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How to Run a Successful SCON Study

Course #:

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Learning Objectives

Student learning objectives for this education module

Learning Objectives: this education will enable you to:

- **Distinguish between the Content and Value of the "SCON" (TCO) Study Offerings from IBM**
  - with emphasis on the "Zodiac" offering
- **Identify and qualify productive engagement opportunities**
  - Match the value of an offering to the need of the situation
- **Build teams that are fully skilled to deliver an effective offering**
  - With excellence, expertise, and experience

Agenda

- **Distinguish between the Content and Value of the "SCON" TCO Offerings from IBM**
- **Sample Bus.Case Issue: "staff cost reduction"**
- **Identify and qualify productive engagement opportunities**
- **Build teams that are fully skilled to deliver an effective offering**

Terminology I:

- **SCON: Server Consolidation**
  - Reduction of Physical and Logical servers
  - “SCON” is “merely rehosting and cost cutting”
  - SO, use “**TCO Study**” or “Infrastructure Simplification”, *not “SCON”*
- **IT Rationalization**
  - Rearrange servers, storage, the entire functional topography to improve **efficiency**. e.g. shared dev/test farm, shared failover, SAN & SVC, IXA,..
- **IT Optimization**
  - Re-evaluate IT Architecture **and** organisation and processes **and** governance to improve **efficiency & effectiveness**.

Terminology II:

- **TCO: Total Cost of Ownership**
- **PCO: Partial Cost of Ownership**
  - Note that TCO can include cost of downtime (wasted employees hours & lost business opportunities). This does concern the CEO, but the CIO is concerned to make IT effective, and efficient as measured on IT Budgets. So, "PCO" is: costs that **are** on the IT Budget, and **are** affected by rationalization.

TCO Study Process:

- **Scope**
  - Does the scope include only specific platform, specific solutions?
  - Check both current and subsequent requirements
- **Server Data Collection**
  - ..& storage & financial & BoC* & …
  - automated, estimated, or recorded
  - at single server level or at solution level
- **Financial Data *may* be needed and/or available**
  - predicting future costs: fixed method, or adaptable?
- **“Solutioning”**
  - Is this a cost problem, or a design problem, or a financial justification problem?
  - What degree of novelty is admissible?
- **Output**
  - What is the expectation of the volume, and accuracy:
  - Is the emphasis on discovery, assessment, design, cost justification, or implementation?

*Boundaries of Consolidation

Automated Data Collection:

- **IBM: CDAT**
  - New version discovers Unix as well as Windows servers
- **IBM: IDD**
  - Windows / Linux based set of tools for discovery
- **ISI: Snapshot**
- **Peregrine: Xanadu**
- **Ecora: Ecora**
- **Platform Computing: Platform**
  - The above are 3rd party commercially available server discovery tools

- **Restrictions**
  - In general all use WMI or SNMP-based “MIB” for data collection
  - WMI, Agents and network security can partly restrict access
  - Agent-based data collection is most comprehensive
    Server-based is obviously more suited for discovery of unknown servers
- **Some data cannot be collected automatically**
  - financial, ownership, service level, future plans

Positioning:

	Mini-ALIGN	TCOnow!	ISIG Z.subset	Zodiac	Scorpion Z.superset
Scope	Intel to xSeries	Specific Solution	Specific Solution	Tailored	Tailored
Input	Individual server data	Solution-level data	Solution-level data	Individual server data	Individual server data
Costs	RoT	RoT with client data	RoT	RoT plus client data	RoT plus client data
Savings	Simple	Yes	Yes	yes, plus client rules	yes, plus client rules
Solution	AMO*	AMO*	AMO*	AMO*	AEHVAMO**
Output	Cost & benefit	Full reporting	15pg PPT	50pg PPT	150pg PPT

*A Miracle Occurs **An Extremely-High-Value-Added Miracle Occurs, alternative designs, design and business benefits, etc.

