

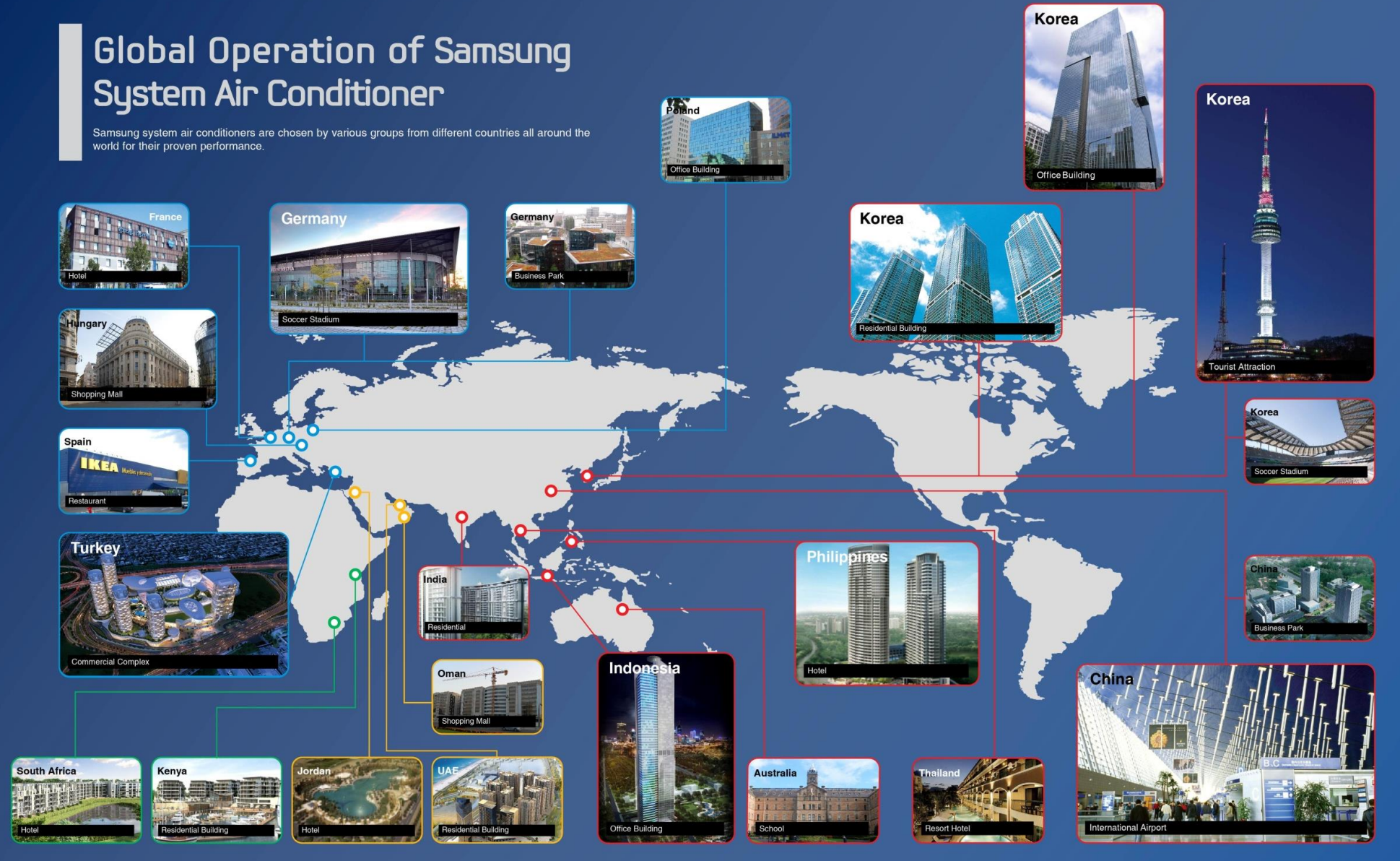


# VRF Reference Sites

Air Conditioning Marketing Group

## Global Operation of Samsung System Air Conditioner

Samsung system air conditioners are chosen by various groups from different countries all around the world for their proven performance.





# content

1. Europe
2. South East Asia
3. Middle East
4. Africa
5. South West Asia
6. Korea

# 1. Europe

# Sheraton Edinburgh Hotel



Image



## Application Issue

- Fidelio system application with Samsung AC
  - Samsung developed the Fidelio application for customer

## Reference Site

Project	Sheraton Hotel (5-star hotel)
Location	Edinburgh, UK
Date of Completion	OCT, 2010
Size	11,500 m2 (269 rooms)
Value	€ 220K

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS 2 HR	25 EA
IDU	Slim Duct	285 EA
Control	DMS 2, MWR-WH00	

- PC based centralized control system (DMS2)

# Holiday Inn Hotel



Image



## Application Issue

- ODU Installation Space
  - Group installation on the rooftop

## Reference Site

<b>Project</b>	Holiday Inn Hotel
<b>Location</b>	Slough, UK
<b>Date of Completion</b>	Oct, 2008
<b>Size</b>	9 floors
<b>Value</b>	-

