Turning **insight** into **action**.

Powering End-to-End Communications

Presented by **Laura Ipsen**
Senior Vice President / General Manager
Cisco Connected Energy

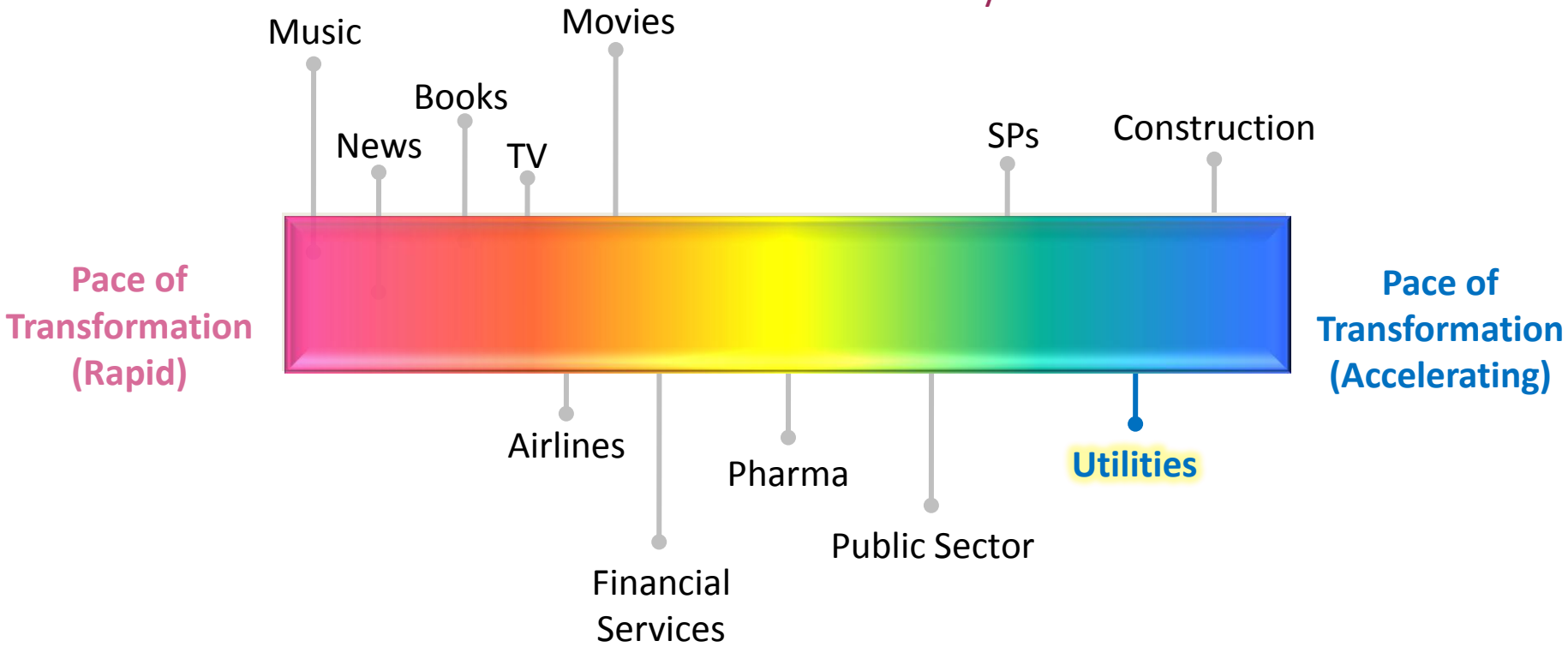
Cisco is the worldwide leader in networking that transforms how people connect, communicate and collaborate.

"Cisco's strategy is based on catching market transitions—the market transitions that affect our customers. With the proliferation of video and collaborative Web 2.0 technologies, the network continues to evolve from the plumbing of the Internet—providing connectivity—to the platform that will change the way we work, live, play and learn."