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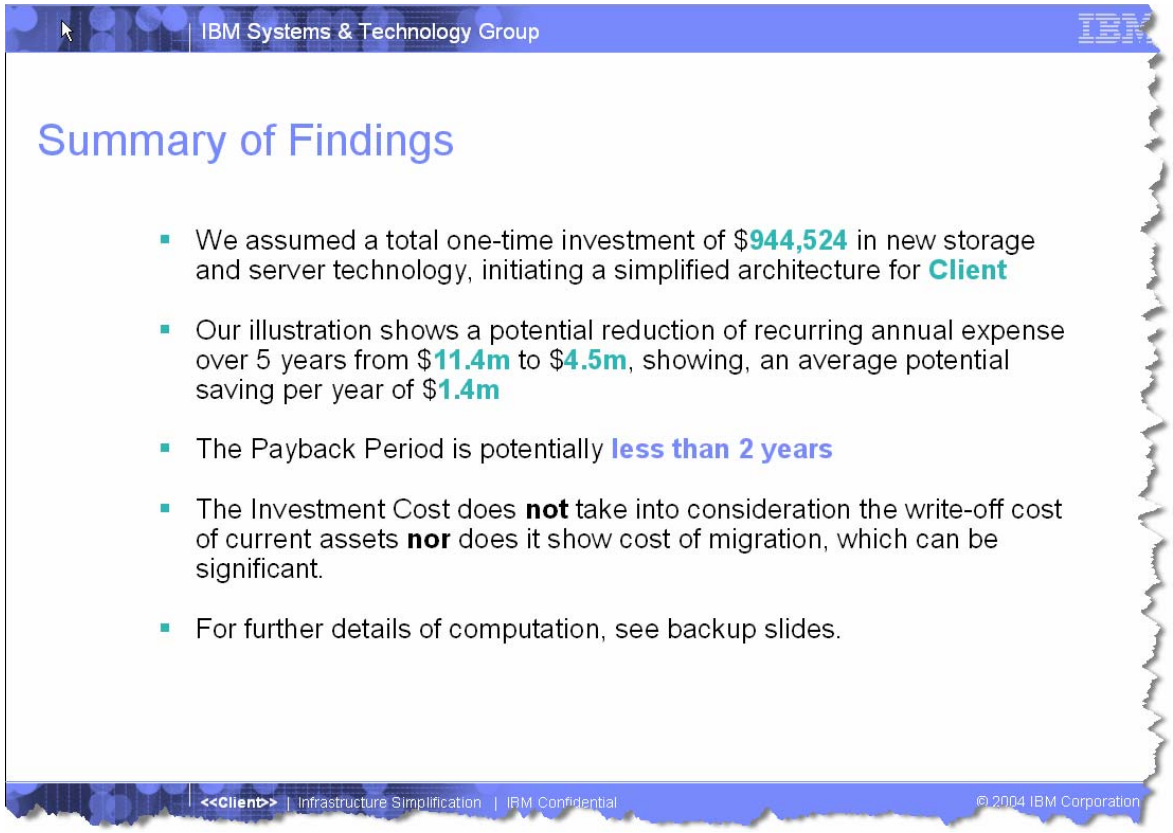
4 Typical Slides from a Brief TCO Study Report (I)



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4 Typical Slides from a Brief TCO Study Report (II)

