ISSN: 0976-3031

Available Online at http://www.recentscientific.com

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 8, Issue, 7, pp. 18079-18081, July, 2017

International Journal of Recent Scientific Research

DOI: 10.24327/IJRSR

Research Article

IOT: ANIMAL AND THINGS TRACKING THROUGH INTERNET OF THINGS

Ganta Rama Mohan Reddy*

Department of Computer Science, TEC, Hyderabad, Andhra Pradesh, India

DOI: http://dx.doi.org/10.24327/ijrsr.2017.0807.0447

ARTICLE INFO

Article History:

Received 15th April, 2017
Received in revised form 25th May, 2017
Accepted 28th June, 2017
Published online 28th July, 2017

Key Words:

IoT, smart phone, RFID.

ABSTRACT

Now a days, So many peoples are living on the animal business. In some time animal is missing from the group of animals therefore the missing animal is forgettable the way of the return back to home or group of animals. At that time Shepherd will be suffer for seeing in surrounding areas and dough full areas in this process he will tack long time or he can't find out the animal. In this paper proposed on a small physical object is attached to the animal ear. If animal can't return back to home owner will be used his android mobile and easy to find out where at animal is presented. The physical object is support that information in this process is going on some service provider by using navigator they could reached the area and easy to find out the animal in short time.

INTRODUCTION

Internet of things is a interaction between the things that consists of sensors and human. The main concept of the IoT is allowed things to be connected any time, any place with anything, any one, and any network and any service. By developing this need a common operating platform that is middle ware. The middle ware platform enable sensor data collection, processing and analysis. Presently we design and implementation details of our proposed middle-ware solution namely mobile sensor data processing engine (MOSDEN).

Mosden is designed to support sensing as a service model natively. Mosden is a true zero programming middle ware. That means user do not need to write program code this MOSDEN middle ware is used for push and pull data streaming. For data transaction between android mobile and sensors we can develop a special plug-in that is used for the better communication between the sensor and human.

Basic information about IoT Work

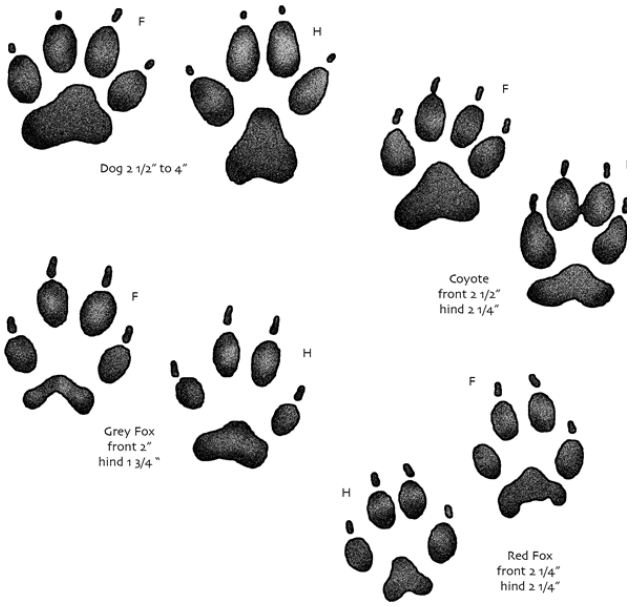
In this section, we briefly discuss the background and our motivation behind this work. By using IoT we can connected to billions of thing to the Internet. This method is not possible and practical to connect all of them to the Internet directly. This is mainly due to resource constraints (ex. network, communication capabilities and energy limitations) directly connecting to the Internet. It is expensive term of computation bandwidth usage and hardware cast. Enabling persistent Internet access is challenging and negatively impacts on mini aturization and energy consumption of the sensor. Due to such difficulties of IoT solution need to utilize different type of devices with different resource limitation and capability.

We believe that an ideal of IoT middle ware solution should be able to take advantage and adapt to these different type of devices in order to make the solution more efficient and effectiveness. One of the most critical decision that need to be taken in the domain of IoT is where and when to process the collected data.

