

# Migrating Informatica Business Entity Structure From On-Prem To Cloud

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**Abstract:** The research is all about the migration. How the companies, who are working on-prem are migrating to cloud? Why do they are require to migrate while they are already performing satisfactorily ? Is the migration really necessary?[3] Or Can these companies survive without cloud ? These are the questions answered in this research. To justify the answers and validate the research I have taken the example of well established company "Informatica". If you have had any experience with data, then it is highly likely that you are familiar with Informatica[9]. For individuals, who are not acquainted about it I have given a breif and further also told how it works.

## I. WHAT IS INFORMATICA ?

Informatica is a software development company facilitating data manipulation[9]. It was established in 1993, based in Redwood City, California. It has launched many tools to manage and integrate data. The world uses its tools on a large scale through different companies including Allianz, Fannie Mae, Samaung, ING, and U.S Air Force with 5,000 other customers. Furthermore, there are over 450 partners in addition to that. In addition to the aforementioned achievements, Informatica also holds the top position in customer loyalty rankings for the past seven years.



# Informatica™

Fig: Informatica Logo

It functions through data extraction, data transformation and data loading.

the method of acquiring information from alternative sources, like Oracle or sql server and then storing it within the informatica server is called Data Extraction.

After Extraction the data transformation is done. To do so the data has to go through merging, cleansing, aggregation and scrubbing. The process is nothing different from what it sounds. Data is integrated from different sources. The integration process brings lot of unwanted data increasing its complexity and storage. Thus, it is cleaned. Basically, the unwanted data is removed. Now, the aggregation functions are performed on the clean data. The aggregate function same as database aggregate functions such as sum(), min(), max(), count() etc. Finally, scrubbing is done to get the final transformed data.

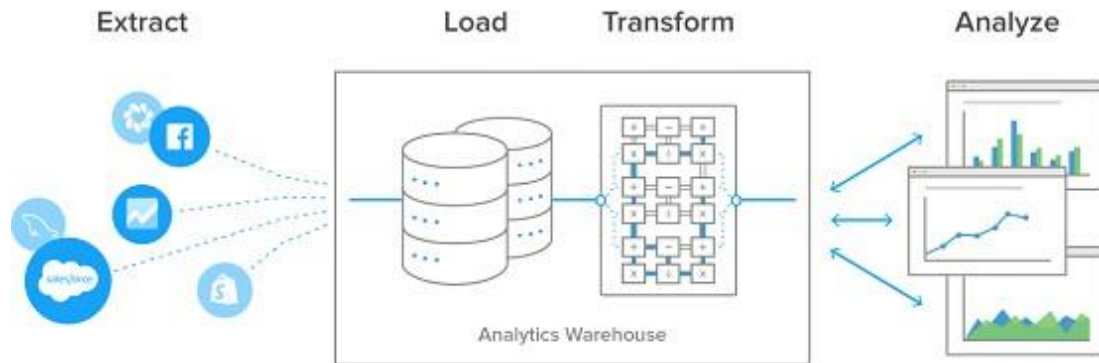


Fig: Extract, Load, Transform & Analyze

Once the data is transformed it needs to be loaded to the client system. There exist two ways to do this, Initial Load also called as Full Load and Delta load further known as Incremental load or Daily Load.

In Initial/Full Load the data is inserted in an empty table. Which means that the table is in its initial stage. Now you understand why, the process is called as Initial Load.

In Delta/Incremental/Daily Load the data is loaded whenever any change is occurred in the data. It is always done after the initial load. Every time a data is loaded into the table the process is decided based on the table's condition

## II. ARCHITECTURE

Informatica uses ETL architecture. ETL stands for Extract Transform Load.

This process helps in playing with data and then bring it together to support discovery, reporting, analysis and decision making.

