

2022

ESG 高峰會 環境、社會、治理

永續資訊申報工具： 雲端技術

戴敏育 副教授
國立臺北大學 資訊管理研究所



永續資訊申報工具：雲端技術

Sustainability Information Reporting Tool: Cloud Technology

Time: 2022/6/24 (Fri.) 16:20-16:35

Place: 台北世貿一館1樓B區 ESG沙龍 (B536)

戴敏育 副教授

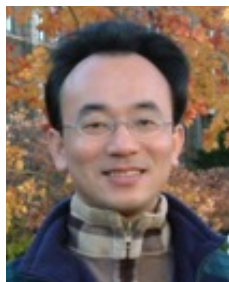
Min-Yuh Day, Ph.D, Associate Professor

國立臺北大學 資訊管理研究所

Institute of Information Management, National Taipei University

<https://web.ntpu.edu.tw/~myday>

2022-06-24





戴敏育 博士

(Min-Yuh Day, Ph.D.)

aws educate | Cloud Ambassador

2020 Cohort

國立臺北大學 資訊管理研究所 副教授
中央研究院 資訊科學研究所 訪問學人
國立臺灣大學 資訊管理 博士

Publications Co-Chairs, IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM 2013-)

Program Co-Chair, IEEE International Workshop on Empirical Methods for Recognizing Inference in Text (IEEE EM-RITE 2012-)

Publications Chair, The IEEE International Conference on Information Reuse and Integration for Data Science (IEEE IRI)



Outline

- **為什麼使用雲端技術**
- **XBRL 系統建立於雲端**
- **SASB on AWS Marketplace**
- **個案分析：報表分析建立於雲端**
- **永續報告 XBRL 雲端架構**

永續資訊揭露與 XBRL 應用之研究

永續報告XBRL雲端架構之研究

2022/02- 2022/06

計畫主持人：**池祥麟** 特聘教授，國立臺北大學金融與合作經營學系

共同主持人：**王怡心** 教授，國立臺北大學會計學系

黃啟瑞 教授，國立臺北大學金融與合作經營學系

戴敏育 副教授，國立臺北大學資訊管理研究所

研究助理：**鄧詠薇**，國立臺北大學資訊管理研究所



2022-06-24

為什麼使用雲端技術？ (Why Cloud Technology ?)

