



What is Driving Continuous Auditing & Continuous Monitoring Today?

KPMG LLP

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Introduction

In a volatile economic environment, a number of key drivers are prompting companies to employ continuous auditing and continuous monitoring (CA/CM) techniques to do more than manage risk, including help reduce cost, improve performance, and create value.

Perhaps the most significant of these drivers are stakeholder demands that management improve its governance capabilities to enhance oversight and transparency and manage risk. The same stakeholders also expect management to improve performance and profitability. These demands can result in conflicting messages: Although massive cost cutting is driving significant organizational changes as well as increasing risk, organizations have limited funds to invest in those activities required for improving governance, managing risk, and improving overall market trust.

Leading organizations are highly innovative in dealing with these demands. They are leveraging technology and robust data analytics along with organizational knowledge of financial, operational, and compliance risk; business processes; and automated controls.

Benchmarking metrics

A recent KPMG LLP¹ survey indicates that a number of companies are successfully deploying CA/CM. Those surveyed see ways CA/CM can help them, especially now. For example, fraud detection/prevention and enterprise risk management (ERM) efforts are expected to significantly benefit from CM integration.

The drivers for CA/CM include the following:

- Fraud detection/prevention – 68 percent
- ERM- 50 percent
- SOX 404-Compliance 40 percent
- Compliance with policies and procedures – 38 percent
- Regulatory Compliance- 29 percent

Specifically, they are applying CA/CM techniques to help them identify quick wins that create return on investment and strengthen governance, risk, and compliance (GRC) while reducing operating costs and improving performance.

This document explores the drivers and benefits of employing CA/CM in the current economic climate. It also discusses a variety of choices organizations have for implementing CA and CM capabilities to manage risk and improve performance, using case study examples to illustrate these points.

¹Results obtained from surveys conducted by KPMG LLP at the Institute of Internal Auditor's General Audit Management Conference, the MIS Super Strategies Conference, and the Institute of Internal Auditor's International Conference in 2008-2009.

Defining CA and CM

Continuous auditing (CA)- is the collection of audit evidence and indicators by an internal auditor on information technology (IT) systems, processes, transactions, and controls on a frequent or continuous basis, throughout a period.

By contrast, **continuous monitoring (CM)**- is a feedback mechanism used by management to ensure that controls operate as designed and transactions are processed as prescribed. This monitoring method is the responsibility of management and can form an important component of the internal control structure.

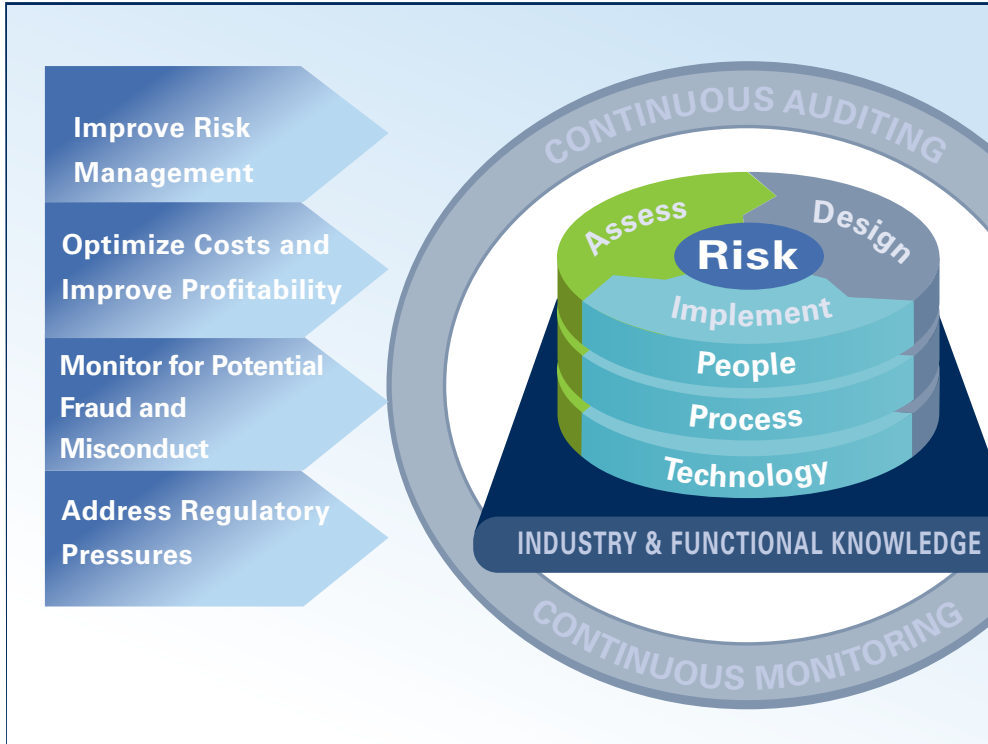
Definitions taken from KPMG LLP's Continuous Auditing and Continuous Monitoring: Transforming Internal Audit and Management Monitoring to Create Value, 2008.



