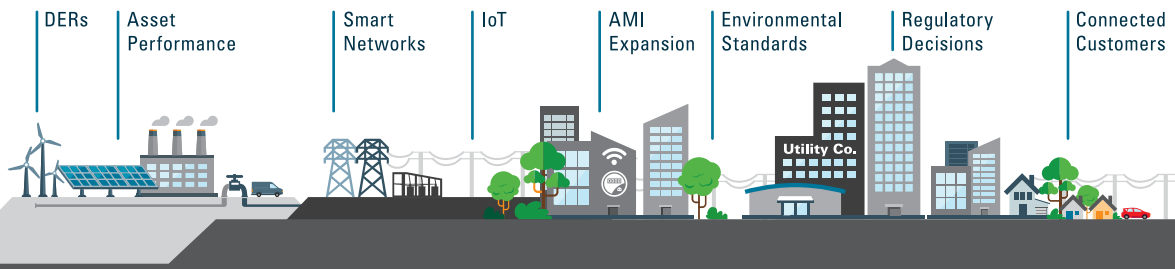


# A PLATFORM APPROACH TO ADVANCED DISTRIBUTION GRID MANAGEMENT

## INTRODUCTION

Driven in major part by widespread growth of distributed generation - including 27.0GW of installed rooftop solar capacity globally in 2017 - along with other forms of Distributed Energy Resources (DERs), sensors and smart consumer technologies, electric utilities around the world today face significant changes to the traditional energy delivery model. Coupled with a quickly evolving regulatory framework, in order to continue to provide safe, reliable, and affordable grid services, utilities are taking new, modern approaches to safely connect, model, operate and optimize customer DERs within the overall network.



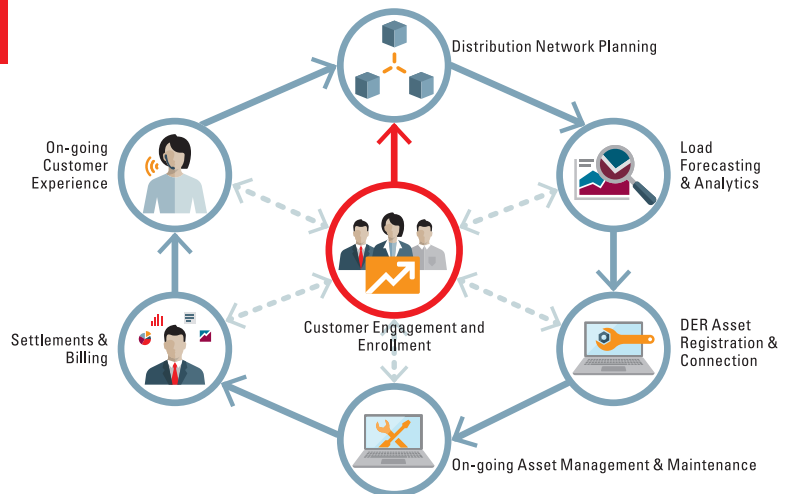
## ANALYSIS

**Consider the greater criticality and convergence of often independent functions:**

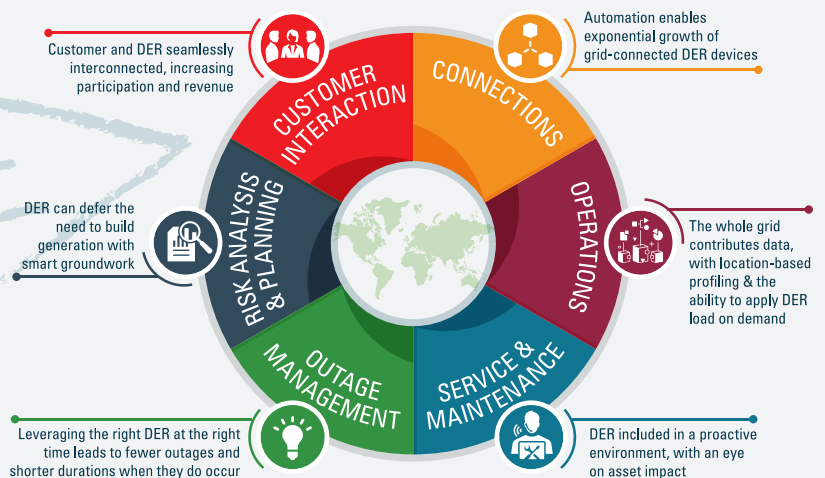
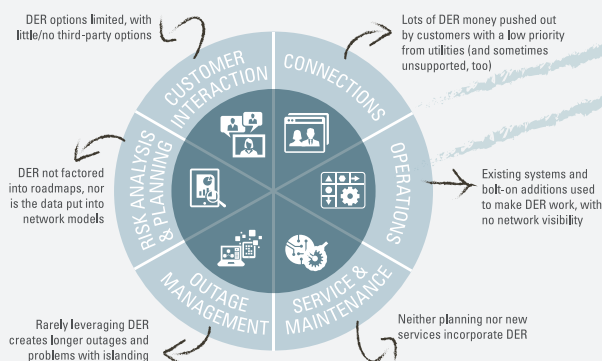
- Outage Management, Storm Prediction
- Smart Field Device Management
- Demand-side Management
- Distribution Network Modeling

**Understanding the DER Lifecycle involves**

- Network Planning
- Forecasting / Analytics
- Asset Management
- Customer validation and ongoing experience



