



TATA POWER-DDL

TATA POWER DELHI DISTRIBUTION LIMITED

A Tata Power and Delhi Government Joint Venture

Smart meters-A paradigm shift in utility approach

with you *Non-Stop*

Flow of the presentation

❖ Introduction - Power Sector Scenario

❖ Smart Grid and Smart Metering

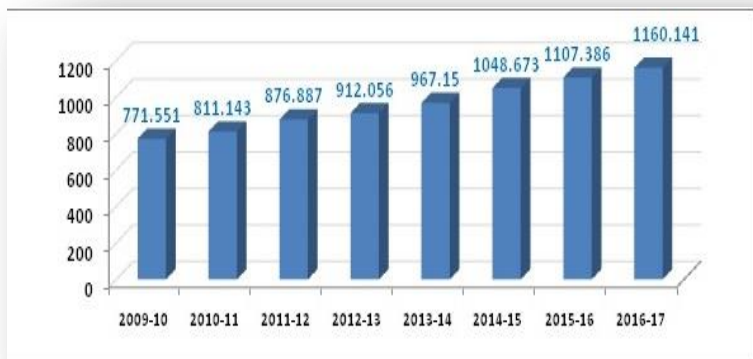
❖ BIG data Analytics

❖ MDMS

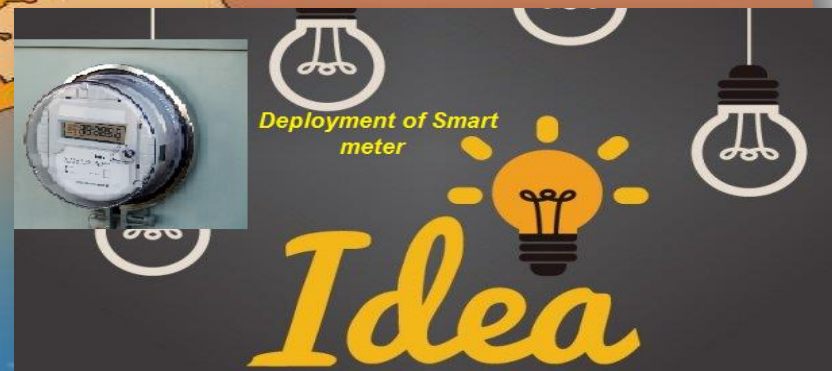
❖ Conclusions

Power Sector Scenario - INDIA

Generation (Billion Units)



Generation Growth (%)



Flow of the presentation

- ❖ Introduction - Power Sector In INDIA
- ❖ Changing priorities of Indian Utilities
- ❖ BIG data Analytics
- ❖ MDMS
- ❖ Conclusions

Changing priorities of electrical utilities



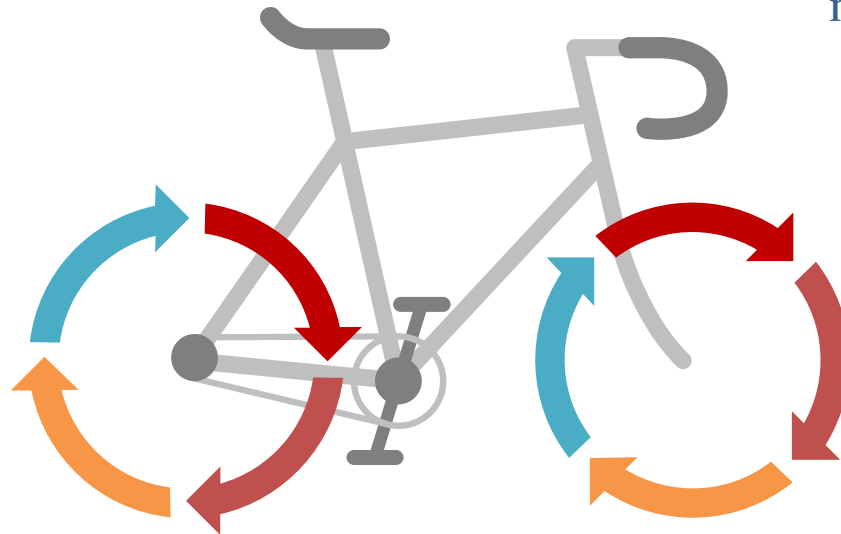
Conducting remote operations

Requires massive automation and control strategy for ensuring precision in real time scenario.



