Using TOGAF to do an IKEA for IT

John Taylor, Typex

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Abstract

- We hear about why IT infrastructure should be architect-designed. But SME's can't all afford that, so they use DIY. Is that why it's a mess and still costs so much? But what if bought our IT the way we buy cars, houses and furniture - mass-customised, flat-packed and low-cost? Explore a TOGAF trainee's project to do for IBM servers what IKEA did for furniture and then give your feedback.

Speaker Introduction

- John Taylor
  - Technical Director of Typex, IBM UK BP
  - Author of four IBM Redbooks
  - Designer of IBM's BlueNotes directory tools
  - Recently-certified: TOGAF IT Architect
  - Hope to become: IBM Infrastructure Systems Architect
- Disclaimer
  - I am new to IT Architecture and TOGAF
  - This is my first project
  - If I am talking rubbish then please tell me

Agenda

- IT Architecture - Why don't we all use it?
- If IKEA did IT
- DIY for SMEs
- How could it work for IBM?
- Discussion

If IT Architecture is so good, why don't we all use it?

Customer Audience Survey

- Your own house
  - ☒ Who used an architect?
  - ☒ Who hand built it themselves?
  - ☒ Who built it from a kit?
  - ☒ Who bought new off-the-peg?
  - ☒ Who bought second hand?

- Your furniture?
- Your car?
- Your IT Infrastructure

Discussion

- Can you say why you built or acquired your IT infrastructure that way?
  - ☒ cost?
  - ☒ complexity
  - ☒ no need for structure?
  - ☒ one-man band?

Stages of Product Development

☒1. Hand built, bespoke - all largely different

- 18th century houses, furniture and carriages; designer gowns and gardens today

☒2. Hand built, to a pattern - all slightly different

- 19C houses, furniture, Ferraris, Sunday lunch

☒3. Factory built - all the same

- motel rooms, Ford Model T, MacDonalds, ready-to-wear clothes

☒4. Mass customised - manufactured to order

- 'Estate' houses, Ford Focus, deli sandwich

☒5. Flat pack - DIY to a pattern

- garden sheds, IKEA furniture, kit cars, ready meals

Development Stages of IT Infrastructure

- So, what are IT's development stages today?
  - ☒ 1. Hand built, bespoke
    - ◆ IT Infrastructure
  - ☒ 2. Hand built, to a pattern
    - ◆ 'Solutions'
  - ☒ 3. Factory built
    - ◆ devices and appliances
  - ☒ 4. Mass customised
    - ◆ Servers, corporate software, Dell PCs
  - ☒ 5. Flat pack
    - ◆ Monitors, keyboards, user software

Key Concept

- "The IT infrastructure market is immature"
  - ☒ Q. How many car suppliers in the world?
    - ƒ A dozen or so? (after 120 years)
      - ◆ and an Aston Martin, a Jaguar and a Ford saloon share a floor pan
      - ◆ and even the big ones need to team - a Nissan is a Peugeot is a Citroen
  - ☒ Q. How many IT suppliers in the world?
    - ƒ A million? IBM has 90,000 BP firms (after 30 years)
      - ◆ ...and they all have their own intellectual property for setting up a file server or a DNS
 - ☒ But, how long will this last?

If IKEA Did IT

What if IKEA did IT?

- What if we could buy our IT the way we buy our furniture - mass-customised, flat-packed and cheap - not bespoke, hand crafted and expensive?

- IT solutions would come in a neat pack with a set of diagrams and instructions - maybe even a cool Danish name! All we would need is a spare weekend. Not a consultant in sight!

- So where would that leave us?