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS II HR	11
IDU	Wall mounted / Ceiling	171
Control	DMS, Key tag, Fidelio	

- Management of air conditioning system
  - DMS
  - Fidelio : 3<sup>rd</sup> Party control system

# Southend Airport



Image



## Application Issue

- Management of air conditioning system
  - Simplified remote controller

## Reference Site

Project	Southend Airport
Location	London, UK
Date of Completion	JUN, 2011
Size	4,500 m2
Value	€ 320K

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS 3	18 EA
IDU	Duct, Wall Mounted	47 EA
Control	MWR-WH00	

- Interior design
  - Compact ducted units

# IKEA Shopping Complex Mall



## Reference Site

<b>Project</b>	IKEA Shopping Complex Mall
<b>Location</b>	Valladolid, Spain
<b>Date of Completion</b>	AUG, 2012
<b>Size</b>	20,700 m <sup>2</sup>
<b>Value</b>	€ 210K
<b>Customer</b>	Atil Cobra (Big Installer)

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ERV	RHF***EE	166 EA
Control	CO2 Sensor, MWR-WE10	

## Application Issue

- CO2 sensors to control the multiple ERVs
  - HQ developed a special software for customer
- Free cooling with volume damper and energy saving control

- Extended temperature ratio to  $\pm 10^{\circ}\text{C}$  with energy saving control of MWR-WE10



# Pecsa Sanatorium



Image



## Application Issue

- AHU Systems (Heating load 30%)
  - AHU system was installed with Solar panels for corresponding the energy regulation

## Reference Site

<b>Project</b>	Pecsa Sanatorium
<b>Location</b>	Madrid, Spain
<b>Date of Completion</b>	2010
<b>Size</b>	- m2
<b>Value</b>	€ 230K

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS 3 HP	16 EA
IDU	AHU, 4Way, Duct, 2Way	96 EA
Control	DMS2, MWE-WH00	

- PC based centralized control system (DMS2)

# Parkalgar Radisson Hotel



Image



## Application Issue

- Customer want to provide an overall total solution, such as air-conditioner, TV, refrigerators, cookers and microwaves.
  - Samsung can provide customers with a tailored total solution.

## Reference Site

<b>Project</b>	Parkalgar Hotel (5 Star Hotel)
<b>Location</b>	Portimão, Portugal
<b>Date of Completion</b>	2011
<b>Size</b>	16,000 m2 (208 rooms & 166 apt.)
<b>Value</b>	€ 450K

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS 4	19 EA
	FJM	166 EA
IDU	Duct(Hotel), RAC(Appt.)	737 EA
Control	DMS 2, LonWorks gateway	

- LonWorks BMS connection

# VAM Design Center



Image



## Application Issue

- PC based centralized control system (DMS)
- Power distribution system (SiM, WHM)

## Reference Site

<b>Project</b>	VAM Design Center (Art Gallery)
<b>Location</b>	Budapest, Hungary
<b>Date of Completion</b>	2007
<b>Size</b>	11,500 m2
<b>Value</b>	€ 286K

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS 2	24 EA
IDU	Duct, Wall Mounted	86 EA
Control	DMS, Power Distribution	



# ORCO Shopping Mall



Image



## Application Issue

- Limited installation space for the outdoor units
  - High walls surrounding the area
  - Samsung provided full CFD simulation analysis

## Reference Site

Project	ORCO Project
Location	Budapest, Hungary
Date of Completion	2012
Size	12,000 m2
Value	€ 571K

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS 3 HR	52 EA
IDU	4way, Duct, Console Air Handling Units	300 EA 6 EA
Control	S-NET 3, DMS, Power distribution	

- The investor wanted the most energy efficient solution with best control solution



# Murawa Office Park



## Reference Site

<b>Project</b>	Murawa Office Park
<b>Location</b>	Poznan, Poland
<b>Date of Completion</b>	December, 2010
<b>Size</b>	7,500 m2
<b>Value</b>	€ 205k

## Image

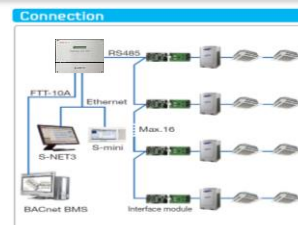


## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III HR	10 EA
IDU	Duct, 4Way Cassette, RAC	151 EA
Control	Lonworks Interface	

## Application Issue

- Monitor power distribution
- Set room temperature
- Control fan speed
- Zone management



- Lonworks Gateway the best solution to integrate DVM PLUS system into BMS and control the system simultaneously

## PFRON



Image



## Application Issue

- PC based centralized control system (DMS2)
- Window contact control for energy saving

## Reference Site

Project	PFRON
Location	Warsaw, Poland
Date of Completion	2010
Size	4,525 m2
Value	€ 150K

