

Energy and Resilience at...



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Resiliency at JETC

- Resiliency is a common thread across several themes at JETC, including...
 - Infrastructure
 - Cyber Assets
 - Energy and Water Access and Usage
- Why the attention on resiliency, especially with infrastructure, energy, and water?
 - Increased interaction between IT and OT platforms and resources (e.g. IoT connecting with building systems)
 - Increased interactions lead to increased risks

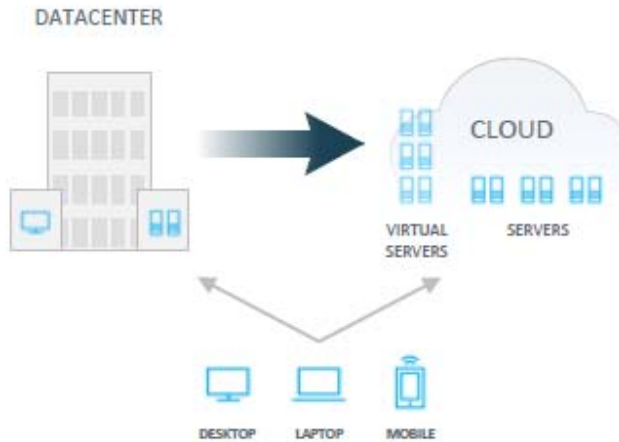
Growth of Devices and Platform Diversity

- 28Bn IP-based devices by 2020



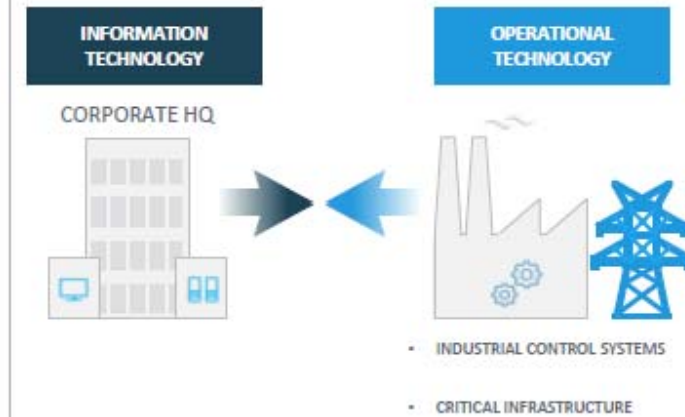
- › Innumerable device-specific operating systems (OS)
- › Cannot get agents onto new devices
- › Cannot write agent-based software for every OS

Cloud Adoption Creates New Challenges



- › Multiple Device Locations and Access Points
- › Heterogeneous Environment with Multiple Vendors
- › De-centralized Management

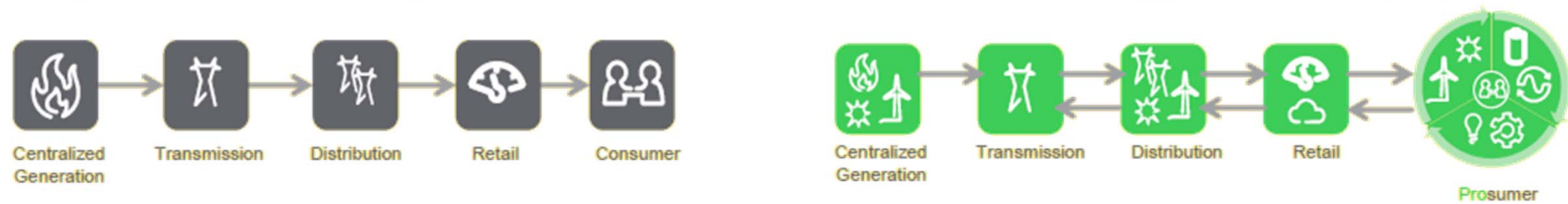
IT and OT Convergence



- › OT networks are no longer physically separated
- › Threats moving between cyber and physical dimensions
- › Assets are highly vulnerable and rarely can be patched

Graphic courtesy of Wayne Dixon, SAME JETC 2018 Presenter

Historical Energy Value Chain vs. “The New Energy Landscape”



Graphic courtesy of Andy Haun, SAME JETC 2018 Presenter

Solutions?

- Plans

- Existing Industry Standards in Place: NIST, ISO
- Cybersecurity Strategies

- People

- Increased awareness of needs
- Ensure implementation addresses system gaps
- Make sure system is sustainable and can evolve

- Tools

- Have the right tools, and make them work together
- 

Where Energy Resilience Can Work

Microgrids

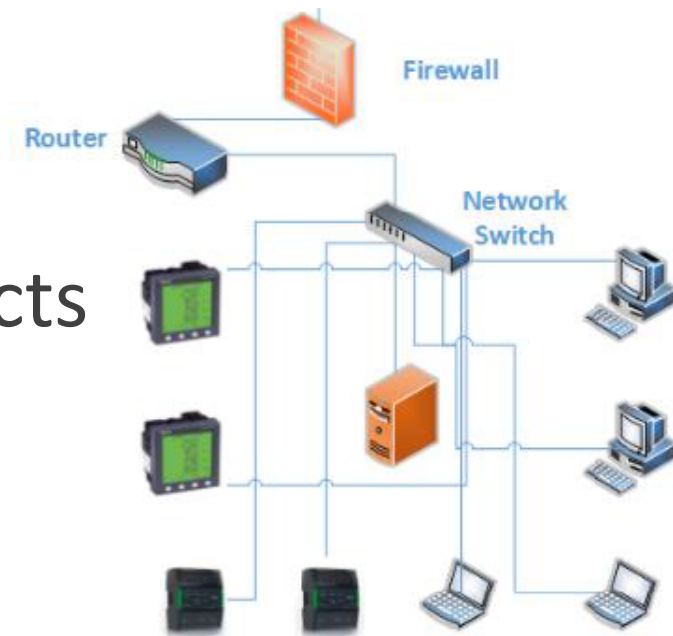


Graphic courtesy of Andy Haun, SAME JETC 2018 Presenter

Where Energy Resilience Can Work

Automatic Fault Detection (Utility and Campus Level)

Acquisition of New Products



Graphic courtesy of Andy Haun, SAME JETC 2018 Presenter

Thank You
