



US 20070113282A1

(19) **United States**

(12) **Patent Application Publication**
Ross

(10) **Pub. No.: US 2007/0113282 A1**

(43) **Pub. Date: May 17, 2007**

(54) **SYSTEMS AND METHODS FOR DETECTING AND DISABLING MALICIOUS SCRIPT CODE**

Publication Classification

(51) **Int. Cl.**
G06F 12/14 (2006.01)
G06F 11/00 (2006.01)
(52) **U.S. Cl.** *726/22; 726/25*

(76) **Inventor: Robert F. Ross**, Rancho Santa Margarita, CA (US)

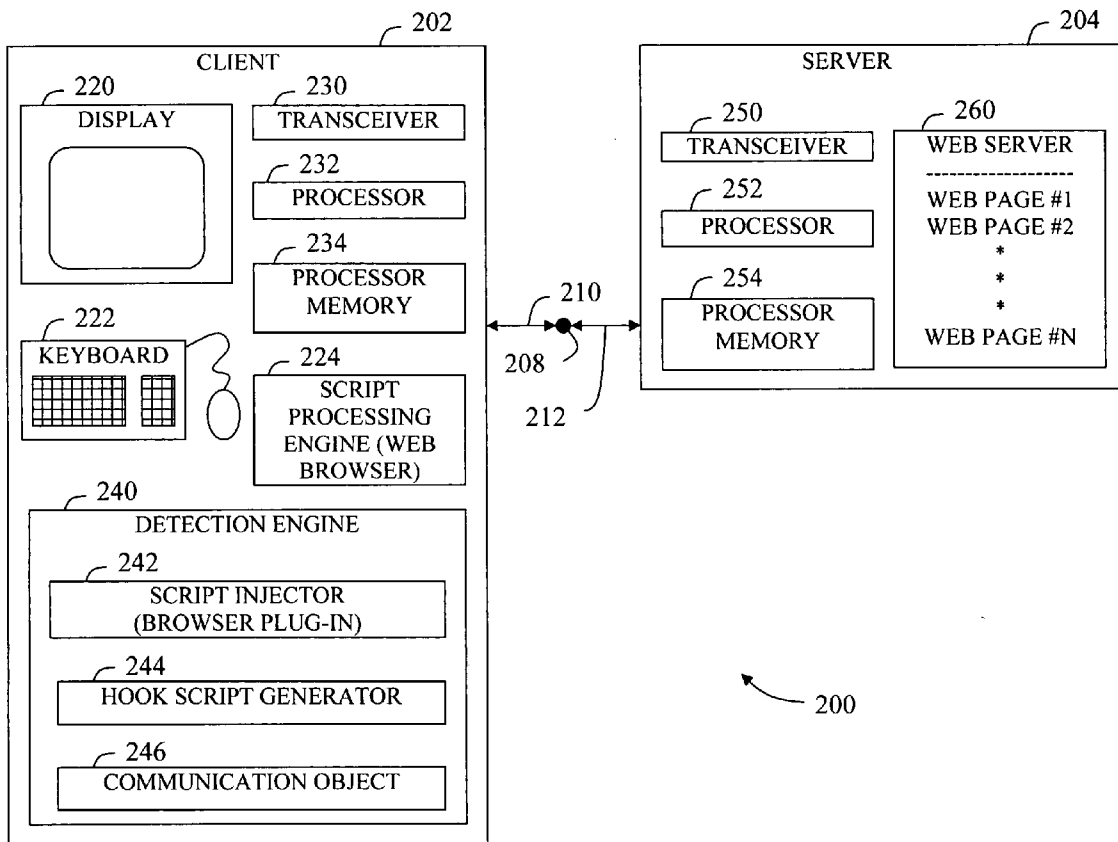
(57) **ABSTRACT**

Correspondence Address:
MACPHERSON KWOK CHEN & HEID LLP
2033 GATEWAY PLACE
SUITE 400
SAN JOSE, CA 95110 (US)

In accordance with at least one embodiment of the present invention, a device for receiving and processing data content having at least one original function call includes a hook script generator and a script processing engine. The hook script generator is configured to generate a hook script having at least one hook function. Each hook function is configured to supersede a corresponding original function. The script processing engine is configured to receive and process a combination of the hook script and the data content. The hook function corresponding to the data content original function is executed when the original function is called. The hook function provides a run-time detection and control of the data content processing.

