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Asia Pac Campos Survey Results

February 2012

Methodology

- From January 4 to 17, 2012, we conducted a Web-based survey using a panel of IT decision-makers from the Pacific Rim.
- 302 panel participants were selected from:
  - Large companies with at least US$500M annual revenues or 500+ employees (2,000+ employees for Singapore).
  - Three locations: Sydney, Australia (N=101), Hong Kong SAR (N=101) and Singapore (N=100).
- Participants must be IT/MIS/IS, Finance, or Real Estate Executives or Management.
  - Participants must be responsible for managing a data centre, contract execution for or implementing a new data centre or expanding existing data centres. Internal data centre customers are also eligible.
- All reported differences are significant at the .10 level or better. Confidence intervals are shown in the Appendix.

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Overall Summary

Data Centre Profile

- Most (74%) of the companies have 3 or fewer data centres, but one in ten (10%) has 6 or more.
- Nearly two thirds (64%) of companies have built a new data centre in the past 24 months.
- Nearly two thirds (64%) of participants report average raised floor space of more than 10,000 square feet.
  - The largest companies (US$20B+) tend to report larger data centres: 24% have 25,000+ square feet.
- The average power capacity is 5.0 kW per rack and over two thirds (68%) use 6 kW or less per rack.
- Over two thirds (70%) meter power use. The average reported PUE is 2.52.

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Overall Summary

Expansion Plans

- Three in four (76%) say they plan to expand their data centres in 2012.
  - One in five (20%) say they definitely plan to expand in 2012 and another 56% say they will probably expand.
  - One in five (21%) say they will definitely expand in 2013.
  - One in six (17%) are unlikely to expand in either 2012 or 2013.
- Larger companies (US$20B+) are more likely to definitely expand (41%) in 2012.
- Among those with any plans to expand (definitely or probably in 2012):
  - Half (48%) say they plan to expand in more than one location.
  - Security is the most important reason for expansion.

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Overall Summary

Implementing Expansion

- Participants with plans to expand their data centres were asked how they plan to implement the expansion. They could select multiple responses and 39% plan to use two or more methods.
  - Nearly five in six (82%) will use a partner, either for design and build (58%) or to lease wholesale space (46%) or both.
  - One in four (25%) plan to use a retail colocation solution.
  - Over one in five (22%) plan to build the expansion themselves
  - One in seven (14%) plan to use a shipping container solution.
- One in five (20%) of those who are likely to use a partner to expand are aware of DLR.
- Those who would lease retail colocation facilities represent an opportunity for DLR.
  - One third are aware of DLR.
  - Four in five (80%) of those who would use retail colocation will also use a partner for expansion.

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Overall Summary

Selecting a Partner

- Among those who plan to expand in 2012 (82%) using a partner:
  - The list of potential partners is usually developed by high or mid-level executives, as opposed to C-levels or lower-level managers.
  - The most important factors in choosing a partner are operational reliability, server management and data centre design.
  - The most useful source of information about potential partners is consultants.

Data Centre Locations

- Respondents who plan to expand in 2012 are more likely to locate a new data centre in countries in Asia and primarily in their own country.
- The most mentioned cities for a new data centre are Hong Kong, Singapore, Tokyo and Sydney.
- The most important factor in choosing a location is security, followed by power availability and cost.

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DATA CENTER PROFILE

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Data Centre Summary

- Three in four (74%) companies have 3 or fewer data centres, but one in ten (10%) has 6 or more.
- Nearly two thirds (64%) of companies have built a new data centre in the past 24 months.
- Nearly two thirds (64%) of participants report average raised floor space of more than 10,000 square feet.
  - The largest companies (US$20B+) tend to report larger data centres: 24% have 25,000+ square feet.
- The average power capacity is 5.0 kW per rack.
  - Over two thirds (68%) use 6 kW or less per rack.
- Over two thirds (70%) meter power use.
  - The average reported PUE is 2.52.

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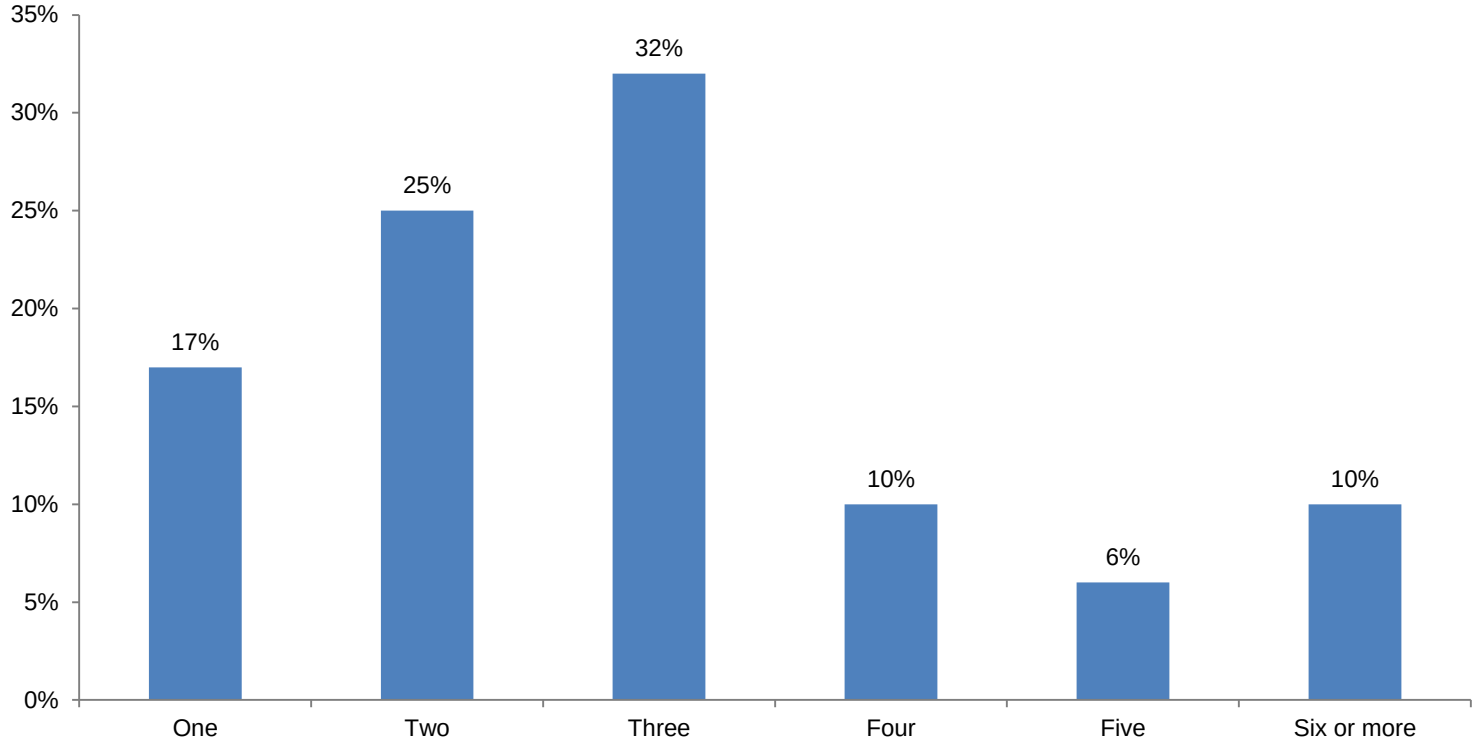
Number of Data Centres

- Participants were asked how many data centres their company operate now, excluding “IT closets” in branch offices.
- Most companies (74%) have 3 or fewer data centres, but one in ten companies has 6 or more data centres.



Base = Total (N=302)

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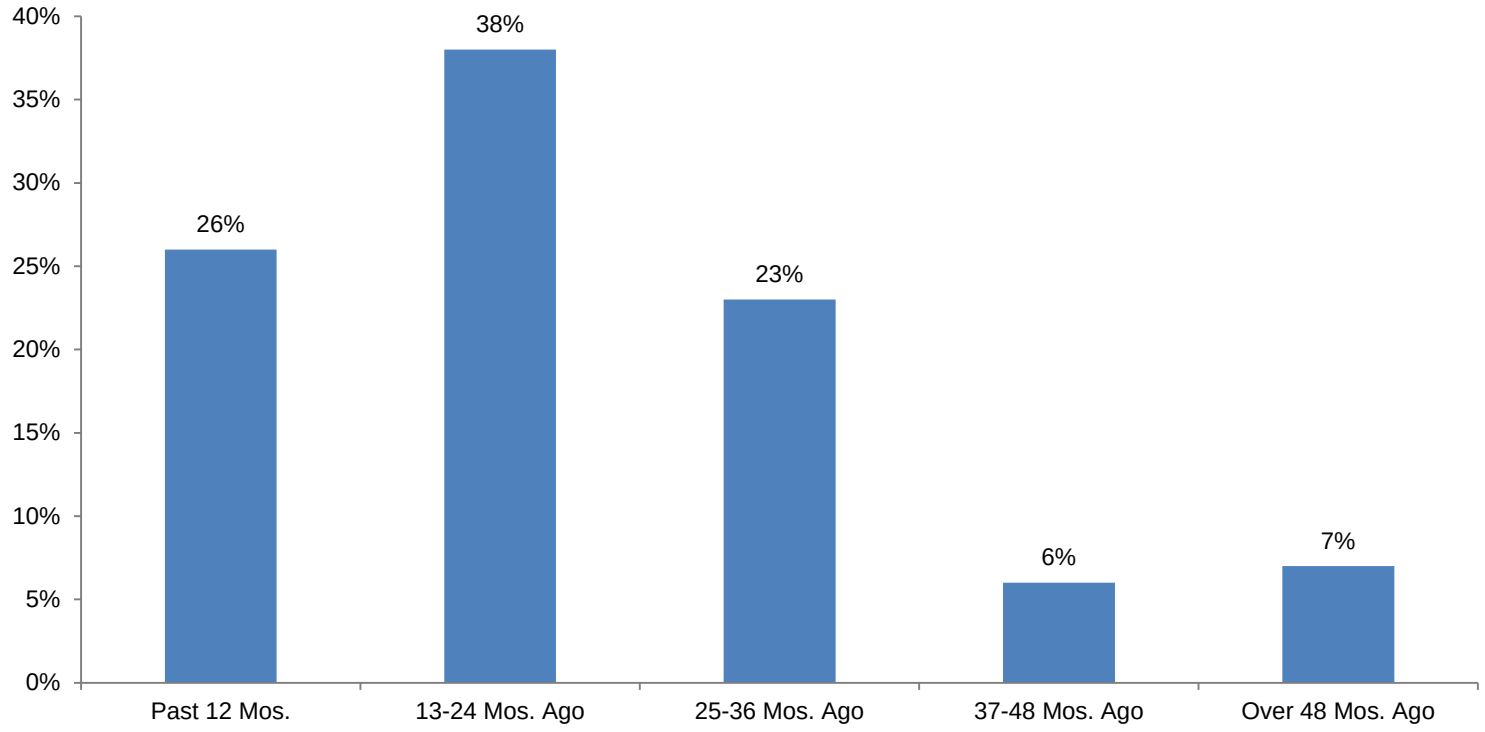
Most Recent Expansion

- Respondents were asked when their company last built or acquired a new data centre.
- Nearly two thirds (64%) of companies have built a new data centre in the past 24 months.



Base = Total (N=302)

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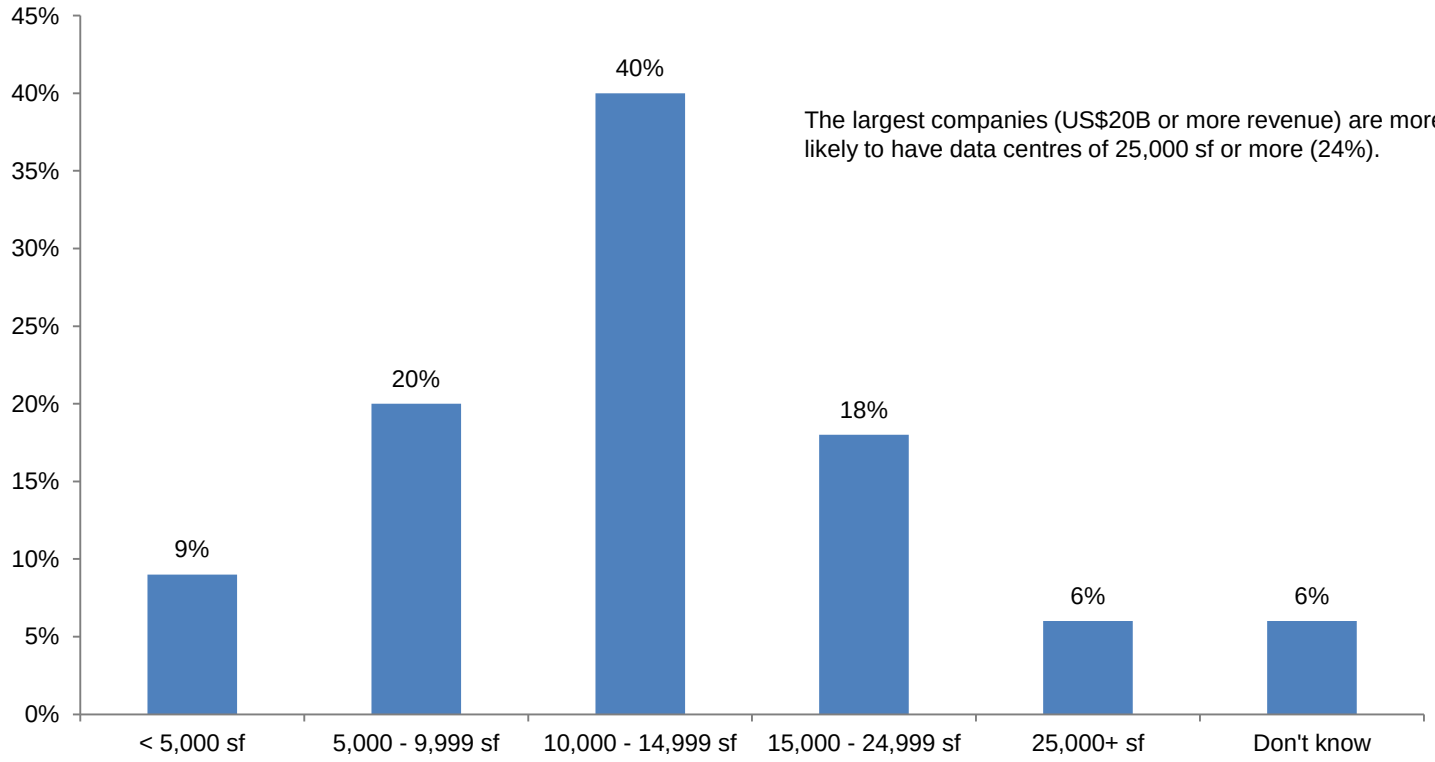
Current Space

- Participants were asked about the average area (both in square metres and square feet) of raised floors in their data centres.
- Three in five participants (64%) report averages of 10,000 square feet (100 square metres) or more. The overall average is 13,100 square feet.



The largest companies (US$20B or more revenue) are more likely to have data centres of 25,000 sf or more (24%).

