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Sarbanes-Oxley and Its Impact on IT Organizations

How Identity and Access Management
Systems Can Play an Important Role in
Sarbanes-Oxley Compliance



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Background

Among the most critical laws impacting public corporations passed in years is the Sarbanes-Oxley Act of 2002 — referred to as SOX throughout this paper — enacted on July 30, 2002 and signed into law by President George W. Bush. SOX was created by Congress in the wake of the major corporate accounting scandals that occurred in 2001 and 2002, notably Enron & Tyco, in an effort to restore investor confidence and to improve corporate governance and financial transparency.

There are many elements to SOX, including sections that were intended to enhance and tighten financial disclosures, improve “whistle-blower” processes and the well-known requirement for the corporation’s financial statements to be certified by the CEO and CFO. Very importantly, SOX also creates and expands on existing criminal penalties for misrepresentations. No longer will “I didn’t know” provide any legal protection for management.

The primary focus of this white paper is on the impact of SOX requirements on an organization’s IT systems, practices and controls. Specific IT areas that have relevance to SOX compliance activities include data center operations, system software maintenance, application development and maintenance, business continuity and application software integrity. One further critical area of IT control where the relevance of SOX is particularly high is in the control over application access through the use of identity and access management (IAM) processes and technologies. Given this broad area of potential impact on IT, it is clear that IT organizations often will have an important role to play in meeting the requirements of SOX.

IAM solutions, such as those available from CA help to secure and administer access to enterprise information assets and business applications, including financial systems. IAM systems, in support of business processes, manage the digital identities of users who access assets so that access decisions can be made using the best available information about the user. Essentially, IAM systems bring together people, processes and technologies, enabling organizations to manage the lifecycle of relationships with internal and external users, from identity creation to access termination.

With regard to IT controls and the IAM processes needed for SOX compliance, there is limited specificity within the SOX legislation or the final rules adopted by the Securities and Exchange Commission (SEC) on June 5, 2003. Therefore, much of SOX compliance regarding IT controls has been left to interpretation by each company’s management.

This paper provides a review of the IT control environment that compliance with SOX will require; the primary focus is on IAM for large companies. This paper also describes how specific functionality contained in the IAM solution from CA can be used by organizations to meet some of the requirements of SOX and do so in a cost effective and leverage-able manner.

While the widespread use of IAM solutions for SOX related compliance projects remain in the early stages, two points are clear:

SOX will typically require the use of separate IT control frameworks to define what are sufficient IT controls, unlike other regulations with specific IT control requirements, such as HIPAA. Two control frameworks are described in this paper; and

SOX will require close collaboration among Security and IT enterprise architects whose focus is on general use of IAM across an enterprise, and finance, audit and regulatory compliance professionals and external accounting auditors who must define, plan, execute and test for SOX compliance. A key point of this paper is that there are important areas of overlap and that these groups should work closely together.

Sarbanes-Oxley: Section 404

There are many elements to the SOX legislation, but **Section 404: Management Assessment of Internal Controls** is the part that addresses the internal control over financial reporting, where IAM’s related IT controls need to be carefully considered. Section 404 is creating a challenge for management and is one area where budget for addressing control issues is typically being directed.

Compliance with section 404 is also a challenge for the organization’s external auditors who now for the first time must sign-off on management’s assertions regarding the sufficiency of internal controls over financial reporting. This means that IAM related IT controls are one area where the external auditors will be focusing close attention during their audit related activities.

Assuming your company must comply with SOX, the internal control report must address, among other requirements, management’s assessment of the effectiveness of the company’s internal control over financial reporting. It must also include a statement as to whether or not the company’s internal control over financial reporting is effective. As will be discussed below, many of the relevant internal controls can often be best-addressed using IAM solutions.

If for example, management could not adequately control who had access to financial systems or did not know who had gained access and when through a well-defined and documented, highly controlled and auditable IAM process, this could constitute a material weakness in the internal control over financial reporting.

