Secure and Usable Requirements Engineering

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Motivation & Background

- Security risks are increasingly more frequent, widespread, and volatile
- Often, the need for security is realized too late in software development
- Traditional Requirements Engineering (RE) approaches are not well suited for security-focused systems
- Literature survey Results highlights:
  - Need for a SRE approach that provides Later Stages Support
  - Current approaches lack meaningful testing support
SURE Technique

- Project plans
- Security requirements specifications
- Testing artifacts
ASSURE

- Automated Support for Secure and Usable Requirements Engineering
- Implements the SURE technique
- Web-based system that manages,
  - Users
  - Projects
  - Requirements artifacts
  - Testing artifacts
  - Development progress
ASSURE

Automated Support for Secure and Usable Requirements Engineering

Implements the SURE technique

Web-based system that manages,

Users
Projects
Requirements artifacts
Testing artifacts
Development progress
ASSURE- User Analysis

- Software Developer- Target user
- Assumptions
  - Familiar with traditional RE methods like narrative text, shall statements, and use cases
  - Security specification novice- Some knowledge about specifications in general, but needs support
  - Familiar with basic security concepts like threats and attacks
  - Software testing basics- test plan, test cases, etc.
Thank You

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