

The Impact of Cloud Computing on Firms: A Case Study of Cloud Adoption in Saudi Airline Navigation Services Company

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Abstract— The world has become increasingly digital. Companies rely on technology to assist them in improving their business processes. They are searching for an information system capable of handling massive work. An Enterprise Resource Planning system (ERP) comes into play at this point. Most ERP systems have been implemented on-premise, also known as traditional ERP systems. ERP system offers a variety of advantages, including integrated submodules, mature system functionality, and enhanced customization and integration capabilities. Other software applications have shifted to cloud computing over the past decade, which has become one of the fastest-growing segments of the IT industry. In addition, cloud computing is a modern trend that reveals the architecture of the next generation of applications. In this paper, we present a case study of Saudi Air Navigation Services company regarding their migration to cloud computing, highlighting the key concepts and services that cloud computing provides today and its impact on their businesses. This research aims to provide a better understanding of cloud computing transformation.

Keywords— *cloud computing, cloud services, saas, paas, iaas, enterprise resource planning (erp), cloud erp, traditional erp, oracle cloud erp.*

I. INTRODUCTION

Saudi Air Navigation Services Company (SANS) [1] is an air navigation services provider and an independent company owned by the government of Saudi Arabia. It covers services for the entire Saudi airspace and provides air traffic management and air navigation systems, including the procurement, operations, and maintenance of all air navigation systems kingdom-wide, as well as aeronautical information management [2]. SANS provides services to 1,828 employees [2] through a traditional ERP system to efficiently manage their business operations and facilitate information flow between units within the organization. Since on-premise ERP systems would be relegated to legacy status sooner rather than later, SANS decided to adopt cloud ERP after struggling with on-premise ERP for five years. The move to cloud computing, which is sometimes known as on-demand services, has provided SANS with an unprecedented

opportunity to adopt a wide range of application services via the cloud designed to meet their business needs. Because of this, Software as a Service (SaaS) has become an affordable and promising way to deliver enterprise applications.

1.1 RESEARCH OBJECTIVES

- A. *To present the differences between cloud ERP and on-premise ERP.*
- B. *To explain the differences between cloud service models.*
- C. *To give a live example of a case study on SANS company that highlights the following points:*
 - Determine the factors involved in adopting and implementing a cloud-based solution.
 - Clarify the impact of cloud computing on business efficiency.

The rest of the paper is organized as follows. In the next section, some of the related work will be reviewed. Section 3 presents cloud ERP vs. on-premise ERP. Section 4 shows the cloud computing services model. Section 5 describes our research methodology and the case study of SANS company in section 6. Section 7 and 8, conclusion and future work.

II. RELATED WORK

Numerous research papers discuss cloud computing and the factors that led to the implementing of one or more cloud service models. The researchers also examined how various industries and businesses utilize cloud computing and how their business requirements changed after migrating to the cloud. This section will describe some of these previous cloud computing practices.

Cloud services can be very beneficial for organizations of all sizes, but especially for Small and mid-size enterprises (SMEs). The efficient use of technology remains a challenge for SMEs in emerging economies due to several technical and skills-related barriers [3]. However, many SMEs still have not adopted cloud services, even though they can help with these problems. Businesses would be wise to make a move to the cloud. The time and money savings that result from having all the company's data and resources in one easily accessible location are apparent. Reduced spending on IT hardware is another benefit of migrating to the cloud [3].

South Africa's economy's oil and gas sector uses cloud computing at varying degrees and with different sorts of services. Companies in the oil and gas industry are making the switch to cloud ERP from on-premise ERP as a means to cut costs and boost efficiency in the workplace. In addition to increased processing speed and performance, the cloud may be used more rapidly to roll out applications, reduce the price of services, and facilitate a company's move toward digital transformation. Security, facilitating conditions, interoperability, support from top management vendor support, and competition were all identified as having a significant and positive

impact on the intent to embrace cloud computing. Complexity, government laws, organizational preparation, bandwidth, trust, and vendor lock-in were risks or challenges to cloud computing adoption [4].