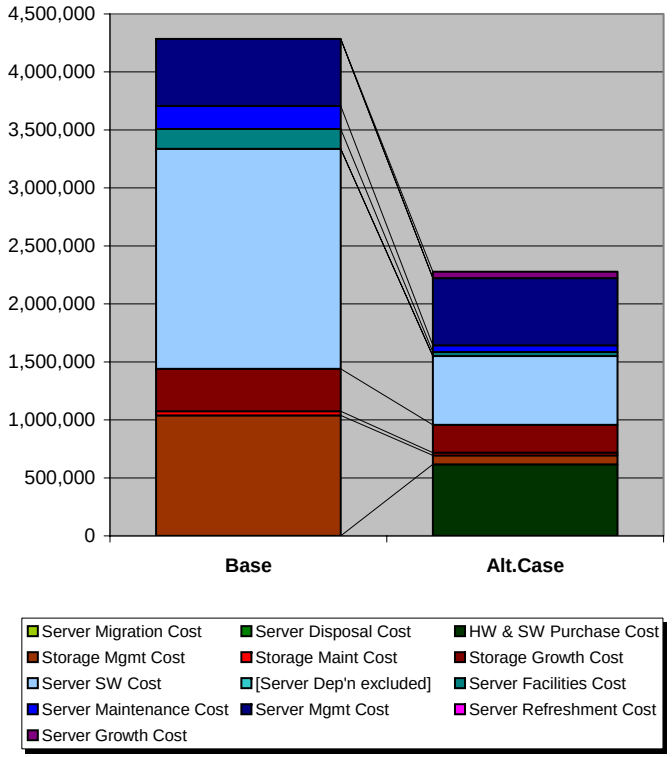
win-SQL: 5-Years

Windows SQL Database Servers: 5-Years

5 yr Cost Total	Base	Alt.Case
.....Server Cap-Ex		
Server Growth Cost	0	54,830
Server Refreshment Cost	0	0
.....Server Run-Costs		
Server Mgmt Cost	575,494	579,390
Server Maintenance Cost	198,309	59,278
Server Facilities Cost	172,083	33,274
[Server Dep'n excluded]	0	0
Server SW Cost	1,896,222	592,924
.....Storage Costs		
Storage Growth Cost	366,337	240,276
Storage Maint Cost	36,634	24,028
Storage Mgmt Cost	1,038,133	77,184