Real time health management of electrical network

Requires development of electric utility specific devices and customised equipment.



Analysis of data generated from network of Smart meters

Challenge to gather and analyse massive data and convert it into useful information by development of smart logics.



Development of artificial intelligence and self operation capability

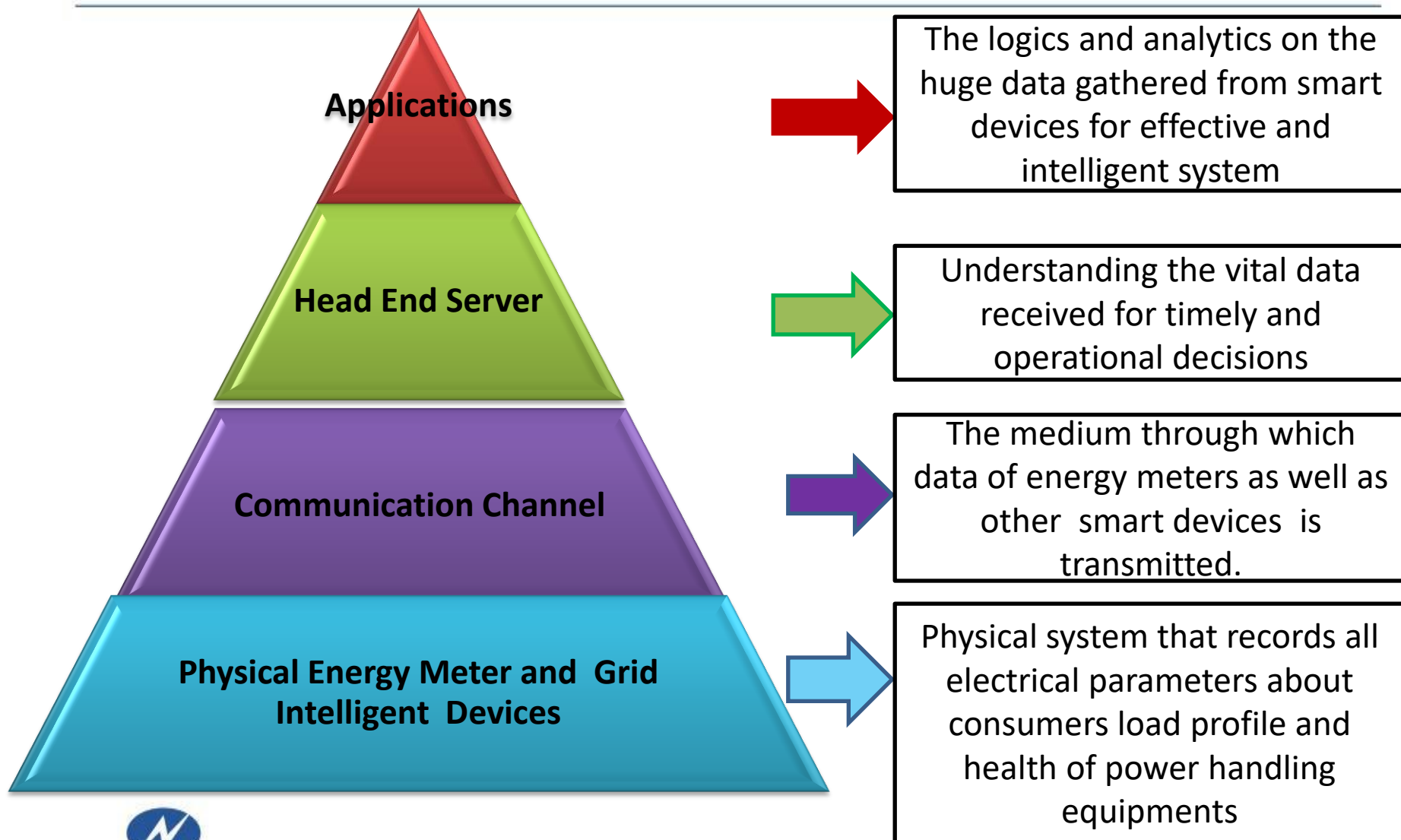
Requires development of logics and algorithms for enabling devices to operate independently.