Base = Total (N=302)

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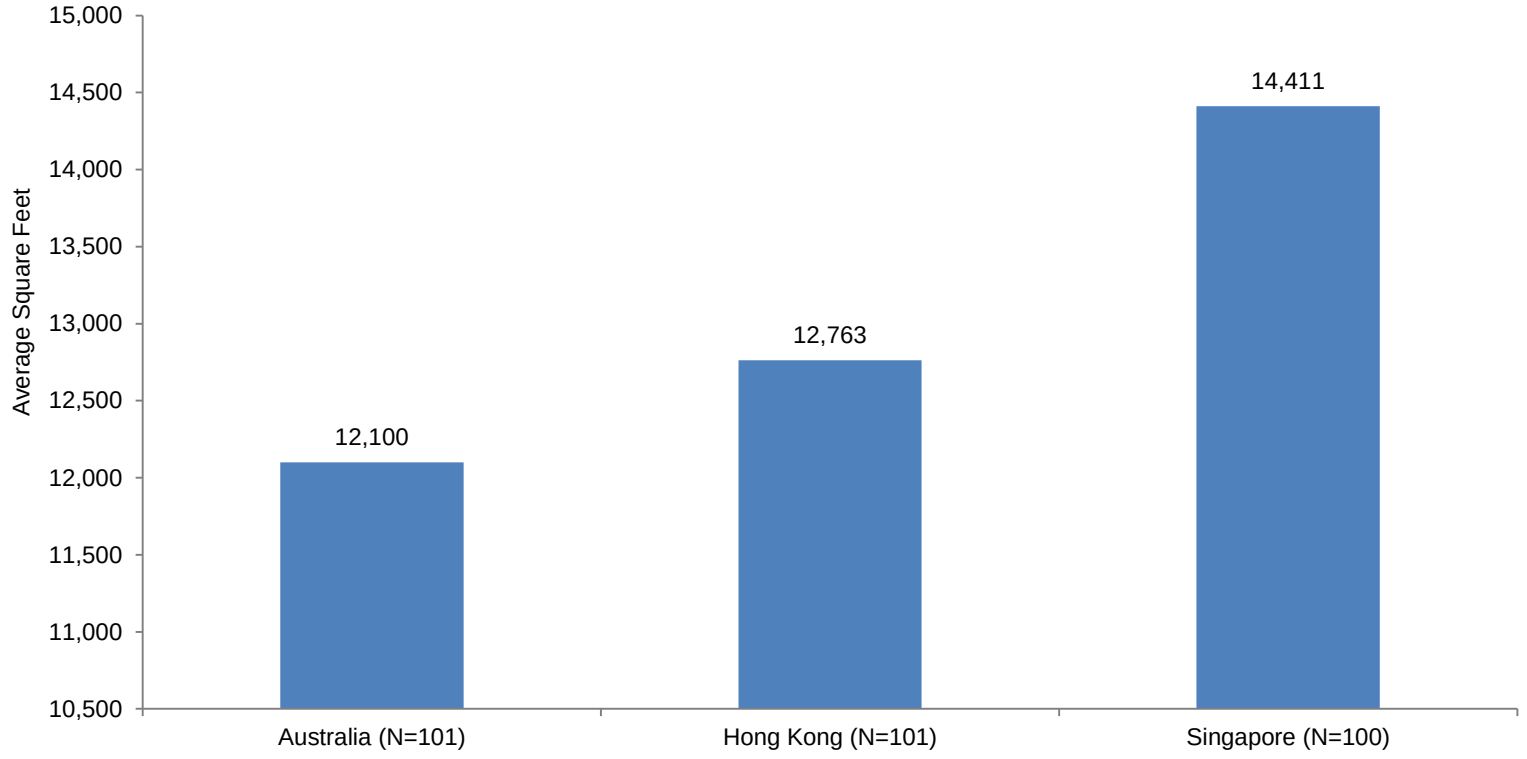
Country and Current Space

- This chart shows the average square feet of raised floor space in their current data centres by country (asked in both feet and metres).
- Singapore has slightly larger average raised floor space.



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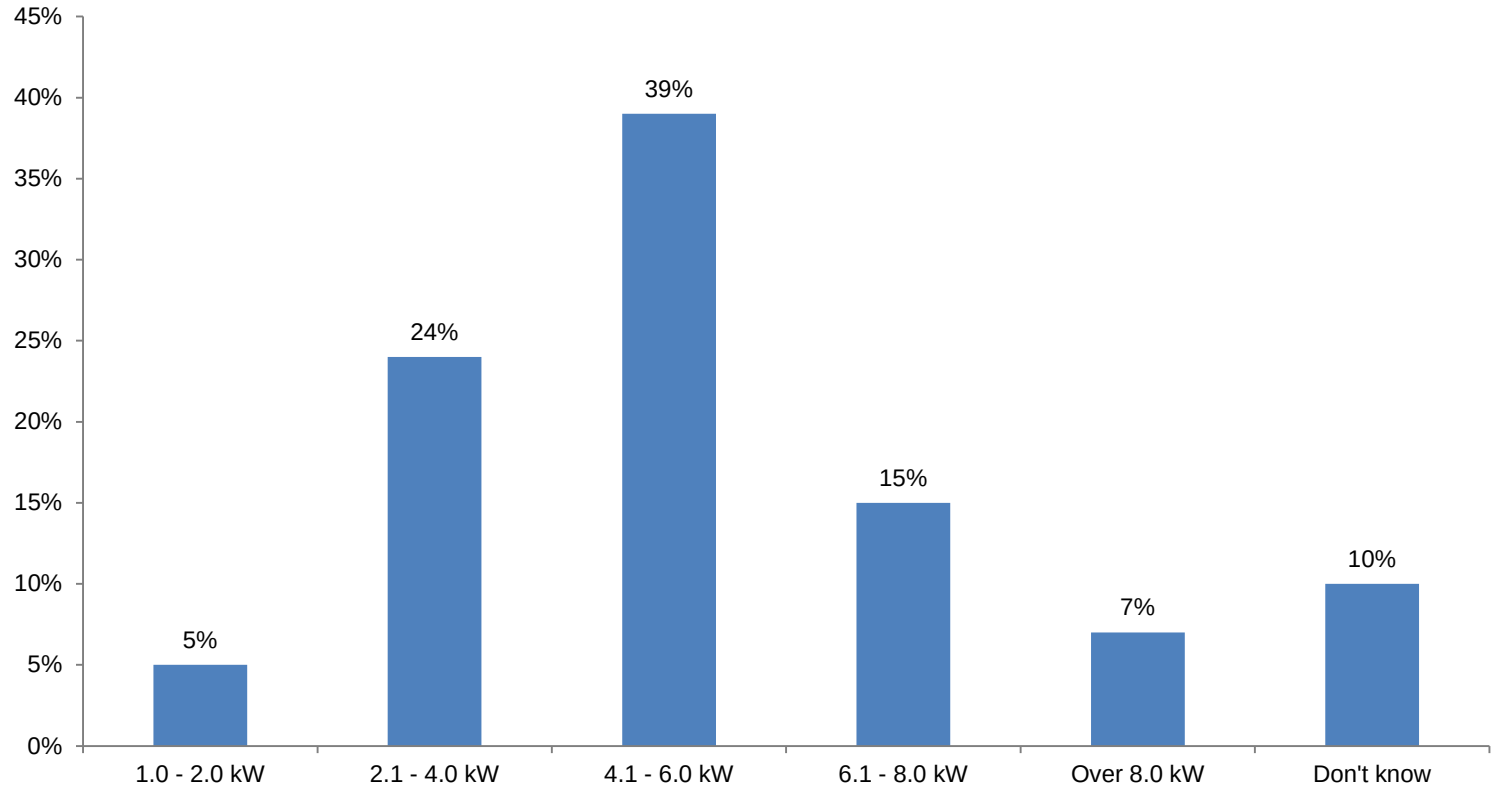
Current Power

- Participants were asked about the average kilowatts per rack across their data centres.
- The average power capacity is approximately 5.0 kW per rack.
- The majority (68%) uses 6.0 kW or less per rack.



Base = Total (N=302)

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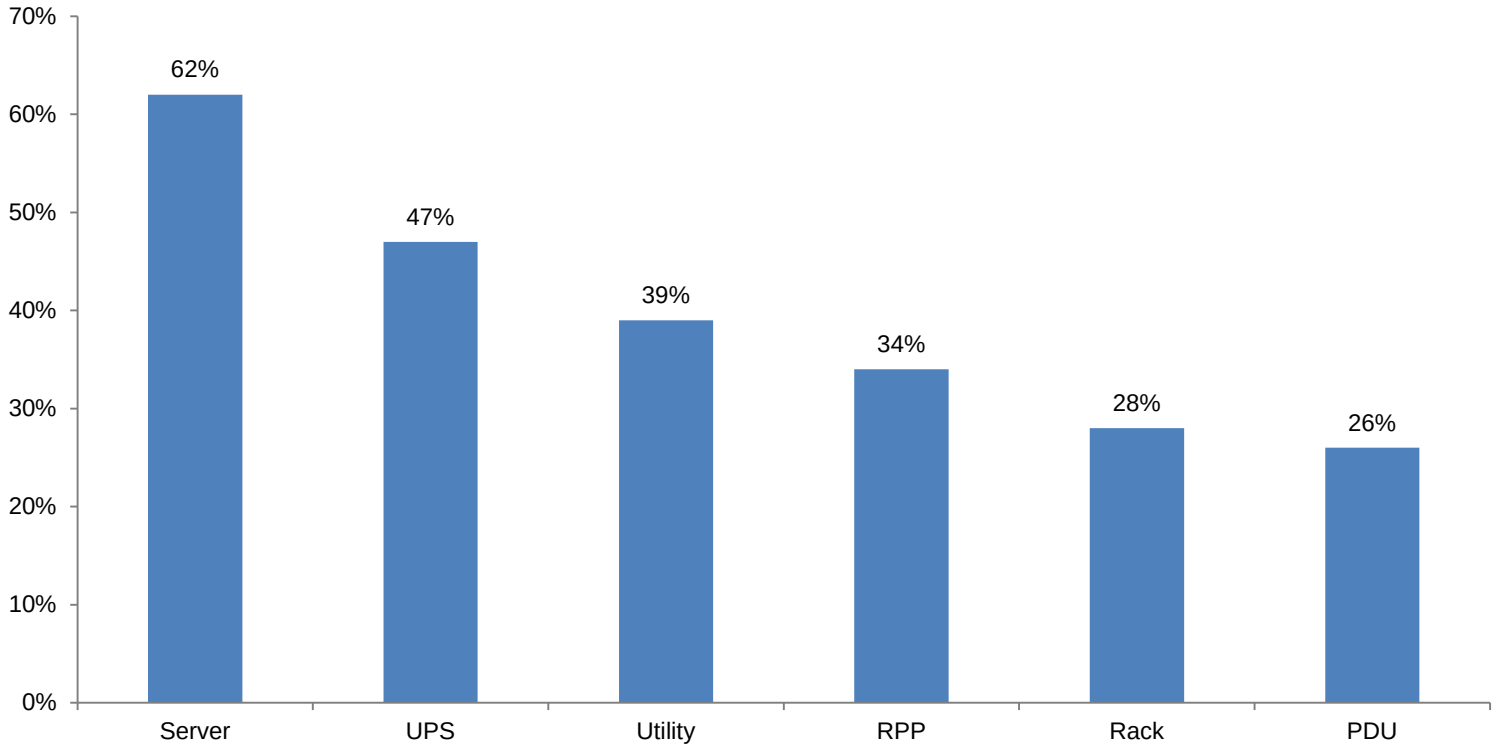
Power Metering

- Respondents were asked whether they measure power use and, if so, where they measure it.
- 70% say they measure power use.
- Of those who measure power use, over half measure at the server.



Base = Measure Power (N=211)

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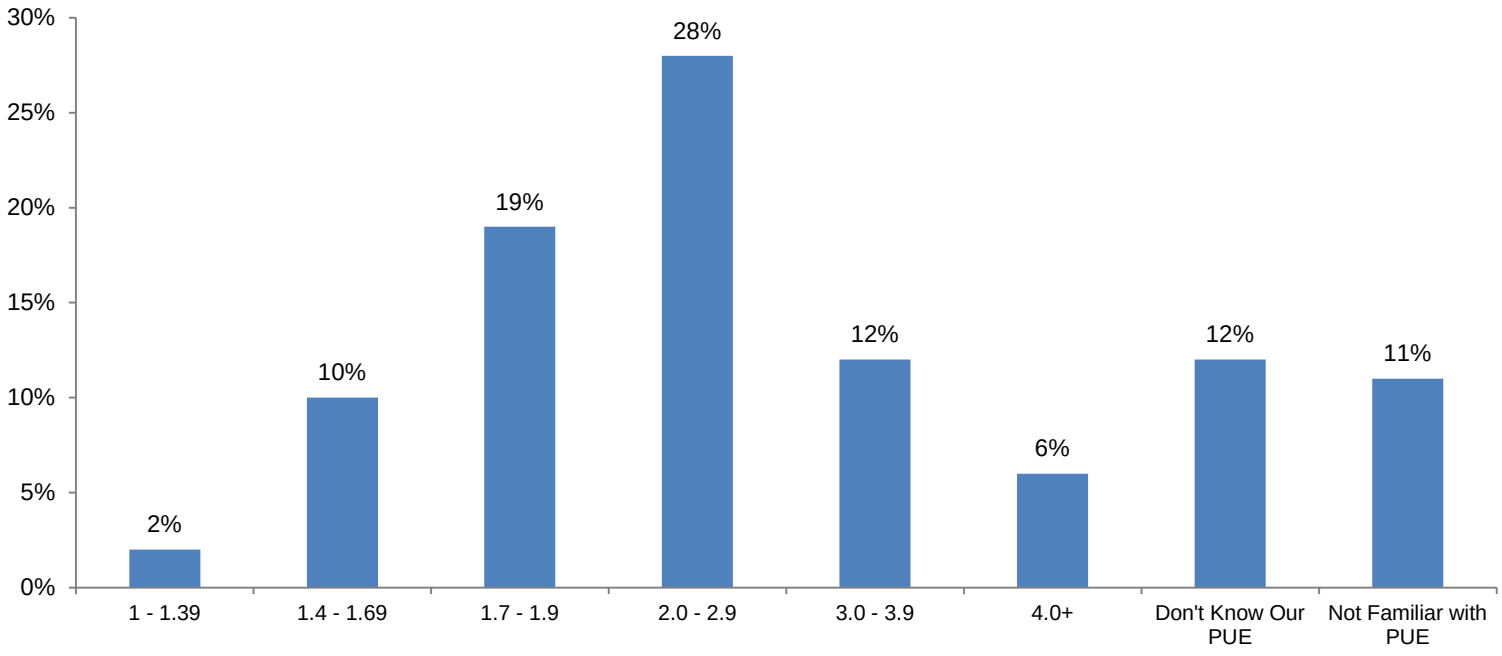
Power Usage Effectiveness

- Respondents were asked about the average power usage effectiveness (PUE) of their data centres.
- One in nine is unfamiliar with PUE and a similar number doesn't know their PUE.
- The average reported PUE is 2.52. One in five (18%) reports a PUE of 3 or more. One in three (31%) reports a PUE below 2.0.



Base = Total (N=302)

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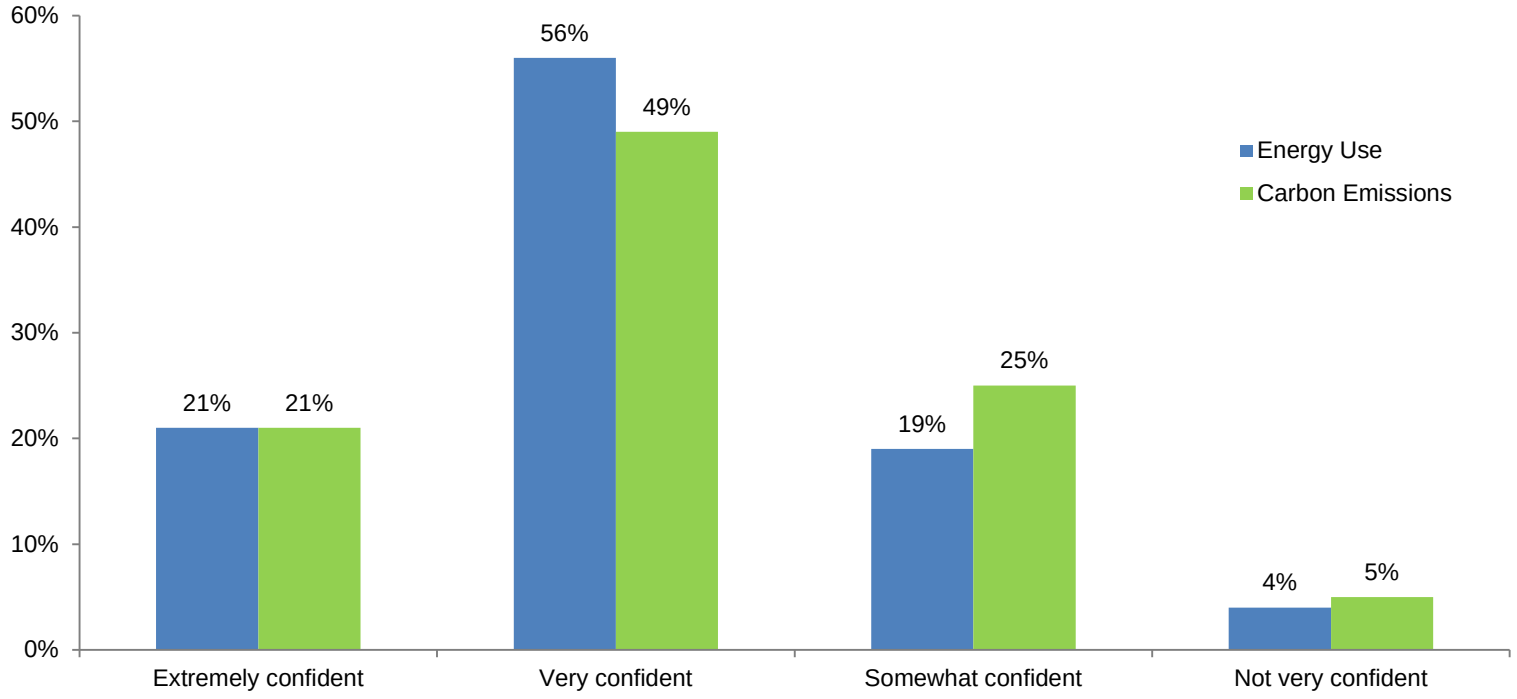
Regulatory Compliance

- Respondents were asked how confident they are that their data centres can comply with potential regulations regarding energy use and carbon emissions.
- Two thirds or more of respondents are very or somewhat confident that they can comply with future energy or carbon regulations.



