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## CLLOUD PLATFORMS ARCHITECTURE

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This study explains one of the most used term in today's computing architecture, especially for future solutions. It is a hot topic for small businesses and huge enterprises.

The basic method for the undertaken research is the descriptive method including the methods of interpretation and generalization. The statistical method of research is also applied in the work.

According to RightScale survey, 96% of respondents use clouds. The State of the Cloud Survey is the largest survey on the use of cloud infrastructure, the survey asked 997 IT professionals across companies, some of them with more than 1000 employees. Gather predicts that by 2020, most companies are expected to have cloud-first or cloud-only policies.

The purpose of this study is to examine main factors behind this change. They include things like lower operating costs, improved time to marker, better collaboration, and increased flexibility.

Clouds solutions are complex of different patterns that complements each other to bring benefits from approach. One of the trends in cloud computing is a focus on IaaS (Infrastructure as a Service) and SaaS (System as a Service), according to survey by RightScale. Depends of your needs, there can be different levels that provides you final software as a service or infrastructure to build system on that infrastructure.

As the applications became more and more complexity, it was hard to keep all logic as a single piece of code. Object oriented programming approach provide a pattern to divide code to classes by their meaning, but with growing of information that information system used to handle, there appears necessity of another level of splitting. For example, system handle two types of independent information and user run hard calculation for first type, the whole system will be extremely loaded and users with second type, that has no connection with first type will notice decrease in performance. That's how behave monolith applications and clouds allow us to separate independent modules into separate container to easy maintain their behaviour and their loading.

Generally speaking, cloud-based applications should leverage identity and access management (IAM). Enterprises that develop mature IAM capabilities can reduce their security costs and, more importantly, become significantly more agile at configuring security for cloud-based applications. Indeed, IAM will be a part of more than 50 % of existing applications that migrate to the public cloud and nearly 90% of new applications built on clouds.

Your core objective is to design security into the application and take advantage of the native features of both the cloud and the IAM system you use. However, each application has its own requirements based upon the needs of the business, and security always differs from one enterprise to another.

Conclusions:

Business of all sizes, geographies, and industries are turning to cloud services. Building a cloud application requires that you pay attention to a few new things, but many of the traditional concepts are still important. Understand that approaches such as service orientation should be given priority, even if it means longer initial application development

lifecycles and bigger budgets. Even though you'll pay more for application development in the cloud than you did for traditional application development, the investment in services pays huge dividends year in and year out. It's a smart investment. Here are some advantages that worth all that hardship in architecting and implementation of that kind of complex system compare to traditional monolith applications:

- It's a more efficient system
- More secure
- Scalable.

### References

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