

2011



# *Staffing Ratios*

# Table of contents

ERP	BI\DW
Portal	Networking
Printing	Security
Development	SOA\ESB
ESM – Monitoring	DBMS
Servers	NOC – Operators
PC support	Storage
PPM	



# ERP Staffing ratios in Israel



- ▶ Average size of Israeli ERP department:  
**15 employees**
- ▶ Clear link between degree of customizations and size of ERP staff
- ▶ Percent of ERP employees from entire IT department: **8-10%** (ranged from 3%-45%)
- ▶ Average ratio ERP staff / ERP users: **1: 52 - 1:80**

Ratio abroad: 1:31 in multiple versions installations, 1:40 for single version installation (Source: Computer Economics)

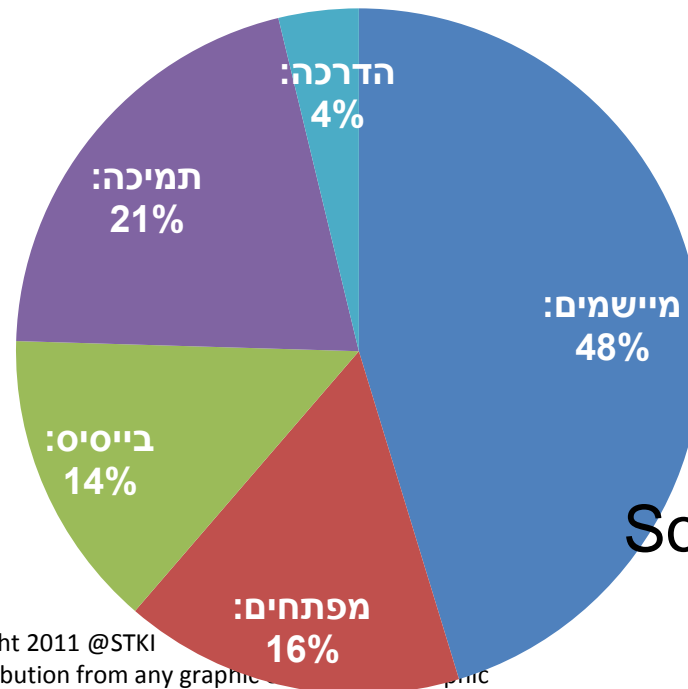
The larger the installation – the better the Ratio

# SAP staffing in Israel

50% of ERP SAP department is implementers!

(who perform many of the other tasks)

**חלוקת תפקידים מחלקות SAP**



Source: STKI survey

# ERP staffing trends

Insourcing! Organizations prefer to “go it alone” and only use outside help in new areas ▲

Even then, they want to gradually train their own people ▲

Areas in which outside help is wanted: ▲

New modules (no knowledge) ▲

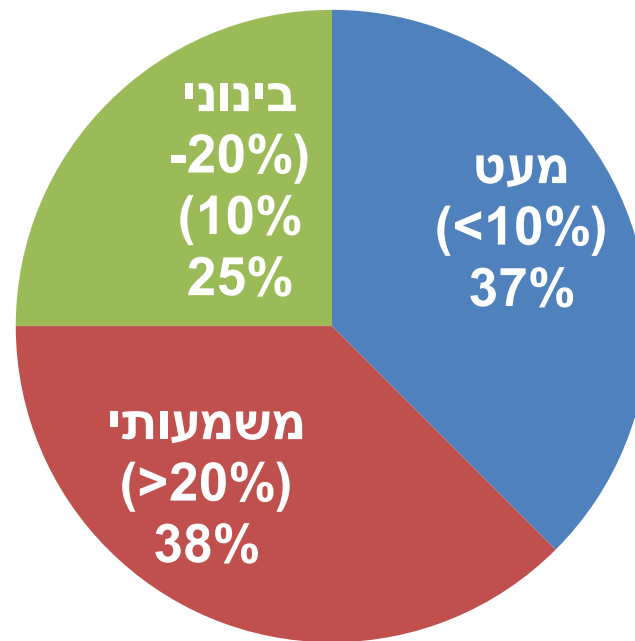
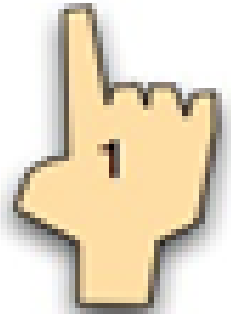
ERP Infrastructures (portals, BI, BPM) - Fusion, Netweaver ▲

