Open Source, CIO and SOA

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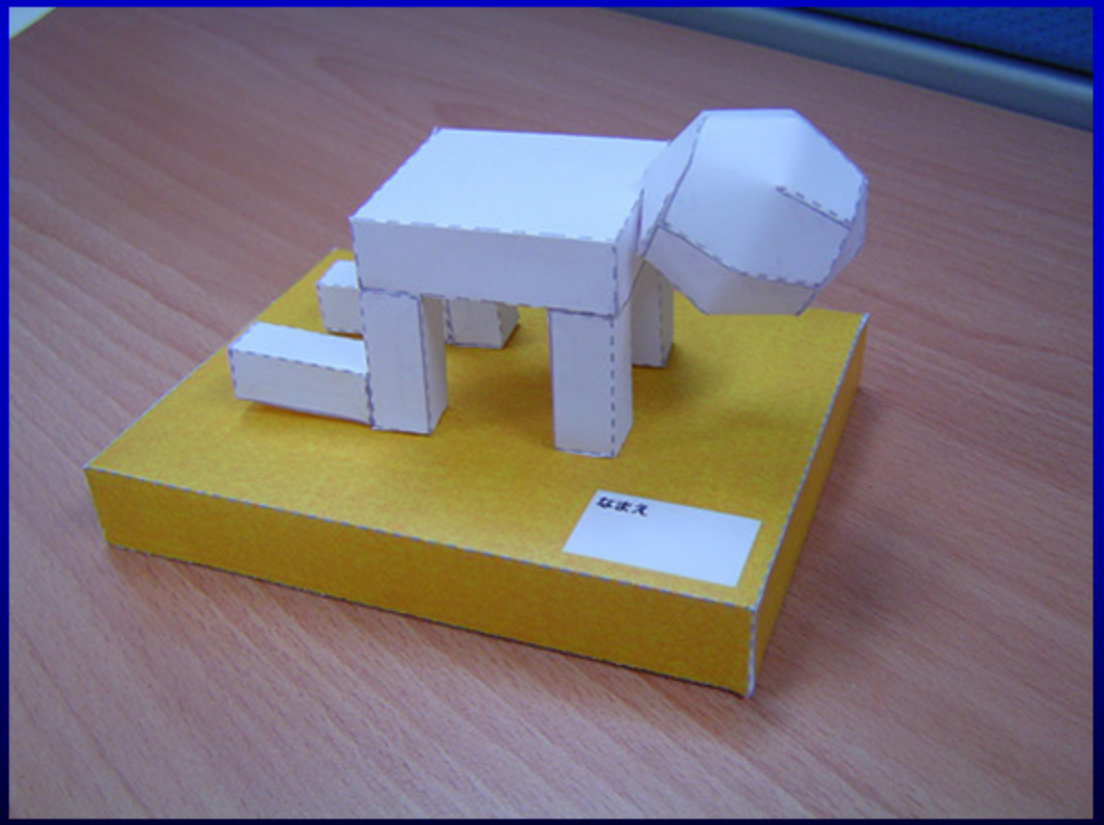
Outlines

- *MIS's Problem*
- *Why Open Source*
- *Problems of Management*

MIS's Problem!

- 有 *Performance* 之後，要錢比較容易!
- 你可以找工讀生啊!旁邊學校學生很便宜!
- 人家買 *xxxx* 比你 *IT/MIS* 更重要!

- 計畫趕不上變化，變化趕不上主管的一句話!



from: http://www.dfnt.net/t/photo/papercraft/

IT 系統規畫規畫目標

- e化 的目的 - 透過 IT 平台的建置, 提升效率並降低成本
- 因此 e 化的規畫需符合以下原則:
  - 降低 IT 常規人力需求
  - 降低 IT 年度預算需求
  - 簡化 IT 管理機制
  - 降低企業運轉成本
  - 企業文化有限度的改變