(21) **Appl. No.: 11/281,839**

(22) **Filed: Nov. 17, 2005**



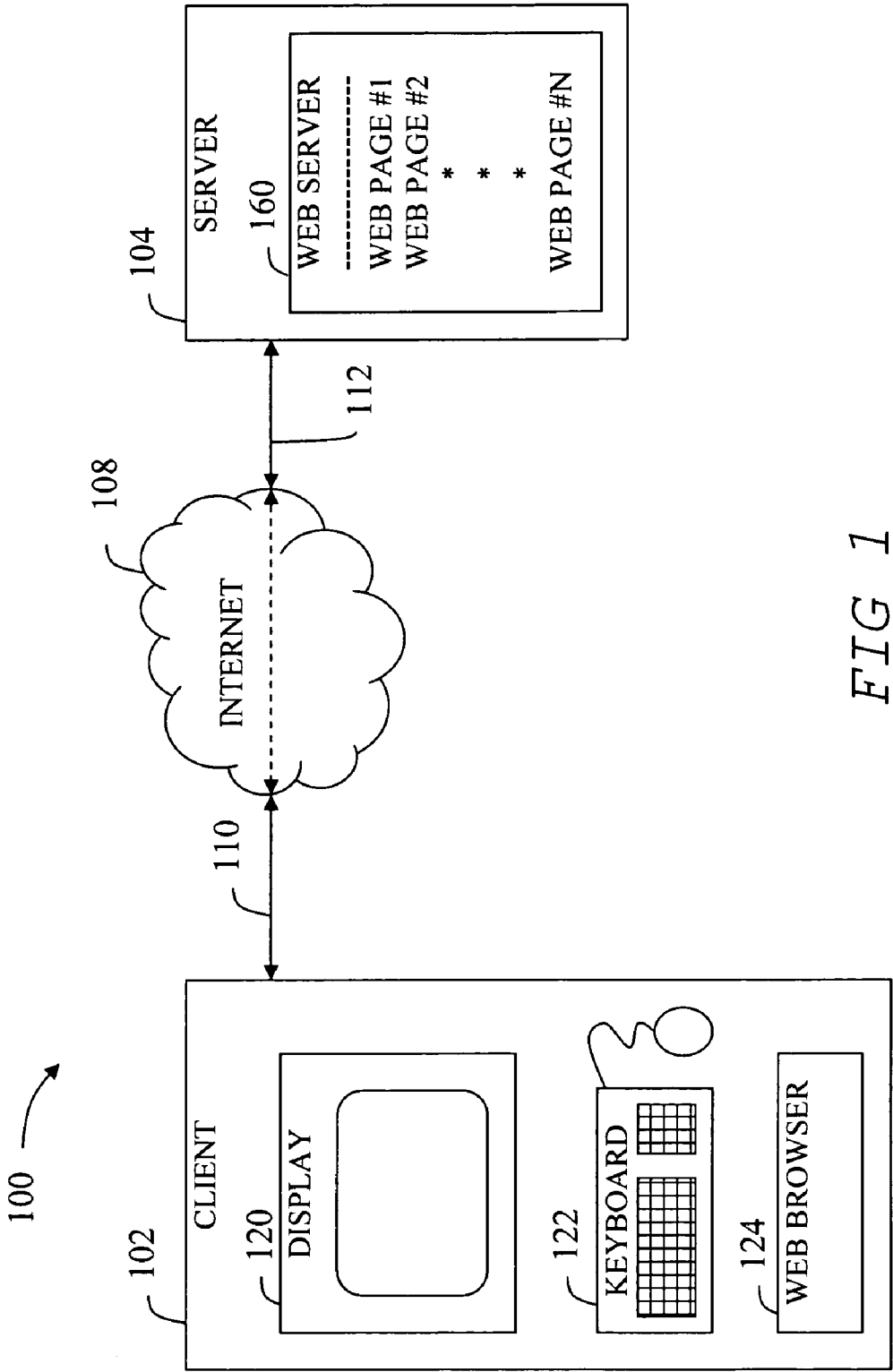


FIG 1
- PRIOR ART -

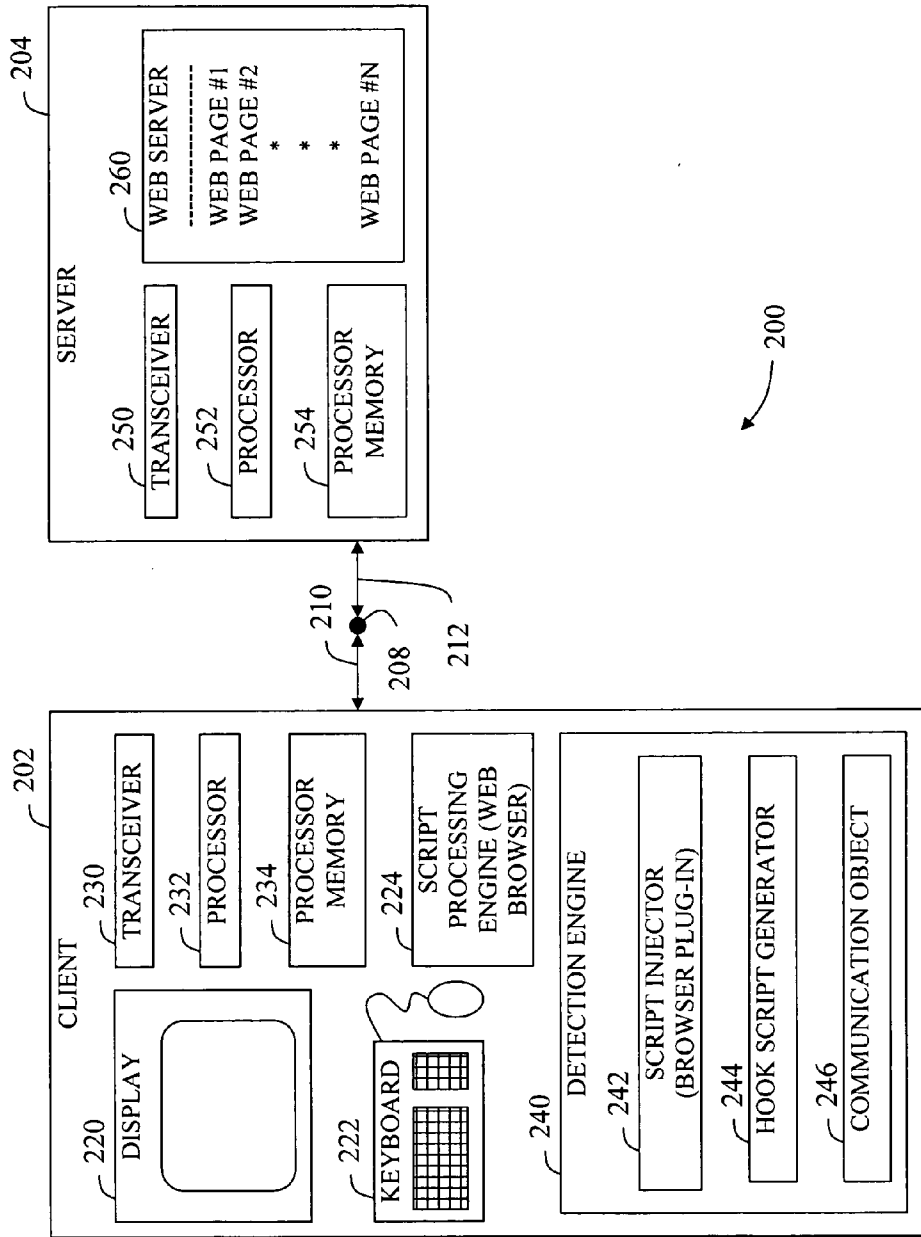


FIG 2

```
// Original Script
<SCRIPT language="JavaScript">
var Req;
Req = new XMLHttpRequest("Microsoft.XMLHTTP");
// Open the request object with MKCOL and specify that it will be sent asynchronously.
Req.Open("MKCOL", folderURL, false);
</SCRIPT>
```