Top experts knowledge - but only for a few hours ▲

# Size of ERP department depends on:

ERP

## מידת השינויים שנעשו בחבילה

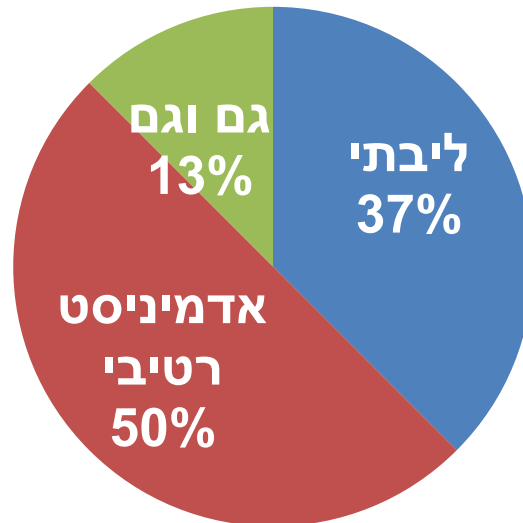


Source: STKI survey

# And on type of use:

ERP

אופי היישום -  
ליבתי או אדמיניסטרטיבי



Source: STKI survey

# Israel – DW/BI Staffing ratio



Average Israeli ratio: BI/DW is **6% of IT department** ▲  
(compared to 4.3% abroad - source: Computer Economics)

**An average of 8 DW/BI employees in Israeli organizations** ▲

Smallest: government+high tech (2-5 employees, 3% of IT) ▲

Largest: banking+telecom (15-60 employees, 8-10% of IT) ▲

75% of Israeli enterprises have a centralized BI/DW ▲  
department (very good compared to worldwide situation)

50% of staff is external, trend towards in-sourcing BI ▲



# Portal Staffing ratio in Israel



Average number of employees dedicated to portals in Israel: **2.5 employees** (~2% of IT department) ▲

In 70% of organizations, **portal is under the IT department** ▲

Small departments, also doing other things  
(i.e Internet, document management)

# Networking Staffing Ratios

**Ratios of data/voice  
networking Personnel  
(Israel)**

6% of IT unit

**Ratios of data/voice  
networking Personnel  
(Abroad)**

7.7% of IT unit

**Average number of Ports / End user  
(Israel)**

4.7 Ports / End user

# Customer Center Staffing

Average number of IT FTEs dedicated to CC operations (including HD, not including operators of any kind)

7.5

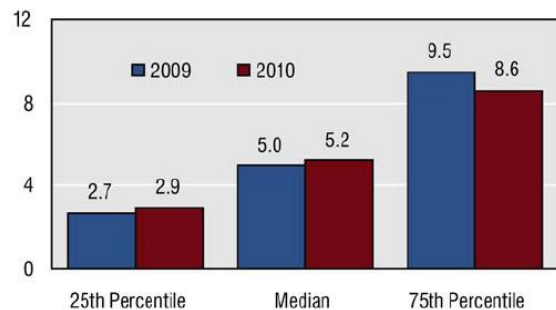
Application related -75%

Telephony/Infrastructure related -25%

# Israeli Printing Benchmarks

	Average pages /user (1 year)	Employ /printers	Average % Of colored pages	Average pages /job	% of multiple pages jobs	Printer expenses /user
Israel (Cross Sector)	4,333	5.2	18%	2.7	75%	1,062 ₪

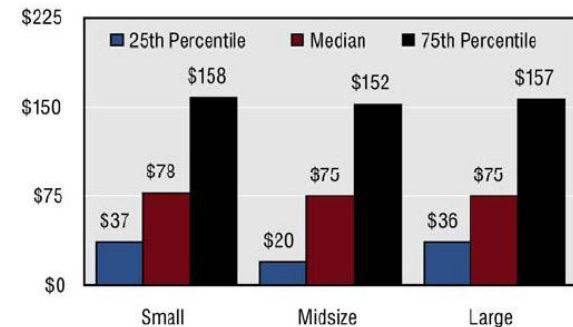
Users per Printer: 2009-2010



Source: Computer Economics, 2010

Figure 2

Printer Expenses per User, by Organization Size



Source: Computer Economics, 2010

Figure 5

# Israeli Printing Benchmarks

Sector	Average pages /user (1 year)	Employ /printers	Average % Of colored pages	Average pages /job	% of multiple pages jobs	Printer expenses /user
Defense	4,000	3.2	9%	2.2	59%	968 ₪
Finance	5,775	3	8%	2.65	71%	1,331 ₪
Healthcare	5,000	2.3	15%	2.72	79%	1,500 ₪
Government	5,600	3.2	7%	2.85	77%	1,166 ₪
Services	4,257	5.8	21%	2.94	81%	914 ₪
Industry	3,400	7.2	23%	2.78	76%	603 ₪
Telecom	3,150	7.6	14%	2.35	65%	1,255 ₪
Best in class				Bad!		