IT情報安全祈願
神田明神
IT
情報
安全
江戸総鎮守
IT情報安全祈願
江戸総鎮守
神田明神

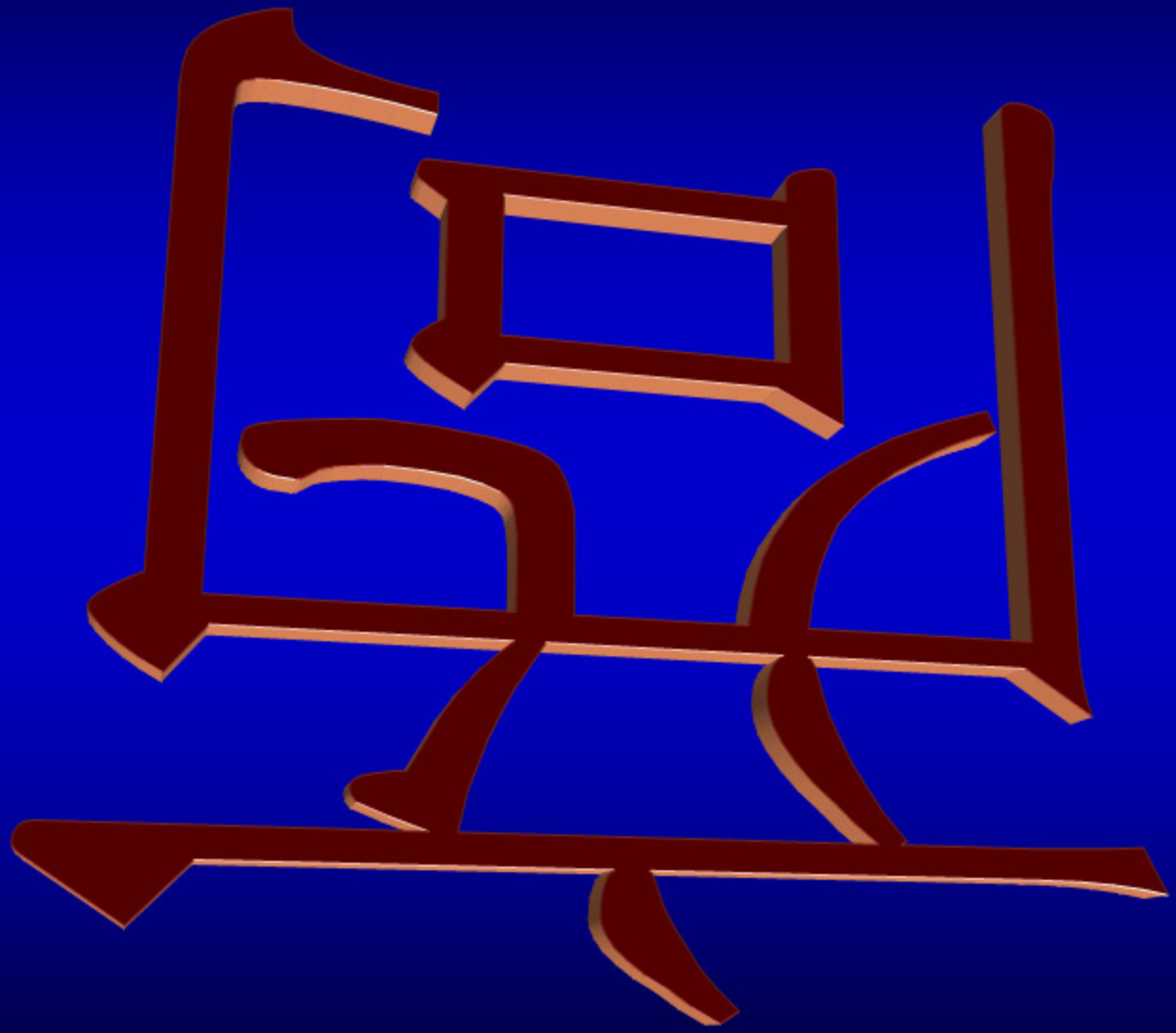
乖乖桶

當我們面臨重大問題，如果我們沒有從引發問題的層次往上提升，從更高的層次觀察問題，這些問題將不可能被解決。

-愛因斯坦

Why Open Source?

FEDERAL RESERVE NOTE
THE UNITED STATES OF AMERICA
F 44179674 I
ONE DOLLAR



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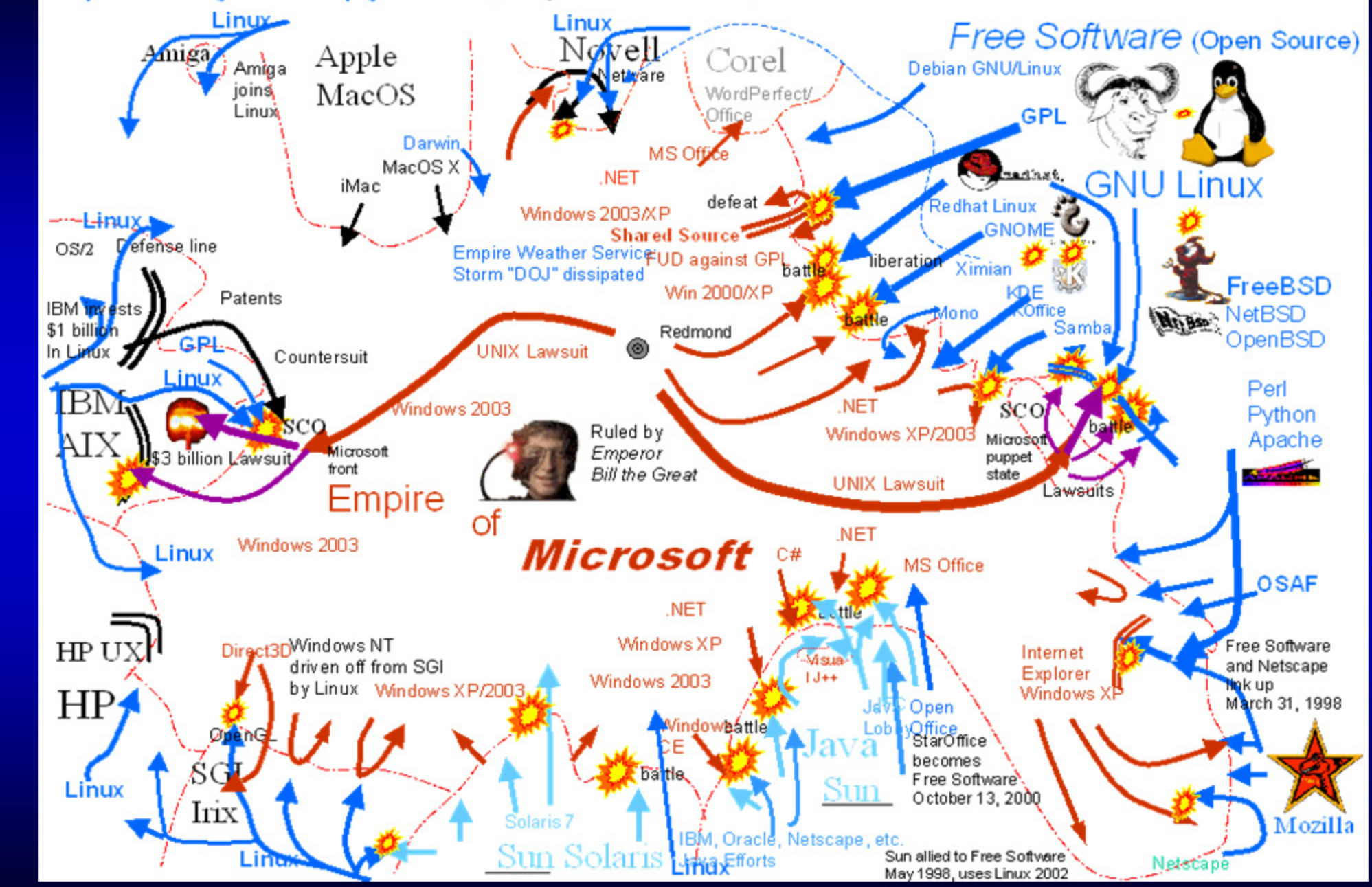
Last modified August 10, 2003
http://www.atai.org/softwarewar.png

Software Wars

Empire Strikes Back



Free?

FREE
LUNCH

मुत्तारी निशुल्क
URINE FREE
TOILET:- Rs.1-00
copyright 2001 phil@mit.edu

Problems of Management

老闆永遠是對的

- 這件事能不能自動?
- 我下個小時能不能看到報表?
- 這個能不能做得跟 *xxxx* 的系統一樣方便?

V.S.

- 這種東西，幾千塊就買得到吧?
- 你沒事就在要錢，怎麼都沒有 *Performance?*
- 你沒事就躲在機房裡幹嘛? 我要怎麼找你開會?

隔靴搔癢

商業策略受制於 IT 技術的不足?

