To create a security case for Instant messaging (IM) software based on the provided security case pattern, we will follow these steps:

1. Create the hierarchy of the security case using only defined elements (Goals, Strategies, Contexts, Justifications).

2. Remove additional decorators (Uninstantiated, Placeholders, Choice, Multiplicity).

3. Replace placeholders with specific information related to the Instant Messaging (IM) software.

Here's the hierarchical tree format:

### Level 1:

- \*\*G1: IM software is acceptably secure in the system\*\*

- \*\*C1: Definition and description of IM software\*\*

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

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

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

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

### Level 2:

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

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

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

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

### Level 3:

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

- \*\*S3: Argument of the type which the software critical asset belongs to\*\*

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

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

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

- \*\*S3: Argument of the type which the software critical asset belongs to\*\*

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

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

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

- \*\*S3: Argument of the type which the software critical asset belongs to\*\*

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

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

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

- \*\*S3: Argument of the type which the software critical asset belongs to\*\*

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

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

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

- \*\*S3: Argument of the type which the software critical asset belongs to\*\*

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

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

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

- \*\*S3: Argument of the type which the software critical asset belongs to\*\*

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

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

### Level 4:

- \*\*G4: Registration information which belongs to Data Storage is protected\*\*

- \*\*G4: Registration process which belongs to Process is protected\*\*

- \*\*G4: User account information which belongs to Data Storage is protected\*\*

- \*\*G4: Authentication information which belongs to Data Storage is protected\*\*

- \*\*G4: Login process which belongs to Process is protected\*\*

- \*\*G4: Chat logs which belongs to Data Exchange is protected\*\*

This structure adheres to the provided security case pattern and has been tailored to address the essential assets of the Instant Messaging (IM) software, ensuring that each critical asset is protected to meet the top-level goal of acceptable security.