Drivers and Benefits of CA/CM

Although numerous factors can drive the decision to implement CA/CM, the recent economic pressures alone provide opportunities for solid CA/CM business cases for any leader interested in advancing a GRC initiative when faced with doing more with fewer resources. Figure 1 illustrates the drivers that influence investment decisions to implement and refine an organization's CA/CM capability and the benefits that can result. These drivers and some of their benefits are discussed below.

Figure 1 –Economic Drivers and Benefits of Implementing CA/CM Capabilities



Source KPMG LLP, 2009

Improve Risk Management

Organizations worldwide are dealing with an unprecedented range of new challenges and risks that are prompting many of them to take a new look at enterprise risk management (ERM). As they revisit ERM, they are reinvigorating their risk assessments to make them more actionable and practicable. They are looking at inter-relationships of risks and ensuring that accountability has been assigned to responsible individuals.

A key aspect of assigning accountability is to enable risk managers to measure risks effectively and report as appropriate if a risk moves beyond management's pre-defined tolerances. Once measures are defined, their sources can be determined and, where possible, an automated alert should be established to assist the responsible individuals in monitoring their assigned risks. Automating risk monitoring (i.e., through CM) in a repeatable and sustainable manner is the beginning for management (and the internal auditors) to move toward a continuous risk assessment process.

Similarly, CA can assist the internal audit department in monitoring the risks driving the organization's audit universe, thereby allowing for a "continuous risk assessment" of areas of audit focus. Internal audit may not choose to set up the analytics to show every exception, but focus more on trends within a specific risk area.

Optimize Costs and Improve Profitability

As organizations evaluate improvements in business processes and operations to enhance profitability, they often consider ways to optimize costs and streamline operations. However, organizations may not optimize opportunities to leverage advanced technologies and business-specific content that would support these efforts and add business value.

CA/CM can enable organizations to (1) automate controls, processes, and activities to streamline operations and drive efficiencies; and (2) deploy monitoring activities that help them leverage the benefits of such efforts—and prevent them from lapsing back into inefficient patterns. Organizations can realize such benefits across a wide spectrum of efforts they are pursuing now—in areas such as cost optimization, alternative business models, contract and spend management, and process improvement—as discussed below:



- Cash and working capital management:** Regular cash monitoring and accurate forecasting of cash and working capital levels can help give management a clearer view of the company's current position and will also help identify opportunities and potential risks. Yet, challenges exist to optimizing cash and working capital. In some situations, ownership and accountability for working capital is inconsistent or fragmented, while in others, the metrics are in conflict. Leaders may lack visibility into the drivers behind working capital performance and cash conversion, resulting in a disjointed strategy across business units. Ultimately, companies need a "cash culture" that focuses not only on profit and loss, but also on critical balance-sheet concerns such as liquidity, receivables, and inventory.

CA/CM can help create and support such a culture—one that is focused on the efficient and effective use of working capital. For example, organizations can use CM to help align the components of the procure-to-pay cycle so they do not pay vendors in advance of the terms allowed by the contract and then need to access a credit line to support the difference. CM enables the organization to evaluate the date of the purchase, the due date of the invoice, and the date of payment, and to align its payments with those parameters and the contractual terms and conditions with the vendor.