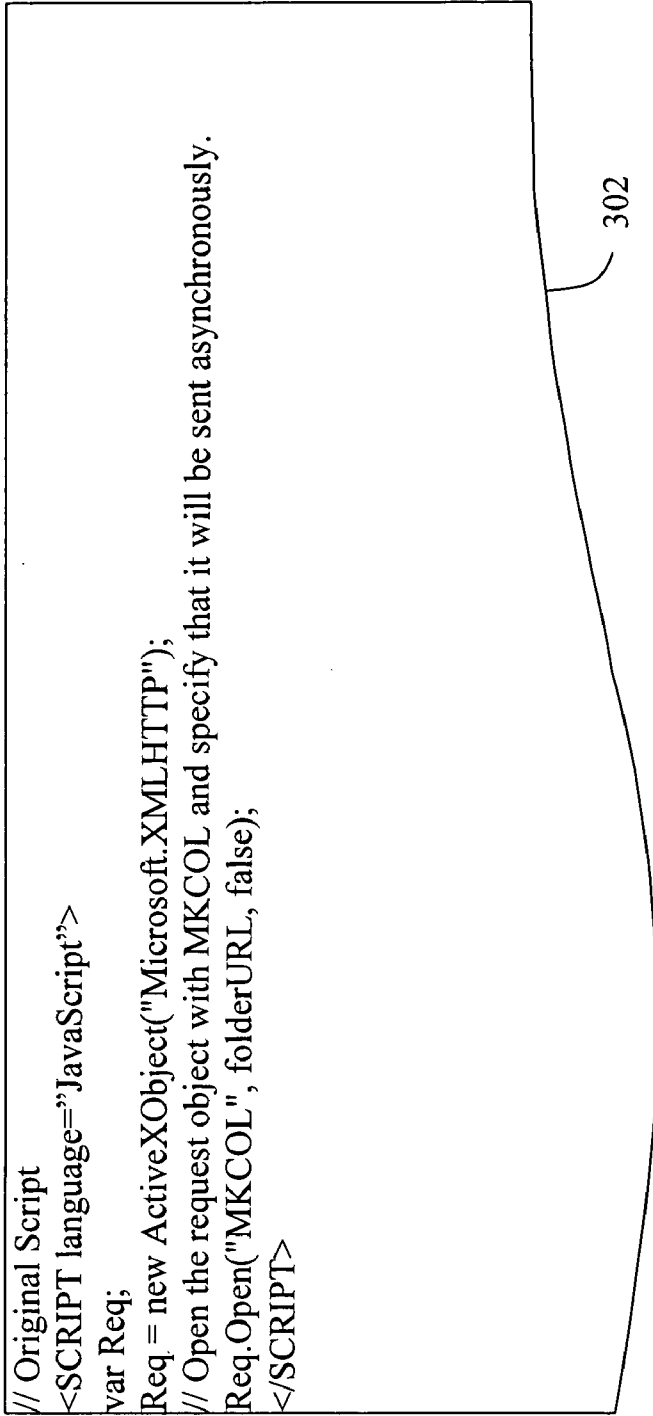


FIG 3

```
// Generated Hook Script (Highly simplified example)
<SCRIPT language="JavaScript">
realAXO = ActiveXObject;
function myXMLObject(realconstructor) {
    // Generated code (create Microsoft.XMLHTTP wrapper object and return it)
}
function HookedActiveXObject(objname) {
    // Security checks go here
    if (objname == "Microsoft.XMLHTTP") {
        return new myXMLObject(realAXO);
    } else {
        return realAXO(objname); // if no more security checks are needed
    }
}
ActiveXObject = HookedActiveXObject;
</SCRIPT>
// Original Script
<SCRIPT language="JavaScript">
var Req;
Req = new ActiveXObject("Microsoft.XMLHTTP");
// Open the request object with MKCOL and specify that it will be sent asynchronously.
Req.Open("MKCOL", folderURL, false);
</SCRIPT>
```

404

302

402

FIG 4

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.