- 需要高度可用且可擴展的基礎架構來有效運營和管理增長
- 確保可擴展性以支持公司發展並建立可信架構
以支持未來從本地到雲的遷移
- 節省基礎設施成本

Gartner Magic Quadrant for Cloud Infrastructure and Platform Services



Amazon Web Services

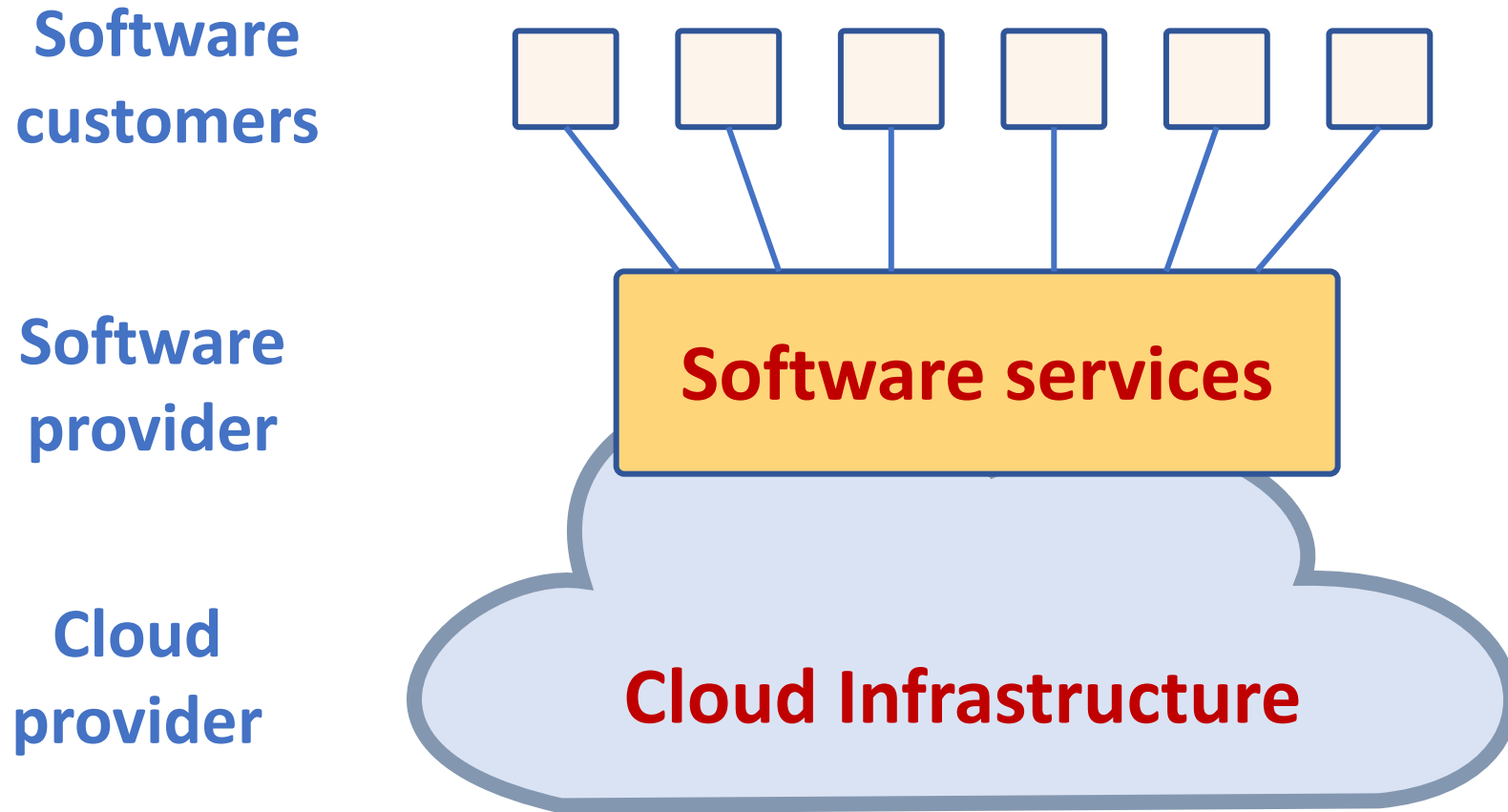
Microsoft

Google

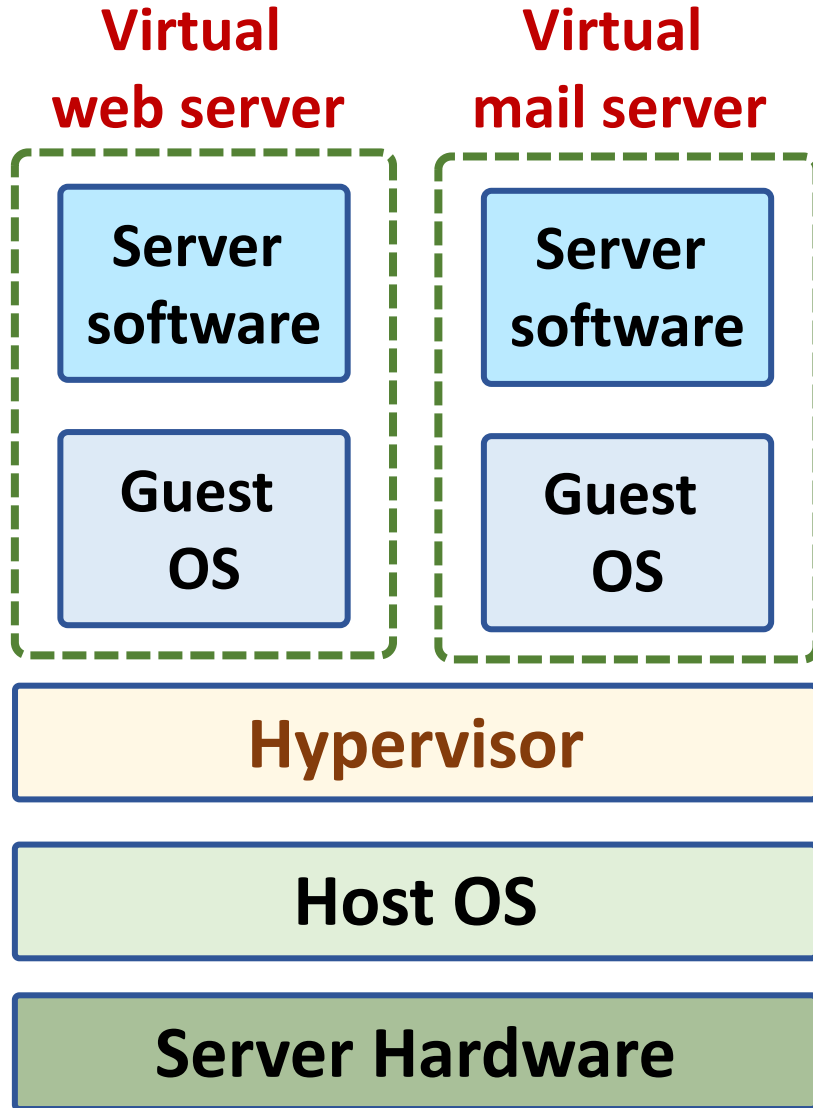
As of July 2021 © Gartner, Inc
Gartner.

