Using TOGAF to do an IKEA for IT

John Taylor, Typex

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
"The IT infrastructure market is immature"

Q. How many car suppliers in the world?
   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?
   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
     - Each can be made modular and the architecture assembled from building blocks

2. Infrastructure Applications are separate from Business Applications
OnDemand Strategy

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

- **Top-Down Approach**
  - 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**
  - 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?
Q. Are your business processes different from your competitors or your industry?

- If so, then make your Business Solutions different
  - bespoke to your organisation, or
  - use a pattern designed for your industry, or
  - 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**
Architecture - Before (one app/server)
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
    - 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

### Business Solutions

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### Virtualisation Engine

- i5/OS
- Linux
- DB2
- WAS
- Domino
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
    - 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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