

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ACTIV FINANCIAL SYSTEMS, INC.,

Petitioner,

v.

EXEGY, INC.

Patent Owner.

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Case No. IPR2020-01010  
U.S. Patent No. 10,062,115

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**DECLARATION OF WILLIAM H. HILDEBRANDT**

I, William H. Hildebrandt, declare as follows:

**I. Overview**

1. I am over 18 years of age and otherwise competent to make this declaration.

2. I submit this declaration in support of a motion to submit supplemental information in the *inter partes* review of U.S. Patent No. 10,062,115. I am not being compensated for my time in connection with this matter outside of my normal compensation from Exegy, Inc.

**II. My Background**

3. I am currently the Director of Information Technology (IT) at Exegy in St. Louis, Missouri. I have worked at Exegy since December 2006 in various roles relating to IT. I have forty (40) years of experience in IT-related fields.

**III. The Search for the Original Thunderdome Document**

4. In mid-January 2021, I was asked to locate and recover all internal documents related to Exegy's Thunderdome project. Two (2) senior level IT staff members and I were involved with this effort.

5. Initially, attempts were made to locate files associated with a former Exegy employee. Specifically, we searched in our active file system for directories associated with the former employee. We believed the directories would likely contain Thunderdome-related documents since the former employee played a role

in the Thunderdome project. We later discovered the former employee had deleted all of his file directories before leaving Exegy.

6. Additionally, we searched for files on a retired workstation of a current Exegy employee. We believed the workstation included file directories containing Thunderdome-related documents. After searching through the retired workstation, we determined files on the workstation had been deleted. We therefore began the process of recovering the deleted file directories from the retired workstation.

7. We recovered several thousand files from the retired workstation, but filenames of the recovered files had been lost. Accordingly, no relevant documents were found on the retired workstation.

8. If the file directories associated with the former employee and the files on the retired workstation had not been deleted, we would have either (a) found the original Thunderdome document, or (b) quickly searched and not found the original Thunderdome document and moved on to find the document elsewhere. As such, if the file directories and files had not been deleted, we would have found the Thunderdome document at least two (2) days earlier.

9. We then attempted to locate archived yearly tape sets that were used to store backups of files such as the original Thunderdome document. Exegy's IT staff members expected to locate the archived tape sets dating back to 2008 in

storage. However, after extensive searching, Exegy's IT department was unable to find any tape set from 2008.

10. Exegy's IT department later discovered that tape sets from older years such as 2008 had been mistakenly overwritten due to operator error. If the older tape sets had not been overwritten, Exegy's IT department would have found the Thunderdome document at least two (2) days earlier.

11. Exegy's IT staff members located a retired backup server that was compatible with magnetic tapes of the tape sets, and brought the retired backup server back online for use.

12. There are multiple methods for restoring files from tape backups. As such, Exegy had to determine the appropriate restore method for each tape set (manual/interactive, incremental, etc.) to recover backups of files. This was a time-consuming process.

13. We then attempted to recover the original Thunderdome document from the located tape sets each comprising up to twenty-seven (27) magnetic tapes. Restoring backups of files from a tape set was a multi-step process. Data from each tape of a tape set had to be retrieved to restore a file system dump. To do this, a single tape was connected to the retired backup server at a time, and data from that single tape was retrieved. Data retrieval from one tape took up to five hours depending on the type of magnetic tape used. For example, if the tape set included

five tapes, it could take up to about 25 hours to restore a file system dump. After the file system dump was restored, the backup server could then attempt to restore individual files from the file system dump.

14. We started our tape set restore attempts with the oldest labeled tape set because the oldest tape set would most likely include the original Thunderdome document. As such, the oldest tape set was deemed the most relevant tape set. We thought the oldest tape set was from May 2013 based on the physical labels on the various tape sets. Therefore, we started the tape set restore attempts with the May 2013 tape set.

15. While attempting to recover files from the various tape sets, Exegy's IT staff members encountered many time-consuming issues, including various read errors while the retired backup server was attempting to recover data stored on the magnetic tapes (e.g., due to corrupted tapes), and processing errors when the retired backup server repeatedly became unresponsive.