Lessons I am Learning

TOGAF Technical Reference Model
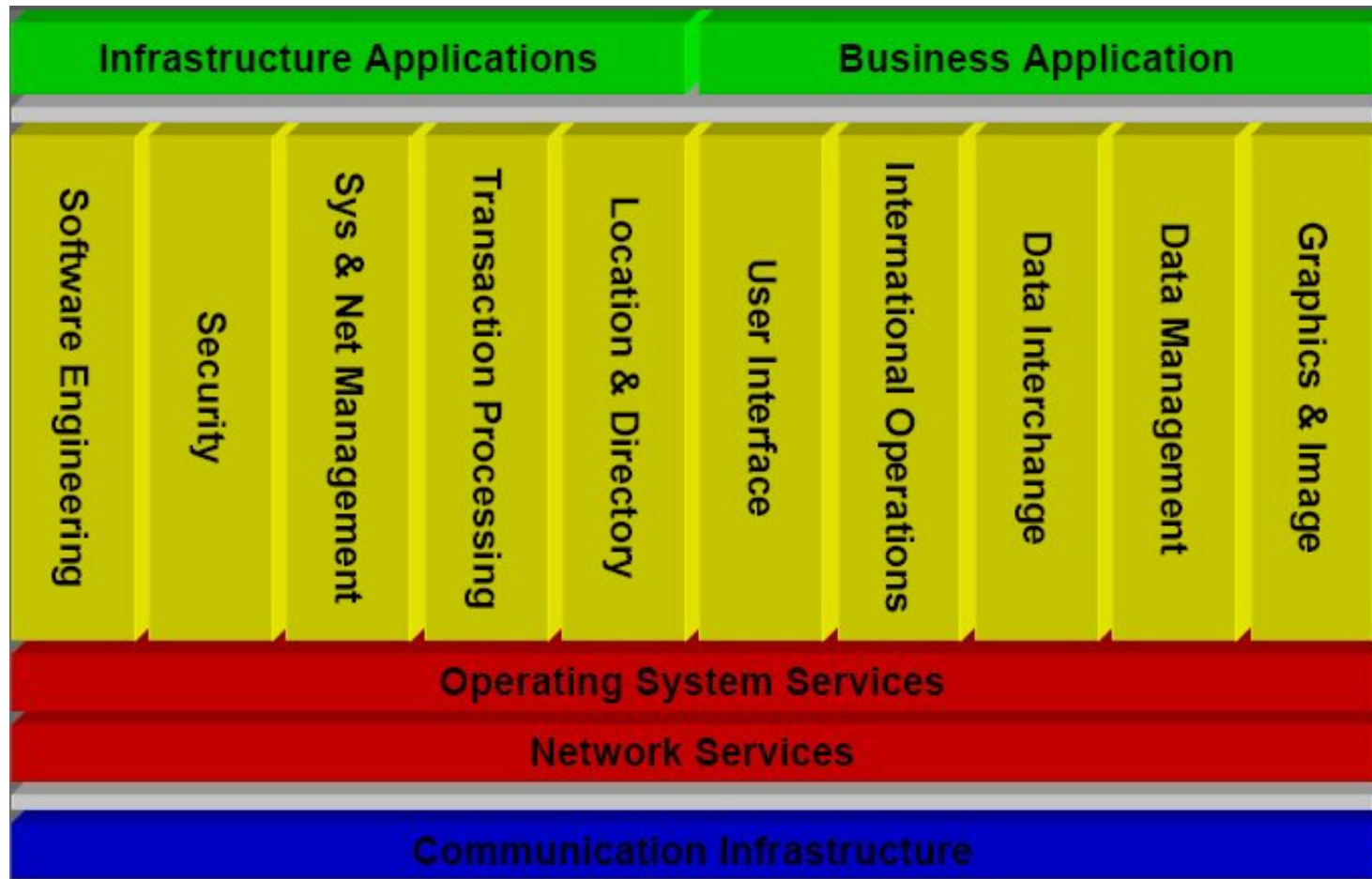
What I Learned from TOGAF's TRM

- 1. Each box in the TRM is independent
  - ☒ It is only necessary to define the interfaces to supporting and supported layers.
  - ☒ Therefore
    - *f* **Each can be made modular and the architecture assembled from building blocks**
- 2. Infrastructure Applications are separate from Business Applications

What I Learned from IBM

- OnDemand Strategy
  - The entry point can be
    - *f* Business Transformation
    - *f* On Demand Operating Environment.
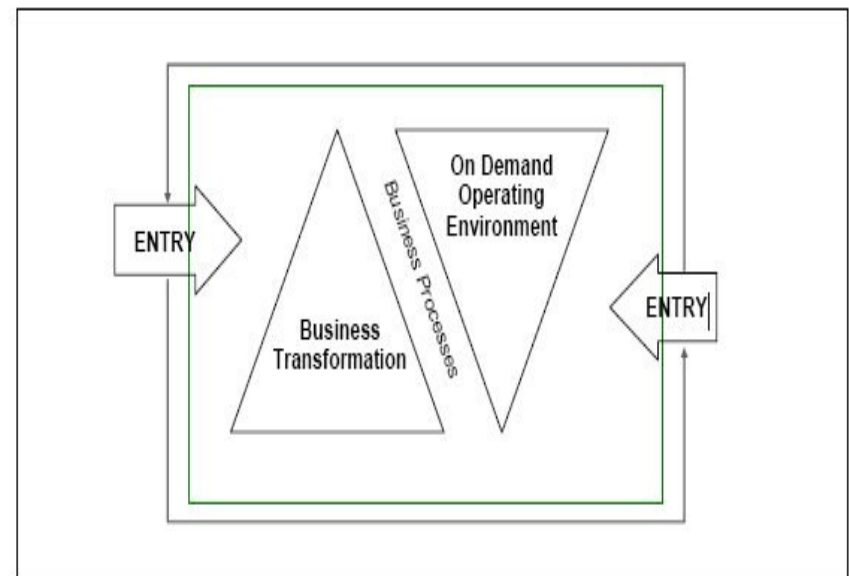
What I Learned from Forrester

