



Les rencontres Cleantuesday Côte d'Azur

Cisco Vision on Smart Grid

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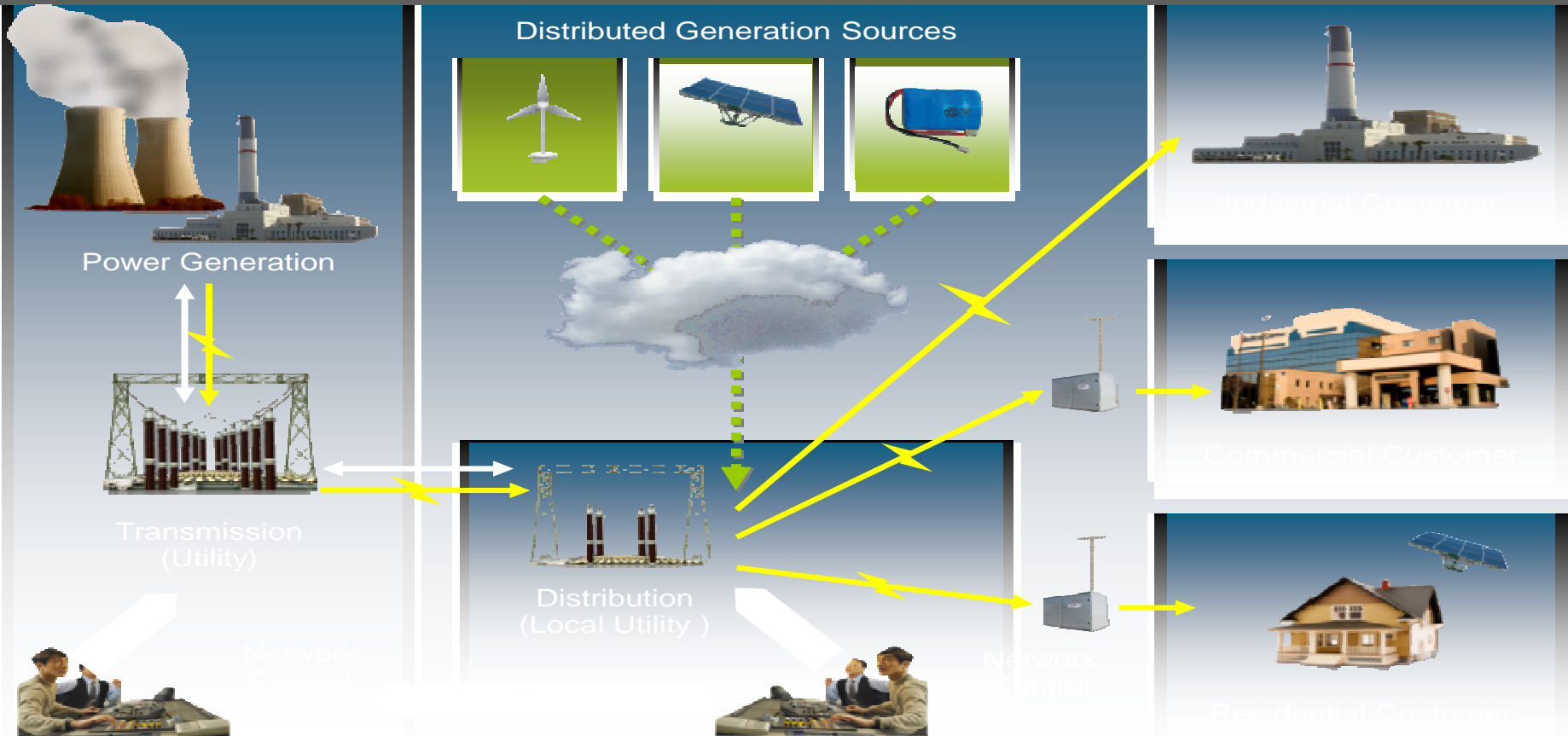
Product marketing

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Power Management Today's Electrical System