- Alternative business models:** Outsourcing and shared services arrangements are increasingly common, but many companies are not realizing their full value (see next page). Leading organizations recognize that consolidating functions into shared services can promote standardization and consolidation while allowing the business to focus on core operations. To get to the next level of savings that are truly sustainable, organizations are taking an end-to-end process view, redesigning processes within the service center, ensuring connectivity with core business processes, and continually evolving their models. Process optimization is the objective, with sustainable cost savings the result.

CM can help organizations automate processes, leverage standardization efforts, and use monitoring to refine and sustain change. In addition, CM tools can help organizations increase detection and prevention of fraud and misconduct as well as reduce the number of incidents. With effective monitoring in place, organizations can also reduce the full-time staff they have dedicated to fraud prevention or reallocate resources focused on significant risks.

In addition, when transferring to a lower-cost labor environment, organizations do not always automate their processes and thereby achieve efficiencies. CM automation supports processes and controls in areas that are traditionally labor intensive—such as T&E review or procure-to-pay review—to further reduce the cost of actual processing.

How CA/CM Can Support Alternative Business Models

Alternative business models drive new risks. Knowing how to monitor those risks along with the overall performance of the initiative is a key to the success of alternative arrangements. CA/CM can help organizations address these key challenges as well as help them determine whether the collaborative process with their services providers is adding value—specifically in three critical areas:

Drivers	Potential Risks	How CA/CM Could Help
Mitigate supplier risk	<ul style="list-style-type: none"> • Missed financial targets • Non-compliance with established agreements, contracts, and mutual objectives • Lack of information about whether a service provider is providing ROI 	<p>Monitor a variety of risks and related measures, including operating level agreements, service level agreements, relationship objectives, and financial results.</p> <p>By assessing select risk (e.g., KPIs, performance measures, etc.), CA can enable organizations to identify situations where a closer look may be appropriate. CM can also be used to monitor providers.</p> <p>Determine if audits should be done more frequently or if the depth of the review should increase in complexity.</p>
Transform from labor efficiencies to a focus on process innovation	<ul style="list-style-type: none"> • Poorly quantified and/or qualified process innovations 	<p>Monitor whether the service provider fulfilling a finance and accounting function, for example, is processing more transactions in less time, with fewer full-time employees and with the same or fewer errors than an in-house function.</p> <p>Gather information from areas and activities throughout the business, assess the accuracy or speed of related process, and determine whether the provider is achieving established goals.</p>
Achieve business objectives related to cost containment, cost predictability	<ul style="list-style-type: none"> • Cost overruns and lack of cost predictability • Out-of-date contracts that do not deliver sustainable value to the organization 	<p>Track measures put in place to contain and predict costs, including cost of living adjustments, skill premiums, transition, and travel costs.</p> <p>Support creation of sustainable value in new or renegotiated contracts</p>

- **Contract and spend management:** A key aspect of cost optimization is to understand where resources are being spent day-to-day and, equally important, whether the organization is maximizing the benefits of preferred vendor relationships, rebates, discounts, and other valuable arrangements. CM tools can help organizations adhere to policies and contracts and get the most from these arrangements. For example, CM can highlight vendor relationships where the organization may be cutting numerous small checks (an expensive practice) and recommend use of a P-card, or a preferred vendor arrangement, which is more cost-effective and efficient to manage. CM can help the organization identify rebates that are not being reported or captured appropriately. It can also help organizations to risk-profile their vendors—thereby providing a risk-weighted basis for compliance audits and making sure vendors are adhering to most-favored vendor arrangements.

Monitor for Potential Fraud and Misconduct

As managers and employees face heightened pressure to meet revenue and cost targets, some may resort to improper means of meeting those increased expectations – especially if they perceive their jobs to be in jeopardy if they miss their targets. In addition, popular cost-cutting measures such as downsizing, outsourcing, and off-shoring can create vulnerabilities in companies' internal control environments. These dynamics challenge ethical behavior daily.

Along with codes of conduct; due diligence hotlines and whistleblower mechanisms; and investigation and remediation protocols, CA/CM can become a key component of an effective fraud risk management process to prevent and detect fraud and misconduct. In addition, CA/CM allows management and internal audit departments to shift their focus and review from traditional retrospective/detective activities to proactive/preventive activities to reduce the risk of fraud and misconduct.

