



TATA POWER-DDL

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A Tata Power and Delhi Government Joint Venture

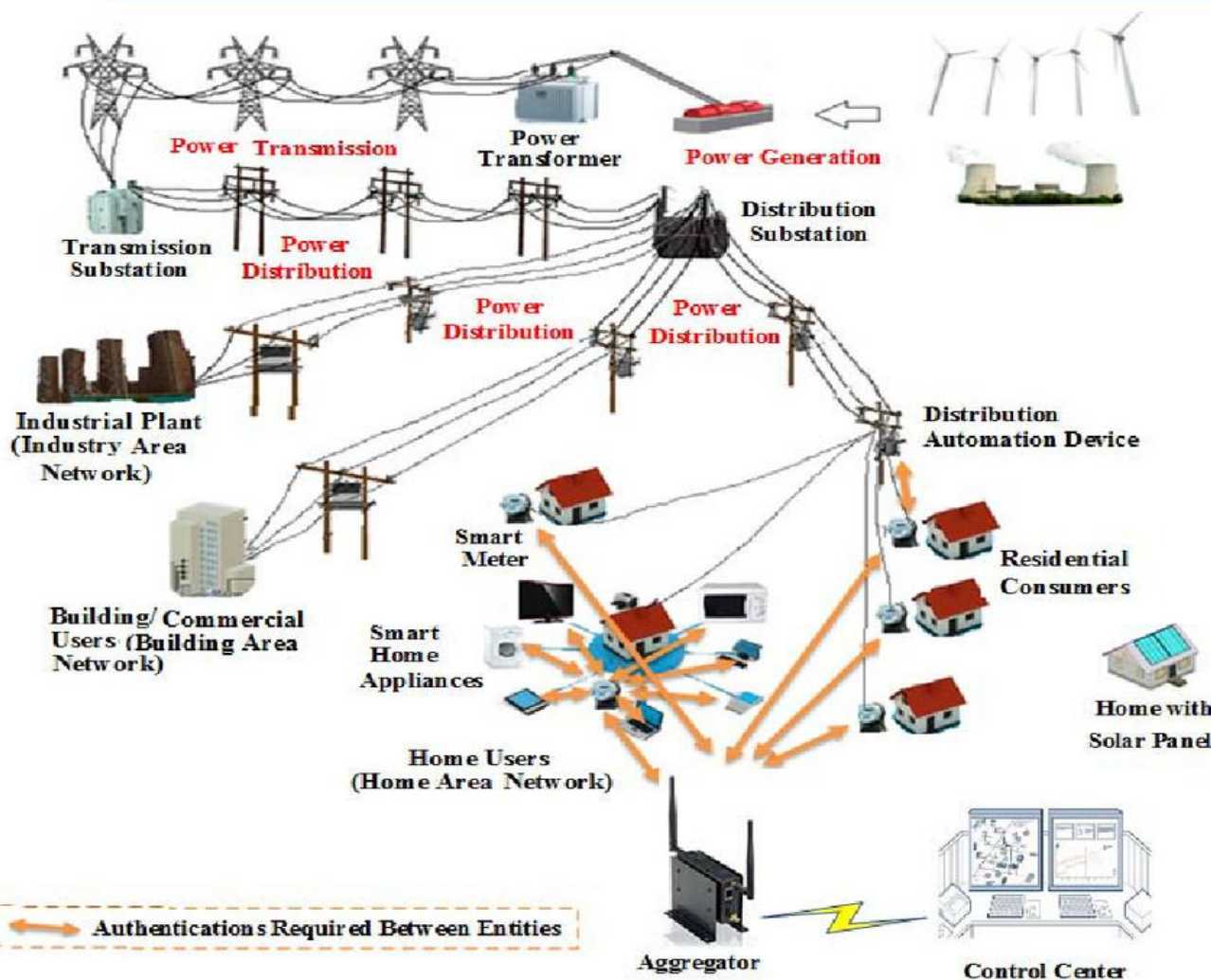
Expectations From Smart Meters- A Utility Perspective

with you *Non-Stop*

Flow of the presentation

- ❖ Introduction - Energy meter, the cash box
- ❖ AMI Infrastructure and Expectations
- ❖ Classification of Smart Energy meters
- ❖ MDMS & Consumer profiling
- ❖ Conclusions and Recommendations

