



WHITEPAPER

Precise for SAP and ITAR

Transaction Performance Management in ITAR controlled SAP environments

International Traffic in Arms – Are you impacted?

International Traffic in Arms Regulations (ITAR) is a set of United States government regulations introduced to increase control over the export of sensitive material. These sensitive materials could be blueprints, drawings, photographs, plans, instructions or documentation found in enterprise databases, portals, content management or ERP systems.



Due to the interrelationships of data structures in modern IT systems it is becoming increasingly difficult to single out ITAR relevant data. For example, technical documentation may sit side-by-side with sales training information in corporate portals, or blueprints and photographs may be attached to sales order documents, material master records, or project tasks.

Most affected organizations today successfully manage end-user access to information access at the application level, using *access management* and *data classification* technologies. Those approaches work well to support most common business processes, such as order-to-cash, procure-to-pay or hire-to-retire.

However, challenges remain when it comes to the actual management of IT resources such as applications, servers, databases and storage. When critical data or reports are not available quickly enough, IT teams are called in to resolve the problem. When troubleshooting, IT management has to be aware of—and comply with—ITAR restrictions, as violations can carry heavy penalties including fines and imprisonment.

Implications for Application Performance Management

As application architectures have become more modular and distributed, the challenges involved for IT to deliver predictable application response times have **skyrocketed**. No longer considered an afterthought, comprehensive application performance management (APM) has become a top priority for IT departments. Maintaining good reporting and transaction response times is considered a key success factor for initiatives such as new functionality roll-out, application upgrades, or datacenter consolidation and virtualization.

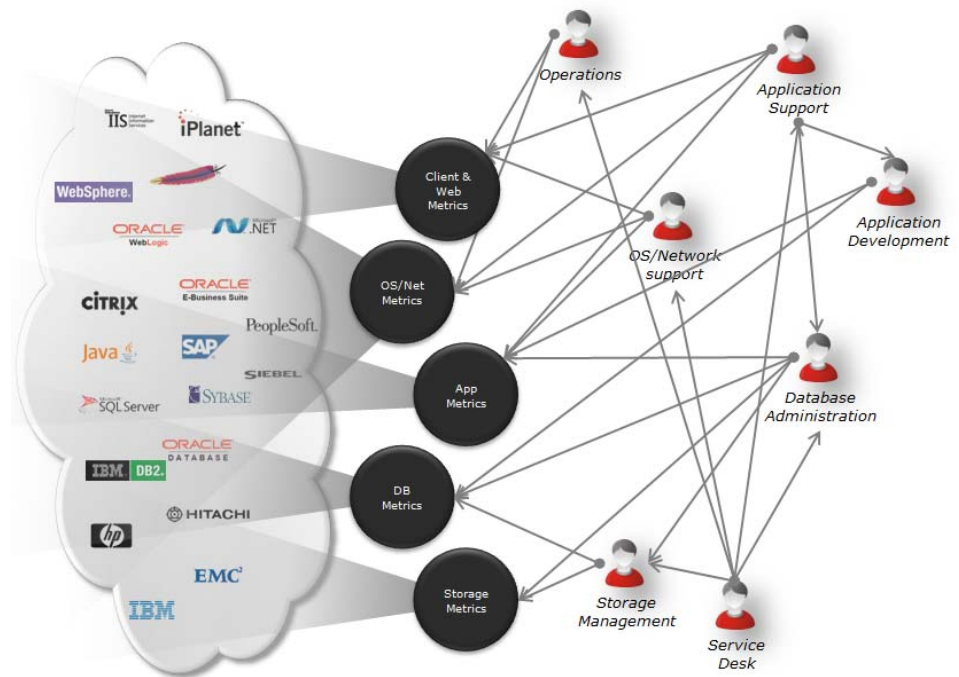
Effective management of application performance requires a detailed understanding of the transactions and reports as they flow through enterprise systems. Analyzing, triaging and tuning systems cannot be managed at “arms length.” To solve problems, IT needs to investigate the underlying mechanics responsible for application slowdowns. Detailed, high-quality information is needed to help isolate the offending infrastructure tier (such as application server, Web, network, database, storage system), and drill down to the actual root cause (such as a slow SQL query, an inefficient Java routine, or storage contention).