16. Each time an issue arose with respect to the tapes or the retired backup server, we had to interrupt the restore process and start over. The issues related to the tapes and the retired backup server occurred in nearly every tape set analyzed between mid-January 2021 and March 3, 2021. These interruptions caused considerable delay in recovering the Thunderdome document. As such, if the read errors associated with the tapes and the processing errors associated with

the retired backup server had not occurred, we would have found the Thunderdome document at least two (2) days earlier.

17. While attempting to recover files from the various tape sets, Exegy's IT department dedicated considerable time restoring and searching a retired file sharing system. Specifically, we discovered a viable copy of the retired file sharing system during the recovery process of a tape set. After this discovery, we rebuilt the retired file sharing system. We searched the system and found potentially relevant documents, but not the original Thunderdome document.

18. Exegy's IT department also dedicated considerable time restoring and searching a retired Wiki system. During the recovery process of a tape set, we discovered partial data from Exegy's retired Wiki system. After this discovery, Exegy's IT department rebuilt the retired Wiki system and searched the system. However, the original Thunderdome document was not found on the retired Wiki system.

19. Additionally, while attempting to recover files from the tape sets, Exegy experienced a major computer-related issue that required immediate and prolonged attention as it impacted operations. Specifically, Exegy's IT department discovered that a business-critical virtual host server had crashed due to an apparent processor failure.

20. The following day, we ran an offline diagnostic after business hours. The offline diagnostics indicated the system had a failing memory module. We therefore had to quickly find a new memory module and replace the failing module with the new one.

21. The analysis required to determine the issues with the virtual host server, and the work required to replace faulty equipment to ensure the virtual host server was operable spanned over multiple days. Due to the severity of consequences resulting from losing the virtual host server, Exegy's IT department was forced to shift resources from the document recovery project to analyzing and fixing issues with the virtual host server. As such, if not for the virtual host server complications, we would have found the Thunderdome document at least two (2) days earlier.

22. While still attempting to recover files from the tape sets, Exegy experienced another major computer-related issue that impacted operations and development projects. As such, this issue was considered business-critical and required immediate attention. Specifically, we noticed issues with one of Exegy's servers after completing updates of its active directories. Exegy's IT department worked through the evening and into the next day before the server issues were resolved.

23. During our search for the original Thunderdome document, Exegy had COVID-19 protocols in place due to the global pandemic, and required nearly all Exegy staff to work remotely. Therefore, at any given time, an IT staff member working remotely had to search for tape sets in offsite storage, prioritize the tape sets by relevancy, travel to Exegy's office, and physically insert tapes into the retired backup server. For example, when Exegy's retired backup server finished retrieving data from one tape of a tape set, an IT staff member had to manually swap out that tape for another tape of the tape set. Accordingly, one of Exegy's IT staff had to routinely drive to the office throughout the evening and night to physically swap out tapes in the server.

24. If the COVID-19 protocols were not in place, more IT staff members could have helped search for and prioritize tape sets. As such, if not for the global pandemic, we would have found the Thunderdome document at least two (2) days earlier.

25. On March 1, 2021, we discovered that one of the tape sets had been mislabeled with the wrong date. Specifically, while the physical label on the tape set had a 2015 date, the software label associated with the tape set read "December 2012." Due to this mislabeling, Exegy's IT department had initially deemed this tape set to be a lower priority than other tape sets.



26. If this tape set had been correctly labeled December 2012 (instead of 2015), we would have started our restore attempts with that tape set because it would have been the oldest and therefore most relevant tape set. Instead, we started with the May 2013 tape set, as noted above.

27. Restore attempts with respect to the mislabeled tape set began on March 1. On March 3, Exegy's IT staff members retrieved the original Thunderdome document from one of the tapes of the mislabeled tape set. As such, after only two days of restoring files from the December 2012 tape set, we located the Thunderdome document. We immediately forwarded this document to David Taylor. Ex. 2014. Therefore, if this tape set had been labeled correctly, it would have been analyzed first, and we would have found the Thunderdome document in January.

28. Attached as Exhibit 2014 is a true and correct copy of an email from Matt Pulliam (an IT staff member) forwarding the Thunderdome document to David Taylor. I was cc'd on this email.

29. While attempting to find the original Thunderdome document, Exegy's IT staff members worked nights, weekends, and a holiday in January and February.

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The matters stated in this declaration are true and accurate to the best of my personal knowledge. Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

Dated: March 15, 2021

  
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William H. Hildebrandt