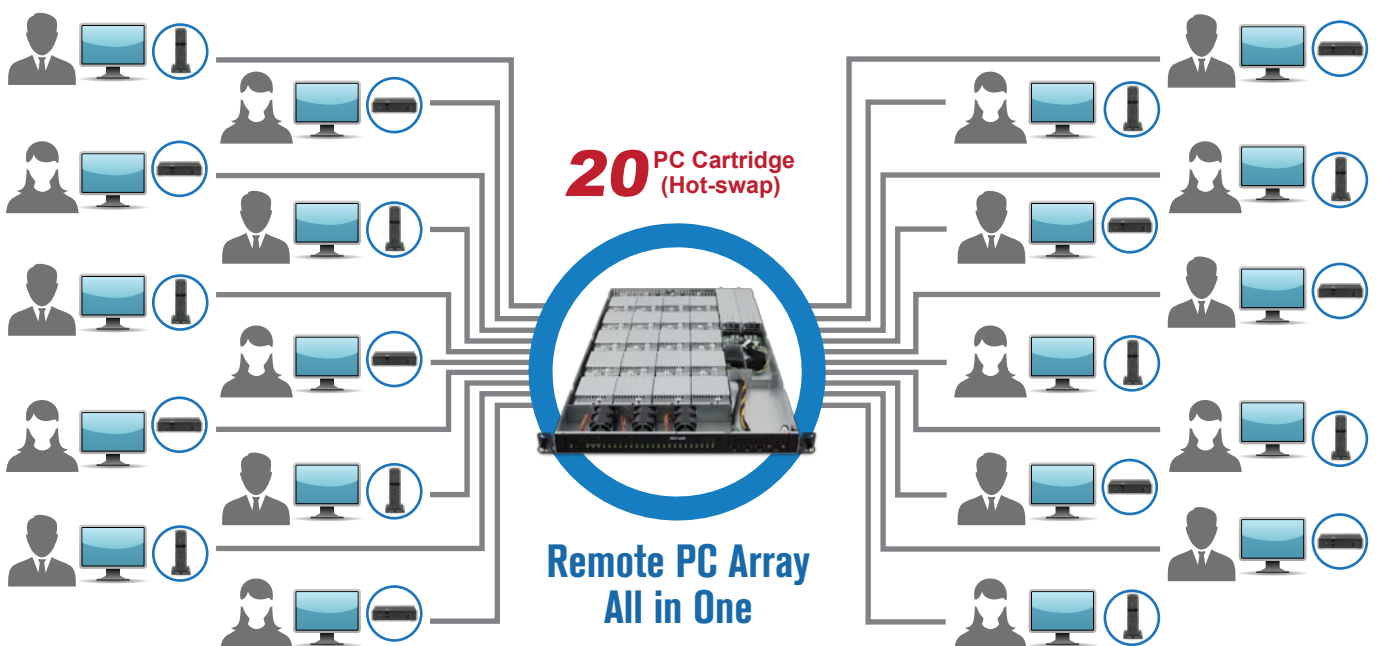