

Improving Business Visibility and Control with User Process Monitoring

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THE BUSINESS NEED FOR USER PROCESS MONITORING

Business processes typically have many steps of varying complexity, and many of these steps can now be automated through enterprise Business Process Management (BPM) software.

But with most business processes—even those orchestrated by BPM—many tasks must still be completed manually, typically by a knowledge worker using a Windows desktop with multiple applications that were not designed to work together. Consequently, the lack of visibility into and control of these user processes means that companies are not tracking vast numbers of business events per day, which often results in missed opportunities to improve productivity, enhance customer service, reduce operating costs, ensure compliance and generate additional sales.

Additionally, the move to support more agile and responsive enterprises increasingly requires events to be processed by Business Activity Monitoring (BAM) software and Complex Event Processing (CEP) or Business Event Processing (BEP) engines. Every action you take to improve user process efficiency can have a remarkable impact on achieving your continuous improvement objectives.

This is why organizations need to address the innumerable user processes that occur daily as part of an enterprise process improvement strategy. OpenSpan Events is innovative User Process Monitoring software that allows organizations to effectively monitor user processes to improve user efficiency and increase adherence to corporate and regulatory policies. OpenSpan Events can be deployed as a standalone solution or can complement enterprise BPM, BAM, CEP and BEP solutions by providing the enterprise with the increased business visibility and control needed to:

- Provide instant audit trails
- Improve business processes
- Manage risk, fraud and compliance
- Monitor and continuously improve performance throughout the enterprise

The business value of implementing User Process Monitoring can be dramatic; by implementing OpenSpan Events, you can expect measurable results and a full return on investment (ROI) in less than six months.

ADDRESSING USER PROCESS MONITORING CHALLENGES

Every year, enterprise performance suffers because of user inefficiencies. The math is simple: when tasks take longer than necessary, fewer tasks are accomplished, resulting in more spending on people and infrastructure.

Even seemingly simple improvements—such as reducing data entry, streamlining navigation or eliminating copy-and-paste from daily routines—can save massive amounts of labor costs for high-volume workflows. And simply understanding in detail the way that workers actually use the applications that they need to do their jobs can offer powerful insight into best practices, user training changes that are needed and prioritization for new application development, as well as insights into many more opportunities for process improvements.

Nearly every one of your existing business processes includes manual steps that must be completed by a knowledge worker, such as a contact center agent, bank teller, claims administrator, sales representative or analyst. Most desktops include multiple applications that force users to resort to inefficient and error-prone manual workflows—such as copying-and-pasting, data rekeying and application navigation activities—to fulfill daily business process requirements.

Consequently, business performance and service delivery suffer, and line-of-business activities fail to deliver on the efficiencies promised by investments in information technology. Limited visibility and lack of control over user processes means that you are unable to track thousands—maybe millions—of business events across your organization each day, which can translate into significant lost opportunities and increased risks related to fraud or compliance.

Your knowledge workers are typically working on Windows desktop computers and relying on multiple applications that were not designed to work together. Visibility into these user processes is extremely limited, and the enterprise lacks the abilities to:

- Monitor how users are interacting with applications and customers
- Capture and collect user work events
- Generate alerts to users to prevent them from completing inappropriate actions
- Assess inefficiencies and variability in manual workflows
- Enforce process compliance

User Process Monitoring allows organizations to truly understand user interactions with their business applications so they can identify opportunities to improve their processes related to user productivity and compliance.

Your organization may already have an established process improvement group that analyzes processes using various methodologies, such as Lean Six Sigma, to assist in modeling, designing, implementing and continuously monitoring efficient business processes. Time-and-motion studies, user interviews and the use of existing application monitoring solutions can all be helpful for understanding user processes, but organizations need the ability to efficiently correlate user and application event activity so they can accurately measure and continuously improve operations.

Metrics from individual applications only tell part of the story. Individual application metrics will not reveal how your users interact with other applications in their environment, and Event Correlation and Analysis (ECA) tools can give details on the health of your infrastructure. But neither of these monitoring capabilities can help you identify which workers utilize applications most productively so you can consistently implement best practices throughout your organization.