# Security Budgeting Ratios

Ratios of Security Budget (Israel)	Ratios of Security Budget (abroad)
4.3% of IT operational budget	4% of IT operational budget

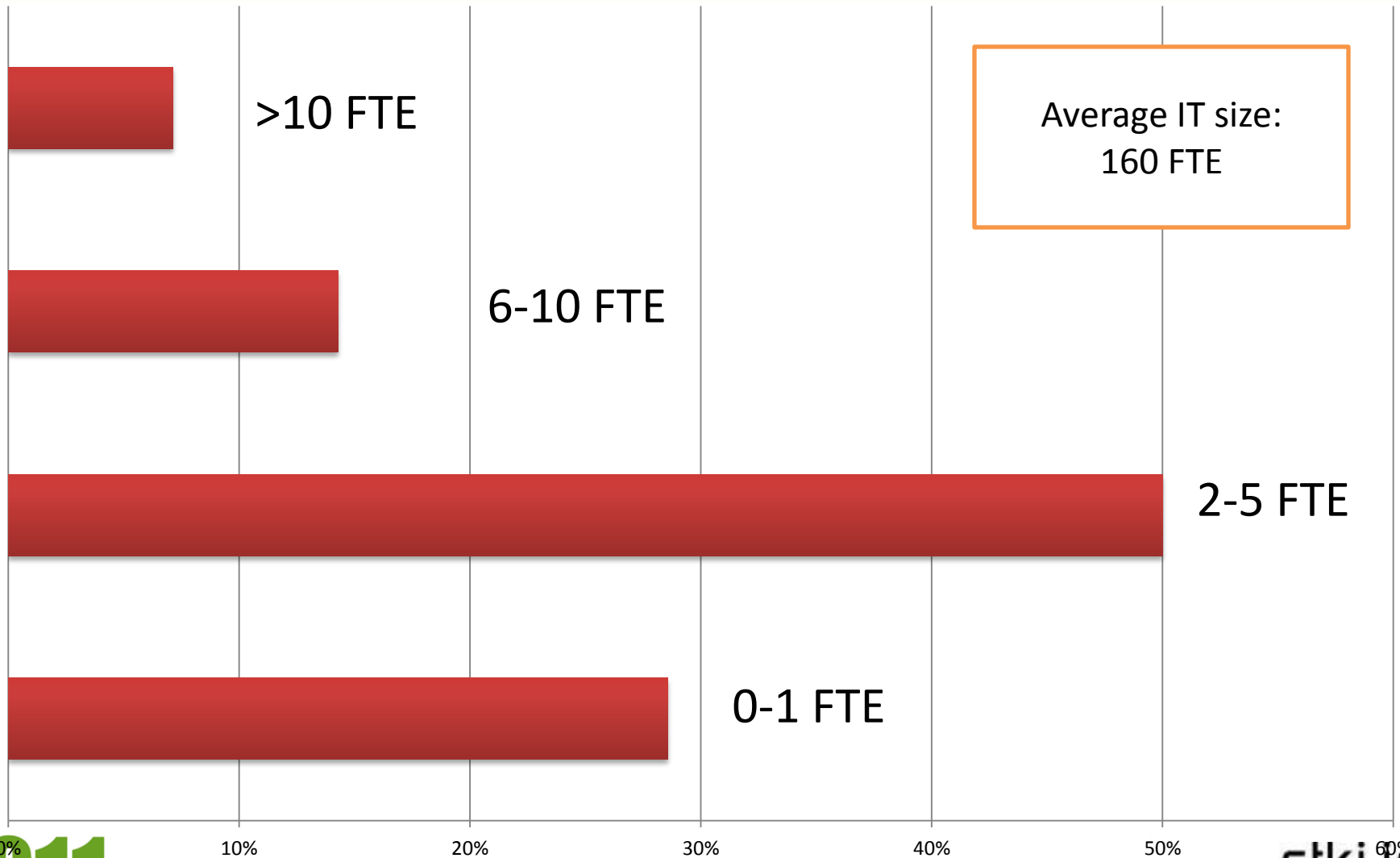


Source for abroad figure: Computer Economics

# Security Staffing Ratios

Ratios of Security Personnel (Israel)	Ratios of Security Personnel (Abroad)
2% of IT unit	1.8% of IT unit