Without IoT

Fig 1 In olden days animal tracking

Corresponding author:* **Ganta Rama Mohan Reddy
Department of Computer Science, TEC, Hyderabad, Andhra Pradesh, India



In this figure simple representation in olden days and also presented days in some areas it plan will be applied because that areas has no technology. That way those are fallow this method. Present day they animal tracking major problem in the poor peoples. It means find out the area to present the animal. In this process there is no technology supporting animal owner will be directly go to the nearest places and doubtful areas and then search it is very risky process because we don't know exact location. Just we can search on the guessing areas and here there no guaranty for find out the animal. If suppose some body is diverting the animal way like controlling or exporting in this time owner difficulty to find out the animal presented area. Financial it is major problem for the animal owner this problem not only for animal all the movable objects like vehicles and children etc.., in case of it is major problem for the find out the object location.

With IoT

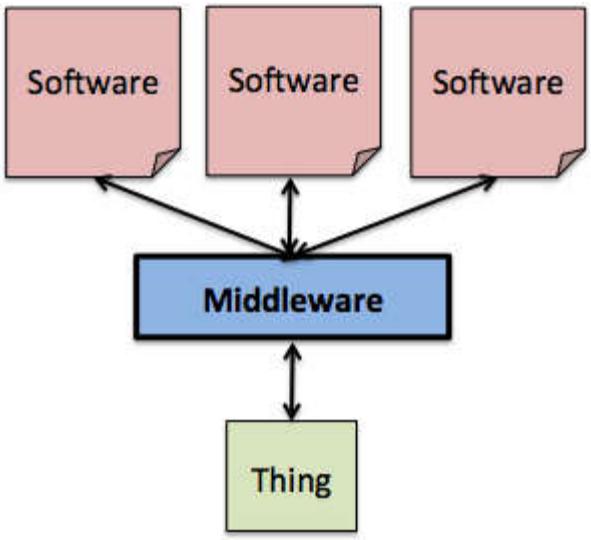


Fig 2 Above Figer is simple architecture about the IoT**.**

If using the advanced technology we can easy to find out the animal presented location. A small tag will be attached to the animals by using that tag we can easy to traces the animal presented direction and going direction. In this process we can use two tags one is passive tag and active tags. In passive tag has two task are available one is RFID and NFC. RFID means radio frequency identification. And NFC means near field communication. It is used for sending the information through the active tag. Though the active tags are zigbee and wifi and bluetooth these are presented active tag will be sent the signals to the owner. This technology very useful for the provide the animal security and easy to find out the animal presented location. The technology is not only useful for the animal tracking and it is also useful for the any movable object like vehicles and children etc.., .it is very useful for the tracking and exactly find out the object location.

Implementation

Fig 3 Active tag

In this paper implementation, we are taken the some physical objects that are arduino uno board for sending the signal and smart phone or android phone for receive the signal from active tag and passive tag.

Now let's start for implementation of this paper firstly we can connected the active tag and passive tag will be attached to the animals. In active tag has contain feature is zigbee and wifi and bluetooth. By using active tag feature we can try to send the signal to the owner and we are attached one more tag to the animal that is use for create the signal that tag is passive tag. In passive tag has the f features are RFID and NFC. RFID is radio frequency identification and NFC is near feed communication. Here we can take help from other application that is navigation application by using these applications we can easy to find out the animals were present. In these method is very helpful for all peoples whose are depends on the animal profit. And also so it is helpful for the child protection because same methodology apply the missing child and easily to find out were child are presented. Therefore now comes to the programming implementation. In this paper is implement on the android platform because this program run on the smart phone. So

definitely we are develop the program in the android platform. In this paper smart phone will be sanded the signal from the active and passive tag in this chip in side one web server is presented that have the capabilities to receive the signals request.

By using the IP (Internet protocols) address of the chip and Ethernet server functionality programming will be developed. Mobile receive the HTTP request in JSON (Java server on net) format signal will be send chip inside server will be sending that signal. In this button signal will be send on HTTP protocols format and this program will be run on the web server

RESULTS AND DISCUSSIONS

Fig 4 Output representation and contradiction between smart phone and chip interaction.

