Special Study

Global Data Centres End-user Results

Copper Cabling Extracts

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BSRIA

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With the Kind Permission of BSRIA**

Introduction

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❖ In 2011, BSRIA continued its data centre cabling studies with a new end-user survey covering 335 respondents in six countries and across six verticals.

❖ The six countries chosen include the largest structured cabling markets and some of the fastest growing in the data centre segment – the USA, the UK, China, India, France and Germany.

❖ After data centre network standards were introduced in 2010, and equipment became available for 10G and 40G, the study was set up to primarily look at the uptake of high speeds and to see over which media these are being run or planned to be run by end 2013. Here the copper to fibre split will be seen across the six countries and across the six verticals.

❖ The other main area of interest is the uptake of point-to-point links and the type of media being used for what is considered a growing area and source of concern for structured cabling suppliers as point-to-point links use, for example, CX4 and SFP+ cable. Respondents were also asked what would cause them to increase their use of point-to-point links; whether they have encountered any problems or concerns with the point-to-point links; and, separately, which copper cabling they will most likely choose for future 10G copper links.

❖ The study also shows in which layer of the data centre network respondents will install 10G copper cabling, multimode fibre cabling (OM3 and OM4), and singlemode.

❖ Other specifics include usage and plans for pre-terminated cabling and FCoE; equipment replacement rates; expansion plans; the impact from blade servers and virtualisation; outsourcing; and the decision-making process.

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Data Centre Study
Type of Organisation

Type of Organisation by Percent Respondents
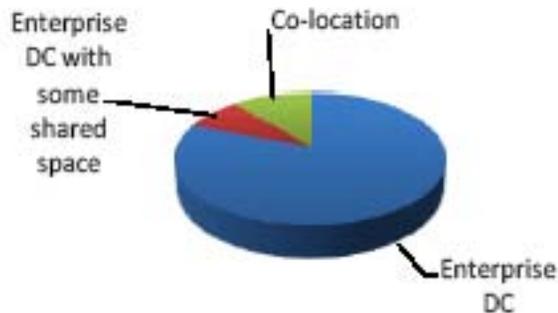
The 335 respondents were split evenly across the six countries in question and all are sole or joint decision-makers for the data centre cabling. (Sole decision makers = 53%)
(Those who merely influenced the decision were dropped from the survey.)

❖ Enterprise data centres (DCs) made up 89% of the respondents (including 8% who said they are an enterprise DC and let some of their free space, but they are treated as enterprise DCs within the charts.)

❖ 11% said they are co-location, co-hosting or carrier hotels.

❖ The total size of DCs of the respondents is shown in the graph on the left in square feet. In a report by Symantec last year 2010, they said that mid-sized enterprises were more involved in adopting new technology than large or small sized DCs, in every technical area including being involved in cloud computing and server virtualisation.
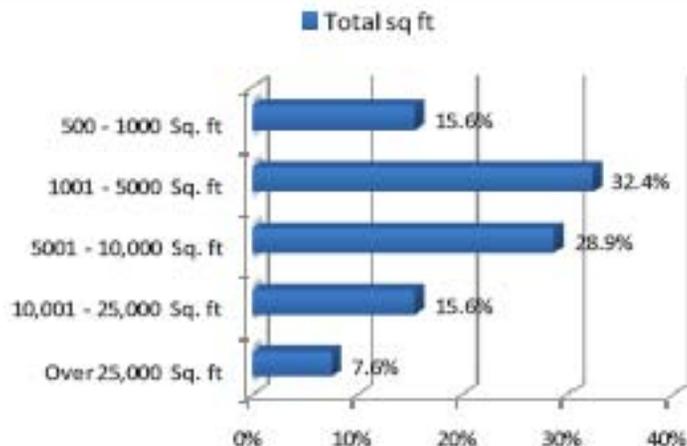
Data Centre Study
Number of Servers
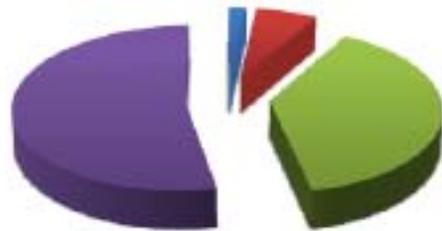
- >2000 Servers
- 501-2000 Servers
- 51-500 Servers

The total number of stand-alone and rack-mountable servers was requested, separate to the number of blade servers.