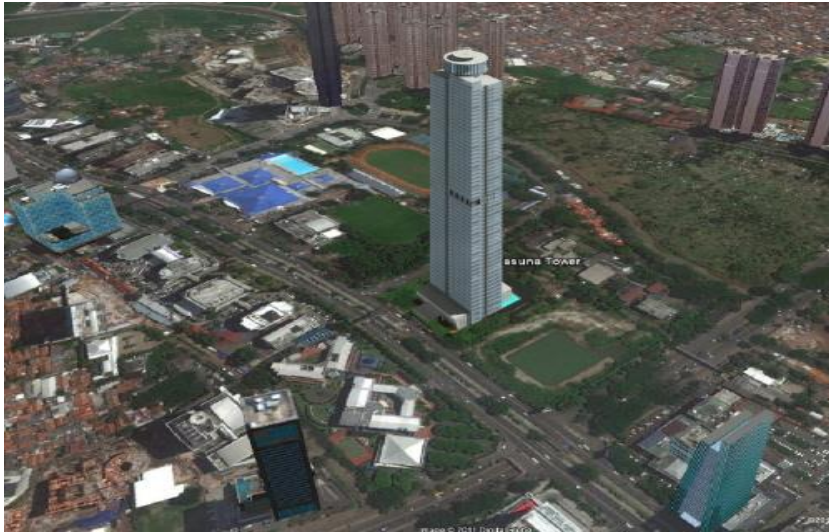
## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS 3	22 EA
IDU	4way, Slim 1way, RAC	215 EA
Control	DMS 2, Window relay, Use restriction by Control logic management	

- Electric power use limit combined with DMS2 control logic management

## **2. South East Asia**

# RASUNA Tower



## Reference Site

<b>Project</b>	RASUNA Tower
<b>Location</b>	Jakarta, Indonesia
<b>Date of Completion</b>	2014
<b>Size</b>	60 floors
<b>Value</b>	5.0M US\$

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS IV	380
IDU	4 Way, Duct, ERV+	1,223
Control	BACnet	

## Application Issue

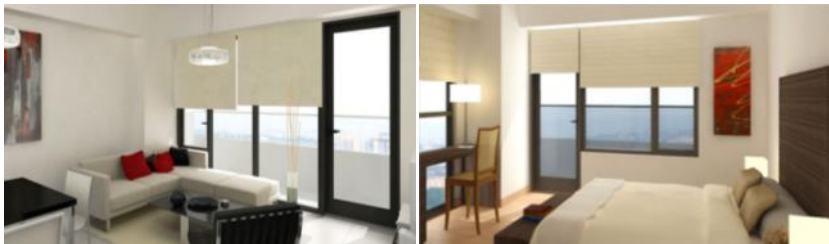
- Optimize indoor humidity control
- Improved design with DVM +4
- Interlock control with BACnet
- Power distribution
  - PIM (WHM interface module - MIM-B16)
  - Local watt-hour meter (Pulse type)



# Arya Residences



## Image



## Application Issue

- LEED-registered residential building
  - SAC with high EER
  - DVM Mini
  - DVM+4 / CAC

## Reference Site

Project	Arya Residences
Location	Taguig City, philippines
Date of Completion	2013
Size	2 towers
Value	2.0M US\$

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM Mini	1720HP
IDU	4 Way & Duct	895
Control	Individual remote controller	

- Optimized design for ODU
  - Air flow analysis by CFD
  - Proposal of optimized ODU space

# Viet Han Tower (Space 21)



Image



## Application Issue

- High-rise building
  - Level different over 50m
  - PDM(Pressure Drop Modulation) Kit
- Countermeasures of region with high humidity
  - Reinforced insulator

## Reference Site

<b>Project</b>	Viet Han Tower (Space 21)
<b>Location</b>	Hanoi, Vietnam
<b>Date of Completion</b>	July, 2011
<b>Size</b>	17 floors
<b>Value</b>	460k US\$

## Equipment Selection

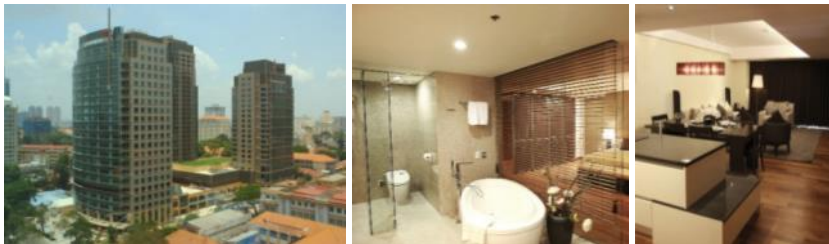
Classification	Type	Q'ty / HP
ODU	DVM PLUS III	65
IDU	4way	222
Control	DMS2, Power distribution with PIM	

- Power distribution
  - PIM (WHM interface module - MIM-B16)
  - Local watt-hour meter (Pulse type)

## Kumho Asiana Plaza



### Image



### Application Issue

- PC based centralized control system
  - S-Net 3 & DMS
  - Function : Monitoring & operation
- Power distribution : SiM, WHM