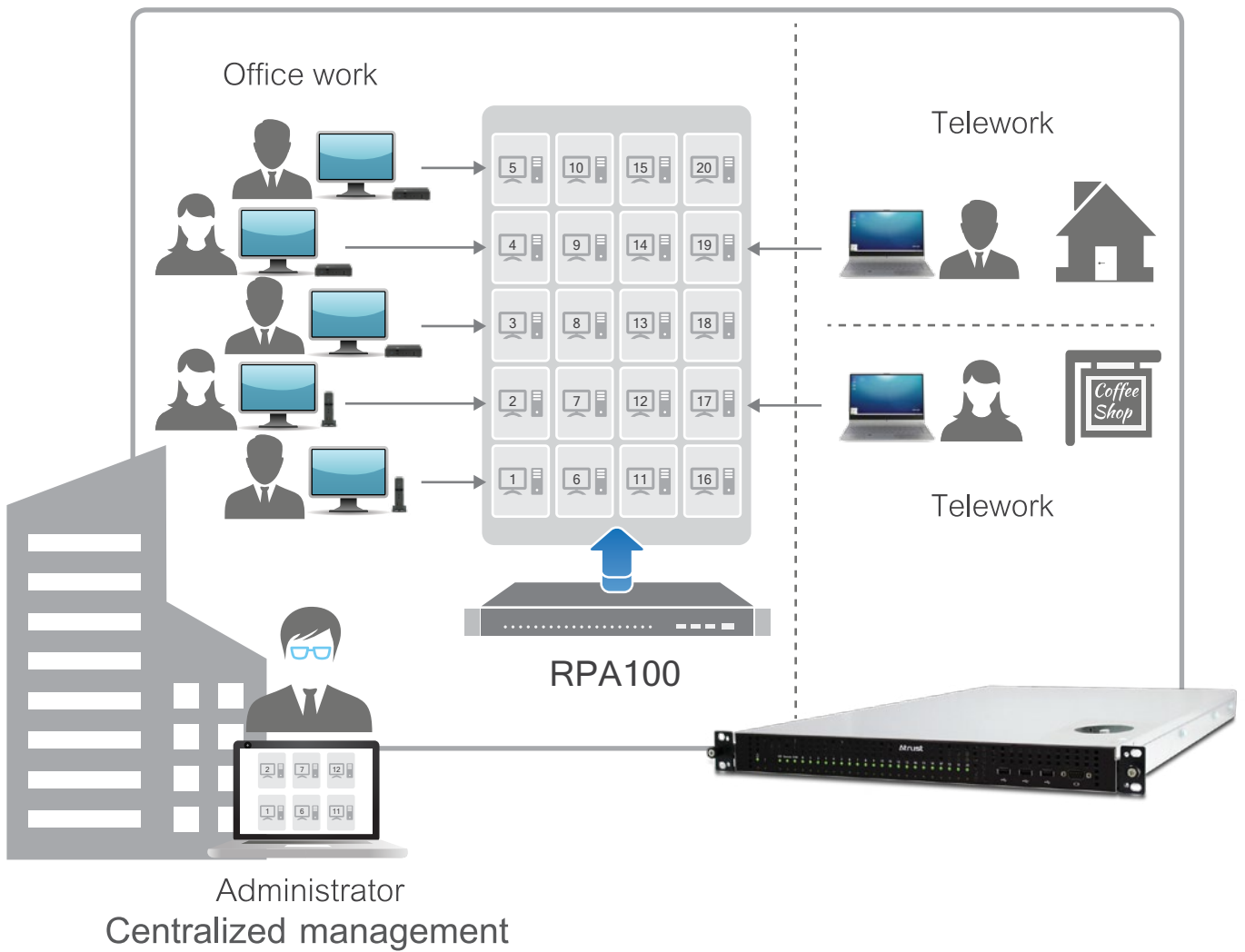# Atrust

