DCW themes FINAL Draft

Data Centres Built for an AI & Energy Crisis - *Narrative:* The world's infrastructure backbone is being remade by AI demand and energy volatility. In 2026, DCs must balance density, circularity, and sovereignty.

1. **Redefining Data Centres: Sustainability, Resiliency, and Tech Innovation**

As AI, Cloud and edge computing drive unprecedented demand, data centres must evolve to be smarter, greener and more resilient. This theme explores how the industry is adapting, through net-zero strategies, automation, and next gen infrastructure to meet global challenges like climate change, energy constraints and geopolitical risk.

Sub themes: Sustainable design and operations, AI-native and automated data centres, the influence of hyperscalers, disruptive innovations like off-land data centres.

2. **Hyperscale to Sovereign: Exploring Regulation in the Data Centre Era**

As regulations tighten worldwide, the pressure on data centres is no longer limited to sustainability and energy usage, it extends into the critical domains of digital sovereignty, localisation, and compliance with national and regional policies. This theme explores how operators must adapt to evolving rules around data residency, cross-border transfers, sovereignty metrics, and the growing tension between edge and hyperscale deployments.

Sub themes: Managing cross-border data laws and digital sovereignty, preparing for AI-related infrastructure compliance.

3. **Protecting the Data Centre: Security in the Modern World**

As data centres grow more complex and critical, security has become a top priority. This theme explores how operators are adapting to rising cyber threats, physical risks, and regulatory demands with next-generation strategies.

This theme will examine advances in AI-driven threat detection, zero-trust architecture, biometric access controls, and compliance frameworks.

Sub themes: threat intelligence, proactive security models, physical security, cybersecurity.

4. AI-Driven Innovations in Data Centre Design for Efficiency

Artificial Intelligence is transforming data centre design and operations, enabling smarter infrastructure, enhanced automation, and sustainable performance.

This theme will explore how AI is driving innovation in thermal management, power optimisation, and layout efficiency for high-density workloads. It will cover intelligent resource management, predictive maintenance, and future-ready facility design through technologies like liquid cooling, advanced rack configurations, and AI-assisted capacity planning.

5. Cultivating a People-focused Data Centre Workforce Culture

With technology advancing, building and sustaining a skilled, inclusive and resilient workforce is critical to data centre success. This theme explores how organisations are fostering a human-centric culture that attracts talent, supports growth and promotes long-term industry sustainability.

Sub themes: Skills Development & Training, Wellbeing and Retention, Leadership and Culture, Future workforce planning.

6. Circular Economy and Waste Management

As the data centre industry faces increasing pressure to operate sustainably, embracing circular economy principles is key to reducing environmental impact and maximising resource efficiency.

This theme explores how operators are designing out waste, extending asset lifecycles, and building more regenerative infrastructure models.

Sub themes: Hardware reuse and refurbishment, sustainable supply chains, design for disassembly.