The Industrial Ethiopian Bank is a significant financial institution in Ethiopia and Africa. Every cloud service they deploy, from IaaS to PaaS to SaaS, is utilized by these organizations (SaaS). As the bank strives to meet the increasing demands of its clients through the provision of high-quality services, it has opted to implement cloud ERP rather than on-premise ERP. Saving money, increasing service speed, providing more operational flexibility to consumers, and decreasing IT deployment risks are all benefits of cloud computing. For CBE, adopting cloud computing can help with cost savings, adaptability and scalability, enhanced efficiency, and more rapid customer service. To improve banking service, the company behind the application software has used its knowledge of cloud computing. The industrial bank of Ethiopia confronts difficulties in adopting cloud computing solutions due to concerns over security and privacy, as well as the need for reliable high-bandwidth telecom access. In Oracle, adopting the cloud will take a long time because of the significant budgets spent on banking software and expanding the current IT infrastructure [5].

Operations have been more efficient, leading to lower expenses, more profitability, superior customer service, greater access to new markets, and less friction in dealing with vendors and other partners. The IT department of an Iranian royal house was surveyed for information to learn how the distributed computing platform could help reduce energy costs and consumption. The high expense of implementing technological advancements and making good use of the equipment is one of the most pressing problems facing the banking sector. Distributed computing, or the use of online shared services, plays a significant role in the development of cost-saving

infrastructure but does not necessitate the expenditure of any operational fees, such as those associated with hiring personnel, purchasing hardware, or developing software. It's a reasonable proposal that widespread and practical use of distributed software solutions in banks might help achieve the goal of lowering the cost of using modern data technology and maximizing the efficiency of equipment used in the account-management business [6].

Although adopting and implementing an ERP is a costly & dangerous enterprise, businesses know they must do so if they want to increase their competitiveness, efficiency, and productivity. An analysis of RETAIL ORG, a small and medium-sized enterprise (SME), and its implementation of a cloud-based ERP system. This case study highlights the advantages of cloud-based ERP systems for (SME) businesses and some of the obstacles and quirks that these businesses face in pursuing an ERP system. When deciding on the most OK ERP system for a business, one of the most crucial factors is whether the system will be hosted on the cloud or on-premise. Because of the ease of access, reduced risk of vendor lock-in, and lower upfront costs associated with cloud ERP solutions, businesses, especially SMEs, are increasingly favoring them over on-premise ERP systems. Utilizing cloud ERP allows SMEs to save time and money while using the scalability and connectivity benefits of cloud computing to make better, more timely decisions now [7].

With the introduction of cloud computing, most companies and organizations have found it much easier to provide high-quality services to their online clientele. Many Nigerian businesses are saving money by adopting cloud computing because of the cost savings associated with using shared resources, the availability of on-demand self-service, the accessibility of numerous valuable implementations from the service provider, and the fact that the system is more efficient, reliable, and secure. Cloud service providers have been hesitant to invest in

infrastructure and halt the adoption of cloud computing by businesses due to issues with the power supply, inadequate internet connectivity, fear of hackers, and the country's insecurity [8].

Cloud-based ERP is becoming increasingly popular among South African SMEs. By streamlining and optimizing a wide variety of back-office tasks, ERP software boosts productivity and competitiveness. ERP software, when implemented correctly, may boost competitive advantage and bottom-line performance. Small and medium-sized enterprise (SMEs) is crucial in reducing poverty, creating jobs, and increasing international competitiveness in emerging nations like South Africa. Due to a lack of resources, many smaller businesses have found it challenging to expand into new areas and compete with their larger competitors. As a result, (SMEs) worldwide are being pushed to maximum limits because of the constant uncertainty in the market. (SMEs) can boost their competitiveness by implementing IS, leading them to cost savings, increased profits, better customer service, expanded market access, and smoother interactions with suppliers and other business partners. So many businesses today use ERP software in the hopes of reaping these advantages; it's no wonder many have chosen ERP systems. The company's transition to the cloud is complicated by the following. The complexity of the cutover process, the length of time it takes to migrate data, the lack of security in the cloud, the need for lengthy troubleshooting, the temporary suspension of applications, and the use of migration agents are all the problems users must deal with. Among the many advantages cited were increased IT dependability and reduced perceived costs, although these were not the primary motivators. Adoption of cloud-based solutions has been attributed to several factors, including risks to system performance and availability, sunk costs and dissatisfaction with existing systems, threat to data security, loss of control, lack of vendor trust, and limitations on functionality fit and customization [9].