Base = Total (N=302)

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EXPANSION PLANS

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Expansion Plan Summary

- Three in four (76%) say they plan to expand their data centres in 2012.
  - One in five (20%) say they definitely plan to expand in 2012 and another 56% say they will probably expand.
  - One in five (21%) say they will definitely expand in 2013.
  - One in six (17%) are unlikely to expand in either 2012 or 2013.
- Larger companies (US$20B+) are more likely to definitely expand (41%) in 2012.
- Among those with any plans to expand (definitely or probably in 2012):
  - Half (48%) say they plan to expand in more than one location.
  - Security is the most important reason for expansion.
- On average, participants want 14,800 square feet for their expanded data centres.
- Participants want 5.1 kW per rack on average in their expanded data centres.

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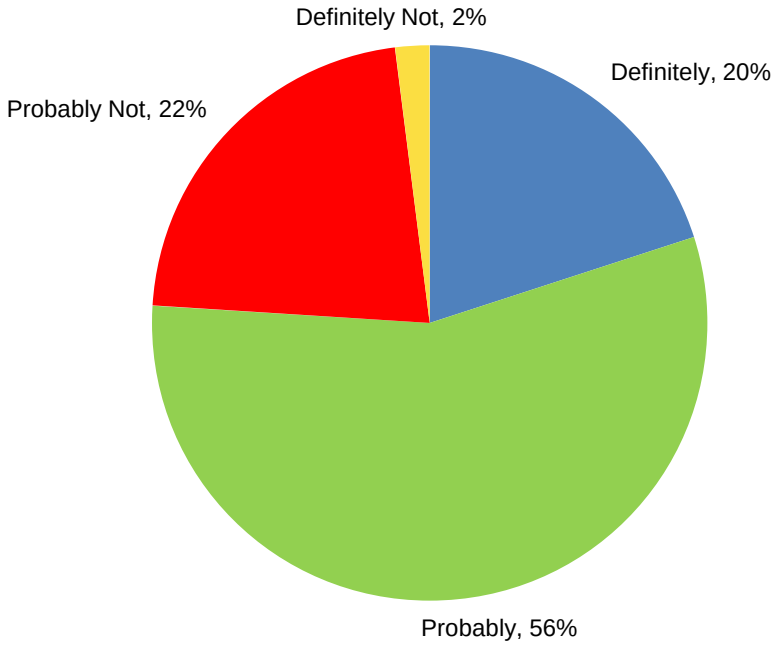
Expansion Plans in 2012

- Respondents were asked how likely they are to expand their data centres during 2012.
- Over three in four (76%) say they will definitely or probably expand in 2012.
  - One in five (20%) say they definitely have plans to expand in 2012.
  - Over half (56%) say they will probably expand in 2012.



Base = Total (N=302)

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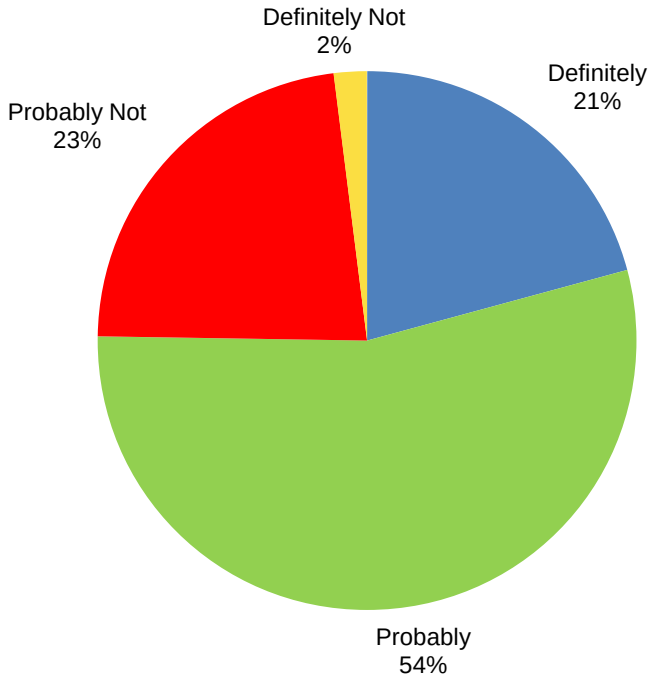
Expansion Plans in 2013

- Respondents were asked how likely they are to expand their data centres during 2013.
- One in five (21%) say they definitely have plans to expand in 2013.
- One in seven (15%) will definitely expand in both 2012 and 2013.
- One in six (17%) are unlikely to expand in either 2012 or 2013.



Base = Total (N=302)

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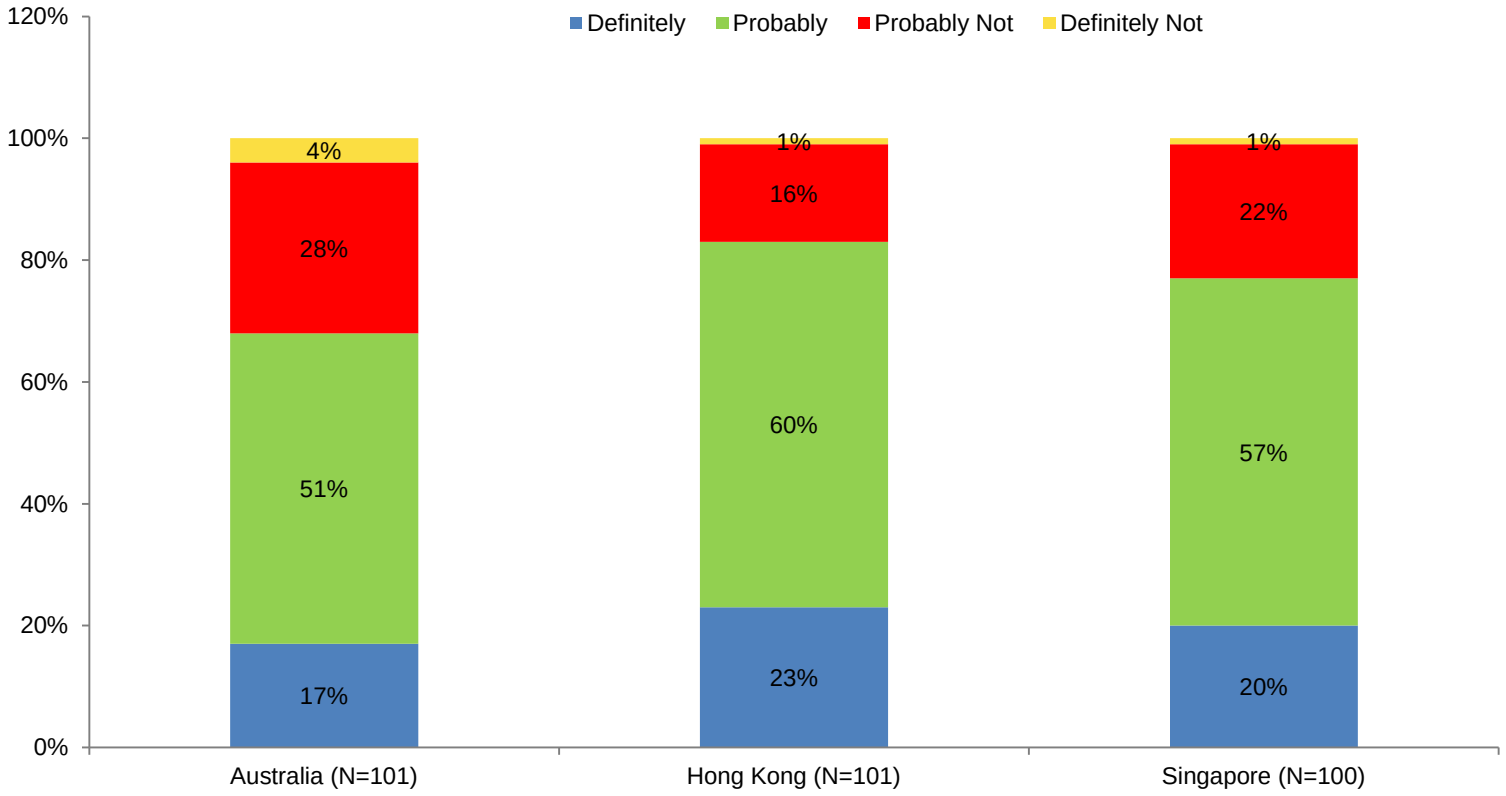
Country and Expansion Plans

- This chart shows the expansion plans for 2012 by country.
- Companies in the three countries are similar in their expansion plans for 2012.



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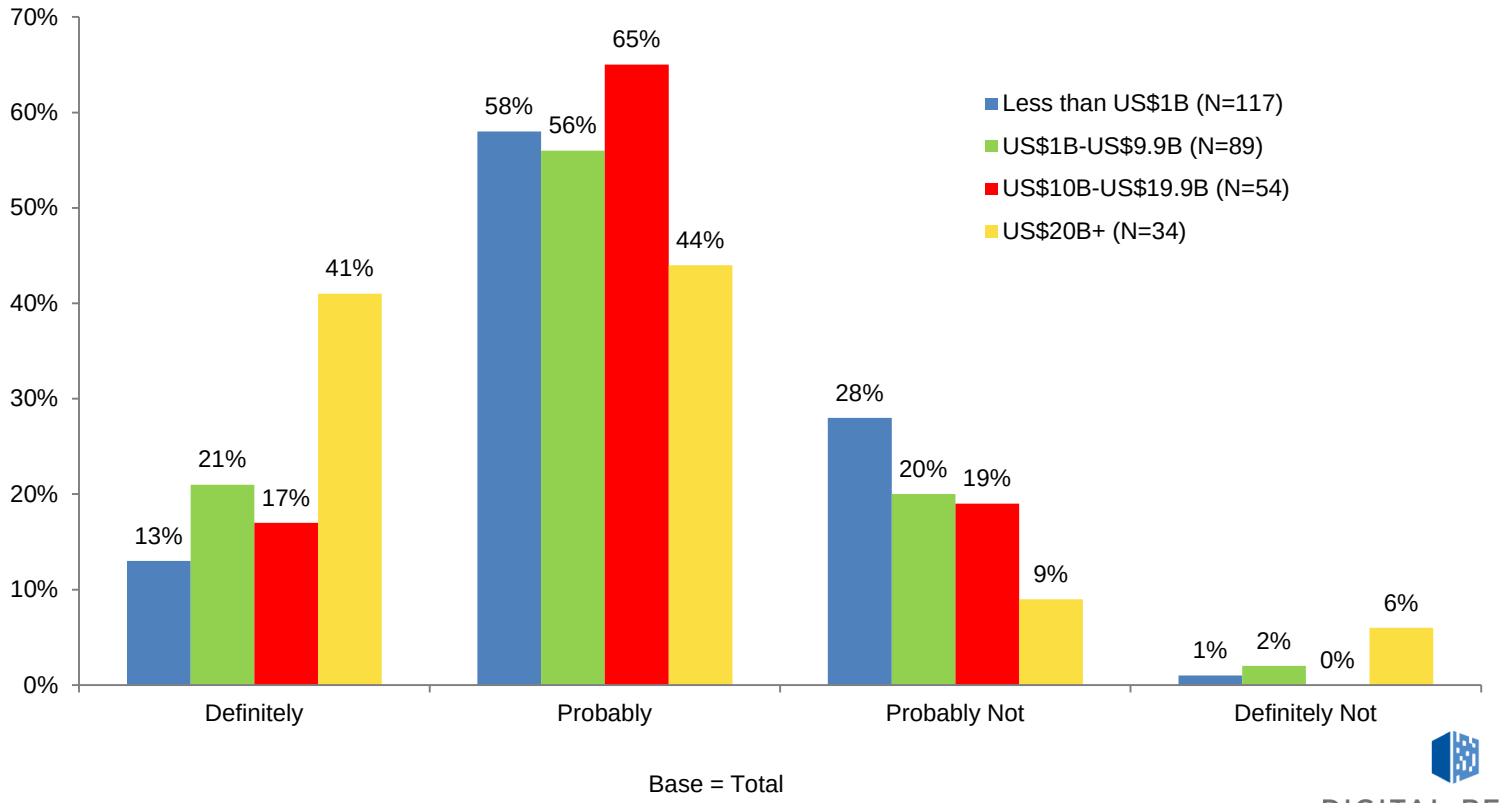
Expansion Plans by Revenue

- The largest companies are more likely to definitely expand in 2012.
- Two in five (41%) companies with revenues of US$20B+ will definitely expand in 2012.
- Only one in eight (13%) companies with revenues less than US$1B+ will definitely expand in 2012.



Base = Total

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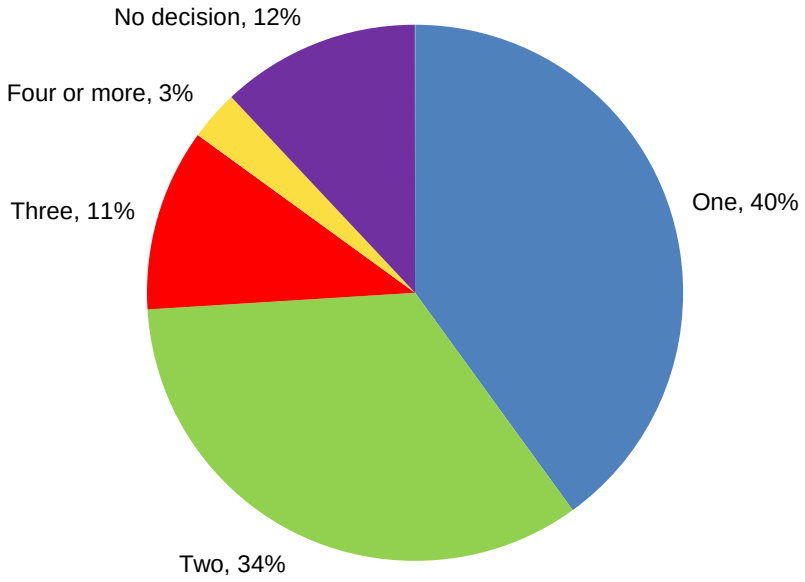
Number of Locations for Expansion

- To produce a large enough sample for analysis, the discussion of expansion plans will use those companies (N=230) that will definitely or probably expand in 2012.
- Participants were asked in how many locations their company has plans to expand its data centres in 2012.
- Half (48%) say they have plans to expand in more than one location.



