2-2. System controller lite (UTY-ALGXZ1)

System controller lite is advanced software of central controller for small and medium buildings. It can be supported by additional options such as electricity charge apportionment, remote monitoring, and energy saving in order to meet your demands.

- Supports 1 VRF network system and maximum of 400 controllable indoor units.
- Various high level functions from individual control to annual schedule management, operation history, and error history management.
- Corresponds to 7 different languages. (English, Chinese, French, German, Spanish, Russian, and Polish)
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface and personal computer are locally purchased items.
- Units status can be monitored and operated for each site, group, or unit.*

*: 2D floor layout/3D building display are not available. If you need these functions, use System controller.
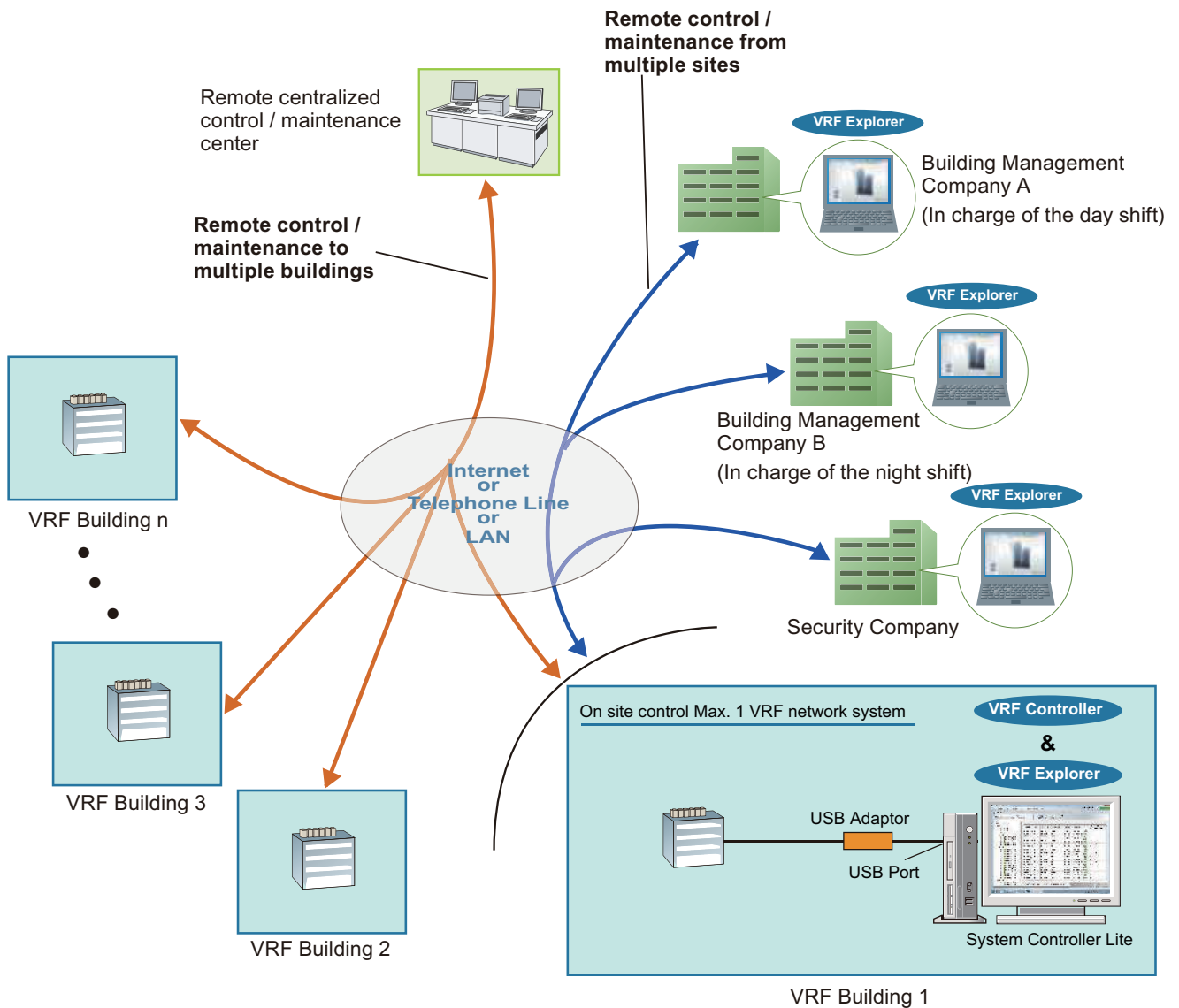
■ Accessory

Name and shape	Q'ty	Application
WHITE-USB-KEY (software protection key with software)	1	Software protection key to be connected to an USB port on the PC that System controller is installed. System controller runs only on a PC with this WHITE-USB-KEY. However, this WHITE-USB-KEY is not required for remote VRF Explorer software.