There are many policies, procedures and technologies that might be part of “internal controls over financial reporting” that management must assess. What is it about the requirements published by the SEC that suggests that IAM solutions can contribute directly to SOX processes?

The COSO Framework

As was mentioned previously, the SOX legislation itself does not provide specific guidelines as to what is or is not an effective internal control. However, to provide some guidance to companies required to comply with SOX, the SEC identified the internal control framework developed by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) as one framework that meets its criteria.

As seen in Figure 1 below, the COSO framework has three dimensions — the nature of the control objectives (e.g., operations, financial reporting, compliance); the organizational breadth of the company (e.g., enterprise - level, business unit - level, activity / process - level); and the five components of effective internal control (e.g., Control Environment, Risk Assessment, Control Activities, Information and Communication and Monitoring).



Figure 1. COSO Framework (source: COSO Internal Controls — Integrated Framework).

Using the COSO framework the assessment of controls for financial reporting must address all five internal control components at the appropriate entity levels (e.g., enterprise - level, business unit - level) and the activity/ process - levels that relate to financial reporting. Certain IT processes, including what COSO defines as “Access Security Controls”, clearly part of the IAM domain, must also be assessed under COSO.

In COSO, the access security control (the AM of IAM) processes that should be evaluated for sufficiency include critical activities such as: how individuals establish digital identities, how access rights are granted and monitored, how individuals are authenticated, and how passwords or other authentication mechanisms are used and managed.

Only evaluating the IAM controls of the financial systems that directly generate the financial reports is often not enough. Access to the other systems that are integrated with and directly feed the financial system typically need also be assessed. This broader view of access control is necessary due to the increased exposure and inter-dependency of IT systems in typical large organizations.

In the past IAM controls were fairly simple from a design perspective consisting of access control lists or simple password approaches. The business world in which organizations must compete today is vastly different than it was just a few short years ago. IT has evolved from providing relatively closed, centralized systems with few users, to providing open, decentralized, Web-based systems that are used by many more customers, partners and employees. This evolution, not surprisingly, has placed a strain on existing IAM policies, procedures and technologies.

As the need for access to information from applications and databases by an ever increasing set of internal users, external users and other IT systems (e.g., via Web services) has increased, the simple IAM process designs, practices and controls of the past are no longer able to meet what management should consider as “adequate” as part of its SOX mandated assessment of internal controls over financial reporting.

Senior management must provide reasonable assurances that the identified risks associated with IAM processes, which continue to increase with time, have been addressed through these new control designs. Furthermore, management must regularly validate the operational effectiveness of these new IAM related controls over time.

COBIT Control Objectives

Despite the summary-level guidance discussed above, there is little in the COSO framework related to specific IT controls that are required to meet the goals of what COSO refers to as Control Activities. Given this, management should either look to industry “best practices”, which are often subjective, or look to another controls-oriented framework from an authoritative source.

To answer this problem many companies have begun to look to the Control Objectives for Information and related Technology (COBIT) framework published by the IT Governance Institute. The IT Governance Institute is affiliated with the Information Systems Audit and Control Association (ISACA).

The focus of COBIT is “to research, develop, publicize and promote an authoritative, up-to-date, international set of generally accepted information technology control objectives for day-to-day use by business managers and auditors.” Now in its 3rd edition, COBIT contains a broad set of IT control objectives that provide statements of “the desired result or purpose to be achieved by implementing control procedures in a particular IT activity.” Among these IT controls are many that are directly related to IAM processes and systems.

COBIT draws upon other “business” control frameworks for key definitions and principles, including COSO. As a result, COBIT provides an additional useful level of detail under the broad umbrella of the COSO framework. The COBIT control objectives are organized into four areas including: Planning and Organization, Acquisition and Implementation, Delivery and Support and Monitoring.

One of the key activities within the Delivery and Support area of COBIT that is highly relevant to SOX requirements in particular is an activity entitled “**Ensure Systems Security**”. As is stated in COBIT, the purpose of this activity is to “provide controls that safeguard information against unauthorized use, disclosure or modification, damage or loss through logical access controls that ensure access to systems, data and programs is restricted to authorized users.”

