ABSTRACT

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CONFIGURING REVERSE PROXY WITH APACHE, NGINX AND VARNISH-CACHE

(xviii + 79 pages, 82 figures, 9 tables, 3 appendices)

Within the scale of today's internet growth rate, the web should be aware and ready for massive scalability & feature-extendability. Extensive research has been done by Roy T Fielding about "why the old internet infrastructure simply cannot cope up with today's internet" and "how to fix these problems". Roy's research invents a new architecture called Representational State Transfer (REST) as solution. REST architecture explains that layered system and cache implementation are key elements to solve scalability & feature-extendability problems.

Reverse Proxy is one from many methods which allows web platforms to communicate with each other. With proper configuration, Reverse Proxy technique will enable us to create a layered system, dedicate request handler to specific platform and enable caching system in front of the application.

In this research, systems with and without reverse proxy and cache is deployed, configured and analyzed. The result is system with caching application, dedicated request handling with reverse proxy as a "bridge" is more efficient and have better performance than the commonly used "Apache only" architecture.

Reference: 28 (2002 – 2012)