Energy Meter : Cash Box of the Utility



Touch point b/w utility and consumer

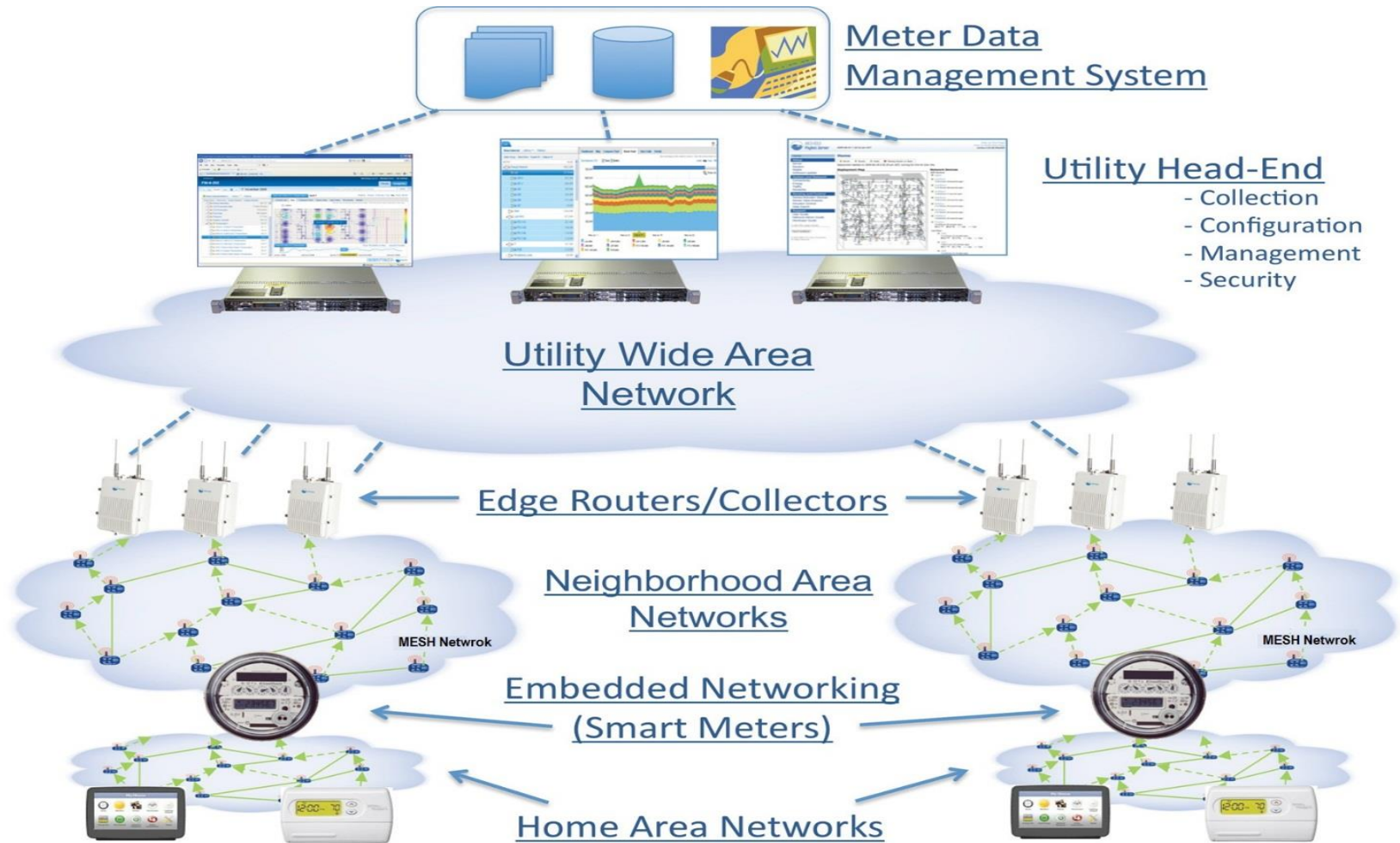
Most critical equipment as entire revenue is dependent upon performance of Energy meter.

Records/monitor energy consumption pattern which vital implications in Utility Analysis-viz. load forecasting, network management etc.