☒ Top-Down Approach

ƒ Assumes comprehensive scope; follows formal process

◆ .. to address inefficiencies and redundancies in business process or application portfolios and if you can wait a year for measurable benefits.

☒ Bottom-up approach

ƒ Starts with infrastructure technology standardisation and then moves ... to target high-priority problem areas and eventually influence business architecture.

◆ If you need results that affect the bottom line quickly or if diversity has degraded service delivery.

– (Forrester)

DIY for SMEs. Step 1. Where to Start?

Start with Bottom-Up

- Q. Are your business processes different from your competitors or your industry?
  - ☒ If so, then make your Business Solutions different
    - ƒ bespoke to your organisation, or
    - ƒ use a pattern designed for your industry, or
    - ƒ use a pattern designed for anyone
- Q. Does your file server need to be different? Your DNS ? ... your e-mail?
  - ☒ If not, then why not buy it off the shelf?
- Key concept: **Infrastructure applications before business applications**

Step 2. Make it Modular

Architecture - Before (one app/server)

Printer | PC | PDA | Cellphone

App

App

App

App

App

App

App

App

Internet

Managed
Services
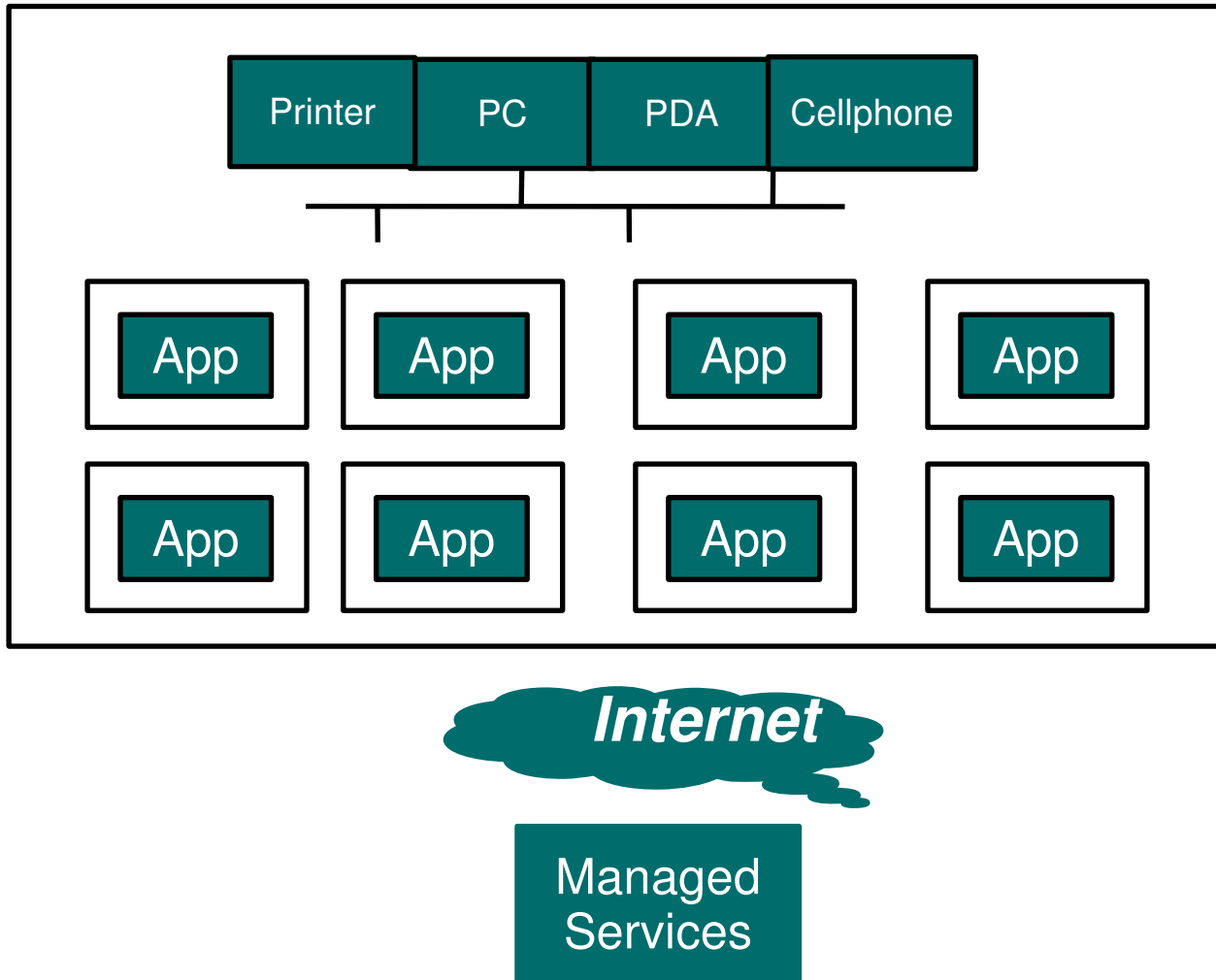
Server Consolidation - Group App Types

