System, Methods and Apparatus for Generation and Verification of Policies in Autonomic Computing Systems

Case Number: GSC- 15079-1
Patent Number: 7,886,273
Patent Exp. Date: 9/18/2026

DESCRIPTION
This technology is a computer-accessible medium storing program for generation and verification of policies in autonomic computing system. The technology performs mapping of policy of system to specific, single implementation, underlying formal model and domain knowledge. The medium includes instructions for translating the policy of the system to the implementation. The policy includes set of rules or principles that describes constraints on the system functionality and prescribes the behavior of the system. The policy of the system is mapped to specific, single implementation as determined by the syntax and semantics of the policy language, underlying formal model and domain knowledge. The implementation is a set of artifacts that provide the functional instance of the system.

FEATURES AND BENEFITS
- The quality of the software and the survivability of the system are improved by specifying policy which automatically generates the equivalent implementation, so that development time and testing requirements are reduced, and correctness of the implementations with respect to the policy specified at the outset is guaranteed.
- The policies are complete and reasonable.

APPLICATIONS
- Mobile Computing
- Game Consoles
- Smartphones
- Internet

FOR MORE INFORMATION
If you are interested in more information or want to pursue transfer of this technology, GSC-15079-1, please contact:

Darryl Mitchell
Technology Manager
NASA Goddard Space Flight Center
Innovative Partnerships Program Office
darryl.r.mitchell@nasa.gov
301-286-5169