Studies on cloud technology in a South African financial institution showed that the transition to an IaaS cloud was the first step toward using the public cloud. Still, compliance with rules and regulations is inevitable. Since the service provider does not have access to the customer's IP, PaaS was also considered very useful. There is a reluctance to migrate into or deploy to the public cloud due to concerns around privacy, security, compliance with laws and regulations, and the unknown. It was discussed how laws and regulations, such as the Protecting Online Privacy in Europe (POPI) framework, may affect the future of financial services in the cloud, especially in the public cloud. It's worth noting that many people regard cloud computing as a more rapid and flexible business, particularly in getting new products or services to market [10].

After the devastating Tohoku earthquake in 2011, the Japanese Institute of the Arts deployed every available cloud service to deal with the aftermath. Cloud computing services were used practically at the Tokyo College of arts after the Tohoku earthquake, displaying how they may be used for disaster recovery. Due to the university's limited personnel and financial resources, the decision was made to switch to cloud ERP rather than on-premise ERP, allowing them to address three representative challenges. Most of the university's funding went into fixing the earthquake-damaged buildings and other infrastructure issues that forced them to relocate to the cloud. On average, cloud ERP is 30% cheaper than on-premises ERP. So, by switching to the cloud, businesses can save money on infrastructure, IT personnel, maintenance, security, and upgrades because the cloud ERP provider handles all of that on its servers [11].

This article is an interview centered around cloud computing and the Japanese government. Services like SaaS, PaaS were discussed when it comes to implementing cloud services to a wide range of Japanese government, people and revamping administration who believe the

government should encourage eGovernment clouds (the "Kasumigaseki Cloud" of the national government as well as the "local government clouds" of local governments) pose a challenge. The government believes that to develop such clouds, in order to provide one-stop administrative services, it needs to take steps like ensuring security and reliability, creating a national ID system that is compatible with private-sector ID systems and allows the public to manage their own personal information, and coordinating and sharing corporate codes. The government should consider utilizing cloud services from the private sector if it wants to implement highly cost-effective information systems [12].

III. CLOUD ERP VS ON-PREMISE ERP

"Enterprise resource planning (ERP) software enables firms to automate their back-office processes and manage day-to-day functions" [13]. Based on business needs, an organization must decide whether to implement a cloud-based ERP system or stick with an on-premise ERP system. It is commonly recognized that cloud-based ERP systems are growing in popularity due to their affordability and adaptability.

Table 1 compares on-premises ERP systems vs. cloud ERP systems on a basic level [14].

TABLE1. Cloud ERP Vs. On-Premise ERP [14].

Categories	Cloud ERP	On-Premise ERP
Mobility	Accessed at anytime from anywhere through any smart device.	Accessed from the location of the servers for the ERP system.
ERP System's overall price	Subscription every month. Cost-free maintenance.	License cost. Annual maintenance costs.
Time of Implementation	Quick implementation	Slow implementation
Update	Included with the monthly subscription fees.	Included in the maintenance fees but requires additional costs for updating software and hardware.
Selection of modules	Only required modules will be purchased	Cannot subscribe to one module only, which reduces the flexibility of choice
Cost of Installation	No cost of installation because the system is installed on the server provider	Costs to install ERP software and set up the hardware

IV. CLOUD COMPUTING SERVICES MODEL

“Cloud computing is a model for providing widespread, practical, on-demand network access to a pool of configurable computing resources (such as networks, servers, storage, applications, and services) that require little administrative work or service provider involvement and may be rapidly delivered and released” [15].

