



# CampusTalk

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**College of Technological Innovation**  
**SENIOR PROJECT EXHIBITION DAY**  
**SPED@CTI**

# OUR TEAM



NATNAEL HABTEMICAEL



HORIEB MESFUN



SIEM ZERESENAY



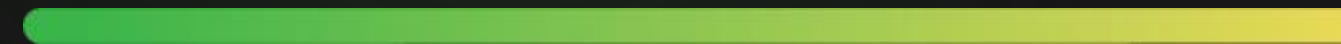


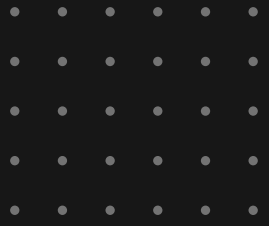


- INTRODUCTION
- MOTIVATION
- PROBLEM STATEMENT
- OBJECTIVES
- PROPOSED APPROACH
- CHALLENGES AND LESSONS LEARNED
- DEMONSTRATION
- CONCLUSION



- VOIP
- ASTERISK
- SIP/RTP





# PROBLEMS



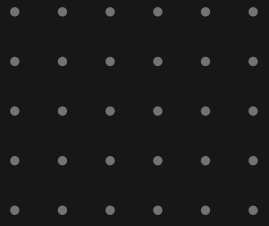
## REGULATED

THERE IS A REGULATION OF VOIP  
SERVICES WITHIN UAE

## LIMITED

TRADITIONAL PHONE SYSTEMS HAVE  
LIMITED FEATURES COMPARED TO VOIP  
AND LIMITS COMMUNICATION  
FEATURES





# PROBLEMS



## COST

TRADITIONAL PHONE SYSTEMS OFTEN INVOLVE HIGHER COSTS, ESPECIALLY FOR LONG-DISTANCE OR INTERNATIONAL CALLS.

## MOBILITY

INABILITY TO ACCESS AND STAY CONNECTED TO PHONE SYSTEMS WHEN STEPPING AWAY FROM THE DESK/OFFICE LEADING TO MISSED CALLS, DELAYED RESPONSES, AND LIMITED .



