

How to operate FieldServer with NO data loss



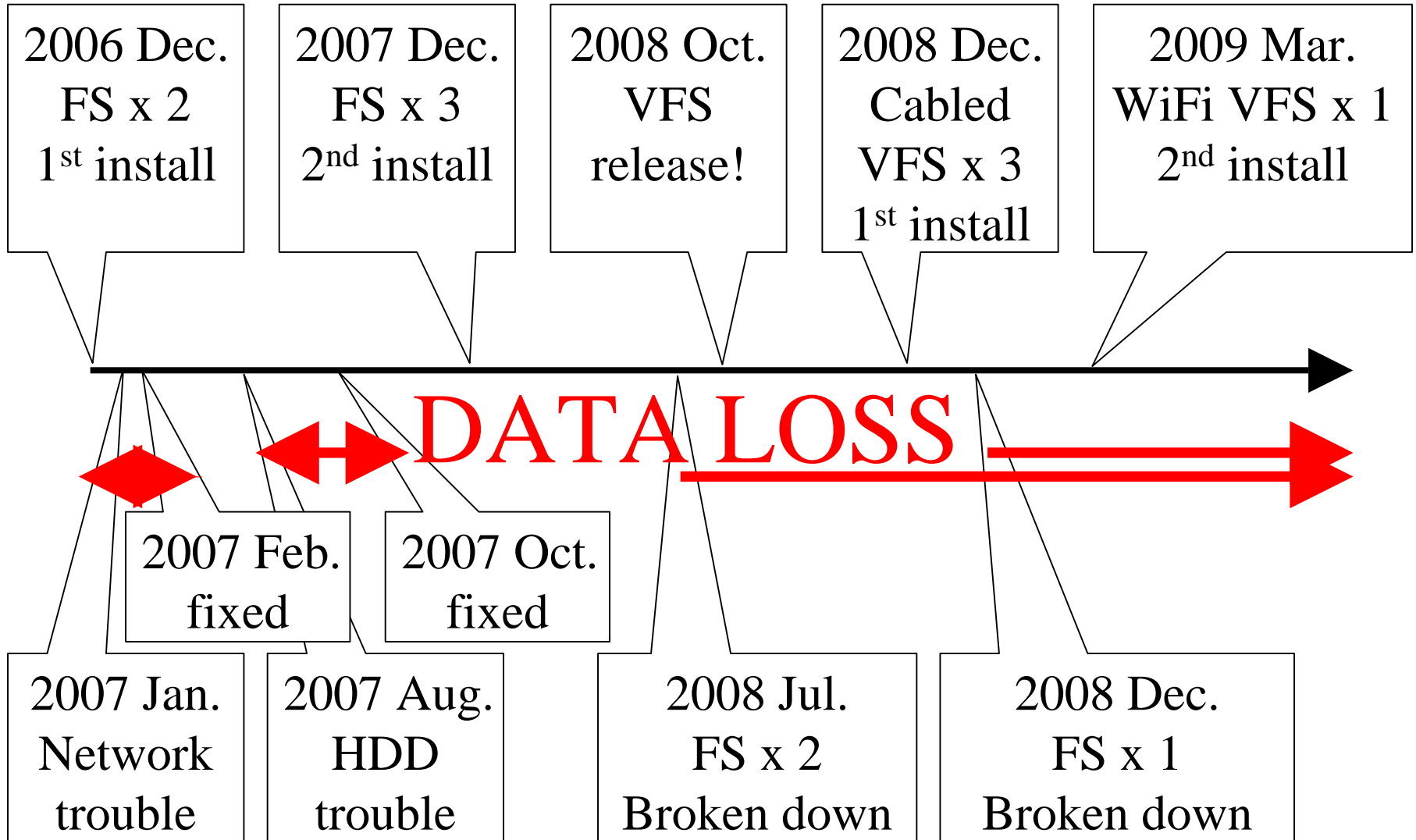
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KhonKaen research

- By Dr.Mizo
- Project for DIAS (Data Integration & Analysis System)
- To develop agricultural production model by global scale bottom up approach
- Rain fall and use of water for paddy field
 - To study how farmer manage water use for paddy field without external water source

FS in KhonKaen, Thailand



Till now

- Huge Solar panel - 120W
(100cm x 50cm)
- Heavy battery - 120Ah
(40kg)
- High power consumption - 10W
- Data loss on Field Server stop



BIG COST

TOUGH INSTALL

RISKY RESEARCH

How to avoid data loss?

- Use data logger
 - With ultra low power consumption
 - Maintenance free for long period
 - With secured data, stores data in its Non-Volatile memory
- Data logger cannot be connected to network
- How to connect data logger to network?

