

Chapter 1

PREAMBLE

1.1 Introduction

The latest video compression standard, H.264 (also known as MPEG-4 Part 10/AVC for Advanced VideoCoding), is expected to become the video standard of choice in the coming years.

H.264 is an open, licensed standard that supports the most efficient video compression techniques available today. Without compromising image quality, an H.264 encoder can reduce the size of a digital video file by more than 80% compared with the Motion JPEG format and as much as 50% more than with the MPEG-4Part 2 standard. This means that much less network bandwidth and storage space are required for a video file. Or seen another way, much higher video quality can be achieved for a given bit rate. Jointly defined by standardization organizations in the telecommunications and IT industries, H.264 is expected to be more widely adopted than previous standards.H.264 has already been introduced in new electronic gadgets such as mobile phones and digital video players, and has gained fast acceptance by end users. Service providers such as online video storage and telecommunications companies are also beginning to adopt H.264.In the video surveillance industry, H.264 will most likely find the quickest traction in applications where there are demands for high frame rates and high resolution, such as in the surveillance of highways, airports and casinos, where the use of 30/25 (NTSC/PAL) frames per second is the norm. This is where the economies of reduced bandwidth and storage needs will deliver the biggest savings.H.264 is also expected to accelerate the adoption of megapixel cameras since the highly efficient compression technology can reduce the large file sizes and bit rates generated without compromising image quality. There are tradeoffs, however. While H.264 provides savings in network bandwidth and storage costs, it will require higher performance network cameras and monitoring stations.

1.2 Objective

The Main objective is to provide flexibility to support a wide variety of applications with very different bit rate requirement for Ad-Hoc Network and for example, in entertainment video applications—which include broadcast, satellite, cable and DVD—H.264 will be able to deliver a performance of between 1 to 10 Mbit/s with high

latency, while for telecom services, H.264 can deliver bit rates of below 1 Mbit/s with low latency.

1.3 Organization of Report

Chapter 1: Gives the overall introduction to the project along with the problem statement, proposed solution and the aim & scope of the project

Chapter 2: The project related concepts and the topics are studied extensively in the literature survey chapter.

Chapter 3: The complete information of the software and hardware requirements used in the project in the chapter 3 under the name system requirements and specification

Chapter 4: The design of the project with the system architecture, module diagrams, sequence diagrams are explained in the chapter 4

Chapter 5: Gives the complete information about the implementation.

Chapter 6: This concentrates on the testing which includes unit testing, system testing, integration testing.

Chapter 7: Gives the snapshots of the implemented front end along with performance evaluation.

Chapter 8: Gives the conclusion followed by the references.

Chapter 2