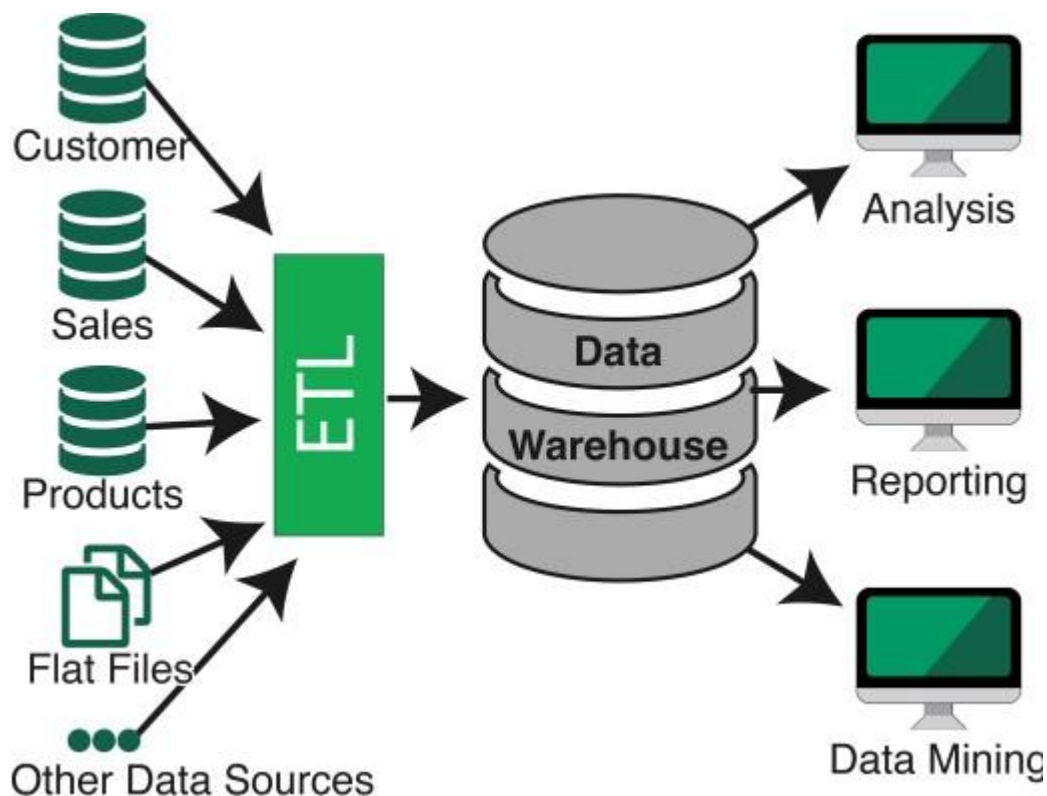


Fig: ELT Architecture

### III. MIGRATION

Before we understand about the migration we must understand some terminologies such as on-prem and off-prem[9].

on-prem is the shortened form of on-premises[9]. It is the idea that a software working locally within the organization or the premises of the person.

off-prem is shortened form of off-premises. It is the idea that a software working remotely outside the organization or the premises of the person. These softwares are commonly called as SaaS (Software-as-a service).

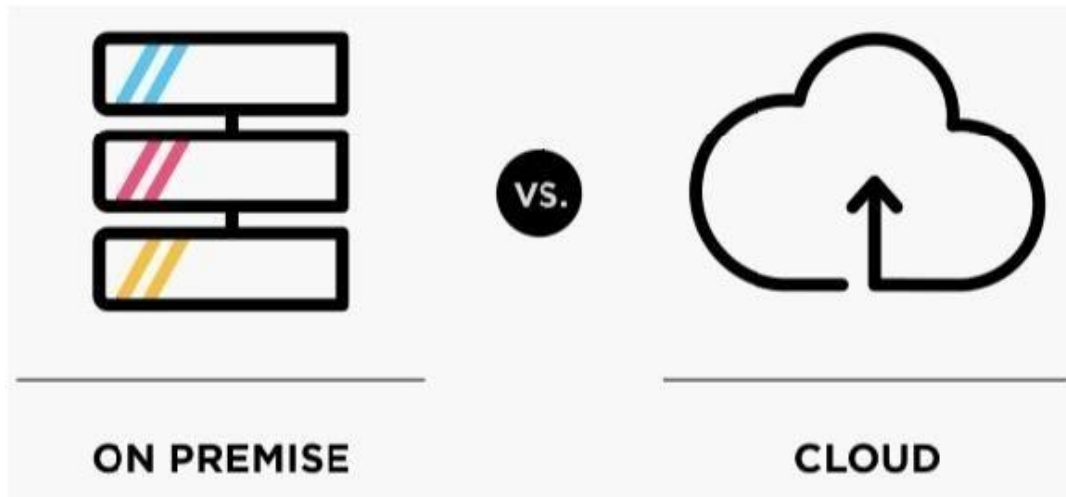


Fig : On-premises and Off-premises

SaaS is a cloud based software. For individuals who are not familiar with how the cloud works or what the cloud is? To give a basic understanding the cloud is a virtual place[3]. This virtual place is not just for storing(as many of us think), but for your surprise the cloud gives many other facilities, one among them is SaaS. Meaning that you as a developer can create a software which can be made available on the cloud so that others can use it. This concept facilitates you to not install any software in your device. You can use it without thinking about storage or cost. I hope this gave you a basic idea of what SaaS is.



