT SG sends the SRA to the OMS for creation.

Table 2 - Context Interfaces

2. Overview Level 2 - Detail

The Level 2 overview shows the relevant VOTING context in more detail.



Picture 2 - Overview Level 2, Detail

2.1 Components

Name	Description	Technologies
VOTING Stimmunterlagen Offline (Frontend)	Frontend / desktop app of VOTING Stimmunterlagen Offline written in Angular and Electron.	Angular Electron
VOTING Stimmunterlagen Offline (Backend)	Backend tools of VOTING Stimmunterlagen Offline, written in C#. Is responsible for the processing and generation of voting documents.	.NET
3rdPartyTools	Tools for managing temporary application data. Includes tools like SDelete to delete temporary files safely.	-
Prince	Prince generates the voting card PDF files.	Prince
Temp	Contains local temporary application data, such as the uploaded files or the current progress of the offline client.	OS Filesystem

Table 3 - Detail Components

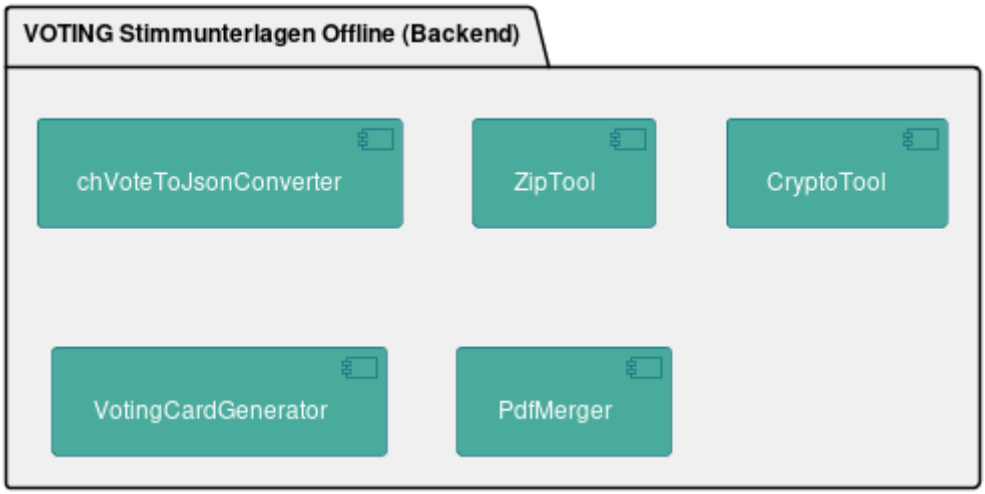
2.2 Interfaces

Name	Consumer	Source	Description
1	VOTING Stimmunterlagen Offline (Frontend)	VOTING Stimmunterlagen Offline (Backend)	Frontend sends data to the backend, which processes this data and returns the result to the frontend via .exe output.
2	VOTING Stimmunterlagen Offline (Backend)	Prince	Backend generates HTML for the voting cards and Prince generates the PDF from it.
3	VOTING Stimmunterlagen Offline (Frontend)	3rdPartyTools	Frontend processes temporary application data via 3rdPartyTools.
4	VOTING Stimmunterlagen Offline (Frontend)	Temp	Frontend reads the current progress of the offline client via a state file and saves the new progress in the file after an action and copies it to the offline client.

5	VOTING Stimmunterlagen Offline (Backend)	Temp	Backend stores the uploaded contest files and the voting cards in the temporary application data.
6	3rdPartyTools	Temp	3rdPartyTools manage temporary application data.

Table 4 - Detail Interfaces

3. Overview Level 3 - Backend Detail



Picture 3 - Overview Level 3, Backend Detail

Name	Description
chVoteToJsonConverter	Converts contest files to JSON.
CryptoTool	Loads certificates and encrypts the voting card PDF files.
PdfMerger	Merges multiple PDFs into 1 PDF.
VotingCardGenerator	Generates voting cards using Prince.
ZipTool	Compresses files or file directories and unpacks ZIP archives.

Table 5 - Backend Details Components