

Measuring What Matters: High-granularity RAN Energy Intelligence for Virgin Media O2

Business challenge

VMO2 needed to validate real world energy use across modernised RAN sites to assess efficiency identify high consumption drivers and test optimization options.

Key challenges included:

- Capturing precise energy measurements across operational RAN infrastructure
- Deploying the solution across live RAN sites with minimal disruption
- Monitoring up to 64 different measurement points per site environment
- Integrating hardware, analytics, temperature sensing, and operational support into one deployment
- Ensuring full commissioning, ongoing availability, and decommissioning after trial closure

Overview

As telecom operators pursue Intelligent Network Modernization, energy visibility across the Radio Access Network is becoming a critical foundation for more efficient, sustainable operations. Virgin Media O2 needed accurate, real-world insight into energy consumption across its live modernized RAN infrastructure to support future optimisation and informed network-wide decisions.

Following a successful VISMON™ Energy deployment on their RAN sites, we were engaged to extend the solution to their new OEM-equipped environments, establishing a high-granularity measurement baseline without impacting network KPIs. The programme supported VMO2's sustainability and network modernisation goals by validating new RAN equipment efficiency and trialing energy optimization options.

The Cyient solution

We applied a domain-first approach to deploy VISMON™ Energy across live RAN sites, combining high-granularity measurement, analytics, and operational delivery without impacting network

Site-ready deployment

Delivered full datalogger preparation, shipping, installation, testing, and commissioning across trial sites.

Analytics portal activation

Set up cloud licensing, vendor activation, connectivity validation, and user access for VISMON™ Energy.

High-frequency power measurement

Captured energy data every 10 seconds with low error rates, supporting module level consumption analysis.

Temperature-aware monitoring

Integrated a measurement kit with 7 indoor and 1 outdoor sensor per deployment for contextual interpretation.

Operational support and continuity

Provided ongoing O&M coverage, remote SME assistance, and platform stability during the trial period.

Controlled decommissioning

Managed safe dismantling and equipment removal at trial closure.

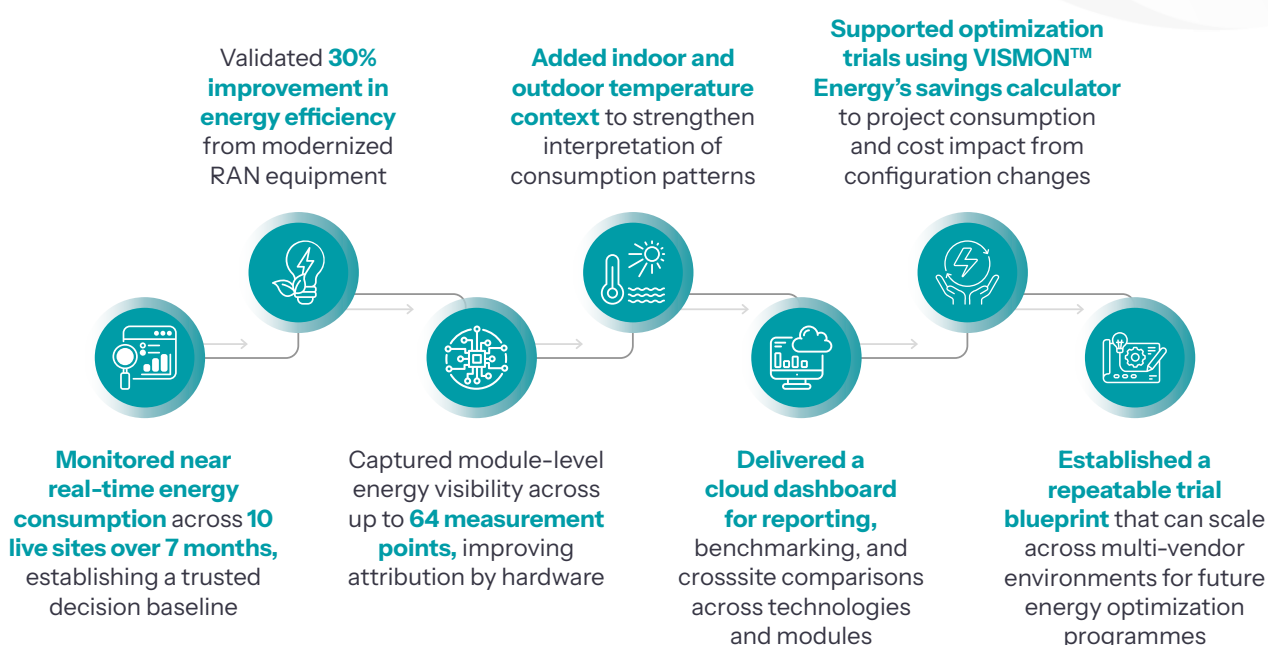
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Fig 1: Energy Consumption Dashboard

The results

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See what's driving energy consumption across your network

Make informed decisions with real-time energy visibility, detailed analytics, and actionable optimization insights. Talk to our specialists about how VISION™ can support your network modernization and sustainability objectives.

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