### Reference Site

Project	Kumho Asiana Plaza
Location	Hochiminh, Vietnam
Date of Completion	2009
Size	Service residential 32th floor
Value	3.2M US\$

### Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	128
IDU	Slim 1way	1,155
Control	S-Net 3, DMS, Power distribution with SiM	

- Countermeasures of region with high humidity
  - Reinforced insulator



# Imperial Palace



## Reference Site

<b>Project</b>	Imperial Palace
<b>Location</b>	Cebu, Philippines
<b>Date of Completion</b>	2009
<b>Size</b>	6 buildings
<b>Value</b>	3.2M US\$

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM/DVM PLUS 2,3	2850HP
IDU	1way / Slim duct	1355
Control	BMS interlock control	

## Application Issue

- Damage from sea wind (water)
  - Install Wall against the wind
  - Anticorrosive agent

- Interlock control with BMS system



# West Sands Resort



## Reference Site

<b>Project</b>	West Sands Resort
<b>Location</b>	Mai Khao Beach, Thailand
<b>Date of Completion</b>	2009
<b>Size</b>	426 villas & residences
<b>Value</b>	1.0M US\$

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	984HP
IDU	1 Way / Duct	755
Control	DMS	

## Application Issue

- Prevention from Damage of sea wind (water)
  - Install Wall against the wind
  - Anticorrosive agent
- Countermeasures of region with high humidity
  - Reinforced insulator

# St. Joseph School



## Reference Site

<b>Project</b>	St. Joseph School
<b>Location</b>	Sydney, Australia
<b>Date of Completion</b>	2011
<b>Size</b>	10 Different Buildings
<b>Value</b>	250K AUD\$

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III (HP/HR)	500HP
IDU	1 Way / 4 Way	250
Control	Central Controller, DMS2	

## Application Issue

- Management of air conditioning system
  - Integrated and centralized control system
  - DMS : PC, Web based centralized control system
  - Monitoring & Operation

- Refurbishment of HVAC system
  - SAC(DVM system) application

# Rockhampton Aged Care



## Reference Site

<b>Project</b>	Rockhampton Aged Care
<b>Location</b>	Rockhampton, QLD Australia
<b>Date of Completion</b>	2011
<b>Size</b>	100 Beds Aged Care Residents
<b>Value</b>	120K AUD\$

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	72HP
IDU	Wall mounted	100
Control	S-NET Mini	

## Application Issue

- Management of air-conditioning system
  - Easy Control : S-NET Mini with touch screen
  - Monitoring & Operation

- Retirement Village
  - Emergency Shutdown A/C System in Fire Mode

## Breakfast Point Apartment



Image



### Application Issue

- High end value residential apartment
  - System combination : DVM Mini & 2~4 IDUs

### Reference Site

Project	Breakfast Point Apartment
Location	Sydney, Australia
Date of Completion	2011
Size	3 Buildings each with 5 Levels
Value	450k AUD\$

### Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM Mini	1670HP
IDU	Wall mounted	450
Control	Individual Wireless Controller	

- Location of ODU
  - Roof & Basement
  - Securing air circulation of ODU located in basement



# Thai Hoa Pediatrics Hospital



Image



## Application Issue

- Management of air conditioning system
  - Integrated and centralized control system
  - DMS : PC, Web based centralized control system
  - Monitoring & Operation

## Reference Site

<b>Project</b>	Thai Hoa Pediatrics Hospital
<b>Location</b>	Dong Thap, Vietnam
<b>Date of Completion</b>	June, 2011
<b>Size</b>	7 floors
<b>Value</b>	249K US\$

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	25 / 382HP
IDU	4 Way	213
Control	Central Controller, DMS	

- N/A

# Golf Phu My Hotel



## Reference Site

<b>Project</b>	Golf Phu My Hotel
<b>Location</b>	Ba Ria Vung Tau, Vietnam
<b>Date of Completion</b>	December, 2011
<b>Size</b>	12 floors
<b>Value</b>	500K US\$

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	21 / 74HP
IDU	4 Way & Duct	313
Control	S-Net 3	

## Application Issue

- Management of air conditioning system
  - Integrated and centralized control system
  - DMS + S-Net 3

- Watt-hour Meter interface Module
- ERV
  - Interlock with SAC

# Green Boutique Hotel



Image

## Reference Site

Project	Green Boutique Hotel
Location	Puchong, Selangor, Malaysia
Date of Completion	Jan, 2011
Size	6 floors
Value	70K US\$

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	3 / 48HP
IDU	Duct	57
Control	S-Net Mini	

## Application Issue

- Management of air conditioning system
  - Easy Control : S-NET Mini with touch screen
  - Monitoring & Operation
- Interior design
  - Compact ducted units



# Bangsar Hill Bungalow



## Reference Site

<b>Project</b>	Bangsar Hill Bungalow
<b>Location</b>	Kuala Lumpur, Malaysia
<b>Date of Completion</b>	Feb, 2012
<b>Size</b>	4 floors
<b>Value</b>	65K US\$