In this above figure we can easily analysis what is the process is going on and how it is used total representation in the Fig 3. It is very easy processing to about how to find out the animals.. Here there is no suffering about the any problems. By using this process we can save the money and time without tension. In this technology is very useful for former and whose are depends on the profit from animals. In this technology is very use because animal tracking is very difficult. No need tension about the IoT basics etc. It is just mobile operating. It can operate uneducated peoples also.

CONCLUSION

We hope by using the advanced technology we can easy to find out the animal presented location. A small tag will be attached to the animal by using that tag we easy to traces the animal presented direction and going direction. In this process we can use two tags one is passive tag and active tags. In passive tag has two task are available one is RFID and NFC. RFID means radio frequency identification. It is used for sending the information trough the active tag. Active tag feature are zigbee and wifi and bluetooth these are presented active tag will be sent the signals to the owner. This technology very useful for the provide the animal security and easy to find out the animal presented location. This technology not only useful for the animal tracking it is also useful for the any movable object like vehicles and childes etc.., it is very useful for the tracking and firstly find out object location.

References

Journal Papers

1. C. Perera, A. Zaslavsky, P.Christen, A. Salehi, and D.Georgakopoulos (2012). Capturing sensor data from mobile phones using global sensor network middleware. In IEEE 23rd International Symposium on Personal Indoor and Mobile Radio Communications (PIMRC), 24-29.
2. C. Perera, A. Zaslavsky, P. Christen, and D. Georgakopoulos. (2013).Context aware computing for the internet of things:A survey. Communications Surveys Tutorials, IEEE, 414 -454.
3. C. Perera, A. Zaslavsky, P. Christen, and D. Georgakopoulos. (2014). Sensing as a service model for smart cities supported by internet of things. Transactions on Emerging Telecommunications Technologies (ETT).
4. C. Perera, P. Jayaraman, A. Zaslavsky, P. Christen ,and Georgakopoulos (2013) . Dynamic configuration of sensors using mobile sensor hub in internet of things paradigm. In IEEE 8th International Conference on Intelligent Sensors, Sensor Networks, and Information Processing (ISSNIP), 473-478.
5. Cosm. Cosm platform, 2007.https://cosm.com/
6. D. Carlson and A. Schrader (2012). Dynamix: An open plug-and-play context framework for android. In Internet of Things (IOT), 151-158.
7. D. Kharrat and S. Quadri(2005) Self- registering plug-ins: an architecture for extensible software. In Electrical and Computer Engineering, 2005. Canadian Conference on, pages 1324-1327.
8. D. L. Phuoc, H. N. M. Quoc, J. X. Parreira, and M. Hauswirth(2011). The linked sensor middle ware - connecting the real world and the semantic web. In International Semantic Web Conference (ISWC).
9. H. Sundmaeker, P. Guillemin, P. Friess, and S. Woelffle.(2011) Vision and challenges for realising the internet of things. Technical report, European Commission Information Society and Media 10-10.
10. http://dronelife.com/2014/12/30/5-actualuses-drones-precision-agriculture-today/
11. http://gisgeography.com/100-earth-remotesensing-applications-uses/
12. http://www.advanceresearchlibrary.com/temp/downloads/ijair/October2016/t21.pdf
13. https://en.wikipedia.org/wiki/List_of_sensor.
14. https://platform.telerik.com/
15. K.Schreiner(2007) Where we at? mobile phones bring gps to the masses. Computer Graphics and Applications, IEEE, 27(3):6-11.
16. N. Brouwers and K. Langendoen. Pogo (2012). A middleware for mobile phone sensing. In Proceedings of the 13th International Middle ware Conference, Middleware '12, pages 21-40.
17. N. Lane, E. Miluzzo, H. Lu, D. Peebles, T. Choudhury, and A. Campbell(2010).A survey of mobile phone sensing. Communications Magazine, IEEE, 48(9):140 - 150.
18. S. Nath, J. Liu, and F. Zhao.(2007). Sensormap for wide-area sensor webs. Computer, 40(7):90-93,
19. Z. Shen and Q. Wang. (2012) Data validation and confidence of self-validating multi functional sensor. In Sensors, 2012 IEEE, pages 1-4.