Remote PC Array
RPA100

In the Remote PC Array (RPA), 20 physical PC cartridges are mounted in a 1U housing. It provides all of the necessary CPU, memory, storage (SSD), network switch and management software to get the work done.

Designed on a physical PC for remote connection, no hypervisor is required. This will dramatically shorten the cost of the infrastructure part as well as the design and construction period. It significantly reduces the cost of the entire virtual desktop system and solves many challenges traditional virtual desktops face.

20 PC Cartridge (Hot-swap)

Remote PC Array All in One

Office work

5 10 15 20
4 9 14 19
3 8 13 18
2 7 12 17
1 6 11 16

Telework

Telework

Coffee Shop

RPA100

2 7 12
1 6 11

Administrator
Centralized management

ACM - Atrust Chassis Manager

Power supply 2
Input 78 watts   Output 62 watts

Power supply 1
Input 60 watts   Output 51 watts

System S/R: RPA100B123456
Intrusion: Chassis is closed
Switch #1 temperature: 46°C
Switch #2 temperature: 42°C
Redundant power supply: Success

ACM can manage multiple RPA simultaneously and support GUI or CLI (SSH) for administration.

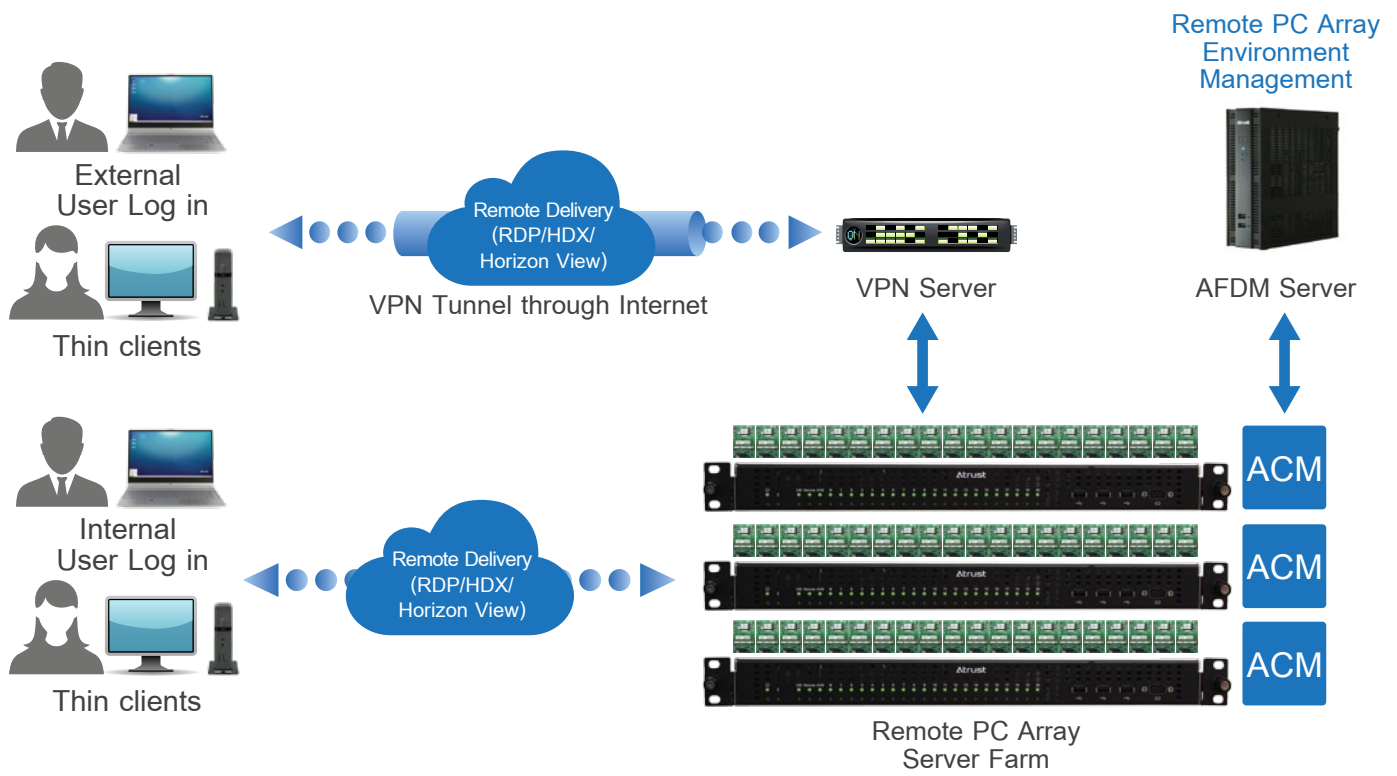### Switch and Chassis Management

- CPU, PSU and FAN Status
- Temperature monitoring
- Chassis Failure Email Notification
- Firmware Upgrade and Version
- User Account Management
- ACM Management (IP Setting)
- Switch Setting
- SNMP Trap

PC Cartridges Management

- Power On/Off
- Shut Down/ Reboot OS
- Join Domain
- Change Hostname
- Change IP/Gateway Settings

44 port
Network Switch

Hot Swappable
Fan

Redundant
550W
Power Supply

**Remote PC Array
All in One**

KVM Switch

WiFi 🌐 LAN

PC Cartridge with
Windows 10 Pro / 11 Pro

Atrust Thin Client

CPU

Memory

SSD

Remote PC Array Topology

External
User Log in

Thin clients

Remote Delivery
(RDP/HDX/
Horizon View)

VPN Tunnel through Internet

VPN Server

Remote PC Array
Environment
Management

AFDM Server

Internal
User Log in

Thin clients

Remote Delivery
(RDP/HDX/
Horizon View)