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AMI Infrastructure



AMI : Control Applications



Smart metering



Distribution Automation



Automatic Street Light Controller



Renewables / Local Energy Generation



Demand response : Commercial, Domestic & Industrial

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Type of Smart meters



Standard
Smart meter



Basic Smart
meter

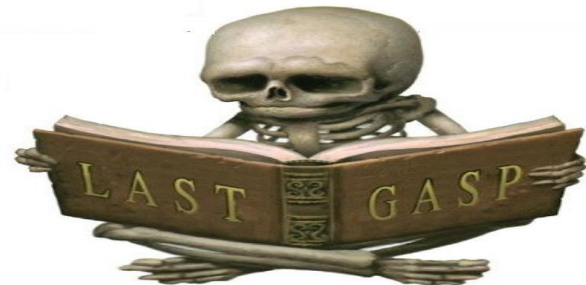


Advanced
Smart meter



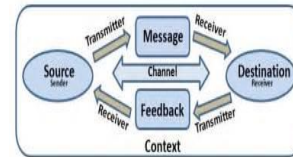
Standard Smart meter

- Two Way communication
- OTAR – Pre Paid(X), Post paid, Net metering, Firmware upgrade etc.
- Automatic data uploading at predefined internals.
- Push facility for abnormal conditions
- First Breath and Last gasp



Basic Smart Meter

- This meter will have all the functionality of Standard Smart meter
- Connect disconnect – feature
- Load limiting and Prepaid facility through relay



Advanced Smart Meter



The meter will have complete functionality of Basic Smart meter.



The utility will be able to manage consumer load for Load side management.



Consumer will be assisted through SMS about consumption and TOD tariffs and other latest information for consumer delight

Advance Smart Meters



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MDMS: In a Nutshell

Consolidate

Metering, consumption and related data from all read sources in a centralized system of record

Standardize

Data for use according to utility specified rules

Alert

Meter-based conditions of interest (usage patterns, events, system performance)

Enable

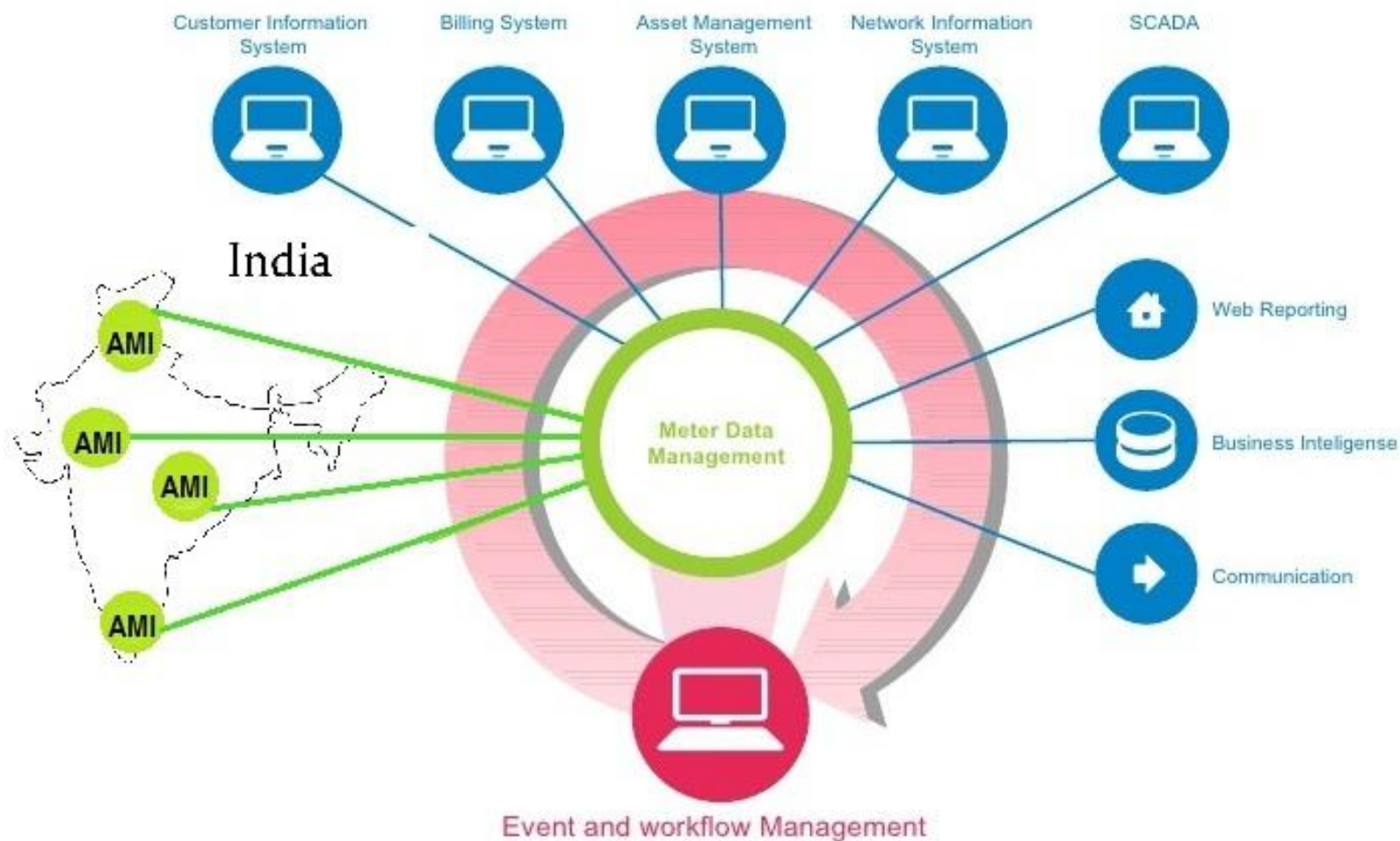
Use of current, validated data for a wide range of utility operations

Interconnect

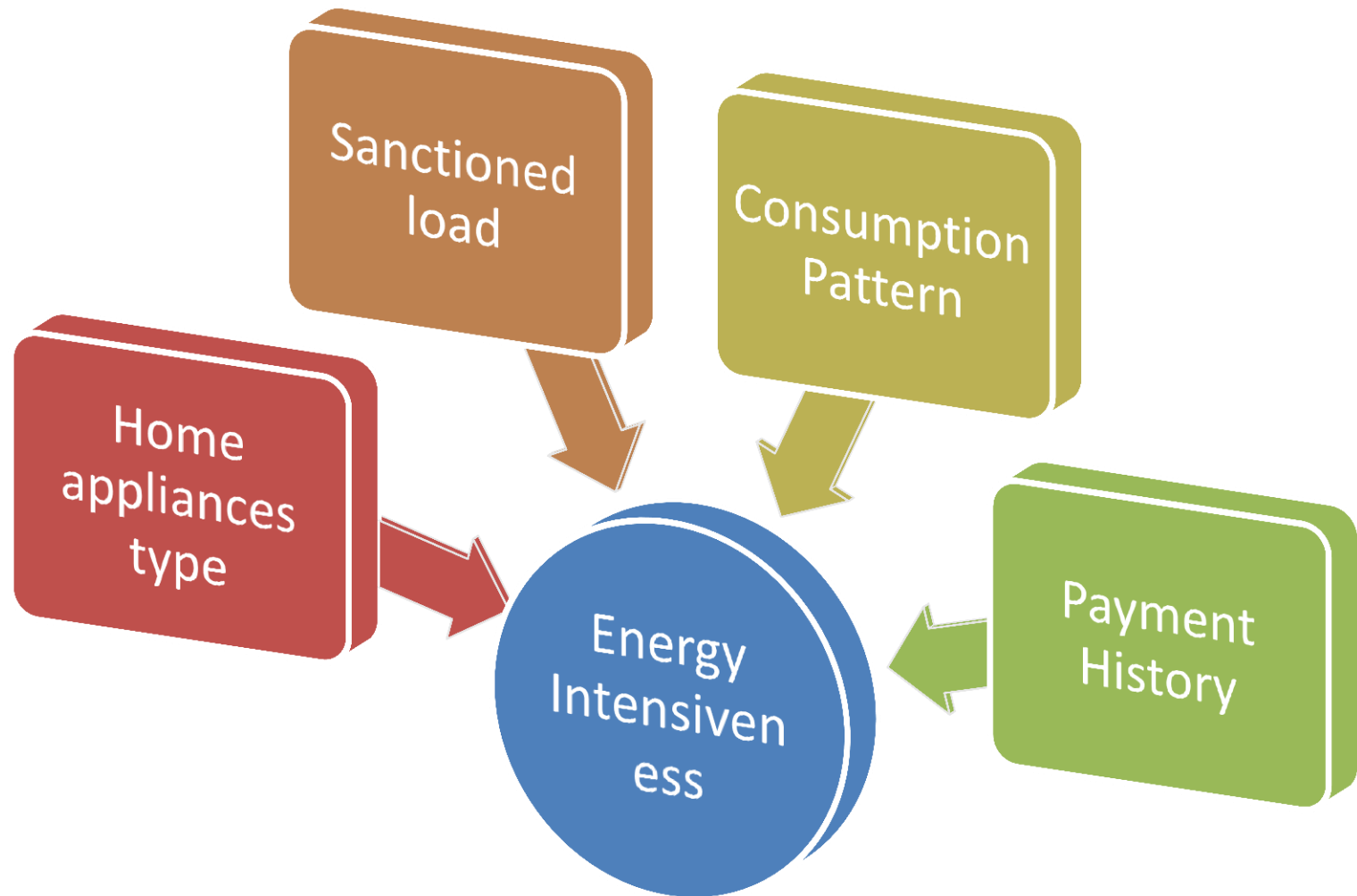
Metering systems with a broad range of enterprise applications

Enterprise System to Control and Apply Smart Grid Data

Meter Data Management System



Consume Profiling



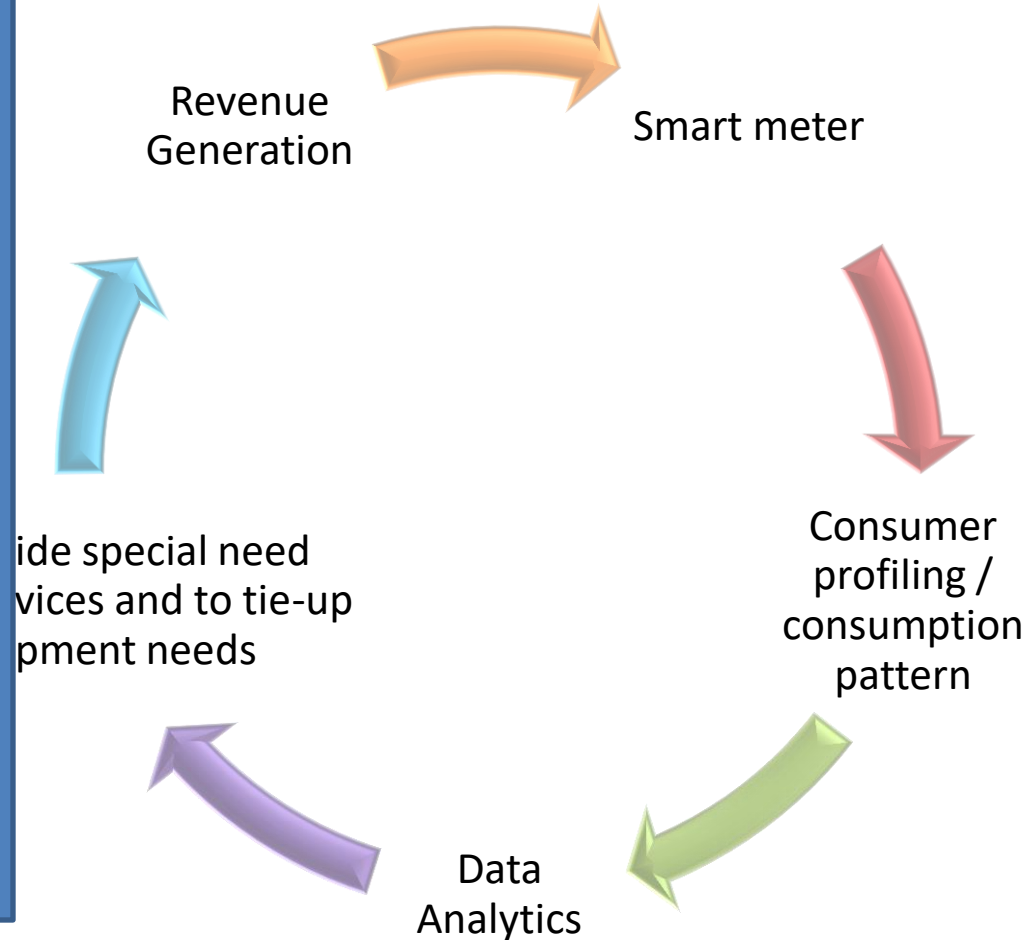
Idea : Revenue Generation through Consumer profiling

