

CI-P: Developing the Next Generation of Community Financial CyberInfrastructure for Monitoring and Modeling Financial Eco-Systems and Managing Systemic Risk

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Keywords:

Include descriptors of the CISE sub-discipline research that the infrastructure enables. You may also include a basic descriptor of the type of infrastructure. These keywords will help in classifying your proposal during for review.

Overview:

For CI-P proposals

- Does the proposal document the potential community involvement in the planning process?
- Comment on the national need for and validity of the research infrastructure being explored.

The **intellectual merits** of monitoring and modeling financial eco-systems..

- One
- Two
- Three
- What
-

The **broader impact** of the next generation of financial cyberinfrastructure....

Community and Steering Committee

1. Introduction

1.1 Community Description

1.2 Need for a Community Infrastructure

1.3 Vision and Architecture for Community Infrastructure

- computing research infrastructure concept, noting whether it is new infrastructure to be created or existing infrastructure to be enhanced, and provide an estimate of its cost to deploy and operate,
- compelling new research and education opportunities envisioned as being enabled by the infrastructure, and
- steps you will take to identify the consensus needs of the research and education community to be served by the proposed infrastructure, including the process you plan to follow to identify the major characteristics and features of the infrastructure, its useful lifetime, and its cost to create/enhance and operate.

2. Operational Plan

2.1 Plan of Activities

2.2 Plan to Engage Relevant Communities

2.3 Advisory Committee

2.4 Steering Committee

Elisa Bertino

Michael Franklin

Johannes Gehrke

Lise Getoor

Eduard Hovy

Vagelis Hristidis

H.V. Jagadish

Ben Shneiderman

Michael Wellman

2.5 Partners

IBM

Morgan Stanley

Yahoo!

Enterprise Data Management Council

FINRA? SIFMA?

3. From Individual Resources to Community Infrastructure

3.1 Introduction

3.2 Knowledge Extraction and Network Creation in MIDAS – Shiv

3.3 Language, Intent and Semantics - Analysis and Prediction from SEC Filings - Hoberg

3.4 Social Media Modeling and Prediction - Hristidis

3.5 Enhancing Networks of Financial Contracts around the CiCi and LEI Protocols - Langsam

3.6 Karsha Annotation Recommendation and Markup Tool Using the Financial Industry Business Ontology (FIBO)

4. Broader Impact

5. Prior NSF Support

References

Supplementary Documents: In the Supplementary Documents Section, provide a list of PIs, Co-PIs, Senior Personnel, paid Consultants, Collaborators and Postdocs to be involved in the project. This list should be numbered and include (in this order) Full name, Organization(s), and Role in the project, with each item separated by a semi-colon. Each person listed should start a new numbered line. For example: