DAIKIN
AIR CONDITIONING

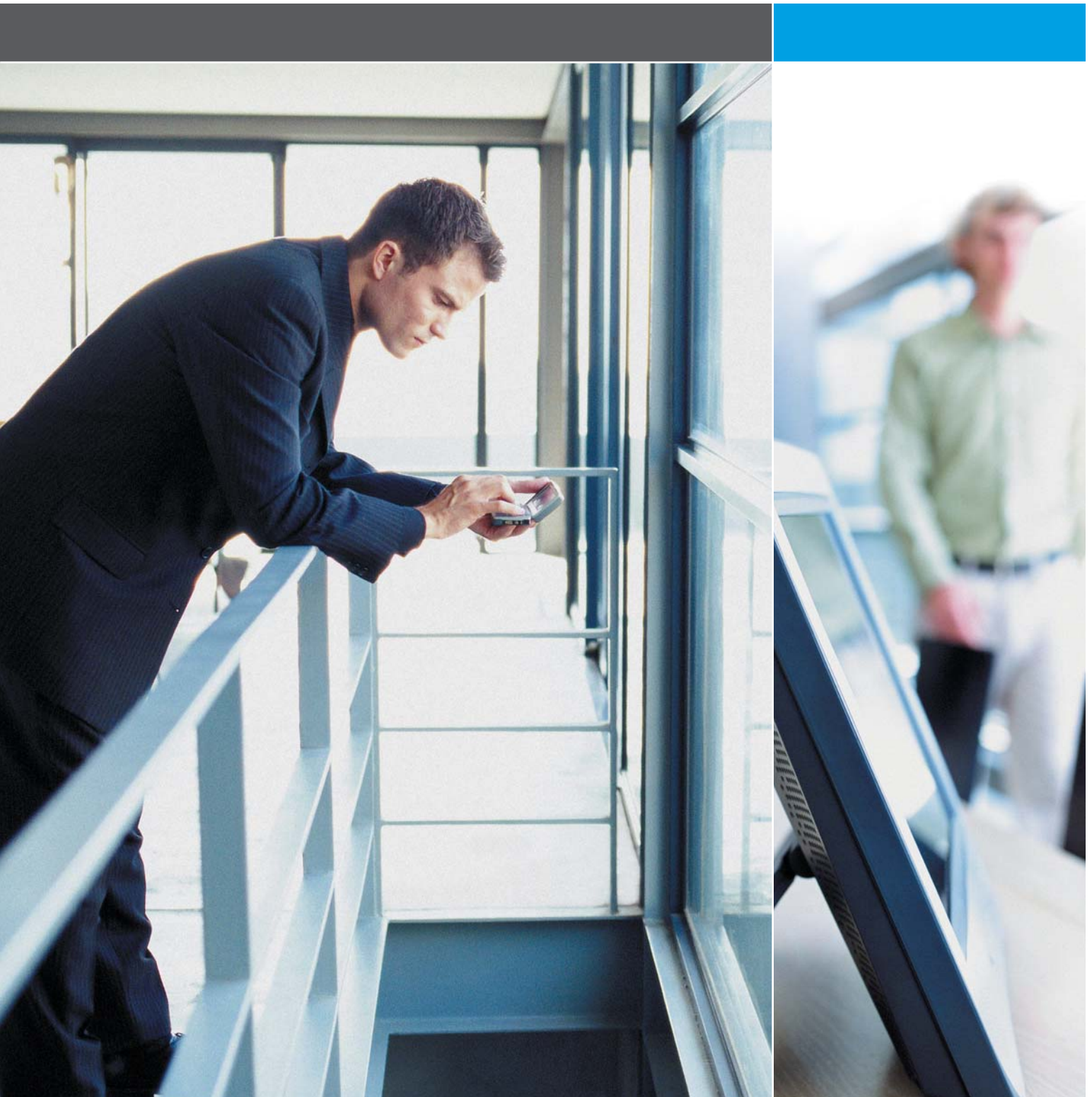## BACnet Gateway

Network Solution

Integrated Control System for Seamless Connection between VRV and BMS Systems
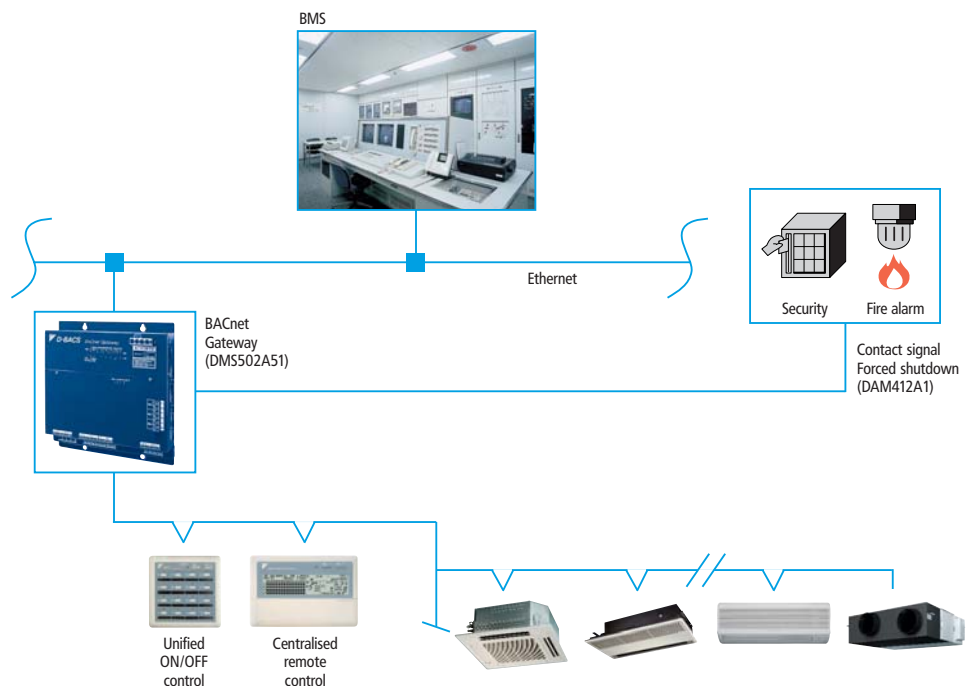
1 BACnet Gateway