→ Energy ← Information



Key elements to Home Energy Management



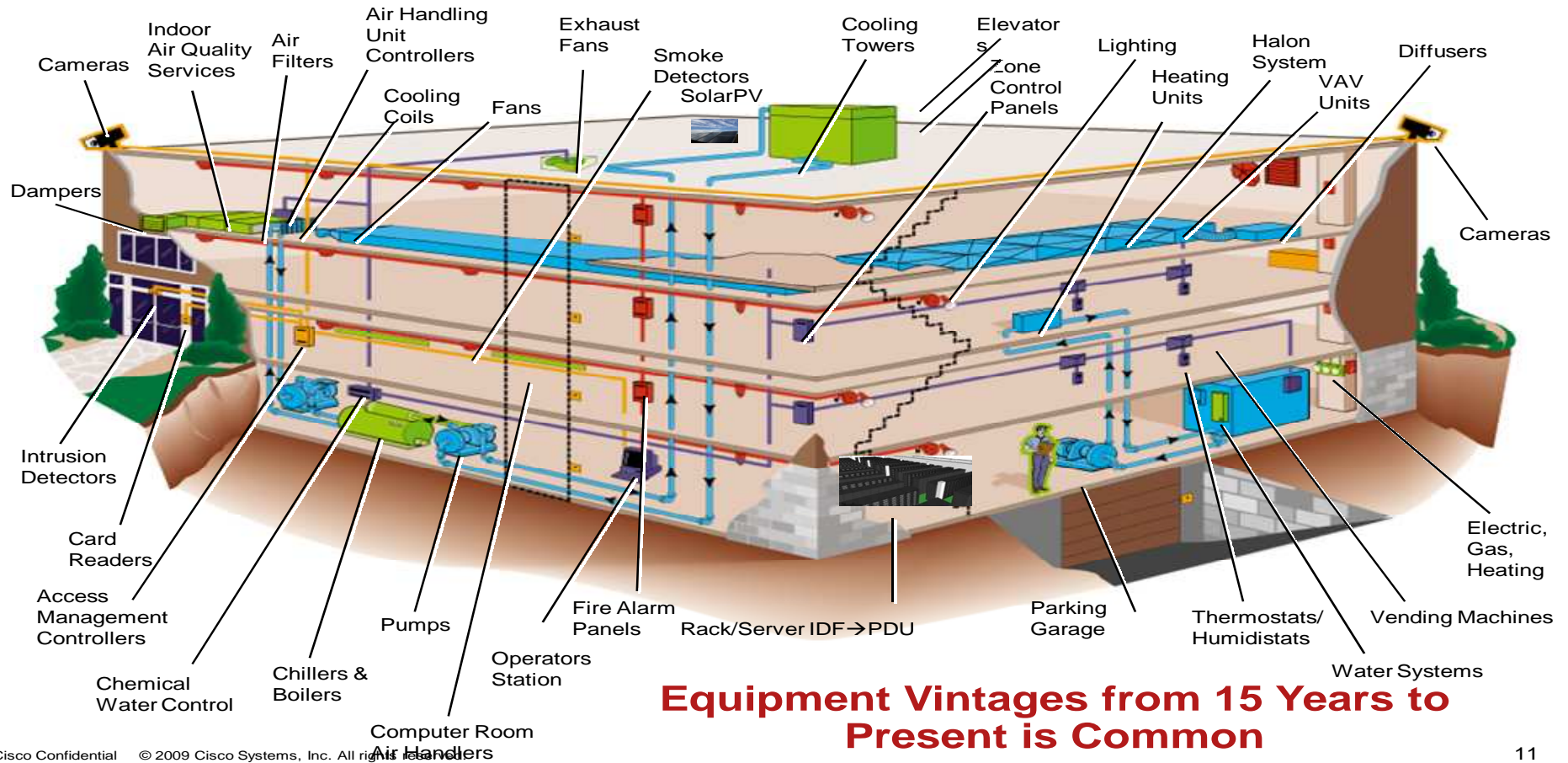
Key Elements

- **Home Energy Controller (HEC)**
 - Networking device with Interfaces, GUI, Smart Meter interoperability
 - Software for energy monitoring, device control, and policy based energy management
- **Smart Plugs/Smart Appliances**
 - Wireless controllable relay/contacter to monitor/ and manage power consumption to “dumb” appliances and Load Devices (water heaters, pool pumps, etc) plugged into Smart Sockets
 - Relay Utility signals and control Smart Appliances
- **In-Home Display (IHD)**
 - Display Energy Usage Information, and Utility Messages
- **Programmable Thermostat**
 - Programmable Controllable Thermostat (PCT) with interface to the HEC
- **Middleware (Cloud Service)**
 - Middleware for HEC provisioning, Back-end apps integration, Consumer facing and Utility facing portals

Base for all Energy Management will be the use of Smart Meters, Peripherals and a user experience in combination with an intelligent device – the Home Energy Controller.