APM challenges in ITAR environments

The conventional approaches for managing information security at the application are insufficient for the more technically involved activities related to APM. In certain emergency situations (such as sudden production downtimes) it may seem reasonable to grant broad system access to accelerate problem resolution (such as “SAP_ALL” access, in case of SAP systems). However, in ITAR controlled environments the shortcomings of this approach are evident.

Complicating IT's mission are several key factors which must be taken into account in order to deliver on mission critical application SLAs:

- > **Collaboration:** Resolving tough performance problems typically requires the collaboration of multiple teams, across many lines of business and IT domains of expertise. For example, troubleshooting a sales application slowdown may require application users, application developers, system administrators, and database or storage specialists. Even in non-ITAR controlled environments it is often difficult to grant broad system access to such a diverse team.



- > **Skill shortage:** Expert IT knowledge may not be readily accessible within one specific location, resulting in the need to involve experts who may not meet the criteria required by ITAR for accessing technical data. In some extreme situations, resolving a problem may require special skills or knowledge available only from the software or hardware vendor, who may in turn rely on developers or consultants—any of whom may be foreign nationals.
- > **Cost pressure:** Due to the increased pressure on IT departments to contain cost, it has become increasingly attractive to leverage off-shore application management teams. In order to effectively manage the performance of remote systems, these 3rd party business process outsourcing (BPO) services need to have ongoing access to critical systems information.

The traditional APM methodologies and processes that IT management uses do not work well in ITAR controlled environments. Those tools rely heavily on system and application traces, debugging tools and synthetic transaction monitoring—by definition low-level activities performed within and across applications systems.

If non-US staff are exposed to ITAR relevant technical data while troubleshooting performance problems, companies and employees risk costly fines or even imprisonment. To mitigate this risk, many organizations have taken steps to restrict APM activities to narrowly selected eligible staff only.

This restriction alleviates the risk of ITAR violations, but may serve to delay problem resolution, reduce workforce productivity, and create non-competitive IT cost structures. Worse, such policies may even result in inadvertent violation of anti-discrimination law.