What is SOA

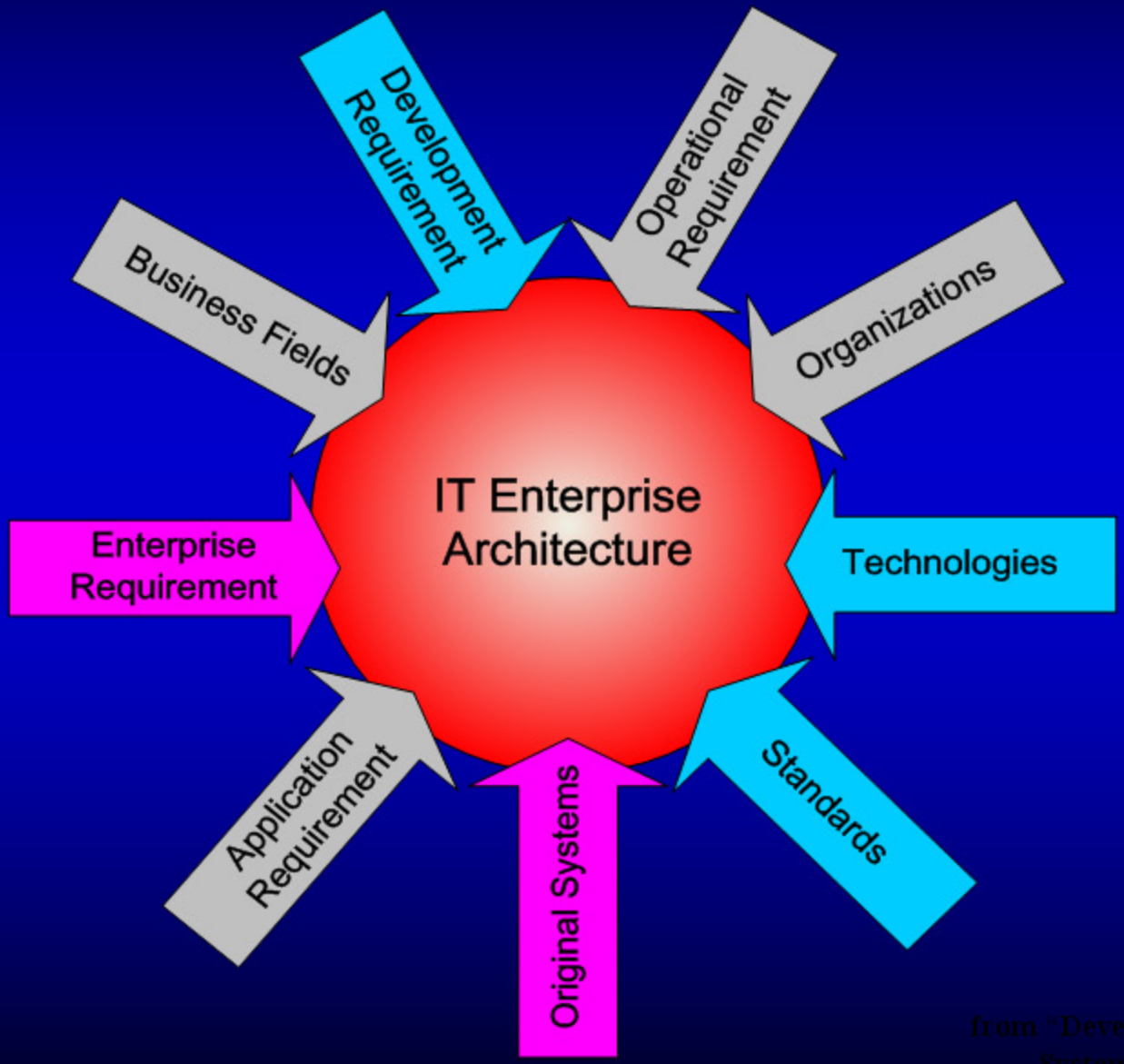
- *an **IT strategy** (**Concept**) that*
  - *organizes the discrete functions (in enterprise applications) into services*
    - *Interoperable*
    - *Standards-based*
  - *can be combined and reused quickly to most business needs*

from: "Domain Model For SOA" BEA_SOA_Domains_WP.pdf

Benefits of SOA

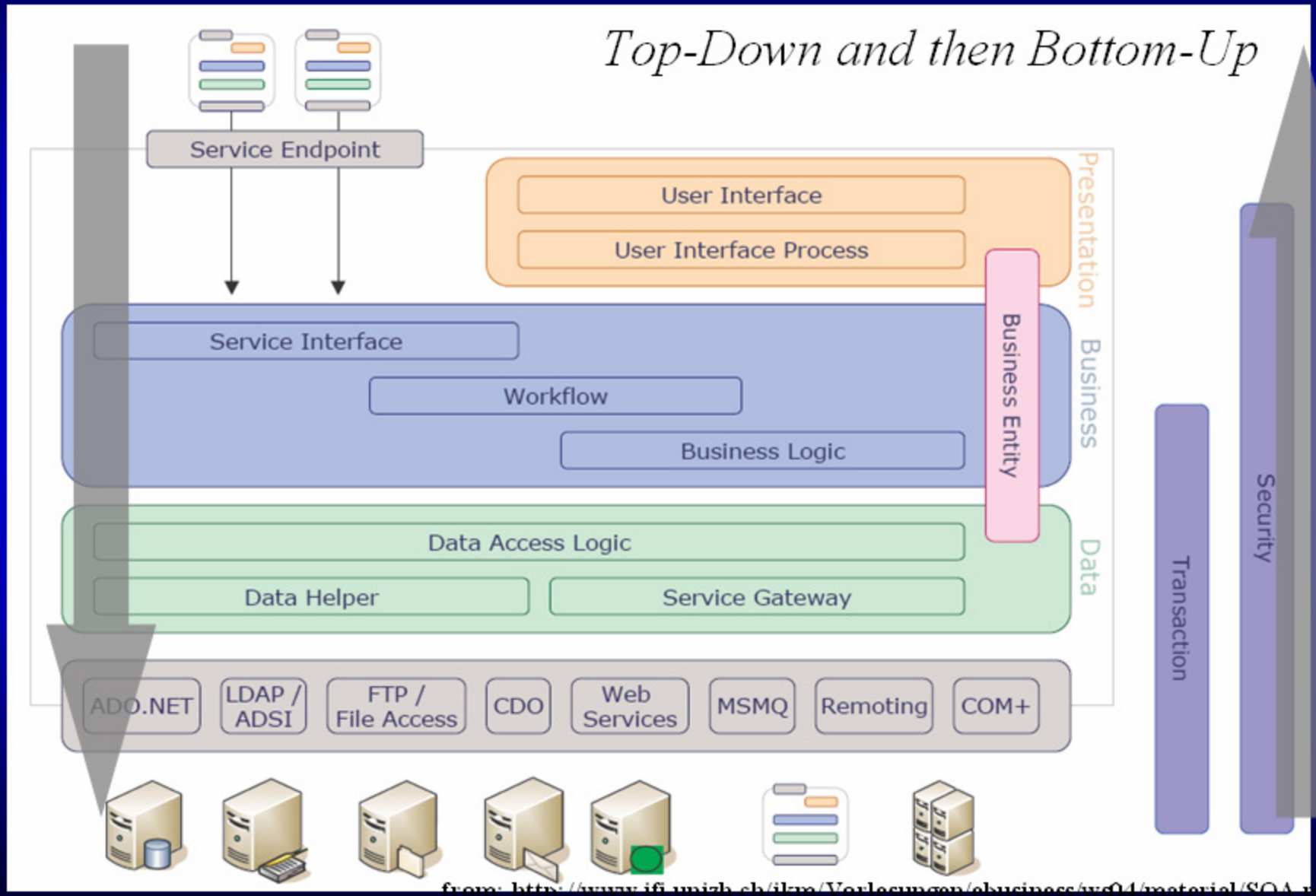
- *Improve productivity, agility and speed for **BOTH** Business and IT*
- *Allows IT to deliver services faster and align closer with business*
- *Allows the business to respond quicker and deliver optimal user experience*