Many of the indicators of fraud and misconduct—both actual and potential—reside in an organization's financial, operational, and transactional data, and can be identified using forensic-based CA/CM tools and techniques. Such tools and techniques use sophisticated analytical tests, computer-based cross matching, and non-obvious relationship identification methods to highlight potential fraud and misconduct that can remain unnoticed by traditional review techniques.

With CA/CM, financial and operational data can be continuously audited and/or monitored using either retrospective-based methods or frequent, proactive methods. Retrospective-based continuous auditing/monitoring applied in the detection of fraud and misconduct, for example, can allow organizations to analyze financial transactions in monthly, quarterly, or annual increments, enabling them to discern patterns that are not visible with shorter-term analyses. More real-time monitoring can help an organization identify potentially fraudulent transactions on a daily, weekly, or monthly basis.

Address Regulatory Pressures

The challenges of regulatory compliance—defined as monitoring the processes in place to help ensure highly complex business transactions are compliant with a variety of local and other regulations—are augmented as an organization expands globally. A lack of visibility and transparency can develop when globally disparate ERP systems are not necessarily connected. CM can help organizations draw those systems together to gain an enterprise view of regulatory compliance, enabling them over time to reduce the costs of compliance with regulations and policies. CM can also support help expand audit cover while reducing the time required to the time required to audit for regulatory compliance.



Some benefits of forensic-based CA/CM may include:

- Identification of hidden relationships between people, organizations, and events
- A means to identify and analyze suspicious transactions
- An ability to assess the effectiveness of internal controls intended to prevent or detect fraudulent activities
- The potential to continually monitor fraud threats and vulnerabilities
- The ability to consider and analyze large volumes of transactions in less time, more efficiently, and cost-effectively than using more traditional sampling techniques
- The ability to consider the company's unique organizational and industry issues

In the current environment, many expect organizations will face new regulations. Given the reduction in personnel experienced at many organizations, management should consider innovative ways of using data analysis to gather relevant compliance information electronically to assist with the compliance evaluation process and then focus on making that process repeatable and sustainable—that is, to implement continuous monitoring.

Additional opportunities may also exist for using CA/CM techniques to automate existing regulatory compliance efforts that may currently be performed manually, thereby enabling a redeployment of scarce resources. Such efforts could support compliance with existing and newly developed regulatory requirements, including:

- Presidential Executive Order - Reducing Improper Payments and Eliminating Waste in Federal Programs
- Troubled Asset Relief Program (TARP)
- American Recovery and Reinvestment Act (ARRA)
- Foreign Corrupt Practices Act (FCPA)
- Office of Foreign Assets Control (OFAC)
- USA Patriot Act and other anti-money laundering regulations
- Industry specific regulations (such as state reporting laws relating to pharmaceutical manufacturers and payments to health care professionals)

Choices for Implementing CA/CM Capabilities

Business leaders are faced with tough decisions on where to cut costs and how to invest to gain meaningful short- and long-term returns. While cutting positions seems to provide considerable savings in the short term, it also increases operating risk and deferred risk management costs that will need to be managed. The wrong choice could have severe short- and long-term business implications.

At the same time, cost cutting measures may seem like the right choice but they are not the only choice. Leaders also need investment opportunities that can help provide quick returns, improve performance, and strengthen internal controls while reducing non-value-added costs. Such investments should increase market trust and advance market share in a manner that can be expected to pay dividends in times of growth and prosperity.

At a time where discretionary spending is limited and transparency and accountability are high, leaders need to make choices that will provide the greatest return on investment while reducing their risk exposure. CA/CM should be viewed as a journey along a continuum from a discrete project to a mature capability. Regardless of where an organization may be in this journey, it can size an investment in CA/CM to fit the budget it has today as well as leverage existing investments and sustain commitments to accommodate future needs.

Deciding how to proceed and making the right investment choices will vary by organization. Selecting and scoping a CA/CM initiative calls for understanding and evaluating the various options and prioritizing them based on the desired return on investment. By focusing on the drivers of the CA/CM effort, an organization may decide to implement discrete capabilities. In addition, or alternatively, it may decide to expand the scope of current capabilities that can either be integrated into existing Governance Risk and Compliance (GRC) or Enterprise Risk Management (ERM) programs or be built as stand-alones that can be scaled and integrated in the future.

