CLAIMS

1. A computer-implemented method, comprising:

scanning, by a user device, a digital object identifier (DOI);

based on scanning the DOI, obtaining, by the user device, service information encoded in the DOI;

caching, by the user device, the service information within memory of the user device;

generating, by the user device, a first service request based on the service information cached within the memory of the user device;

sending, by the user device, the first service request to a service server;

determining, by the user device, non-receipt of a service response from the service server within a predetermined time duration following the sending of the first service request;

in response to determining the non-receipt of the service response from the service server within the predetermined time duration, generating, by the user device, a second service request based on the service information cached within the memory of the user device;

sending, by the user device, the second service request to the service server;

providing, by the user device, a scanning user interface configured to display a retry stop control after sending the second service request to the service server;

receiving user-input indicative of an operation for the retry stop control displayed in the scanning user interface; and

in response to receiving the user-input indicative of the operation for the retry stop control, (i) preventing, by the user device, generation of a third service request and (ii) deleting, by the user device, the service information cached within the memory of the user device.

2. The computer-implemented method of claim 1, further comprising:

receiving the service response from the service server; and

based on receiving the service response from the service server, preventing generation of the third service request.

3. The computer-implemented method of claim 2, further comprising:

deleting the service information responsive to receiving the service response

from the service server.

4. The computer-implemented method of claim 1, further comprising:

deleting the service information after a predetermined cache duration.

5. The computer-implemented method of claim 1, wherein generating the second service request comprises referencing the service information cached within the memory of the user device without additional scanning by the user device.

6. A non-transitory, computer-readable medium storing one or more instructions executable by a computer system to perform operations comprising:

scanning, by a user device, a digital object identifier (DOI);

based on scanning the DOI, obtaining, by the user device, service information encoded in the DOI;

caching, by the user device, the service information within memory of the user device;

generating, by the user device, a first service request based on the service information cached within the memory of the user device;

sending, by the user device, the first service request to a service server;

determining, by the user device, non-receipt of a service response from the service server within a predetermined time duration following the sending of the first service request;

in response to determining the non-receipt of the service response from the service server within the predetermined time duration, generating, by the user device, a second service request based on the service information cached within the memory of the user device;

sending, by the user device, the second service request to the service server;

providing, by the user device, a scanning user interface configured to display a retry stop control after sending the second service request to the service server;

receiving user-input indicative of an operation for the retry stop control displayed in the scanning user interface; and

in response to receiving the user-input indicative of the operation for the retry stop control, (i) preventing, by the user device, generation of a third service request and (ii) deleting, by the user device, the service information cached within the memory of the user device.

7. The non-transitory, computer-readable medium of claim 6, further comprising:

receiving the service response from the service server; and

based on receiving the service response from the service server, preventing generation of the third service request.

8. The non-transitory, computer-readable medium of claim 7, further comprising:

deleting the service information responsive to receiving the service response from the service server.

9. The non-transitory, computer-readable medium of claim 6, further comprising:

deleting the service information after a predetermined cache duration.

10. A computer-implemented system, comprising:

one or more computers; and

one or more computer memory devices interoperably coupled with the one or more computers and having tangible, non-transitory, machine-readable media storing one or more instructions that, when executed by the one or more computers, perform one or more operations comprising:

scanning, by a user device, a digital object identifier (DOI);

based on scanning the DOI, obtaining, by the user device, service information encoded in the DOI;

caching, by the user device, the service information within memory of the user device;

generating, by the user device, a first service request based on the service information cached within the memory of the user device;

sending, by the user device, the first service request to a service server;

determining, by the user device, non-receipt of a service response from the service server within a predetermined time duration following the sending of the first service request;

in response to determining the non-receipt of the service response from the service server within the predetermined time duration, generating, by the user device, a second service request based on the service information cached within the memory of the user device;

sending, by the user device, the second service request to the service server;

providing, by the user device, a scanning user interface configured to display a retry stop control after sending the second service request to the service server;

receiving user-input indicative of an operation for the retry stop control displayed in the scanning user interface; and

in response to receiving the user-input indicative of the operation for the retry

stop control, (i) preventing, by the user device, generation of a third service request and (ii) deleting, by the user device, the service information cached within the memory of the user device.

11. The computer-implemented system of claim 10, further comprising:

receiving the service response from the service server; and

based on receiving the service response from the service server, preventing generation of the third service request.

12. The computer-implemented system of claim 11, further comprising:

deleting the service information responsive to receiving the service response from the service server.

13. The computer-implemented system of claim 10, further comprising:

deleting the service information after a predetermined cache duration.