User process improvement has historically been a laborious, slow and inconsistent procedure. Experts or consultants typically undertook a classic time-and-motion study and were deployed to stand behind users and observe how they work. Typically this would be done with a small sampling of users, usually for only for a period of a few hours or perhaps for a day or two.

These observations then had to be collated and analyzed to identify inefficiencies. But the data was often seen as suspect due to the small sample sizes, questions over the extrapolation of the results and the fact that users tend to behave differently when they are being observed.

Once the inefficiencies had been identified, organizations then had to expend capital to resolve the inefficiencies by changing applications, modifying workflows, retraining users or embarking on long-term projects to integrate systems. Because of the costs involved and the lack of true, hard data on the existing processes, many potentially valuable process improvement initiatives were stalled, scaled down or cancelled entirely.

OpenSpan Events offers the opportunity to undertake a next-generation time-and-motion study. Monitoring user processes can be done across much larger, statistically significant sample sizes without having to modify any of the applications or change the behavior of the users while the monitoring is happening. All relevant data can be easily captured and analyzed. This gives the opportunity not just to gain unprecedented insight into how your users interact with all their applications, but to also construct business cases for process improvement based on real data.

A key tenet of all process improvement initiatives is to continuously monitor the process, and OpenSpan Events provides the ongoing capability to ensure that the projected improvements are actually being realized and provide early visibility into any course corrections required in order to realize the ROI.

The same runtime software used to monitor each user's desktop can be easily upgraded to OpenSpan Enterprise. This provides the unique capability of adding automation to support the process improvement objectives by enabling changes to the user processes, such as:

- Eliminating re-keying
- Enforcing compliance
- Adding process guidance
- Masking data
- Simplifying user interfaces

HOW OPENSPAN EVENTS WORKS

With OpenSpan Events, any application or set of applications on a user's desktop—including Windows, Web, Java, mainframe, cloud-based, virtualized or Citrix-hosted applications—can be quickly and easily instrumented to generate events—without modifying the original application or accessing APIs.

OpenSpan Events works with everything from homegrown desktop applications to the largest enterprise platforms. These events generated can be sent in real-time to BPM, BAM, CEP or BEP software, or they can be stored in a database for later analysis. Two categories of events are supported by OpenSpan Events:

Generic Events

OpenSpan Events supports “clickstream” monitoring of detailed application and user activity, including:

- Button clicks
- Check box activity
- URL navigation
- Application usage timing
- Text changes
- Tabbing to a particular field
- Copying and pasting information

The level of monitoring resolution and data collection can be configured independently for each application that executes on the user desktop; it is not necessary to record and subsequently analyze excessively large volumes of data. Generic Events can be as selective or expansive as you require.

Custom Events

Custom Events typically involve monitoring groups of related events or workflows, business processes and Key Performance Indicators (KPIs) that are meaningful to your business. You designate only the specific user events and application workflows that are of interest, and configure the custom attributes that are to be collected and logged with each Custom Event occurrence.

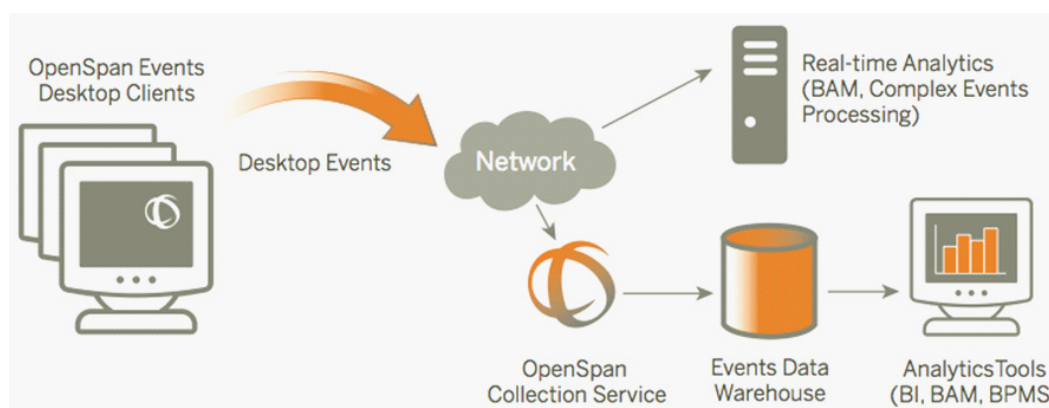
You can define Custom Events that generate alerts based upon data, application or user events; aggregate data spanning multiple applications; and scope the beginning and end of intra- and inter-application workflows and transactions. Custom Events can be used to baseline a single user's work history or enable workflow comparisons across your entire user population.

