

### Why Distributed Intelligence?



Grid operations and stability



Transform consumer relationships



Grid safety and efficiency

### Distributed Intelligence

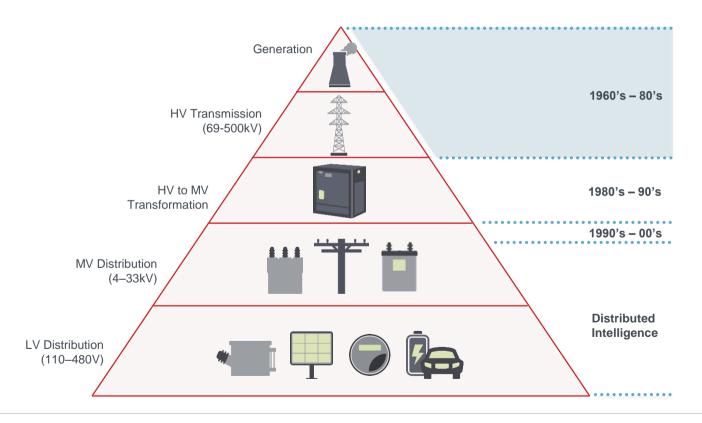
- ... distribution of analytics to the edge
  - analysis
  - decision making
  - action





### The Active Grid

Operational awareness and action to the edge of the distribution grid







# How is this possible?

Linux computer in every meter

Application platform for distributed intelligence

Local access to high resolution data

Peer-to-peer communications among meters and devices Open-standards multi-service IPv6 network Multiple simultaneous network media (RF, PLC, Wi-Fi)

### Distributed Intelligence Use Cases



#### Grid

- Location Awareness
- High Impedance Detection
- Broken Neutral Detection
- Active Transformer Load Management
- · Feeder Phase Balancing
- Outage Detection
- Cold Load Pickup
- Active Voltage Management
- Bypass Theft Detection
- Secondary Service Theft Detection



#### Consumer

- Load Disaggregation
- Excess Usage Identification
- Activity in the Home
- TOU/Peak Alerts
- Targeted Marketing
- · EV Identification and Management



#### **DER**

- Active Demand Response
- DG Detection
- Solar Identification and Management
- Solar Disaggregation and Forecasting
- Real Time Markets

### DI App Store



#### » DI App Store

- secure, highly scalable app deployment and management tool
- marketplace for vendors to offer and distribute their apps
- app certification and submission processes
- tracking mechanism for license deployment
- tracking mechanism for app health and resource utilization







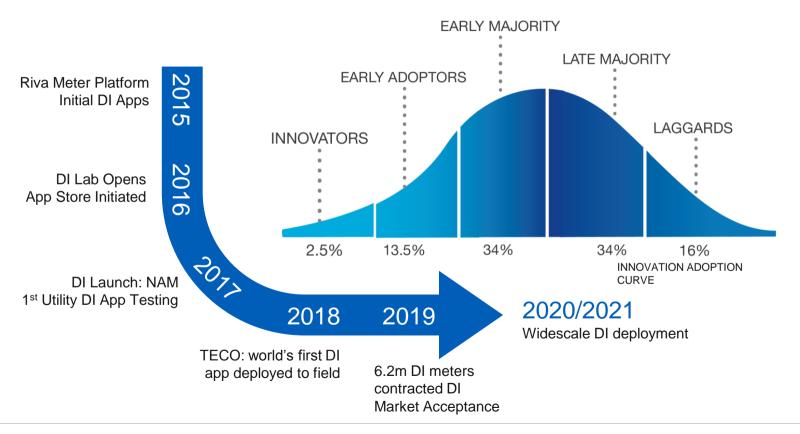








### Itron Distributed Intelligence Timeline





## **THANK YOU**