# MOTIVATION



COST EFFECTIVENESS



WIDE RANGE OF FEATURES AND  
FUNCTIONALITY

RESTRICTION OF VOIP SERVICES IN  
THE UAE

# Project Objectives



**Security**



**Flexibility**



**Interoperability**



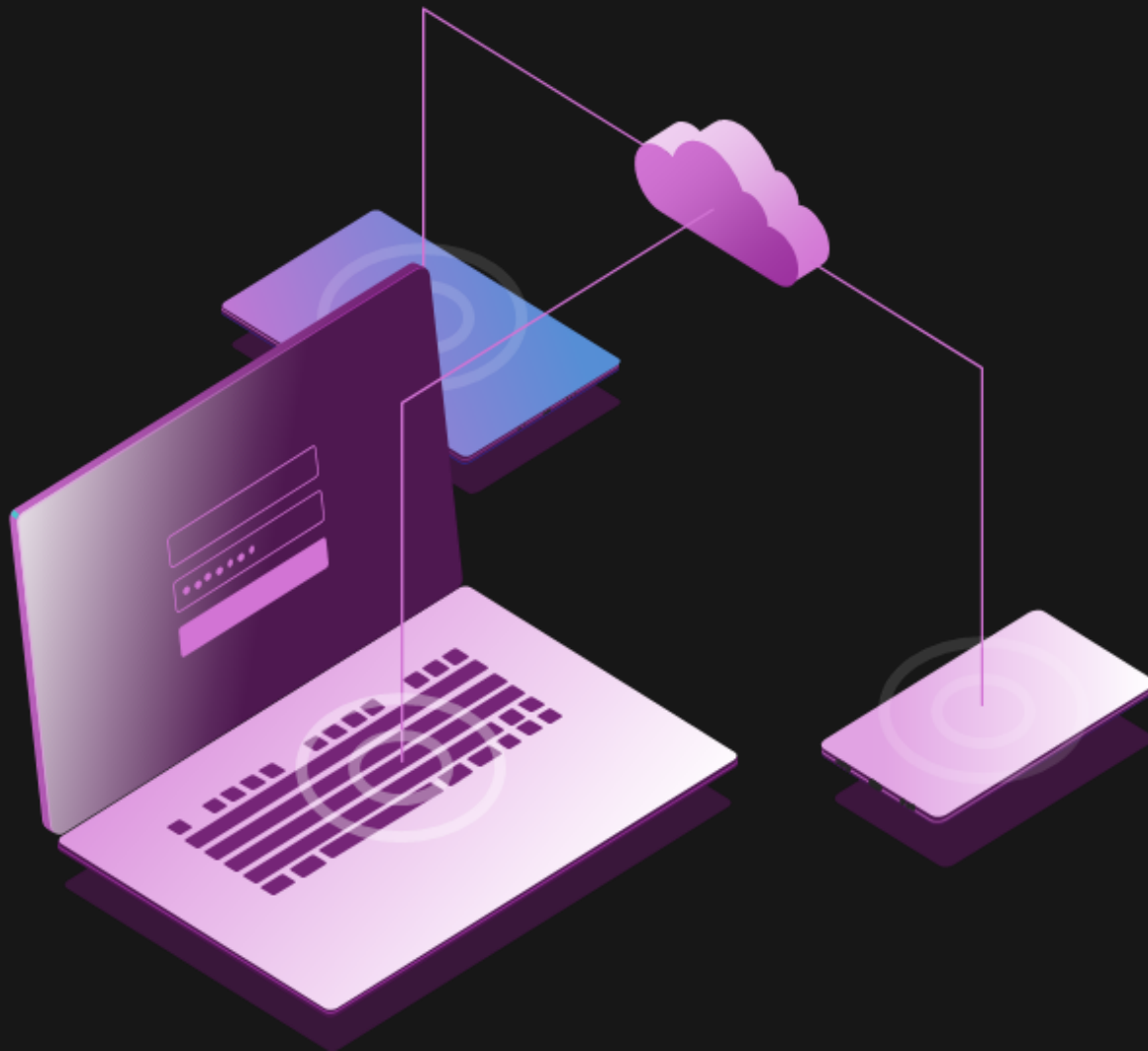
**Cost-effectiveness**



**Reliability**



**Open-source software**





# VOIP PLATFORM

## CAMPUSTALK

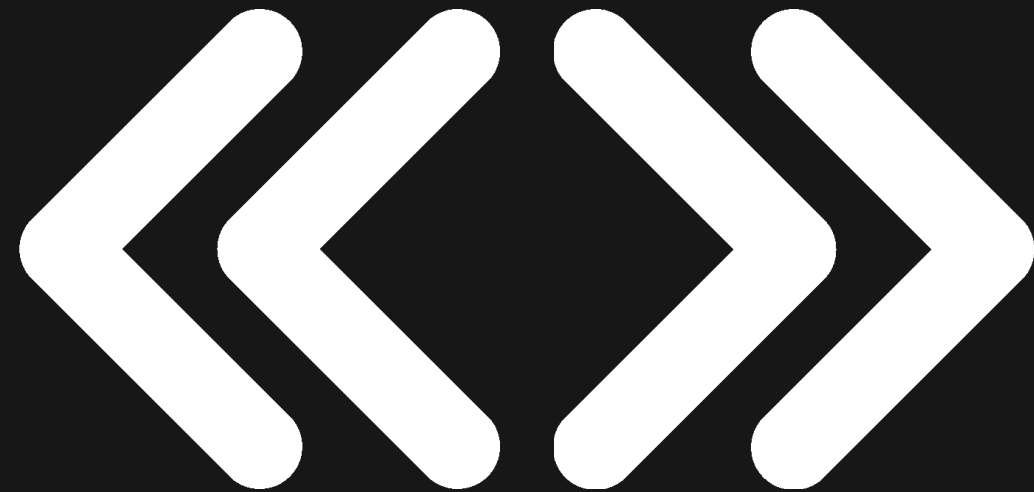
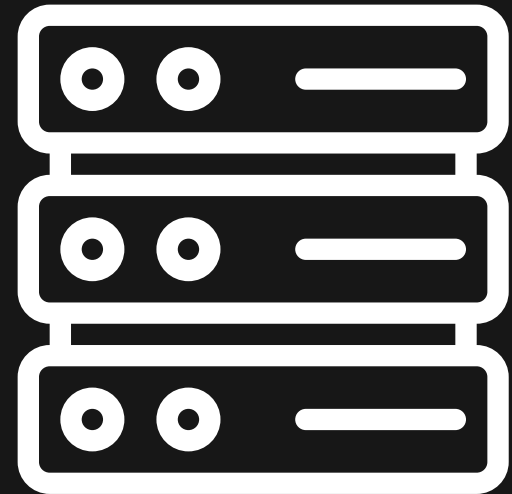
- FREE AND OPEN-SOURCE FRAMEWORK, ASTERISK
- LINUX SERVER
- ROBUST AND CUSTOMIZABLE