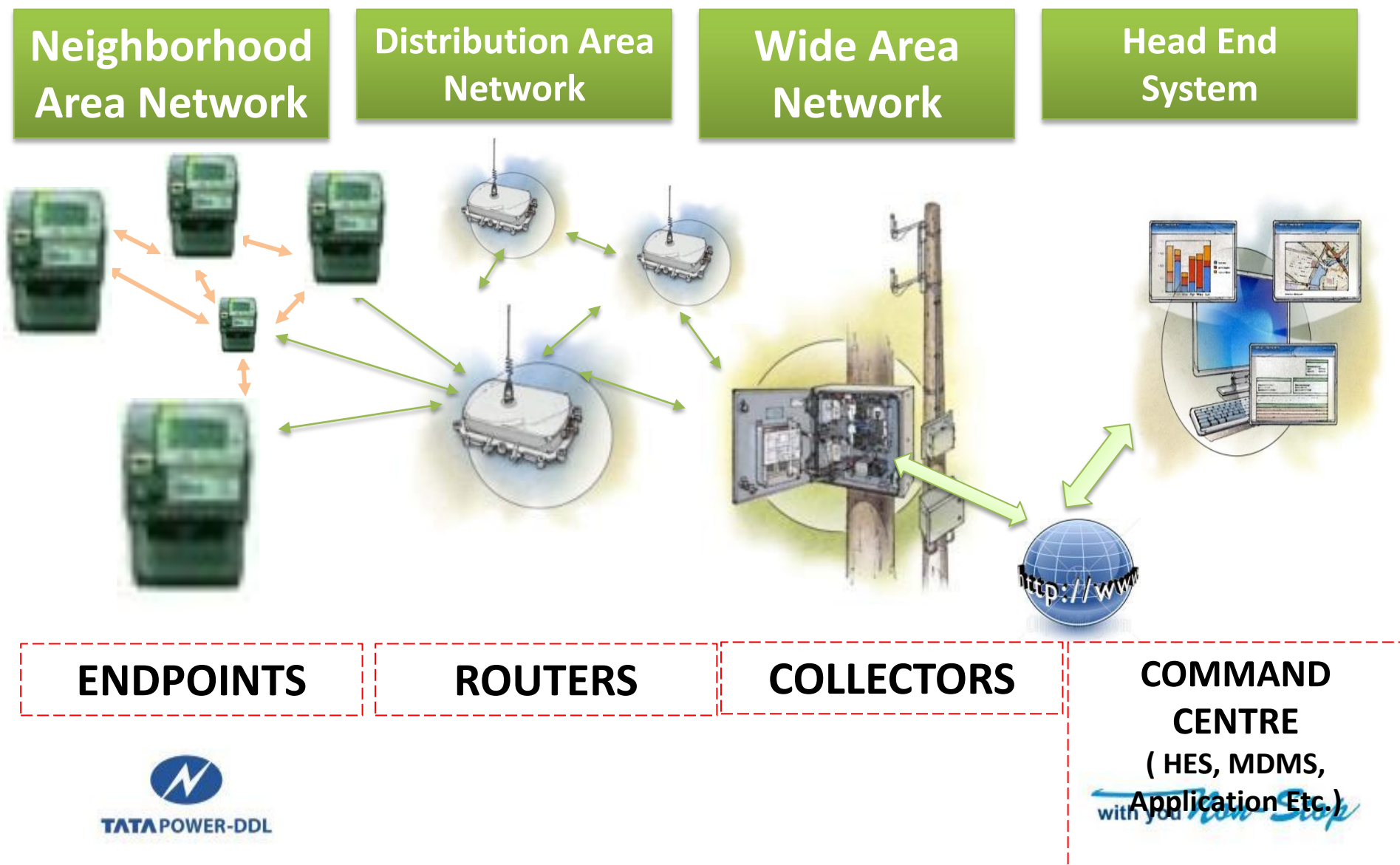
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Smart Grid Structure :



