

A large, light gray wireframe globe is positioned on the left side of the page, partially overlapping the white background. It consists of a grid of latitude and longitude lines.

Proactive IT Triage™ for Sarbanes – Oxley Compliance

Get Aligned. Stay Compliant. Reduce Costs

866 526 6700

www.eginnovations.com



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Overview

This paper illustrates how the eG Suite can accelerate efforts to comply with Sarbanes-Oxley (SOX), help align IT with the needs of the business, and reduce costs at the same time. It is not intended to be a detailed discussion of SOX, but simply suggests how the implementation of the eG Suite is consistent with --- and enhances --- any organizations' ability to get and stay SOX-compliant.

Most IT organizations are not lacking measurement data, in fact they are buried in it! eG's patented dataflow and dependency technology provides an easy, effective way to put all of these measurements into the context of a company's critical business services, automatically establish baselines for every layer of every component associated with each service, and proactively inform IT and/or the user which layer of which component is the root cause of any abnormality.

This Proactive IT Triage™ capability provides for extremely rapid time-to-value, freeing up precious IT resources to focus on other compliance areas and business imperatives. In addition, orienting each of these measurements around the key business services associated with the business is an important step in getting (and staying) SOX-compliant.

Finally, the eG Suite installs in days --- not weeks or months --- and provides a way for both IT and business executives to align their objectives, stay compliant, improve service levels and reduce costs.

Translating SOX to IT



CEO's and CFO's are the ones on the firing line associated with SOX. **No sane person wants to go to jail!** These executives must:

- Attest to the adequacy and effectiveness of internal controls
- Identify significant financial accounts, the business processes that support these accounts, and the applications/IT systems that support these processes
- Document and test controls at all levels
- Identify gaps found in audits and get them fixed
- Establish repeatable/foolproof processes and practices to stay compliant; people-based processes/controls may no longer be sufficient

IT systems/services that are responsible for supporting financial applications could include HR, Payroll, Inventory, Accounts receivable, Accounts payable, Order entry, Purchasing, (virtually any business service that impacts the company's general ledger).

Adding to the complexity, the access infrastructure associated with each of these services --- Citrix®, mail, databases, network infrastructure devices, etc. ---- must also be part of the analysis.

In fact, some consulting companies are literally starting with the company's balance sheet and reverse engineering to determine each IT system/service that impacts the numbers. **This amounts to what is essentially a data flow of each critical business service.**

CFO's will not be able to prove compliance without the help of the CIO. Significant investments in software and business processes may be required for compliance. This presents the CIO with an opportunity to improve IT's alignment with the business and control costs as well.



What does 'compliance' mean?

