



# Insight2014 大數據高峰會

千思萬想 · 一瞬在握

產業轉型時機來臨，商機加值就在此刻！





# Insight2014 大數據高峰會

## 奠定基礎：為大數據與物聯網而生的資訊整合架構

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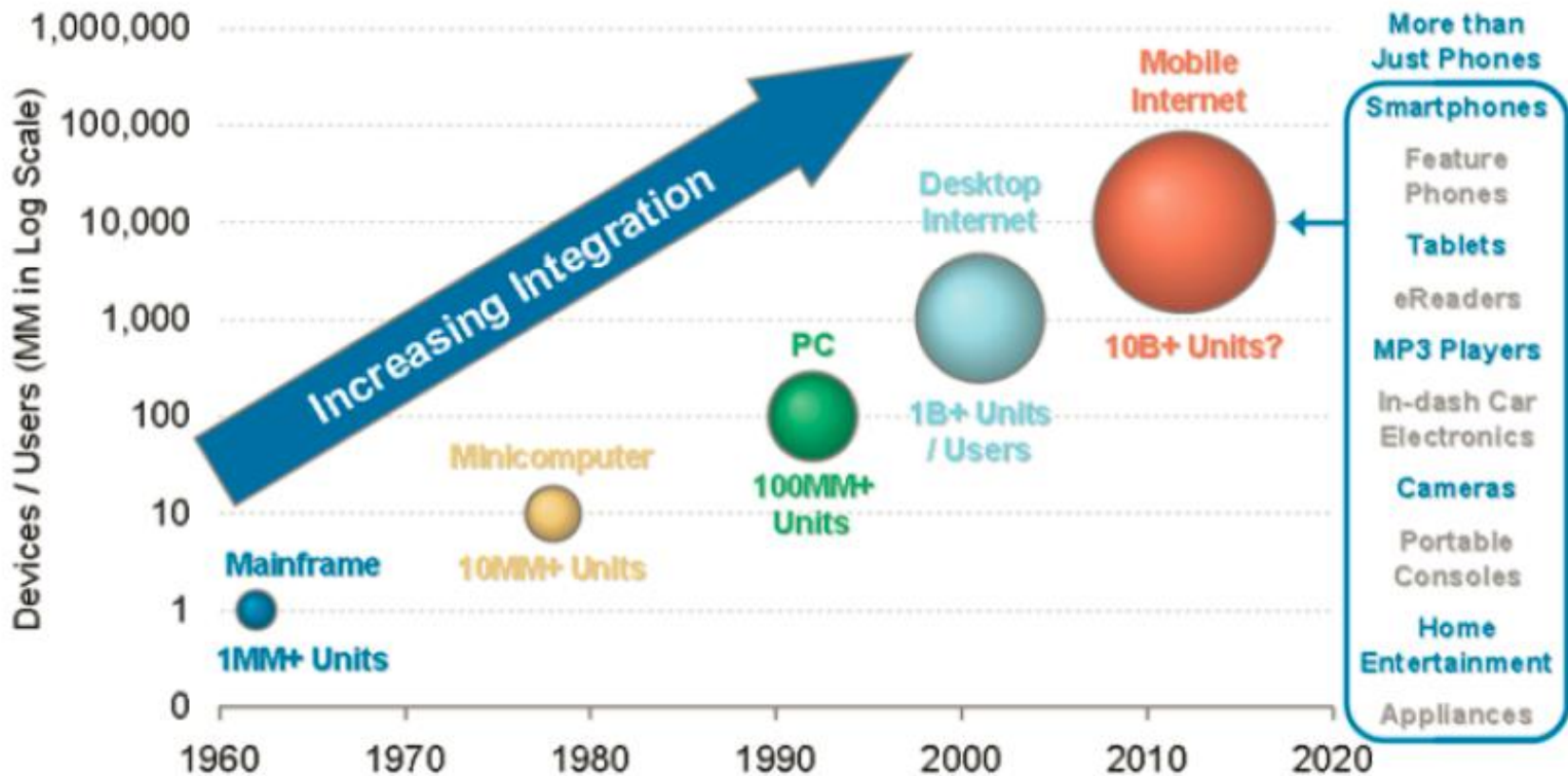


# 重要的關鍵趨勢

- 想知道愈來愈多
- 感知裝置愈裝愈多
- 資料量愈產生愈多
  
- 我們不只要面臨環境的變化挑戰，更要能有智慧地預測和規劃未來，讓環境永續發展。要能充分應對、處理環境事物，「知」是首要條件，再即時將所知資訊傳遞蒐集的「聯」，讓分析得以全面化，進而發展解決問題的技術。