Custom Events are flexible, configurable and highly customizable using OpenSpan's visual development environment, and they allow you to see context related to the activities of the users. Examples of Custom Events include compliance violations, action notifications, process status, workflow timing, application errors, user errors and user-defined transactions.

OpenSpan Events Architecture

OpenSpan Events executes via a lightweight desktop runtime that passively and securely collects the identified generic and custom events and forwards them to one-or-more subscribers in real-time.

The events are published via web services or messaging protocols such as MS-MQ, JMS or MQ-Series and can be consumed in real-time by any BPM, BAM, CEP or BEP system. Additionally, the events can be collected by the OpenSpan Events Collection Service which runs on a server, adds the events to staging tables in a database and automatically transforms and loads the data into a star schema that is ready for consumption by any Business Intelligence (BI) or reporting tool



SAMPLE USE CASES

OpenSpan Events can be deployed across the enterprise to provide instant audit trails and granular visibility of business processes. The following are just a few representative use cases:

Enabling business process improvement. The use of Generic and Custom Events allow you to monitor end-to-end user workflows and identify process bottlenecks, operational inconsistencies and potential areas of improvement. OpenSpan Events can trigger alerts, process status or KPI updates in real-time to your incumbent BPM and BAM systems, and the data generated can be analyzed to identify the areas where improvement will bring the largest or fastest ROI.

Gaining greater visibility into business processes. OpenSpan Events provides improved visibility into the many business processes that require human tasks as part of the workflows. If a process requires human involvement, BPM systems can alert a business user that a task is to be completed—but unless all the applications have been explicitly instrumented to be BPM-enabled, the orchestrated process has little-or-no visibility into the status of the workflow until it has been completed. OpenSpan Events can provide extensive visibility into user interactions with applications residing on user desktops or anywhere else, and can feed important process status and other user event data to BPM and BAM systems.

Contributing events to BI and BAM environments. You can provide BI and BAM solutions with pre-transactional events that have until now escaped visibility and analysis—but may represent the bulk of user processing time. For the first time, you can gain insight into the many manual tasks that must be conducted at the desktop to complete a business process so you can streamline enterprise productivity.

Increasing customer service efficiency. How often has a customer service agent said, *“Let me put you on hold; I have to call up my other account system and I’m not logged on right now?”* A huge part of fixing the problem is understanding where the bottlenecks are on the customer service agent desktop and identifying potential workflow conflicts or interoperability gaps with existing application and telephony infrastructure. OpenSpan Events can often reveal the exact nature of these kinds of problems, while agent monitoring and coaching or workforce management software lacks this level of visibility.

Driving revenue growth. User Process Monitoring provides the visibility needed to support advanced cross-selling and up-selling opportunities—without requiring changes to your existing applications. Events can trigger a workflow that initiates a prompt to present a cross-selling or up-selling offer to a targeted customer, and back-end systems can be provided with real-time updates that enable more sophisticated and proactive development of offers to targeted customer segments.

