

Cloud-Based Dynamic Routing with Feedback in Formal Methods

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Abstract : With the rapid growth of Cloud Computing, Formal Methods became a good choice for the refinement of message specification and verification for Dynamic Routing in Cloud Computing. Cloud-based Dynamic Routing is becoming increasingly popular. We propose feedback in Formal Methods for Dynamic Routing and Cloud Computing; the model and topologies show how to send messages from index zero to all others formally. The responsibility of proper verification becomes crucial with Dynamic Routing in the cloud. Formal Methods can play an essential role in the routing and development of Networks, and the testing of distributed systems. Event-B is a formal technique that consists of describing the problem rigorously and introduces solutions or details in the refinement steps. Event-B is a variant of B, designed for developing distributed systems and message passing of the dynamic routing. In Event-B and formal methods, the events consist of guarded actions occurring spontaneously rather than being invoked.

Keywords : cloud, dynamic routing, formal method, Pro-B, event-B

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