CA/CM is not only a technology-based effort; it involves defining and embedding business rules into the monitoring technology and modifying the business process

and identifying new automated control points to enable the tool to monitor performance. Other factors to be considered are the human factor and the design and operation of existing processes. Throughout the implementation of continuous monitoring, these factors should be carefully addressed and monitored in combination with a proper project risk assessment and quality assurance program.

Conclusion

Numerous companies are responding to challenging economic circumstances by using CA/CM techniques to help manage risk, reduce cost, improve performance, and create value. They are acting now, addressing current concerns with projects that fit today's limited budgets but provide a substantial return on investment. What's more, these investments can be scaled into larger enterprise opportunities in the future. In the process, these organizations are responding to their stakeholders' expectations by using CA/CM to restore trust, meet escalating regulatory and governance requirements, improve risk management oversight, and drive strategic performance.

Organizations in search of ways to maximize the return on investment and help secure the business case to expand capabilities across multiple systems, functions, and geographies tend to find great return initially by implementation tools and content focused on procure-to-pay (including procurement cards and travel and entertainment expenses), payroll, and order-to-cash processes. Furthermore, as part of making choices, it is important to properly define the opportunity or scope of a project, understand the project drivers, stakeholders, existing capabilities, the organization's ambition, budget, interdependencies to other initiatives, and desired capabilities. Some key questions include:

- Who are the project stakeholders, how will they measure success, and what is the timeline?
- What are the drivers and scope of the project?
- How mature is the organization's risk and compliance program and readiness for implementing a continuous monitoring capability?
- How does implementing CA/CM integrate into other active or on-hold business initiatives, such as GRC, ERM (including fraud risk management), business intelligence, or a new systems implementation?
- What technology does the organization already have, and if it needs to source a solution, is it looking for an internally or externally hosted solution?
- What are the sources of data that will be monitored, who owns the data, and where is it maintained?
- Is this a short-term discrete project or a multi-year investment integrated into an existing initiative?

Once the scope of a project is determined and the investment requirements are defined then it is time to source a solution and integrate business-specific content into the technology.

Measuring CA/CM Success

A number of indicators point to the success of a CA/CM effort. These include:

- Financial return on investment (ROI) (e.g., improvement on working capital)
- Non-financial ROI (e.g., regulatory compliance, employee compliance with policies and procedures)
- Reduction in Sarbanes-Oxley compliance costs
- Enhanced governance, risk mitigation and compliance outcomes
- Reduction in full-time equivalents or reallocation of resources to focus on other significant risks
- Increased detection and prevention of fraud and misconduct
- Decreased time required to conduct audits
- Increased audit scope and coverage
- Enhanced oversight by management and improved entity-level controls
- Detection and correction of control failures before they escalate into major issues

Case Studies

Case Study: A Large-Scale Finance and Accounting Operation

Using CM to Improve/Control One Process at a Time

Identifying the Need

The finance operation of an executive government department serves almost six million people, processes hundreds of millions of transactions annually, and operates multiple automated information systems, each with a variety of unique codes and data standards. Use of disparate systems and related management controls created increased risk that management's assurance over the operating results would not fully comply with governing internal control requirements or meet acceptable quality standards.

Moreover, auditors were critical of the service's operations and cited unreliable information and process break-downs. This resulted in numerous examples of undesirable results that could have been mitigated had a continuous monitoring capabilities existed, including:

- Hundreds of millions of dollars in unused airline tickets
- Payroll checks issued inaccurately or inappropriately (including to deceased individuals)
- Non-compliance with use of tax-payer identification numbers
- Payments to vendors delinquent in their own tax payments.

