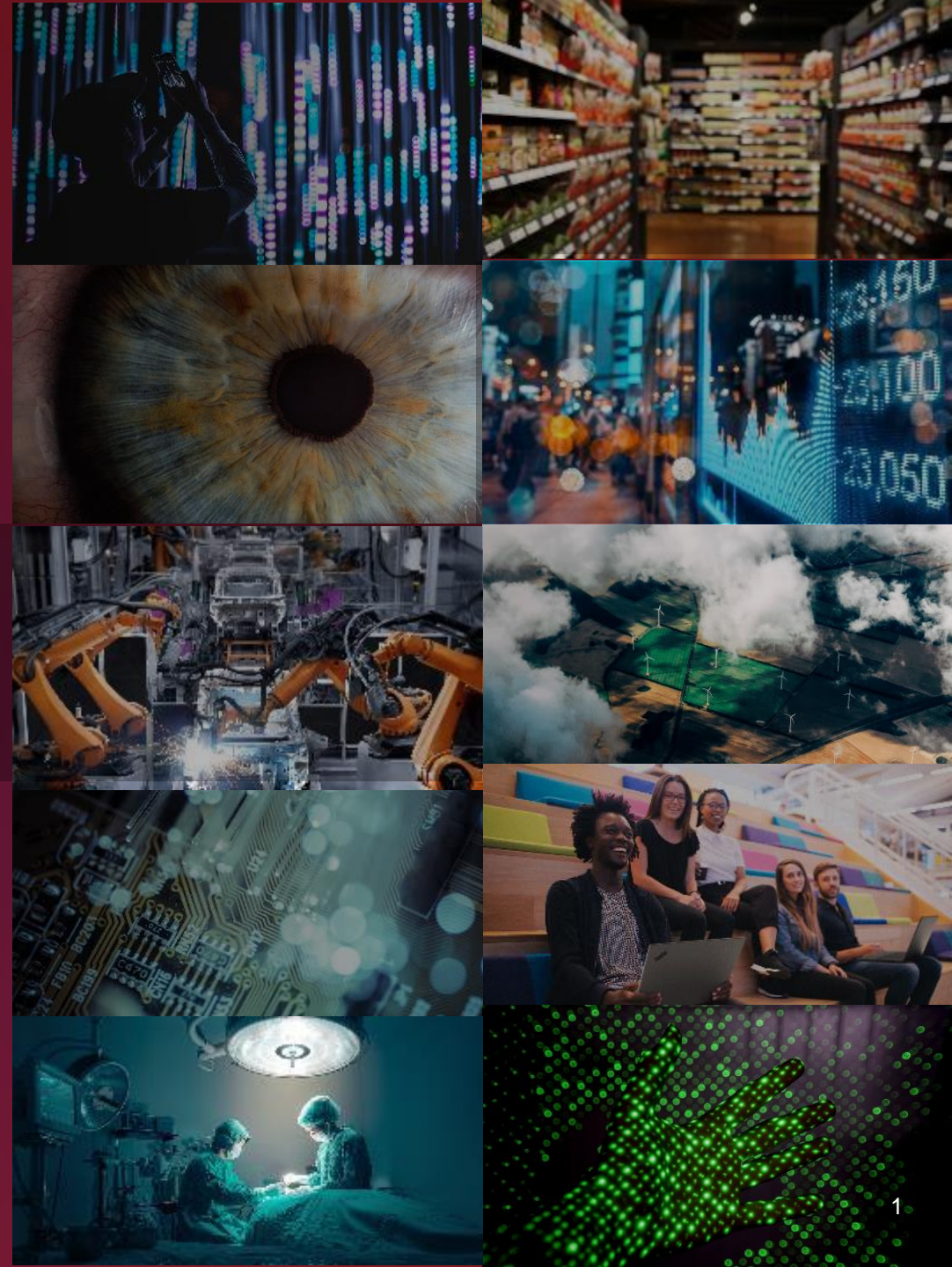


Smarter technology for all

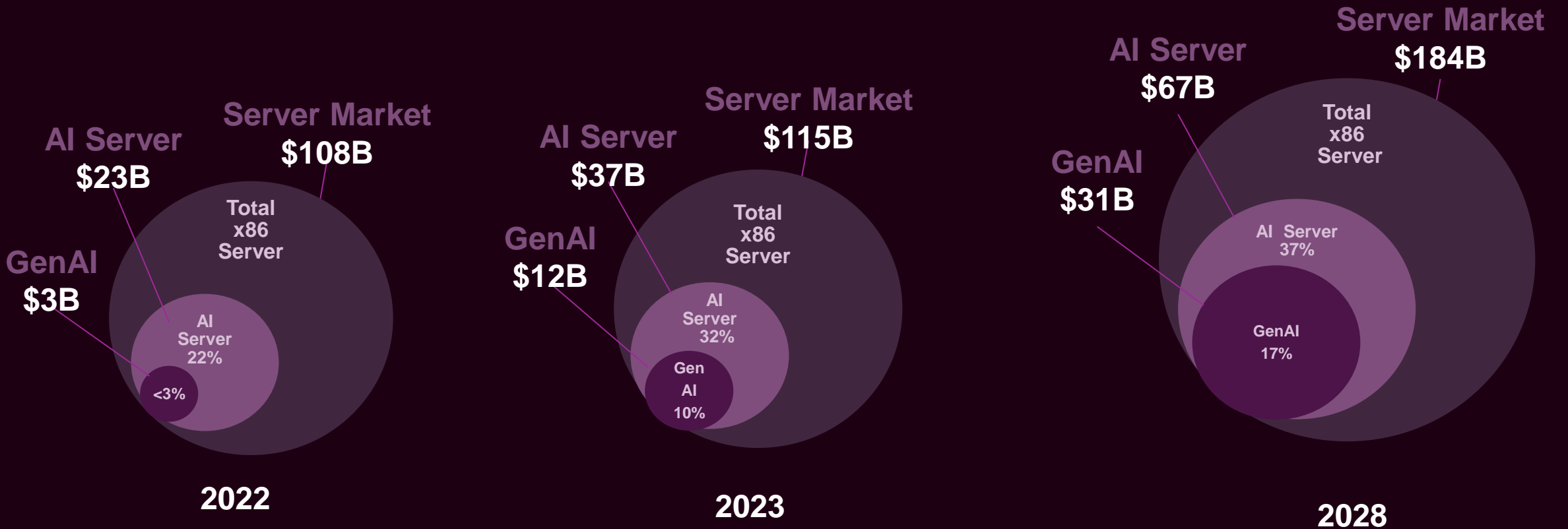


Bring AI to Everyone and Everywhere

客戶技術經理 Joshua Lai 賴嘉宏



AI - GenAI & LLMs 蓬勃發展



- Gen AI less than 3% of x86 spend

- Gen AI at 10% of the x86 market
- Approximately 33% of AI spend

- Gen AI will be
 - 17% of the overall server spend
 - 21% CAGR
 - >45% of the AI spend
- \$200B+ opportunity through 2028

Source : IDC, Gartner, ISG MI (April 2024)



45%

增加 AI 相關基礎設施和服務的支出

46%

認為 AI 將成為改變遊戲規則的力量

#4

生成式 AI 在 CIO 的技術優先清單中位居第四

69%

偏好在非公共雲環境中運行 AI 工作負載

45%

在招聘 AI 相關職位時遇到挑戰

新一波的AI創新為 各行各業的企業 帶來競爭優勢

製造業

- 預測性維護可減少高達 40% 的停機時間
- 品質控制 / 視覺檢測
- 生產線、自動化機器人與流程優化、數位孿生技術

零售業

- 到2035年，零售生產力提升高達 59%
- 自助結帳 / 損失預防
- 購物推薦 / 客戶互動參與售後服務

金融業

- 汽車貸款公司引入AI，每年減少23%的損失
- 詐欺偵測與威脅情資
- 個人化銀行業務 / 客戶服務

醫療業

- 到2025年，90%的醫院將採用AI驅動的技術來進行遠程病患監測和早期診斷
- 醫學影像/診斷治療
- 臨床決策支持 (CDS)

智慧城市

- 人流管理、停車系統
- 公共安全與身份鑑別管理
- 公共安全、交通管理 (AI 輔助執法)

將 AI 帶到您最需要的處理資料的所在之處

採用混合式方法，提供 – 口袋到雲端 – 端到端的解決方案

A man with glasses and a beard is sitting at a desk, looking at a laptop. The background is a blurred office environment.

Personal

A view through a large window into a modern office interior. The office has a red wall and several tables with chairs. The word "Private" is overlaid on the image.

Private

A night view of a city skyline with many illuminated buildings and a highway interchange. The word "Public" is overlaid on the image.