John Chambers,
Chairman and CEO, Cisco

Market Transitions

Competition… New Business Models
Connectivity… Network Enables
Innovation… Consumer Expectations
Key Industries…Transitions



Financial Services

2010+
Era of Engagement

Establishment of connected global markets and delivery of virtual anytime-anywhere advisory services

2000+
Inclusion

Proliferation of high-speed automated trading and mobile banking

Onset of online banking and online trading

1990+
Connectivity

Connectivity

b2b b2c

eCommerce (b2b, b2c)

Social Media

Consumerization of IT

Immersive Communication Technologies—Video and Mobility

Cloud/Virtualized Technologies

Secure Systems Intelligence

Self-Service for Productivity

Transforming Transactions

Changed Behavior Difficult to Leverage

Transforming Interactions

Active Engagement Business Advantage

Transforming Organizations

Proliferation of People & Devices

2013

There Will Be

ONE TRILLION

Devices Connected to the Network,

up from 35 BILLION in 2010

Cisco IBSG

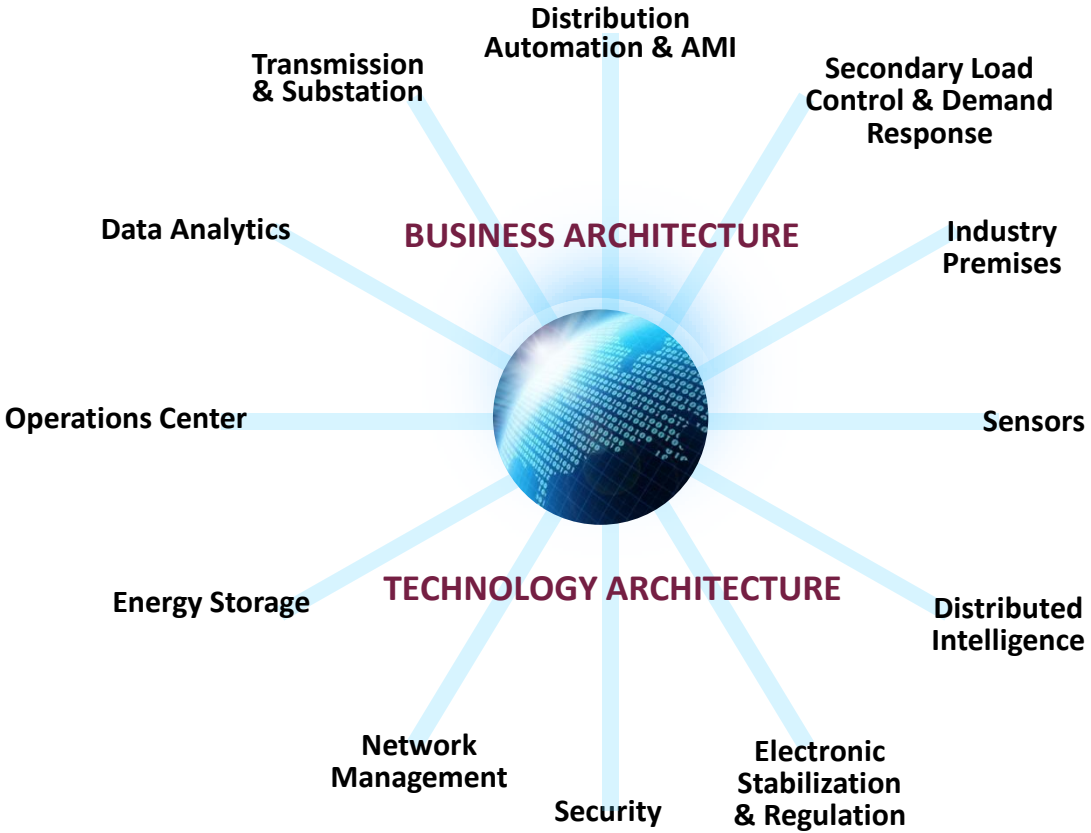
Utility Business Model Evolution

Energy Delivery

Energy Delivery **+**
Energy Information Management

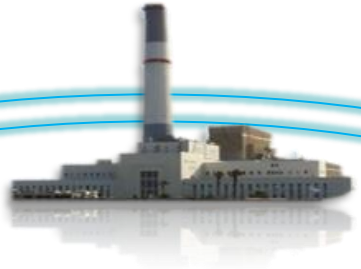
Utility Systems Convergence

ENERGY TECHNOLOGY



INFORMATION TECHNOLOGY

Network is the Platform



Smart Grid

Utility Operations

the energy network platform

Smart Homes

Smart Buildings

Industrial

Cisco Connected Grid Solutions

ARCHITECTURE + SECURITY + CONNECTED GRID INTELLIGENCE

Enterprise Operations & Data Center	Grid Ops & Inter-Utility Network	Transmission & Substation Network	Field Area Network (FAN)	Neighborhood Area Network (NAN)	Premise Area (HAN/BAN)

