



Xiot

The Xray IOT solution from **3-F Software**



How did it start?

- The idea evolved over a chai time
- I was dabbling with IOT with another company that was in IIOT business for a long time. Was pushing to get them to cloud, from their server mode
- Over a typical casual meeting with my friend who happens to be Xray machines manufacturer to GE, I rejected the IOT idea as image transfer was something that I considered complex
- But then the thought struck about sending just the usage data, like how many xrays, fault data and I just said – change mine to YES !



Hardware choices

- I talked to my h/w partner about building this.
- Initial experiments were with ESP 8266
- The choice of ESP8266 was primarily dictated by KAA cloud's samples that were ready with certain endpoints
- Had some hard time installing KAA sdk on ESP 8266 via linux box
- Eventually settled for customized board with our own embedded software



Simplicity !

- Decided to have first implementation using GPS
- This was supported by our manufacturer as the machines could be deployed in village hospitals with wi-fi being non availability
- The embedded solution sends SMS to pre-configured mobile
- Developed Android app for pushing SMS to server – presently visible on <http://3-F-software/xrays>



Complexity

- Developed REST APIs for Salesforce cloud integration
- This keeping in view the future where huge data may be sent over the net
- Salesforce's WAVE solution for analytics is good enough for seeing the graphical output for large data in quick and customizable way.



Future in healthcare and IIOT

- We are excited with this small success
- Want to build a scalable solution for medical devices that are now reaching home like blood sugar level, blood pressure measurement
- With machines sending data directly to Doctors and Hospitals we now can start gathering the data in first place, and that too Quality data.

What are we looking for?

- Manufacturing help – we are presently just at the design prototype phase and we understand mass manufacturing will have its own challenges
- Expand to other devices as mentioned in earlier slide
- Marketing !
- And Sales, eventually
- Smart cities? If the stuff reaches us somehow.
- We can manage certifications within India and US. Other countries, we will need some help.
- Oh.. And did I forget funding ? ;-)



Thank you !

- Questions ? Please use contact me form on website <http://3-f-software.in> OR write to atul.k@3-f-software.in
- Website – <http://3-f-software.in>