Base = Expansion Plans in 2012 (N=230)

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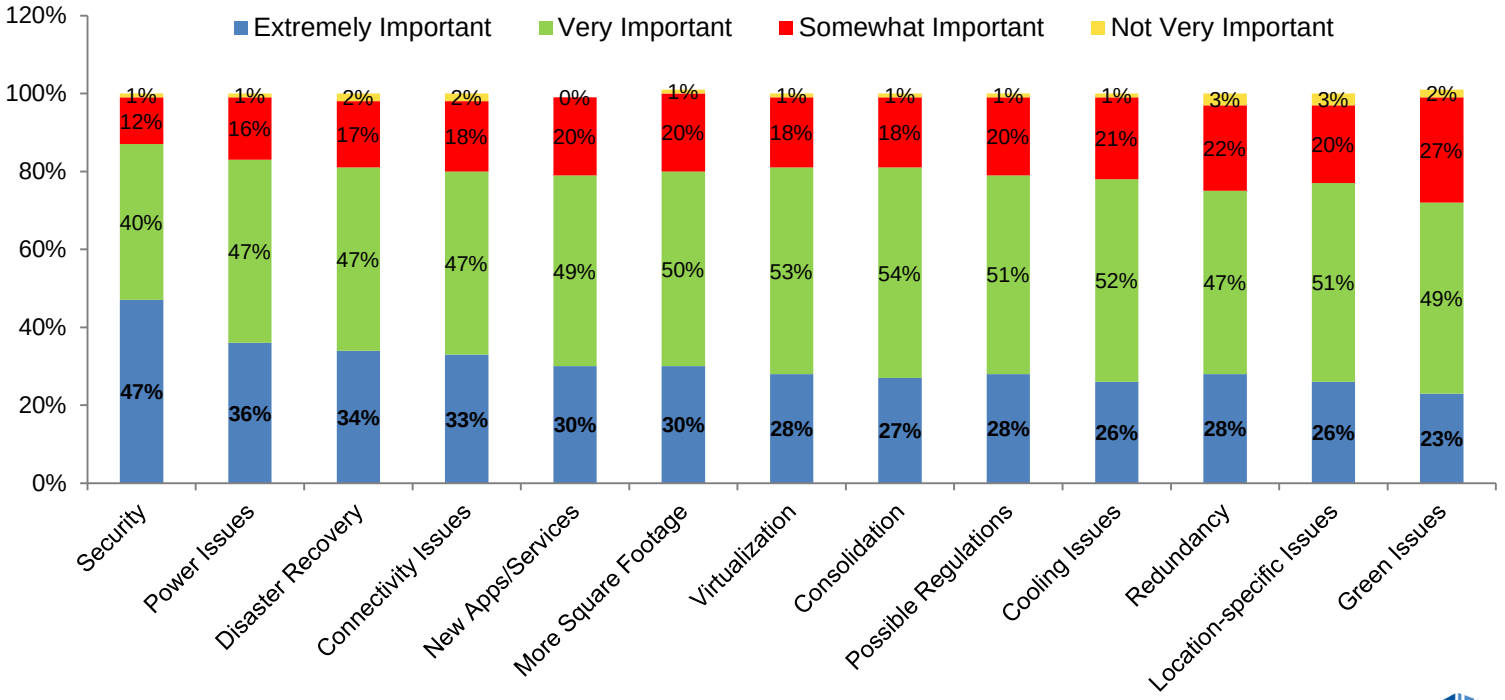
Reasons for Expansion

- Participants were asked to rate the importance of several reasons for expanding their data centres.
- Security, followed by power issues are the most important reasons for expansion.
- Larger companies ($10B+) are more likely to rate power issues as more important.



Base = Expansion Plans in 2012 (N=230)

Note: Location-specific refers to labour pool, property cost or flood risk. Connectivity refers specifically to synchronous communications.

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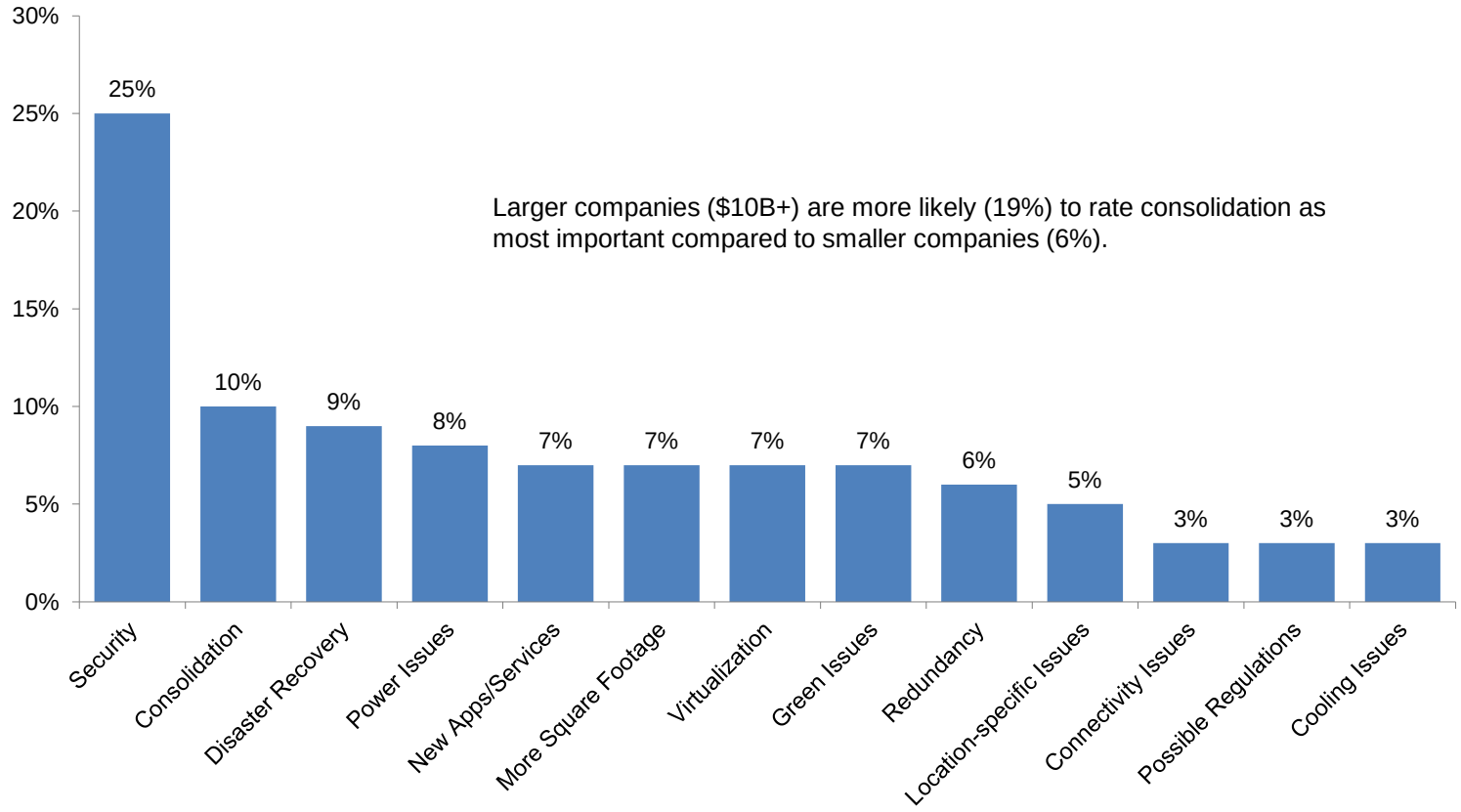
Reasons for Expansion: Most Important

- Participants were asked to choose the single most important of several reasons for expanding their data centres.
- Security is most often cited as the most important reason for expansion.



Base = Expansion Plans in 2012 (N=230)

Note: Location-specific refers to labour pool, property cost or flood risk. Connectivity refers specifically to synchronous communications.

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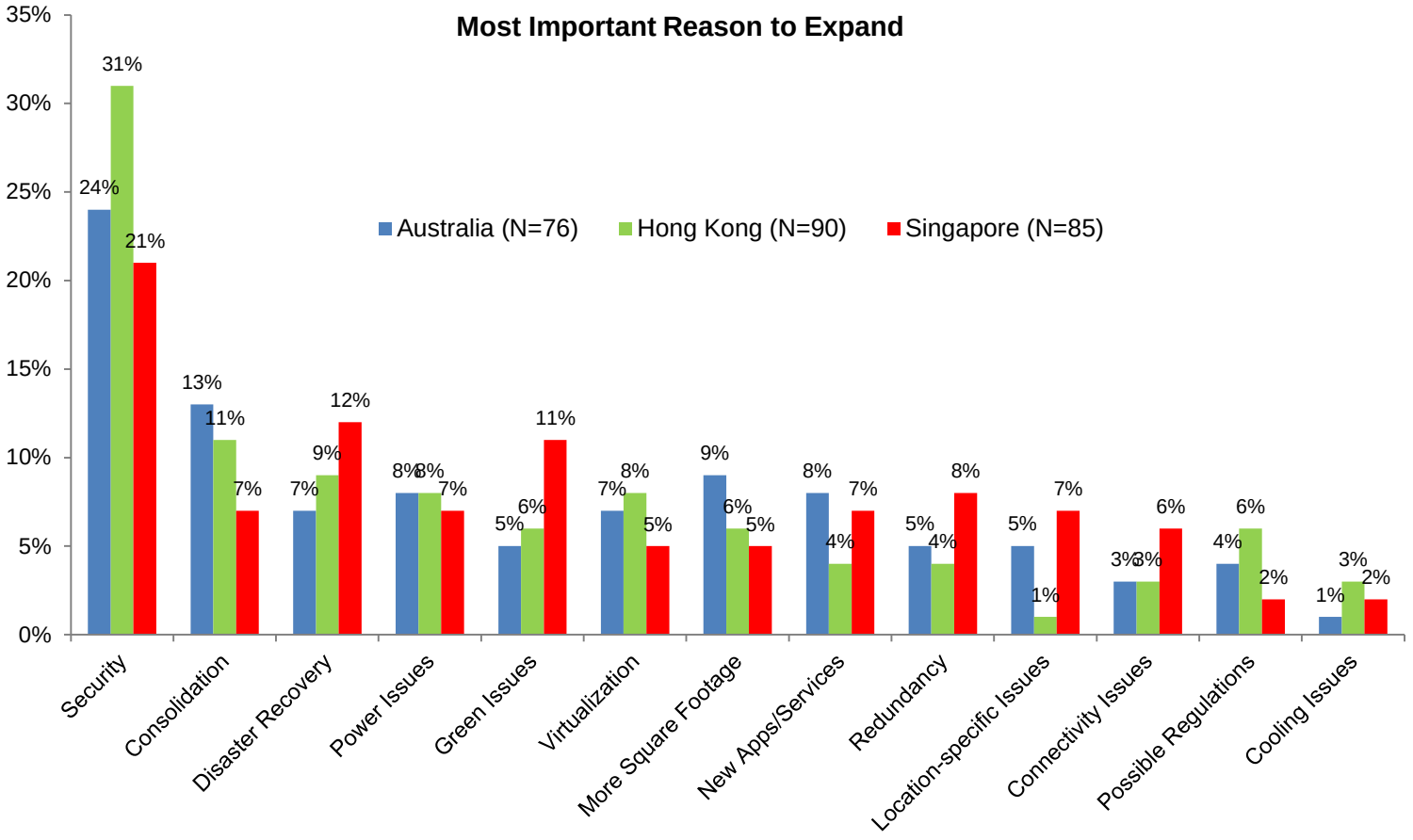
Most Important Reason for Expansion By Country

- The three countries are similar in choosing security as the most important reason to expand.



Base = Expansion Plans in 2012

Note: Location-specific refers to labour pool, property cost or flood risk. Connectivity refers specifically to synchronous communications.

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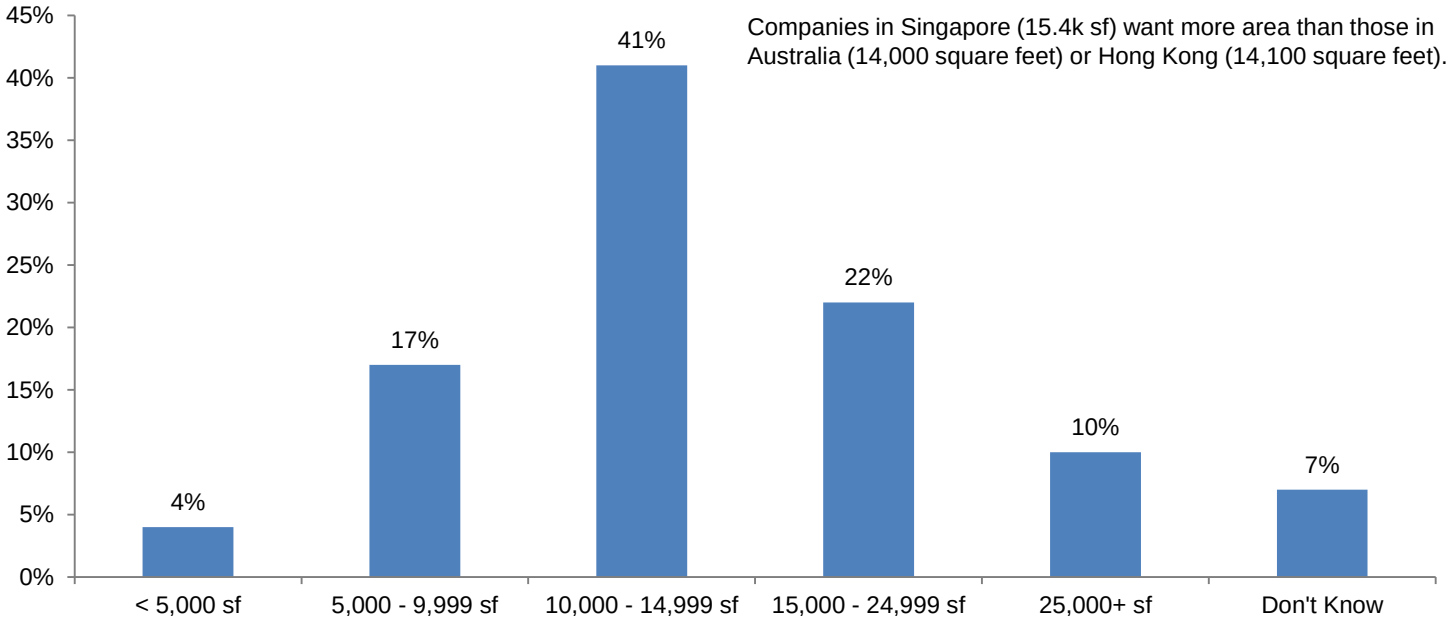
Expansion Space Requirements

- Participants were asked about the average area of raised floors for their expanded data centres (in both feet and metres).
- The average desired space is 14,800 square feet.
- Nearly two thirds (62%) want space less than 15,000 square feet. Among the largest companies (US$20B+), over half (57%)want 15,000+ square feet.



Companies in Singapore (15.4k sf) want more area than those in Australia (14,000 square feet) or Hong Kong (14,100 square feet).

Base = Expansion Plans in 2012 (N=230)

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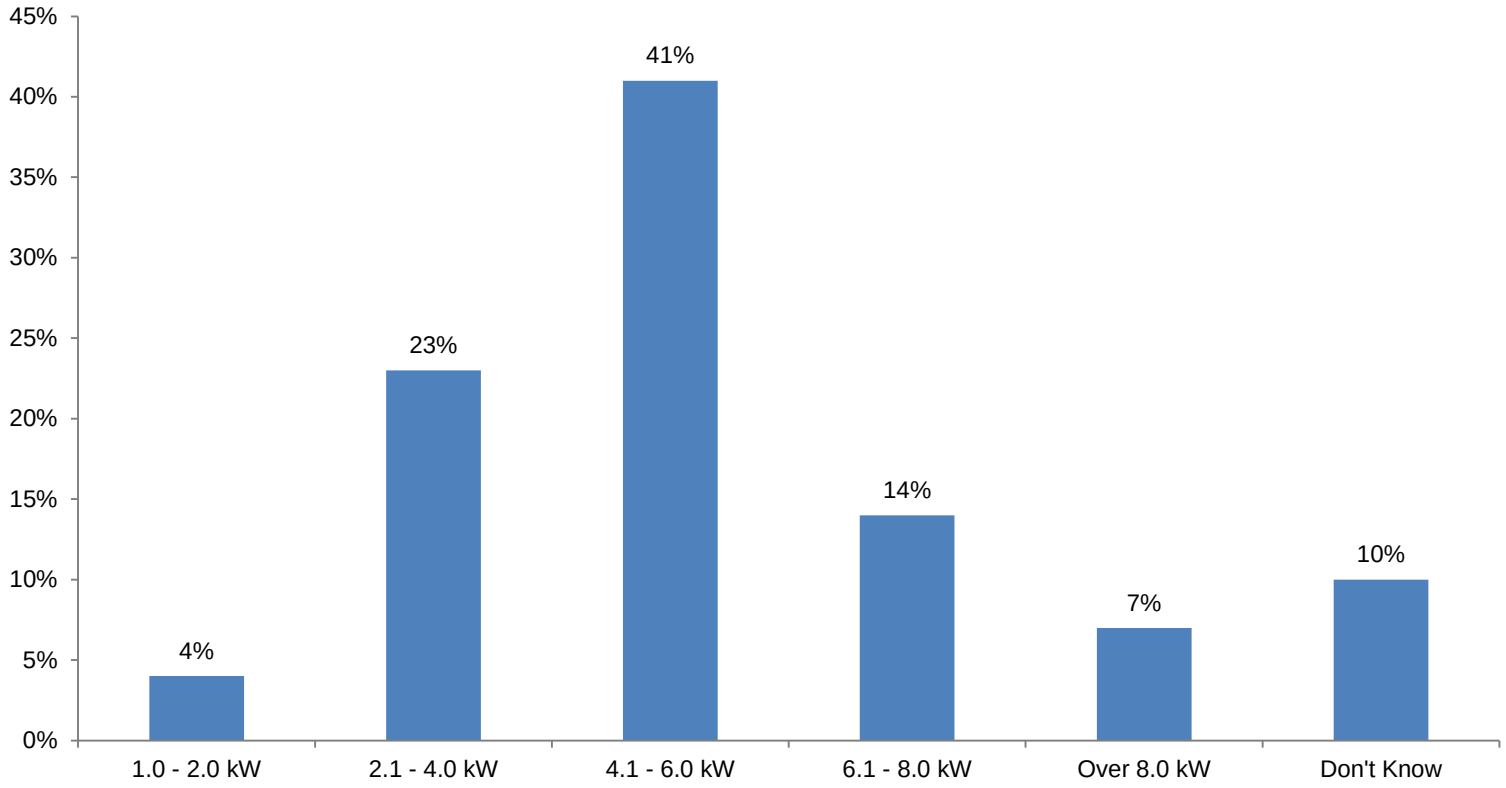
Expansion Power Requirements

- Participants were asked about the average kilowatts per rack for their expanded data centres.
- The average power requirement is 5.1 kW per rack.