Three different service models for the cloud are available, each of which satisfies a particular set of business needs. Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS) are the names of these three models [16]. While selecting the best model among the three cloud computing services, SANS implemented the SaaS model to meet their business needs. The following table shows the differences between cloud services [17].

TABLE 2. Basic comparison between cloud service models [17]

SaaS	PaaS	IaaS
Instead of software packages that individual users must purchase, applications are offered as services on the Internet.	It gives users virtual access to platforms and tools that enable the complete application development lifecycle, including the design, implementation, testing, and deployment of Web applications.	It offers a virtual data center with resources like servers, networks, storage, and processing power. Pay-as-you-go billing is used.
Used by end users.	Used by developers.	Used by network architects.
Example: Mail services, Microsoft Office 360, Google Apps and Dropbox.	Example: Microsoft Azure, CodeRun, Google App Engine and Apache Stratos.	Example: Google Cloud Platform and Amazon EC2.

V. STUDY METHODOLOGY

This study used a qualitative methodology using a case study of the Saudi Air Navigation Services company. Instead of broadly analyzing a population's sample drawn at random, qualitative research aims to create a deep understanding of a particular location or organization.

This study is framed within the theoretical and empirical aspects of cloud computing and SaaS adoption in enterprises [7]. Information was mostly gathered through direct observation of the job and business operations. Furthermore, interviews were conducted with personnel at SANS company. Such as Human Resources System specialist employees in the HR Department, IT employees in the IT departments, and the most essential member was the consultant of Oracle ERP Cloud and services from the AppsPro company [19] (please see Appendix B and Appendix D for the interview transcript).

VI. CASE STUDY

According to Issues in ERP on-premises: A Case Study, the SANS company, which goes with the Oracle vendor [20], decided to move their business to the cloud because of many failures.

After searching for a solution, they decided to switch to the Oracle cloud ERP solution [21], which was implemented in the company by AppsPro in late 2021 (See Appendix B).

A. The Problem

Saudi Air Navigation Services company has been struggling for years with Oracle's on-premise application. The main issues faced and tried to be mitigated were mainly due to some limitations and difficulties in the application design and process. Listed below are some of their challenges regarding the previous system (See Appendix B and Appendix D):

- **High cost of maintenance:** Since the responsibility of hosting servers and maintenance and security of the environments has been mainly on SANS, a very high cost must be mitigated.

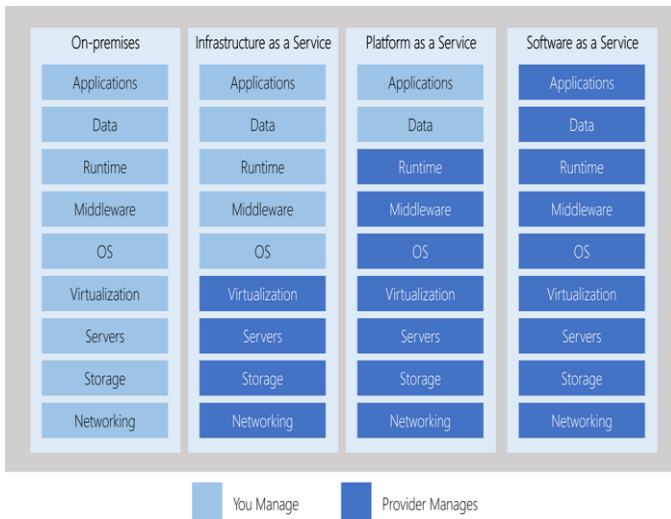


Fig. 1. Business model of cloud computing [18]

- **Downtime on Patches:** The entire application should undergo complete downtime whenever an update patch or fix is applied.
- **In-Office access limitation:** SANS employees should be in the office to manage most of their daily transactions.
- **Legacy Application Interface:** Oracle cloud ERP interface was too legacy and outdated, and the employees had difficulties adapting to the user interface.