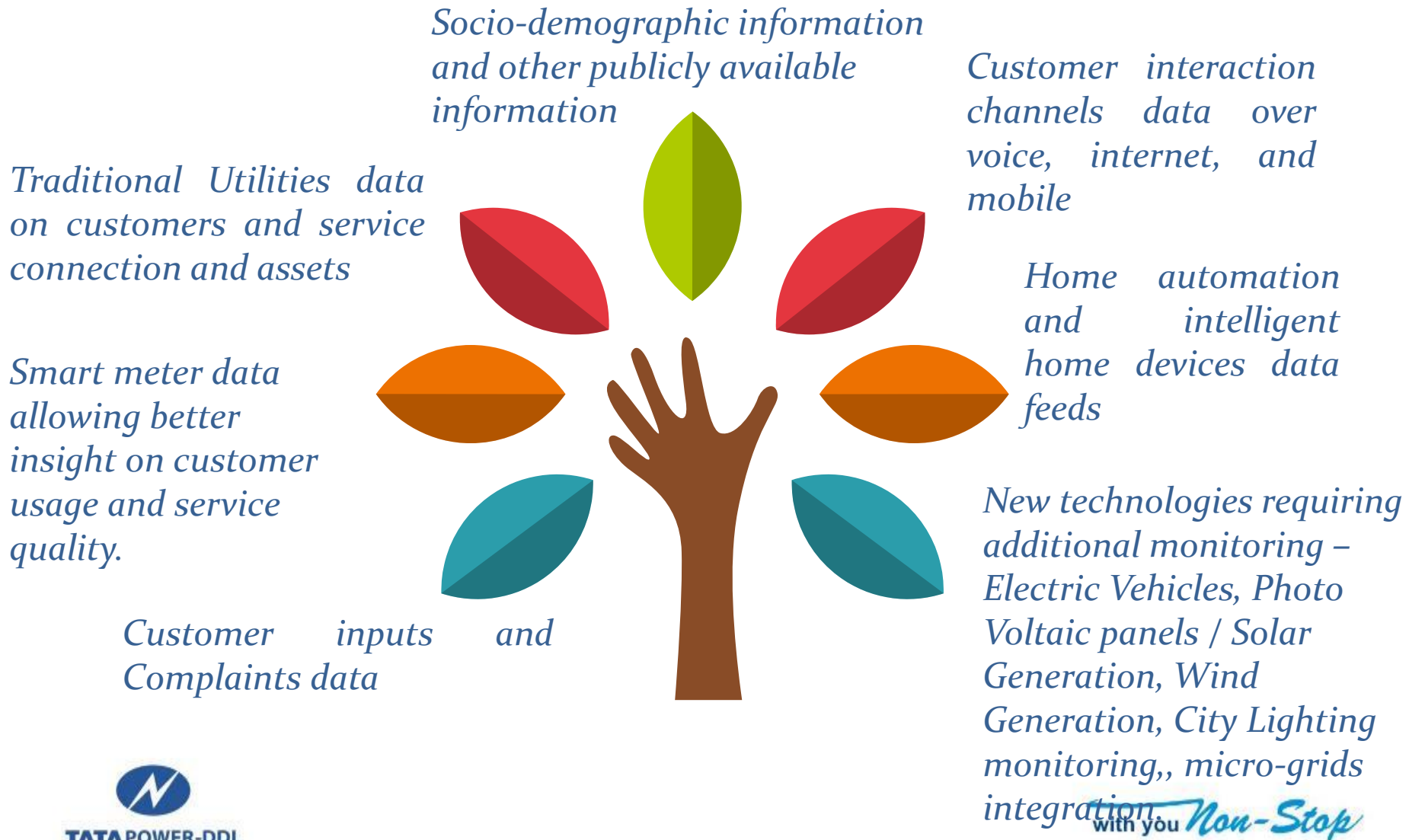
Advanced metering Infrastructure – Overview