■ Available option

Option	Model name	Remark
Electricity charge apportionment option	UTY-PLGXA2	Apportions the power used by indoor and outdoor units, and automatically calculation the electricity charge such as for hotels or multi-tenant buildings. Computation linked with an electric meter is also possible.
Remote access option	UTY-PLGXR2	VRF system can be monitored remotely from multiple PCs. Multiple VRF systems can be controlled or monitored from 1 PC.
Energy saving option	UTY-PLGXE2	A variety of energy saving operations can be set and managed depending on the season, weather, and time period.
Prepaid air conditioning	UTY-PLGXP2	Prepaid management of VRF air conditioner is performed and collection of charge for air conditioning is supported for building administrator.
External device control	UTY-PLGXX2	By enabling central control by third-party external device, burden on maintenance and administration of the devices by the building administrator is reduced.

CONTROL SYSTEM

■ System diagram

- System controller lite may be used on site or remotely over various networks for remote central control.*
- System controller lite consists of VRF Controller software and VRF Explorer software, both software are working together.
- VRF Controller software runs in the background and communicate with VRF System.
- VRF Explorer software provides user interface and communicate with VRF Controller.
- VRF Controller and VRF Explorer software may run in a single PC or in different PCs separated by network.*
- VRF Explorer software does not require WHITE-USB-KEY (Software protection key).

*: Remote access option (UTY-PLGXR2) is necessary.

Remote control / maintenance from multiple sites

Remote centralized control / maintenance center

VRF Explorer

Building Management Company A
(In charge of the day shift)

Remote control / maintenance to multiple buildings

VRF Explorer

Building Management Company B
(In charge of the night shift)

VRF Explorer

Security Company

Internet or Telephone Line or LAN

VRF Building n

VRF Building 3

VRF Building 2

On site control Max. 1 VRF network system

VRF Controller

&

VRF Explorer

USB Adaptor

USB Port

System Controller Lite

VRF Building 1

■ Software configuration

- **Any number can be installed in remote site personal computers.**
  - System controller lite (UTY-ALGXZ1) can be installed in the local site PCs (VRF controller) connected to the VRF network system.
  - Multiple remote site PCs (VRF explorer) can be connected to VRF controller via Internet or LAN. Just this single product creates the control, management, and monitoring environment for the customer's properties including remote operation.

  NOTES:
  - WHITE-USB-KEY is not required for PCs on the remote site.
  - Some function, such as equipment registration and input/output are invalid on the remote site.

- **Optional software to strengthen various function**
  - Electricity charge apportionment function can be added by installing optional UTY-PLGXA2.
  - Remote centralized control function can be added by installing optional UTY-PLGXR2.
  - Energy saving management function can be added by installing optional UTY-PLGXE2.
  - Prepaid management function can be added by installing optional UTY-PLGXP2.
  - External device control function can be added by installing optional UTY-PLGXX2.

■ Other required devices (Locally purchased)

- Personal computer that satisfies the following system requirements

Personal computer system requirement	
Operating system	• Microsoft Windows 7 Home Premium (32-bit or 64-bit) SP1 • Microsoft Windows 7 Professional (32-bit or 64-bit) SP1 • Microsoft Windows 8.1 (32-bit or 64-bit) • Microsoft Windows 8.1 Pro (32-bit or 64-bit) • Microsoft Windows 10 Home (32-bit or 64-bit) • Microsoft Windows 10 Pro (32-bit or 64-bit) Supported languages: English, Chinese, French, German, Russian, Spanish, and Polish
CPU	Intel Core i3 2 GHz or higher
Memory	• 2 GB or more (for Windows 7 [32-bit]) • 4 GB or more (for Windows 7 [64-bit], Windows 8.1, and Windows 10)
HDD	40 GB or more of free space
Display	1,024 × 768 or higher resolution
Interface	• Ethernet port (for getting access to the Internet using LAN) or Modem (for getting access to the Internet using public telephone line) • USB ports (Maximum of 2 ports) (Required only for the server PC that works as VRF controller) – 1 USB port is required for WHITE-USB-KEY connection – 1 USB port is required for Echelon U10 USB Network Interface NOTE: Maximum number of required USB ports depends on the applicable system configuration.
Graphic accelerator	Microsoft DirectX 9.0c compatible
Software	Adobe Reader 9.0 or later

- Echelon U10 USB Network Interface – TP/FT-10 Channel (Model number: 75010R) (Required for each VRF network)