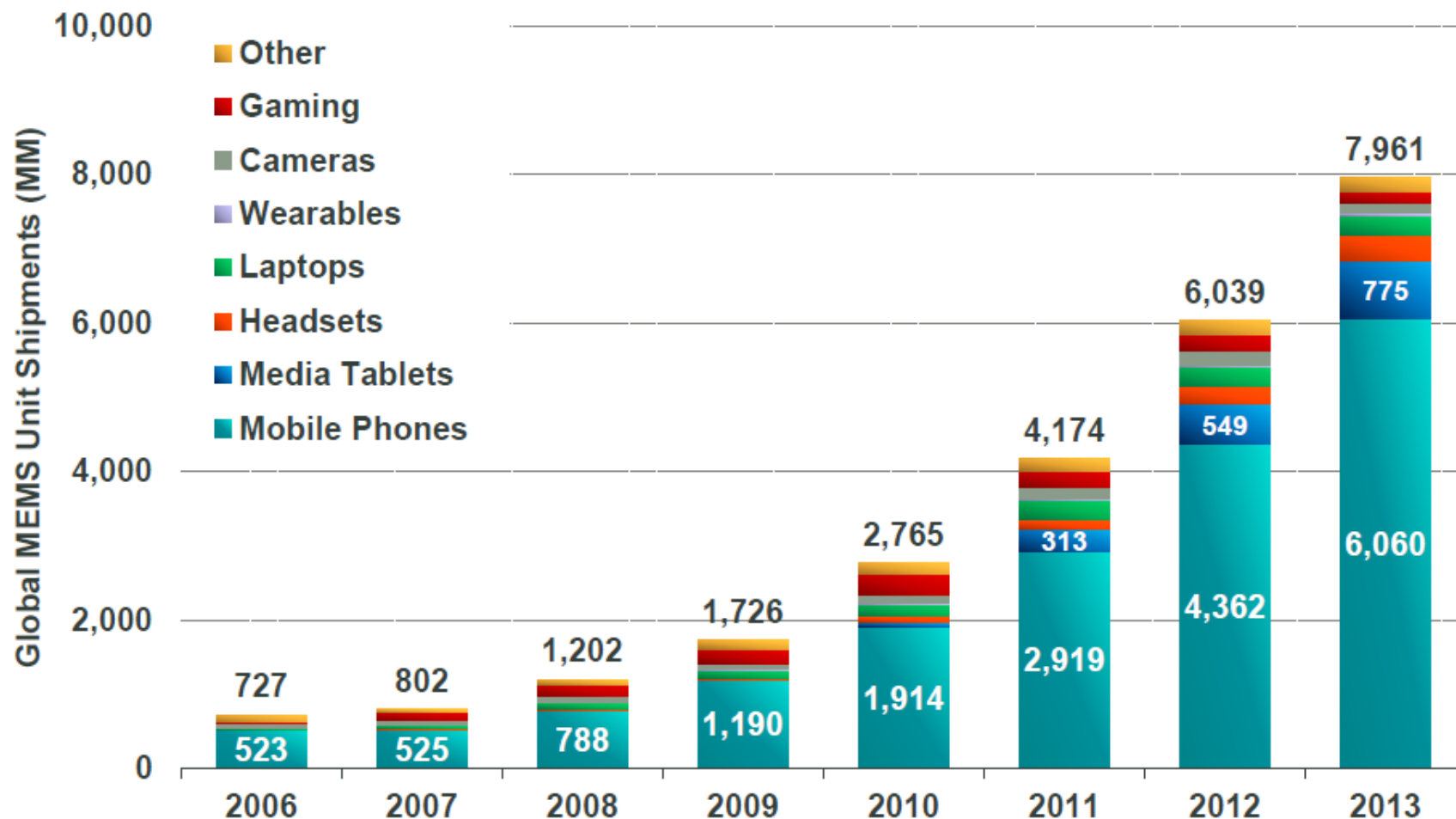
# 電腦技術發展週期會產生出10倍的安裝數



Source: Morgan Stanley Mobile Internet Report (12/09)