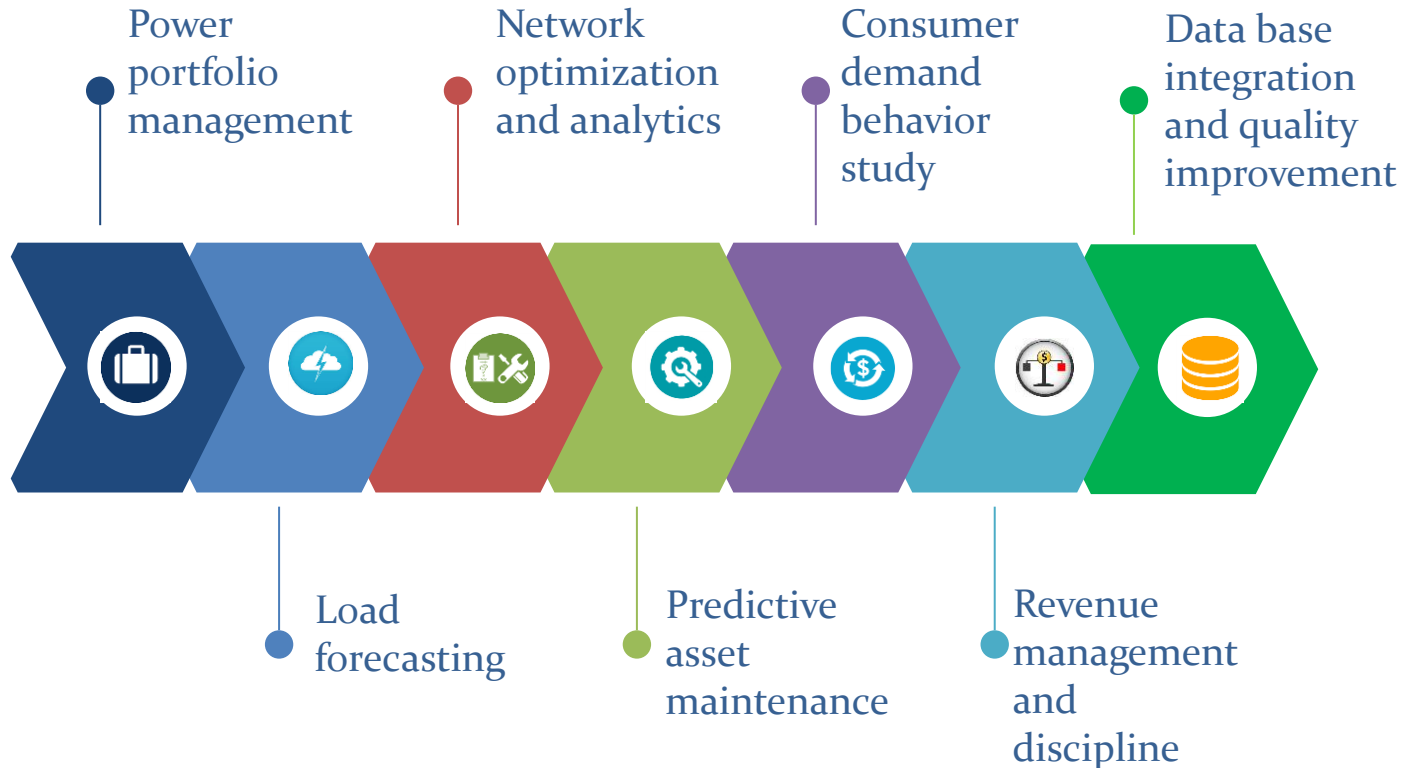
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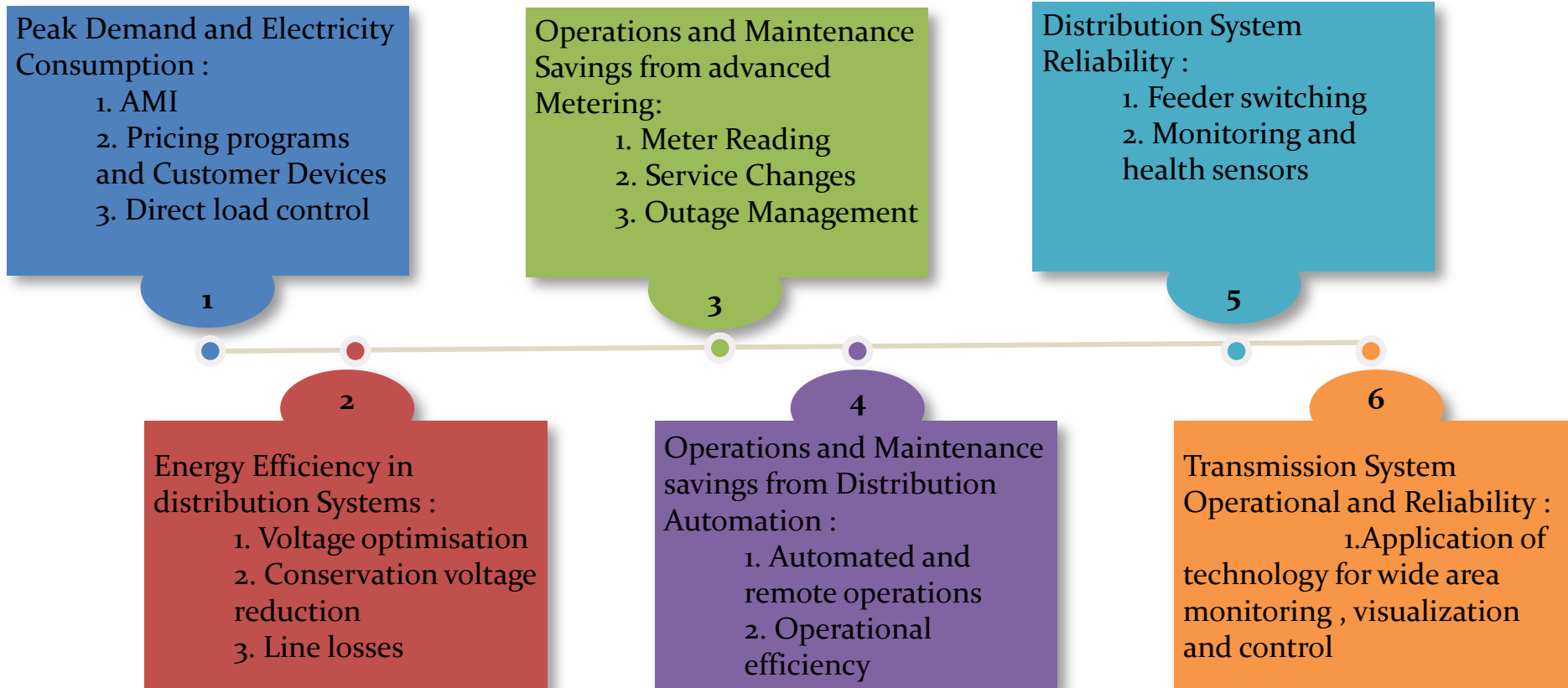
Data generation sources in an electric utility