### Traditional Approach



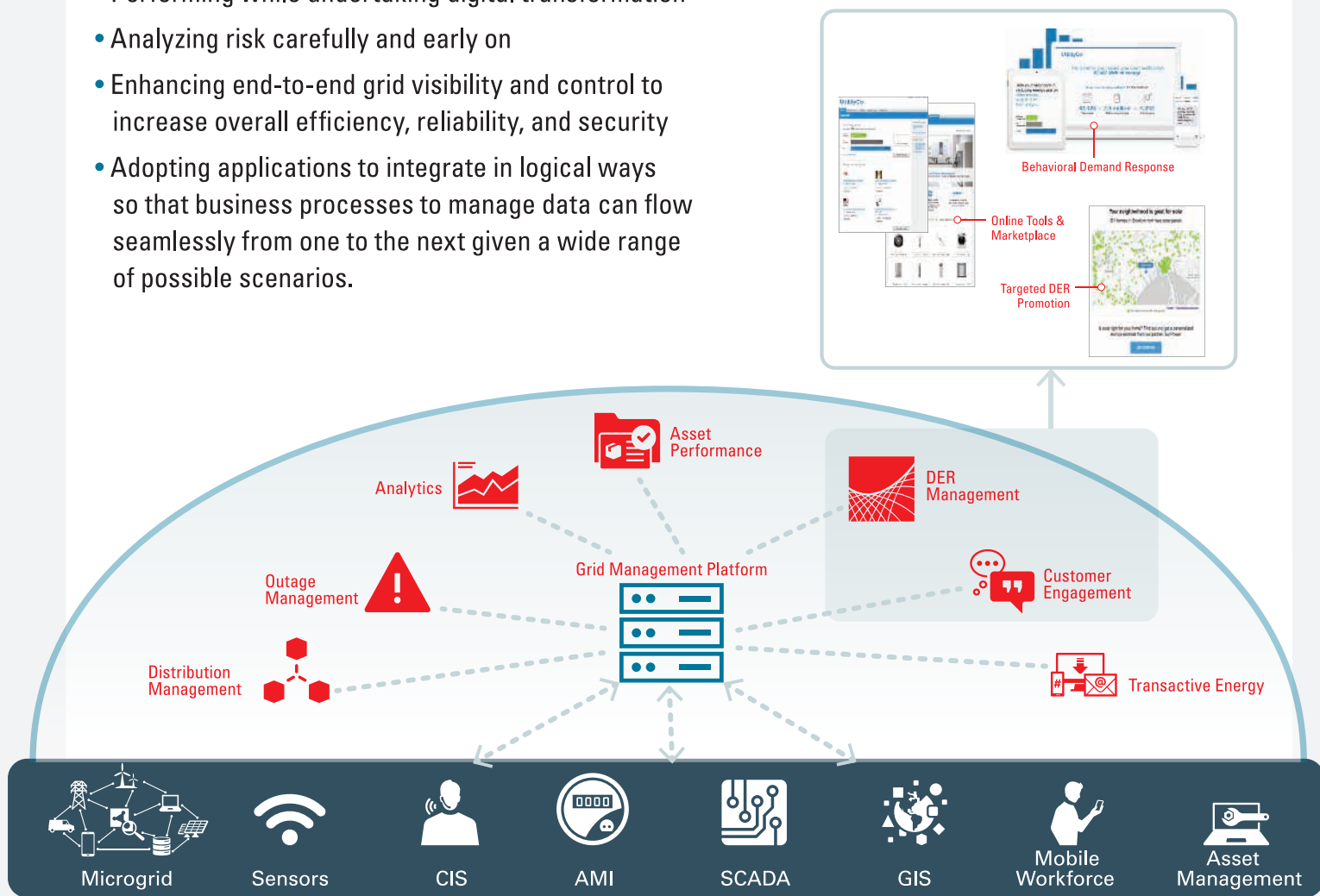
## THE MODERN, PLATFORM-BASED APPROACH

- Enable exponential growth of grid-connected DERs
- Align with evolving regulatory frameworks
- End-to-end data contribution for immediate load management, on demand
- Gain full asset performance visibility
- Leverage the right resources at the right time to enhance reliability
- Improve sustainability by avoiding the need to build additional generation
- Ensure a seamless connection between the customer and grid operations

## THE PATH MOVING FORWARD

As utilities move from supplying energy to providing new layers of differentiated services based on customer needs, long-term technology planning for distribution grid management is critical. Current technology investments and upgrades aligning with a strategic vision towards a customer-centric grid perspective will provide the following benefits:

- Executing on long-term business planning including transformation
- Performing while undertaking digital transformation
- Analyzing risk carefully and early on
- Enhancing end-to-end grid visibility and control to increase overall efficiency, reliability, and security
- Adopting applications to integrate in logical ways so that business processes to manage data can flow seamlessly from one to the next given a wide range of possible scenarios.



## CONCLUSION

Using a platform-based approach to advanced distribution grid management, utilities have the tools to address the dynamics of a 21st-century grid with a holistic, enterprise-wide approach. Rather than the traditional, independent system-based efforts, an integrated approach to achieve scale while cost-effectively integrating future customer demands, regulatory changes, grid operations, asset management and workforce optimization is the necessary journey forward. The roadmap to success is not one size fits all, but it begins with executing on a strategy that puts all the pieces together and unlocks opportunities not just for one group, but across the entire enterprise.