.....One Time Costs		
HW & SW Purchase Cost	0	616,716
Server Disposal Cost	0	0
Server Migration Cost	0	0

Net Cash Investment	616,716
Avg Annual Saving over 5yrs	524,406
Tot.Saving over 5yrs	2,005,313
%age Saving over 5yrs	47%

Replacement	Current	Alt.Case
server type	Intel/4	x445/4 MP
#Lsrv servers	19	16
#Psrv servers	19	4
average util'n	25%	39%



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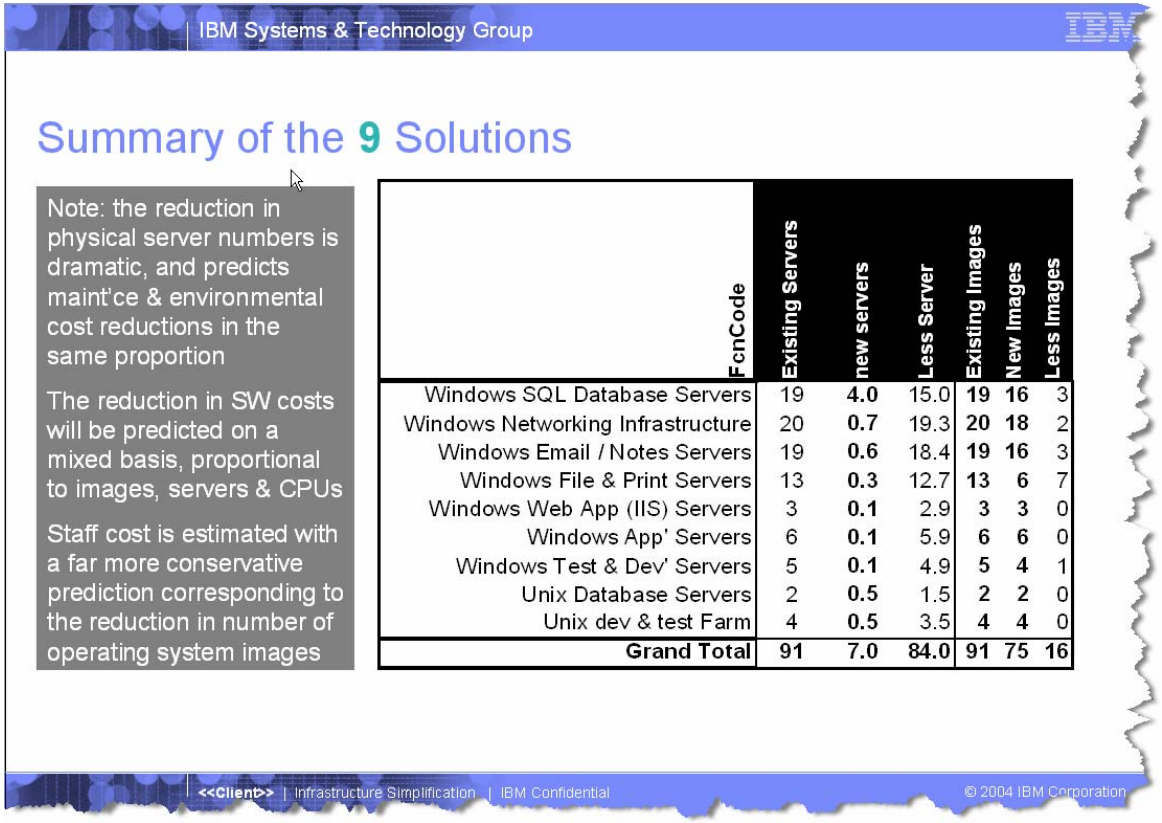
4 Typical Slides from a Brief TCO Study Report (III)