Enterprise Architecture

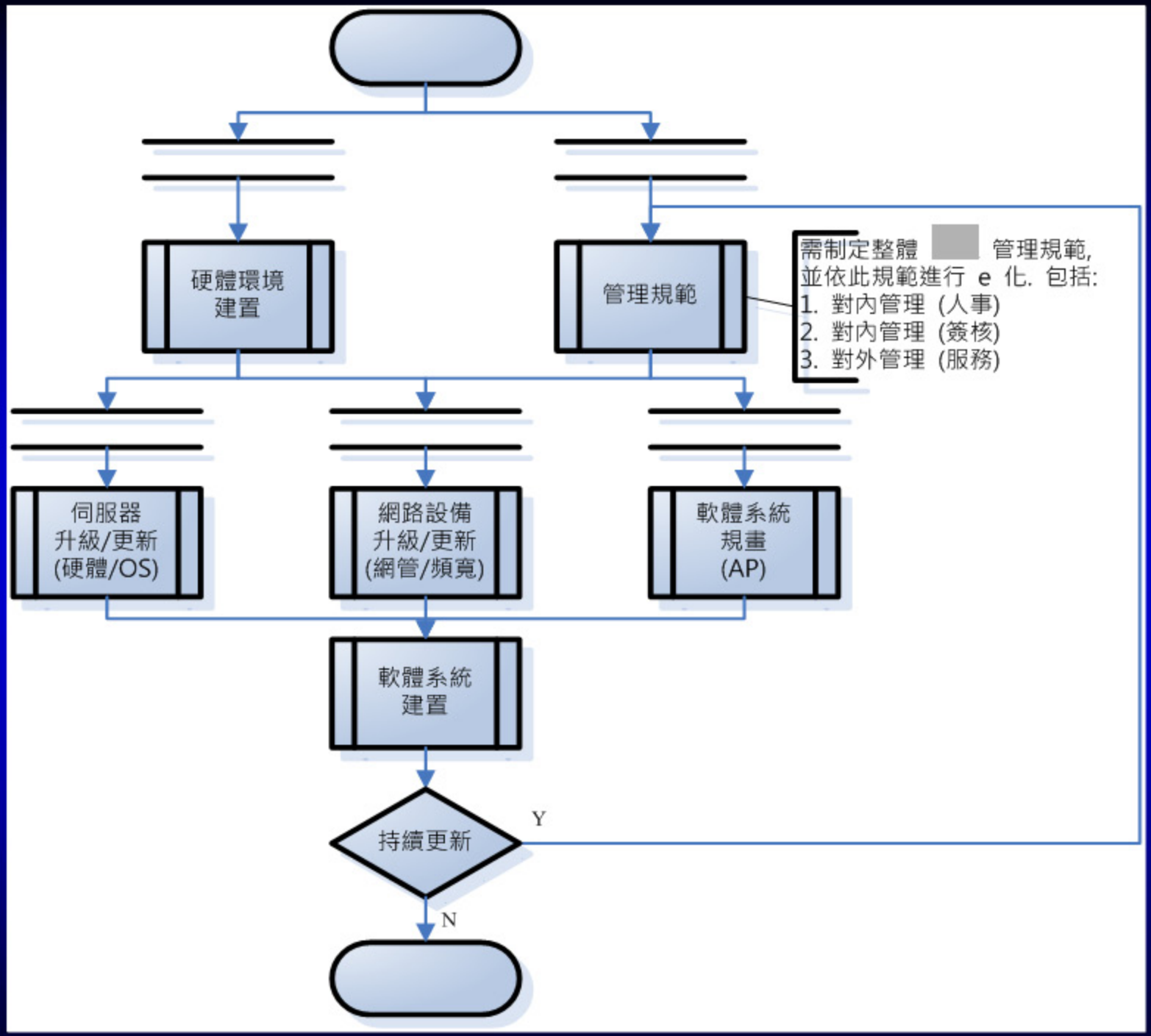


from "Developing E-Business System & Architecture"

