# DIFFERENCES AND BENEFITS IN USING A FINANCIAL CONSOLIDATION SOFTWARE: CLOUD, LOCAL, SAAS OR PAAS

# Raluca Andreea Stoica<sup>1\*</sup>, Alina Gabriela Mareș<sup>2</sup>

1)2) Valahia University of Targoviste, Targoviste, Romania.

#### Abstract

The current national and international economic climate is continually changing, and a company's ability to adapt its services is critical. As a result, in recent years, the interaction between technology and businesses has grown. It's crucial to think about how finance adds value to a business as the future of accounting unfolds. The way business and finance functions create value is being profoundly transformed by digital technologies. To develop value, businesses must think and behave differently in the digital age. To emphasize the merits of each platform, we offered numerous types of software and various benefits of using them. This paper will address accountants' worries about software, such as data security and a lack of features, as well as how the software works and the numerous benefits and drawbacks it has.

#### Keywords

globalization, consolidation, accounting software, technology, Cloud Computing, Cloud Accounting.

#### **JEL Classification**

M40, M41, M48.

### Introduction

Accounting software is a type of application that allows accountants to execute financial tasks including recording and processing transactions electronically. Almost all firms now use accounting software as a necessary and indispensable computer tool to carry out their everyday operations. Large corporations frequently have multiple locations. When using standard accounting software, coordination across various branches has always been a challenge. By connecting all accounting software from every branch, cloud accounting software will address the problem.

Adopting a SaaS (cloud) accounting software solution is an excellent strategy to lower your company's running costs. However, using such a service comes with its own set of

<sup>\*</sup>Corresponding author, Raluca Andreea Stoica – raluca2stoica@yahoo.com

dangers, and it may not be appropriate for all business models. We'll walk you through a model that will work best for your company in this article: SaaS, PaaS, or On-Premise are all options.

A key question that most firms faced themselves in the early days of cloud technology was whether or not to use public cloud services. Given the numerous advantages of the cloud for businesses, practically every company now uses at least one public cloud service to run their operations.

Accounting software automates some or all of the processes involved in calculating and delivering a company's financial data. This covers income and expenses from accounts receivable and payable. Accounting software enables the finance department to quickly compile financial data and distribute it to stakeholders such as internal auditors, investors, and suppliers.

The most essential consideration is whether the service should be delivered via SaaS (Software as a Service), PaaS (Platform as a Service), or on-premise.

Cloud accounting software reduces the requirement for a corporation to install and maintain software on individual computers.

Cloud accounting and traditional on-the-spot accounting have some major differences. Cloud accounting is more adaptable since it allows users to view their accounts from any location and on any device with an Internet connection.

Second, unlike traditional accounting software, cloud accounting software delivers real-time financial reporting and instantly updates financial information. This implies that account balances are always correct, and manual data entry errors are reduced.

Cloud accounting software is more secure than on-premise accounting software when it comes to storing data. A commercial computer or laptop containing sensitive financial information, for example, could be lost or stolen, resulting in a security breach. Cloud accounting, on the other hand, leaves no record of data on business computers, and access to data in the cloud is password-protected and encrypted.

# 1. Research methodology

The research objectives were:

- Demonstration of cloud computing platforms and their many advantages.
- On-premise accounting software vs. cloud accounting software comparison

The adoption of cloud accounting systems is still a contentious issue. Despite the advantages that these technologies provide, a number of businesses are still debating whether or not to implement them.

In this regard, we did a comparative documentary study concentrating on how different platforms are presented.

# 2. SaaS origins

Previously, mainframes were connected to large terminals that shared mainframe software, a process known as "time-sharing." In the 1980s, when the cost of computers began to fall, many businesses built their own local version of "shared time," known as

the local area network (LAN). However, the firm, not the supplier, was in charge of the hardware and network administration and supply.

Suppliers began hosting software and making it available through the Internet as the internet grew more widespread in the 1990s. ASP (Application Service Provider), the forerunner to SaaS, has significant limitations. One of them was that the client required its own version of software, which required installation on the PCs of the users. It took a long time and cost a lot of money.