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Summary of the 9 Solutions

Note: the reduction in physical server numbers is dramatic, and predicts maint'ce & environmental cost reductions in the same proportion

The reduction in SW costs will be predicted on a mixed basis, proportional to images, servers & CPUs

Staff cost is estimated with a far more conservative prediction corresponding to the reduction in number of operating system images

FcnCode	Existing Servers	new servers	Less Server	Existing Images	New Images	Less Images
Windows SQL Database Servers	19	**4.0**	15.0	**19**	**16**	3
Windows Networking Infrastructure	20	**0.7**	19.3	**20**	**18**	2
Windows Email / Notes Servers	19	**0.6**	18.4	**19**	**16**	3
Windows File & Print Servers	13	**0.3**	12.7	**13**	**6**	7
Windows Web App (IIS) Servers	3	**0.1**	2.9	**3**	**3**	0
Windows App' Servers	6	**0.1**	5.9	**6**	**6**	0
Windows Test & Dev' Servers	5	**0.1**	4.9	**5**	**4**	1
Unix Database Servers	2	**0.5**	1.5	**2**	**2**	0
Unix dev & test Farm	4	**0.5**	3.5	**4**	**4**	0
Grand Total	**91**	**7.0**	**84.0**	**91**	**75**	**16**

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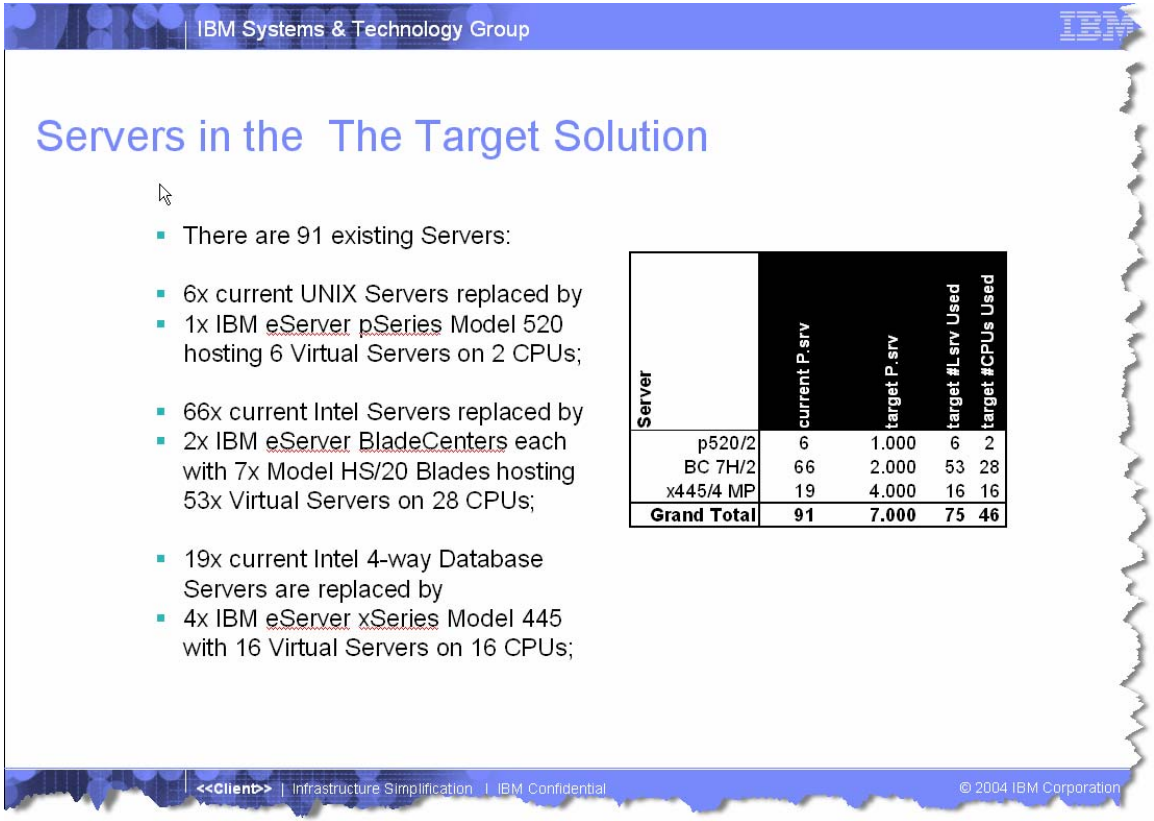
4 Typical Slides from a Brief TCO Study Report (IV)



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Servers in the The Target Solution

- There are 91 existing Servers:
- 6x current UNIX Servers replaced by
- 1x IBM eServer pSeries Model 520 hosting 6 Virtual Servers on 2 CPUs;
- 66x current Intel Servers replaced by
- 2x IBM eServer BladeCenters each with 7x Model HS/20 Blades hosting 53x Virtual Servers on 28 CPUs;
- 19x current Intel 4-way Database Servers are replaced by
- 4x IBM eServer xSeries Model 445 with 16 Virtual Servers on 16 CPUs;

Server	current P.srv	target P.srv	target #L.srv Used	target #CPUs Used
p520/2	6	1.000	6	2
BC 7H/2	66	2.000	53	28
x445/4 MP	19	4.000	16	16
Grand Total	**91**	**7.000**	**75**	**46**

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- Identify and qualify productive engagement opportunities
- Build teams that are fully skilled to deliver an effective offering