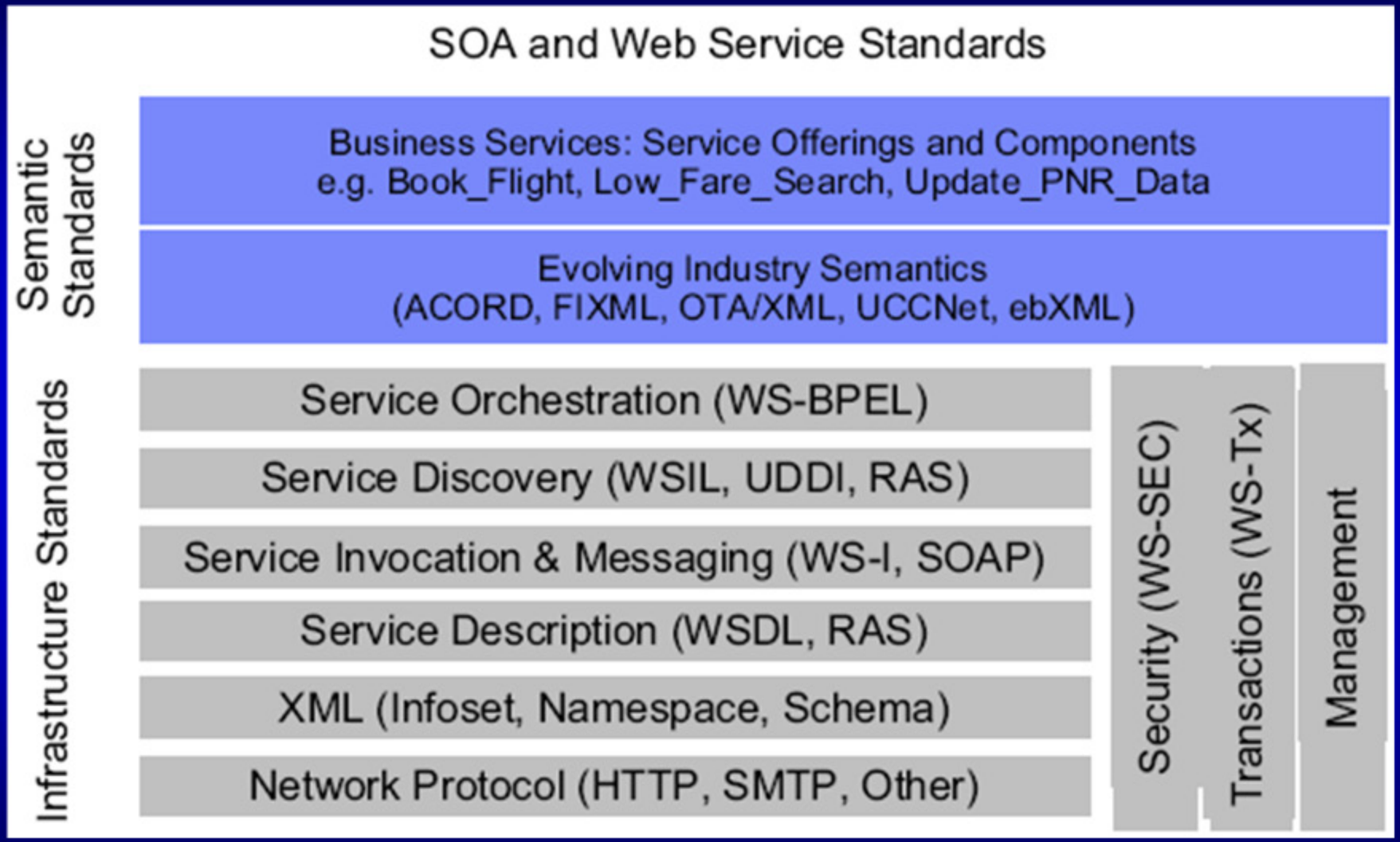
How to achieve?