- ➤ 39% have between 51 and 500 servers

- ➤ 53% have between 5 and 50 servers

- ➤ The rest are split between 7% for 501 – 2000 servers and 2% more than 2000.

Within the sectors, the larger number of servers are found in the Finance & Insurance sector and the lowest numbers in the Education sector.

In terms of blade servers, the majority have 5 – 50 (67%) and 31% have 51 - 500.

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Data Centre Study
Copper Cabling Category
Current Installed Base

Mean across 6 Countries

Legend:
- Cat 5 unshielded
- Cat 5e unshielded
- Cat 5e shielded
- Cat 6 unshielded
- Cat 6 shielded
- Cat 6A unshielded
- Cat 6A shielded
- Cat 7
- Cat 7A
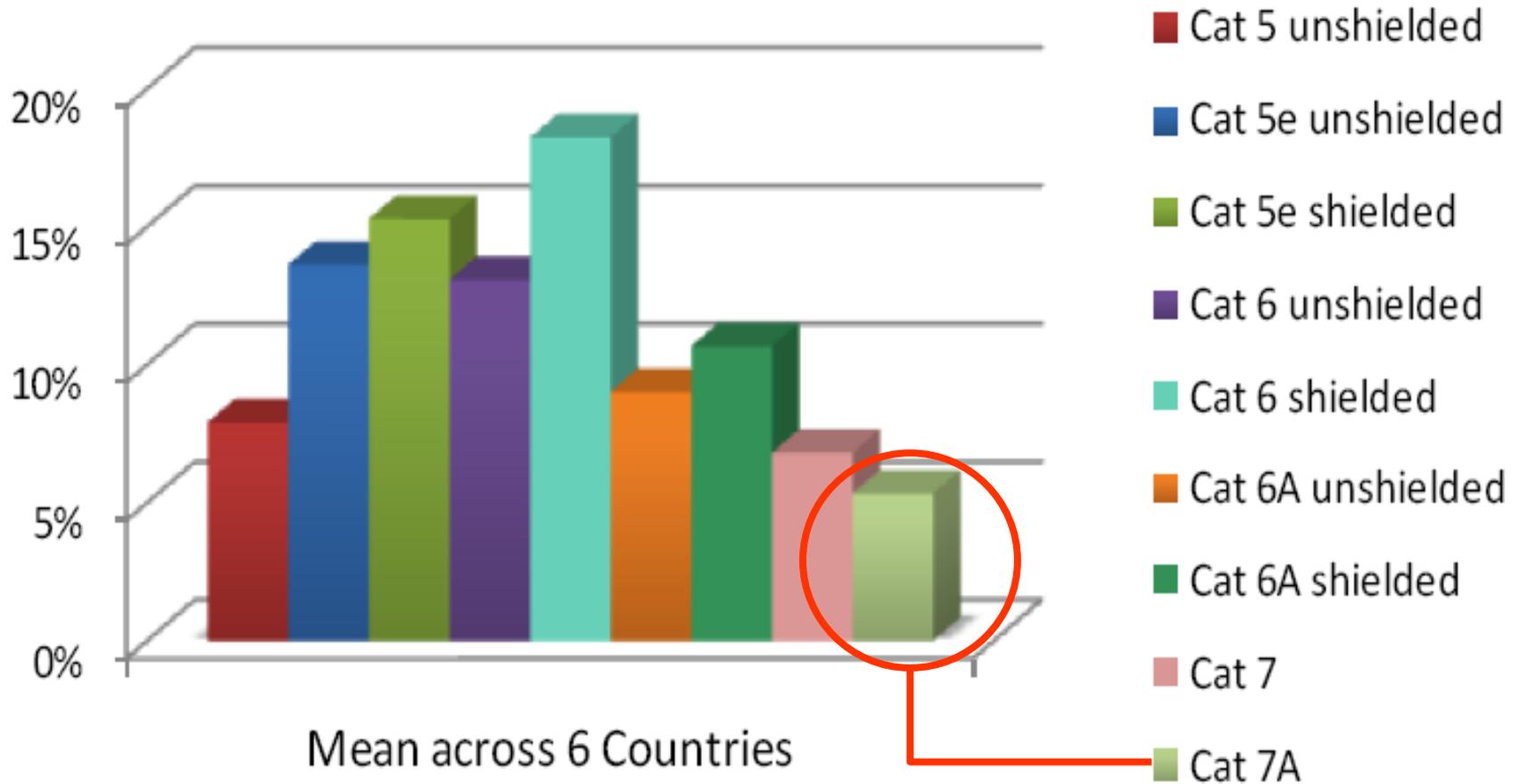
Data Centre Study
Type of 10G Copper Cabling
Planning to Install

