

PATENT AND TRADEMARK OFFICE

UNITED STATES PATENT APPLICATION

of

Andrew C. Merritt

and

Kenneth H. Rosen

for

*A NETWORK-BASED SYSTEM  
ENABLING IMAGE COMMUNICATIONS*

— HB306668802 —

2 The present invention relates generally to a method for image communications,  
3 and more particularly, to a method and system for communicating images across a  
4 network among users with disparate end systems running potentially dissimilar image  
5 protocols and formats.

## 6 BACKGROUND OF THE INVENTION

7 The problem of image file format compatibility has been an issue since the  
8 beginning of computer-based processing of even the most basic graphics. Each  
9 computer and software vendor developed a different approach to representation of  
10 graphics and images, often suited to a particular application area. For example,  
11 vendors of word processing systems each developed their own approach for the  
12 representation of pictorial information that could be incorporated in files generated by  
13 their platforms.

14 As end users began to network microcomputers, first over departmental local  
15 area networks, and then over wider area networks, the problem of file format  
16 compatibility began to grow. Today, with the widespread introduction of image,  
17 multimedia, and video systems, file format compatibility is a major issue in system  
18 development and operation.

19 A number of solutions to this problem have been introduced or proposed. At  
20 the applications level, file import and file export functions have been added which  
21 accommodate a few formats that are different from the active format of the

1 application platform itself. The second solution has been the introduction of software  
2 which does nothing but convert one file format to another. A third solution is to  
3 convert all files to an intermediary format, which then can be used as the "universal  
4 language" among dissimilar systems, and then converted to a different native file  
5 format at a receiving end-user.

6 These approaches have proved useful in and of themselves for a number of  
7 situations, but as imaging applications become more prevalent, image processing  
8 software continues to evolve, image communications becomes more feasible over a  
9 wider range of system applications, and concomitantly as the need for and use of  
10 image communications increases, it becomes ever more difficult and costly for users  
11 to maintain updated premises software. Further, the requirement of converting  
12 between a multitude of formats and protocols serves as an impediment to widespread  
13 access and use of image communications.

#### 14 SUMMARY OF THE INVENTION

15 The present invention overcomes the above, and other, limitations by  
16 providing a system which enables a multitude of dissimilar end-system devices,  
17 appliances, and platforms to interchange image information. In an embodiment of the  
18 present invention, a network-based image processing system includes a network-based  
19 data base which holds profiles of the end users. The profiles typically include the  
20 capabilities of the end systems of the subscribing end users for storing, processing,  
21 and displaying images, preferably including the acceptable and preferred image

1 protocols, compression methods, and image formats for each user. A communication  
2 of an originating image from a calling party to a called party is diverted to the  
3 network-based image processing system. The network-based image processing system  
4 ascertains whether the originating image file format and protocol matches the called  
5 party preferred file format and protocol, which is stored in the data base. If there is  
6 no match, the processing system appropriately converts the originating image file to  
7 the format and protocol of the called party. The image file is then communicated to  
8 the called party. A handshake-like exchange may be used to enable image  
9 communications of parties that are not subscribers and do not have profiles in the  
10 database. In a further embodiment, the network-based nodal image processing system  
11 provides for file return to the called party. The method and system of the present  
12 invention may be applied in systems ranging from local premises-based  
13 communications to wide area communications on either private or public networks.

14 **BRIEF DESCRIPTION OF THE DRAWINGS**

15 The invention will be described in greater detail below by way of reference to  
16 the accompanying drawings, wherein:

17 FIG. 1A shows a generic configuration of an image communication system in  
18 accordance with practicing the present invention;

19 FIG. 1B is an operational flow chart of an exemplary process for image  
20 communications, in accordance with the present invention;

1  
2 accordance with practicing the present invention; and

3 FIG. 3A, FIG. 3B, FIG. 4A, FIG. 4B, FIG. 5, and FIG. 6 illustrate different  
4 information flow sequences in accordance with practicing the present invention for the  
5 system depicted in FIG. 2.

6 **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

7 Figure 1A diagrams a generic system configuration in accordance with  
8 practicing the present invention, and is not limited to any particular network, but may  
9 represent for example, a private/premises-based network, or a public network such as  
10 a public switched telecommunications network (PSTN). As shown in FIG. 1A, a  
11 network-based image communications processing system 10 includes an image  
12 processing node 12, a database 14, and an image conversion server 16. Preferably,  
13 the database 14 maintains information for image service subscribers. As understood  
14 by one skilled in the art, such a system may be implemented as either a one-node or a  
15 multi-node distributed architecture, scalable as required, and may be either network-  
16 based or premises-based, or a hybrid combination of these. In a multi-node  
17 distributed architecture, preferably a plurality of image processing nodes 12, each  
18 which supports the image communications protocol, would access a centralized  
19 database 14, while a separate image conversion server 16 preferably would be located  
20 at each node and be accessible to other nodes via a gateway or bridge. If the network  
21 were to represent the AT&T interexchange network, for example, in addition to other

# 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.