

# iPROXY: A Programmable Proxy Server

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**Abstract:** The main functions provided by traditional proxy servers are storing and forwarding web pages. In upstream, a proxy accepts browsers' HTTP calls and forwards them to Web Servers. In downstream, it caches data from Web servers and forwards it to original callers. iPROXY is an active, intelligent and programmable proxy server that performs additional computations for new services on HTTP calls and/or Web data during the storing and forwarding process. Computations are in fact performed by individual agents, implemented as CGI-bin on iPROXY and executed based on requested URL's. Furthermore, iPROXY provides a common platform for programming agents and a generic mechanism for hosting, integrating and executing agents. To demo its functionality, we have introduced new services in iPROXY, including TCP Tunneling, Chinese URL, Home Page Walking, Pre-Fetching, Archiving Services, and Personal Portal, without changing standard protocols like HTTP, DNS, or HTML, nor modifying existing components such as servers and browsers.