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| **I/UCRC Executive Summary - Project Synopsis** | **Date**: |
|  **Center/Site**: Security and Software Engineering Research Center / Georgetown University |
|  **Tracking No**.: |  **Phone :** ( ) - |  **E-mail :** |
|  **Center/Site Director:** Eric Burger | **Type: (New or Continuing)** New |
|  **Project Leader:** Eric Burger | **Proposed Budget**: $ 260,000 |
|  **Project Description**: Enable secure inter-cloud collaborative application delivery outside the confines of a single cloud provider. The focus is to create a tailored trustworthy space that cryptographically handles transitive trust. |
|  **Experimental plan**: Informed by secure enterprise policy constraints, work out semantics for cloud federation. Prototype peer-to-peer identity management system with tailored trust that meets operational and legal requirements. |
|  **Related work elsewhere**: IEEE P2302 is working on the intercloud. The IETF System for Cross-domain Identity Management (SCIM) work group is looking at bulk synchronization of enterprise user (individual) data to a single cloud-provided application. The IETF SDNRG is looking at software defined networking at a granularity of users on a network. |
|  **How this project is different**: IEEE P2302 is presuming a centralized repository or directory hub. There is provision for federated and peer-to-peer approaches, but the technology does not yet exist. |
|  **Milestones for the current proposed year**: Survey and interview secure enterprises on legal, regulatory, and policy requirements for extending trust beyond the first, directly contracted cloud provider. Prototype peer-to-peer system for trust where there is a contractual relationship with the down-stream cloud providers. Finally, enable and prototype a peer-to-peer system for trust where there is not a direct contractual relationship with the down-stream cloud providers, yet while maintaining the confidentiality or other policy restrictions on the data or computation.  |
|  **Deliverables for the current proposed year**: The completed survey and peer-to-peer prototype system. |
|  **How the project may be transformative and/or benefit society**: The true power of the cloud comes from composing multiple, independent applications from different providers. This project delivers an enabling technology to create the possibility of that power. |
|  **Research areas of expertise needed for project success:** Computer Science, economics, law, and government. |
|  **Potential Member Company Benefits:** Enabling multiple, independent applications from different providers is an important advance for systems integrators, providers of cloud services, directory operators, and software developers. |
| **Progress to Date:**  |
| **Estimated Start Date**:  | **Estimated Knowledge Transfer Date**: |

The Executive Summary is used by corporate stakeholders in evaluating the value of their leveraged investment in the center and its projects. It also enables stakeholders to discuss and decide on the projects that provide value to their respective organizations. **Ideally, the tool is completed and shared in advance of IAB meetings to help enable rational decision making.**