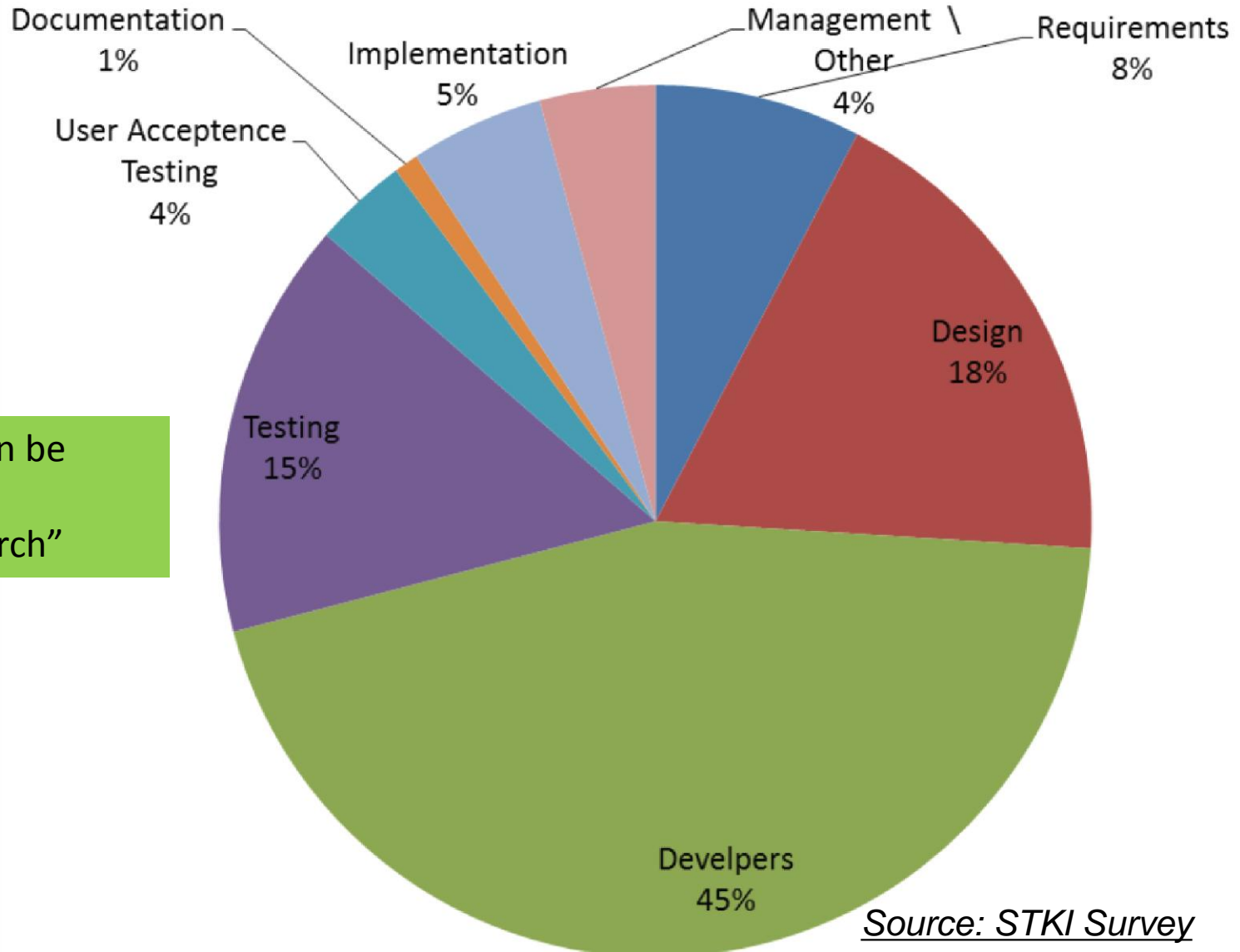
# Security Staffing Ratios-Israel





# Spending from IT budget on developing new SW projects

All Data  
Package  
customization  
not included



More Dev. ratios can be found in the "STKI development research"

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Source: STKI Survey

# EAI\SOA Support Ratios

- EAI \ SOA variations are very big:
  - From static (old) messaging interface (MQ) to new and changing “SOA” service
  - How “thick” is the interface: 20 times a day to 20,000 a minute
  - How involved are the applications developers?
  - Example of service : “update flight details to web site”, “credit scoring” , etc.
  - How to count?! Example: there is one big service “Retrieve document” but this services is accessing 10 applications and 3 document management environments. It also has several variations\access methods. So what should be the count?!