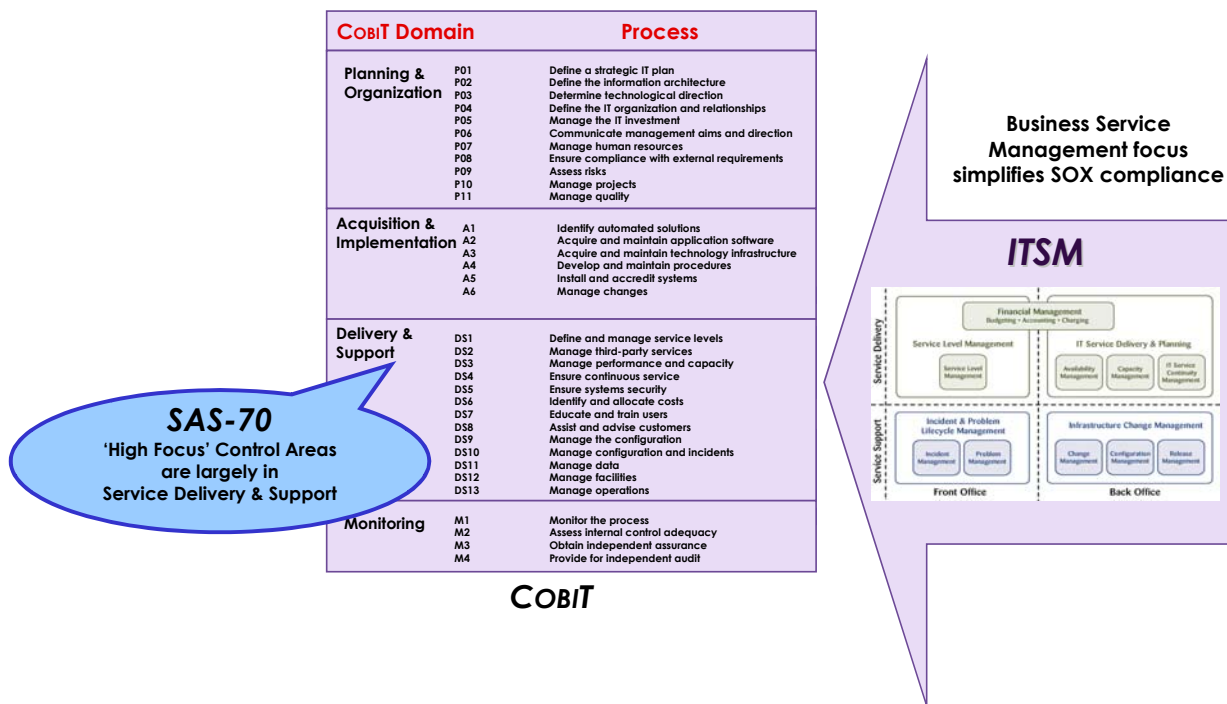
There's been some confusion over exactly what 'SOX compliance' means, and in fact the rules are not all established yet. However, if you look at the standards and best practices surrounding SOX one can see how it translates to IT. For purposes of this discussion, let's look at the following:

- **Sarbanes-Oxley** - Section 404 of the Sarbanes-Oxley Act mandates that CFOs have to do more than simply pledge that the company's finances are correct; they have to vouch for the processes used to add up the numbers.
- **Control Objectives for Information and related Technology (COBIT)** - Defined by the IT Governance Institute, formerly the Information Systems Audit and Control Foundation (ISACF).

- **Statement on Auditing Standards – 70 (SAS-70)** - Auditing standard developed by American Institute of Certified Public Accountants (AICPA). Focused on Service Organizations; specifically, controls over information technology and related processes. Third party providers (such as IT outsourcers) conduct SAS-70 Audits.
- **IT Service Management (ITSM)** - An ITIL framework that identifies best practice processes for the management of IT Services, focusing on Service Support and Service Delivery Management.

The COBIT standard defines 34 key processes as 'control processes', which relate directly to SOX compliance. IT outsourcers will typically be required to undergo SAS-70 audits, which focus on IT-oriented controls, and of course IT has its own best practices such as ITSM.

If you look at the relationship between SOX, COBIT, SAS-70 and ITSM you can see that IT Service Delivery and Service Support are (not surprisingly) a key focus for SOX compliance. Companies that adopt a business services approach to managing IT will have an easier time staying compliant than those that do not.

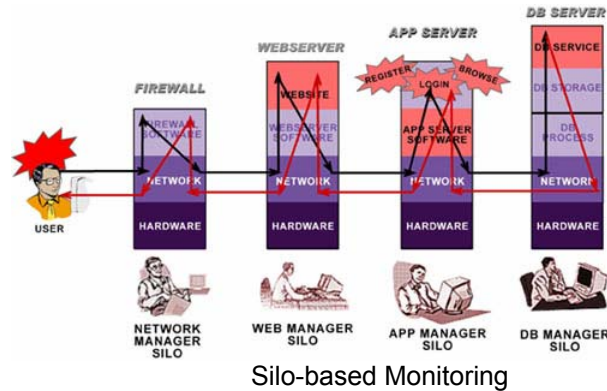


The eG Suite

The recent evolution of IT infrastructures towards 'n-tier' poses key monitoring and management challenges:

- Over 73% of failures in IT infrastructures are attributed to application software and servers. Hence, there is growing need for monitoring application software.
- While the use of multi-tier architectures helps with respect to infrastructure scalability, it also poses interesting challenges. Since the end-to-end service involves multiple dependent applications and network elements, a failure in one application (e.g.,

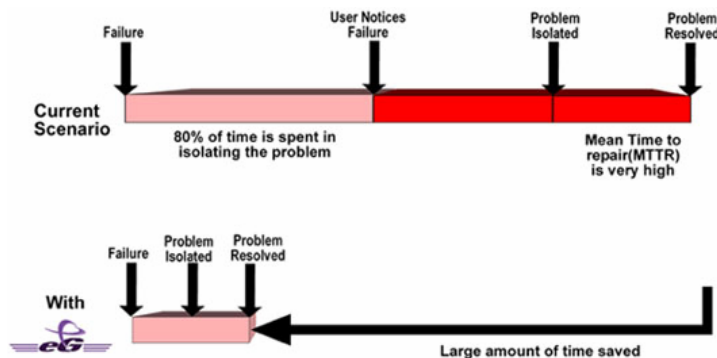
database) affects all the other applications involved in the service. Consequently, problem identification and correction is a huge challenge. Monitoring applications and networks as independent silos is no longer sufficient for problem diagnosis in IT infrastructures.



- Owing to the complexity of IT infrastructures, it is no longer reasonable to expect that a single operator can be proficient in all the diverse infrastructure technologies. Infrastructure teams often have domain experts (e.g., Oracle DBA, WebLogic admin, etc.) and application developers who take responsibility for the deployment, while another team of operators is responsible for the day-to-day operation of the service. The service operators have to deal with monitoring tools that require a great deal of expertise to operate and often struggle to determine which domain expert/developer to call on to resolve a problem.

The eG Suite provides a comprehensive solution that enables IT infrastructures to address the above challenges:

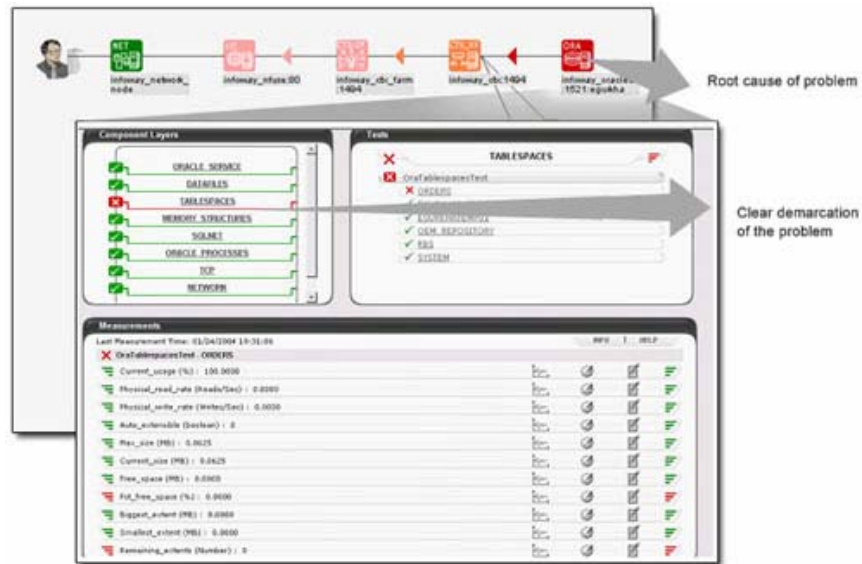
- Integrated multi-tier monitoring:** Taking a holistic approach, the eG Suite allows IT operators to track the quality of the business services and relate this to critical network, system, and application performance. Pre-defined models for over fifty popular software applications ensure that service operators can start managing their infrastructure, without needing to acquire a great deal of expertise.