■ Specification summary

Type	Function	UTY-AL-GXZ1	UTY-PLGXA2 (Option)	UTY-PLGXR2 (Option)	UTY-PLGXE2 (Option)	UTY-PLGXP2 (Option)	UTY-PLGXX2 (Option)	Remark
System specification	Max. system controller per VRF network	1	—	—	—	—	—	
	Max. VRF networks supported	1	—	—	—	—	—	
	Max. indoor units/remote controller groups per VRF network	400	—	—	—	—	—	
	Max. indoor units/remote controller groups per system controller	400	—	—	—	—	—	4 VRF networks
Site supervision	Multiple site display	10	—	—	—	—	—	
	2D/3D graphical layout view	—	—	—	—	—	—	
	List display	●	—	—	—	—	—	Quick control from display available
	Tree display	●	—	—	—	—	—	Quick control from display available
Operation control	Individual — Start/Stop, Operation mode, Room temperature	●	—	—	—	—	—	
	Fan speed, Airflow direction	●	—	—	—	—	—	
	Economy mode	●	—	—	—	—	—	
	Antifreeze	●	—	—	—	—	—	
	Remote control prohibition setting	●	—	—	—	—	—	
	Temperature upper and lower limit setting	●	—	—	—	—	—	
	Filter sign reset	●	—	—	—	—	—	
	Human sensing	●	—	—	—	—	—	
	Schedule — Annual schedule	●	—	—	—	—	—	Week of year, day of month, day of week setting Holiday special day settings
	Low noise mode weekly schedule	●	—	—	—	—	—	Outdoor unit control only
	Group management — Number of groups	400	—	—	—	—	—	
	Group in group	3 levels	—	—	—	—	—	Level 1—2—3
	Max. overlap definitions	400	—	—	—	—	—	1 unit may belong to up to 400 groups.
	Auto generation	●	—	—	—	—	—	By site, building and floor
	Others — Memory operation	●	—	—	—	—	—	Operation pattern memorized and reused.
	Pattern operation	●	—	—	—	—	—	Reuse operation pattern once used.
Operation status monitoring	Controlled status	●	—	—	—	—	—	See items controlled by operation.
	Special operation	●	—	—	—	—	—	Defrost, oil recovery
Room temperature	Room temperature	●	—	—	—	—	—	*
Error management	Error notification	●	—	—	—	—	—	
	Audible alarm	●	—	—	—	—	—	
	Error e-mail notification	●	—	—	—	—	—	
History management	Error history	1 year	—	—	—	—	—	
	Operation history and status history	1 year	—	—	—	—	—	
Energy saving management	Indoor unit rotation	—	—	—	●	—	—	
	Outdoor unit capacity save	—	—	—	●	—	—	
	Peak cut control	—	—	—	1 month	—	—	
	Power consumption monitor	—	—	—	●	—	—	
	Electricity meters supported	—	—	—	200	—	—	Outdoor unit required per connection.
	Power consumption information	—	—	—	3 years	—	—	
Electricity charge apportionment	Apportionment charge calculation	—	●	—	—	—	—	
	Apportionment charge bill creation	—	●	—	—	—	—	
	Tenant (block) setting	—	1,600	—	—	—	—	
	Common facilities apportionment setting	—	●	—	—	—	—	
	Rated power consumption allotment setting	—	●	—	—	—	—	
	Electricity meters supported	—	200	—	—	—	—	Same meters used for energy saving.
	Electricity charge apportionment period	—	2 years	—	—	—	—	
	Prepaid air conditioning	—	—	—	—	●	—	
	Cooling and heating information	—	●	—	—	—	—	
Remote control	Internet, telephone line support	—	—	●	—	—	—	
	Max. client connection per server	—	—	5	—	—	—	
	Max. host connection from client	—	—	10	—	—	—	
	Data encryption	—	—	●	—	—	—	SSL used.
Others	External device control function	—	—	—	—	—	●	
	Web operation	●	—	—	—	—	—	
	User control	●	—	—	—	—	—	Authorization level setting
	Database import/export (manual)	●	—	—	—	—	—	
	Periodical backup	●	—	—	—	—	—	
	The refrigerant systems of non-operation status function	●	—	—	—	—	—	
	Auto start setting	●	—	—	—	—	—	
	Multiple language display	●	●	●	●	—	—	English, Chinese, French, German, Spanish, Russian, Polish
	Floor layout editor	●	—	—	—	—	—	
	Floor layout import/export	●	—	—	—	—	—	
	Online software update	●	—	—	—	—	—	

NOTES:

- *: To display room temperature on monitor, connect wired remote controller to indoor unit and perform function setting for detecting temperature using mounted sensor.
- In S and V series, there are some unusable functions, such as energy saving function and electricity meter use.
- The electricity charge apportionment function of VRF system can only be performed from one equipment simultaneously.

CONTROL SYSTEM

CONTROL SYSTEM