

VOTING Stimmunterlagen Online

Transport Security

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Contents

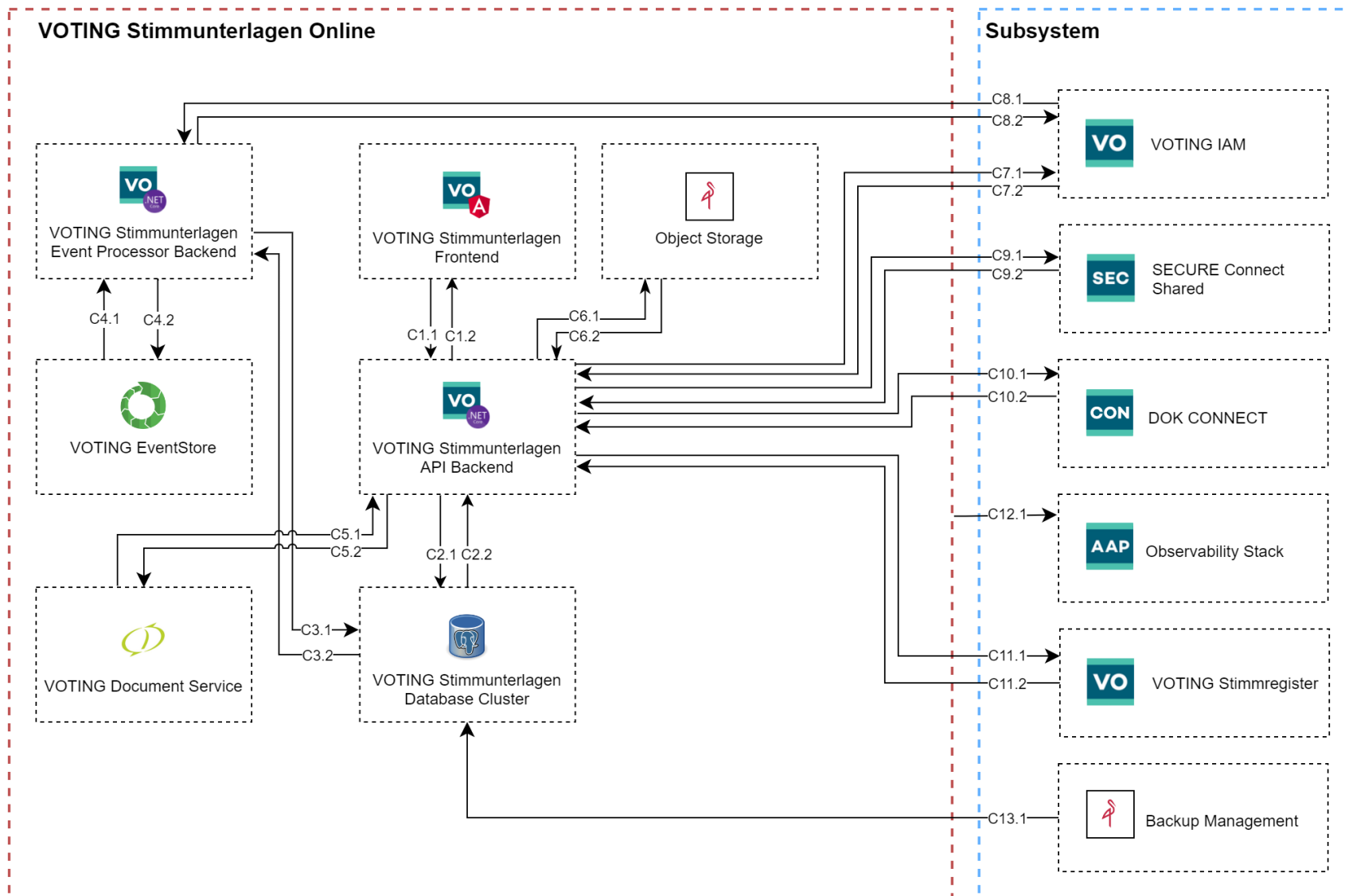
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1. Transport Security

In the following section, the transport security, i.e. the connection security, between the various system components is shown.

Transport security ensures the secure communication and data exchange between various system components within the application environment and subsystems. The following critical aspects are taken into account:

1. **Data Flow:** Ensuring that data transmitted between system components is encrypted to prevent interception and unauthorized access. This includes both data in transit and at rest.
2. **Consumer System:** Verification and authentication mechanisms to ensure that only authorized consumer systems can access and interact with the system components.
3. **Source System:** Secure authentication and verification of the source system to prevent spoofing or unauthorized access to sensitive information or functionality.
4. **Encryption:** Implementation of robust encryption protocols (such as TLS/SSL) to secure data transmissions and prevent eavesdropping or tampering during transit.
5. **Authorization Mechanism:** Strict access control mechanisms to govern which users or systems can access specific resources or functionalities within the system, based on roles and permissions.



Data Flow	Consumer System	Target System	Encryption	Cluster internal*	Authorization Mechanism
C1.1, C1.2	VOTING Stimmunterlagen Frontend	VOTING Stimmunterlagen API Backend	HTTPS	No	OpenId Connect (User Account) OIDC based code flow with PKCE and client-side refresh flow.
C2.1, C.2.2	VOTING Stimmunterlagen API Backend	VOTING Stimmunterlagen Database Cluster	-	Yes	Basic Credentials
C3.1, C3.2	VOTING Stimmunterlagen Event Processor Backend	VOTING Stimmunterlagen Database Cluster	-	Yes	Basic Credentials
C4.1, C4.2	VOTING Stimmunterlagen Event Processor Backend	VOTING EventStore	HTTPS	Yes	Service-Account (Username + Passwort)
C5.1, C5.2	VOTING Stimmunterlagen API Backend	VOTING Document Service	HTTPS	Yes	Basic Credentials
C6.1, C6.2	VOTING Stimmunterlagen API Backend	Object Storage	HTTPS	Yes	Basic Credentials (Access-/Secret Key)
C7.1, C7.2	VOTING Stimmunterlagen API Backend	VOTING IAM	HTTPS	No	OAuth 2.0 Client Credential (Service User)
C8.1, C8.2	VOTING Stimmunterlagen Event Processor Backend	VOTING IAM	HTTPS	No	OAuth 2.0 Client Credential (Service User)
C9.1, C9.2	VOTING Stimmunterlagen API Backend	SECURE Connect Shared	HTTPS	No	OAuth 2.0 Client Credential (Service User)
C10.1, C10.2	VOTING Stimmunterlagen API Backend	DOK Connect	HTTPS	No	OAuth 2.0 Client Credential (Service User)

Data Flow	Consumer System	Target System	Encryption	Cluster internal*	Authorization Mechanism
C11.1, C11.2	VOTING Stimmunterlagen API Backend	VOTING Stimmregister	HTTPS	Yes	OpenId Connect (User Account) / Token Exchange
C12.1	Service Components	Observability Stack	-	Yes	<i>All backend services are connected with the observability stack using the same technical setup for data delivery.</i>
C13.1	Backup Management	VOTING Stimmunterlagen Database Cluster	-	Yes	pod-internal