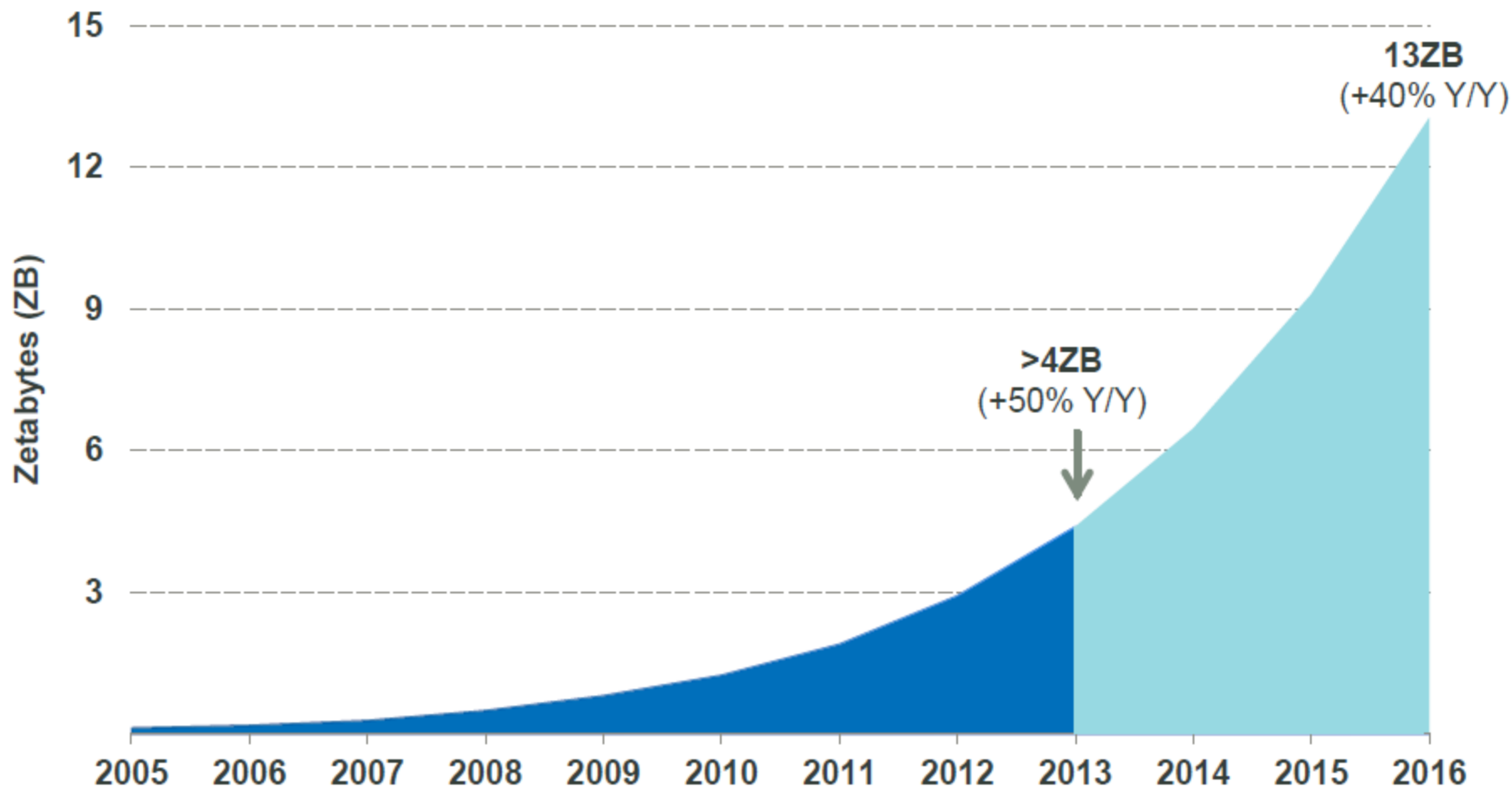
# 帶感應器的裝置快速成長 +32% Y/Y

## Global MEMS Unit Shipments by Consumer Electronics Device, 2006 – 2013



Source: IHS Consumer & Mobile MEMS Market Tracker, April 2014.