Remote PC Array
Server Farm

ACM

ACM

ACM

On-premise VDI deployment barrier

1 Initial Installation Cost

2 Design and Deployment Time

3 Unexpected Performance Issues

4 Unexpected Increased Maintenance and Operation Cost
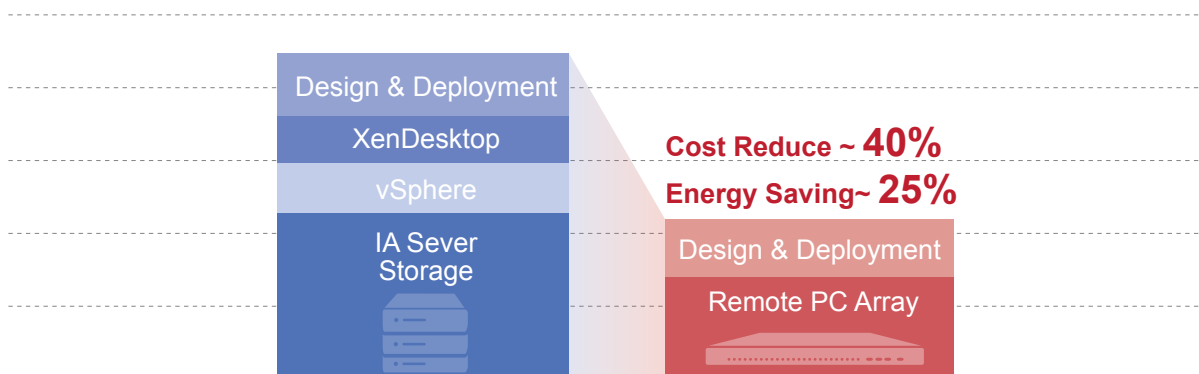
5 System Expansion

6 Microsoft VDA License Cost

Atrust

Atrust Remote PC Array Can Help

Initial Cost

Standard Cost comparison between VDI and RPA (Example: 300 users in Japan)

Design & Deployment	
XenDesktop	**Cost Reduce ~ 40%**
vSphere	**Energy Saving~ 25%**
IA Sever Storage	Design & Deployment
	Remote PC Array

Prerequisites:

VDI: Use vSphere as Hypervisor
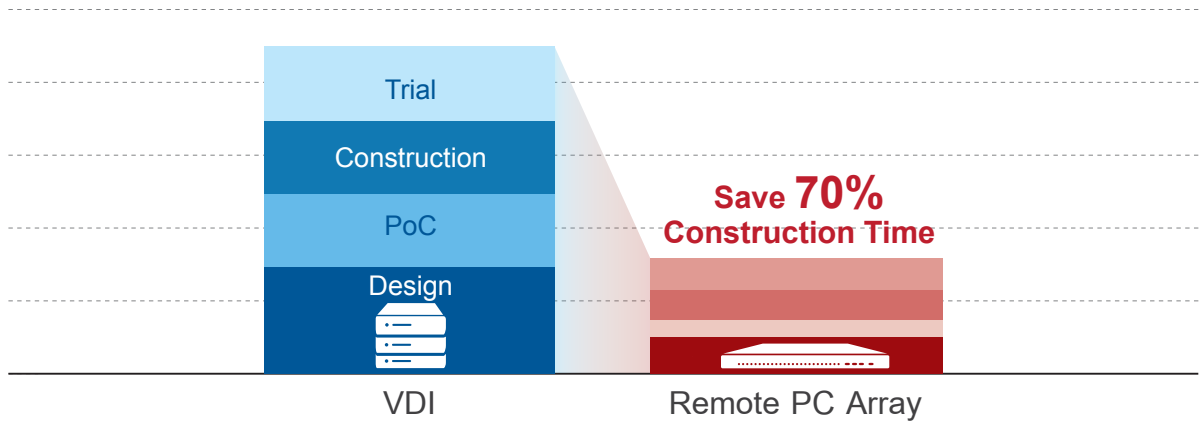   Use Citrix XenDesktop as VDI Solution
      Microsoft Windows 10 Pro license and VDA license are not included in the above cost

RPA: Use N2807, 4G RAM and 64GB SSD

*Maintenance cost not included for both VDI and RPA

Shorten Design and Construction Time

No need for hypervisor and performance sizing, shortening by about 70% compared to general VDI design and construction period.

Trial	
Construction	**Save 70%**
PoC	**Construction Time**
Design	
VDI	Remote PC Array

Comparison of construction period of general VDI and Remote PC Array

Unexpected Performance Issues

Potential VDI Performance Issues

- Big loading at a specific short time
- Bugs in virtualization software such as Hypervisor

Remote PC Array eliminates the possible VDI performance issues

- Fixing user resources
- Not interfered with other users
- No virtualization software needed
- Shorten the issue resolving time