Addressing the Challenges

As it considered how to improve operational results, the organization sought to enhance its operational management controls by adopting enterprise risk management (ERM) as part of its control environment. As part of the effort, the organization looked into adopting a third-party continuous monitoring (CM) capability that would operate in a highly complex system architecture. To achieve its desired results, the service addressed three key challenges:

1. Need to reconcile fund balance with treasury for one of its major clients
2. Need to ensure payments to vendors were supported and did not result in improper payments or the passing of erroneous information to the accounting systems.
3. Need to reconcile reported information between the entitlement, accounting, and disbursing systems

Benefits Derived

The CM tool identified duplicate invoices, pay files, and transactions as well as evidence of compliance with pre-validation agreements to ensure disbursements were matched with available funds. For example, the organization used the monitoring tool and identified and reported over \$190 million in potential improper payments and unmatched disbursements. Thus, two key goals were met: erroneous payments were stopped, and accounting information was posted properly. Overall, the flexibility of the tool and the ease of installation enabled successful adoption of CM, and it is now widely accepted within the organization.

Key Success Factors

While the results of the ERM and CM efforts are proving to be highly effective, the initial scope of the effort was focused on multiple and disconnected processes that led to issues supporting multiple concurrent efforts. In retrospect, leaders realized they should have scoped the project down to address one process at a time to garner the necessary organizational commitment and allocation of required resources.

Case Study: A Global Transportation Organization

Using CM to Improve Control and Drive Value



Identifying the Need

A global company providing heavy-lifting and transportation services worldwide operated standardized processes supported by a single-instance SAP system that had been in place for years. Although informal monitoring functioned well in the past, the company realized that a rapidly growing organization faces challenges in knowing whether the actual usage of SAP complies with agreed processes and meets all the requirements of internal control. Consequently, the company decided to implement a formal function to perform monitoring of SAP processes and internal control using automated tools.

Addressing the Challenges

The company decided to start with a pilot project. The pilot, which was performed in about 15 days with support from KPMG, provided quick insights into the key areas of concern (such as the timely billing of projects and open items long overdue). It also offered experience with tool-based monitoring of Key Control Indicators (KCIs), which provide insight in the operating effectiveness of internal controls related to SAP.

Based on the results of the pilot, the company decided to implement a continuous monitoring function. A process and risk analysis was performed to define the relevant risk areas for high priority monitoring. Based on its key controls for each risk area, the company defined a set of KCIs. Examples included:

- Open items long overdue on interim accounts
- Financial postings with a posting date 45 days before or after entry date
- Large differences between invoice amount and purchase order amount
- Open sales orders not billed
- Projects with re-opened structure breakdown elements

The selected KCIs were monitored using an automated scorecard that included a drill-down to underlying detailed results.

Benefits Derived

Continuous monitoring (using the scorecards and underlying details) provides the company with insight into whether the actual SAP usage deviates from the agreed upon process and internal control requirements. Using this information, the company can provide timely follow-up on possible issues, ensuring that it is in control of its business.

Key Success Factors

The key to continuous monitoring is to start in a relatively simple manner, enabling the business to get used to this way of working. The company started with approximately 30 regular KCIs within a number of common processes such as purchasing, sales and projects, and finance. In addition, KCI monitoring was initially performed in one geographical division. In the coming months and years, new KCIs and organizational entities will be added to the continuous monitoring structure.

Case Study: A Global Food & Beverage Company

Using CM to Improve Transparency

Identifying the Need

A single-product organization with operations in more than 70 countries has commonalities in its worldwide operations that facilitate the development and implementation of industry best practices and standard business processes. Its industry best practices constituted the foundation for a Key Control Framework (KCF), which includes controls for the business cycle's Order to Cash, Purchase to Pay, Inventory Management, and Record to Report.

The organization's common processes, SAP systems, central available business data, and KCF were the basis for a common internal audit approach, as well as the external audit approach. To strengthen the common audit approach, the organization started with automating the monitoring of process controls. KPMG had a quality assurance role in the design and testing phases of all control indicators for the tool, which was specifically tailored to the organization.

Addressing the Challenges

The tool includes specific indicators that monitor the effectiveness of the controls that are part of the KCF. The key feature of the tool is that for every operating company, a scorecard is presented that contains metrics on the indicators. Examples are "number of high sales discounts," "percentage of purchase orders without reference to a requisition," and "number of open items on suspense accounts," which can be analyzed for each operating company and each period.

Benefits Derived

Both the metrics in the scorecard and the detailed analyses provide the organization with important indications regarding the key control objectives, such as timeliness of clearing (e.g. orders, invoices, accounts), throughput times of business cycles (e.g., from sales ordering to payment), the correct flow of business processes (e.g., the use of contracts, requisitions and credit orders), and the authorized use of discounts, tolerances, and payment differences.