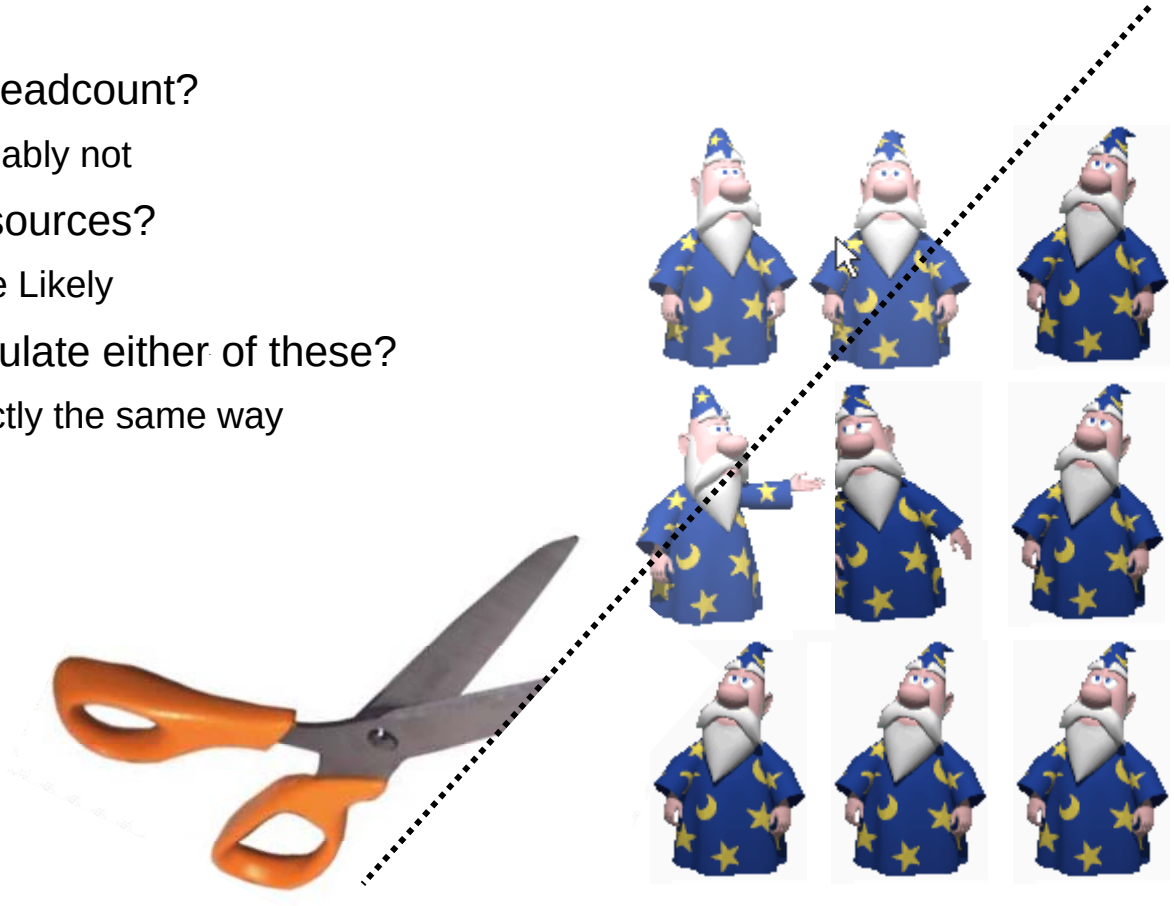
Pictures of Staff Cost I: Reduced *What*? – "FTE"

- Q: Reducing Headcount?
  - A: Probably not

Q: Freeing up resources?