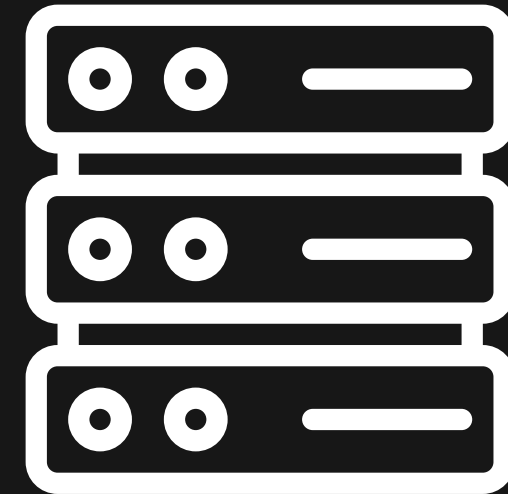
PROPOSED  
APPROACH



ABU DHABI



DUBAI



ASTERISK PEER SERVERS

# APPLICATIONS



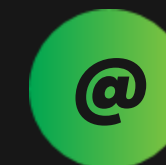
OUTGOING & INCOMING  
CALLS



123-456-7890



VOICE MAIL

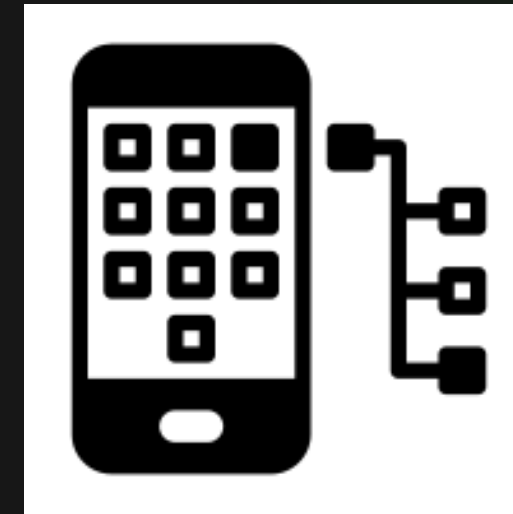


SOMEONE@EXAMPLE.COM

# APPLICATIONS



CONFERENCE CALLS



INTERACTIVE  
VOICE RESPONSE



JOIN WITH 111



PRESS 1 TO TALK TO...



OTHER FEATURES INCLUDE

CALL TRANSFER



CALL FORWARDING



CALL QUEUING



TIME CHECK



# SECURITY FEATURES

SSL FOR TLS



SRTP



MD5



IMPLEMENTING SECURITY FEATURES



SEARCHING AND DOWNLOADING IMPORTANT PACKAGES AND  
LIBRARIES

AUTOMATING AND MODULARIZING THE CONFIGURATION SYNTAX OF  
THE ASTERISK SOFTWARE





VOIP PLAT FORM USING ASTERISK



ENHANCED SECURITY

INTEGRATION WITH EMERGING TECHNOLOGIES

CLOUD AND VIRTUALIZATION SUPPORT

INTEGRATION WITH UNIFIED COMMUNICATIONS





Thank  
you!

Any  
Questions