B. The Alternatives

Thinking of alternatives based on the problems of the legacy ERP system was mainly focused on reducing the cost of ownership of the servers and other challenges that have been discussed earlier. Oracle Cloud ERP Solutions, especially the SaaS model, best suits SANS needs; they found a solution for every single problem that was being faced while relying on Oracle on-premise ERP solution. The Oracle's Cloud SaaS model manages all the traditional software and hardware, including application software, middleware, and security.

C. The Results

As a result, SANS significantly reduced the cost, upgraded business solutions more quickly than when maintaining an on-premises ERP system, and predicted the total cost of ownership with greater accuracy. Listed below are some of the most significant benefits SANS has realized since adopting the Oracle Cloud ERP Application (See Appendix B and Appendix D).

- **Lower up-front costs:**
 - Eliminating the requirement for additional hardware and middleware.
 - Reduce the installation and implementation costs.
 - Validate and correct errors before changing to the master of SANS data.
- **Predictable ongoing expenses:**
 - Eliminate the unpredictability costs of software and hardware management, patching, and updates.

- Transform capital costs into operational costs.
- Reduce risk by experts to manage software and monitor cloud security.

- **Rapid deployment:**

- Get up and running in hours rather than months.
- Activate and implement the most recent innovations and updates.
- Automated software patching.

- **On-demand scalability:**

- Instantaneously scale to meet growing data or transactional demands.
- Reduce interruptions while maintaining service levels.

- **Enhanced customer satisfaction:**

- Reduces the time required to obtain real-time information, enhancing the customer experience, and transforming employees' work.
- Reporting solutions that provide timely and accurate data insights.
- Advanced analytic tools for generating incisive graphical reports that facilitate more advanced decision-making.

VII. CONCLUSION

In conclusion, due to affordable and reliable cloud services, businesses are starting to deploy cloud-based systems to support business processes and improve operational efficiency. Even though numerous studies are looking into what factors influence a company's decision to choose and use a cloud-based ERP system. Only a small number of case studies have been conducted to illustrate the assessment and adoption of such systems provided via a Software-As-a-Service (on-demand). This paper presents a case study of adopting a cloud-based ERP system by a SANS Co in the aviation sector. There are various ERP options available, each with a different price point and method of delivery. However, choosing the best ERP

system goes beyond the question of pricing and other common selection criteria. The SaaS (cloud) alternative has developed into a capable and economical delivery model that guarantees businesses only pay for their level and amount of usage and not primarily for the hardware and infrastructure, allowing the money to be used for other operational areas. This gives a workable option for businesses of all sizes who want to start with a modest number of modules and subsequently increase their functions as the need arises or the company expands. No matter how big or small the organization, any firm must face the challenging and risky task of implementing an ERP system. Smaller businesses typically have less time and money to dedicate to such an enterprise-wide project than larger organizations. Companies require access to reliable real-time information to be profitable and competitive. This service level and other advantages can be provided via business process automation using ERP systems. This paper provides insights into cloud ERP adoption for businesses. Cloud ERP enables real-time decision-making in a reasonably fast and cost-effective time period and improves scalability and connectivity by leveraging the power of cloud computing. Moving ERP to the cloud can have several advantages, including improved performance, scalability, flexibility, and cost reduction.

VIII. FUTURE WORK

In the future, we plan to analyze other aspects of cloud computing, such as its impact on other companies regarding the security and risk of cloud computing and data migration difficulties, providing more statistical information that supports the research.

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Appendix A

List of the Interview Questions for the Human Resource System Specialist

1. What is your position in the company?
2. What sector does your organization operate in?
3. How many people work for SANS company?
4. How could you describe the failures of your previous ERP system in your company?
5. When did the migration to the cloud happen?
6. What are the reasons that lead the company to go through this step?
7. Why is cloud computing essential for the company's competitive advantage?
8. Which cloud provider does your business utilize?
9. How the utilization of cloud computing benefits your company?
10. How has the financial side affected your business when shifting to the cloud? Please provide an example.
11. How does it impact the satisfaction of your employees?