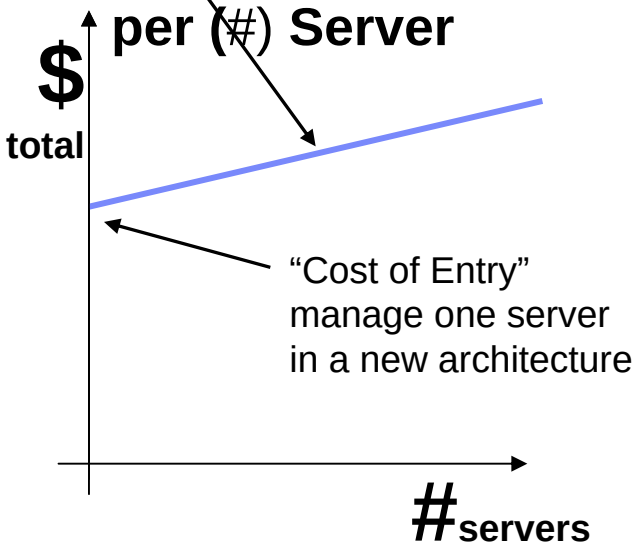
  - A: More Likely

- Q: How to calculate either of these?
  - A: Exactly the same way

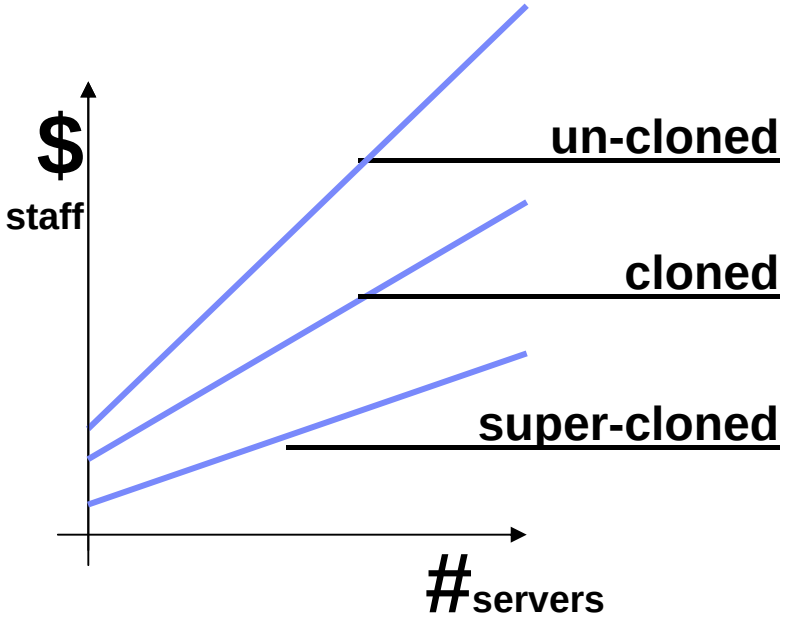


Pictures of Staff Cost II: # Servers per Person

- **Gradient = ($) cost per (#) Server**



Staff-to-Server Ratio Theory
courtesy David G Heap



Pictures of Staff Cost III: RNIB

- **RNIB**
- Retail / Nirvana / In-Trouble / Banking

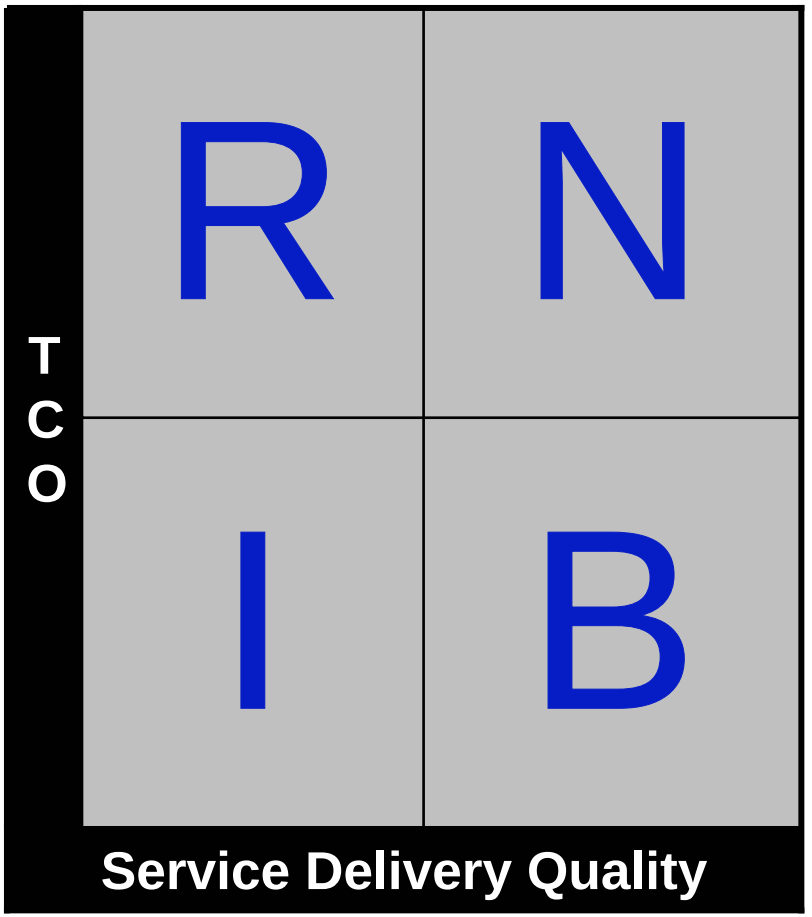
- **4 Quadrants**

  RN Upper quadrants: Low TCO
  IB Lower quadrants: High TCO

  RI Left quadrants: Low Quality
  NB Right quadrants: High Quality

- Lower = Inefficient or Effective?
- Upper = Efficient or Ineffective?

