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Automating User Approval and Onboarding in Trusted Research Environments

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At SeRP, we provide a suite of software and hardware that enables Trusted Research Environments (TREs) to securely manage access to their data. A critical aspect of this is user approval and onboarding. When a new user requests access to a TRE, the environment typically requires a series of checks—such as completion of researcher training, signing of data access agreements, and director approval. Individual projects may also have additional, project-specific requirements. Traditionally, this process is manual, involving document requests, recording checks, and periodic verification of continuing approvals. To address this, we have developed a modular solution

that leverages Camunda for customizable workflows and DocuSeal for document and signature management. Camunda workflows not only request documents and approvals, but also verify whether users meet general and project-specific access criteria, allowing permissions to be adjusted automatically. The system performs regular checks to ensure user and membership validity, and custom workflows can be configured for each TRE or project. This approach significantly automates the onboarding process, reduces administrative overhead, and strengthens security while maintaining flexibility for diverse TRE requirements.