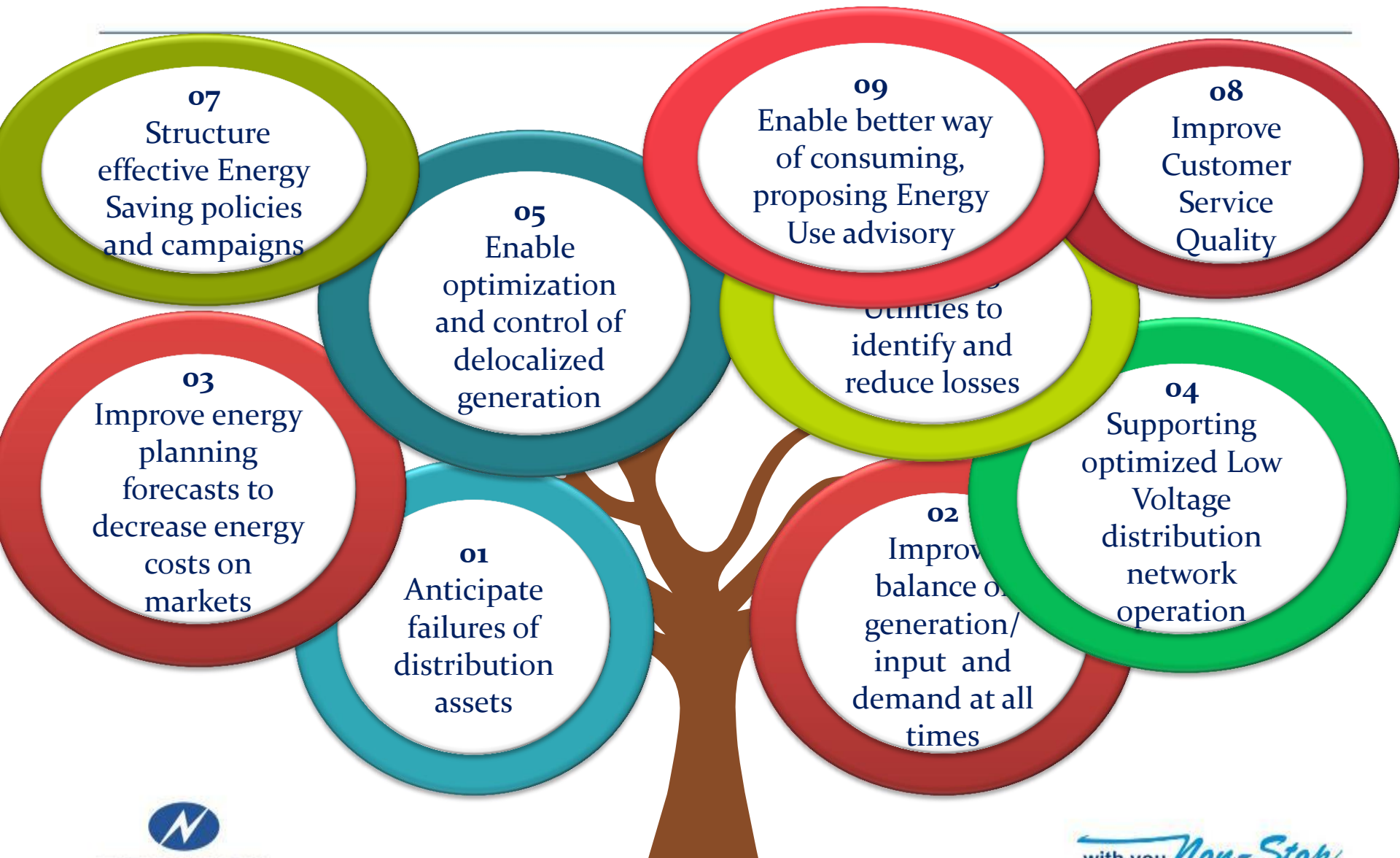
Role of Big data analytics in electric utility