Base = Expansion Plans in 2012 (N=230)

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IMPLEMENTING EXPANSION

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Expansion Strategies

- Respondents who have plans to expand their data centres in 2012 were asked to select among the alternatives below how they planned to implement the expansion:
  - Build with or use a data centre design and construction partner.
  - Lease space from a wholesale data centre provider.
  - Use a container solution.
  - Build themselves.
  - Use a retail colocation solution.
  - Have not decided yet.
- Respondents could choose one or more of these alternatives.

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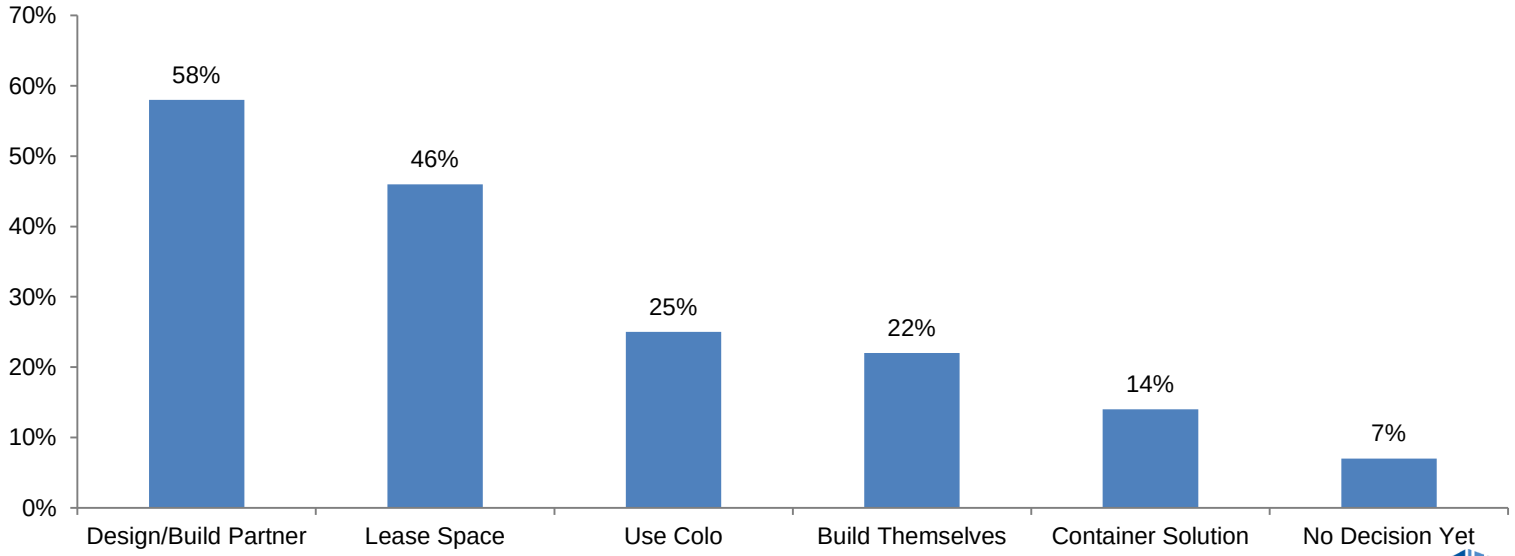
Use of a Partner

- Participants with plans to expand their data centres were asked how they plan to implement the expansion. They could select multiple responses and 39% plan to use two or more methods.
- Nearly five in six (82%) will use a partner, either for design and build (58%) or to lease wholesale space (46%) or both.
- One in four (25%) plan to use a retail colocation solution.
- Over one in five (22%) plan to build the expansion themselves
- One in seven (14%) plan to use a shipping container solution.



Base: Expansion Plans in 2012 (N=230)

Note: Total responses exceed 100% because of multiple data centres and/or using multiple methods on a single data centre.

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Multiple Expansion Strategies

- Respondents have a mix of strategies that reflects multiple sites for expansion as well as complementary approaches to a single site.
- Two in five (39%) of those who plan to expand their data centres say they will use two or more approaches to expansion.
- Of those who will use a design/build partner:
  - 36% will lease space from a wholesale provider.
  - 23% will use a retail colocation solution.
  - 18% will also build an expansion themselves.
  - 13% will use a container solution.
- Of those who will lease wholesale space:
  - 47% will use a partner to design and/or build the expansion.
  - 36% will use a retail colocation solution.
  - 26% will (also) build it themselves.
  - 23% will use a container solution.

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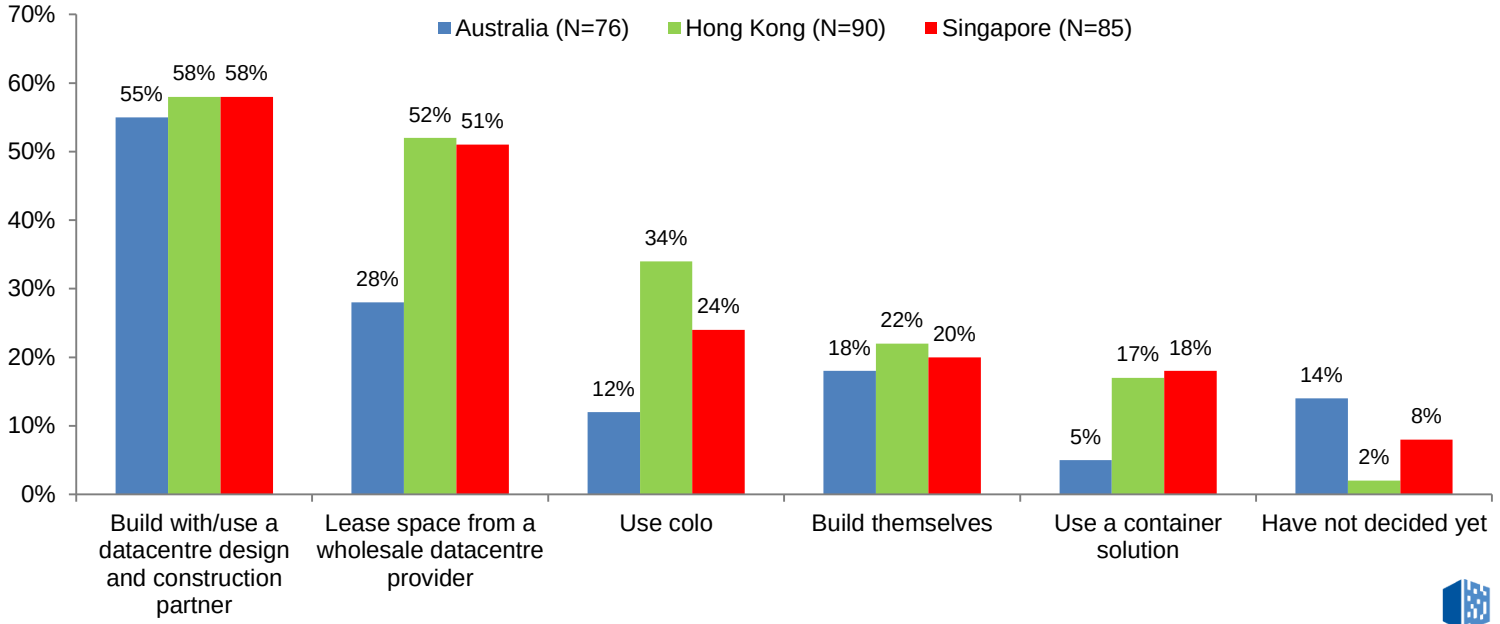
Country and Use of a Partner

- Participants with plans to expand their data centres were asked how they plan to implement the expansion. They could select multiple responses due to the possibility of multiple expansion projects.
- In each country, more plan to use a partner than other implementation methods.
  - Companies in Hong Kong are most likely to use retail colocation.
  - Companies in Australia are less likely to lease wholesale space, use retail colocation, or use a shipping container.



Base = Expansion Plans

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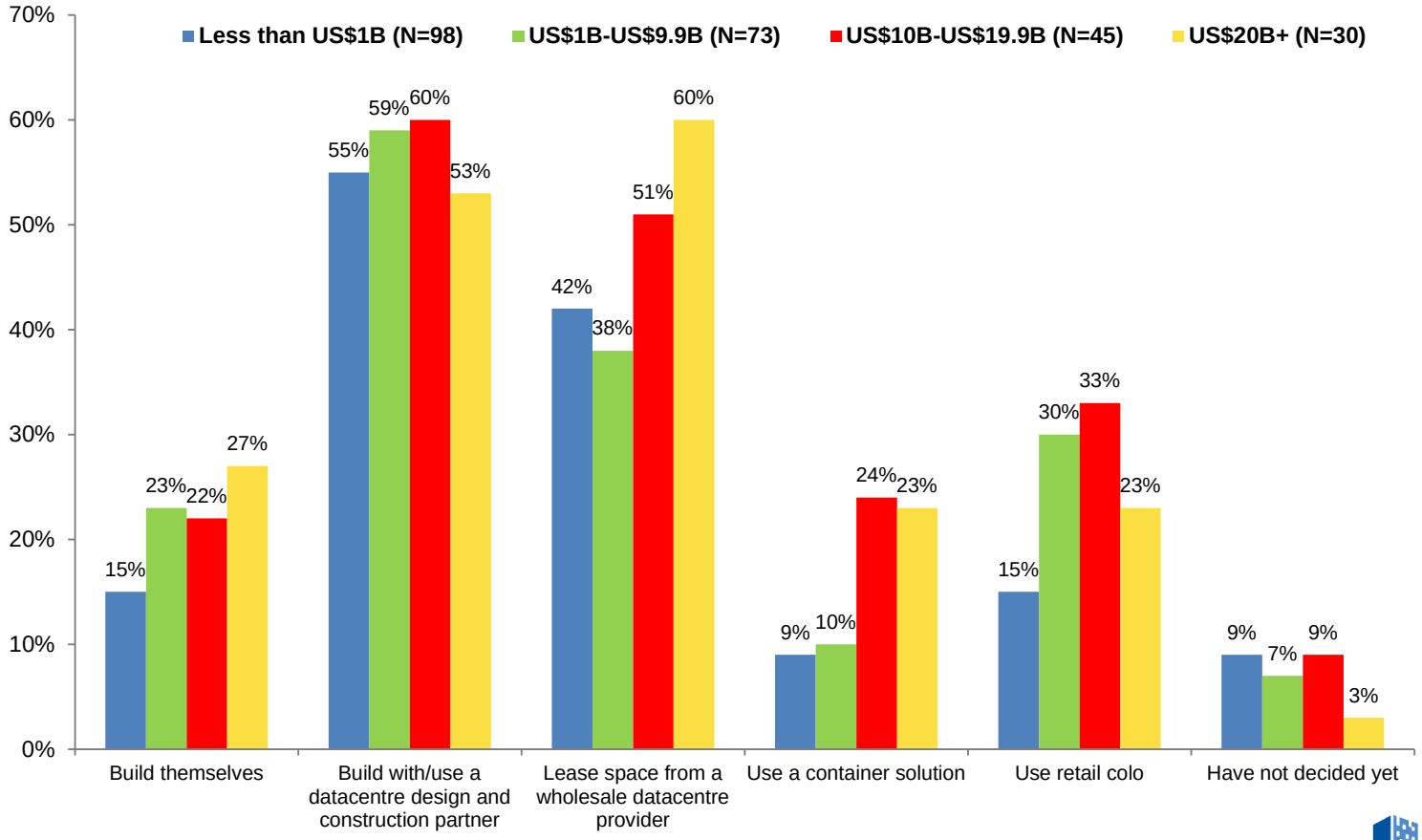
Revenues and Use of a Partner

- The larger the company, the more likely they are to build themselves.
- The larger companies (US$10B+) are more likely to lease wholesale space.
- The larger companies (US$10B+) are more likely to use container solutions.



Base = Expansion Plans

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SELECTING A PARTNER

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Partner Summary

- Of those who plan to expand in 2012, nearly five in six (82%) will use a partner, either for design and build (58%) or to lease wholesale space (46%) or both.
- The list of potential partners is usually developed by high or mid-level executives, as opposed to C-levels or lower-level managers.
- The most important factors in choosing a partner are operational reliability, server management and data centre design.
- The most useful source of information about potential partners is consultants.

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Partner Summary (cont'd)

- The most valuable information from providers is case studies, followed by educational seminars and the provider's website.
- The information sources that respondents most often used for the last data centre they built or leased are educational seminars, case studies and providers' websites.
  - Participants prefer email from the provider as a notification about new white papers or seminars.
- IT and C-level executives, followed by Finance, are most likely to participate in selecting a partner for expansion.
- IT and C-level executives tend to have to most influence on the final decision.

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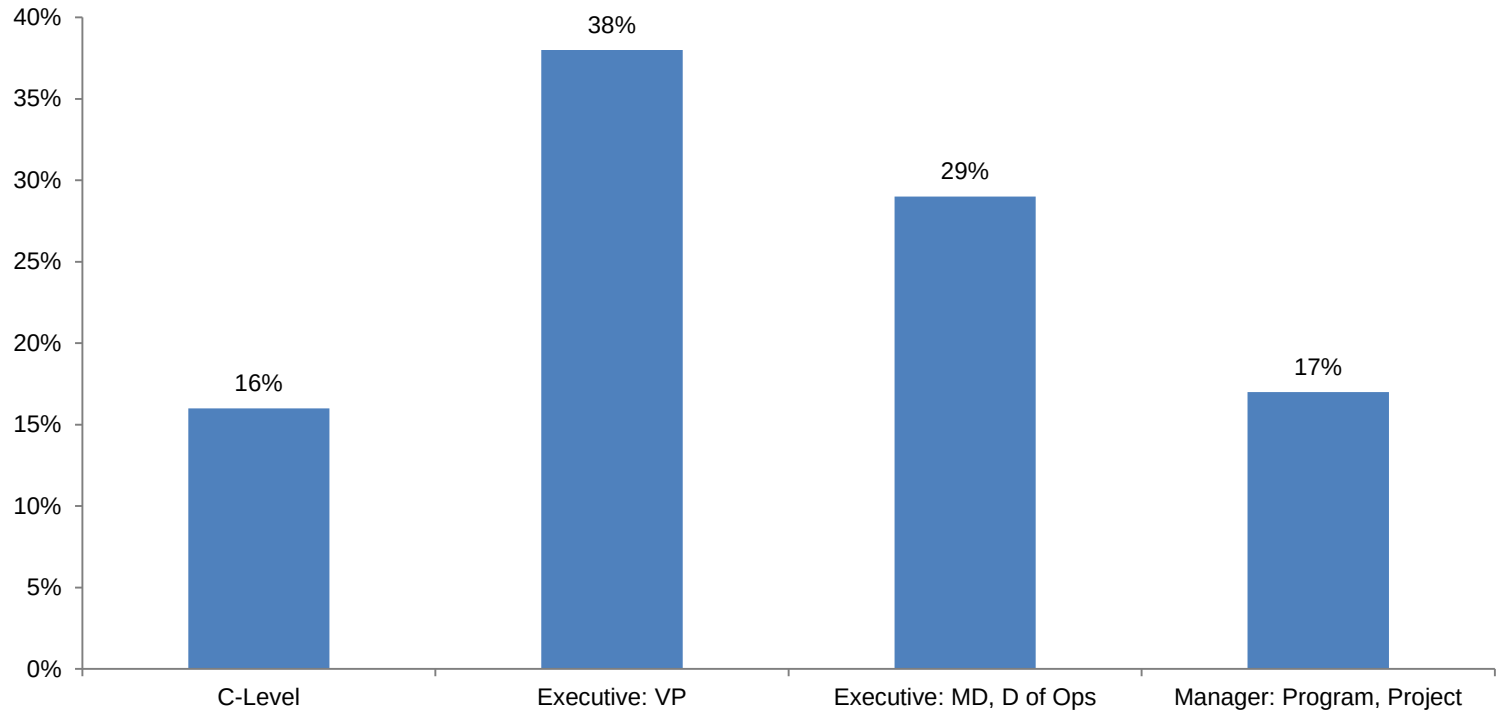
Developing a Consideration List

- This chart shows the titles of those who participants say are responsible for developing a comprehensive list of all potential partners.
- Executives at the Vice President or upper Director levels are most likely to develop the list of potential partners for expansion.