## 3. SaaS financial consolidation software

Since its inception, the SaaS model has been designed to deliver a set of advantages:

Initial costs are lower

Permanent costs that can be predicted

Quick implementation

Quick implementation

Scalability

Permanent costs that can be predicted

• Reduced risk due to experts managing software and monitoring cloud security

• Because SAAS software is already installed and configured in the cloud, it is easier to configure and deploy

• Less interruptions

• Instantly meets the demands of an ever-increasing

number of data

Table no. 1. SaaS benefits

Source: www.oracle.com

# 4. PaaS origins

Until PaaS, the IT department was frequently forced to evaluate, buy, accumulate, actualize, repair, upgrade, and maintain individually allowed products. It was frequently given by a number of different dealers, each with their own method to permitting, setup, security, and integration. As a result, the forms of trade, administration, and integration have become much more complex. The number of middleware components grew in tandem with the growth of the advertise. As a result, merchants sought to deconstruct item complexity by developing pre-integrated middleware packages. In any event, the management of a few dealers and integration remained extremely difficult for businesses that did not standardize on the stage of a single dealer. Both the designer and DevOps teams have a long-term responsibility to manage this complexity.

The introduction of cloud computing has altered our approach to apps, and application development stages have shown to be the ideal method for untangling this complexity. PaaS emerged in the mid-2000s, when vendors began marketing coordinated sets of cloud middleware administrations delivered via standardized APIs. However, back in those pioneering days, suppliers mostly offered server, capacity, and management administrations, with PaaS arrangements being appropriate for low-risk situations and

low-progress requirements. Utilization situations have progressed into simple generation streams as a result of the successful improvement of applications, and as a result, business requirements have grown. As a result, the demand for enterprise-level middleware increased. As a result, cutting-edge PaaS solutions have begun to include robust enterprise-level middleware functionality.

Companies, too, have extremely strict management requirements. It is not only necessary to foresee threats in the PaaS, but it is also necessary to demonstrate that threats have been mitigated. As the use of the cloud expands, arrangements emerge in the form of generation and development, resulting from measures and vulnerabilities. PaaS at the enterprise level offers thorough and consistent checking and review tools. Engineers are always challenged to improve efficiency and quality. However, as enterprise-level enterprises increase and grow, development processes slow down owing to "single-assembled" continuous integration / continuous delivery (CI / CD) circumstances. PaaS development at the enterprise level must be built on pre-integrated yet open development scenarios.

### 5. PaaS benefits

For two really important reasons, PaaS works effectively for small enterprises and startups. To begin with, it has been a financial success, allowing smaller businesses access to cutting-edge resources without the high expense. Because most small businesses have never been able to build effective development environments on their own, PaaS provides a mechanism to accelerate program development. For the time being, it allows businesses to focus on their core competencies rather than worrying about basic infrastructure.

Unlike traditional application development methods, PaaS allows designers to create apps without having to worry about constructing, developing, or reworking servers. The PaaS provider is responsible for maintaining the stage, which reduces IT costs and upkeep for consumers.
 Time-Efficient
 You can create apps faster because all of the essential tools are provided.
 Cost-Efficient
 Instead of purchasing a license, pay-as-you-go allows customers to pay only for the tools they use.

Table no. 2. PaaS benefits

Source: www.oracle.com

Accessibility

# 6. On-premise accounting software

On-premise accounting software includes both the program and the financial information, which is installed on a local server. This installation is only done once, and

Access from a variety of locations and devices

all upgrades must be performed only when new licenses are acquired. Companies frequently utilize obsolete software due to the financial requirements for obtaining extra licenses from the program vendor, as well as the time required to install hardware and new software upgrades. Furthermore, access to the software and database is restricted to the company's internal network.

Whether a firm chooses to maintain its apps on premises or in the cloud, information security will always be a priority. However, for organizations in extremely restricted industries, the decision about whether to host their apps on preface may already have been decided for them. Knowing that your data is stored on your in-house servers and IT infrastructure may provide mental piece of mind in any case. To use an on-premise computer program, a company must first purchase a license or a copy of the application. There is generally higher confidence than with a cloud computing architecture because the software itself is permitted and the entire instance of computer program is within an organization's facilities.

# 7. Cloud vs On-premise

Despite the fact that the benefits of Cloud Accounting technology are acknowledged at the corporate level, adoption of Cloud applications is limited owing to management ambiguity around control and ownership of data. Cloud Accounting software are altering the way people work, according to Bob Scott, executive editor of The Progressive Accountant, in an interview with Intacct. However, this movement is delayed because accountants are often more focused on a business perspective than a technology one.