Within “Ensure Systems Security” there are 21 discrete control objectives that COBIT has identified (see the list below). These objectives range from firewalls, virus protection and incident response, to user management, authentication and authorization control objectives. Of these 22 controls, over half relate directly to IAM systems and the IT control processes that they support.

Ensure System Security – COBIT controls (Source: COBIT 3rd Edition):

- Manage Security Measures
- Identification, Authentication and Access*
- Security of Online Access to Data*
- User Account Management*
- Management Review of User Accounts*
- User Control of User Accounts*
- Security Surveillance*
- Data Classification
- Central Identification and Access Rights Management*
- Violation and Security Activity Reports*
- Incident Handling
- Re-accreditation
- Counterpart Trust*
- Transaction Authorization*
- Non-repudiation*
- Trusted Path
- Protection of Security Functions
- Cryptographic Key Management*
- Malicious Software Protection, Detection and Correction
- Firewall Architectures and Connections with Public Networks
- Protection of Electronic Value

**These requirements are directly related to identity and access management systems*

It is reasonable to suggest that management will need to assess controls at this level of granularity before they feel that they can assert that controls regarding access to critical financial information have, in fact, been properly designed and are operating in an effective manner.

As noted earlier, the organization’s external auditor must attest to (i.e. sign-off on) management’s assertions about internal control over financial reporting. Therefore, it is also reasonable to anticipate that this level of granularity will be what the external auditors will expect to evaluate and test as part of an audit, especially in an IT control area as critical as how user identities are managed and how related access controls are provided for financial related systems.

Conclusion

Many organizations are wrestling with the level of effort that will be required for SOX compliance. Armed with the information in this report you should be in a good position to help address the IT control challenges your company faces and understand how IAM solutions, like those available from CA, can provide the foundation for the proper IT control environment in line with COBIT and COSO.

Fortunately, in addition to assisting with SOX requirements, there is a compelling business case for the implementation of IAM solutions that includes lower administrative costs, accelerated revenue growth, greater IT agility, improved application and data security and enhanced end-user satisfaction and productivity. In the near-term, however, the clear value in implementing an enterprise IAM system is in helping organizations to quickly and efficiently comply with recently enacted laws and regulations, such as SOX.

COBIT Compliance: The CA Solution

The control objectives within COBIT provide a sufficient level of detail to address the Control Activities component of COSO. IAM solutions, such as those from CA, should be evaluated at this level of detail if they are being considered as a part of SOX compliance program.

The relevance to COBIT is best understood by mapping the functionality of the company's IAM solution to the

relevant control objectives found in the COBIT framework. The Appendix to this white paper provides a table of the specific control objectives for each of the IAM controls noted in the above list and describes briefly how our IAM solution addresses the requirements.

It is important to note that determining the specific COBIT controls objectives that might be adopted for SOX is a decision to be made by each company based on its specific business, existing systems and SOX interpretation. However, the COBIT list and the Appendix at the end of this paper do provide a baseline from which to begin this determination process.

CA provides an integrated IAM solution that is comprehensive in scope for legacy, web and service-oriented architectures. The CA IAM solution includes all the key technologies for a comprehensive, robust IAM solution. These include identity administration, resource provisioning, access management, and auditing/monitoring. These solutions constitute the most comprehensive IAM solution in the industry because they provide:

- Tight integration across components
- Very broad platform support, from Web to mainframe
- Broad functional capabilities
- Extremely high scalability to even the largest customer environments

The CA IAM solution can be graphically represented as follows:

