PRELIMINARY RESEARCH PROPOSAL

"CHALLENGES OF MULTI-CLOUD INTEROPERABILITY"

INTRODUCTION

THE PURPOSE OF THE PROPOSED RESEARCH IS TO EXAMINE THE DIFFICULTIES ASSOCIATED WITH MULTI-CLOUD INTEROPERABILITY.

BACKGROUND

The challenge arises because of the lack of standardized protocols for communication between these platforms.
Standards, architecture patterns, and proper security measures are necessary to ensure smooth communication between different cloud platforms.

RESEARCH QUESTION

- HOW CAN ORGANIZATIONS ENSURE SEAMLESS COMMUNICATION AND DATA TRANSFER BETWEEN MULTI-CLOUD ENVIRONMENTS?
- WHAT TOOLS AND TECHNOLOGIES ARE CURRENTLY AVAILABLE TO AID IN MULTI-CLOUD INTEROPERABILITY?
- WHAT MEASURES CAN BE PUT IN PLACE TO MITIGATE THE COMPLEXITIES ASSOCIATED WITH A MULTI-CLOUD SETUP?
- HOW CAN COMPATIBILITY ISSUES ACROSS CLOUDS BE ADDRESSED TO ENABLE HETEROGENEOUS SYSTEMS TO WORK TOGETHER SEAMLESSLY?

Research Design

1 **RESEARCH METHODOLOGY**

mixed-methods approac:. This strategy allows for gathering both quantitative (numerical) and qualitative data.

2 **SAMPLING METHOD**

The sampling method chosen are purposeful and non-probability sampling.

3 **VARIABLES**

- *Independent Variable: Multi-Cloud Interoperability*
- *Dependent Variable: Difficulties Associated with Multi-Cloud Interoperability*

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1 **TOOOLS**

Online Survey Tool,Statistical Software,Content Analysis Software and Communication and Collaboration Tools

2 **METHODS OF DATA COLLECTION**

The primary method of data collection is an online survey and interviews with professionals on the field.

3 **PROPOSED SOLUTION**

Implementing a universal application programming interface (API) that can communicate with the APIs of different cloud providers using common protocols and languages is one suggested remedy

significance of research

THIS RESEARCH PROVIDES A CLEAR OVERVIEW OF THE BENEFITS AND CHALLENGES ASSOCIATED WITH MULTI-CLOUD IMPLEMENTATIONS. BY SHEDDING LIGHT ON THESE COMPLEXITIES, THIS RESEARCH WILL ENABLE ORGANIZATIONS TO MAKE MORE INFORMED DECISIONS

scope of the research

EXAMINE THE STATE OF MULTI-CLOUD INTEROPERABILITY AT THE MOMENT AND OUTLINE ITS MAIN PROBLEMS. WITH AN EMPHASIS ON DATA TRANSPORT AND STORAGE, WE WILL EVALUATE THE INTEROPERABILITY AND COMMUNICATION CAPABILITIES OF DIFFERENT PROVIDERS' CLOUD SERVICES.

Thank You!