Here’s the hierarchical tree format for the security case for Instant Messaging (IM) software using the provided security case pattern. We replace the placeholders with relevant information related to IM software.

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

- \*Context:\*

- C1: Definition and description of IM software

- C2: Definition and description of the system

- C3: Definition of acceptably secure

- \*SupportedBy:\*

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

- \*Justification:\*

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

- \*SupportedBy:\*

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

- \*Context:\*

- C4: List of IM software critical assets

- \*Justification:\*

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

- \*SupportedBy:\*

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

- \*SupportedBy:\*

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

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

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

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

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

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

- \*Context:\*

- C5: List of IM software critical asset types in PEDD

- \*Justification:\*

- J3: Types of IM software assets are according to PEDD

- \*SupportedBy:\*

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

- \*SupportedBy:\*

- \*\*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 belong to Data Storage is protected\*\*

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This completes the hierarchical structure of the security case for IM software. Each level is connected and justified as per the predicates provided and placeholders are properly expanded with the relevant context of IM software.