Key Success Factor

The organization is striving to improve the embedding of continuous auditing tools. In addition, they are supporting continuous monitoring by process management. The organization now has the tool in use in its major operating companies worldwide. The key to success of this project was the embedded use of scorecards that provided operations with timely information and transparency into operational performance.

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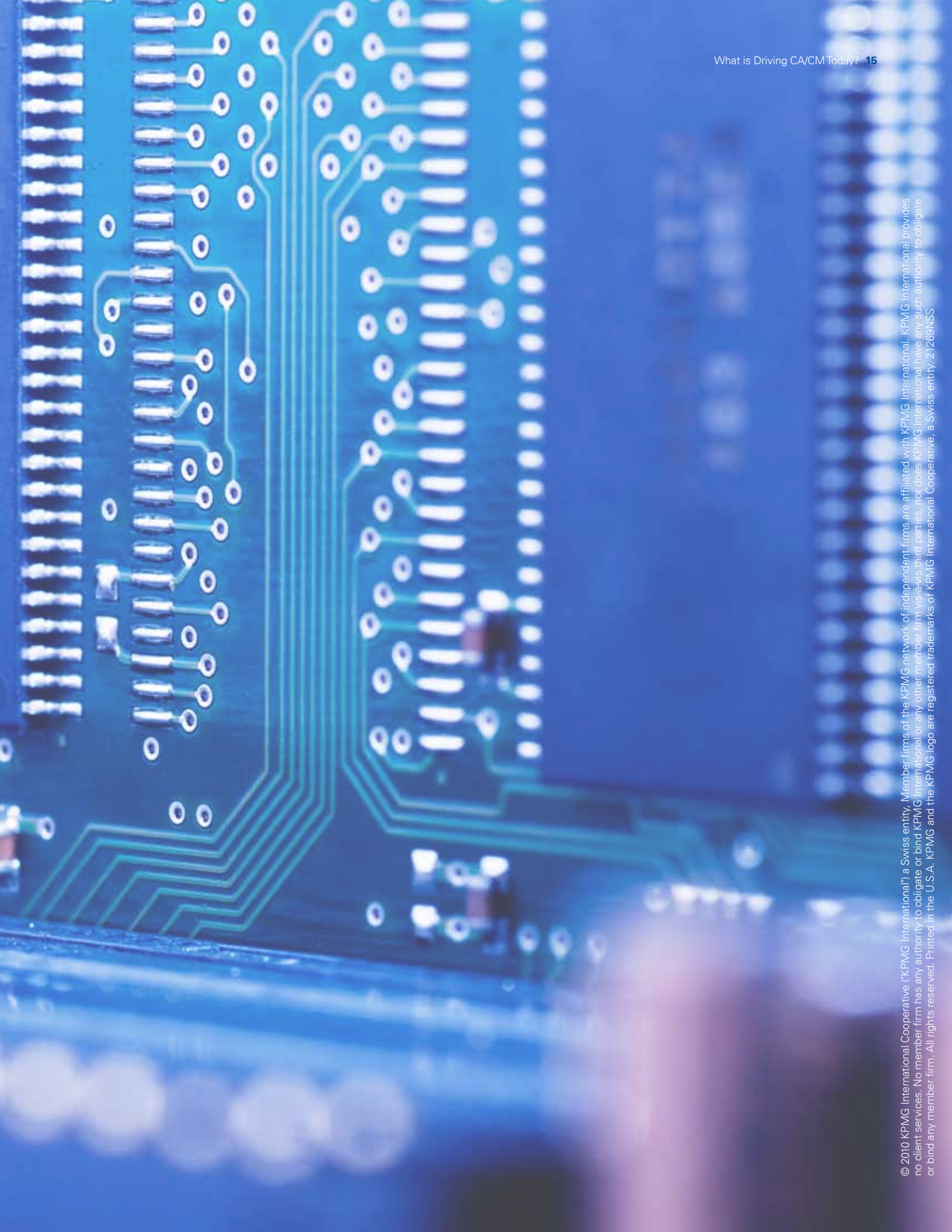
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