Public

Enriching Our Lives

Empowering Our Business

Connecting Our Worlds

Personal AI 應用場景



可使用自然互動與個人智能代理



個人化知識庫(LLM)



最佳化各種運算資源 (CPU/GPU/NPU)



與各種 AI 生態系結合



安全性及隱私性的保護



Lenovo AI Now Beta

Local Chat

Knowledge Assistant

PC Assistant

Cloud Chat

Explore

Knowledge Library

Manage + Import

Select All From ▾ Type ▾ Modified ▾ Label ▾

Name	From	Last Modified	Label
This is an example file	Local	Jun11,2024	
This is an example file	Cloud	Jun11,2024	
Mailbox	Mail	Jun11,2024	
This is an example file	Local	Jun11,2024	
This is an example file	Cloud	Jun11,2024	
This is an example file	Local	Jun11,2024	

Total 92 items < 1 ... 5 **6** 7 ... 10 > 10/page

Knowledge Assistant

Local AI mode

Hi there! Whether to [find information or get insight of knowledge library](#), I'm here to help.

You may ask

- Find the documents that contain [mention file name, author, type, key words...]
- Search for data about [topic] in the knowledge library

More

Enter '/' to ask with a text template.

— Your data won't be collected while using Local AI Mode. —

Lenovo AI Now Beta

Local Chat

Knowledge Assistant

PC Assistant

Cloud Chat

Explore

2025 G...doc Site Re...pdf ...

Knowledge Assistant PC Assistant

Enter '/' to ask with a text template.

Lenovo

AMD



<https://www.youtube.com/watch?v=RNDiqb880sk>



Enterprise AI



運行在多個終端設備與基礎設施中



持續訓練、優化與推論



確保資訊安全



提升效率與生產力

Lenovo

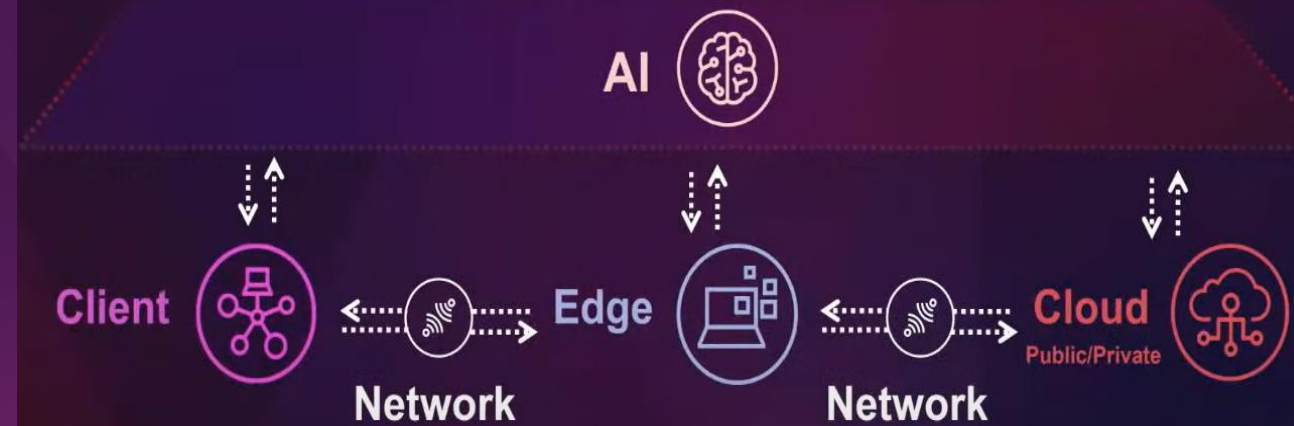
2024 Lenovo. All rights reserved.