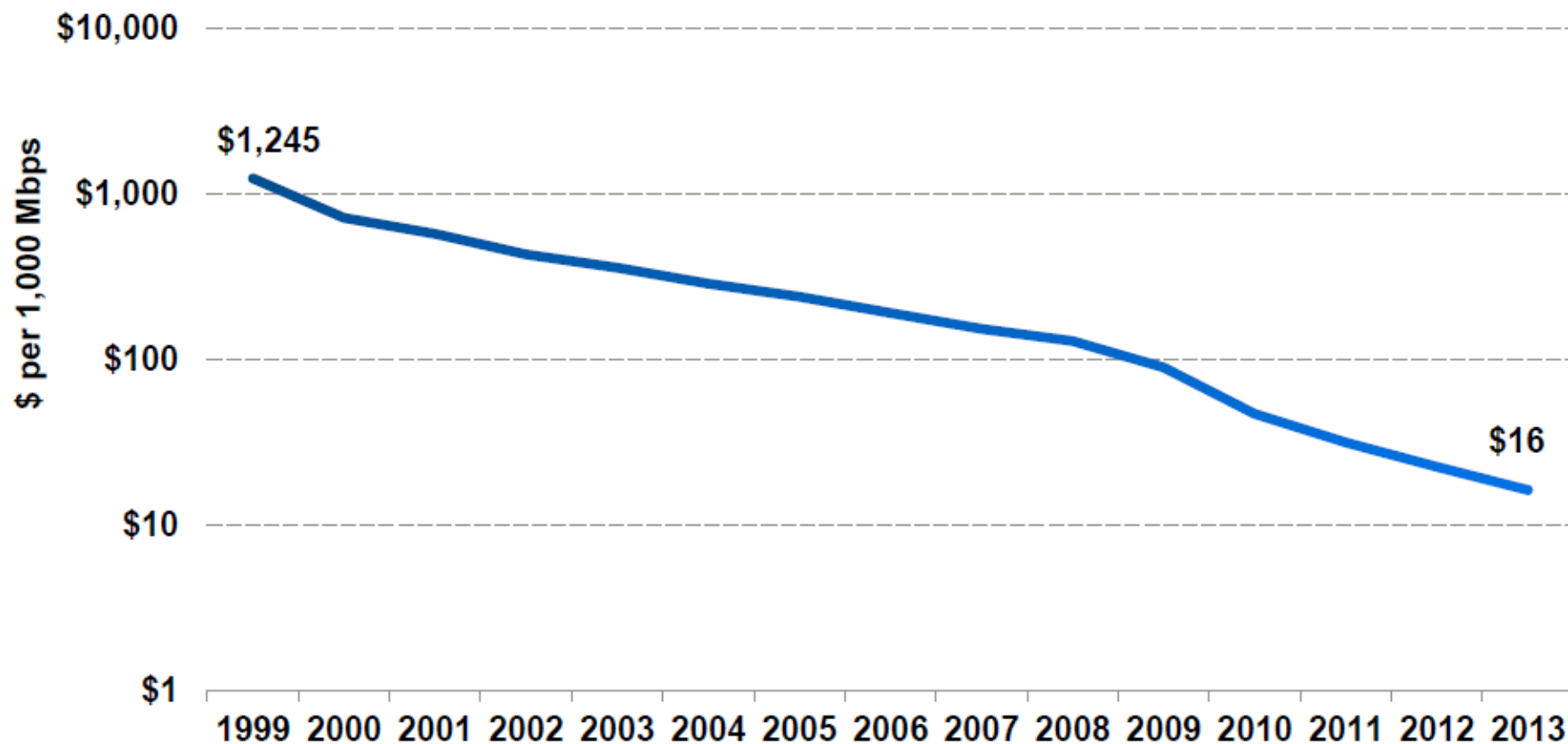
# 物聯網的發展只會使資料增長愈來愈快



Source: IDC Digital Universe, data as of 5/14.

# 而網路頻寬只會愈來愈便宜 -27% Y/Y

## Global Bandwidth Cost Trends



Source: John Hagel, Deloitte, 5/14.





## 早在2010年IBM便成功建立物聯網應用。

- 美國芝加哥市透過「緊急管理及溝通組織」( OEMC )，做為連結安全資訊與使用決策單位的物聯網系統中心。



# 因應物聯網的IT技術新思維

- 「IT for Enterprise」、到「IT for People」、朝向「IT for Real World」
- 利用感測器 ( sensor ) 收集大自然與人造物體不斷發出的訊息，透過無線網路傳回處理中心，並運用數學模型與分析技術進行判讀、歸納、分析與解釋，進而成為有價值的資訊，再回饋給控制中心或使用者，以更有效地使用資源、更有智慧地進行決策。



# 知識就是力量

- 每投入1美元做分析，可獲得價值13美元的報酬
- 34% 的有價值資料，僅 7% 被標註、整理，最終被分析的只有 1%。
- 資料是驅動「洞察經濟（Insight Economy）」的燃料，行銷分析的工作在過去三年成長了 136%。



# 打造由“洞察所驅動”的雲端物聯網分析平台

## Data Works

- Enable self service access & integration of multiple data sources
- Simplified tools to prepare, refine & secure data
- Open application programming interfaces for application development
- On-premise and cloud / internal & external data

## dashDB

- Rapid deployment of large scale data warehouses
- Enables scaling of both volume and processing speed
- Unified architecture that enables hybrid data processing, on-premise & in the cloud
- In-database analytic capabilities for the best analytic performance

## Watson Analytics

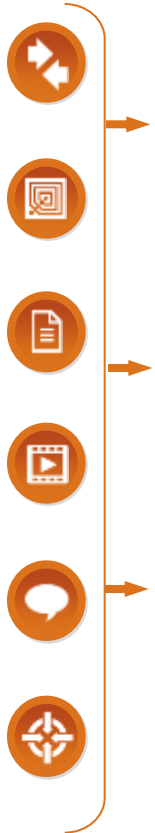
- Cloud-based predictive & cognitive analytics discovery platform
- Designed for business use
- Integrated social collaboration
- Freemium to enterprise versions

# 讓資料 “為你所用” 的第一步是資料篩選和準備

*There's a bottleneck in getting to information*

就像無論我們身處何地——在家、在旅館、在餐廳，總是期望有乾淨、可用的水  
我們對資料的期待亦是如此

All Data



**IT and Data Steward**  
*Unable to meet business demands  
and unable to facilitate rapid data  
access*



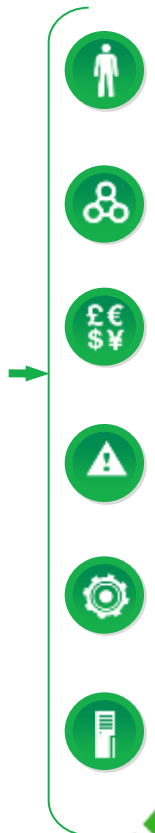
**Business Analyst**  
*Cannot find and use relevant  
data – has to rely on IT*