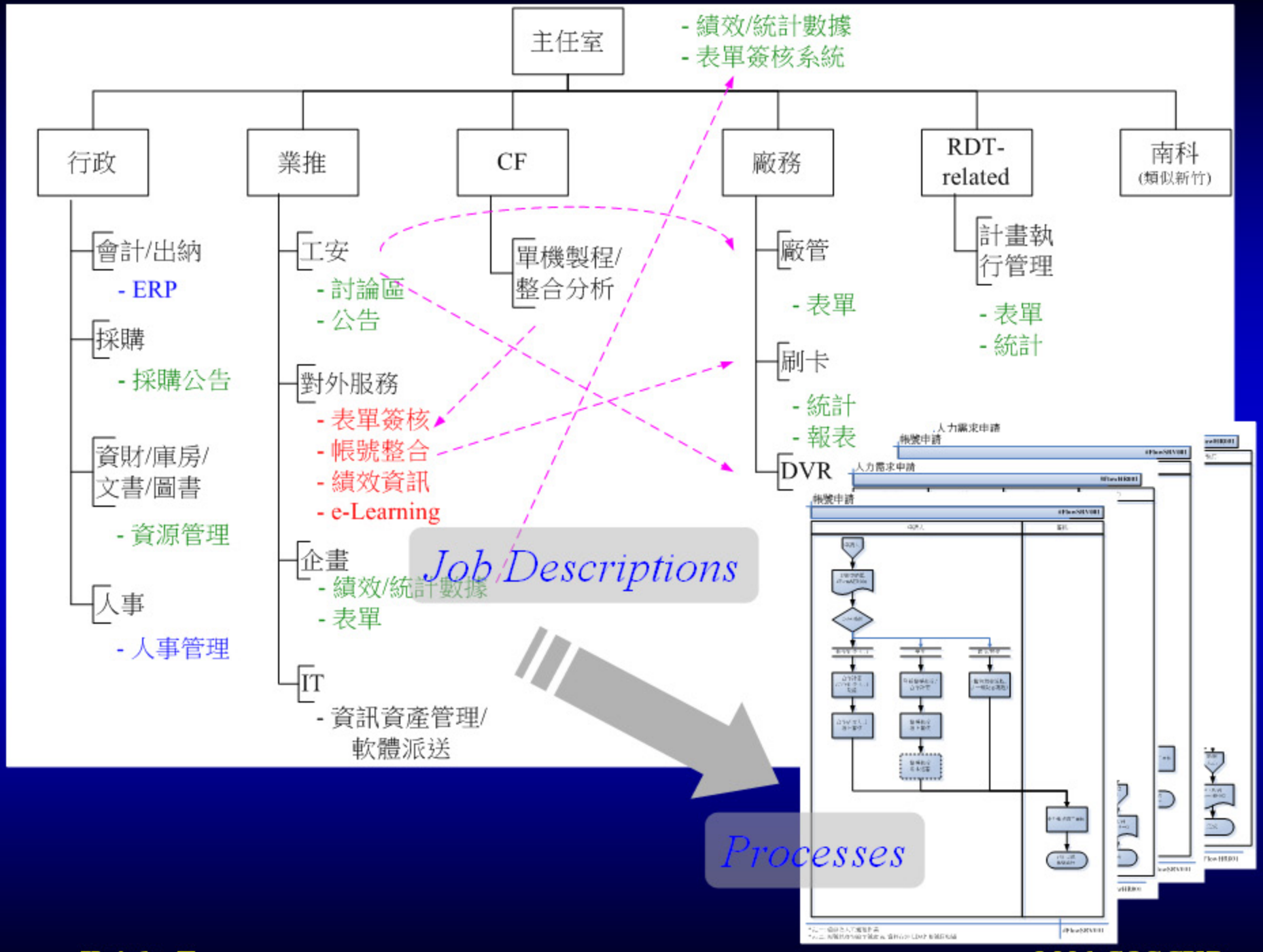


from: http://www.ifi.unizh.ch/ikm/Vorlesungen/ebusiness/ws04/material/SOA.pdf

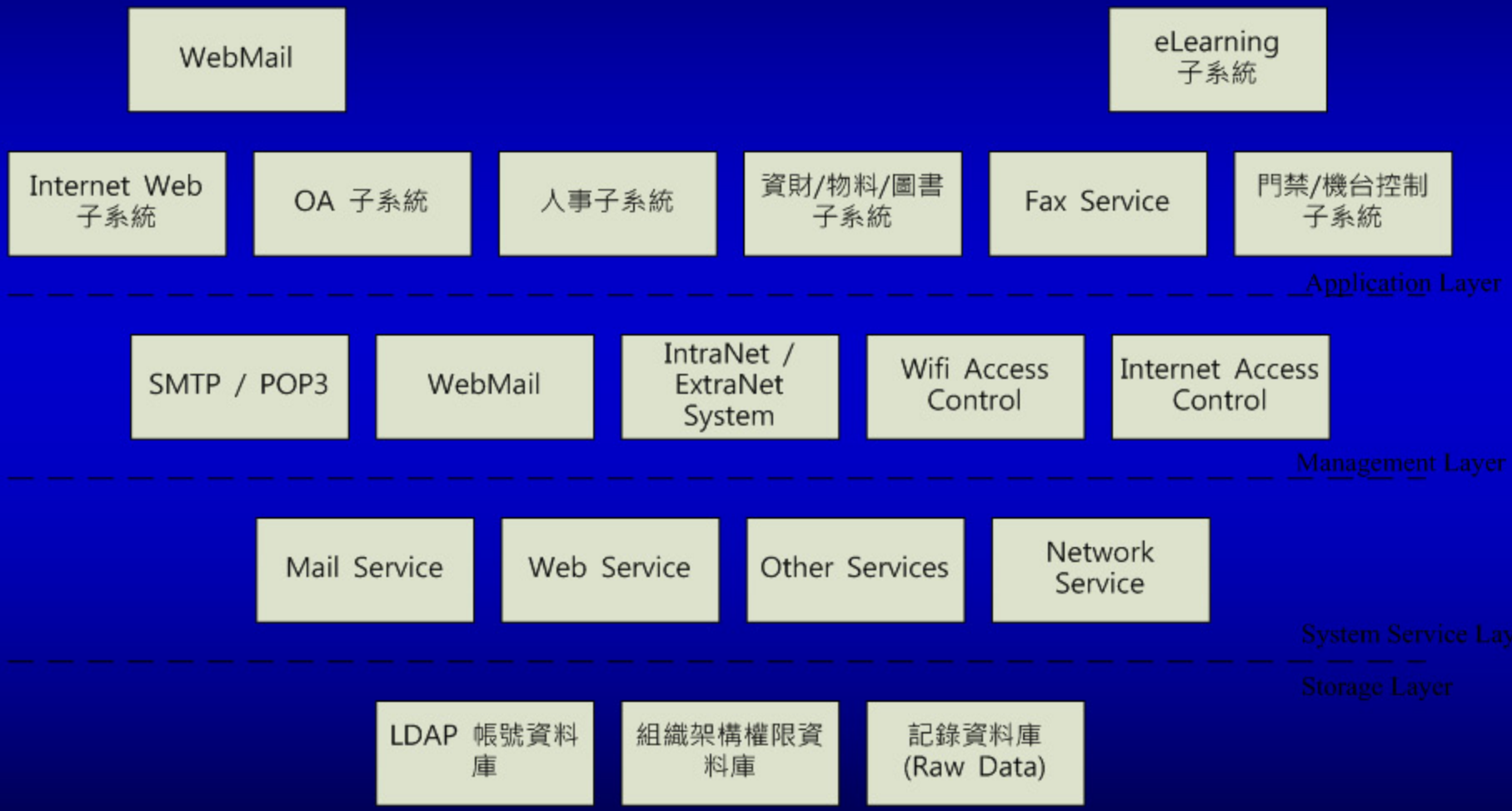

硬體環境
建置
管理規範
需制定整體 [redacted] 管理規範,
並依此規範進行 e 化. 包括:
1. 對內管理 (人事)
2. 對內管理 (簽核)
3. 對外管理 (服務)
伺服器
升級/更新
(硬體/OS)
網路設備
升級/更新
(網管/頻寬)
軟體系統
規畫
(AP)
軟體系統
建置
持續更新
Y
N