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	4 / 56HP
IDU	Duct	23
Control	S-Net Mini	

## Application Issue

- Management of air conditioning system
  - Easy Control : S-NET Mini with touch screen
  - Simplified remote controller
- Interior design
  - Compact ducted units



## Plaza Damas 3



### Image



### Application Issue

- Management of air conditioning system
  - Simplified remote controller

### Reference Site

<b>Project</b>	Plaza Damas 3
<b>Location</b>	Kuala Lumpur, Malaysia
<b>Date of Completion</b>	May, 2011
<b>Size</b>	10 floors
<b>Value</b>	370K US\$

### Equipment Selection

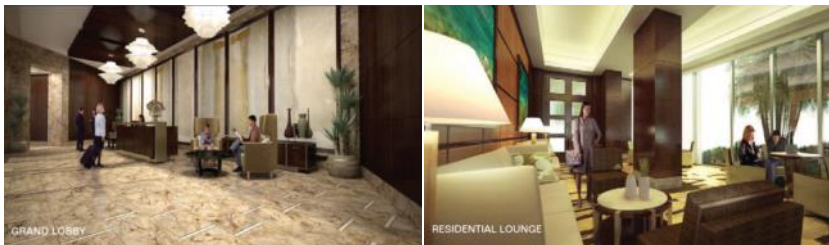
Classification	Type	Q'ty / HP
ODU	CAC	81 / 960HP
IDU	4 Way & Duct	81
Control	Individual remote controller	

- Compact 4-way cassette
- Ceiling Concealed Duct
- RAC with Virus doctor

# The Beaufort



Image



## Application Issue

- High-rise building
- Complex building
- Office & Residence

## Reference Site

<b>Project</b>	The Beaufort
<b>Location</b>	Taguig City, philippines
<b>Date of Completion</b>	December, 2012
<b>Size</b>	42 floors(2 towers)
<b>Value</b>	2.0M US\$

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	2000HP
IDU	4 Way & Duct	1,500
Control	Individual remote controller	

- Management of air conditioning system
- Simplified remote controller

# Trillium tower



## Reference Site

Project	Trillium tower
Location	Surabaya, Indonesia
Date of Completion	2011
Size	110m's height
Value	-

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	3
IDU	Ceiling	50
Control	Individual remote controller	

## Application Issue

- High-rise building
  - Level different over 50m
  - PDM(Pressure Drop Modulation) Kit
- Management of air conditioning system
  - Simplified remote controller

# Design Hub



Image



## Application Issue

- Optimized piping design against long piping issue for storage space.
- CFD analysis for limited outdoor space

## Reference Site

Project	Design Hub
Location	Singapore
Date of Completion	2011
Size	1428HP
Value	-

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	119
IDU	4 Way & Duct	334
Control	S-Net Mini	

- Management of air conditioning system
  - Easy Control : S-NET Mini with touch screen
  - Simplified remote controller



# The New iLoiLo City Hall



Image



## Application Issue

- Energy evaluation in comparison with Chiller.
- Previous building is using chiller.

## Reference Site

<b>Project</b>	The New iLoiLo City Hall
<b>Location</b>	iLoiLo City, Philippines
<b>Date of Completion</b>	December, 2011
<b>Size</b>	7 floors
<b>Value</b>	0.5M US\$

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	600HP
IDU	4 Way	550HP
Control	S-Net Mini controller	

- Management of air conditioning system
  - S-Net Mini controller

## **3. the Middle East**

# Mall of Istanbul



Image



## Application Issue

- PC based centralized control system
  - S-Net 3 & DMS
  - Function : Monitoring & operation
- Power distribution : SiM, WHM

## Reference Site

Project	Mall of Istanbul
Location	Istanbul, Turkey
Date of Completion	2012
Size	762,000 m2
Value	M US\$

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS IV	108 EA / 2,080 HP
IDU	Slim Duct	2,136 EA
Control	S-Net 3, DMS, Power distribution with SiM	

- Countermeasures of region with high humidity
  - Reinforced insulator

# AJMAN One



## Image



## Application Issue

- Design machine room
  - Louver for better air circulation
  - Exhaust fan and SVC space for

## Reference Site

Project	AJMAN One
Location	Ajman, UAE
Date of Completion	2012
Size	Twelve towers, 26 floors
Value	3.7M US\$

