1. Motivation of the research.

cloud computing brings its own set of novel challenges that must be addressed to ensure the success of data management solutions in the cloud environment. to ensure the smooth transition of applications from

traditional enterprise infrastructure to the next generation cloud in-

frastructure.

1. Significance of the research.

This tutorial presents an organized picture of the challenges faced by application developers and DBMS designers in developing and deploying internet scale applications. We crystallize the design choices made by some successful systems large scale database management systems, analyze the application demands and access patterns, and enumerate the desiderata for a cloud-bound DBMS.

1. Body of knowledge incorporated in the research.

we focus on the design issues inbuilding a DBMS for dealing with applications with single largedatabases. We refer to this as a large single tenant system. Intellectual contribution in the research.

Scalable database management systems (DBMS)—both for update intensive application workloads as well as decision support systems for descriptive and deep analytics—are a critical part of the cloud infrastructure and play an important role in ensuring the smoothtransition of applications from the traditional enterprise infrastructures to next generation cloud infrastructures.

1. Intellectual contribution in the research.

State-of-the-art in scalable data management for traditional and

cloud computing infrastructures for both update heavy as well as

analytical workloads. Summary of current research projects and

future research directions

1. Future direction of this research.

Providing support for ad-hoc querying on top of a Key-Value store or providing consistency guarantees at different access granularities are some research efforts targeted towards enriching the functionality supported by Key-Value stores. Further research however is needed to generalize these proposals to different classes of applications and different Key-Value stores.