Appendix B

Transcript of the Interview Session with the Human Resources Information Systems Senior Specialist

R: Researcher

I: Interviewee (HR Information system senior specialist)

R: What is your position in the company?

I: Human Resources information systems senior specialist

R: What sector does your organization operate in?

I: Air space/ aviation

R: How many people work for SANS company?

I: Around 2000

R: How could you describe the failures of your previous ERP system in your company?

I: We have faced lots of challenges I will not call these failures. It's more than that. Because we tried to have a workaround for the following. Weak software, wrong requirements, lack of executive commitment on the part of business leadership, lack of team resources, lack of responsibility to timely make decisions of good quality, underfunding of change management, poor instruction/support/ training, and insufficient funds.

R: When did the migration to the cloud happen?

I: In the year 2021 the date was 01/09/2021.

R: What are the reasons that lead the company to go through this step?

I: Reduce risk of data loss, improve efficiency, cost optimization, cloud makes it easy to share files with several people at the same time.

R: Why is cloud computing essential for the company's competitive advantage?

I: Increased Capability and Capacity. With cloud computing, small businesses with limited resources and budgets can now access "big company" capabilities and capacity. Furthermore, it gives you access to data centers staffed by highly qualified professionals who will keep you operational 24/7.

R: Which cloud provider does your business utilize?

I: Oracle Cloud ERP fusion

R: How the utilization of cloud computing benefits your company?

I: We have Reduced IT costs by moving to cloud computing, such as the cost of managing and maintaining our IT systems. Also, by utilizing cloud computing services, we cut expenses of the need to buy pricey systems and equipment for our company.

R: How has the financial side affected your business when shifting to the cloud? Please provide an example.

I: Cloud computing's scalability makes it possible for businesses to expand successfully. When a business grows, it can extend its infrastructure and facilities without needing to anticipate server requirements or buy more storage space. Contacting the service provider to change your subscriptions is all that is left to do at this point.

R: How does it impact the satisfaction of your employees?

I: Among some of the advantages are higher incomes, productivity, and sales as well as reduced employee absenteeism since they can work from anywhere and anytime.

Appendix C

List of the Interview Questions for the Oracle ERP Cloud Consultant

1. What is your position in business?
2. What sector does your organization operate in?
3. How can you get enough support from the vendor and other business partners to build a cloud computing infrastructure that meets the company's needs?
4. How does cloud computing save the budget of firms? Please provide us with an example.
5. Is the standardization of cloud computing, which includes standards for security and privacy, interfaces for various layers, architecture, integration, etc., enough for implementation inside the company?
6. Why is cloud computing essential for the company's competitive advantage?
7. Do the current laws and rules effectively ensure access privacy and confidentiality in a cloud-based environment, and if so, why?
8. Regarding your point of view, how do you see the impact of cloud ERP on SANS business?
9. What causes you and your business partners to choose Software-as-a-service for cloud ERP?

Appendix D

Transcript of the Interview Session with the Oracle ERP Cloud Consultant

R: Researcher

I: Interviewee (Oracle ERP Cloud Consultant)

R: What is your position in the business??

I: Oracle HCM Functional Consultant

R: What sector does your organization operate in?

I: Information technology (IT)

R: How can you get enough support from the vendor and other business partners to build a cloud computing infrastructure that meets the company's needs?

I: Oracle usually provide excellent help and support to the partners and implementation specialists, they have various levels of support that match the different types of issues and needed action from them, to get instant support and live sessions with their experts, critical tickets are raised to Oracle Support Portal, and they do the needful.

R: How does cloud computing save the budget of firms? Please provide us with an example.

I: Oracle cloud radically cut down the cost of software license, Hardware maintenance, Security and Network framework. It also cut down the cost of implementation through their standard implementation functional tasks. Oracle Cloud had a severe impact on cost to Saudi Air Navigation Services company, saving hundreds of thousands Saudi Riyals for the licensing of the legacy software, also it eliminated the cost of servers and its maintenance, also the cost of security team has been eliminated. Oracle Cloud also eliminated the cost of administration, the entire DBA team salaries have been saved.