Printer | PC | PDA | Cellphone

LoB Apps

Infrastructure
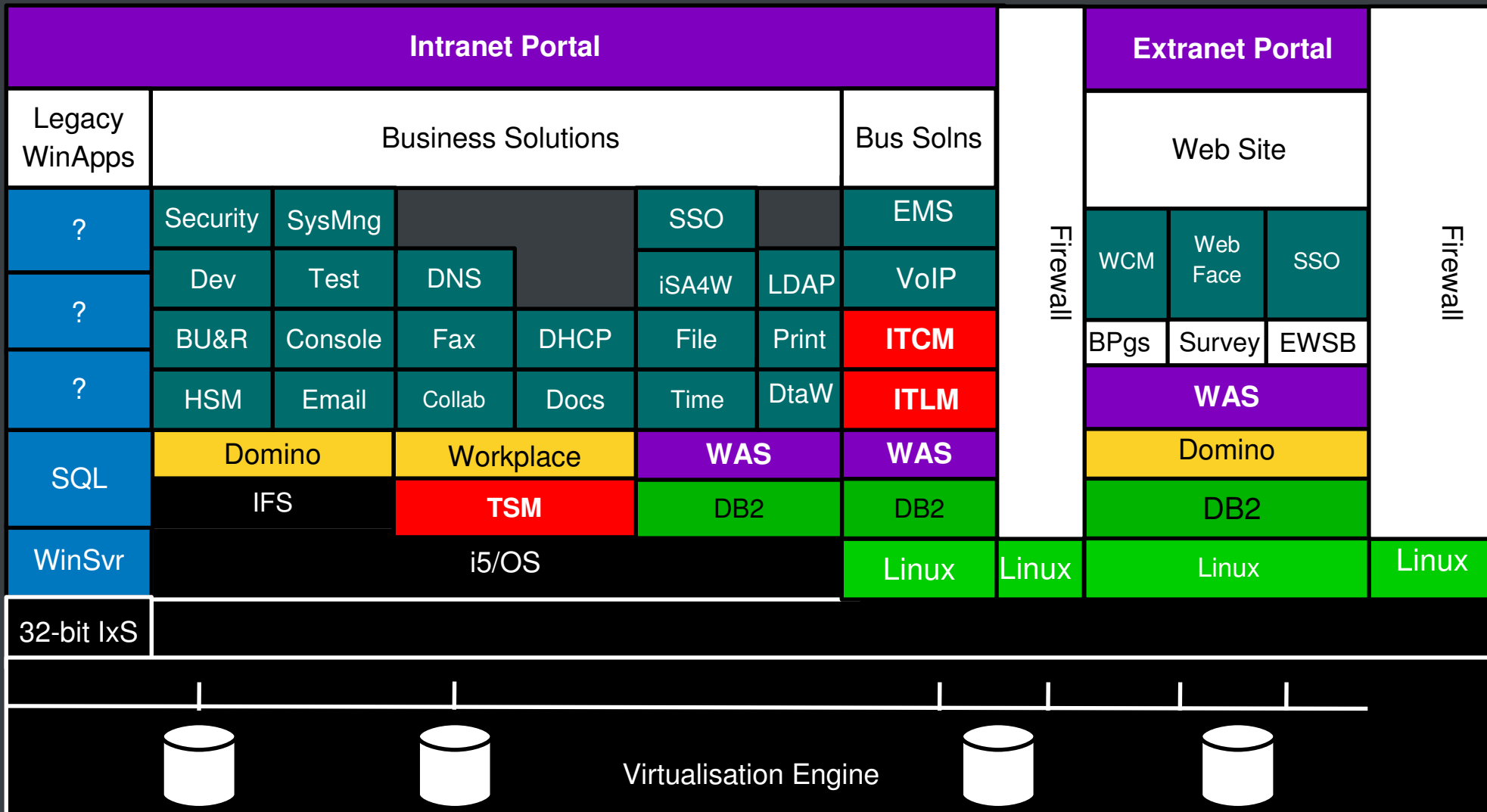
Web & F/wall

HA

Branch

Internet

Managed Services

Step 3. Pick a Platform

Why IBM System i & i5/OS?

- Key Concepts on System i (iSeries, AS/400...)
  - ☒ It runs multiple instances of 4 virtualised OSs
    - f Linux, AIX, i5/OS, Windows (co-processor)
  - ☒ It comes with a SAN and VLAN
- Key Concepts on i5/OS
  - ☒ Subsystems let it run multiple app. instances
  - ☒ It includes infrastructure (F&P, DNS, etc)
  - ☒ Security, database, file system, etc. all integrated
  - ☒ 70% of IBM customers have got one already
- Together they host nearly everything, from £5K
  - ☒ .... but nobody knows!

Framework - System i for SMB

Intranet Portal								Extranet Portal		

Legacy WinApps	Business Solutions						Bus Solns	Web Site		
?	Security	SysMng			SSO		EMS	WCM	Web Face	SSO
?	Dev	Test	DNS		iSA4W	LDAP	VoIP			
?	BU&R	Console	Fax	DHCP	File	Print	**ITCM**	BPgs	Survey	EWSB
?	HSM	Email	Collab	Docs	Time	DtaW	**ITLM**	**WAS**		
SQL	Domino		Workplace		**WAS**	**WAS**	Domino		
	IFS		**TSM**		DB2	DB2	DB2		
WinSvr	i5/OS					Linux	Linux	Linux	Linux

Firewall

Firewall

32-bit IxS

Virtualisation Engine

TYPEX GROUP

Step 4. Build the Flat-Pack Kits

What Do We Need?

- A platform-specific Architecture Framework to simplify IT Infrastructure ..... the way IKEA would do it
  - ☒ Modular and standardised
  - ☒ Low cost
  - ☒ Web-based
  - ☒ Collaborative
  - ☒ Self assembly an option
- Provides a foundation for what you need to personalise

What Are the Deliverables?

- High level maps and diagrams
