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# Accounting Information Systems: The Challenge of the Real-Time Reporting

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#### Abstract

Real-time reporting in accounting or simply real-time accounting offers many benefits when compared to conventional periodic reporting. Traditionally, enterprises require financial or non-financial reporting based on quarterly and annual periods. Yet, the rapid change that occurs on market and society causes this periodic reporting to become quickly outdated. Higher competition among enterprises demands for more updated information to enable management to rapidly adapt to opportunities and answer problems. Real-time accounting addresses these needs, but needs new technological answers. In this article we present some technologies which can help the implementation of real-time accounting, namely, business process management, mobile devices, cloud computing, business intelligence, enterprise architecture and enterprise application integration.

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#### 1. Introduction

The running stream of fast changing, increasingly competitive global market and rapidly shortening product life cycles forces enterprises to analyse accurate and timely information, in order to react instantaneously to changes in

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its business [1, 2]. Enterprises are entering a new era, the era of the real-time enterprises and real-time economy also called the "now economy", which can be characterized by a substantive acceleration of business measurement, assessment and decision processes [2]. The now economy poses a new challenge to Accounting Information Systems, which is the real-time reporting.

Real-time reporting in accounting or simply real-time accounting offers many benefits when compared to conventional periodic reporting [3]. Traditionally, companies require financial or non-financial reporting based on quarterly and annual periods. Yet, the rapid changes occurred on market and society cause that this periodic reporting to become quickly outdated. Higher competition among enterprises demands more updated information to allow management to rapidly adapt to opportunities and answer to problems. Professional investors believe that real-time reporting from enterprises allows them not only to better understand corporate performance but also to be more confident on corporate governance, which increases the likelihood of those enterprises to attract more investment from institutions [4]. The move towards real-time reporting from the simply publishing of financial statements every three, six or 12 months is therefore almost mandatory and accounting and Accounting Information Systems (AIS) must answer to this new demand through the use of new technologies.

There are several complementary technologies available to help implement real-time reporting like business process management, which allows real-time monitoring of business processes that broadcast relevant financial or non-financial information from business operations to management; mobile devices which allows its users to instantly receive the reports produced anytime and anywhere; cloud computing that allows the instantly sharing of information among all users within and outside the organization that need it to make informed decisions; business intelligence, which allows the generation and delivering of more focused and relevant information of business operations to managers enabling not only the long term planning of the organization goals but also the management and optimization of daily business operations (event-driven); and enterprise architecture and enterprise application integration that structures and integrates different systems and their corresponding data present in the organization to allow real-time report generation with added value to users.

The paper presents a reflection, based on existing literature review and market Information Technologies/Information Systems (IT/IS) players, some future technological answers to real-time reporting in the accounting domain, be it financial or managerial. This paper is organized as follows. The second section presents a literature review on reporting, starting in the traditional view of reporting and ending in the real-time reporting. The third section focuses on real-time reporting and the challenges facing its implementation. The fourth section presents the foreseen technological answers to real-time reporting. Conclusion and future work are presented in the final section.

#### 2. Reporting under the accounting domain

The main purpose of accounting is to provide information that is needed for sound economic decision making be it of financial nature or of a managerial one for internal, but also for external decision making. Accounting has been defined as the process of identifying, measuring, recording and communicating economic information to permit informed judgments and economic decisions [5], in one word "Reporting". According to Oxford Dictionaries, "report" is a verb that came from Latin word "reportare" which means "bring back", as it results from the junction of two words: "re", meaning "back" with "portare" meaning "carry". By the middle of the 19th century, the sense "give an account" gave rise to another sense of this verb, which is "submit a formal report". So, generally speaking, "report" means to "give a spoken or written account of something that one has observed, heard, done, or investigated" [6]. Of course, "reporting" can fit into various different contexts, like financial reporting, journalism, court reporting, traffic reporting and operational reporting.

When we think about accounting functions, we are mainly thinking about a systematic and comprehensive recording of financial transactions which are important to the business. They also refer to the process of summarizing, analysing and reporting these transactions. Innumerous financial transactions comprising a certain period are considered to process a statement that summarizes a company's operations, financial position or its cash flows [7]. So, accounting reporting is traditionally the provision of relevant information covering quarterly and annual periods which supports subsequent financial decisions. Likewise, the accounting information is usually presented to other stakeholders, like potential investors, creditors, suppliers and customers [3].

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