Fig : How SaaS works ?



Coming back to on-prem and off-prem, clearly the world is digitalising in every aspect. Similarly, informatica also choose to migrate on cloud[3].

The MDM tool was an on-prem tool till date. MDM is abbreviated as Master Database Management. Now,informatica has decided to move it online. Thus, it will have to make all the features and functions of the mdm available on cloud.

Interesting thing about this migration is that informatica is not using AWS Redshift or Azure SQL. Informatica is not into any such kind of clouds. It uses its own cloud. Yes, you read it write informatica hasits own cloud, where this isn't just providing mdm but has also introduced additional tools.

#### **IV. WHAT ARE THE CHALLENGES IT CAN FACE WHILE MIGRATING ?**

As mdm is an on-prem tool the biggest challenge faced by informatica while migrating it, is that all its features has to be migrated on cloud[3]. MDM is a vast tool capable of manipulating a lot of data. Thus, migrating all its features means building all the features again. This job must be done manually as there is no tool available to do this. Building this complex project is not easy as it will take lot of time, energy and money. So, the biggest challenge in this process is the complexity of the tool.

To reduce its complexity we can break the tool into small parts solely for the purpose of development. This approach will provide assistance to first develop all the parts, It is anticipated to be easy as the parts would not be complex and will not take much time. After all the parts are developed we can integrate it and then migrate it to the cloud. This approach will aid in diminishing the complexity, if not solve it.

#### **V. CONCLUSION**

The world is digitalizing rapidly. This boom in technology, is not just making software accessible but alsoattracting new opportunities. I can say this, while throwing light on how a big established company like informatica is adopting to the changes. This company is well established but still incurring money and timeto migrate from on-prem to cloud[3]. This will definitely open space for different talents. I hope we have answered the questions asked in the begining. Concluding those questions I prefer expressing thatindividuals are increasingly becoming accustomed to using online softwares. Easy access to information, software, games etc through cloud is habitual to the crowd now. To keep up with the crowd requirements we must facilitate them with easy. That today is only possible with cloud. Thus, not just Informatica but every company who wants to keep their customers happy and satisfied will adapt cloud. Though migrationtakes extra efforts for these big companies, it is important for them to survive in the market. Apart from thatthis is the one time investment for them. As I said, while talking about informatica we dont have a tool to migrate the on-prem tool to cloud[3]. But once the migration is done they will have that tool and it will maketheir migration for other tools easier.

#### **ACKNOWLEDGMENT**

I, **Samreen Taj F** from MCA department of Bangalore Institute Of Technology, I would like to extend my heartfelt gratitude and appreciation to all those who have contributed to the successful completion of this article. Without their unwavering support, guidance, and encouragement, this endeavor would not have been possible.

First and foremost, I want to express my sincere thanks to **Dr. T Vijaya Kumar**, Head of the MCA Department, for providing me with the opportunity to undertake this project. I am truly grateful for the abundant resources and excellent facilities provided by the department, which have played a vital role in my research.

My deepest appreciation goes to my guide, **Prof. Suma N R**, whose invaluable insights and expertise have shaped this article significantly. Her constant guidance, patience, and encouragement have been a constant source of motivation throughout this journey. I am truly grateful for her mentorship and the valuable feedback she has provided.

I am also thankful to **Dominic Savio Lona Maliekal**, the manager, and **Vinutha Bujuvalli** from Globalsoft.Inc, who generously shared their knowledge and expertise with me. Their inputs and suggestions have tremendously enriched the quality of this article. I am grateful for the time and efforts they have dedicated to helping me expand my understanding of the subject matter.

Acknowledgment is due to my family and friends for their unwavering support and understanding during this endeavor. Their encouragement and belief in my abilities have been a constant source of inspiration.



Finally, I want to express my thanks to all individuals, both known and unknown, who have contributed in any way to the completion of this article. Your contributions, no matter how big or small, have played a significant role in its successful completion.

In conclusion, I am humbled and grateful for the support and guidance I have received from all those involved. This article would not have come to fruition without their involvement. Thank you all once again for being integral parts of this incredible journey.

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