

PCCW Global



Case Study:

Powering uninterrupted POS experiences with **Edge SIM**

Magnifi Machines worked with PCCW Global to architect a fully private, multi-network payment infrastructure - delivering near-zero downtime at the point of sale.

Transforming mission-critical POS connectivity with private networking

Magnifi Machines is a managed digitalisation company specialising in mission-critical connectivity and IoT-driven operations. Operating across ASIA and Latin America, Magnifi Machines delivers Zero-Downtime Connectivity (ZDC), Autonomous Asset Intelligence (AAI) and 24/7 managed services via its Data Operations Centre (DOC).

By leveraging Edge SIM, Magnifi Machines enables secure, resilient and scalable POS connectivity across distributed environments. Payment terminals are treated as critical IoT edge devices that are fully integrated into an intelligent, managed network rather than operating as standalone endpoints.

Company overview

Magnifi Machines is a critical operations infrastructure provider specialising in secure connectivity, operational visibility and managed digitalisation for distributed enterprise environments.

Its core capabilities, ZDC, AAI and 24/7 managed services, ensure operational continuity, security and performance at scale. Within this framework, POS systems form part of a broader IoT architecture that captures, connects, processes and monitors data in real time.

This approach allows Magnifi Machines to:



Enhance security: Payment data remains on a private network, avoiding public internet exposure.



Ensure reliability: Multi-network connectivity delivers seamless failover and consistent uptime.



Simplify operations: Centralised monitoring reduces manual intervention and improves visibility.



Scale efficiently: Standardised deployment enables rapid rollout across multiple sites.

Challenge:

Eliminating payment disruption and risk —

Magnifi Machines needed to address critical limitations in existing POS connectivity:

- Single-network dependency led to transaction failures.
- Inconsistent uptime due to telco variability.
- Security risks from traffic traversing the public internet, deviating from InfoSec policies.
- Limited visibility into network and device performance.

These issues had a direct impact on transaction success rates and the overall customer experience at the point of sale. In high-volume environments such as petrol stations, even brief disruptions resulted in failed transactions, lost revenue and poor customer experience.

Traditional fixes like adding a router to provide redundancy often added complexity without resolving the underlying reliability and security challenges. These limitations were further compounded by fragmented ownership across connectivity, infrastructure and monitoring layers.

“

Ensuring always-on connectivity at the forecourt is critical to our operations. With Edge SIM, we've eliminated network-related disruptions and can deliver fast, reliable payments regardless of local conditions.

”

Dharrshen Palasubramaniam

Director of Technology & Operations, Magnifi Machines



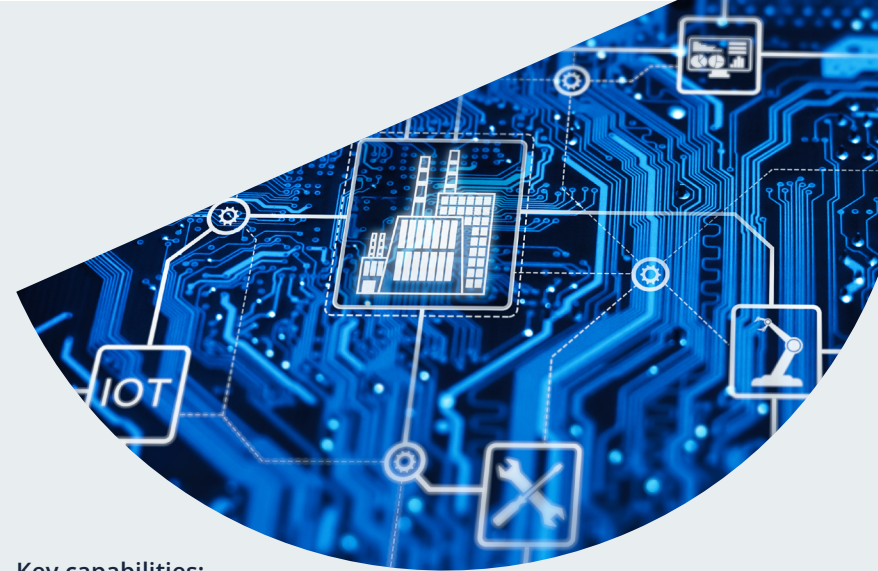
Solution:

Private, multi-network edge connectivity —

Magnifi Machines required a resilient, dual-network architecture with automated failover that eliminated high maintenance costs while strictly adhering to InfoSec mandates.

By deploying Edge SIM, Magnifi Machines achieved secure, high-availability POS operations. As part of this architecture, Magnifi Machines leverages [PCCW Global's private network](#) to ensure secure, end-to-end connectivity without public internet exposure.

Traffic is routed through a dedicated, end-to-end private tunnel:
Device → Local Telco → PCCW Global core network → Magnifi Machine's core



Key capabilities:



True network redundancy: A single Edge SIM connects across multiple leading telcos, including Globe and Smart, enabling seamless roaming and automatic failover.



Integrated IoT operations: POS devices are fully integrated into Magnifi Machines' lifecycle framework, enabling real-time monitoring via their DOC.



Zero Internet breakout: All traffic is routed via a private path, ensuring:

- End-to-end isolation from the public internet.
- Reduced exposure to internet-based threats and DDoS attacks.
- Consistent, low-latency connectivity for real-time transactions.



Efficient scalability: Pre-configured devices and centralised provisioning supported a frictionless transition from the pilot to a full-scale rollout.

Results:

Reliable, secure and scalable payment operations —

The deployment of Edge SIM delivered immediate, measurable improvements to Magnifi Machines' performance, security posture and operational overhead.



Near-zero manual intervention

Multi-network connectivity enables failover without manual intervention, reducing recovery times.



Improved uptime

Dual-network access has effectively eliminated connectivity-related downtime at POS sites



Enhanced security

Removing internet exposure ensures compliance and protects payment data.



Simplified management

Centralised control via the Magnifi DOC streamlines SIM lifecycle and connectivity management.

“

Security and uptime are non-negotiable for us. By moving to a fully private connectivity model, we've strengthened our compliance posture while simplifying how we manage and scale our POS infrastructure.

”

Dharrshen Palasubramaniam

Director of Technology & Operations,
Magnifi Machines



Outcomes:

Revenue continuity and customer trust

Magnifi Machines has successfully:

- Increased transaction success rates across POS terminals.
- Reduced disruption through automated network switching.
- Shifted from reactive fixes to proactive monitoring.
- Protected revenue by minimising downtime.

Ultimately, this has improved the customer experience, with faster, more reliable payments, fewer transaction failures and greater consistency across locations.

“Through Edge SIM and our private network, we’re enabling Magnifi Machines to achieve resilient, secure and high-performance connectivity, ensuring critical services remain always available while meeting the strictest security requirements.”

Cedric Mauvielle

VP Global IoT and Partnership,
PCCW Global

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