Base = Those who might use a partner (N=202)

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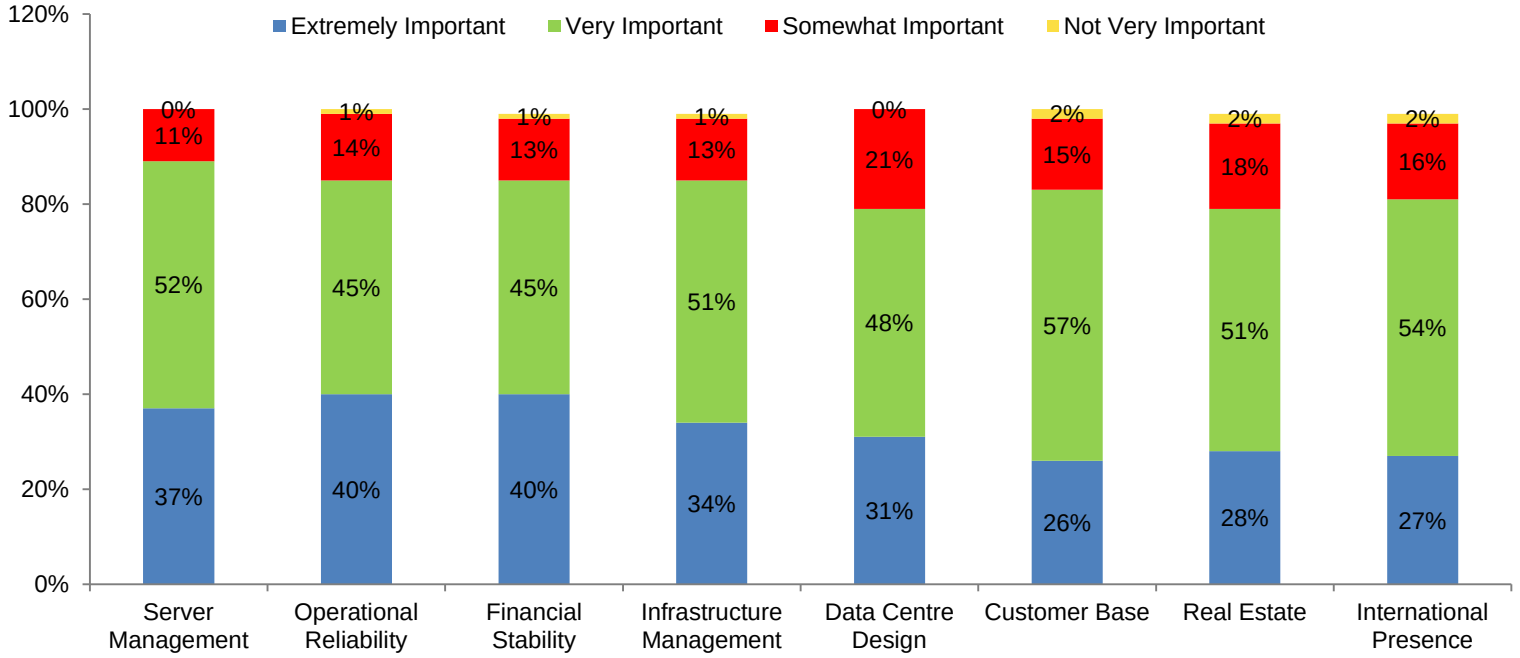
Evaluating Partners: Qualifications

- Participants who are planning to use a partner were asked to rate the importance of several areas of experience in selecting a partner for expanding their data centres.
- The most important factors are server management, operational reliability and financial stability. The customer base, an international presence and real estate experience are less important considerations in selecting a partner.



Base = Those who plan to use a partner (N=202)

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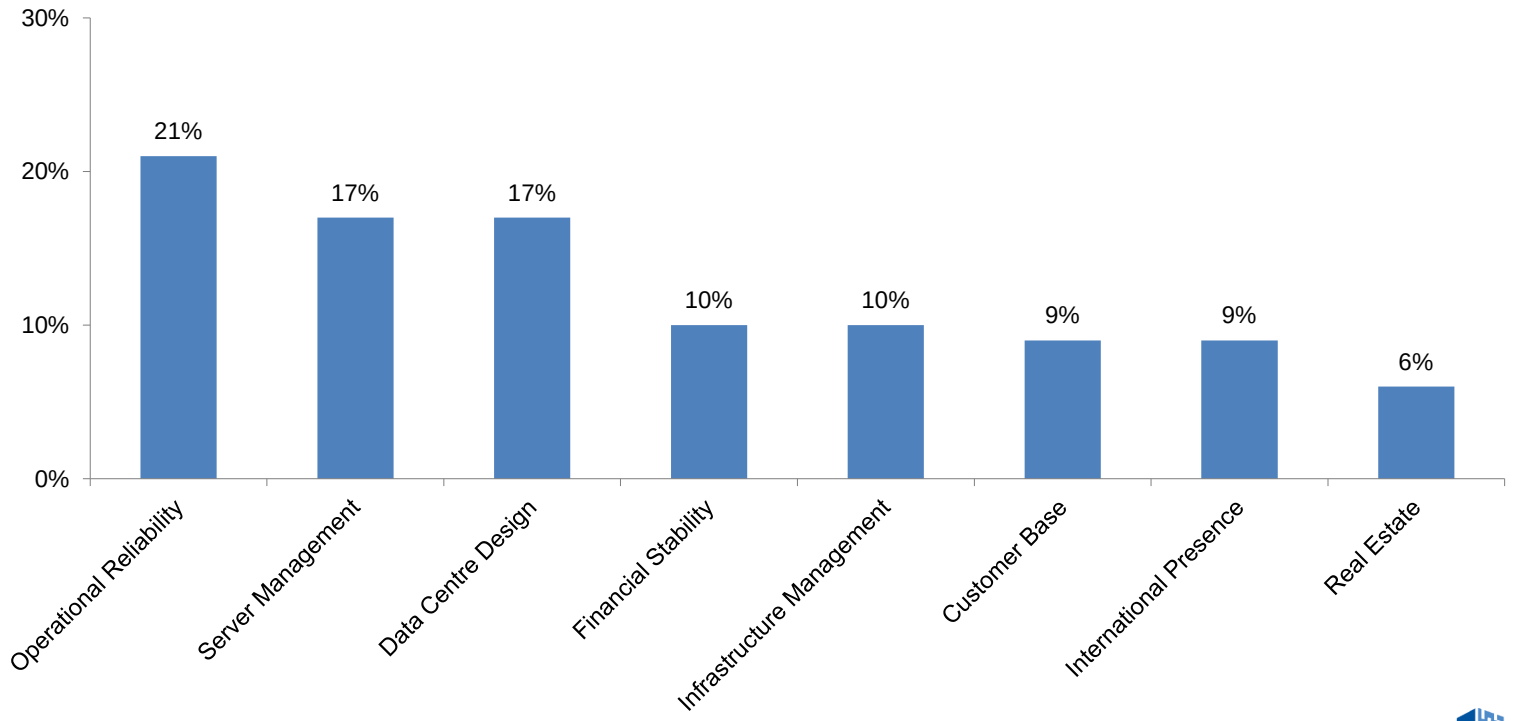
Evaluating Partners: Most Important Qualification

- Participants who are planning to use a partner were asked to specify the single most important area of experience in selecting a partner for expanding their data centres.
- The most important factors are operational reliability, followed by server management and data centre design. Real estate experience is the least important consideration in selecting a partner.



Base = Those who plan to use a partner (N=202)

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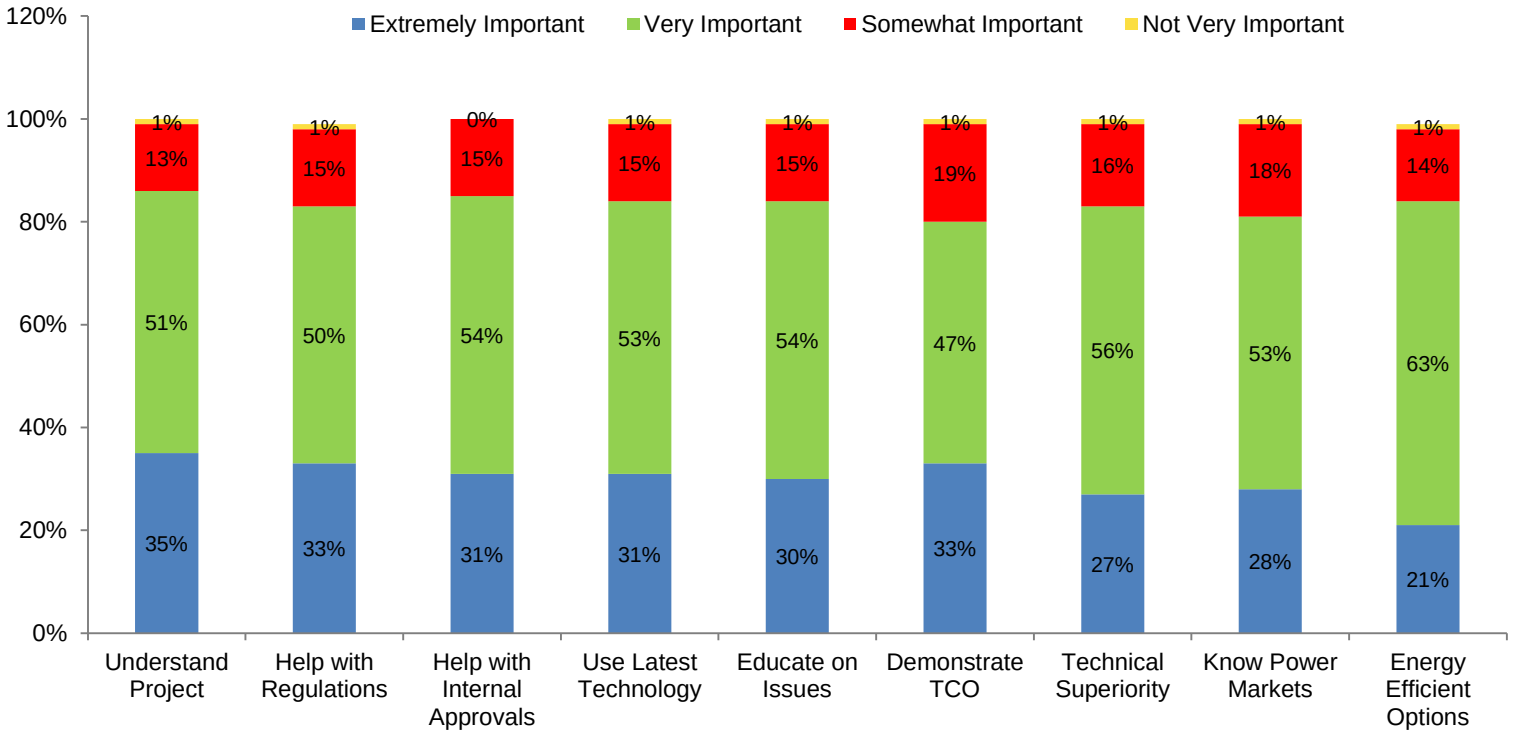
Evaluating Partners: Considerations

- Respondents who are planning to use a partner were asked to rate the importance of several other considerations in choosing a partner for expanding their data centres.
- The most important factors are understanding the project, help with regulatory issues and help with internal approvals.



Base = Those who plan to use a partner (N=202)

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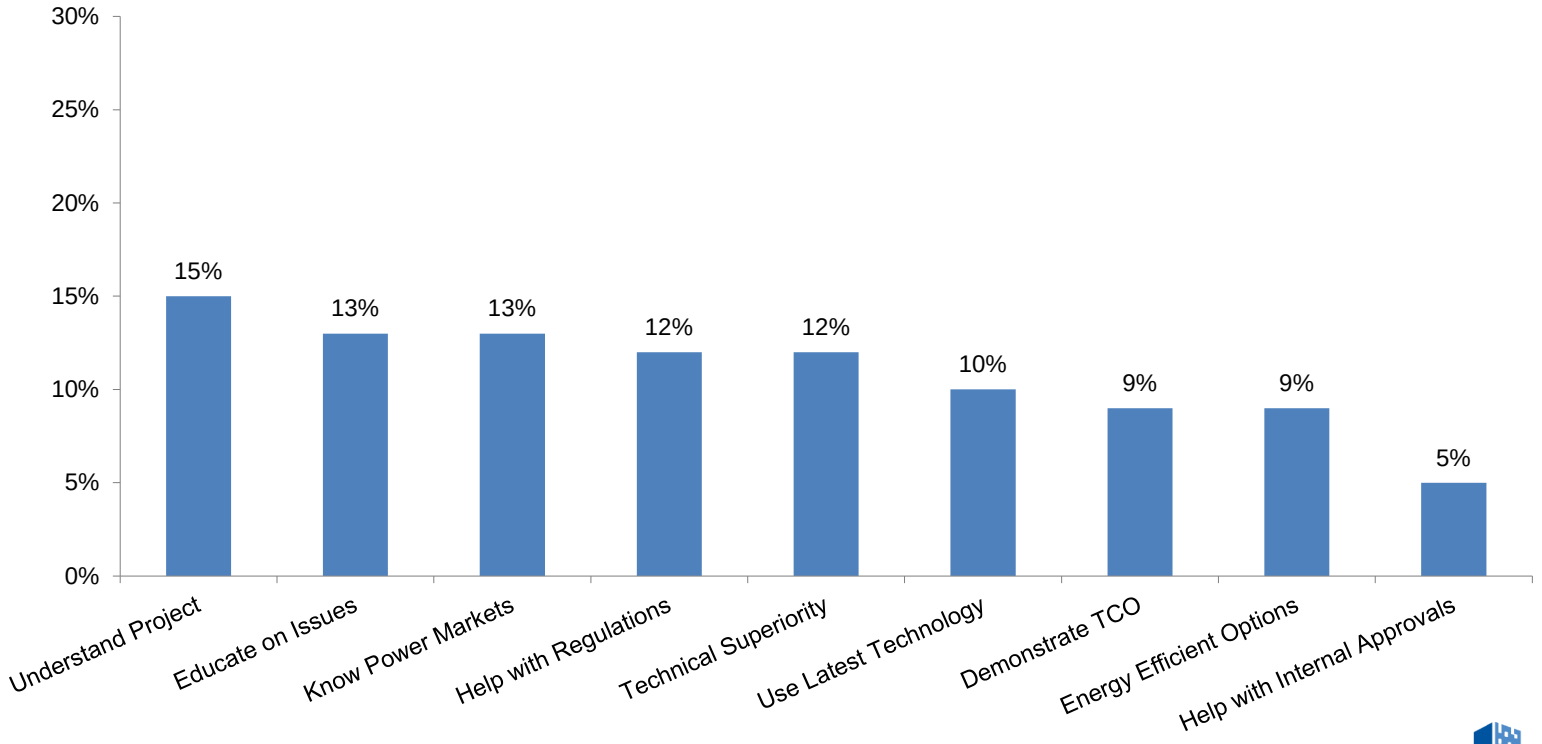
Evaluating Partners: Most Important Consideration

- Respondents who are planning to use a partner were asked to specify the single most important consideration in choosing a partner for expanding their data centres.
- Although ‘understanding the project’ is mentioned more often, none of these considerations stands out in importance.