- A selection hierarchy
  - ☒ Business Issue, e.g. Security
    - ƒ Solution, e.g. Single Signon
      - ◆ Solution Approaches, e.g. LDAP, EIM, etc.
        - − Solution-in-a-Box
  - ☒ Guidance and advice on next steps. Start at any level

What's In Each Box?

- 'How to' Guides
  - Simple, step-by-step guides (PDF).
- Information Maps
  - Routes to IBM and non-IBM information and support.
- Designed for use by BP or customer

How Might it be Delivered?

- A collaborative Web site
- Drill down the selection hierarchy
- Evaluate options online
- Download materials
- Share a Team Space
  - ☒ Collaborate with others for support. Feed back your experiences.
- The Maintenance Issue
  - ☒ New products, new releases, new ideas, new tools, etc.

Step 5. Go to Market

IKEA Uses Cool Names

- They use Scandinavian names for products
  - ☒ can sound a bit like TOGAF
- We need cool names for what is free in i5/OS
  - ☒ NetServer > SiMBA
  - ☒ Virtual Storage > iSAN
  - ☒ Network > iDNS, iDHCP, iSSO, iLDAP, iHTTP, iVPN, iTime, iVLAN
  - ☒ Subsystems > VEWare
  - ☒ DB2 > iSQL
- Think 'Sushi', not 'cold, dead, wet fish'

IBM Benefits

- Drives IBM Revenue
- Extends the System i channel to Windows & Linux BPs and to customers

Discussion

- Would this work for your customers?

- What are the best bits?

- What are the worst?

- What if we contributed the Architecture Framework?

- How could we fund its operation and maintenance?
  - ☒ Support subscription?
  - ☒ Web Advertising?

Close and Questions

- Thank You
- Questions?

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