Table no. 3. Software models

	On-premises Software	Cloud Computing
Software development	Created in the 1980s for the Windows-based, client- server computer era.	Online delivery
Deployment	The client is the owner of the hardware.	The same vendor handles both development and deployment, with delivery via the internet.
Implementation	Long lasting implementation	More efficient than the other types
Customization	Time and resources consuming	Easily customizable
Design	Monolithic, client-server	Web environment specific
Upgrade	Yearly (in general)	Frequently (monthly, in general)
Integration	Time and resources consuming	Performed through application programming interfaces

Technical support	Not included	Generally provided by
		vendor
Multi-tenant	Not applicable	Designed for multi-tenancy
Hardware requirements	Operating system	Operating system; web
	requirements	browser
Accountability	The software is the duty of	The focus of accountability
	the service provider,	is on the service provider.
	whereas the operations are	
	the responsibility of the IT	
	Department.	

Source: Intacct, 2012: 5

As a result, they must see this work system as an opportunity, comprehend the modifications, and determine how they may benefit from these applications.

The disadvantage of on-premise scenarios is that the costs of managing and maintaining all of the arrangements involved can be significantly higher than in a cloud computing environment. In-house server equipment, computer software licenses, integration capabilities, and IT experts on hand to support and manage possible issues are all required for an on-premise solution. This does not include towards the total amount of support that a company provides when anything breaks or stops working. Users' major worries about using Cloud Computing-based services, according to a KPMG study, are data security and privacy. The fact that secret company information is stored on a server that may be accessed over the Internet, rather than on your own computer, raises security issues.

Many businesses are concerned about cloud computing providers' lack of functionalities. This issue, in my opinion, is becoming less valid as time passes. The program is updated and upgraded on a regular basis, much like any other technology. Functions that were not available in one version of a software will be included in the next. Cloud accounting has steadily evolved over the previous decade, and it is currently on level with desktop accounting software. To demonstrate this, I'd want to take a deeper look at QuickBooks Online's development and growth (QBO). In 2001, QBO was established. A graphic from 2006 comparing all versions of QuickBooks (desktop and cloud services) revealed that OBO was only a sliver of what the desktop versions of QuickBooks were. There was no inventory tracking; only three users could use the service at a time, there was no customer or vendor tracking, you couldn't download banking and credit cards, and QBO's integration with other apps was limited. Because of the limitations of the first generation of QBO, Intuit decided to start developing the second generation of QBO in 2013, in order to address these issues. Intuit's new QuickBooks Online (QBO) edition focuses on providing additional capability, better connectivity with other Intuit and third-party software, and a more streamlined user interface across all QuickBooks products ("Press Releases," 2013). As the online version of QuickBooks improved, it became equivalent to the desktop version.

Between QuickBooks Online Plus and QuickBooks Premier, a good comparison can be drawn. Both models are top-of-the-line cloud-based and desktop apps, respectively.

According to the Intuit product comparison chart, QBO Plus lacks only three of QuickBooks Premier's capabilities and has access to only three others. Creating projections, managing stock reorganization points, and customizing inventory reports are the three elements that are absolutely missing. The number of industry-specific reports provided by QBO Plus, the fact that QBO Plus can only import data from Excel and QuickBooks, and the fact that QBO Plus has 65+ reports compared to QuickBooks Premier's 150+ reports are the three restrictions. QBO Plus, on the other hand, has features like automatic online backup, multi-user access, and remote access that Premier does not. Although the graphic on the Intuit website does not show all of the differences between the two software systems, it does give a solid summary of the features for comparison. Intuit is working to make QBO the preferred accounting software for QuickBooks users. I believe Intuit, like many other cloud accounting program providers, is confident in the progress made with their cloud solutions, which are equivalent to desktop applications.

In the accounting industry, technology has always been implemented in the hopes of streamlining the accountant's function. Accounting underwent one of the most significant technological changes as it transitioned from pencil and paper to computers and accounting software.