WiFi Virtual FS + data logger

- No data loss
- Small solar panel - 10W (40cm x 30cm)
- Small battery (optional) - 12Ah (2kg)
- Low power consumption – 2W max

CHEAP

EASY INSTALL

SAFE RESEARCH



What is Virtual FS?

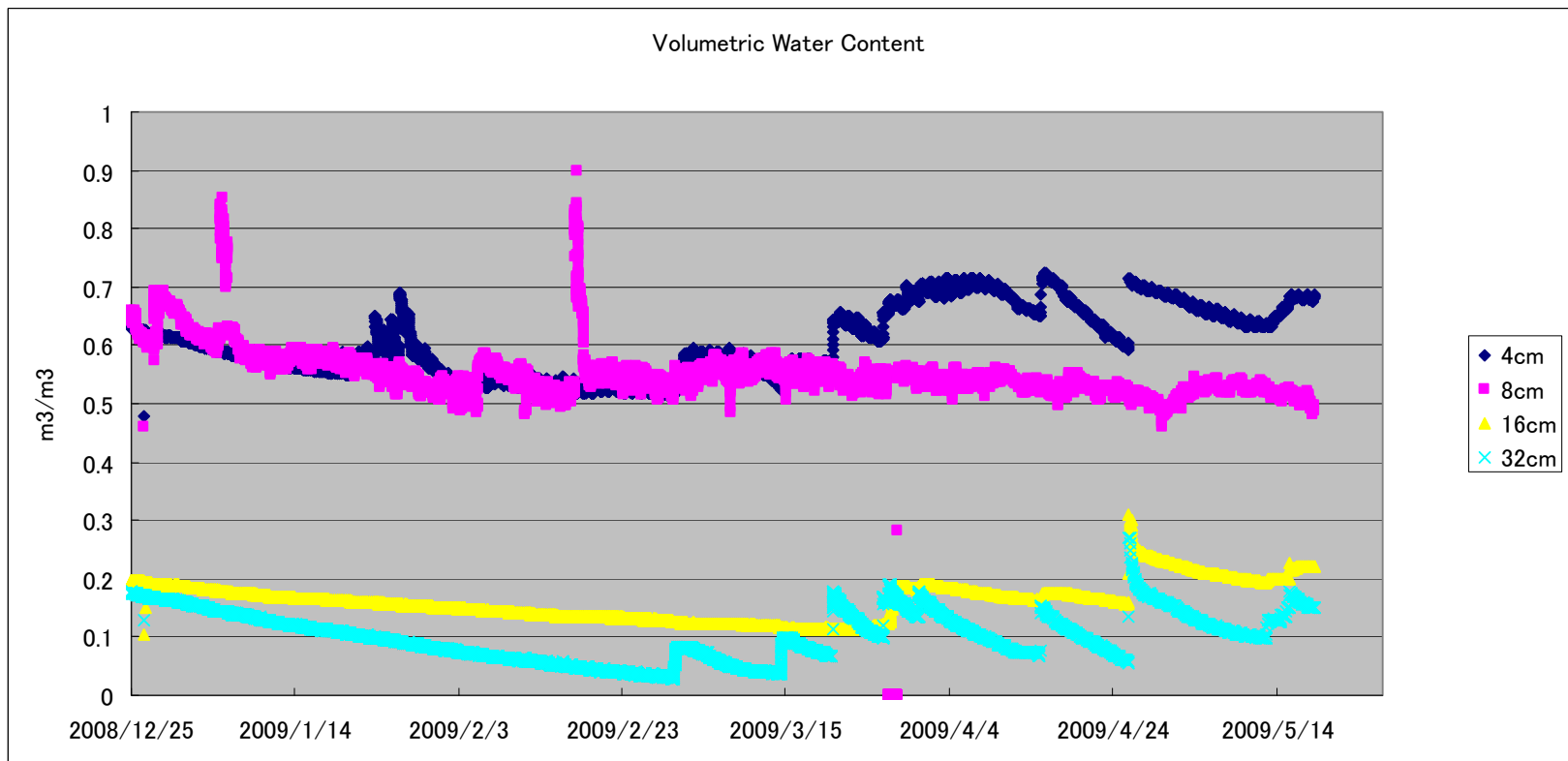
- Simple serial – ether/WiFi converter
- Robust design: -40 to 70°C, 5 to 30VDC
- Small size: 200g, 3cm x 5cm x 20cm
- Cheap price: 300USD

FieldServer in real field KhonKaen, Thailand



After VFS

Example of VFS in KhonKaen, Thailand



Conclusion

- Data security by data logger
 - Data is priority
- Connect data logger to network via Virtual FS
 - Real-time data collection
- Small footprint, tough design, cheap price
 - Easy handling, install
- Virtual FS extends FS's ability and help our research with FS

Thanks for listening



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