**Application Developer**  
*Builds apps without integration &  
governance – no tools/services  
available*

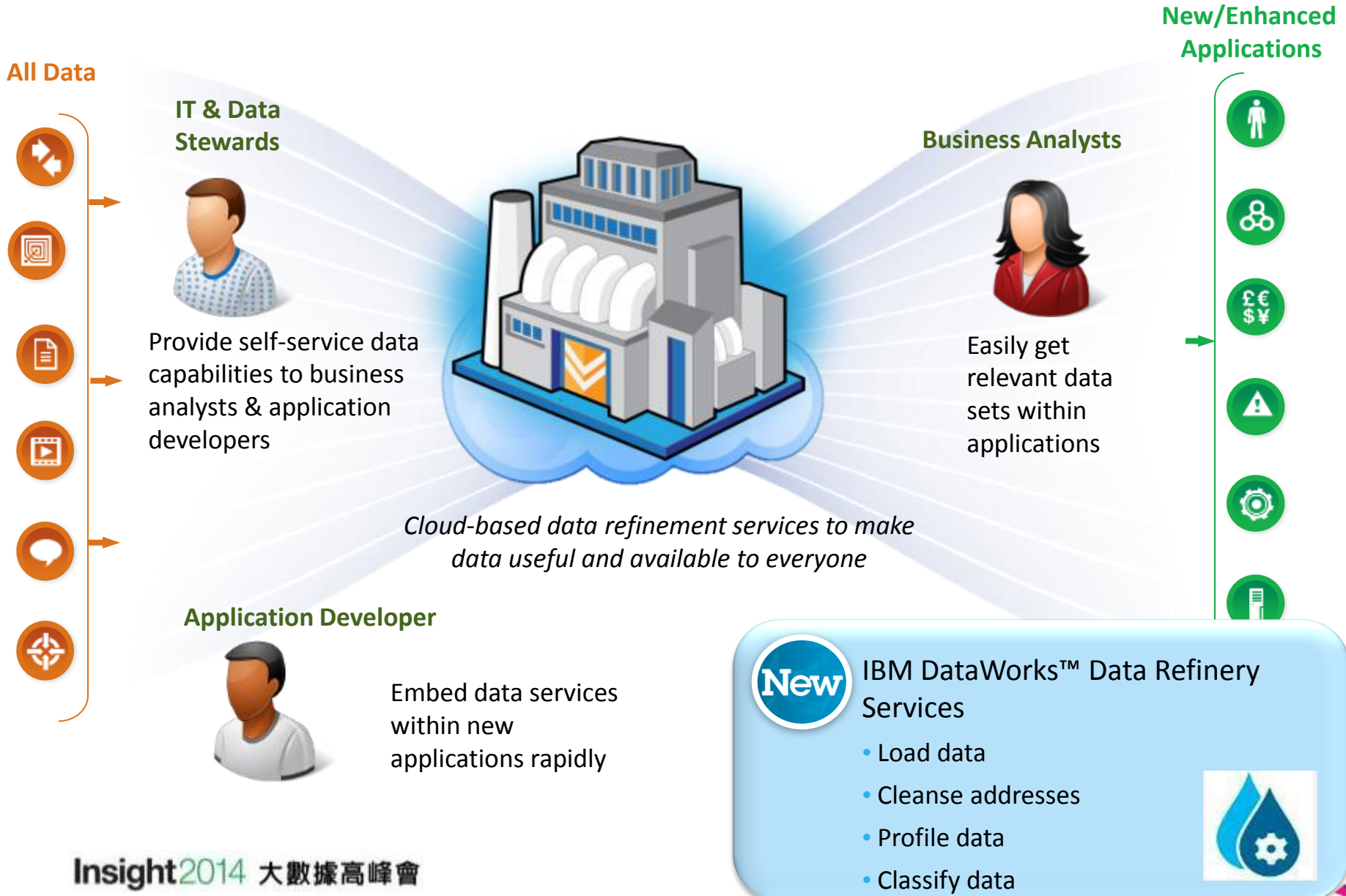


New/Enhanced  
Applications

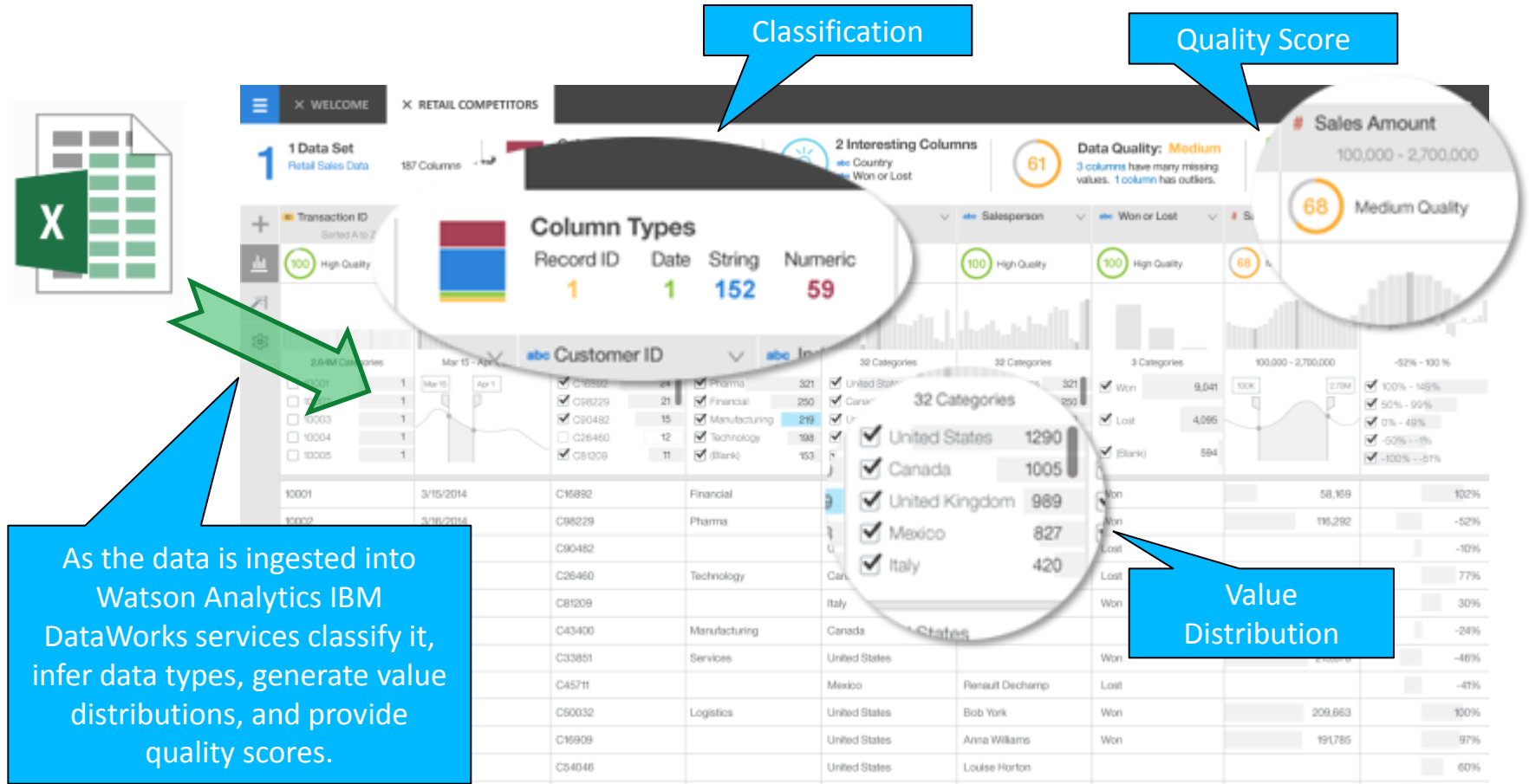


# 透過雲端資料精煉廠打造物聯網資料處理新境界

*A data refinery, delivering cloud-based services*



# 簡單的步驟 IBM DataWorks services



As the data is ingested into Watson Analytics IBM DataWorks services classify it, infer data types, generate value distributions, and provide quality scores.