Compare	Online			Desktop		
୍ୱି ପ୍ୱର୍ଘାckbooks QuickBooks®	EasyStart	Essentials	Plus	Pro	Premier	Enterprise Solutions
Products	\$13.00/mo	\$27.00/mo	\$40,00/mo	\$52.00/mo	\$136.00/mo	\$300.00/m
Save time tracking finances						
Number of users included in the price <sup>1</sup> (additional charges may apply)		3	5	3	4	30
Easily print cheques & track expenses		*	*			~
Track sales, sales taxes & customer payments		v	v	-		
Manage payroll & payroll taxes <sup>2</sup> (sold separately)		v	v			-
Accept credit card payments right in QuickBooks <sup>3</sup>				~		٧.
Invoice multiple customers at once with Batch Invoicing				V		~
Track time and expenses to bill clients			v	~	v	,
Access to product experts and unlimited technical support				~		~
Get access to the latest version (when and if updates become available)		v	v	v	,	v
Online backup and protection of your QuickBooks data	190	*	w.			
Work in two company files at the same time <sup>s</sup>						~
Get the insights to make better decisions						
One-click financial, sales & tax reports	,	40+	65+	100+	150+ Industry	150+ Industry
Import data from Excel, Google contacts, and prior QuickBooks versions		Excel & QuickBooks	Excel & QuickBooks	¥	,	,
Download or import your bank & credit transactions into QuickBooks <sup>†</sup>			( <b>v</b> )	-	v	,
Track inventory, set re-order points & create purchase orders			*	~	*	~
Track international sales & expenses in multiple currencies				-		~
Easily create a business plan						-
Track your balance sheet by class						-
Forecast sales & expenses			W.		v	v
Industry-specific reports, sample files, menus & chart of accounts		Limited	Limited			· ·
Consolidate reports from multiple company files*						~
Create custom reports with ODBC-compliant applications using a direct connection to the QuickBooks database <sup>9</sup>						,
Manage inventory using bin location tracking, barcode scanning, serial number, or lot tracking, FIFO costing, and multiple location inventory. <sup>10</sup>			FIFO			With Advanced Inventory
Control, customize, and automate your pricing right inside QuickBooks <sup>10</sup>						With Advanced Inventory

Figure no. 1. Comparison between online and desktop QuickBooks Products Source:

http://intuitglobal.intuit.com/delivery/cms/prod/sites/default/accountant.intuit.ca/cloud-accounting/pdf/compare-qbo-to-qb.pdf

The introduction of computers signalled the end of the pencil-and-paper accounting system. Along with increased job efficiency, accountants' work began to focus more on the analytical parts of the job description. With a lower margin of error, the job has

become less taxing. Accountants' major training, which included fundamental accounting, auditing, and tax preparation, was no longer available. An accountant may now undertake statistical accounting or forecast analysis more efficiently with the aid of a computer.

With the introduction of cloud computing, it appears that accounting methods will advance again more. It focuses on boosting ease of access and cooperation while continuing to increase the accountant's productivity. The topic of this study has been narrowed so that cloud accounting software only relates to accounting software. Instead of being sold as a product, cloud accounting software is delivered as a service (SaaP). Cloud accounting software is available through a subscription-based model rather of the customer purchasing it. The user does not install or update any software on his or her PC. The program is hosted and maintained on the vendor's servers, and the user can access it by connecting to the server via the Internet. Vendors never relinquish ownership of the software throughout this procedure. The service, which users pay for via subscription, is still being updated and maintained. Subscriptions can be adapted to the user's needs, allowing them to pick the model that best meets their present needs and simply scale up services as their business grows. They are often paid monthly and do not require a contractual commitment. Most providers allow you to change or cancel your subscription at any time.

#### **Conclusions**

Since its debut, cloud accounting software has come a long way. A software solution that was once thought to be inferior to its desktop version has advanced to the point where it may now be used to replace desktop applications. Although cloud computing still has challenges, the most of them have been addressed in recent years. Cloud accounting can be viewed as a secure alternative that offers cost savings, convenience, and a user-friendly interface, both digitally and physically.

You must pay a significant upfront price as well as an annual maintenance fee for the premises. Cloud accounting software, on the other hand, allows you to pay only for the services you use and scale up or down as needed for a small fee.

While the cloud has its negatives, such as unavailability, the type of servers utilized by your accounting software is dependent on them. So look for accounting software that offers a 99.99 percent uptime guarantee. On-premise software, on the other hand, might ground your organization to a halt if something goes wrong with it. If the software has an error or a problem, you should contact the developers or wait for a new version. Customers may abandon your business as a result of the waiting period.

Many small and medium-sized enterprises, particularly new businesses, have benefited from cloud bookkeeping by lowering annual expenditures and allowing them to focus entirely on developing their core businesses and trade forms rather than mixing. challenges and concerns associated to the IT base One of the most popular features of cloud bookkeeping software is the ability to transfer crucial information from one bookkeeping program to another in less time without losing control of your data. It is becoming more competitive every day, and the costs are decreasing.

If your company is using on-premises accounting software, you should try cloud-based accounting software and notice the difference in a matter of weeks. In this circumstance, cloud bookkeeping software is also taking the lead because you can make reports on the move and be notified of the adjustments you requested, whereas on-premise software requires you to utilize only the machine on which it was installed.

Another significant benefit of the cloud is that updates are completely free, both in terms of time and money; nevertheless, on-premises software development cycles are extremely long when compared to cloud-based bookkeeping software.

Moving data from one on-premise software to another is a huge decision that shouldn't be done lightly, but moving data from on-premise to the cloud is even bigger, and you should consider that cloud accounting software is the way of the future.