Source: <https://www.gartner.com/doc/reprints?id=1-2710E4VR&ct=210802>

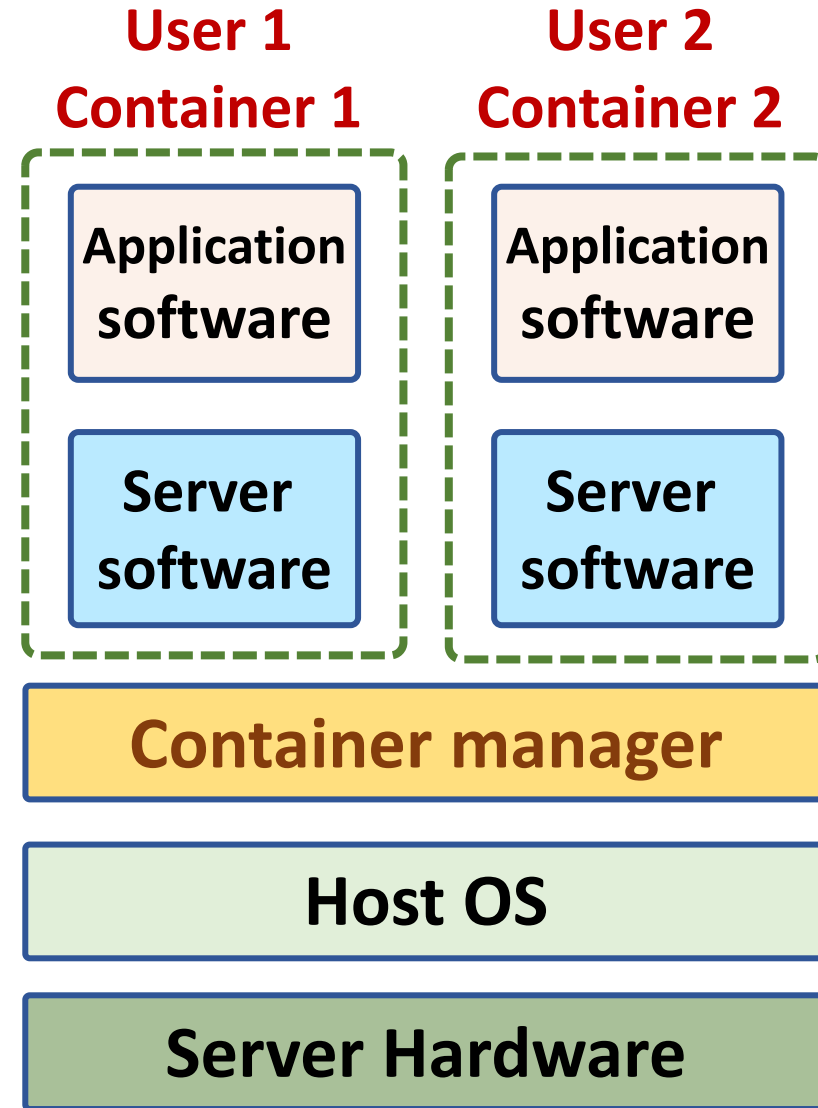
Software as a service



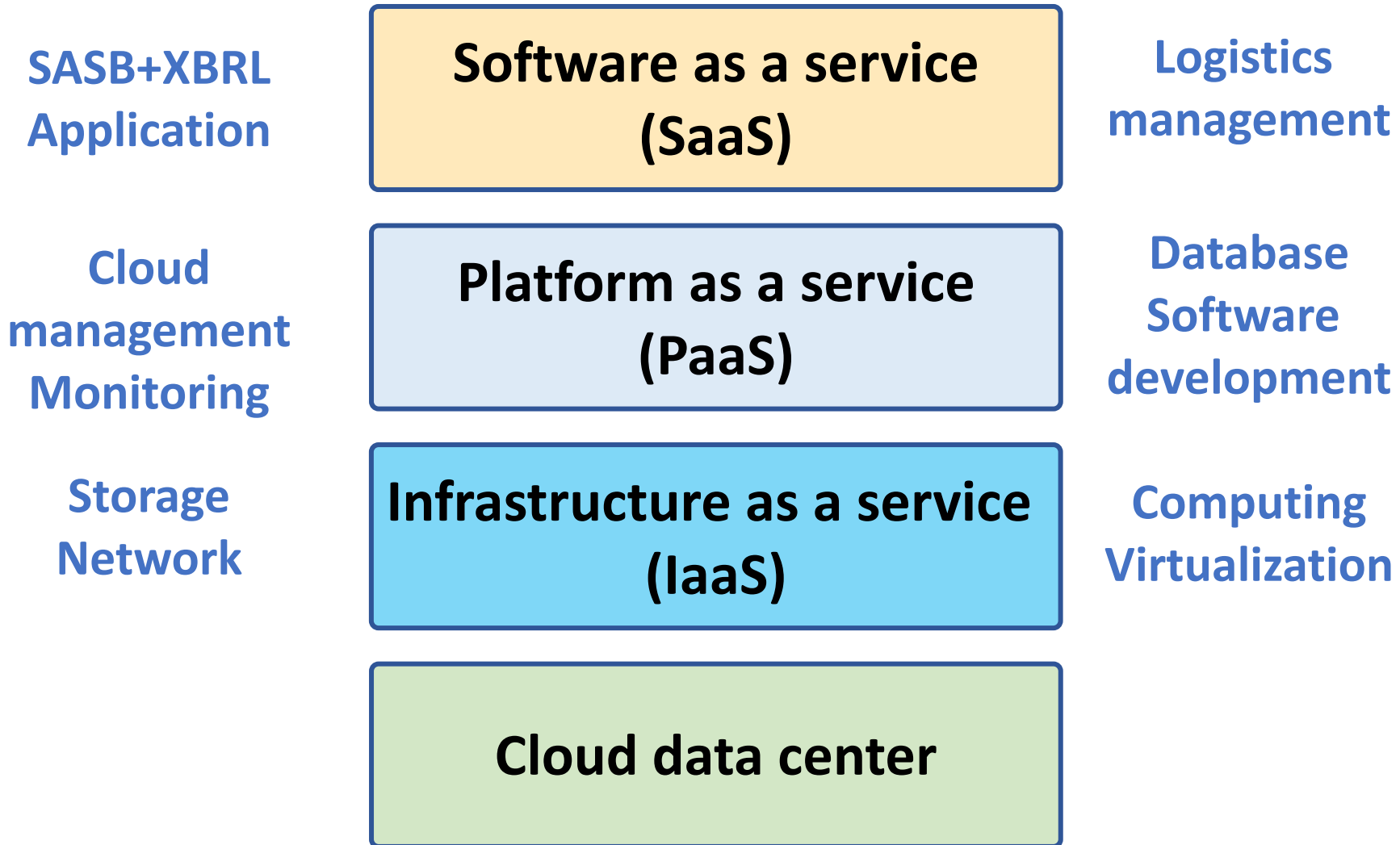
VM



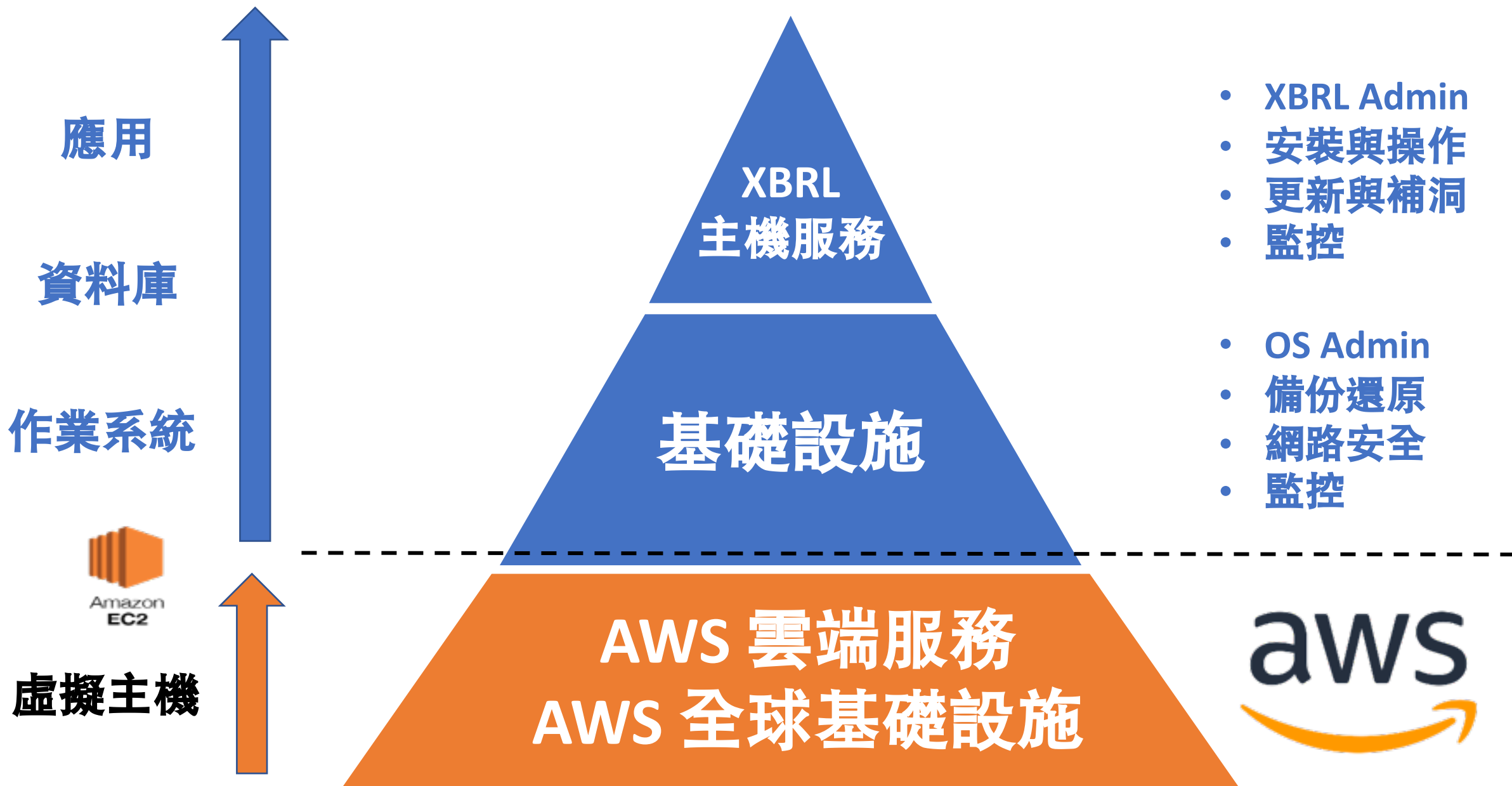
Container



Everything as a service



在 AWS 雲端管理 XBRL 服務



XBRL 系統建立於雲端

AWS Workiva Wdesk

- 以雲端為基礎的監控報告平台，供企業收集、串接和報告具有控制和責任的數據。
- Workiva 與 AWS 共同聯手開發，並串聯其各種服務，以確保其資訊安全、韌性與高度實用性
- 運用 AWS 服務包括 Amazon EC2、Amazon RDS、AWS Lambda、Amazon Kubernetes Services、Amazon S3

XBRL 系統建立於雲端

AWS Workiva Wdesk



資料來源：AWS

<https://aws.amazon.com/financial-services/partner-solutions/workiva/>