Lenovo AI Library

Suite of ready-to-customize horizontal and vertical solution accelerators



Hybrid Infrastructure to support enterprise AI





Aifi Refresh
Aifi Build
Aifi To-Go



Dataloop Data Management Platform
Dataloop LIDAR
Dataloop Automation Platform



Evercheck Visual AI Platform
Everdoor Visual AI Platform
Evershelf Visual AI Platform



LabVista
UrbanVision
siteInsights
Vista Mart
Vista Karma
G-Safe



Supersonic
Eyecue
Digital Menu Boards



AI Human
AI Studio
AI Interview
AI Avatar



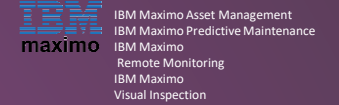
Infinia ML Document Processing



DeepChain
DeepPack
DeepPCB



Industrial Metaverse
Retail Metaverse



IBM Maximo Asset Management
IBM Maximo Predictive Maintenance
IBM Maximo
Remote Monitoring
IBM Maximo
Visual Inspection



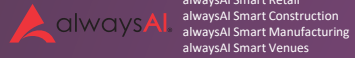
NearbyOne AI Platform



NR1 NAPU
NR1 M
NR1 S



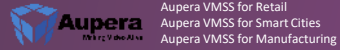
Sybble Automotive



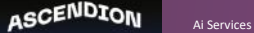
alwaysAI Smart Retail
alwaysAI Smart Construction
alwaysAI Smart Manufacturing
alwaysAI Smart Venues



Patient Room of the future
Operating room of the future
Clinic of the future
Command Center of the future
Assisted Living Facility of the future



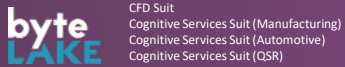
Aupera VMSS for Retail
Aupera VMSS for Smart Cities
Aupera VMSS for Manufacturing



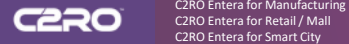
AI Services



Bikal AI Platform
Bikal AI Security
Bikal AI Services



CFD Suit
Cognitive Services Suit (Manufacturing)
Cognitive Services Suit (Automotive)
Cognitive Services Suit (OSR)



C2RO Entera for Manufacturing
C2RO Entera for Retail / Mall
C2RO Entera for Smart City



Corsight Fortify
Corsight RESTful API



Data Activation Platform
Edge to Cloud
Data Migrator



Vsphere
Aria UI



V7 Labs Labellig Platform



Video Surveillance as a Service AI Platform



StoreOS
EasyOut
EasyStock



StorMagic SvSAN



cnvrg.io platform



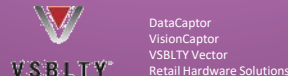
Deci AutoNAC



Robotics Process Automation
Computer Vision
Supervisory Control and Data
Acquisition System (SCADA)
Power Substation Automation (PSA)



WaitTime AI Platform



DataCaptor
VisionCaptor
VSBLTY Vector
Retail Hardware Solutions



Machine Listening Software



Vistry AI Drivethru
Vistry AI Kitchen
Vistry AI Platform



BCMS Ventur
BCMS Ventur X

60+
AI Software
Providers

30k+
Channel
partners

Lenovo AI Innovators Partner Ecosystem

165+
Enterprise AI
Solutions

180
Countries
served



Current CT : 40.03
Current PT : 32.23
Total IT : 7.17

- SOP :
- Oil 1
- Oil 2
- Oil 3
- Oil 4
- Circle 1
- Fasten
- Drill
- Fasten
- Circle 2
- Fasten
- Circle 3
- Hammer
- Last component

Current CT : 40.03
Current PT : 25.53
Total IT : 13.87

- SOP :
- Scan
- Drill
- Tool A
- Fasten
- Hammer
- Tool A+B
- Mark

2020/02/12 14:52:48



<https://www.youtube.com/watch?v=lcty0I4LYNs>



<https://research.lenovo.com/webapp/view/newsDetails.html?id=1165>



Lenovo 联想 研究院(上海)
Research Shanghai

联想晨星行业元宇宙

LENOVO DAYSTAR INDUSTRY METAVERSE

Lenovo releases new ThinkSystem V3 Servers

Powered by 4th/5th Generation AMD EPYC™ processors

General Purpose 2S



GPU-Rich AI System



High Performance Computing



General Purpose 1S



Hyper-Converged

Smart Edge



ThinkSystem & ThinkAgile

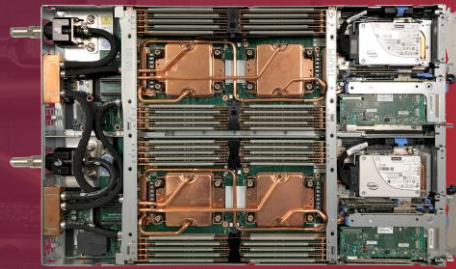
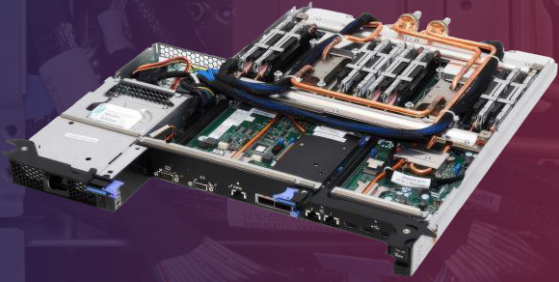
採用