Target: Business Analysts

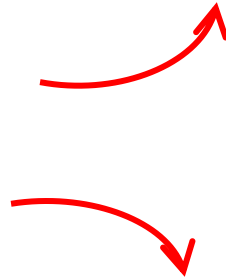
# 但是重要的資料必須保存在公司裡

*Don't want to incur capex expense for this stuff!*



- Data Marts
- Test/Dev Environments
- Analytics for Data already in the cloud

*Analytic portability, fully compatible. Same tools and apps!*



*This stuff can't be moved easily to the cloud*



**On-Premises Systems**

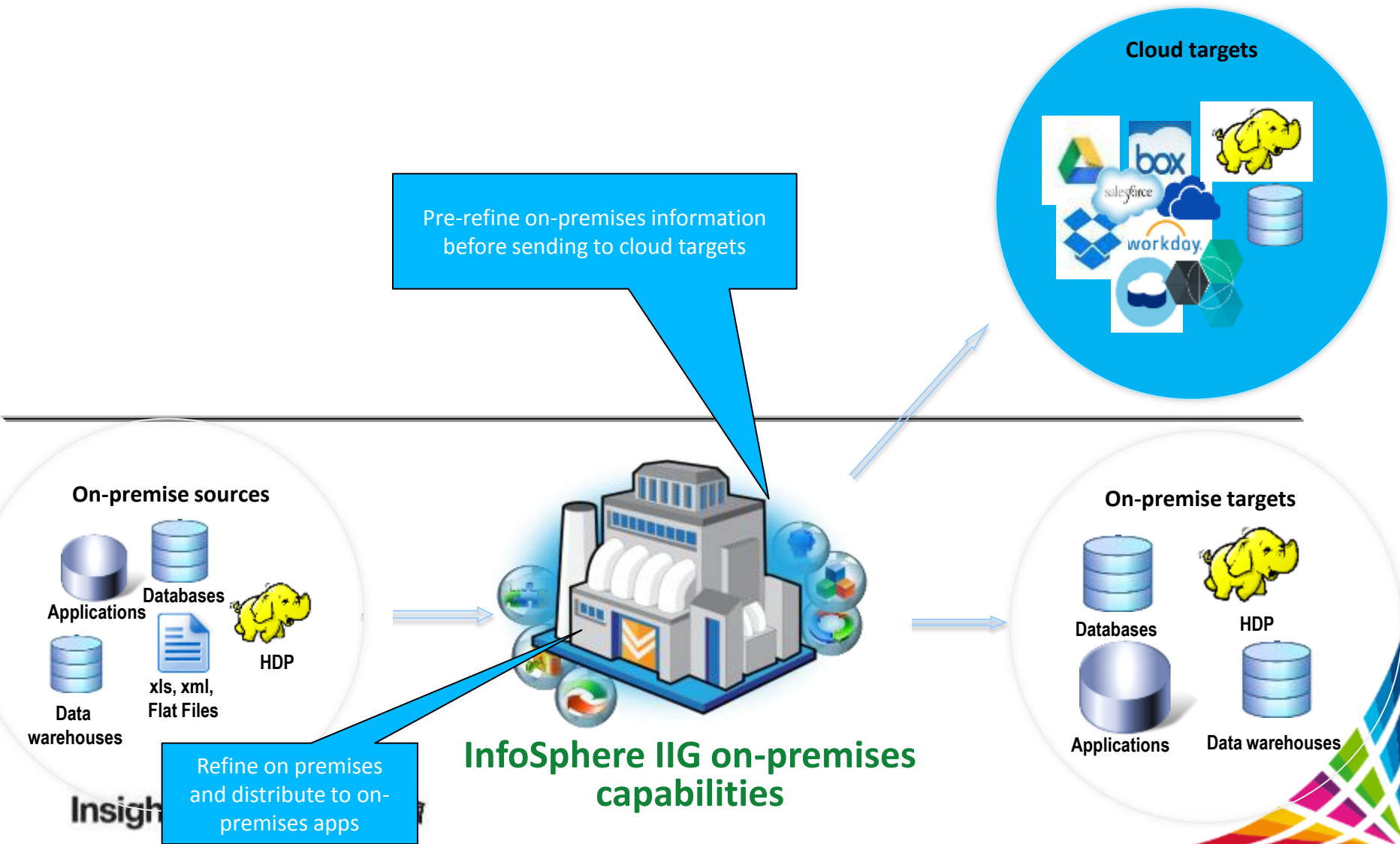
- Sensitive Data
- On-premises Source Systems
- Large volumes of data generated