Areas of implementation of big data analytics in electric utility



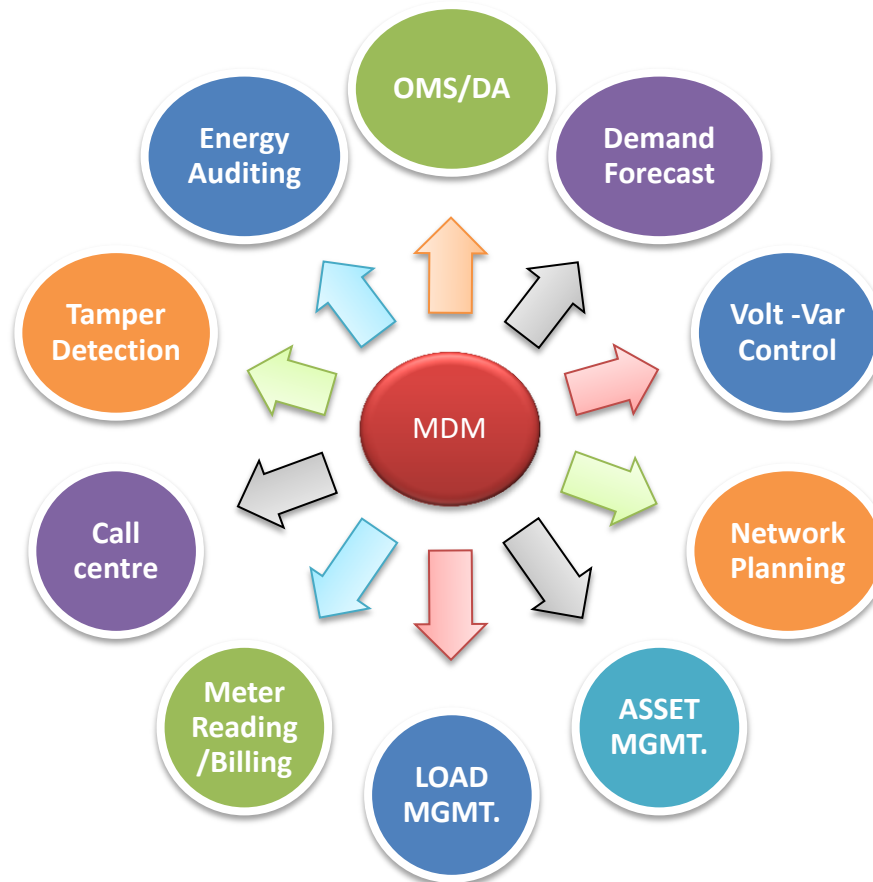
Expected outcome of big data analytic in electric utility



