الجز ائرية الديمقر اطية الشعبية الجمهورية République Algérienne Démocratique et Populaire وزارة التعليم العالي والبحث العلمي Ministère de l'Enseignement Supérieur et de la Recherche Scientifique

> المدرسة العليا للإعلام الآلي - 08 ماي 1945 ــ بسيدي بلعباس École Supérieure en Informatique -08 Mai 1945- Sidi Bel Abbes



Final Year Thesis

To obtain deploma of **Engineering** domain : **Computer Science** Specialty : **Computer System Engineering**

Theme

Edge and Fog Computing Based Video Management System

Presented by : Mr Kebairia Zakaria & Mr Khadraoui Alaa

Graduate in : 07 September 2021

in front of jury composed by :

- Pr. M.A.Boudhir

- Pr. A. Rahmoun

- Dr H. Bensenane

- Dr. A.Malki

Supervisor Co-Supervisor

President

Examinator

Abstract

Recent technological advancements have altered the way research is done.

Traditionally, we'd have to buy and install custom hardware on our own, then configure, integrate, and commission all of it before presenting our new environment. This resulted in both delays and risks. Aside from the risk of human errors and limits, it can also be regarded a bade engineering technique that adds unnecessary complexity.

These approaches are no longer acceptable as businesses demand more flexible, portable, and responsive infrastructure.

As a result, transitioning to a more software-defined, virtual hardware stack and Infrastructure as Code approach is critical for removing these roadblocks and fulfilling the demands of today's organization.

Here, we'll try to demonstrate some significant technologies and approaches, as well as our contribution to how we built our infrastructure. explaining how we came up with solutions to our problems and how they evolved.