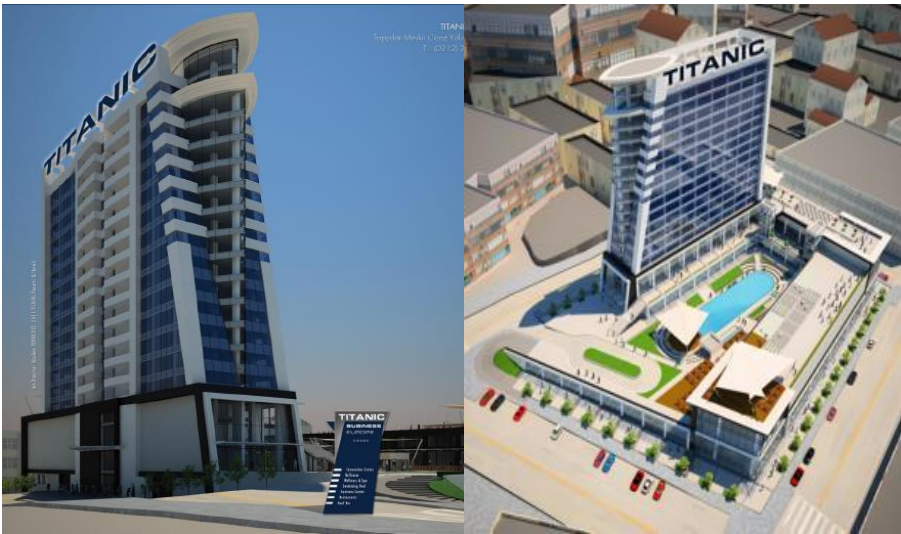
## Equipment Selection

Classification	Type	Q'ty / HP
ODU	CAC Camel	6,754 EA
IDU	MSP Duct	6,754 EA
Control	Wired remote controller	

- The Biggest CAC Ref. Site in the GCC Countries.
- Oil trap & additional accumulator



# Titanic Hotel



Image

## Reference Site

Project	Titanic Hotel
Location	Istanbul, Turkey
Date of Completion	2012
Size	331 Rooms
Value	1.2M US\$

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS IV	
IDU		
Control		

## Application Issue

- Management of air conditioning system
    - Integrated and centralized control system
    - DMS : PC, Web based centralized control system
    - Monitoring & Operation
- Interior design

# SBG Plaza



## Reference Site

<b>Project</b>	SBG plaza
<b>Location</b>	Muscat, Oman
<b>Date of Completion</b>	2012
<b>Size</b>	3700Ton
<b>Value</b>	1.6M US\$

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
CAC	MSP Duct (60K)	1500 EA
RAC	RAC (18K)	500 EA
Control		

## Application Issue

- Power distribution
  - Local pulse type watt hour meter

- Interior design
  - Compact ducted units

# Braka Nuclear Power Plant



Image

## Reference Site

Project	Braka Nuclear Power Plant
Location	Braka, UAE
Date of Completion	2011
Size	
Value	1.25M US\$

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM+3 High	137 EA
IDU	4way, MSP Duct	214 EA
Control	Centralized controller, DMS, S-Net Mini	

## Application Issue

- Management of air conditioning system
  - Easy Control : S-NET Mini with touch screen
  - Simplified remote controller

- Power distribution
  - Local pulse type watt hour meter





# Dead Sea Lagoon Hotel



## Reference Site

<b>Project</b>	Lagoon Hotel
<b>Location</b>	Dead Sea, Jordan
<b>Date of Completion</b>	2011
<b>Size</b>	
<b>Value</b>	US\$

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM+3 High	44
IDU	Duct	760
Control	S-NET 3	

## Application Issue

- Management of air conditioning system
  - Integrated and centralized control system
  - S-Net 3 : PC, Web based centralized control system
  - Monitoring & Operation
- Interior design
  - Compact ducted units



## Seasons Community



Image



### Application Issue

- Management of air conditioning system
  - Simplified remote controller

### Reference Site

Project	Seasons Community
Location	UAE
Date of Completion	2009~2012
Size	365 Flats
Value	US\$

### Equipment Selection

Classification	Type	Q'ty / HP
ODU	CAC	694 EA
IDU	MSP Duct	694 EA
Control	Wired remote controller	

- Interior design
  - Compact ducted units

# Glozny



## Reference Site

<b>Project</b>	Glozny
<b>Location</b>	Glozny, Chechnya
<b>Date of Completion</b>	2011
<b>Size</b>	4.5-hectar (5 building)
<b>Value</b>	1.86M US\$

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM +3, Mini DVM, FJM	5248HP
IDU	1 Way / Duct	3526EA
Control	DMS, On/Off	

## Application Issue

- Management of air conditioning system
  - Integrated and centralized control system
  - DMS : PC, Web based centralized control system
  - Monitoring & Operation

- Hotel, Shopping center, swimming pool, restaurant

# Princess Resort



## Reference Site

Project	Princess Resort
Location	Izmir, Turkey
Date of Completion	2004
Size	
Value	\$

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS	
IDU	Duct Type	
Control		

## Application Issue

- Management of air conditioning system
  - Simplified remote controller
- Interior design
  - Compact ducted units

## 4. Africa



# English Point Marina



Image



## Application Issue

- Management of air conditioning system
  - Integrated and centralized control system
  - S-Net 3 : PC, Web based centralized control system
  - Monitoring & Operation