SASB on AWS Marketplace

aws marketplace Hello, assumed-role/voclabs...
About Categories Delivery Methods Solutions AWS IQ Resources Your Saved List Partners Sell in AWS Marketplace Amazon Web Services Home Help



Accounting for a Sustainable Future



About SASB

The Sustainability Accounting Standards Board (SASB) is an independent nonprofit organization that sets standards to guide disclosure of financially material sustainability information by companies to their investors.

SASB

[Visit the SASB website](#)

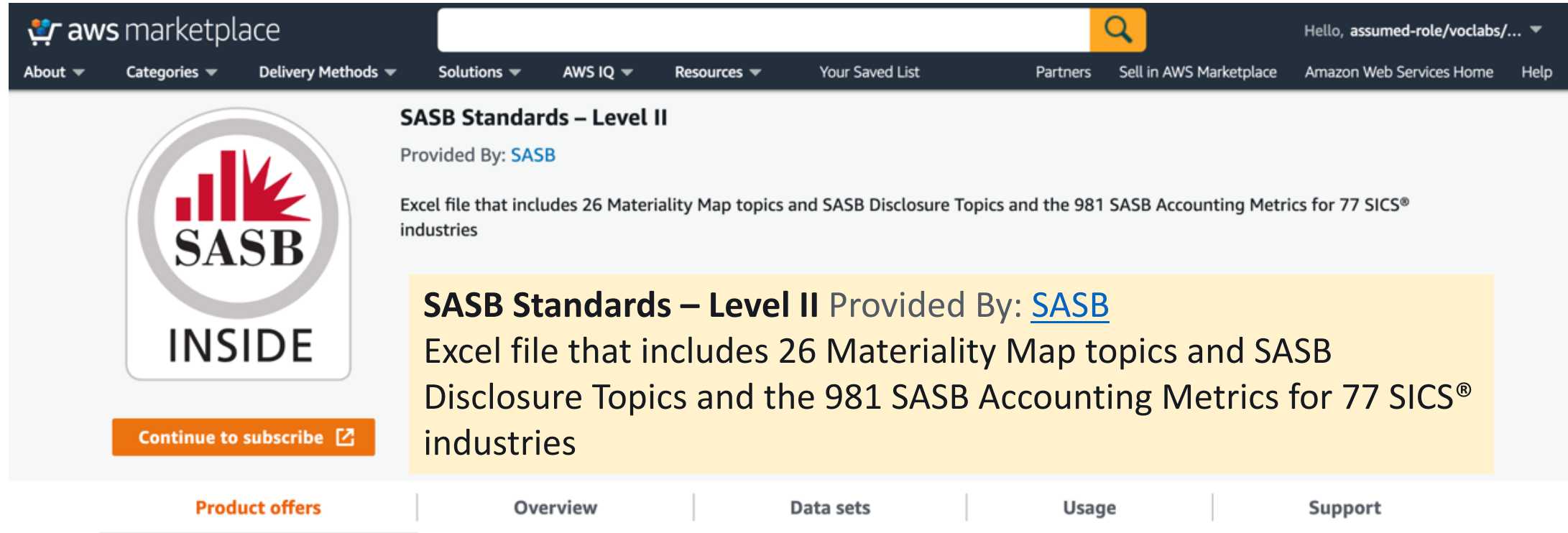
All products (6 results) showing 1 - 6 < 1 > ⚙️
Sort By: Relevance ▾