# 物聯網資訊整合治理的當前架構:

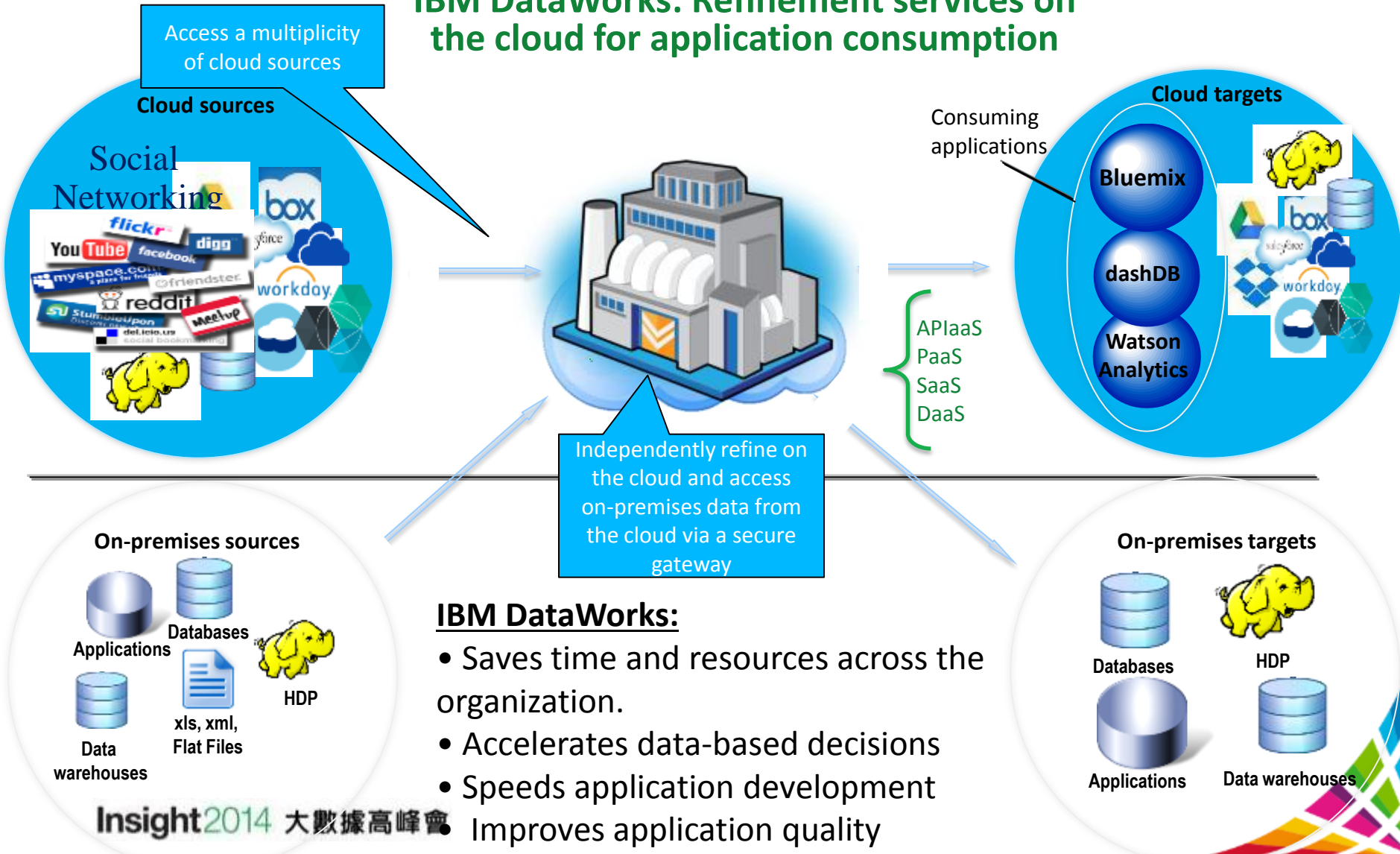
*Data refinement services on premises*



# 物聯網資訊整合治理雲端架構:

*Data refinement services on the cloud*

## IBM DataWorks: Refinement services on the cloud for application consumption



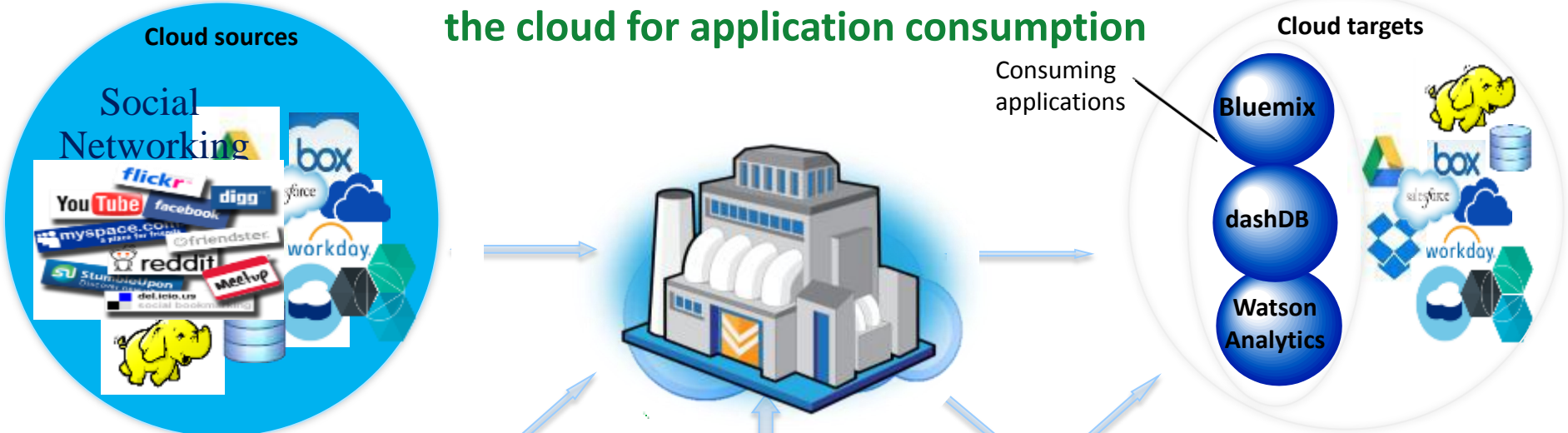
### IBM DataWorks:

- Saves time and resources across the organization.
- Accelerates data-based decisions
- Speeds application development
- Improves application quality

# 物聯網資訊整合治理的完整解決方案:

*Data refinement services, on premises and on the cloud*

## IBM DataWorks: Refinement services on the cloud for application consumption



## InfoSphere IIG on-premises capabilities



# Thank You