處理器累積創下 **246** 世界紀錄

SAP	Transaction Processing & Decision Support	Virtualization	Compute	Energy Efficiency	Data Analytics	JAVA Application	High Performance Computing	Artificial Intelligence Computing
1	7	3	22	17	0	21	148	27
SAP SD 2T & BWoH	TPC-E TPC-H	SPECvirt SPECvirt Datacenter VMmark	SPEC CPU	SPECpower	STAC-M3	SPECjbb	SPEC MPI SPEC OMP SPEC ACCEL SPECchpc	MLPerf *

Evolution of Lenovo Liquid Cooling



2012

2018

2020

2024

Direct Water Cooling Introduced

Lenovo Neptune™ Launches

Neptune™ Liquid-Cooling Expands

6th Generation Neptune™

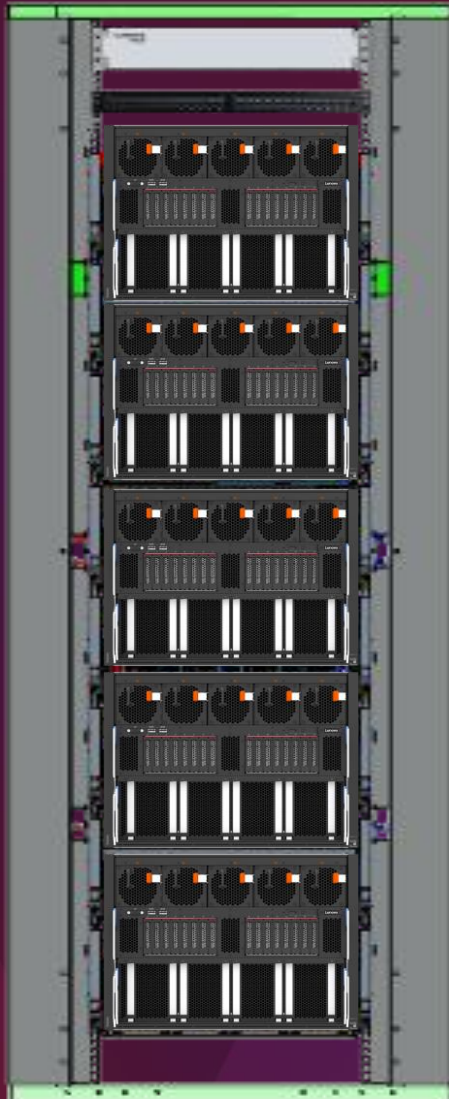
全面性的液冷解決方案

最大化性能

能源使用最優化

提供碳中和運算

打造綠能省碳的資料中心



40U 8Ux5
機櫃空間

機櫃空間節省
15U

25U 5Ux5
機櫃空間

45kW
機櫃用電

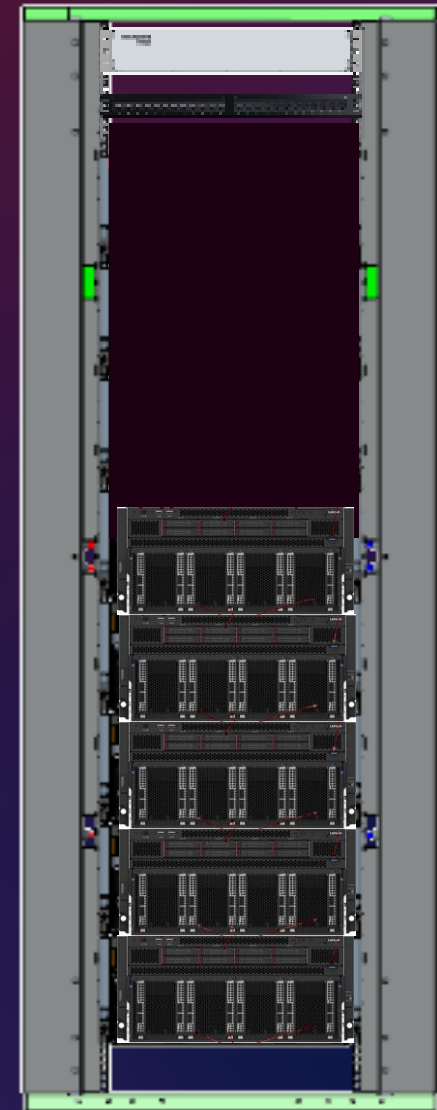
五年約可以節省
266萬電費!