	SASB Standards – Level II By SASB Price \$15,000 12 month subscription available. Excel file that includes 26 Materiality Map topics and SASB Disclosure Topics and the 981 SASB Accounting Metrics for 77 SICs® industries
	Corporate Engagement Guide Questions By SASB Price \$2,500 12 month subscription available. Excel file of SASB's suggested corporate engagement questions for all 77 SICSTM industries, which can guide discussions between corporate management teams and institutional investors

資料來源：AWS

<https://aws.amazon.com/marketplace/seller-profile?id=85c877c7-162f-4433-8f83-a4550f9eedea>

SASB on AWS Marketplace




The screenshot shows the AWS Marketplace interface for the product "SASB Standards – Level II". The header includes the AWS Marketplace logo, a search bar, and navigation links. The product details section features the SASB logo and a description of the product as an Excel file. A highlighted yellow box contains the product title and description. Below the product details is a navigation bar with tabs for "Product offers", "Overview", "Data sets", "Usage", and "Support".

aws marketplace

Hello, assumed-role/voclabs/...

About Categories Delivery Methods Solutions AWS IQ Resources Your Saved List Partners Sell in AWS Marketplace Amazon Web Services Home Help



SASB Standards – Level II

Provided By: [SASB](#)

Excel file that includes 26 Materiality Map topics and SASB Disclosure Topics and the 981 SASB Accounting Metrics for 77 SICs® industries

SASB Standards – Level II Provided By: [SASB](#)

Excel file that includes 26 Materiality Map topics and SASB Disclosure Topics and the 981 SASB Accounting Metrics for 77 SICs® industries

[Continue to subscribe](#)

Product offers | Overview | Data sets | Usage | Support

Product offers

The following offers are available for this product. Choose an offer to view the pricing and access duration options for the offer. Select an offer and continue to subscribe. Your subscription begins on the date that your request is approved by the provider. Additional taxes or fees might apply.