Source: STKI

# EAI\SOA Support Ratios

- Number of Services/Interfaces supported by Integration/ESB/SOA team FTE

Per FTE	# of Services
25 percentile	51
<b>Median</b>	<b>125</b>
75 percentile	180



Source: STKI

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# ESM (Enterprise System Management) support ratio

- Numbers of servers in Open (Win, Linux, Unix) covered by ESM team (including BSM, CMDB, etc. – if implemented)
- Data about “not capable ESM teams” not included
- FTE member:



Per FTE	# of Servers (all)	# of Servers Prod
25 percentile	216	131
<b>Median</b>	<b>347</b>	<b>220</b>
75 percentile	459	316

- About the same as last years data

Source: STKI

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# DBMS Support Ratios

- Number of developers (in the Open) supported by DBA FTE

Per FTE	# of Applications
25 percentile	11
<b>Median</b>	<b>19</b>
75 percentile	28



Source: STKI

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# Server Ratios - Windows

- Number of Windows Servers (logical ) per System member

Per FTE	All Win Servers	Prod Win Servers
25 percentile	92servers	47servers
<b>Median</b>	<b>122 Servers</b>	<b>67 Servers</b>
75 percentile	200 Servers	100 servers



- Median about the same compared to last year but both 25% percentile and 75% percentile increased at about 15%
- Server is either physical or virtual
- This includes SBC (Citrix\WTS\Jetro) support
- For development environment's ratios can grow up to 600 Servers per FTE
- Organizations with 100% identical servers in branches can get ratios of 1:500 servers per FTE

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Source: STKI

# Percent of Production Windows server from all Windows servers

	Percent of prod servers
25 percentile	50%
<b>Median</b>	<b>62%</b>
75 percentile	75%

Server is either physical or virtual

Source: STKI



# Server Ratios – Unix Linux

- Number of Unix (OS) and Linux servers per System member:

Per FTE	Unix Linux Servers
25 percentile	15servers
<b>Median</b>	<b>35 Servers</b>
75 percentile	50 Servers

- Roughly same ratios as last year's data
- **Virtualization is used much less in Unix than in Windows/Linux**
- Good metric for Unix is hard to find:
  - Per CPU (but there are machines with many virtual OS on each CPU)
  - Per OS (but there are sometimes huge machines with 1 OS)
  - Per physical server



Source: STKI



# NOC, Operators Ratio

- Number of Open production servers per NOC person:

Per FTE	Unix Linux Servers
25 percentile	15servers
<b>Median</b>	<b>46 Servers</b>
75 percentile	80 Servers



- Large variety since there is large variety in NOC operations
- MF, AS/400, OpenVMS – not included in the count but add lots of load

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# PC Support Ratios



- Support per PC is not equal to Support per Employee since there might be organizations with more PC and Employees (some employees has more than one PC) or vice versa (one PC is used for several employees working in shifts). The difference is small.
- Service desk ratios variation is related a lot to the “application support” and even “business support”.
- Application\business related support might be up to 30% of service desk effort

Source: STKI



# PC Support Ratios and TCO

- 2<sup>nd</sup> level support is dependent on geographical locations and related devices (“check readers”)
- PC Second Level support Ratios variation is very big since in some organizations the field technicians are part of new system implementation, some are responsible for HW (and some not...)
- Thin client reduces the need for 2<sup>nd</sup> level support but increases the need for infra\system support
- **Is the SBC system part of System or PC ?!**



Source: STKI

# PC Support Ratios



- Support Per PC for FTE

Per FTE	Service Desk	Second Level	Third – Image	Total Support per PC
25 percentile	208	285	1000	117
<b>Median</b>	<b>458</b>	<b>417</b>	<b>2000</b>	<b>159</b>
75 percentile	573	525	3050	201

Source: STKI

- Support per Employee for FTE

Per FTE	Service Desk	Second Level	Third – Image	Total Support per Empl.
25 percentile	250	247	1025	117
<b>Median</b>	<b>492</b>	<b>400</b>	<b>2000</b>	<b>157</b>
75 percentile	592	675	3375	260



# Storage Ratios

- Number of Raw TB and Usable TB per Storage Staff Member FTE (including backup and DRP of storage):

Per FTE	RAW Storage	Usable Storage
25 percentile	97TB	42TB
<b>Median</b>	<b>225TB</b>	<b>150TB</b>
75 percentile	350TB	238TB



- Moderate **25% increase** from last years data

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Source: STKI

# Usable/Raw storage ratio

- Net Storage in this research
  - usable for applications:
    - After Raids
    - After replication to DRP
    - Without VTL's
    - The term “Usable storage” is tricky since with snapshots application can see more storage than “Raw storage”

NET\RAW	Ratio
25 percentile	50%
<b>Median</b>	<b>60%</b>
75 percentile	71%



# PPM Israeli Trends

- Most of ITOs have expended their OTC in 2010:  
OTC ~**3.65%** of IT department (vs. 2% last year)