R: Is the standardization of cloud computing, which includes standards for security and privacy, interfaces for various layers, architecture, and integration, etc., enough for implementation inside the company?

I: Yes, surely, we did not face any insufficiencies regarding deployment of Oracle Cloud product for SANS.

R: Why is cloud computing essential for the company's competitive advantage?

I: Oracle Cloud standardize the Whole process for HR, Finance, SCM, it is critical to achieve process excellence and eliminate downtime and too much custom workflows that was present in the legacy software.

R: Do the current laws and rules effectively ensure access privacy and confidentiality in a cloud-based environment, and if so, why?

I: Yes, sure. As the Saudi Arabian Monetary Authority SAMA, has approved implementing and hosting ERP on the cloud. They have laws that protect the confidentiality, access, and privacy of cloud-based implementations. [SAMA regulations Reference](#). [22].

R: Regarding your point of view, how do you see the impact of cloud ERP on SANS business??

I: Oracle cloud implementation has provided a streamlined business process and workflows, the product has standard processes that helped VPs, Managers, and Employees achieve operational excellence through a standard process and modern application interfaces. The built-in dashboards also helped in decision making, especially in the employee psychometrics (Performance Management, Training, Talent Review) submodules of the HR application.

R: What causes you and your business partners to choose Software-as-a-service for the cloud ERP?

I: It's easy to implement, costly effective, saves rollout time, and standardizes the whole business process. It also provides free to use mobile friendly interface to the entire system.

أثر الحوسبة السحابية على الشركات: دراسة حالة لتبني الحوسبة السحابية في الشركة السعودية لخدمات الملاحة الجوية

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المستخلص - أصبح العالم رقميًا بشكل متزايد. وأصبحت الشركات تعتمد على التكنولوجيا لمساعدتها في أتمتة عمليات الأعمال الأساسية وإدارتها لتحقيق الأداء الأمثل. تقوم الشركات بالبحث عن نظام معلومات قادر على التعامل مع قدر هائل من العمل. يدخل نظام تخطيط موارد المؤسسات (ERP) حيز التنفيذ في هذه المرحلة. فقد تم تنفيذ معظم أنظمة تخطيط موارد المؤسسات محليًا، والتي تُعرف أيضًا باسم أنظمة تخطيط موارد المؤسسات التقليدية، ويقدم هذا النظام مجموعة متنوعة من المزايا مما في ذلك ربط البيانات المالية للشركة وسلسلة التوريد والعمليات والتجارة وإعداد التقارير والتصنيع وأنشطة الموارد البشرية على منصة واحدة. انتقلت مؤخرًا بعض تطبيقات البرامج الأخرى إلى الحوسبة السحابية، والتي أصبحت واحدة من أسرع القطاعات نموًا في صناعة تكنولوجيا المعلومات. بالإضافة إلى ذلك، تعد الحوسبة السحابية اتجاهًا حديثًا يكشف عن بنية الجيل التالي من التطبيقات. في هذه الورقة، نقدم دراسة حالة لشركة خدمات الملاحة الجوية السعودية فيما يتعلق بانتقالها إلى الحوسبة السحابية من خلال ال (Cloud ERP)، مع تسليط الضوء على المفاهيم والخدمات الأساسية التي توفرها الحوسبة السحابية اليوم، بالإضافة إلى تأثيرها على أعمالهم. تهدف هذا الورقة إلى توفير فهم أفضل لتحول إلى الحوسبة السحابية.

الكلمات المفتاحية - الحوسبة السحابية، الخدمات السحابية، البرمجيات كخدمة (SaaS)، المنصة كخدمة (PaaS)، البنية التحتية كخدمة (IaaS)، برنامج تخطيط موارد المؤسسات (ERP)، برنامج تخطيط موارد المؤسسات في السحابة، برنامج تخطيط موارد المؤسسات داخل الشركة، اوراكل السحابية لتخطيط موارد المؤسسات السحابية.