



Albany &  
Buffalo Divisions



## Metadata: A Backdoor Into Organizations

The totality of metadata provided by documents, photographs and files can lead to significant vulnerabilities for any company. This Cyber Security Advisory is provided to remind the private sector and Federal, state, and local government agencies of the vulnerabilities associated with and the need to effectively control the release of metadata. It is specifically intended to be shared with personnel responsible for policy and information security and dissemination.

### Authorized Distribution:

Please distribute to your employees, customers, clients, and anyone else with an interest.

### Metadata:

Metadata is frequently referred to as “data about data,” or, more accurately, as “content about content.” It is the data stored within each file that provides information on the aspects of the file. For example, some metadata is visible to the user, but more frequently metadata is hidden within the file. This information may include the name of the user who created the file, the file’s network location, the date/time stamp and all of the changes made to the document as it was edited and reviewed. Metadata in a photograph, including photographs taken by smartphones, may include the latitude and longitude where the photograph was taken. Web pages include metadata that provides keywords and programmer notes.

Hackers are capable of mining a company website for documents, photographs and files from which they may retrieve metadata about the organization. By collating this data, it is possible to generate an accurate network map, identify targets and gain information for intrusions, spear phishing and social engineering attacks. Gathering metadata is relatively simple, made simpler in 2009 with the release of the Fingerprinting Organizations with Collected Archives (FOCA) tool, which allows hackers to run Internet searches for an agency’s documents and collect the metadata. An application called “Cree.py” was developed to remind users of the vulnerabilities in photograph metadata, can track a user’s geographic location based on photographs posted to select social networking websites.

Metadata can compromise secure facilities, disclose corporate confidential information, system vulnerabilities, identify employees and can jeopardize negotiations, bidding or lawsuits. Metadata takes advantage of software’s ability to track and recall file changes, which may disclose any amount of compromising information. US case law is diverse on the issue of metadata, but some jurisdictions consider metadata discoverable and require full disclosure of all metadata.

### Recommendations:

- Institute a policy of reviewing documents for metadata to remove the metadata before dissemination.
- Review documents currently available to the public for metadata concerns.

Please send any comments or suggestions to [CTICGfeedback@msisac.org](mailto:CTICGfeedback@msisac.org).

<b>Points of Contact</b>	
<p><b>Multi-State Information Sharing and Analysis Center (MS-ISAC)</b>            31 Tech Valley Drive            East Greenbush, NY 12061            (518) 266-3485            7x24 Security Operations Center 1-866-787-4722  <a href="http://www.msisac.org">www.msisac.org</a></p>	<p><b>FBI Albany</b>            200 McCarty Ave.            Albany, NY 12209            518-465-7551  <a href="http://albany.fbi.gov">albany.fbi.gov</a></p>
<p><b>NY State Police            Computer Crime Unit</b>            1220 Washington Ave.            Building 22            Albany, NY 12226            518-457-5712  <a href="http://www.troopers.state.ny.us">www.troopers.state.ny.us</a></p>	<p><b>NJ Office of Homeland Security &amp;            Preparedness</b>            P.O. Box 091            Trenton, NJ 08625            609-584-4000  <a href="http://www.njhomelandsecurity.gov">www.njhomelandsecurity.gov</a></p>
<p><b>NY State Division of Homeland Security and            Emergency Services            Office of Counter Terrorism</b>            1220 Washington Ave.            Building 7A Suite 710            Albany, NY 12242            518-402-2227  <a href="http://www.dhSES.ny.gov/oct">www.dhSES.ny.gov/oct</a></p>	<p><b>NY State Division of Homeland Security and            Emergency Services            Office of Cyber Security</b>            1220 Washington Ave.            Building 7A Suite 710            Albany, NY 12242            518-242-5200  <a href="http://www.dhSES.ny.gov/ocs">www.dhSES.ny.gov/ocs</a></p>
<p><b>FBI Buffalo</b>            One FBI Plaza            Buffalo, NY 14202            (716) 856-7800  <a href="http://buffalo.fbi.gov">buffalo.fbi.gov</a></p>	<p><b>Pennsylvania State Police</b>            1800 Elmerton Ave.            Harrisburg, PA 17110            717-783-5599  <a href="http://www.psp.state.pa.us">www.psp.state.pa.us</a></p>
<p><b>New York State Intelligence Center</b>            630 Columbia Street Ext.            Latham, NY 12110            (518)786-2100  <a href="http://www.troopers.state.ny.us">www.troopers.state.ny.us</a></p>	<p><b>Michigan Intelligence Operations Center</b>            333 S. Grand Ave.            Lansing, MI 48909            877-616-4677  <a href="http://www.michigan.gov/mioc">www.michigan.gov/mioc</a></p>
<p><b>United States Secret Service, Albany</b>            39 N Pearl St # 2            Albany, NY 12207            (518) 436-9600  <a href="http://www.secretservice.gov">www.secretservice.gov</a></p>	