

ENTERPRISE DEPLOYMENT

Regional Bank Modernizes Data Center with Integrated Rack and Containment Solution

A mid-sized financial institution reduced cooling costs by 32% and increased rack capacity by deploying Halden HR Series racks with AirLogic cold aisle containment.

THE CHALLENGE

The client operated a 15-year-old data center supporting core banking applications. Hot spots at the top of racks were limiting their ability to deploy high-density servers. Cooling costs had risen 40% over three years as they added equipment without upgrading infrastructure. They needed to increase capacity without expanding their footprint or building a new facility.

PROJECT SCOPE

Industry
Financial Services

Location
Metro Manila, Philippines

Data Center Size
200 sqm raised floor

Deployment
60 racks across 3 aisles

PRODUCTS DEPLOYED

- **HR-42-8-12** Server Racks (60 units)
- **AirLogic CAC** Cold Aisle Containment (3 aisles)
- Fire suppression integration with drop-away panels
- Vertical fill panels and sliding doors

KEY RESULTS

32%
Cooling Cost Reduction

25%
Capacity Increase

0
Hot Spots Remaining

30kW
Per-Rack Cooling Support

"We were facing a difficult decision between expensive expansion or compromising on our growth plans. Halden's integrated solution gave us a third option that delivered immediate results."

— IT Infrastructure Director

WHY HALDEN

- Custom-engineered containment fit existing floor plan exactly
- Fire suppression integration met banking compliance requirements
- Single vendor for racks and containment simplified procurement
- Local installation team minimized downtime

BEFORE & AFTER COMPARISON

Metric	Before	After
Supply Air Temperature	18°C	24°C
Rack Inlet Temperature	22-35°C (varied)	24°C (uniform)
Usable Rack Space	75% (hot spots)	100%
Cooling Capacity	15kW/rack max	30kW/rack
PUE	2.1	1.7
Monthly Cooling Cost	₱850,000	₱578,000

IMPLEMENTATION TIMELINE

- **Week 1-2** **Site Survey & Design**
 Detailed measurements and CAD drawings
- **Week 3-4** **Fabrication**
 Custom containment and rack preparation
- **Week 5-6** **Phased Installation**
 One aisle at a time, zero downtime
- **Week 7** **Testing & Handover**
 Fire system integration verification

BUSINESS BENEFITS REALIZED

- ✓ **Deferred capital expenditure** — Avoided ₱45M new facility cost
- ✓ **Reduced operating costs** — ₱3.2M annual cooling savings
- ✓ **Extended equipment life** — Consistent temperatures reduce thermal stress
- ✓ **Compliance maintained** — Fire suppression integration passed audit
- ✓ **Future-ready** — Capacity for 5 more years of growth
- ✓ **Sustainability** — 28% reduction in carbon footprint

LESSONS LEARNED

Phased approach works: By installing one aisle at a time over weekends, the client maintained 24/7 operations throughout the project.

Measure first: Detailed baseline measurements before installation made the 32% savings figure credible to management and justified the investment.

Integration matters: Coordinating with the fire suppression vendor early avoided delays and ensured compliance from day one.

Ready to Transform Your Data Center?

Contact Halden Systems for a site assessment. We'll help you quantify your potential savings and design a solution that fits your facility and budget.