## Reference Site

Project	English Point Marina
Location	Mombasa, Kenya
Date of Completion	2011. May (Start)
Size	1056HP
Value	\$ 0.7 M

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM+3	1056HP
IDU	4Way CST, Duct, RAC	734 ea
Control	S-NET 3	

- Cooling Efficiency
- Anti- Corrosion performance

# The Houghton



## Reference Site

<b>Project</b>	The Houghton
<b>Location</b>	Johannesburg, South Africa
<b>Date of Completion</b>	2012. Mar (Start)
<b>Size</b>	440 HP
<b>Value</b>	\$ 469 K

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM+4 HR	440HP
IDU	Duct	198 ea
Control	S-Net 3, DMS2	

## Application Issue

- PC based centralized control system
  - S-Net 3 & DMS 2
  - Function : Monitoring & operation

- Energy Efficiency of product
- Relationship with client.
- Design support

## NEW CBD



## Image



## Application Issue

- Management of air conditioning system
  - Simplified remote controller
- Interior design
  - Compact ducted units

## Reference Site

<b>Project</b>	NEW CBD
<b>Location</b>	Gaborone, Botswana
<b>Date of Completion</b>	2012. Feb (Start)
<b>Size</b>	928 HP
<b>Value</b>	\$ 475 K

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM+4	928HP
IDU	Big Duct, 4W CST	119 ea
Control		

- Office Building + Shopping Mall
- Design support

# TIWI Luxury Villa



Image



## Application Issue

- Management of air conditioning system
  - Wired remote controller
- DVM mini Line-up
- Design / SVC support

## Reference Site

Project	TIWI Luxury Villa
Location	Mombasa, Kenya
Date of Completion	2012. Apr (Start)
Size	108 HP
Value	\$ 190 K

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM Mini	108HP
IDU	Slim Duct, Wall Mounted	
Control	Wired remote controller	

- Interior design
  - Compact ducted units, Wall Mounted RAC



## **5. South West Asia**

# Yoo Pune



## Image



## Application Issue

- Individual Control System
- Wired Remote Controller

## Reference Site

Project	Yoo Pune
Location	Pune, India
Date of Completion	2014 (On construction)
Size	
Value	2.2M\$

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS IV	EA
IDU	1 Way Cassette	EA
Control	Wired remote controller	

- Landmark

# DLF Park Tower



Image



## Application Issue

- Individual Control System
- Wired Remote Controller

## Reference Site

Project	DLF Park Tower, Park Height
Location	Gurgaon, India
Date of Completion	2012
Size	1975 - 2704 Sq.Ft.
Value	4.3M\$

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	1,611 EA
IDU	4 Way Cassette, RAC	10,018 EA
Control	Wired Remote Controller	

- The Largest contract amount in India

## 6. Korea



# SAMSUNG Electronics Seocho Office



Image

## Reference Site

<b>Project</b>	SAMSUNG Electronics Seocho Office
<b>Location</b>	Seoul, Korea
<b>Date of Completion</b>	2008
<b>Size</b>	195,438 m <sup>2</sup> (42F ~ B8F)
<b>Value</b>	

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS II / DVM Water	75 / 71EA
IDU	LSP DUCT (11 ~14kW)	788 EA
Control	BMS	



## Application Issue

- Management of air conditioning system
  - Centralized controller
- Special room temperature control : 0.1°C deviation

- Application of Mixed HVAC in Office Building
  - AHU : 60% (Central)
  - DVM : 40% (Individual)

# Tower Palace



## Image



## Application Issue

- Management of air conditioning system
  - Integrated and centralized control system
  - DMS : PC, Web based centralized control system
  - Monitoring & Operation

## Reference Site

<b>Project</b>	Tower Palace
<b>Location</b>	Seoul, Korea
<b>Date of Completion</b>	2004
<b>Size</b>	A group of Seven Towers 42-72 Floors
<b>Value</b>	39.4M\$

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM	3,614 EA
IDU	1 Way, 4 Way CST, Duct	17,731 EA
Control	Centralized Controller, DMS, S-Net 3	

- Specific air discharge structure for skyscrapers
- Minimize installation space
- Low-noise design

# Hannam The Hill Town



## Reference Site

Project	Hannam The Hill Town
Location	Seoul, Korea
Date of Completion	2011
Size	A group of 32 towers, 12 floors
Value	-

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS IV / SLIM	442
IDU	Cassette	2,950
Control	Centralized controller, Home Network	

## Application Issue

- Management of air conditioning system
  - Centralized controller
  - Easy Control : Integrated home network interlock with air-conditioner