Base = Those who plan to use a partner (N=202)

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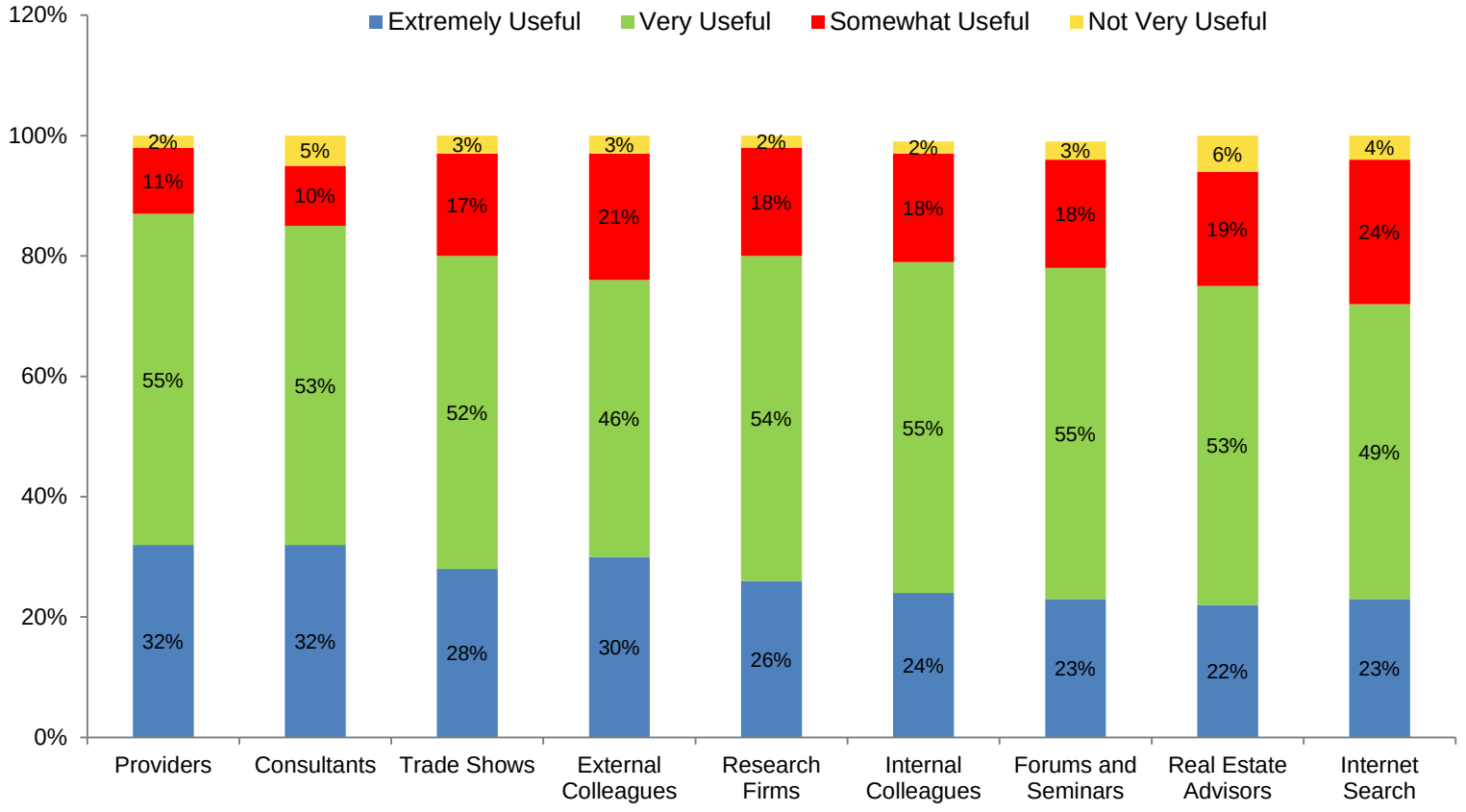
Value of Information Sources

- Participants were asked to rate the usefulness of several sources when looking for information about providers of data centre facilities.
- The most useful source is providers themselves, followed by consultants.



Base = Those who plan to use a partner (N=202)

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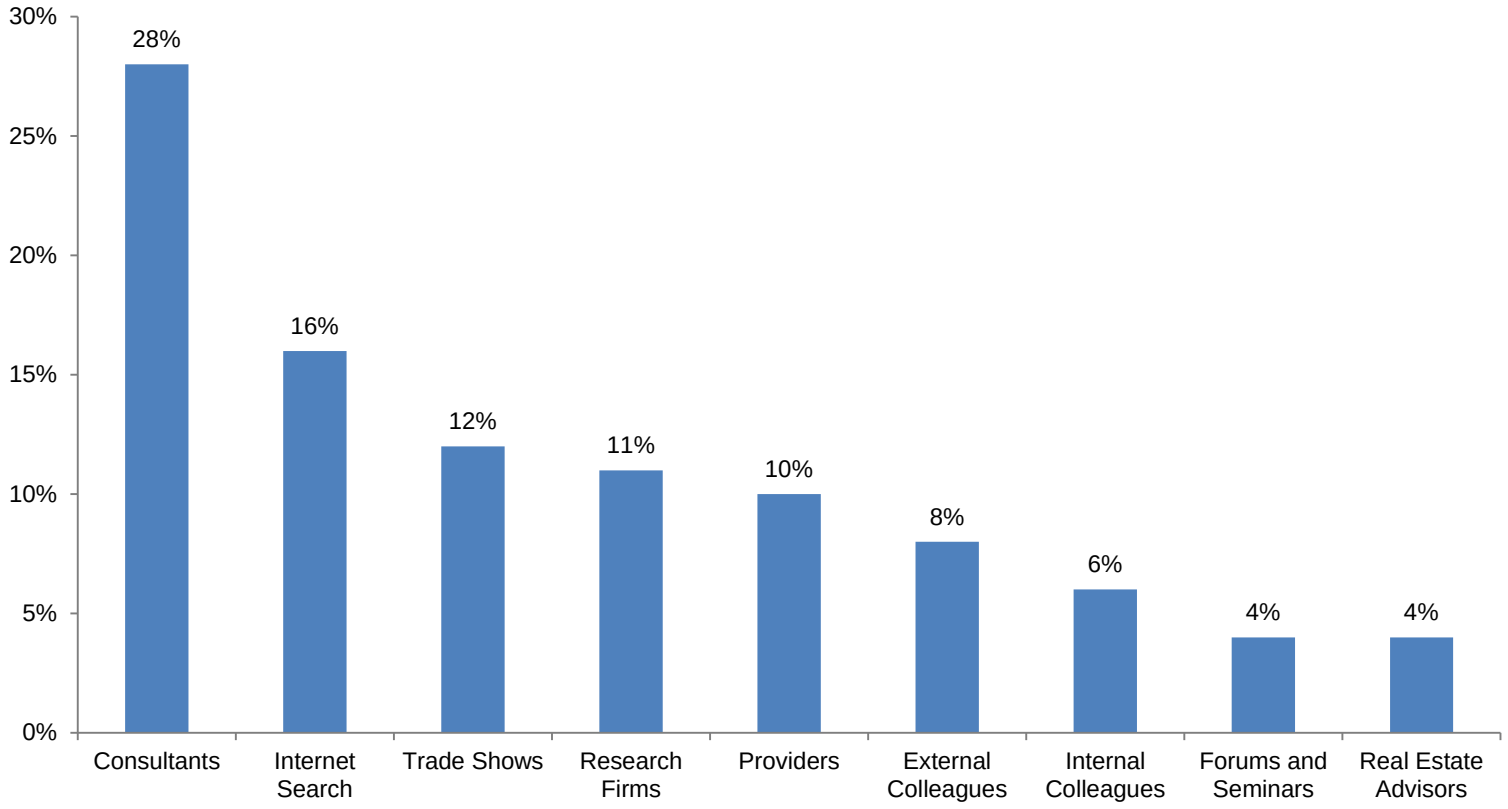
Most Useful Information Source

- Respondents were asked which one of these sources is the most valuable.
- Consultants are seen as most valuable followed by Internet search.



Base = Those who plan to use a partner (N=202)

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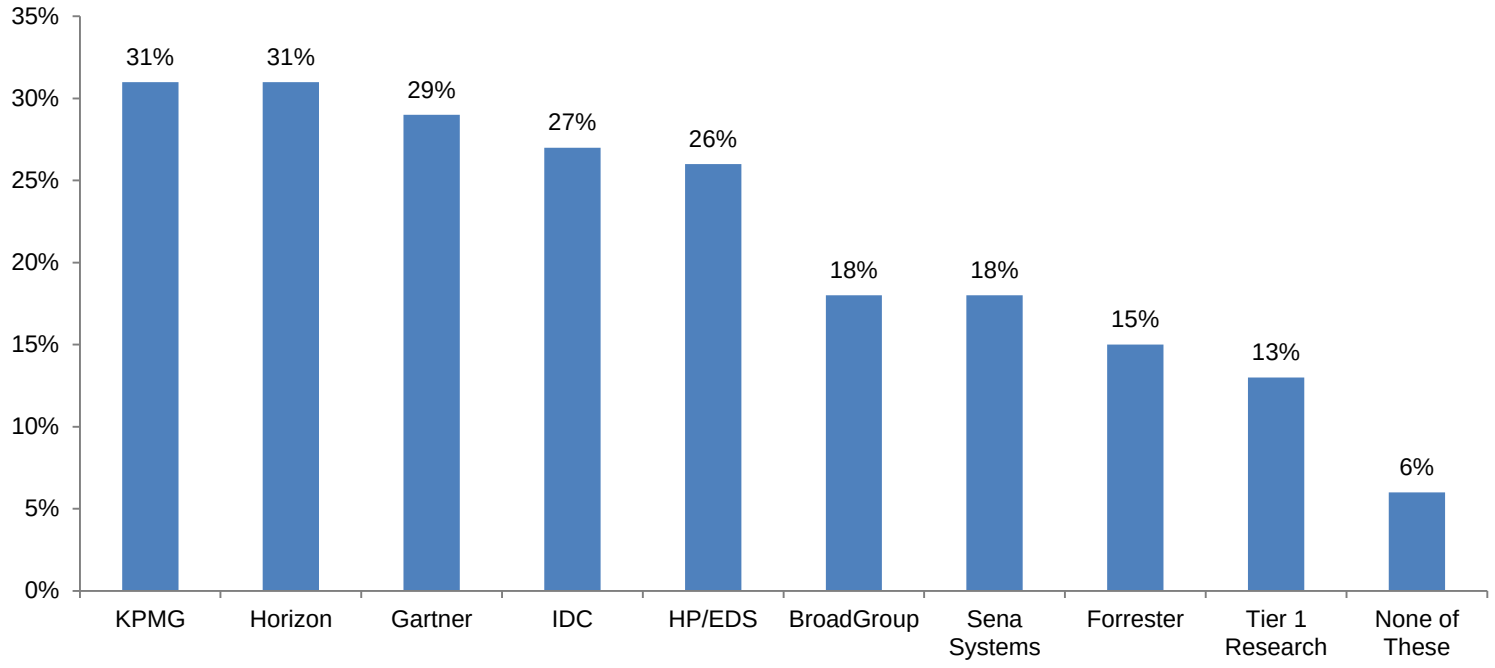
Analysts and Research Firms Consulted

- This chart shows the analysts and research firms that participants regularly consult for information on data centres.
- KPMG and Horizon are consulted most often, followed by Gartner, IDC and HP/EDS.
- Companies in Singapore rely more on Gartner (38%) than do companies in other countries.



Base = Those who plan to use a partner (N=202)

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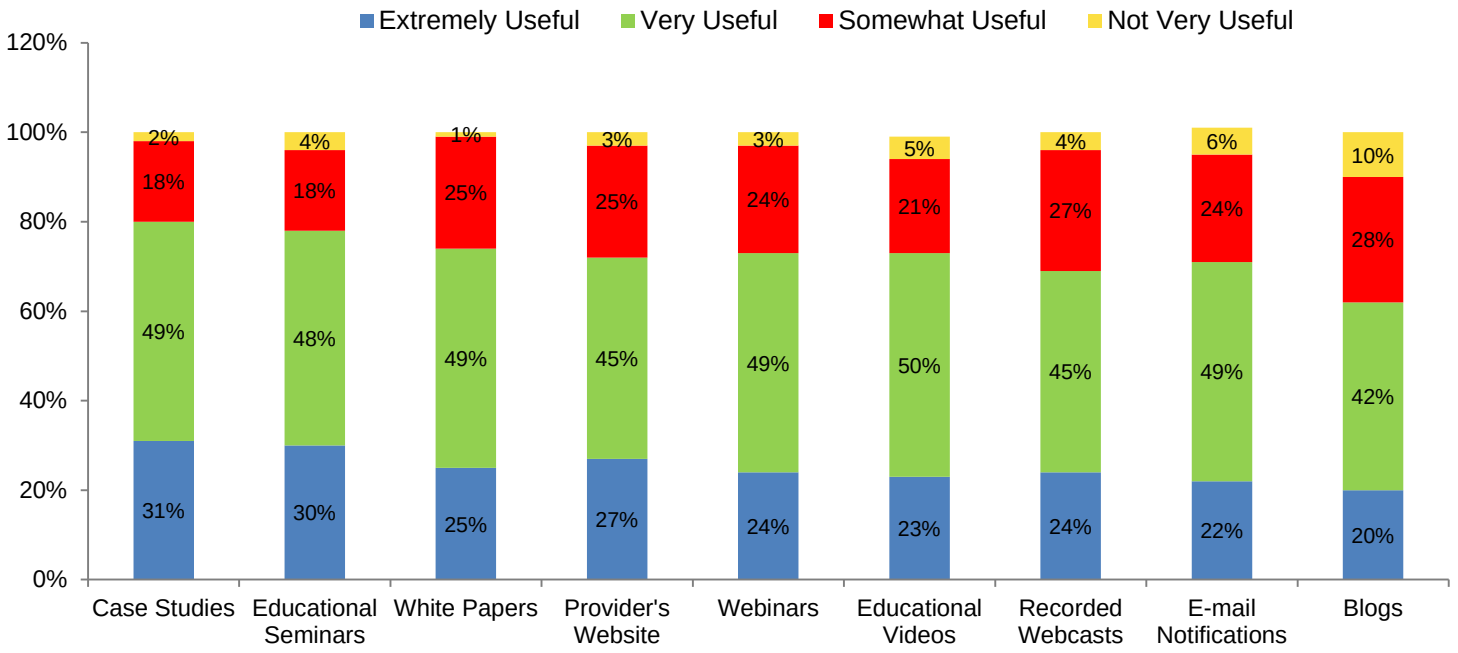
Information from Providers

- Participants were asked to rate the value of several sources of information from providers themselves in helping to choose a provider of data centre facilities.
- The most valuable sources are case studies, followed by educational seminars.
- Blogs are least useful.



Base = Those who plan to use a partner (N=202)

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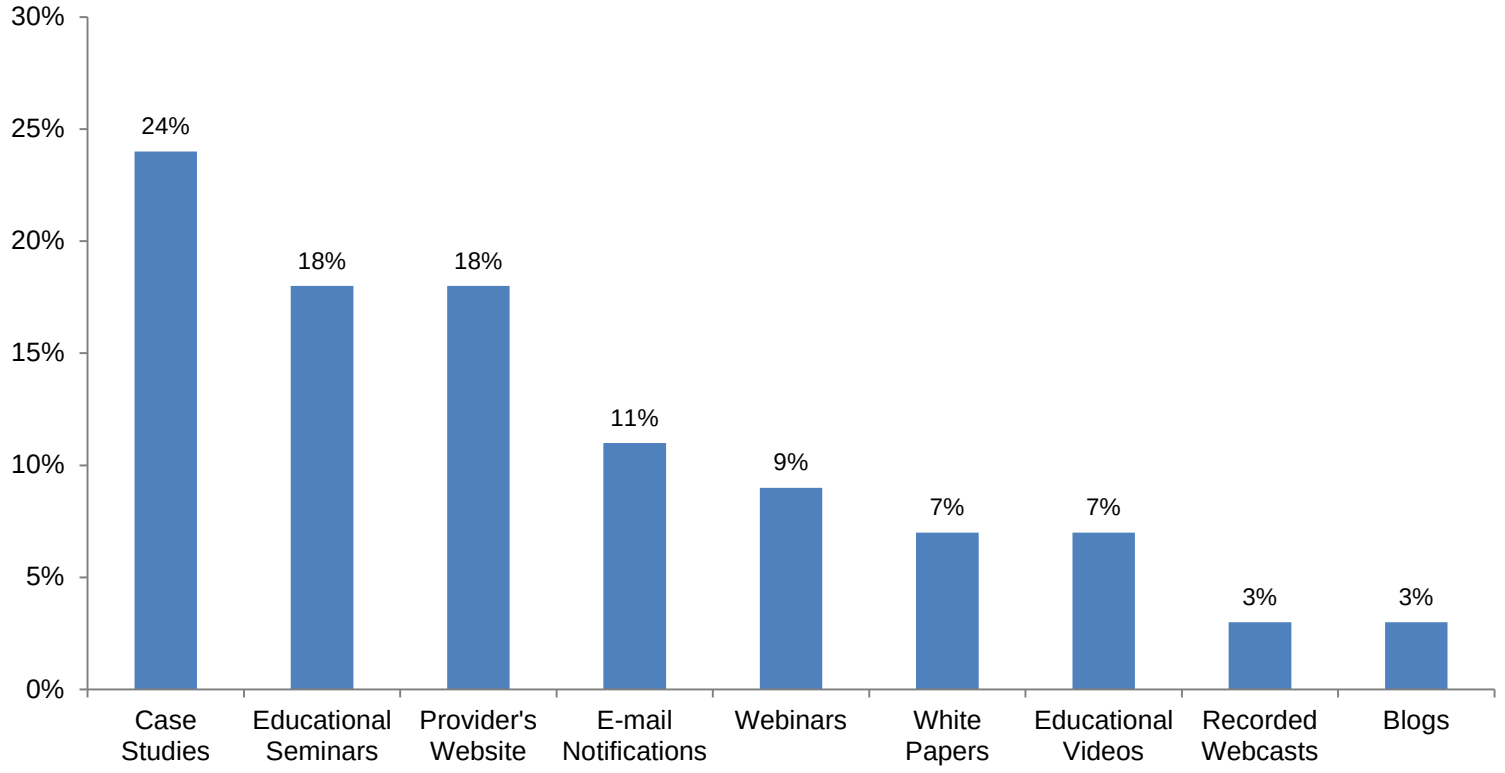
Information from Providers: Most Valuable

- Participants were asked to specify the single most valuable source from providers in helping to choose a provider of data centre facilities.
- The most useful source is case studies, followed by educational seminars and the provider's Website.