41.25kW
機櫃用電

67.5 kW
資料中心能耗

資料中心能耗
18kW

49.5 kW
資料中心能耗

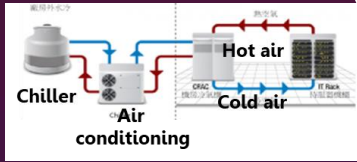


Lenovo 提供完整資料中心的節能方案

資料中心節能方案選擇

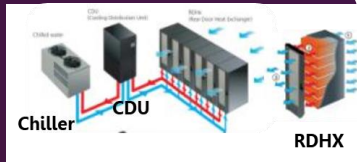
Air Cooling

100% heat to Air
PUE > 1.5



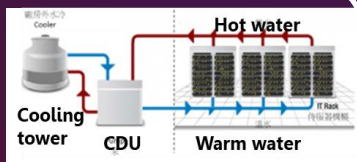
Air Cooling + RDHX

100% heat to Air
PUE > 1.2



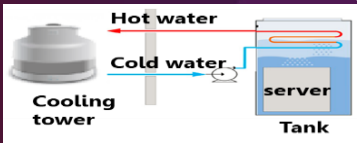
Direct Water Cooling

100% heat to Liquid
PUE < 1.1



Immersion Cooling

100% heat to Liquid
PUE < 1.1



室外主機



Chiller



Cooling Tower



Dry Cooler

Outside facility

冷卻設備



CRAC



CDU

Data Center Building

機櫃



Rear Door Heat Exchanger



Immersion Tank

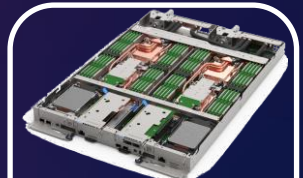
伺服器



Air Cooling



Core System Water Cooling



Full System Water Cooling

散熱模組



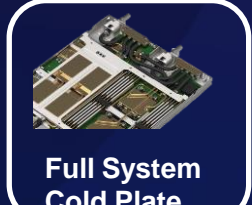
Thermal Transfer Module (TTM)



Liquid to Air Module (L2A)



Core System Cold Plate



Full System Cold Plate

Lenovo's Hybrid Cloud Strategy

- Ready for any application
- Device to cloud deployments
- Built-in automation, orchestration, resiliency & data management
- Cloud agility, performance and service level
- Sustainable by design

Public Cloud



Deployment Models



Hybrid Cloud



Multi-Cloud



Core DC



Edge

Endpoint Devices



ThinkPad



Motorola Phone



Lenovo Tab

Virtualization



Microsoft Azure Stack



Red Hat

Containers



Azure Kubernetes Service



VMware Tanzu



Red Hat OpenShift

Lenovo Software



Lenovo ThinkShield

Lenovo XClarity

Infrastructure Platform



ThinkAgile



ThinkSystem Storage



ThinkSystem Servers



ThinkEdge

Services

Lenovo TruScale

Professional Support Services

Installation Services

ARS CO₂ Offset



2024 Lenovo Internal. All Rights Reserved.

Why Lenovo?

Intelligent Devices Group (IDG):

- #1 position in PCs. Know-how for building reliable, ruggedized devices and systems at scale
- **Global supply chain leadership – Gartner #8 in 2023**

Infrastructure Solutions Group (ISG):

- #1 position in server reliability 9 years running
- #1 provider for supercomputers in the world
- 590 records in workload performance (nearly 3X as many #1 results as any other server vendor)
- #3 in AI hardware
- ThinkEdge leadership products

Mobile Business Group (MBG):

- Motorola Smart Phones & ThinkPhone products

Sustainability:

- Differentiation and leadership in engineering, packaging, logistics, and service offerings

Solutions & Services (SSG):

- New solutions and partnerships

PCs & Smart
Devices



Infrastructure
Solutions Group



Lenovo
Solutions &
Services
+ Partners



Mobile Business
Group

Lenovo

2024 Lenovo. All Rights Reserved.

Smarter
technology
for all

Lenovo

thanks.