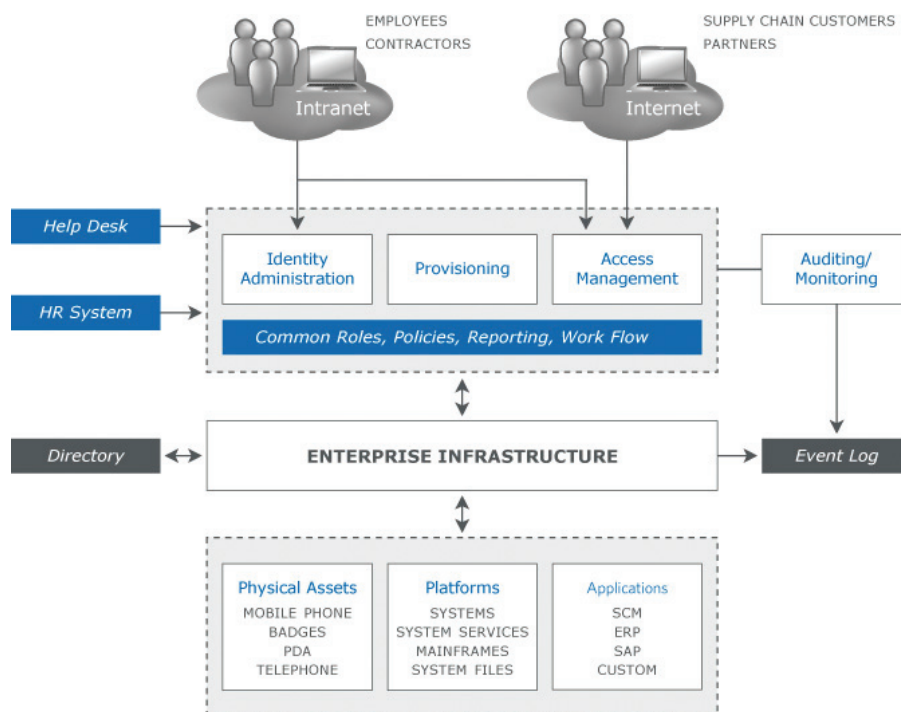


Figure 2. The CA Identity and Access Management Solution.

The solutions in the CA IAM suite include:

Identity Management and Provisioning

CA Identity Manager. CA Identity Manager's advanced user management and provisioning capabilities support the rapid development, deployment and management of a sophisticated user and entitlement management software systems, enabling the efficient and secure delivery of essential web applications.

Access Management

eTrust® SiteMinder®. The eTrust SiteMinder advanced security policy and management capabilities, proven reliability and scalability supports rapid development, deployment and management of sophisticated web security software systems, enabling the delivery of essential information and applications to employees, partners, customers and other users across the enterprise.

eTrust® TransactionMinder®. Similar to eTrust SiteMinder in architecture, eTrust TransactionMinder provides a secure and centralized, policy-based authentication and authorization management capability for Web services. eTrust TransactionMinder integrates with standard Web services frameworks and provides fine-grained access control for XML documents across multi-step business transactions.

eTrust® Access Control. Delivers a consistently strong access policy across distributed platforms and operating systems. This solution provides policy-based control of who can access specific systems, applications and files; what they can do within them; and when they are allowed access. It also provides capabilities for management of "root" privileges for greater administrative security.

eTrust® Single Sign-On. For customers who require secure user access to client-server and legacy-based applications, eTrust Single Sign-On provides single sign-on and password management capabilities, ensuring robust security enforcement. eTrust Single Sign-On works to reduce costs, mitigate risk, aid in compliance adherence, and improve overall user satisfaction and productivity.

eTrust® CA-ACF2 Security and eTrust CA-Top Secret Security. eTrust CA-ACF2 Security and eTrust CA-Top Secret Security along with their DB2 options, enable controlled sharing of your mainframe computers and data, while preventing accidental or deliberate destruction, modification, disclosure and/or misuse of computer resources. It allows you to control who uses these resources, and provides you with the facts you need to monitor your security policy effectively. Unauthorized attempts to access resources are automatically denied and logged. Any authorized use of sensitive resources may also be logged for subsequent review. As parts of a complete enterprise-wide security environment, these solutions also integrate with eTrust® Access Control, propagating password and status updates.

eTrust® Cleanup (for eTrust® CA-ACF2 Security, eTrust® and eTrust® Cleanup for CA-Top Secret Security (eTrust Cleanup and RACF)). eTrust Cleanup provides automated, continuous and unattended security file cleanup by monitoring security system activity to identify security definitions that are used and unused. It identifies access unused beyond a specified threshold and generates commands to remove and restore that access.