- ensures precise and efficient monitoring and control of VRV and HRV systems. Also Split & Sky Air units can be connected via an optional interface adapter
- is a flexible, multi purpose system
- control mechanism is BACnet™
- provides easy integration in to building management systems (BMSs) including management of all building installations in remote control or interlocked control

2 Open Network Integration

Daikin has released a new adapter that requires no additional interfaces nor gateways for connection to BACnet™ networks equipment and building control systems. BACnet™ networks are recognised worldwide as the de facto standard within the building controls industry. BACnet™ data communication protocol makes it possible to control access, energy management, fire/life/safety, HVAC and lighting etc.

BMS

Ethernet

Security Fire alarm

BACnet Gateway (DMS502A51)

Contact signal Forced shutdown (DAM412A1)

Unified ON/OFF control

Centralised remote control

3 Quick and Easy Installation

The open protocol specification gives local system integrators complete design freedom. Also the ability to combine individual items of equipment into BACnet™ networks reduces the time and costs required for wiring work.

④ Unlimited Site Size

The network adapter can be connected to 64 groups (256 with optional accessory). Maximum value of BACnet Gateway is set by BACnet BMS.

⑤ Functions

MONITORING
- Air conditioning status monitoring: 64 groups of indoor units and 10 outdoor units. (Max 256 groups of indoor units and 40 outdoor units, when optional DIII board is added)*
- Indoor unit error monitoring
- Indoor (air inlet) temperature monitoring
- Filter sign monitoring
- Thermostat status
- Compressor operation status
- Indoor fan operation
- Heater operation
- Air direction monitoring
- Air flow rate monitoring
- Forced thermostat off/on monitoring

* If exceeding the stated number of outdoor units, DIII-NET expander adapter <DTA109A51> allows easy system connection as long as restrictions are observed.

CONTROL, OPERATION AND SETTINGS
- Start / stop control
- Temperature adjustment mode setting
- Remote control setting
- Temperature setting
- Filter sign reset
- Indoor unit mode setting
- Air direction setting
- Air flow rate setting
- Forced thermostat off/on setting
- Energy efficiency command (setting temperature shift)

DISPLAY
- Air condition unit operation setting and status
- Set temperature
- Indoor unit error
- Indoor (air inlet) temperature
- Filter sign

⑥ Specifications of Communication

OBJECTS
- Analog input
- Analog value
- Binary input
- Binary output
- Binary value
- Multistate input
- Multistate output

FUNCTIONALITY
- Monitoring
- Commanding
- Alarming

DATALINK
- Ethernet(IEEE802.3)
- BACnet/IP

7️⃣ Compatibility with Leading BMS Systems, a.o.:

Manufacturer*	Type
Johnson Controls	Metasys BSI
Siemens (Landis & Staefa)	SYSTEM 600 APOGEE DESIGO INSIGHT 1.01
Honeywell	EBI v2.0
Andover Controls	Continuum
Iconix OPC Server (Sauter Italy)	
Cimetrics OPC Server (T A/C pacific in Australia)	
Trilogy (France)	
Tridium	Niagara
Priva	

* Please contact your Daikin distributor for further details or other manufacturers concerning compatibility.

8️⃣ Specifications

Item		Description
BACnet Gateway	DMS502A51	64 units per Gateway
BACnet™ transmission		ASHRAE135 (IEEE802.3)
		BACnet/IP
		Conformance class3
Power supply		1~, 200 to 240VAC, ± 10% at 50/60Hz
Power consumption		20W max.
Dimensions (HxWxD)	mm	281x260x58.5
Weight	kg	± 4
Ambient condition		-10°C to 50°C within humidity range between 0% and 98% (no condensation)
Insulation resistance		At least 50M at 500VDC

9️⃣ Accessories

Item		Description
DIII board	DAM411A1	Extension of 3 x DIII lines (3 x 64) indoor units
Digital input/output	DAM412A1	For forced shutdown
Interface adapters	KRP928A2S	For connection to Split units
	DTA102A52	For connection to R-22/R-407C Sky Air units
	DTA112B51	For connection to R-410A Sky Air units

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