Managing risk and fraud. You can monitor user processes to analyze risk patterns, enable real-time fraud alerts and provide an instant audit trail of user activity to manage risk and prevent fraud. For example, you could identify and prevent unauthorized data access, generate alerts on suspicious copying-and-pasting of customer account information and trigger alerts if a user makes an unauthorized change in a customer’s account or pastes information from a CRM application into an email.

Monitoring performance. OpenSpan Events enables user, application and business performance monitoring. You can easily identify the best—and worst—performers, and centrally monitor application usage patterns and collect and report metrics by user, region or other user-defined criteria so you can improve performance across the enterprise.

Ensuring compliance. Enterprises are under increasing requirements for legal and regulatory compliance such as SOX, JSOX, PCI, etc. OpenSpan Events provides the level of detail required by auditors and can store results in a consolidated central location. For example, OpenSpan Events is used in a leading contact center workforce management solution for PCI fiduciary compliance by conditionally stopping desktop and voice recordings of sensitive information, such as credit card security codes.

Determining application usage. *“Which applications are your users most frequently? Which third-party applications that are costing you a lot of money in maintenance are rarely used and should be retired? Which modules within large enterprise applications are providing the most value? Where should I be spending my money on training?”* These questions and many more can be answered quickly and easily by OpenSpan Events.

Implementing enterprise analytics. Adding “people metrics” to the feed of information available to an enterprise assists in providing a true end-to-end picture of a business. OpenSpan Events is compatible with all leading BI, BAM and data analysis and visualization tools.

SUMMARY

For most enterprises, your people are one of your most expensive resources—yet monitoring some of your workforce's most important business activities has traditionally been extremely challenging. Every action you take to improve user process efficiency has the potential to have a positive impact on achieving your business objectives. This is why leading organizations are addressing the innumerable user processes that occur daily as part of an enterprise process improvement strategy.

At OpenSpan, we are focused on enabling you to improve user efficiency while at the same time helping you enforce adherence to corporate or regulatory policies. Our User Process Monitoring software allows your company to monitor user events either standalone or in conjunction with your current BPM and BAM software so you can continuously improve productivity throughout the enterprise—wherever users working on Windows desktops or laptops are part of the process.

OpenSpan Events software allows you to perform User Process Monitoring so you can improve business visibility and control, and it allows your organization to benefit from:

Broad monitoring capability. OpenSpan Events has an unrivaled breadth of technology and application support, and it generates events at a level of specificity and detail not found with other technologies.

Generic “clickstream” events capture. You can monitor user navigation, data entry and application interaction events with the ability to specify different levels of event monitoring and collection detail for individual applications—with minimal configuration required.

Integration with existing systems. You can deploy OpenSpan Events as a standalone solution or with your existing BPM, BAM, CEP and BEP solutions to provide greater insight into how users are interacting with software applications to achieve business goals.

Custom events workflow capabilities. OpenSpan Events can collect and correlate events between-and-across application workflows and processes so you can generate alerts, notifications and contextual data that has real business meaning.

Compatibility with your existing analytics platforms. It is compatible with leading data analysis and BI tools so you can analyze events and present results in visual dashboards.

The ability to take action through automation. OpenSpan Events can trigger automated tasks in an enterprise BPM system. Additionally, OpenSpan Events can be easily upgraded to support OpenSpan Enterprise to add automation capabilities directly where the pain has been identified—on the desktop.

Swift results. OpenSpan Events offers an intuitive visual design environment that is easy to learn and use; organizations can customize User Process Monitoring capabilities internally without lengthy and expensive vendor services commitments.

Continuous process improvement. The ability to monitor the use of applications on the desktop of your users provides the organization with rich information that enables ongoing performance improvements across the enterprise.

By implementing User Process Monitoring using OpenSpan Events, organizations can receive measurable results and expect a full return on investment in less than six months.

OpenSpan is deployed on over 120,000 user desktops world-wide in Global 500 corporations and enterprises.

GET MORE INFORMATION

Please visit the OpenSpan website at www.openspan.com for additional resources, including on-demand online demonstrations, reference papers, and case studies. If you have a specific question or request, you can reach us at sales@openspan.com.



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