Power of Internet Protocol

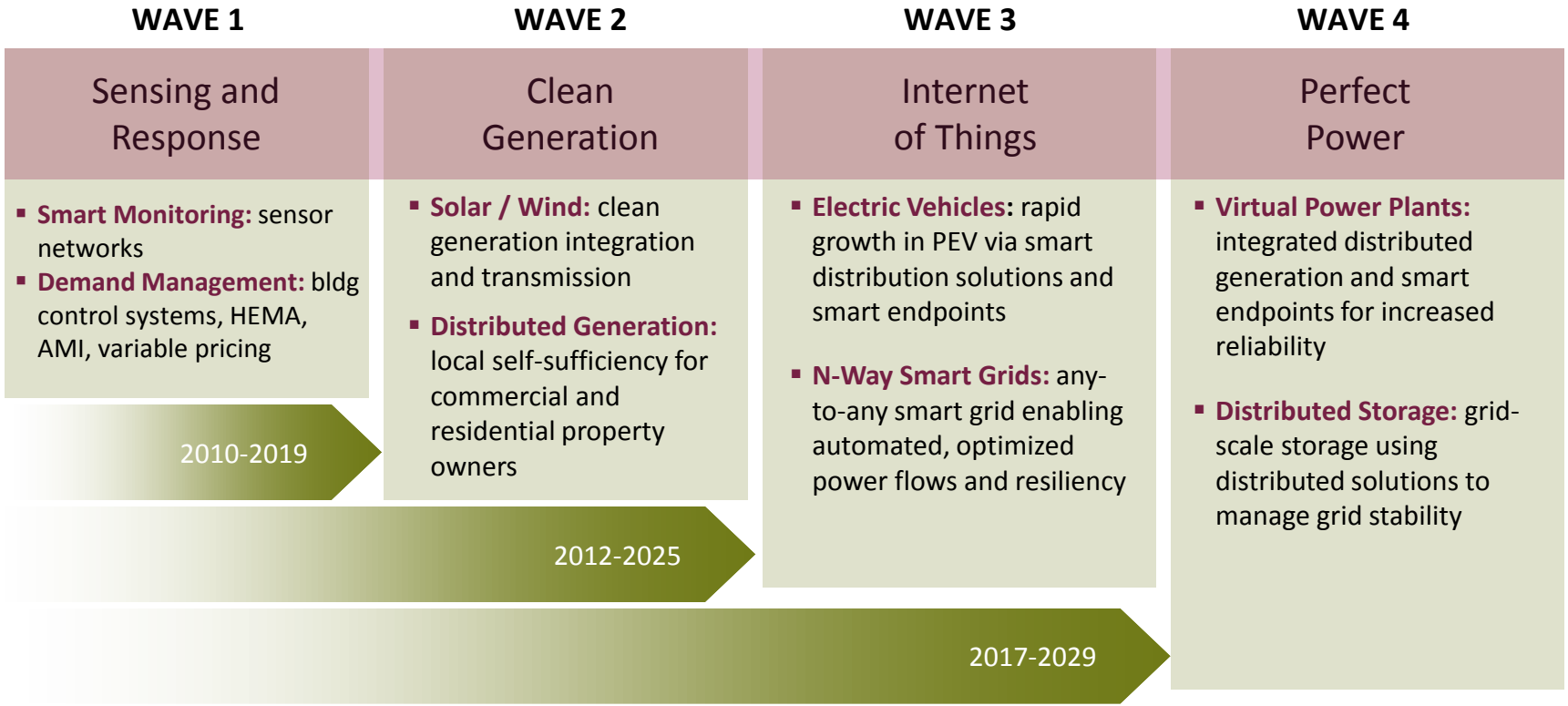
- Today's grid is a combination of multiple siloed subsystems—each with one network per service
- Only IP can deliver multi-service capabilities over a common physical network to optimize Opex and Capex
- Making smart grid work hinges on observability and the fast, reliable and secure exchange of data among all its components
- Information flow will evolve from one way to N-way
- Internet Protocol-based communications are crucial for advanced networks
  - Transmits data over multiple media
  - Can change & grow with industry
  - Connects multiple types of systems
  - Enables and encourages innovation
  - Ensures security

Previous Industry Transformations

Lessons Learned

- Think Security Day One
- Network as the Platform
- Ability to Scale is Critical
- Policy Alignment
- Business & Technology Architecture
- Open Standards Accelerate Markets

A Future History of the Grid



The Energy Industry Journey

- The 21st Century energy revolution is accelerating the evolution of the electric grid…market transition…smart grid
- Energy technology converging with Information technology…smarter, more robust and secure, resilient grid
- Industry is an important part and will participate on many levels
- Collaboration across many stakeholders…public-private partnerships needed
- The future history of the grid is not clear…waves of innovation…next 20-30 years

Thank you

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