Flow of the presentation

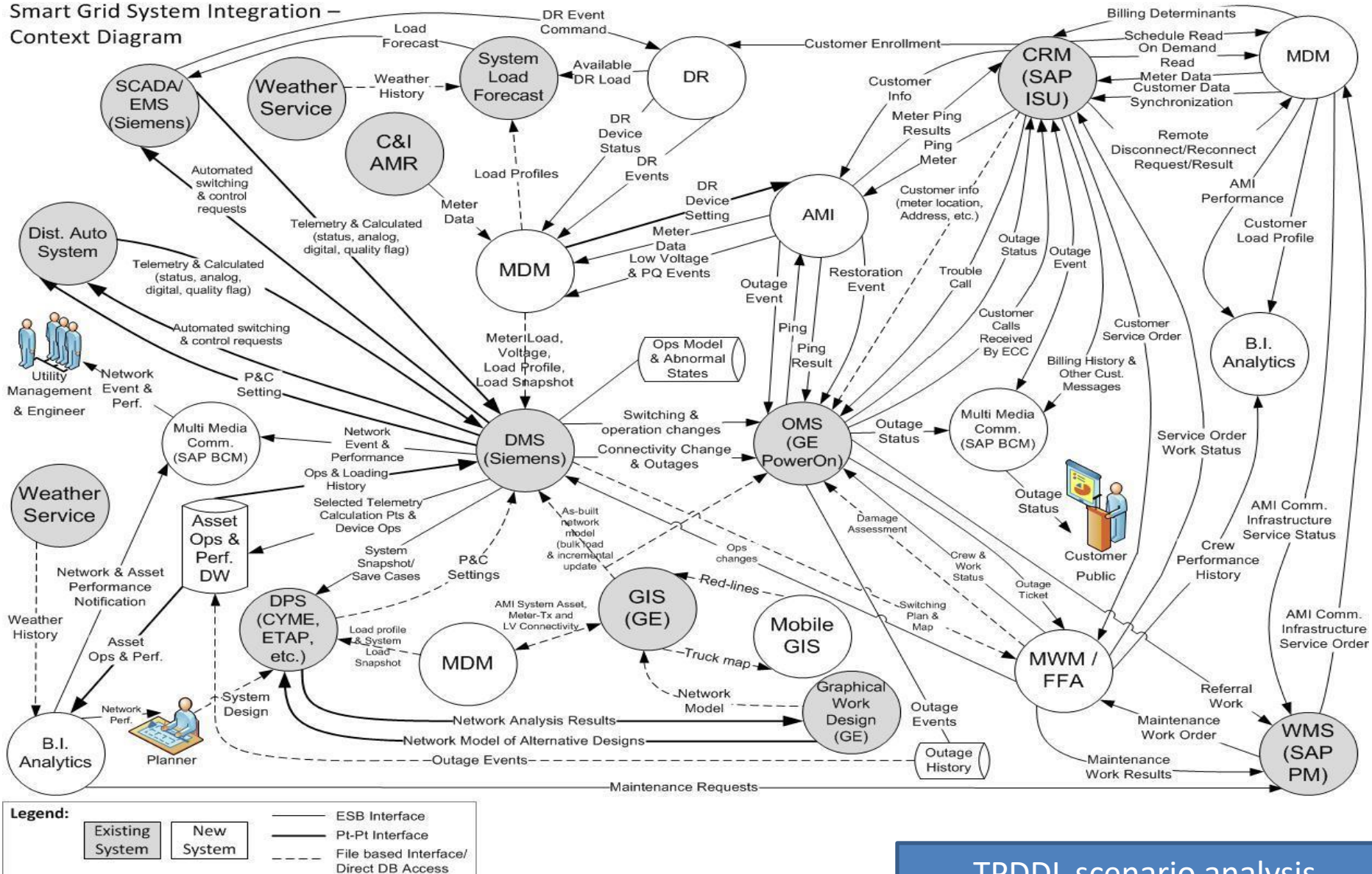
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MDMS-Expectations



MDM –in middle of every need!

Smart Grid System Integration – Context Diagram



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Smart Grid infrastructure “the way of Life”

AT&C

- Instant reporting of Losses i.e. tampering and theft of electricity
- Billing efficiency will increased
- Accurate Energy auditing

IT-OT

- SCADA, OMS, DMS
- GIS ,Network Information System, Business Intelligence
- Real time information about equipment health
- Instant reporting of fault location

Business Needs

- Reliable, competitive and sustainable power
- Asset Management
- Customer satisfaction enhancement
- Performance Assurance i.e. Statutory compliance



Thank You

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