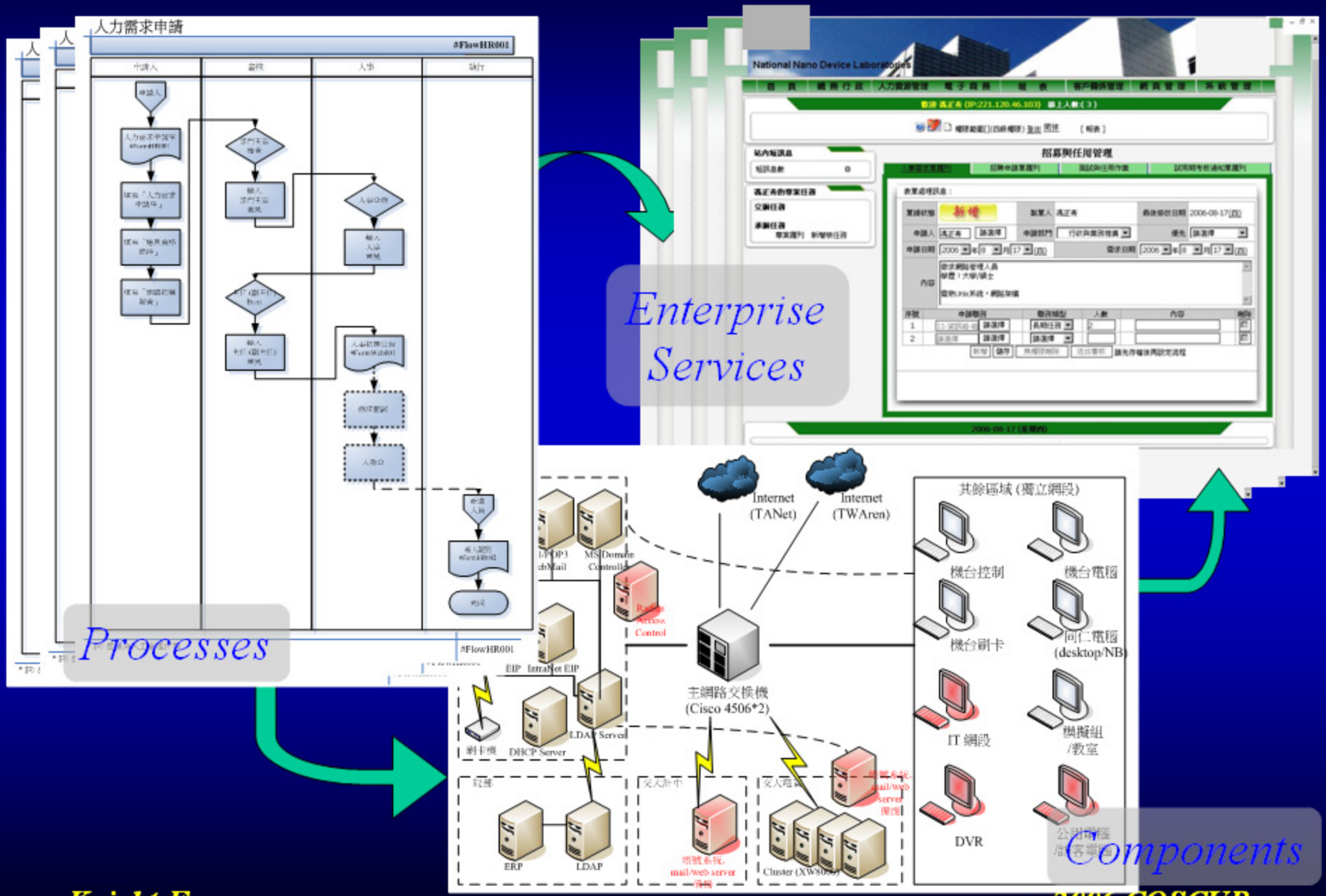
Open Standards



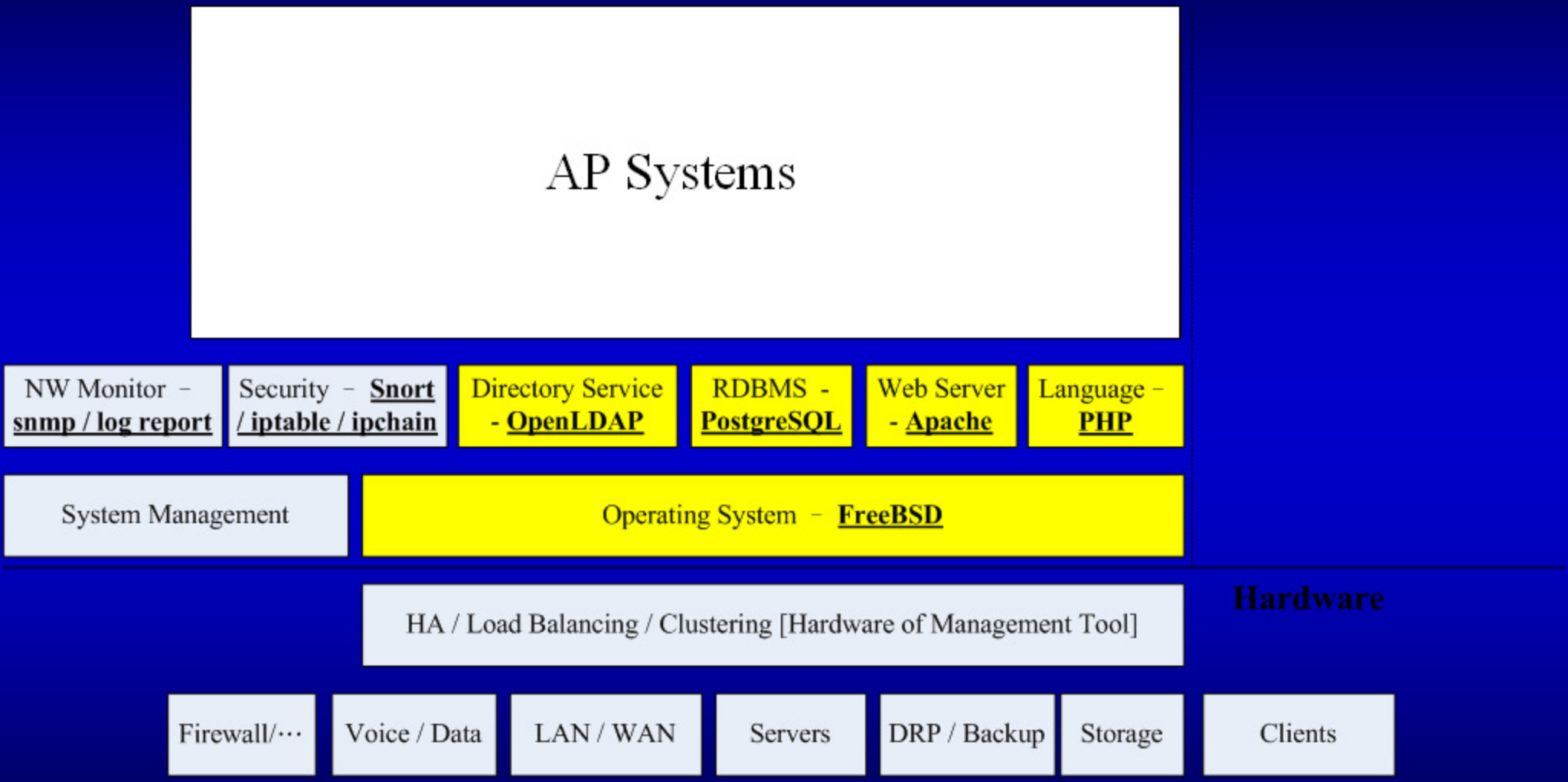

主任室
- 績效/統計數據
- 表單簽核系統
行政
會計/出納
- ERP
採購
- 採購公告
資財/庫房/
文書/圖書
- 資源管理
人事
- 人事管理
業推
工安
- 討論區
- 公告
對外服務
- 表單簽核
- 帳號整合
- 績效資訊
- e-Learning
企畫
- 績效/統計數據
- 表單
IT
- 資訊資產管理/
軟體派送
CF
單機製程/
整合分析
廠務
廠管
- 表單
刷卡
- 統計
- 報表
DVR
RDT-
related
計畫執
行管理
- 表單
- 統計
南科
(類似新竹)
Job Descriptions
Processes