- CFD analysis for indoor selection & location



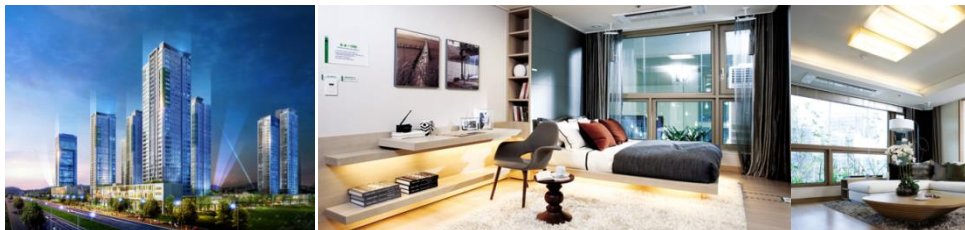
# Songdo WorldMark



## Reference Site

Project	Songdo World Mark
Location	In-cheon, Korea
Date of Completion	2010
Size	A group of 10 towers, 45 floors
Value	

## Image



## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM Water, DVM+4	382
IDU	1 Way / 2 Way / 4 Way	2,388
Control	Centralized controller, Home Network	

## Application Issue

- Management of air conditioning system
  - Centralized controller
  - Easy Control : Integrated home network interlock with air-conditioner





# Soowan Noble Land 13 Block



Image



## Application Issue

- Management of air conditioning system
  - Centralized controller
  - Easy Control : Integrated home network interlock with air-conditioner

## Reference Site

Project	Soowan Noble Land 13 Block
Location	Gwang-ju, Korea
Date of Completion	2011
Size	A group of 10 towers, 24 floors
Value	

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM+4, DVM Home	659
IDU	1 Way / 2 Way / 4 Way	1,977
Control	Centralized controller, Home Network	

# Jong-am SK View



Image



## Application Issue

- Management of air conditioning system
  - Centralized controller
  - Easy Control : Integrated home network interlock with air-conditioner

## Reference Site

Project	Jong-am SK View
Location	Seoul, Korea
Date of Completion	2011
Size	A group of 6 towers, 20 floors
Value	

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM+4	272
IDU	1 Way / 2 Way / 4 Way	942
Control	Centralized controller, Home Network	

# High-1 Resort



Image



## Application Issue

- Management of air conditioning system
  - Wired remote controller

## Reference Site

<b>Project</b>	High-1 Resort
<b>Location</b>	Gangwon-do, Korea
<b>Date of Completion</b>	2010
<b>Size</b>	A group of 10 towers, 45 floors
<b>Value</b>	-

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM+3 , DVM SLIM	596
IDU	1Way / 2W / 4W / Duct	1,952
Control	Room Controller	

- Interior design
  - Compact ducted units, Slim 1 Way Cassette



# Reesom Resort



## Image



## Application Issue

- Whole houses are equipped with SAC
- Management of air conditioning system
  - Simplified remote controller

## Reference Site

<b>Project</b>	Reesom Resort
<b>Location</b>	Chung-cheong, Korea
<b>Date of Completion</b>	2011
<b>Size</b>	50 Private Villa & 1 Hotel Bldg.
<b>Value</b>	-

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM+4	114
IDU	1Way / 2W / 4W / Duct	1,224
Control	Room Controller	

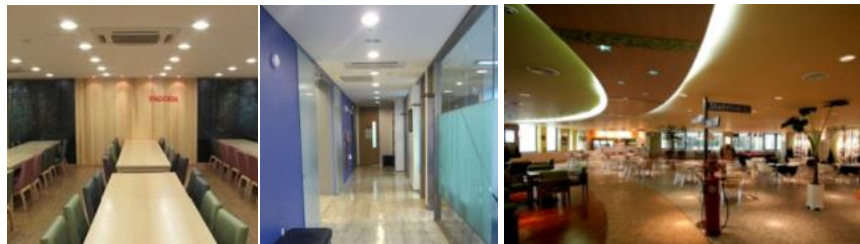
- Interior design
  - Compact ducted units, Slim 1 Way Cassette



# Jongro Pagoda Eng Institute



Image



## Application Issue

- PC based centralized control system
  - S-Net 3 & DMS 2
  - Function : Monitoring & operation
  - Fully working during open hour (8AM ~ 10PM)

## Reference Site

<b>Project</b>	Jongro Pagoda Eng Institute
<b>Location</b>	Seoul, Korea
<b>Date of Completion</b>	2011
<b>Size</b>	14 floors
<b>Value</b>	-

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS IV	36
IDU	Cassette	329
Control	DMS 2 , S-NET3	

# Jamsil Parkrio



Image



## Application Issue

- ODU Installation Space
  - Group installation on the rooftop

## Reference Site

<b>Project</b>	Jamsil Parkrio
<b>Location</b>	Seoul, Korea
<b>Date of Completion</b>	July, 2008
<b>Size</b>	5 floors
<b>Value</b>	0.5M US\$

## Equipment Selection

Classification	Type	Q'ty / HP
ODU	DVM PLUS III	45
IDU	Cassette	352
Control	DMS	

- Noise from ODU
  - Installation of soundproofing walls

A close-up photograph of two hands shaking in a firm grip. The hands are wearing dark grey or black suit sleeves. The background is a soft, out-of-focus light grey. Overlaid on the image is the Samsung logo at the top and the text 'Thank you' in the center.

**SAMSUNG**

***Thank you***