Public offer

Payment schedule: Upfront payment | Offer auto-renewal: Supported

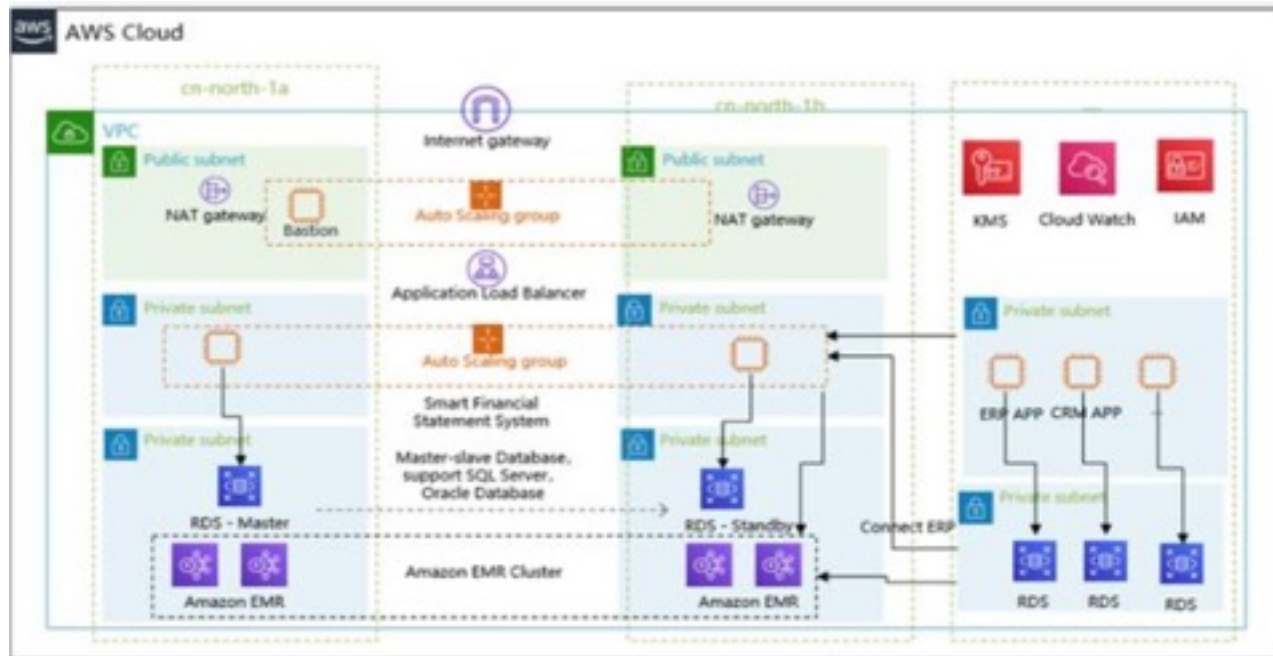
\$15,000 for 12 months

資料來源：AWS

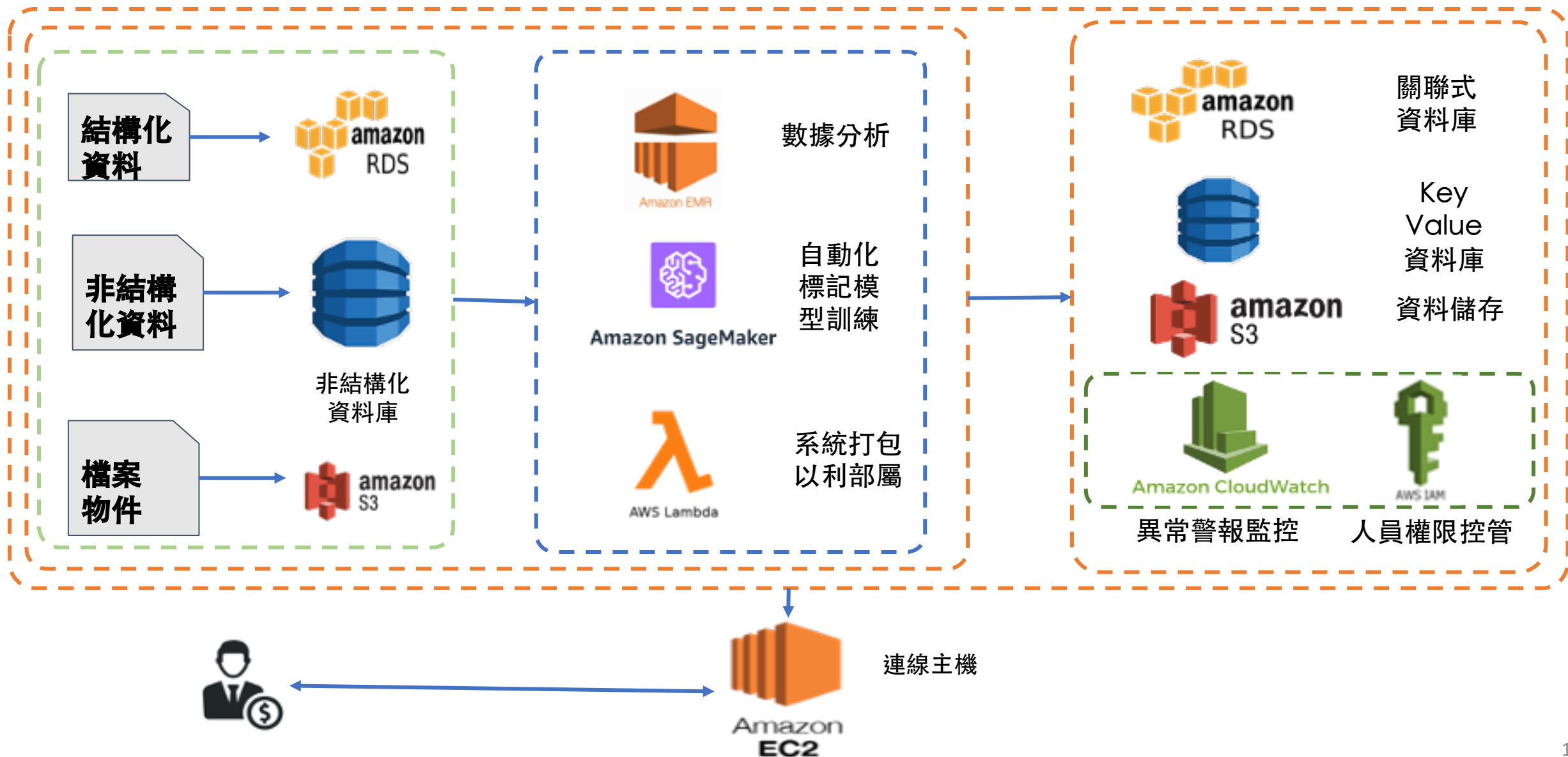
<https://aws.amazon.com/marketplace/pp/prodview-v6ncigq6smnwk>

