



## New Technologies, Innovations and Trends in CGD

(Digitalization: Smart Metering, Meter Data Management, Analytics and Dash Boards, IT and OT Convergence)

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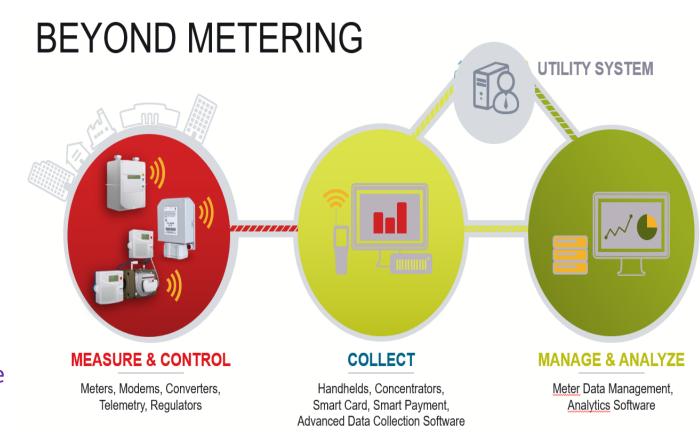


## Introduction



Digitalization: What?, Why? & , Need?

- Smart Metering : Domestic, Commercial & Industrial
- Meter Data Management: Handle Multi HES, Data Repository & VEE!
- Analytics and Dash Boards: Humongous Data what to be Done?
- IT and OT Convergence: IT integration for datacentric computing with operational technology (OT) systems used to monitor events, processes and devices and make adjustments in enterprise and industrial operations.





#### Context



### WHAT IS AT STAKE?



- Accuracy & Timely billing, no average low billing
- Improved customer satisfaction
- Focus on core business
- Operational efficiency meter to Cash Process
- Domestic/Residential under AMR Solution, step towards smart / digitization



### Relevance



#### Key Drivers:



- Automated meter reading & Alarm of data.
- Billing interface to SAP,
- Single end to end solution provider for New Infrastructure, software and services for implementation and operations mgmt.
- Proven and scalable Solution
- Dashboard & Analytics
- Gas reconciliation.

#### Business case:

- Automation of Meter to Cash Process
- Accurate readings includes alarms & Temper (If any)
- Billing without any manual interference
- Support Integration to SAP billing System
- Timely & accurate billing
- Gas reconciliation.





## **Available Technologies**



• RF Walk By / Drive

- RF Fixed N/w with DCU (Data Concentrator Unit )
- RF LoRa WAN P2P
- RF Mesh
- GSM / GPRS P2P
- NbIoT





















# **Available Technologies**

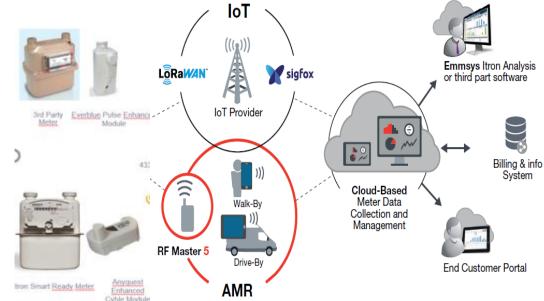


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#### RF Walk By / Drive By /DCU



#### **LoRa RF for Domestic**







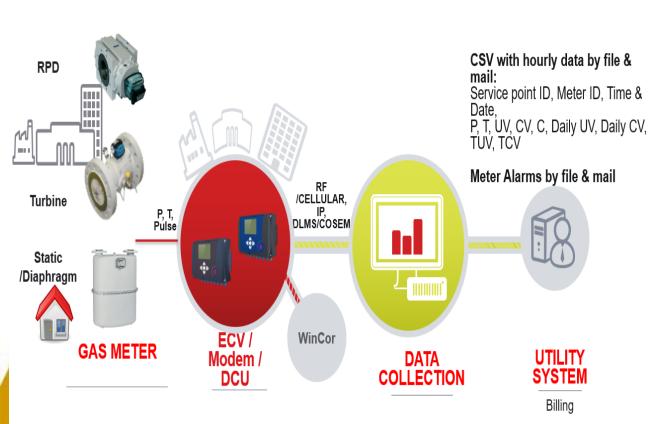




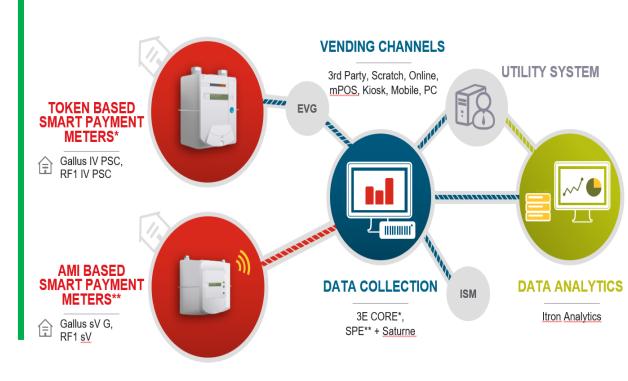
# **Available Technologies**



#### **GSM / NbIoT /GPRS P2P**



#### **Prepaid Metering**









## **Case Study**



# Indian Largest Domestic Gas AMR IGL of 280k nos. end points

- Project is based on successful pilot started & implemented in 2010-11 for 2.2k nos. points and still running successfully till date executed by Itron India.
- 280k nos. AMR project includes:
  - 10 years Managed Services
  - Integration with ERP (SAP)
  - Asset Management & Geo Tagging.
  - Smoothening Meter to cash process
  - On SaaS platform: No IT server investment & related services
  - Greater operational efficiency







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## **Key Takeaways/ Recommendations**



- Choice of the Technology absolutely based on use case but most important points to be taken care:
  - Revenue Protection + Greater Operational Efficiency + Asset Management
  - N/w Optimization & management
  - S/w as a Service Vs Managed Services
  - Investment (CapEx Vs OpEx or CapEx cum OpEx Model)
- Key factors:
  - Scalability + Reliability + Proven + Repeatability
  - Pros & Cons
  - **Recommendations:** 
    - Technology evaluation considering its global footprints & 360° PoC @RPF Stage.
    - QCBS (Quality and Cost Based Selection) for Technological deals.





## Thank You

For discussions/suggestions/queries email: www.indiasmartgrid.org www.isgw.in Links/References (If any)

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