- Focus on the cause rather than effects:** eG's patented automatic triage capability makes problem diagnosis very simple. Considering inter- application and network interdependencies, eG is able to automatically differentiate between the cause and

effect of problems, so service operators can focus on the cause, rather than being distracted by the effects.

- **Clear problem demarcation:** eG's layer model representation for different applications and network devices enables clear demarcation of the problem (i.e. whether network, server, or application) with minimal effort. This capability eliminates finger-pointing across domains.



Unlike other correlation solutions that are network only, eG's correlation engine correlates across the network, system and application tiers. Correlation is performed in two phases, understanding the intra-application and inter-application dependencies. Furthermore, unlike existing solutions that require elaborate and time-consuming correlation rules to be developed, eG's correlation engine works out-of-the-box, without requiring extensive consulting and customization. This powerful capability ensures that administrators can get eG's correlation capability running in a few hours, rather than in a few months.

While these capabilities have very significant potential benefits to IT, let's look at how eG can enhance a company's efforts to comply with Sarbanes-Oxley.

How eG Helps with SOX Compliance

As stated earlier, the CEO/CFO must certify the truthfulness of financial records and the systems used to maintain/generate these records.

The eG Suite allows IT to create business service views of all critical systems that impact SOX compliance, and monitor in real time all aspects of each monitored service:

- What are the normal access patterns?
- Which users were logged in at different times? What applications were they using?

- What times were these systems down? What other systems/applications down at the same time?
- Was there unusual activity/traffic from these servers? When?
- Were there any errors in the Event logs/syslogs?

In addition, SOX will require that the basis for the reports must be archived and available for audit. The eG Suite stores all collected measurements in an SQL compliant database for retrieval as required.

Stay Compliant

SOX requires reporting of material process changes every quarter. eG provides several capabilities that make it easy to meet this need:


- **Auto-discovery of servers and applications** - Newly added servers/applications are stored in the eG database, including disk drives, network interfaces, application components (tablespaces, java modules), etc. are discovered and monitored
- **Service topology mapping documents data flow for critical services** - As mentioned earlier, this is likely to be required to get and stay compliant. Configuration backups of eG can be used to document material changes in service topology. In addition, system/application performance baselines can be auto-computed, so "norms" are established; of course, these can be stored for post-facto audits as well. Finally, personalized views mirror the responsibilities of IT staff; which can be used to document any change in roles/responsibilities of IT staff.

SOX compliance may also require reporting of material changes to financial conditions or operations. Performance of IT systems often has a material impact on business processes. Proactive problem detection, instant alerting helps reduce business downtime and immediately alerts the appropriate person when potential problems may occur. eG's extensive reports on IT network, system, application reliability, performance, and usage can be used by executive and operational staff to ensure service levels are meeting the needs of the business.

Get Aligned, Stay Compliant, and Reduce Costs with eG Innovations

Leveraging the eG's Proactive IT Triage™ Suite for SOX compliance provides IT with an opportunity to:

- Ensure peak performance and availability of your business services. Top-down monitoring - of services first, and patented correlation with network, system, and application performance.
- Improve service uptime and enhance customer satisfaction. Automatic triage/root-cause diagnosis allows problems to be quickly isolated and resolved.
- Enhance operational efficiency and streamline IT operations. With automatic root-cause diagnosis, IT staff can focus on the real sources of problems, not be distracted by the effects.
- Enable infrastructure optimization - leverage existing assets. Trend analysis and auto-baselining facilitates effective capacity planning. Allows you to get more out of your existing investments in software/hardware.

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- Get and stay SOX compliant by documenting critical business service data flows, metrics associated with each business service, and archival of these metrics as a by-product of real-time monitoring of the infrastructure.

For More Information

eG Innovations, Inc.
<http://www.eginnovations.com>
sales@eginnovations.com