個案分析：報表分析建立於雲端

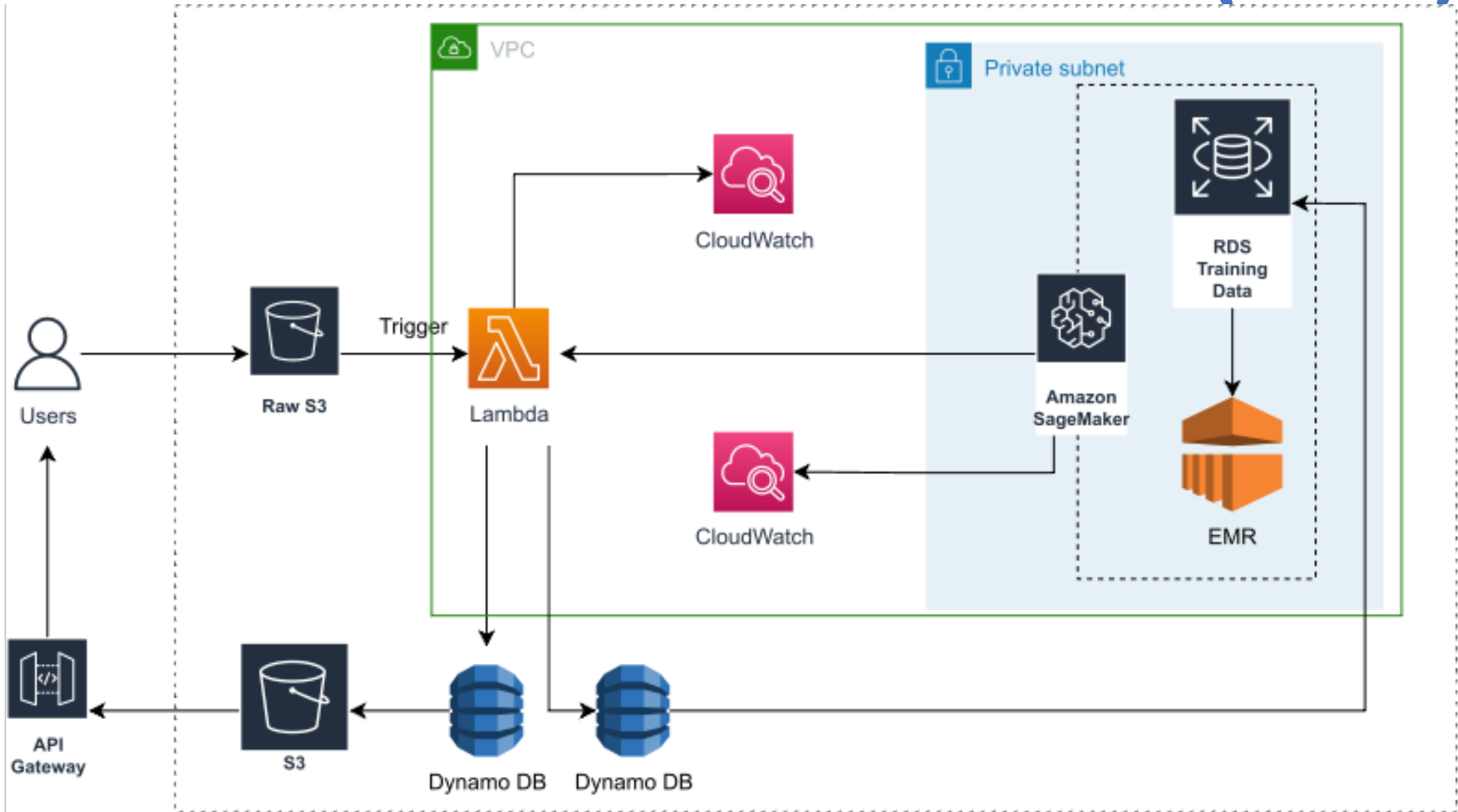
- AWS 協助 KPMG 建立雲端部屬架構提供財報解決方案，通過使用 Amazon EC2、Amazon VPC、Amazon EBS、Amazon S3、Amazon RDS 等服務，接入 Power BI 作為可視化開發工具，滿足用戶多樣化的交付需求。
- 藉助 Amazon ElastiCache 和 Amazon EMR 大數據服務，可支持海量數據即時分析，及複雜報表邏輯和異質資料來源的分析要求，以此高效快速響應客戶的業務需求。



永續報告 XBRL 雲端架構圖



永續報告 XBRL 雲端架構圖 (AWS)



永續報告 XBRL雲端 Sequence Diagram (AWS)