Atrust Remote PC Array Can Help

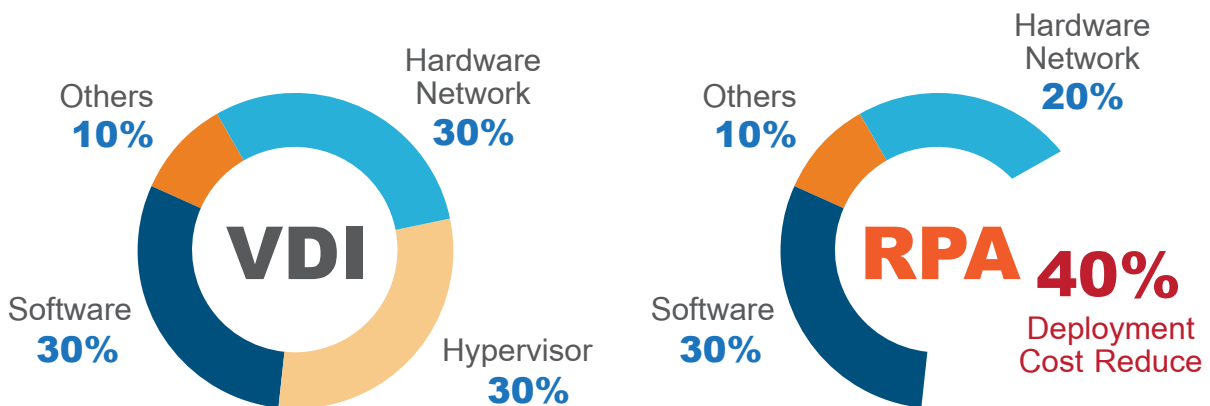## Maintenance and Operation Cost

Remote PC Array is Easy for Maintenance

Troubleshooting :

Step 1 Power on and off, checks PC cartridge status remotely

Step 2 PC cartridges can be easily removed through Thumb Screw without powering off the Chassis

Comparison of Maintenance and Operation Cost of VDI and Remote PC Array

VDI

Others **10%**
Hardware Network **30%**
Software **30%**
Hypervisor **30%**

RPA

Others **10%**
Hardware Network **20%**
Software **30%**
40% Deployment Cost Reduce

System Expansion

Expansion Work in VDI is Complicated

- Not easy to plan resources needed in advance for the future expansion
- Expansion design and deployment are complicated

Expansion Work in Remote PC Array is Simple and Cost Saving

- Just increase the number of PC cartridge according to the number of new users
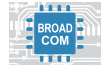- Minimize the downtime

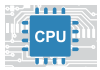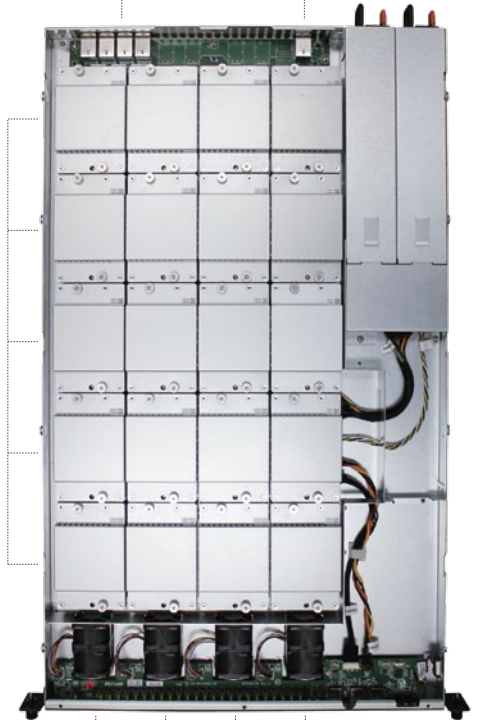### Atrust Remote PC Array Can Help

Remote PC Array - RPA100

Rear

4 X GbE LAN Port

2 X 550W Power supply (Redundancy)

1 X GbE Management Port

CPU

20 PC Cartridge (Hot-swap)

736 mm

430 mm

4 X System Fan

43.8 mm

Front

Chassis	
Dimensions	1U (W) 430 x (H) 43.8 x (D) 736.6 mm
Weight	16.7 kg (Approximate) (Including 20 Cartridges Fully Loaded, 2 Power Supplies Installed)
Built-in Component	20 x Cadtridge, 1 x KVM Switch, 1 x Ethernet Switch, 1 x Local Management Console
Power	2 x 550W Hot-Swap
Operating Humidity (Rh)	10% ~ 90% (Non-Condensing)
Operating Temperature	0℃ ~ 35℃
I/O Ports	Front : 1 x VGA, 3 x USB 2.0 Rear : 4 x 1GbE (RJ-45), 1 x (RJ-45) Management Port
Cardtridge	
Supported OS	Microsoft Windows® 10 Pro Microsoft Windows® 11 Pro
Processor	Intel ® Core i3-1115G4 Dual Core 3.0GHz (Max Turbo 4.10 GHz)
Memory	8GB/16GB
Storage	128GB/256GB
Network	Dual GbE NIC Per PC Cartridge
Ethernet Switch	
Port	1 GbE 44 Port (Internal 40 Ports, External 4 Ports)
VLAN	Tag / Untag
LAG	Static, Dynamic (LACP)
Spanning-Tree	STP, RSTP, MSTP
Management	GUI, CLI