- Non-Strategic View
- No indication of Business Value



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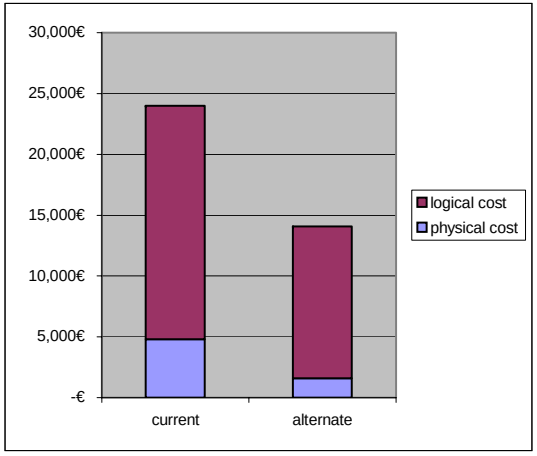
Pictures of Staff Cost IV: Value of Virtualisation

- Virtualisation is wonderful. Even “Mere” Physical Consolidation
- How could you quantify potential Staff Cost savings from Physical Consolidation?

3	old Pservers (&Lservers, P=L) replaced by each …
1	new server (fixed!)
0.333	**physical consolidation ratio:** the effort/cost of physical server Mgmt is reduced in this ratio)
8,000€	staff cost per server
24,000€	total staff cost
20%	%age effort for physical mgmt (try 20%, 80%)
80%	%age effort logical mgmt (implied)
35%	efficiency improvement in logical effort from Single Point of Mgmt, commonality, etc.

Before/After	*current*	*alternate*
physical cost	4,800€	1,600 €
logical cost	19,200€	12,480 €
total	24,000 €	14,080 €
saving	**41%**	**9,920 €**



Example of a Potential Solution

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- **Identify and qualify productive engagement opportunities**
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Identify and Qualify Opportunities

- **Propensity to Change**
  - Cost reduction targets have been set?
  - New IT Director “righting past wrongs”
  - Cross-business-unit ownership for infrastructure
  - Data Centre consolidation (& NW Investment) invites “SCON”
- **Need to Change**
  - DR arrangements fall short of DR requirement
  - (Imminently) Obsolete systems may soon become unsupported
  - One of SAN-based technical architecture or Server Consolidation leads onto the other
- **Perceived Benefits of Change**
  - Estate is old, low NBV, high HWMA, easily virtualised
  - Virtualisation leads to automation, provisioning, utility pricing,..

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TCO Study Team Building:

- **The Lead Consultant**
  - Trusted Advisor, creates & communicates the vision
  - Directs emphasis between assessment, design, business case,..
- **The Technical Architect**
  - Earns trust of the client Technical Design Authority
  - Understand current architecture, issues, and possibilities
- **The Financial Consultant**
  - Earns trust of client IT Finance
  - Understands and implements variations working with..
- **The Data Analysis & TCO Toolset Wizard**
  - Understands client data sources, our complex tools **(*that he must have used before*),** produces information out of data, produces charts out of nowhere, watching his ThinkPad display induces nausea
- **The Project Manager**
  - The project must finish on time, and needs NOT wait for input (!)
  - Essential when coordinating multiple sources – more than 5 data sources, more than 10 interviews

Conclusion / Wrap-up

- **IBM has a variety of strong offerings and excellent skills and tools, all derived from investment and experience in client engagements**
- **Consultative Selling brings the value of our business experience direct to the client**
- **Investigate and Validate the requirement first!**
- **Building a fully skilled team to deliver your TCO Study will facilitate your client to quantify the cost and value of the "pain and the vision", and accelerate their taking the next step forward to being an On Demand business**

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