EMR



Amazon RDS



Amazon SageMaker



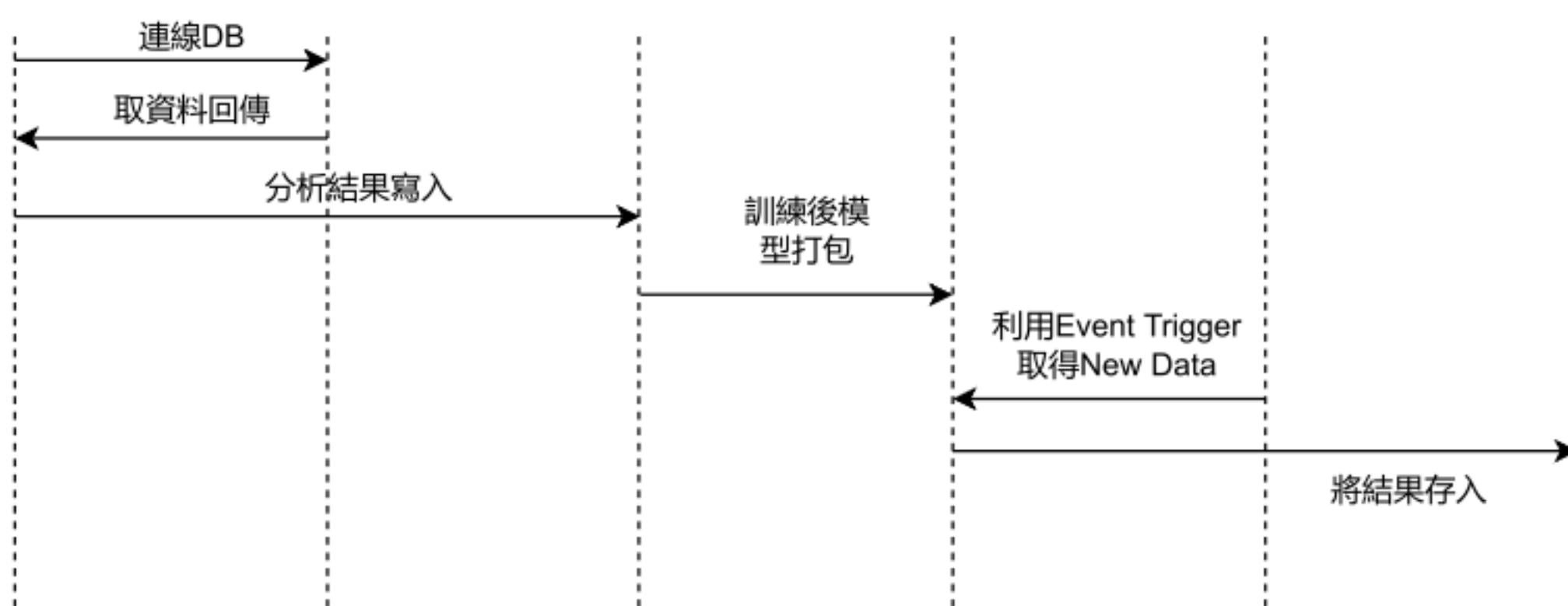
Lambda



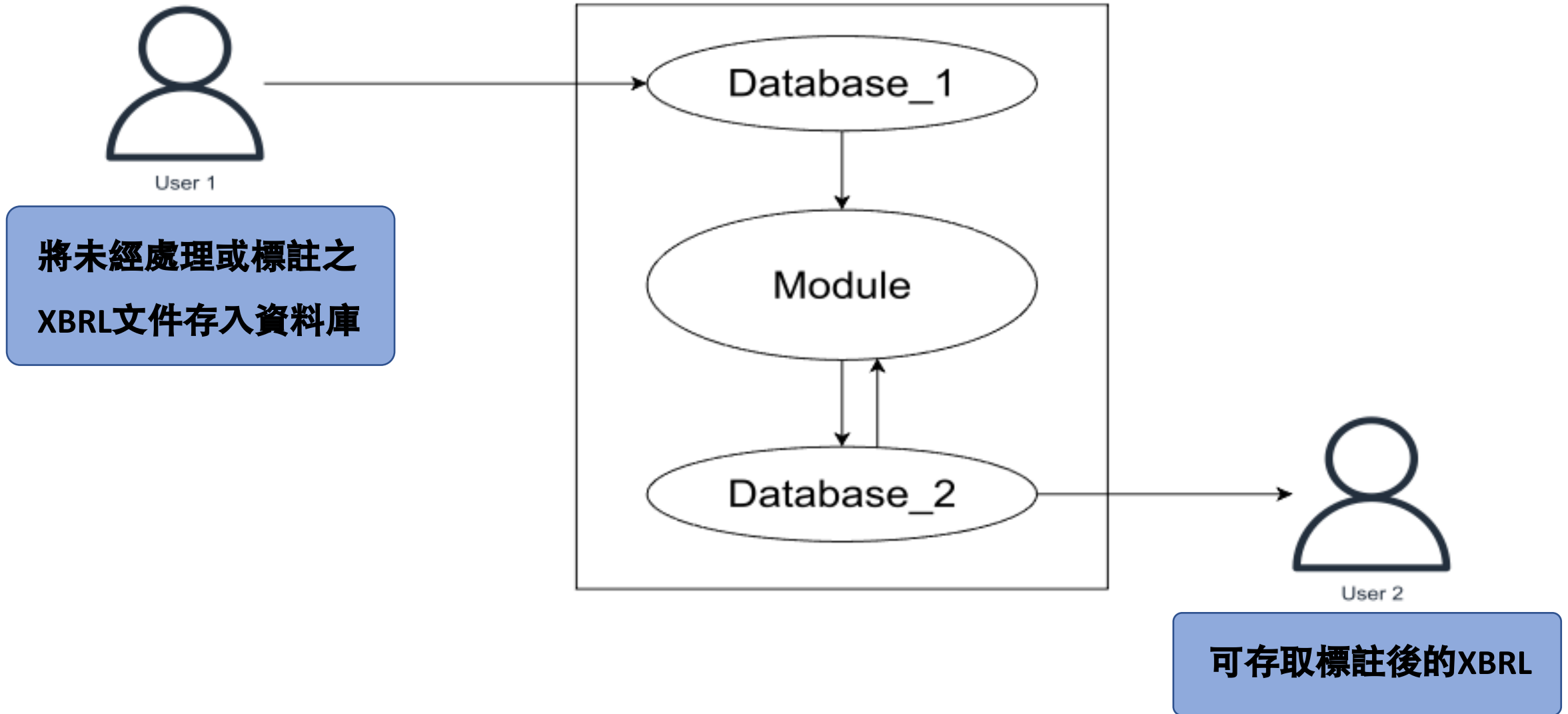
Raw S3



Result S3



永續報告 XBRL 雲端 User Case



永續報告 XBRL 雲端架構趨勢

As-Is

- 各系統獨立操作，無法將其統整串連。
- 存取資料較為龐大，占用過多本地端資源與存取空間。
- 改版部屬不易，且流程繁雜
- 未能自動化監測其系統運作異常，對於人員存取限制較為模糊。

To-Be

- 串聯各項雲端基礎建設服務，將系統整合，並加強權限控管與自動化監測機制。
- 運用雲端服務，簡化整體部屬流程。
- 將資料庫從地端遷移至雲端，能有效性監控與管理，並減少地端資源存取空間。

永續報告 XBRL 雲端架構建立

- 以AWS 雲端服務為例，建構一個完整的永續報告XBRL雲端架構，從結構化與非結構化的永續資訊，自動化標記 (Amazon SageMaker) 轉 XBRL 或 iXBRL 存取至雲端資料庫 (Amazon RDS)，並供使用者分析(Amazon EMR)、瀏覽、更新與修改等，同時強化資料庫的存取控制權限 (Amazon IAM)，並監測異常 (Amazon CloudWatch) 使用。
- **未來趨勢與研究方向**：結合Web 3.0 技術，發展建立於雲端區塊鏈上的雲端架構，以去中心化技術建立永續報告XBRL 公開透明且不可竄改之資料庫。

參考資料

- 還活在報表的「痛苦」中？AWS 為數據處理提供一攬子技術解決方案，
<https://kknews.cc/news/zrgneop.html>
- Workiva Wdesk on AWS,
<https://aws.amazon.com/tw/financial-services/partner-solutions/workiva/>
- SASB on AWS Marketplace,
<https://aws.amazon.com/marketplace/seller-profile?id=85c877c7-162f-4433-8f83-a4550f9eedea>

Q & A

永續資訊申報工具：雲端技術

Sustainability Information Reporting Tool: Cloud Technology

Time: 2022/6/24 (Fri.) 16:20-16:35

Place: 台北世貿一館1樓B區 ESG沙龍 (B536)

戴敏育 副教授

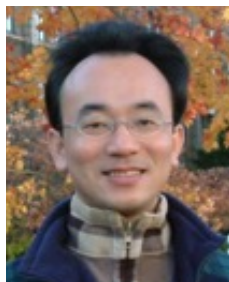
Min-Yuh Day, Ph.D, Associate Professor

國立臺北大學 資訊管理研究所

Institute of Information Management, National Taipei University

<https://web.ntpu.edu.tw/~myday>

2022-06-24



意見調查

Thank You

QR code

(本會收到您的投影片後，將會加上問卷QR碼)