High Confidence Software and Systems

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National Security Agency

HCSS Charter

The HCSS research area is focused on the development of assured methodologies and systems.

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HCSS Design Team

With the requirement to enhance NSA's expertise and capabilities in this area, *FY2000 saw the emergence of the high confidence design team.*

HCSS Management

- Information Assurance Research Group
  - Chief, Paul Pittelli
  - D/Chief, Susan Alexander
  - Technical Director, Bob Meushaw

- Cryptology Division
  - Chief, John Stasak
  - D/Chief, Penny Brummitt
  - Technical Director, Paul Timmel

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Methodologies

- To achieve high confidence in our future systems, we must first know how, and then provide the technological means to build.

- The supporting theory and scientific base, to developing engineering science, tools, and techniques will be the focus of this research emphasis.

Trusted Systems

- Trust is the strong belief that a system will behave in predictable and beneficial ways.

- The trusted systems emphasis can be decomposed into three sub-foci: assurance, containment, and detection.

Java

- Java has emerged as a standard for the computing foundation and for programming the Internet.

- The Java research emphasis is focused in the areas of Java infrastructure construction, and the analysis of Java programs.

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Engineering and Experimentation

- Engineering and experimentation provides a vehicle for the techniques and tools under this research focus area to be shown to work effectively and efficiently.

- This emphasis will provide for both mature HCSS reference implementations and the empirical evaluation of HCSS engineering capabilities and limitations.

Welcome!

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