## References

- [1] Huber, N. (2016), The Impact of Cloud Computing. <a href="https://www.icas.com/ca-today-news/what-does-cloud-computing-mean-for-the-accountancy-profession">https://www.icas.com/ca-today-news/what-does-cloud-computing-mean-for-the-accountancy-profession</a>
- [2] Lee, D. (2016), KPMG Recruits IBM Watson for Cognitive Tech Audits, Insights <a href="https://www.accountingtoday.com/news/kpmg-recruits-ibm-watson-for-cognitive-tech-audits-insights">https://www.accountingtoday.com/news/kpmg-recruits-ibm-watson-for-cognitive-tech-audits-insights</a>
- [3] Machine Learning: Unlocking the Power of Millions for the Prosperity of One. <a href="https://quickbooks.intuit.com/blog/innovation/machine-learning-unlocking-the-power-of-millions-for-the-prosperity-of-one/">https://quickbooks.intuit.com/blog/innovation/machine-learning-unlocking-the-power-of-millions-for-the-prosperity-of-one/</a>
- [4] Manage Inventory, Stock and Items in Xero. <a href="https://www.xero.com/us/features-and-tools/accounting-software/inventory/">https://www.xero.com/us/features-and-tools/accounting-software/inventory/</a>
- [5] QuickBooks Desktop Comparison Chart. https://enterprisesuite.intuit.com/products/enterprise-solutions/comparison-charts/
- [6] Salesforce, Salesforce Software, http://www.salesforce.com/
- [7] Google, Google App Engine, https://appengine.google.com/
- [8] Microsoft, Windows Azure Platform, http://www.windowsazure.com/en-us/
- [9] Olive C., white paper, "Cloud computing characteristics are key", General Physics Corporation, page 2, 2011, <a href="https://www.gpworldwide.com">www.gpworldwide.com</a>.
- [10] Amazon Web Services, Amazon Simple Storage Service (Amazon S3), http://aws.amazon.com/s3/
- [11] Amazon Web Services, Amazon Elastic Compute Cloud (Amazon EC2), <a href="http://aws.amazon.com/ec2/">http://aws.amazon.com/ec2/</a>
- [12] Munteanu, V. I., Şandru, C., & Petcu, D. (2014), Multi-cloud resource management: cloud service interfacing. Journal of Cloud Computing: Advances, Systems and Applications, 1-23.
- [13] O'Loughlin, M. (2010), The Service Catalog A practitioner Guide. Zaltbommel, Netherlands: Van Haren Publishing.
- [14] Oprea, D. (2007), Protecția și securitatea informațiilor. Iași: Polirom.
- [15] Orlando, D. (2011), Cloud computing service models, Part 2: Platform as a Service. http://www.ibm.com/developerworks/cloud/library/cl-cloudservices2paas/
- [16] Orlando, D. (2011), Cloud computing service models, Part 3: Software as a Service. Preluat de pe IBM developerWorks: http://www.ibm.com/developerworks/cloud/library/cl-cloudservices3saas/

- [17] Petcu, D. (2014), Consuming Resources and Services from Multiple Clouds. From Terminology to Cloudware Support. Journal of Grid Computing, 321-345.
- [18] Petcu, D., & Vasilakos, A. V. (2014), Portability in Clouds: Approaches and Research Opportunities. Scalable Computing: Practice and Experience, 251–270.
- [19] Pocatilu, P., Alecu, F., & Vetrici, M. (2009), Using Cloud Computing for Elearning Systems. RECENT ADVANCES on DATA NETWORKS, COMMUNICATIONS, COMPUTERS, 54-59.
- [20] Popescul, D., & Georgescu, M. (2013), Internet Of Things Some Ethical Issues. The USV Annals of Economics and Public Administration, 210-216.
- [21] Răduţ, C., Popa, I., & Codreanu, D. (2012), Cloud computing security. Journal of economic-financial theory and practice, 171-174.
- [22] Reese, G. (2009), Cloud Application Architectures: Building Applications and Infrastructure in the Cloud. Sebastopol, Canada: O'Reilly Media, Inc.
- [23] Rensin, D. K. (2012), Building a Windows IT Infrastructure in the Cloud. Gravenstein Highway North, Sebastopol, CA: O'Reilly Media, Inc.
- [24] Rhoton, J. (2009), Cloud Computing Explained: Implementation Handbook for Enterprises. Milton Keynes, UK: Recursive Press.
- [25] Sabharwal, N., & Wali, P. (2013), Cloud Capacity Management. New York, USA: Apress.