Sure! Below is the instantiation of the security case pattern using the given domain information for the Instant Messaging (IM) software, represented in a hierarchical tree format with dashes (-) to denote different levels:

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\*\*G1: Instant Messaging (IM) software is acceptably secure in the system\*\*

- \*\*C1: Definition and description of Instant Messaging (IM) software\*\*

- Instant Messaging (IM) software is used for real-time communication between users.

- \*\*C2: Definition and description of the system\*\*

- This includes the IM software, its users, and the transmission environment.

- \*\*C3: Definition of acceptably secure\*\*

- Acceptably secure means the system is protected against identified threats and risks.

- \*\*S1: Argument that IM software assets are under protection\*\*

- \*\*J1: Protection of software assets supports that IM software is acceptably secure\*\*

- \*\*G2: All identified IM software critical assets are protected\*\*

- \*\*S2: Respective arguments of IM software critical assets\*\*

- \*\*C4: List of IM software critical assets\*\*

- Registration information

- Registration process

- User account information

- Authentication information

- Login process

- Chat logs

- \*\*J2: Relationship between assets is clear and can be argued separately\*\*

- \*\*G3.1: Registration information is protected\*\*

- \*\*S3: Argument of the type which the software registration information belongs to\*\*

- \*\*C5: List of software critical asset types in PEDD\*\*

- Process

- Environment Entity

- Data Exchange

- Data Storage

- \*\*J3: Types of software assets are according to PEDD\*\*

- \*\*G4.1: Registration information which belongs to Data Storage is protected\*\* (undeveloped)

- \*\*G3.2: Registration process is protected\*\*

- \*\*S3: Argument of the type which the software registration process belongs to\*\*

- \*\*C5: List of software critical asset types in PEDD\*\*

- \*\*J3: Types of software assets are according to PEDD\*\*

- \*\*G4.2: Registration process which belongs to Process is protected\*\* (undeveloped)

- \*\*G3.3: User account information is protected\*\*

- \*\*S3: Argument of the type which the software user account information belongs to\*\*

- \*\*C5: List of software critical asset types in PEDD\*\*

- \*\*J3: Types of software assets are according to PEDD\*\*

- \*\*G4.3: User account information which belongs to Data Storage is protected\*\* (undeveloped)

- \*\*G3.4: Authentication information is protected\*\*

- \*\*S3: Argument of the type which the software authentication information belongs to\*\*

- \*\*C5: List of software critical asset types in PEDD\*\*

- \*\*J3: Types of software assets are according to PEDD\*\*

- \*\*G4.4: Authentication information which belongs to Data Exchange is protected\*\* (undeveloped)

- \*\*G3.5: Login process is protected\*\*

- \*\*S3: Argument of the type which the software login process belongs to\*\*

- \*\*C5: List of software critical asset types in PEDD\*\*

- \*\*J3: Types of software assets are according to PEDD\*\*

- \*\*G4.5: Login process which belongs to Process is protected\*\* (undeveloped)

- \*\*G3.6: Chat logs are protected\*\*

- \*\*S3: Argument of the type which the software chat logs belongs to\*\*

- \*\*C5: List of software critical asset types in PEDD\*\*

- \*\*J3: Types of software assets are according to PEDD\*\*

- \*\*G4.6: Chat logs which belong to Data Storage is protected\*\* (undeveloped)

- \*\*S2: Argument over reliability in all suitable levels of IM software\*\* (undeveloped)

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