

Analyst Note

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17a-4 Compliant...to be or not to be: Understanding the storage implications of SEC Rule 17a-4

Recently the National Association of Securities Dealers (NASD) proposed an amendment to Rule 3010 (Notice 03-29) that would require CEOs and chief compliance officers at member firms to annually certify that their compliance and supervisory policies and procedures are adequate. Since the definition and enforcement of policies and procedures are increasingly intrinsic to purpose-built computer systems, senior management should focus increased attention on the adequacy of these systems in satisfying compliance requirements.

Systems that store the member's books and records, including trading ledgers and trial balances, and also systems that archive emails and other correspondence between brokers and clients are examples of systems that will require more attention from senior management to complete the annual certification with confidence. Many systems providers have offerings for meeting SEC requirements, but the technology supported is still very much open to question. In order to have true assurance that the capabilities are met today as well as in the future, serious due diligence must be applied to the technology with which the vendor proposes to meet the requirements.

We believe that the EMC Centera complies with the letter and intent of the SEC requirements for electronic record preservation.

Understanding SEC 17a-4 Compliance and magnetic disk technology

On May 7, 2003 the Securities and Exchange Commission (SEC) released an interpretation of the electronic storage media requirements of SEC Rule 17a-4 (www.sec.gov/rules/interp/34-47806.htm). The release clarifies that the Rule can be satisfied by technologies other than optical disk and lays out a clear blueprint for broker dealers to follow when evaluating a system's ability to meet the Rule's requirements. The release applies to broker dealers deploying electronic storage systems for any required record retention under SEC Rule 17a-4.

At the center of the interpretive release is the discussion of Rule paragraph (f)(2)(ii)(A), which mandates that records cannot be erased or overwritten. The interpretive release elaborates that records must be protected through integrated hardware and software control codes intrinsic to the system, where such codes prevent anyone from overwriting the records. Most importantly, the intrinsic control codes used by these systems cannot be turned off at any level. This means that storage systems that only mitigate the risk a record will be overwritten or erased are insufficient, as are software applications with extrinsic security controls, such as authentication, password and access policies – the most common security methods used in current production systems. The interpretive release emphasizes that systems must physically and logically protect the actual record itself and explicitly does not approve systems that protect the record at the application level.

Our analysis shows that among the field of vendors claiming compliance with SEC Rule 17a-4, EMC Centera most clearly addresses the requirements defined in the interpretive release.

What does the interpretive release mean for securities firms?

The SEC's interpretation does not weaken, relax or change the requirements of the rule, but rather more precisely defines the scope of technologies acceptable for electronically storing broker-dealer records. This release recognizes the fact that there are new technologies that exist today that clearly offer broker/dealers the capability to do their job more effectively while maintaining adherence to all of the requirements set forth in 17a-4. Further, the SEC clearly notes that "special" systems are required for record storage and preservation.

Where special scrutiny is needed

Certain magnetic disk systems currently being marketed for record storage under rule 17a-4 are dependent upon external applications to determine whether particular records, after they are stored, are retained as erasable or non-erasable. Since these applications and associated workflows are external and outside the control of the record storage system, the process flow is more vulnerable to operator error, malfeasance and/or tampering. Accordingly, compliance officers should carefully consider whether or not these systems meet the intent of the regulation before certifying for adequate compliance.

It should be noted that **Centera protects the record through the control codes in the operating system, in the manner required by the rule.**

The second area that should be given close scrutiny is (f)(2)(ii)(B) which requires the system to verify automatically the quality and accuracy of the storage media recording process. Some vendors claim compliance with this requirement by using data checksums; however, this is akin to using a spell-checker to proofread a document in which whole paragraphs have been erased. As long as the words that remain are spelled correctly, the spell checker reports that all is fine. Likewise, checksums are useful only for the blocks of data that were written to the disk and would not detect if entire blocks of data were lost in the data transfer process. Although data loss occurs infrequently, when it does, it usually happens in transfers between applications, in which case, this method of detecting data loss or data corruption is misleading and of little value.

In the approach employed by Centera, the application can calculate the equivalent of a unique checksum for the entire original document and it is rechecked continuously after the write operation. This method allows the compliance officer to certify and prove with confidence that the system verifies with practical certainty that no data is lost or changed between the application and the storage medium and that the verification mechanism is, therefore, adequately compliant. No such proof is possible with the checksum verification methods currently used by other vendors.

Finally, broker/dealers should beware of misstatements by vendors that their technology meets Rule 17a-4 requirements because it has "passed" the 90-day notification period required by the SEC when electronic storage media other than optical disk technology is being employed. The notification is intended to give the DEA (designated examining authority) notice that the technology is being employed by a particular broker/dealer. If the DEA so chooses, it may conduct an inspection for compliance with Rule 17a-4 on day 91, or any day, and shut down the system if it is not convinced that the technology satisfies the rule. In short, hearing no objection from the DEA during the 90-day period is in no way an implicit approval of the technology by the regulators.

Conclusion

The proposed NASD amendment to Rule 3010 continues the trend towards more accountability from senior management in all aspects of operations at securities firms. Email and record retention policies, procedures, and system technology are presently of particular concern to regulators as electronic record volume grows and systems become more complex and define new operational models.

Accordingly, securities firms must demand close adherence by vendors to the letter and intent of regulations along with provable compliance. **Compliant Systems Consulting believes that of all the magnetic disk systems currently available, EMC Centera most comprehensively complies with the letter and spirit of Rule 17a-4** and thereby provides the compliance officer with the highest possible confidence level when certifying compliance.

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