Auditing/Monitoring

eTrust® Security Command Center is essential for proactively managing the complexities of an organization's security environment. Its technology enables security administrators to visualize, in near-real time, threats to financial systems or other systems, to identify vulnerabilities to financial systems and to provide a Chief Security Officer or compliance officer with an integrated view of IT assets (for example, accounting or payroll).

eTrust® Audit. eTrust Audit collects enterprise-wide security and system audit information and stores it in a central database for easy access and reporting. It consolidates data from UNIX and Windows servers—as well as other eTrust products. Administrators use eTrust Audit for monitoring, alerting, and reporting information about user activity across platforms.

eTrust® Vulnerability Manager. eTrust Vulnerability Manager offers automated services and technologies that combine vulnerability assessment, patch remediation and configuration remediation in an easily deployable appliance with a web-based user interface.

eTrust® CA-Examine Auditing for z/OS. eTrust CA-Examine is an industry leader in automated review and auditing for z/OS operating system integrity and verification. It provides important information about system security, integrity and control mechanisms, which are extremely difficult to obtain from other sources.

Appendix

COBIT IAM Related Controls and How CA IAM Addresses Them

COBIT Control Activity	COBIT Control Objective	Relevant Functionality
Identification, Authorization and Access	<p>The logical access to and use of IT computing resources should be restricted by the implementation of adequate identification, authentication and authorization mechanisms, linking users and resources to access rules.</p> <p>Such mechanisms should prevent unauthorized personnel, dial-up connections and other system (network) entry ports from accessing computer resources and minimize the need for authorized users to use multiple sign-ons.</p> <p>Procedures should also be in place to keep authentication and access mechanisms effective (e.g., regular password changes).</p>	<p>CA Identity Manager provides identity creation and management services through delegated user administration, user self-service, integrated workflow, and a structured administrative model to enable role-based access control thus providing an effective mechanism for managing user's access to protected resources.</p> <p>eTrust SiteMinder and eTrust Single Sign-On provide control over what type of authentication method is used to protect a resource and how that authentication method is deployed and managed. By centrally managing all authentication systems and using the advanced authentication policy management capabilities of these products, companies can deploy mixed authentication methods based on resource value and business needs, thus providing the right level of resource protection for a given resource.</p> <p>eTrust Access Control (and eTrust CA-ACF2 and eTrust CA-Top Secret Security on the mainframe) provides strong access management for host-based resources, protecting servers from unauthorized access to files, databases, and system repositories. It also provides strong login controls (the mechanism and location used to login) and password controls (policies for the format, length, and re-use of user passwords).</p> <p>eTrust Access Control also provides granular assignment of superuser ("root" or Administrator) access rights to each individual, so that the security risks inherent in excessive administrator entitlements are eliminated.</p> <p>eTrust Single Sign-On improves session security by preventing multiple logins from the same person, and by automatic logout in the event of an inactivity period expiration. These capabilities help identify potential improper access attempts or vulnerabilities.</p>