資訊系統架構


WebMail
eLearning 子系統
Internet Web 子系統
OA 子系統
人事子系統
資財/物料/圖書 子系統
Fax Service
門禁/機台控制 子系統
Application Layer
SMTP / POP3
WebMail
IntraNet / ExtraNet System
Wifi Access Control
Internet Access Control
Management Layer
Mail Service
Web Service
Other Services
Network Service
System Service Layer
Storage Layer
LDAP 帳號資料庫
組織架構權限資料庫
記錄資料庫 (Raw Data)


人力需求申請
#FlowHR001
申請人
審核
人事
執行
National Nano Device Laboratories
招募與任用管理
Enterprise Services
Processes
Components
Internet (TANet)
Internet (TWAren)
其餘區域 (獨立網段)
主網路交換機 (Cisco 4506*2)
機台控制
機台電腦
機台刷卡
同仁電腦 (desktop/NB)
IT 網段
模擬組 /教室
DVR
ERP
LDAP
DHCP Server
LDAP Server
Cluster (XW8000)

System Architecture

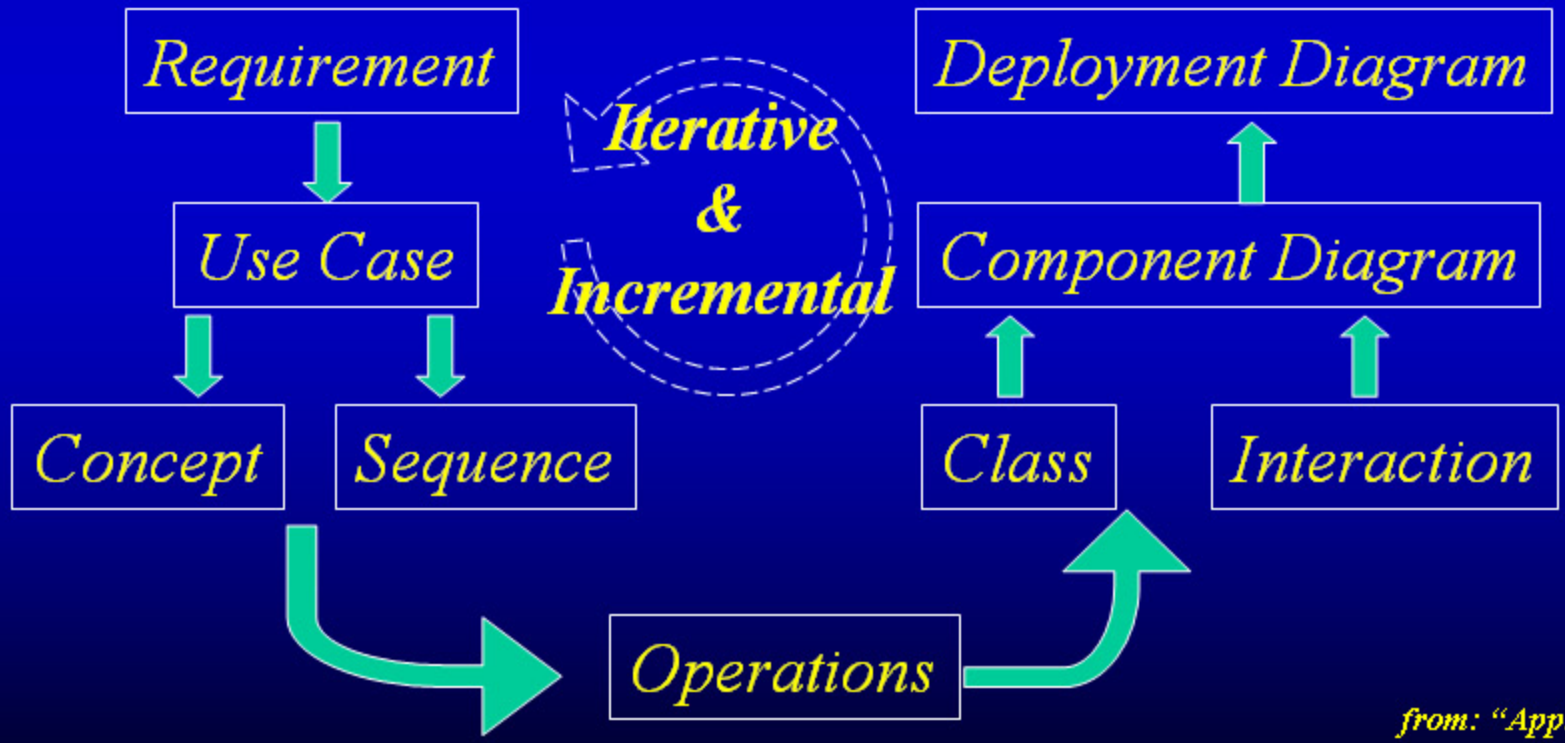


SOA v.s. BPR

- BPR – **B**usiness **P**rocess **R**eengineering
  - Distributed Processing
  - Job Coordination and Application Integration
  - Dynamic System
  - Multiple / Complicated Components
  - Growing Incrementally
- Fully Suitable for SOA

SOA v.s. RPM

- RPM - A **R**ecommended **P**rocesses and **M**odels
  - An Object-Oriented Software Engineering Method
  - An UML-based SA/SD Method



By the way……

- *Why SOA? (**Conspiracy Point of View!!!**)*
  - *Because IBM / BEA / Oracle wants to sell their middleware / ESB (Enterprise Service Bus)*
  - *Because they wants to sell their EIA and Portal solution (to fight with BroadVision / Tibco / Netgrity / …)*
  - *To make Web-Service more popular than .Net / Java by promoting Standards like SOAP / XML / …*
- *Concept Only!*
  - *Make middleware / ESB virtualized*
    - *single platform / language*
  - *Less Open Standards*
    - *Easier for small systems*

我該選哪些 *Open Source Software*?

- 很多人用的
- 有大廠支援的
- 找得到人問的
- 你熟的平台
- 跟你現在已用的 *OSS* 容易整合的
  - 使用相同語言
  - 標準資料交換介面
- 該用 *linux* 當 *desktop* 嗎?
- *And?*