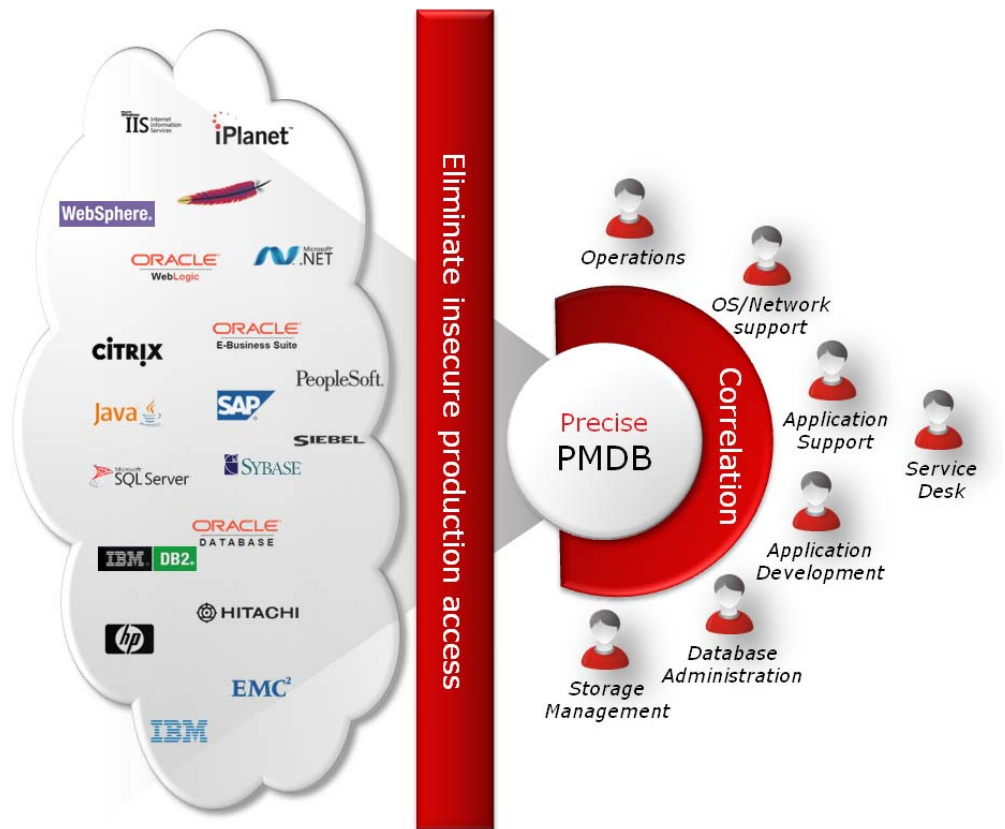
The Precise PMDB™

How can you ensure compliance with strict and ever-changing ITAR regulations, and at the same time ensure application performance management that is fast, effective and efficient? The solution is to have a dedicated IT application management and monitoring environment performance management database (PMDB™), which collects and analyzes all of the relevant performance information.

This approach provides the data APM experts need to troubleshoot and tune mission critical applications, while eliminating the need for them to access production environments or sensitive ITAR-controlled data.

Precise Transaction Performance Management (TPM) solutions are based on just such a PMDB architecture. Precise tracks the path of transactions from end-to-end, storing both the business context and performance details from each tier (such as application server, Web, network, database, storage system) to our PMDB. This detailed information allows effective APM in ITAR controlled industries.

By storing all relevant performance information into a dedicated monitoring and analysis system, Precise eliminates the need to access critical production systems and reduces the risk for security breaches. IT staff have all the relevant data they need to monitor, analyze and optimize systems for application performance.



As a result, organizations are able to tap into a much broader pool of knowledgeable experts, domestically and overseas. These domain experts are able to manage system performance at an affordable price point, without unnecessary delays or security risks.

Automated correlation and analysis made possible by the PMDB gives IT end-to-end views of business transaction performance, and ties it back to the infrastructure and application components that support them. This automation allows even junior personnel to tackle complex application performance problems quickly and efficiently.

In addition, Precise provides the following key features:

- > **Separate, secure PMDB:** No need for IT staff to access production systems for triaging, tracing or root-cause analysis. The PMDB also can span multiple security zones using encryption and federation.
- > **End-to-end transaction view:** Full visibility into transaction (or batch) flow, from end-user perspective, across Web, GUI, Java / .Net / ABAP, down to database and storage system.
- > **Automated findings:** Precise automatically analyzes PMDB information, providing pro-active alerts and guidance for problem resolution. This significantly reduces MTTR, and frees scarce IT resources.

Putting the PMDB to work

Keane Integrates RunSAP Processes and Precise at an Aerospace & Defense Company



Keane is a global services company offering a broad range of Application, Infrastructure, and Business Process Outsourcing Services. One of Keane's clients consistently faced significant performance challenges during critical business events such as financial quarter close, new product introduction, and employee benefits enrollment.

During these critical business events, applications were being pushed to the limit by a larger number of users than usual—at a time when the timeliness of results mattered most to the business.

To solve these chronic problems, Keane leveraged both process (RunSAP) and products (Precise for SAP) to reduce the performance issues during quarterly financial close. During this critical recurring event, the Precise PMDB was used to monitor and report on financial close-related processes. Based on performance baselines and real-time system behavior, specific actions and remediation steps were taken. This was done on a 24 by 7 basis until the quarterly financial close was successfully completed.

By arming the customer with this reliable framework to ensure the performance of critical application events, Keane has been able to repeatedly deliver timely and reliable application performance for the customer.

Out of this experience, Keane created a "Performance Factory," which uses data stored in the Precise PMDB to monitor and tweak poor performing objects proactively to reduce performance bottlenecks for the next critical business event.

Summary

ITAR requirements impact IT operations, for many industries and in many locations. A dedicated, solution-oriented performance management database (PMDB) can help IT teams effectively ensure ITAR compliance without compromising system up-time and performance. Precise furnishes a comprehensive APM (application performance management) solution, built on a dedicated and secure PMDB.