COBIT Control Activity	COBIT Control Objective	Relevant Functionality
Security of Online Access to Data	In an online IT environment, IT management should implement procedures in line with the security policy that provides access security control based upon the individual's demonstrated need to view, add, change or delete data.	CA's eTrust IAM solution provides security and access management based on policies that are built around the user and his/her role with the organization and his corresponding need to interact with protected resources. eTrust Access Control (and eTrust CA-ACF2 and eTrust CA-Top Secret Security on the mainframe) also controls access to all files and databases residing on host systems.
User Account Management	<p>Management should establish procedures to ensure timely action relating to requesting, establishing, issuing, suspending and closing of user accounts. A formal approval procedure outlining the data or system owner granting the access privileges should be included.</p> <p>The security of third-party access should be defined contractually and address administration and non-disclosure requirements.</p> <p>Outsourcing arrangements should address the risks, security controls and procedures for information systems and networks in the contract between the parties.</p>	<p>CA Identity Manager is designed specifically to address the challenges of user management (requesting, establishing, issuing, suspending and closing of user accounts). Once a user has a digital identity, whether it is a company officer, a business partner, an employee, or a casually interested customer, access to corporate resources can be managed while safeguarding proprietary resources.</p> <p>CA Identity Manager provides an integrated workflow capability that is used to manage user access requests through a formal and efficient approval process. CA Identity Manager also provides a flexible, role-based, delegated user administration capability that is used to more efficiently manage changes, suspensions and terminations to user access.</p> <p>Using eTrust SiteMinder, security policies can be defined and be enforced centrally to make sure that third-party access to applications is sufficiently controlled.</p> <p>Federated IAM environments (including the integration with outsourcers) are expanding to provide a trusted environment, including third parties. CA's solutions support these federated models through SAML and through initiatives such as the Liberty Alliance and others.</p>
Management Review of User Accounts	Management should have a control process in place to review and confirm access rights periodically. Periodic comparison of resources with recorded accountability should be made to help reduce the risk of errors, fraud, misuse or unauthorized alteration	<p>Significant auditing and reporting capabilities enable the review of user access privileges and how they have used those privileges in the past. As an example, eTrust SiteMinder audits all user and site activity, including all authentications and authorizations, as well as administrative activity.</p> <p>In addition, CA Identity Manager provides data and reports regarding the current entitlement level of a user or groups of users. Cumulatively these reports can be used to help reduce the risk of errors, fraud, misuse, or unauthorized alteration.</p>

COBIT Control Activity	COBIT Control Objective	Relevant Functionality
User Control of User Accounts	Users should systematically control the activity of their proper account(s). Also information mechanisms should be in place to allow them to oversee normal activity as well as to be alerted to unusual activity in a timely manner.	Through user self-service and detailed reporting, users can be aware of the systems and data they have access to and whether their identities and authentication have been compromised. Also, administrators can be alerted to any unusual behavior concerning protected resources.
Security Surveillance	IT security administration should ensure that security activity is logged and any indication of imminent security violation is reported immediately to all who may be concerned, internally and externally and is acted upon in a timely manner.	<p>The company's IAM solution provides in-depth auditing and reporting capabilities to support granular information collection and analysis on access and user entitlements. Activity, intrusion and audit information are provided to enable the tracking of imminent and past security violations.</p> <p>As an example, eTrust SiteMinder tracks user sessions so administrators can monitor the resources being accessed, how often users attempt access to particular resources and how many users are accessing certain applications.</p> <p>eTrust Access Control (and eTrust CA-ACF2 and eTrust CA-Top Secret Security on the mainframe) provides extensive and configurable logging capability, so that all access events and administrator actions can be audited and tracked.</p> <p>eTrust Security Command Center can also provide an automated vulnerability analysis of the network, so that un-remediated vulnerabilities can be isolated and corrected.</p>
Central Identification and Access Rights Management	Controls are in place to ensure that the identification and access rights of users as well as the identity of system and data ownership are established and managed in a unique and central manner to obtain consistency and efficiency of global access control.	<p>Centralized controls and processes can be established to manage the creation and management of identities and the creation and management of fine-grained access management using roles-based access control (RBAC). Centralized identity management and access control provides both greater efficiency and greater security.</p> <p>eTrust Access Control (and eTrust CA-ACF2 and eTrust CA-Top Secret Security on the mainframe) provides centralized role-based management of all user access policies for host-based resources. It also prevents excessive superuser entitlements by providing granular assignment of specific superuser rights to each administrator.</p>