One Building – Multiple Industries

lighting, HVAC, metering, industrial, access control and more



Industry Trends and Drivers



- Unpredictable renewable supply sources
- Distributed generation sources feeding into unmonitored grid areas



- Flexible tariffs cause changing demand patterns
- More complex to predict



- Climate change and energy efficiency goals
- Standards and interoperability
- Network security and reliability
 - Stimulus packages

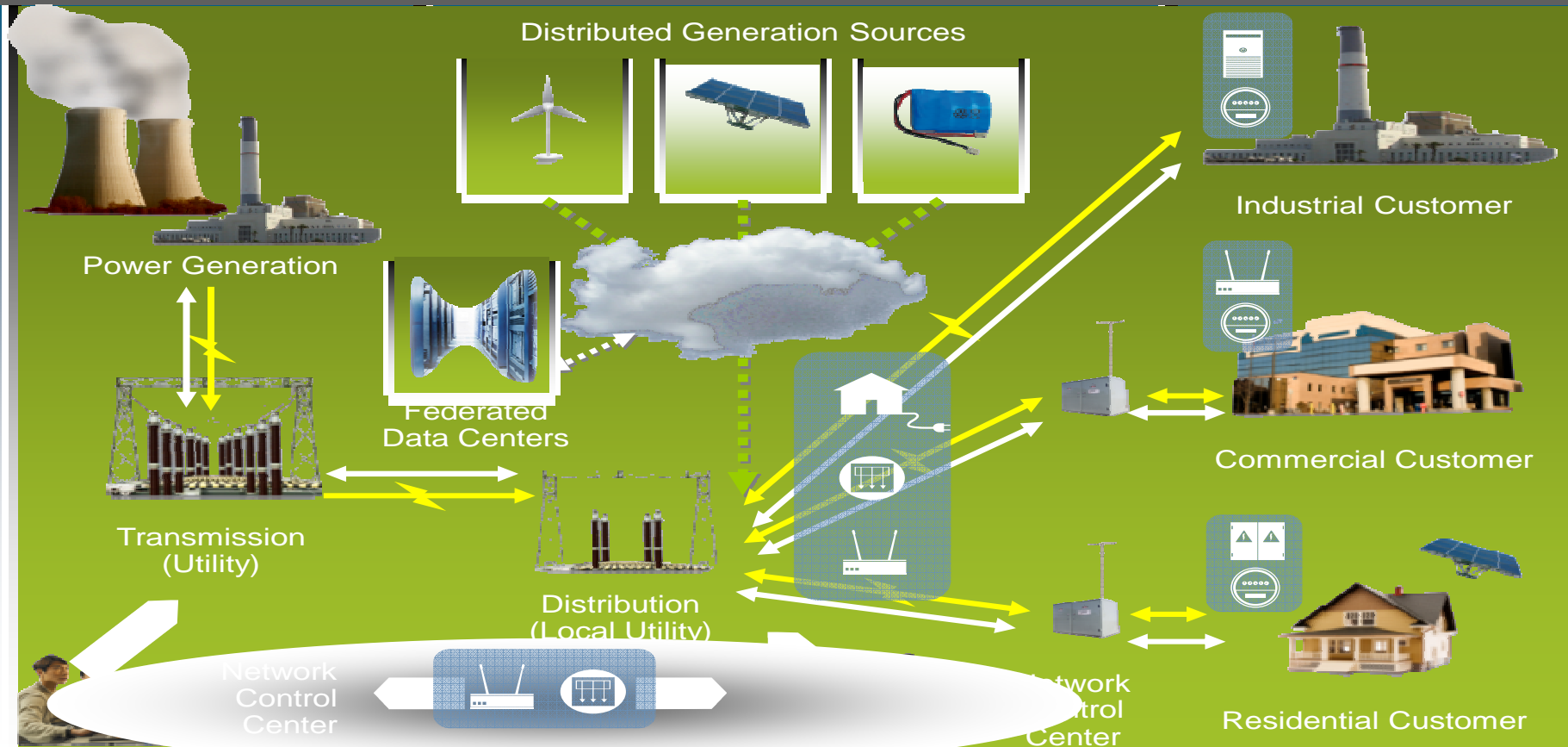


- Additional sales volume by electric plug-in vehicles
- Economically store electricity

Power Management

Smart Grid

→ Energy ← Information



Experience the True Power of the Grid

- Cisco delivers an end-to-end, IP-based secure communications infrastructure for the smart grid from generation to businesses and homes.

Cisco Smart Grid solutions help utilities:

- Optimize grid efficiency through better correlation of power supply and demand**
- Reduce energy network outages and disruptions**
- Increase the resiliency and security of the power system**
- Increase environmental sustainability**

Open standards is the only way to go:

IP end to end

Simplicity

Open standards

Interoperability



everywhere



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