Based on the provided predicates for a security case pattern, here's the security case for Instant Messaging (IM) software, instantiated for its specific critical assets. The hierarchical tree format using dashes (-) to denote different levels is as follows:

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G1: Instant Messaging (IM) software is acceptably secure in external environment.

C1: Definition and description of Instant Messaging (IM) software.

C2: Definition and description of external environment.

C3: Definition of acceptably secure.

S1: Argument that software assets are under protection.

J1: Protection of software assets supports that software is acceptably secure.

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.

G3\_1: Registration information is protected.

S3\_1: 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.

G4\_1\_1: Registration information which belongs to Data Storage is protected.

G3\_2: Registration process is protected.

S3\_2: 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.

G4\_2\_1: Registration process which belongs to Process is protected.

G3\_3: User account information is protected.

S3\_3: 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.

G4\_3\_1: User account information which belongs to Data Storage is protected.

G3\_4: Authentication information is protected.

S3\_4: 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.

G4\_4\_1: Authentication information which belongs to Data Exchange is protected.

G3\_5: Login process is protected.

S3\_5: 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.

G4\_5\_1: Login process which belongs to Process is protected.

G3\_6: Chat logs are protected.

S3\_6: 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.

G4\_6\_1: Chat logs which belongs to Data Storage is protected.

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This hierarchical tree format provides a clear and structured assurance case for IM software, highlighting how each critical asset is protected and the argumentation supporting the security claims.