COBIT Control Activity	COBIT Control Objective	Relevant Functionality
Violation and Security Activity Reports	<p>IT security administration should ensure that violation and security activity is logged, reported, reviewed and appropriately escalated on a regular basis to identify and resolve incidents involving unauthorized activity. The logical access to the computer resources accountability information (security and other logs) should be granted based on the principle of least privilege, or need-to-know.</p>	<p>The company's IAM solution provides both preventive and detective methods of control through fine-grained policy deployment, authentication and authorization functionality—and detailed auditing and reporting functionality.</p> <p>Access to the accountability information can be controlled and access to protected resources can be granted based on the role of the person. Roles and the application entitlements that come with them can be granted based on whatever principle meets the organization's requirements.</p>
Counter Party Trust	<p>Organizational policy should ensure that control practices are implemented to verify the authenticity of the counter-party providing electronic instructions and transactions.</p> <p>This can be implemented through trusted exchange of passwords, tokens or cryptographic keys.</p>	<p>eTrust SiteMinder and eTrust Single Sign-On provide for the management of many authentication technologies including passwords, tokens, X.509 certificates, custom forms and biometrics, as well as combinations of authentication methods.</p> <p>Thus, these products can be used to match the appropriate authentication mechanism to the resources importance to the organization. This provides just the type of authentication to meet the organization's requirements.</p>
Transaction Authorization	<p>Organizational policy should ensure that, where appropriate, controls are implemented to provide authenticity of transactions and establish the validity of a user's claimed identity to the system.</p> <p>This requires use of cryptographic techniques for signing and verifying transactions.</p>	<p>eTrust TransactionMinder secures Web services transactions to ensure that the requestor is properly authorized.</p> <p>In addition, the eTrust IAM Solutions support strong encryption of data and control information that they process.</p>
Non-Repudiation	<p>Organizational policy should ensure that, where appropriate, neither party can deny transactions and controls are implemented to provide non-repudiation of origin or receipt, proof of submission and receipt of transactions.</p> <p>This can be implemented through digital signatures, time stamping and trusted third parties, with appropriate policies that take into account relevant regulatory requirements.</p>	<p>eTrust SiteMinder and eTrust Single Sign-On support a wide range of authentication approaches to ensure that repudiation is not a problem. eTrust SiteMinder authentication policies give security administrators unique management capabilities to mix and match authentication methods and brand/customize the authentication form.</p> <p>Both eTrust TransactionMinder and eTrust SiteMinder ensures transaction non-repudiation by recording every transaction so that a complete audit trail, including authentication information that is provided, is available in situations where repudiation could be an issue.</p>

COBIT Control Activity	COBIT Control Objective	Relevant Functionality
Cryptographic Key Management	<p>Management should define and implement procedures and protocols to be used for generation, change, revocation, destruction, distribution, certification, storage, entry, use and archiving of cryptographic keys to ensure the protection of keys against modification and unauthorized disclosure.</p> <p>If a key is compromised, management should ensure this information is propagated to any interested party through the use of Certified Revocation Lists or similar mechanisms.</p>	<p>eTrust SiteMinder supports integration with HSMs (hardware storage modules) for greater security in encryption key storage and use.</p> <p>In addition, eTrust SiteMinder supports Certificate Revocation List (CRL) processing. Typically, this requires finding the CRL in a directory and searching it to ensure the current certificate has not been revoked. Furthermore, eTrust SiteMinder supports the use of OCSP for real-time certificate validation.</p> <p>For mainframe environments, eTrust CA-ACF2 and eTrust CA-Top Secret Security also offer the ability to securely generate, store and authenticate with PKI certificates.</p>
Malicious Software Prevention, Detection, and Correction	<p>Management should define and implement procedures to ensure that critical systems are not vulnerable to malicious software such as viruses and other attacks.</p>	<p>eTrust Integrated Threat Management provides comprehensive antivirus and anti-spyware capabilities. Anti-Spam is also available through the CA Secure Content Manager.</p> <p>eTrust Access Control also provides self-integrity checking, so that Trojan horse access control components cannot be introduced into an environment.</p> <p>On the mainframe, eTrust CA-Examine Auditing provides a thorough, easy-to-use interface to detect and explain configuration and other integrity exposures.</p>