Special Service needs:

- ToD tariff
- Non-sheddable time schedules
- Preferential treatments
- Extended services

Additional Equipment needs:

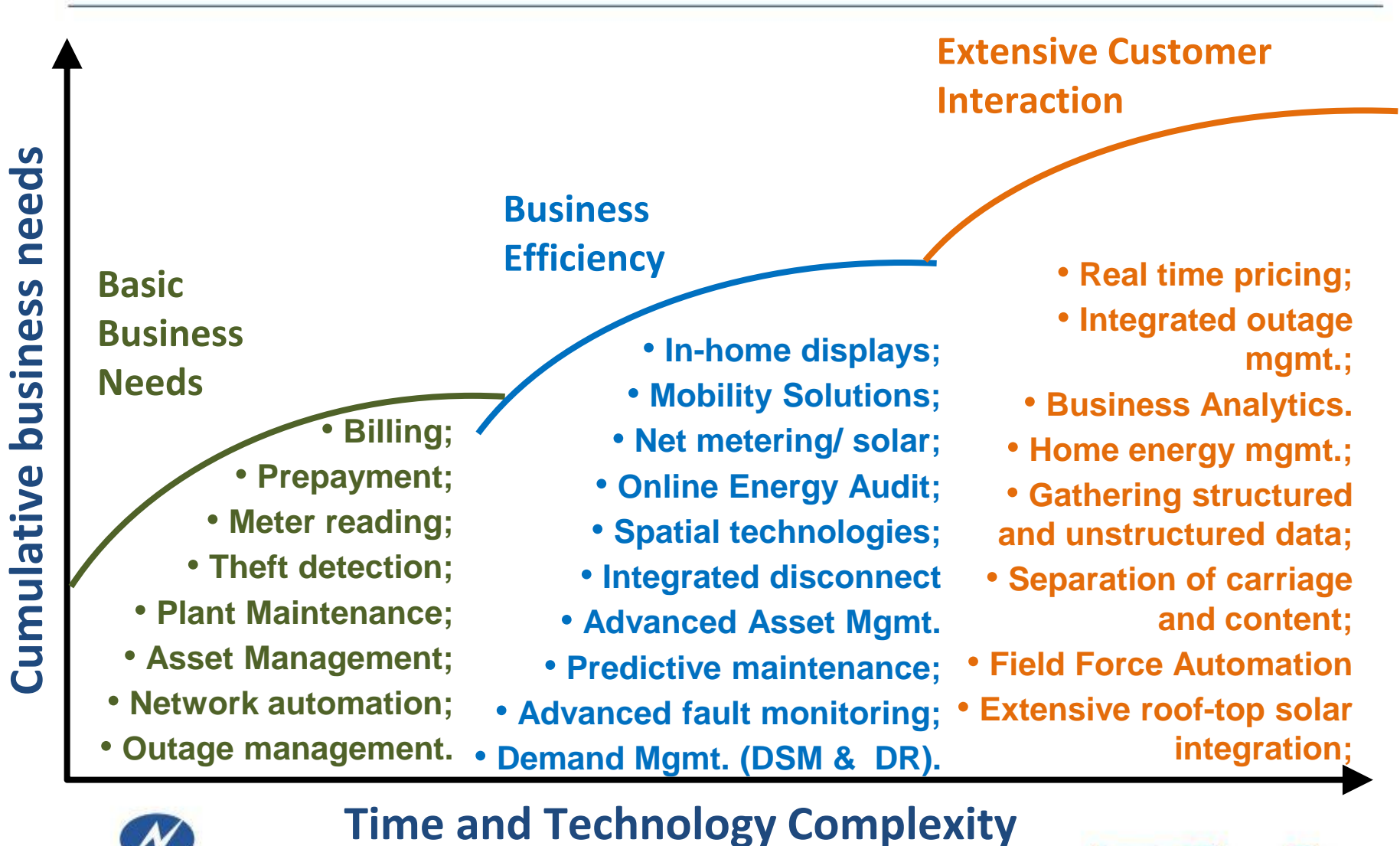
- Energy Saving equipments
- New product types
- Customized equipment



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Business Need Alignment



Thank You

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