Type	Percentage
Cat 6 shielded	9%
Cat 6A unshielded	13%
Cat 6A shielded	15%
Cat 7	13%
Cat 7A	6%
CX4	7%
SFP+ (copper)	15%
SFP+ (fiber multimode)	16%
SFP+ (fiber singlemode)	6%
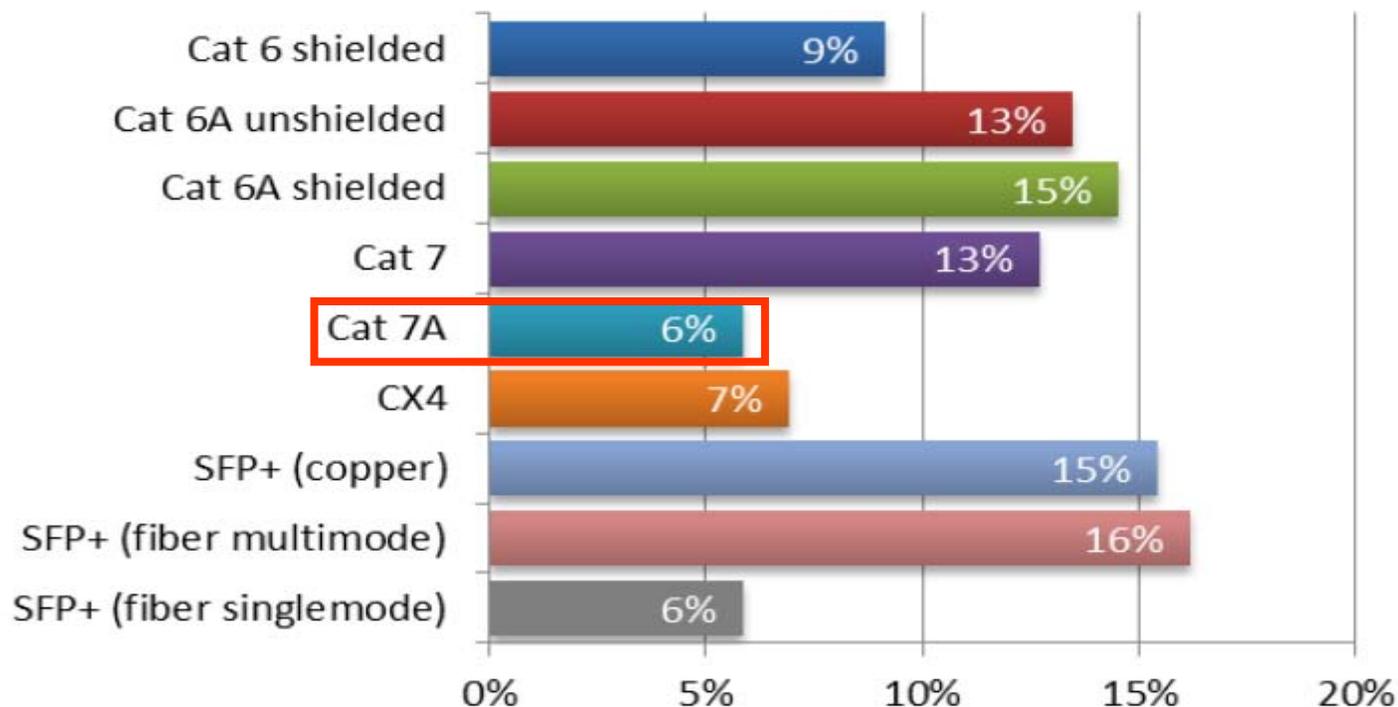
The question asked those who had said that they are planning to install 10G copper cabling in the future which of the list of copper structured cabling categories or point-to-point link types they will most likely choose for future 10G copper links. Multiple responses were accepted.