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Patent Search

Invention Title	A FOG-BASED VIDEO SURVEILLANCE SYSTEM FOR SMART CITIES
Publication Number	08/2024
Publication Date	23/02/2024
Publication Type	INA
Application Number	202311089648
Application Filing Date	29/12/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	ELECTRONICS
Classification (IPC)	H04N0007180000, G08B0013196000, G06F0003060000, H04L0067109700, H04W0012040000

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Abstract:

The present invention relates to a fog-based video surveillance system for smart cities. Security and safety are the major concerns with a huge increase of smart cities in the present scenario. Video surveillance produces an enormous volume of data while functioning 24 X 7 in public places like banks universities and enterprises. Storage systems and other analytical software may become overwhelmed by these massive volumes of data. The information must be examined and possibly saved to provide a peek at some of the most intriguing occurrences that are happening in a certain location at a particular time. The components for processing and storage that cloud computing offers give the infrastructure required to manage these data. Nonetheless, global latency and interruption in the transfer of data from the cloud to data return to end users' application devices is undesired in a real-time scenario. An intelligent surveillance system based on fog is designed that enable lower latency and faster data handling by means of localization.

Complete Specification

Description:Field of the Invention

The disclosure relates generally to video surveillance, and more particularly, to a fog-based video surveillance system for smart cities.

Background of the Invention

The critical problem of higher latency and faster data processing in real-time video surveillance is solved by this invention. To handle multimedia data, video surveillance systems require costly servers as part of their infrastructure. These systems generate and store vast amounts of data and process in real-time to identify safety issues. Recently, there has been a progressive increase in criminal activity all over the country, particularly in urban areas, which has made technological advancements in security and monitoring systems necessary. On cloud computing, the suggested system is built, and iFogSim has been used to model and simulate the application. The findings indicate that, in comparison to cloud computing factor like energy utilization, the fog-based model is safer and more effective. The proposed system contributes to improving intelligence agencies and increasing safety and security in public places.

The article "Fog Computing for the Internet of Things: Security and Privacy Issues" (A. Alrawais et al., 2017) provides a comprehensive overview to optimize the dissemination of certificate overturning information across IoT devices for safety improvement, the authors designed fog-based mechanism that addresses security and privacy challenges in IoT contexts.

The article "Smart City Video Surveillance Using Fog Computing" (P. Prakash et al. 2019) systems that switch between video surveillance and a data acquisition device sequentially. With the help of real-time video analysis, surveillance systems can deal with events instantly and gather a wealth of high-resolution, important data.

The article "Fog Computing Based Intelligent Security Surveillance Using PTZ Controller Camera" (Indranil Sarkar and Saniav Kumar 2019) decreases the reliance on the

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Page last updated on: 26/06/2019