

EDGE & TELECOM

Telecom Provider Deploys Weatherproof Edge Sites Across 15 Provinces

A regional telecom operator standardized on Halden outdoor enclosures for their 5G edge computing rollout, achieving 99.99% uptime across harsh tropical environments.

THE CHALLENGE

Rolling out 5G required compute capacity closer to the edge. Traditional data center builds were too slow and expensive for the 50+ sites needed. The client required outdoor-rated enclosures that could withstand typhoons, extreme heat, and humidity while housing sensitive networking and compute equipment with minimal maintenance.

PROJECT SCOPE

Industry
Telecommunications

Coverage
15 provinces, Visayas & Mindanao

Site Types
Cell towers, rooftops, ground pads

Total Deployment
52 outdoor enclosures

PRODUCTS DEPLOYED

- **Outdoor Enclosures** — NEMA 4X / IP66 rated (52 units)
- **Integrated Cooling** — 5kW AC units per enclosure
- **Custom Dimensions** — 3 sizes for different site requirements
- **Remote Monitoring** — Environmental sensors pre-installed

KEY RESULTS

99.99%

Uptime Achieved

52

Sites Deployed

0

Weather-Related Failures

65%

Faster Than Building

"Building 52 micro data centers the traditional way would have taken years. With Halden's outdoor enclosures, we deployed our entire edge network in under 8 months."

— Network Infrastructure VP

WHY HALDEN

- IP66 rating survived 3 typhoons in first year
- Custom sizes fit different site constraints
- Pre-integrated cooling reduced on-site work
- Single vendor for all 52 sites simplified support

ENCLOSURE SPECIFICATIONS

Specification	Value
Protection Rating	NEMA 4X / IP66
Operating Temperature	-40°C to +55°C ambient
Internal Temperature	Maintained at 25°C ±2°C
Cooling Capacity	5kW per enclosure
Wind Rating	Survives 250 km/h
Equipment Capacity	12-24RU depending on model

DEPLOYMENT BY REGION

Cebu & Central Visayas 18 sites — Urban & coastal	Davao Region 14 sites — Industrial zones
Western Visayas 12 sites — Mixed terrain	Northern Mindanao 8 sites — Remote locations

ENVIRONMENTAL TESTING

Typhoon Odette (Dec 2021): Category 5 storm made direct hit on 8 sites. All enclosures survived with zero equipment damage. Sites restored service within hours of grid power return.

Extreme Heat (Apr 2022): Ambient temperatures exceeded 42°C for 5 consecutive days. Internal temperatures maintained at 25°C across all sites.

BUSINESS BENEFITS

- ✓ **Speed to market** — 52 sites in 8 months vs. 24+ months traditional
- ✓ **Lower CAPEX** — 70% less than building micro data centers
- ✓ **Reduced site visits** — Remote monitoring cuts maintenance trips by 80%
- ✓ **Standardized operations** — Same enclosure design everywhere
- ✓ **Future expansion ready** — 30 additional sites planned for 2024

TOTAL COST OF OWNERSHIP

Cost Category	Traditional Build	Halden Enclosures
Capital (per site)	₱4.5M	₱1.2M
Deployment Time	4-6 months	2-3 weeks
Annual Maintenance	₱180K	₱45K

Expanding Your Edge Network?

Halden outdoor enclosures are designed for the harshest environments in Southeast Asia. Contact us for a consultation on your edge deployment strategy.