Base = Those who plan to use a partner (N=202)

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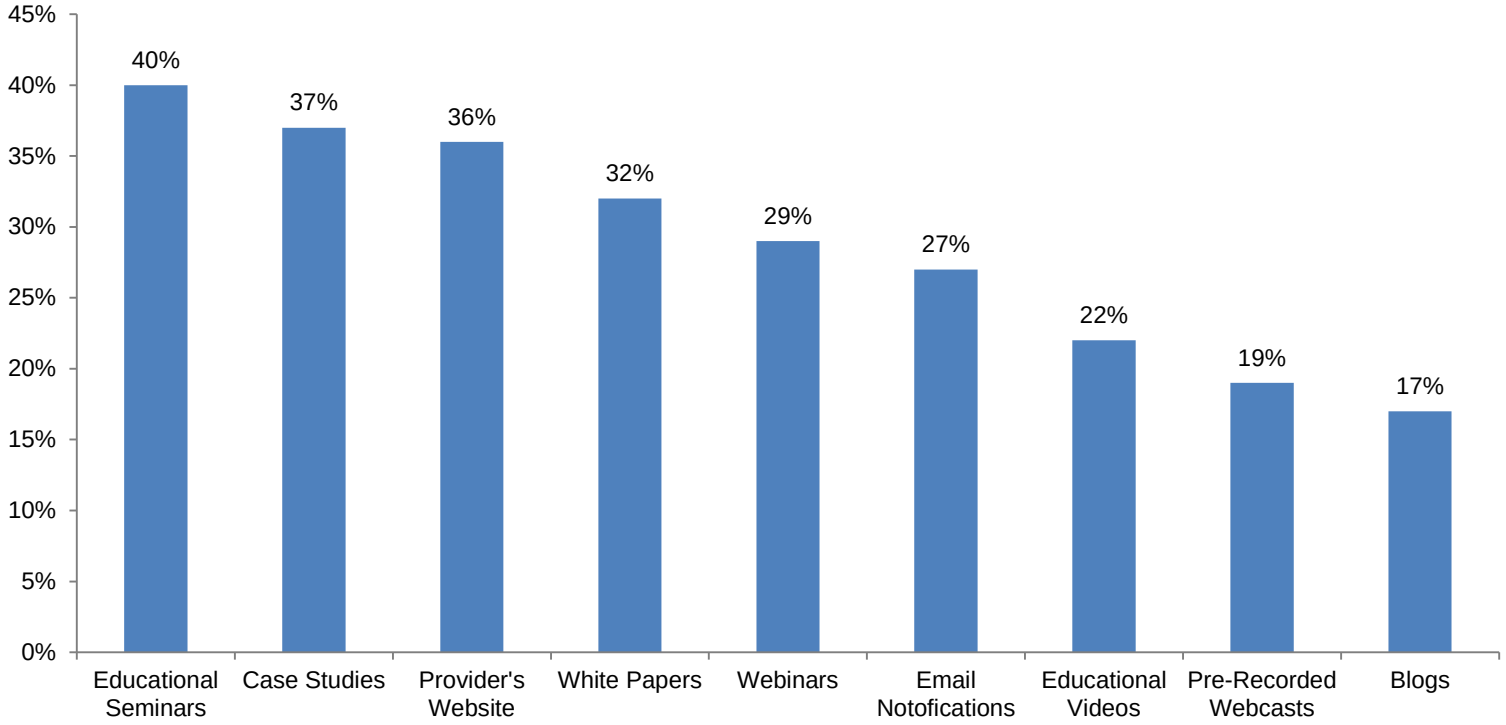
Use of Information Sources

- Respondents were asked if they or anyone on their staff used any of these information sources for the last data centre they built or leased.
- Educational seminars, case studies, the provider's Website and white papers are used most often. Pre-recorded webcasts and blogs are used less often.



Base = Those who plan to use a partner (N=202)

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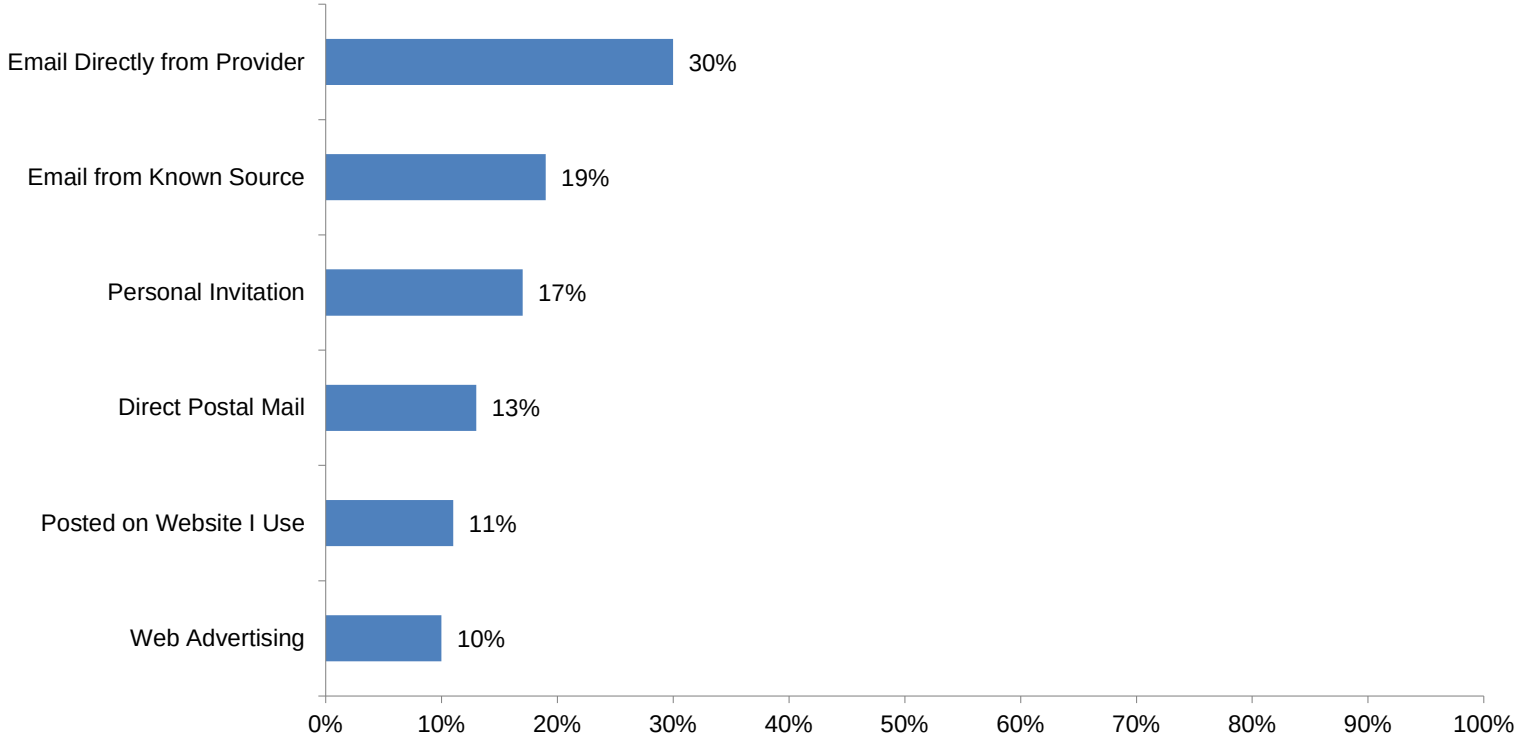
Best Way of Notification

- Participants were asked about the best way to notify them about the availability of items such as new white papers or seminars.
- This chart shows that email from the providers themselves is the preferred means of contact.



Base = Total (N=302)

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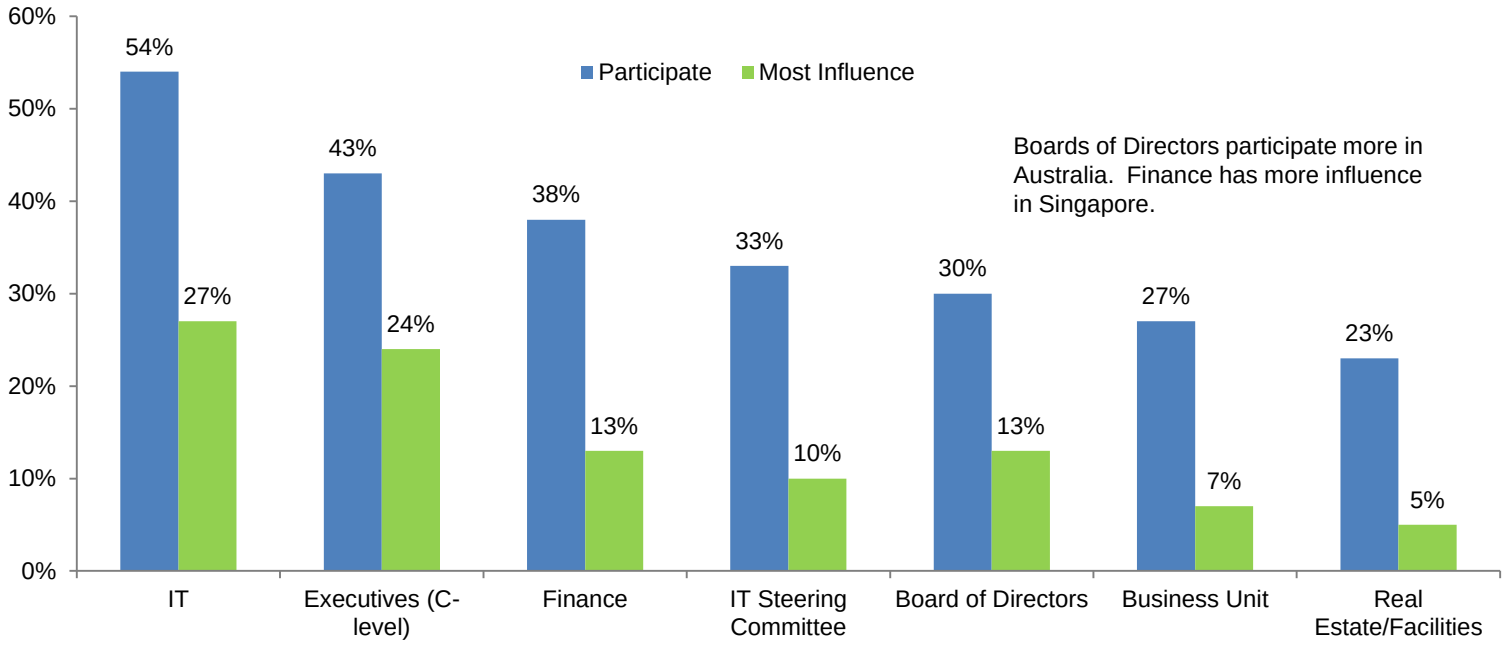
Decisions About Partners

- Participants with plans to expand were asked first, which departments participate in their data centre selection decision and second, which single department has the most influence.
- IT and C-level executives have the highest level of participation.
- IT is likely to have the most influence on the final decision, followed by C-level executives.



Base = Expansion Plans (N=230)

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Asia Pacific Campos Survey 2012

DATA CENTRE LOCATIONS

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Location Summary

- Respondents who plan to expand in 2012 are more likely to locate a new data centre in countries in Asia and primarily in their own country.
- The most mentioned cities for a new data centre are Hong Kong, Singapore, Tokyo and Sydney.
- The most important factor in choosing a location is security, followed by power availability and cost.

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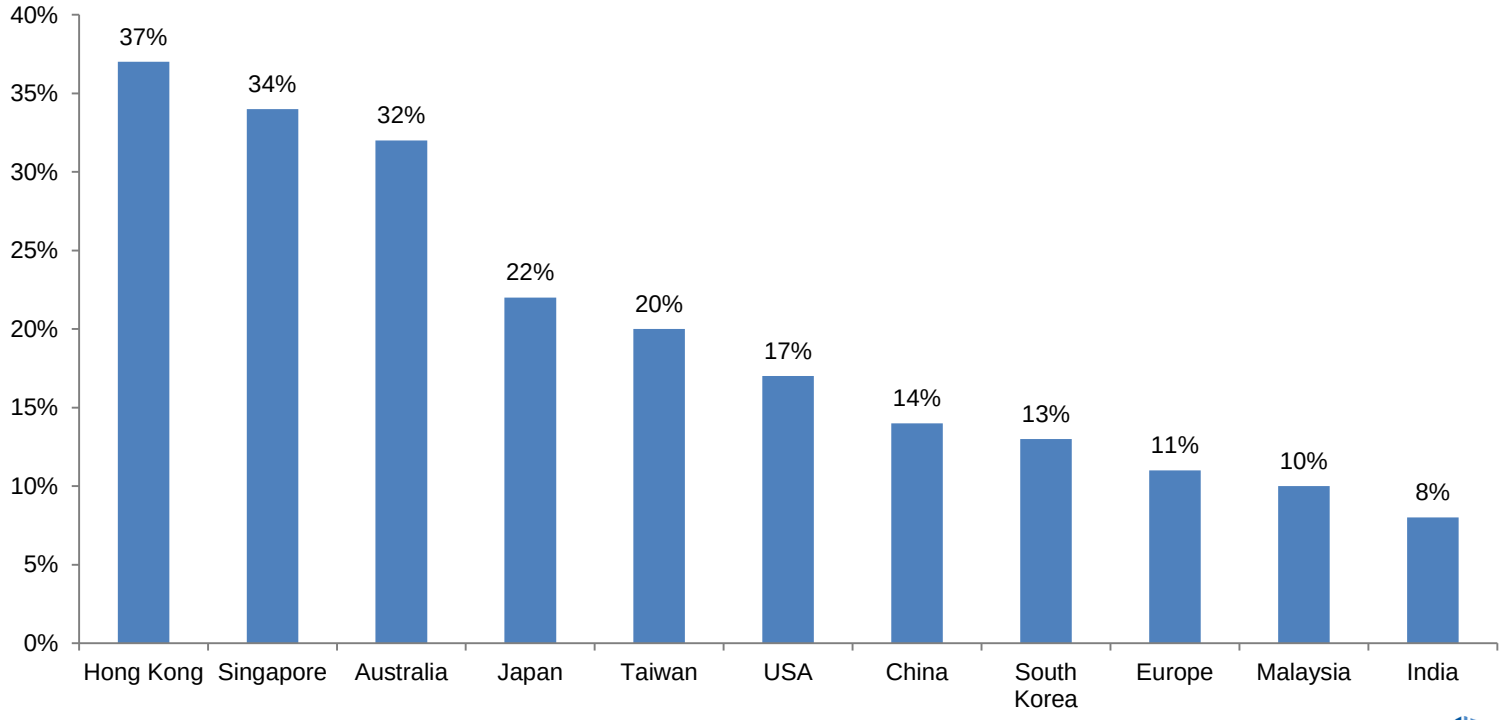
Countries to Locate a New Data Centre

- This chart shows countries where respondents would like to locate a new data centre. Multiple responses were allowed.
- Most of the choices are in the three countries in the sample.
  - In each country, at least 62% chose their own country as a location.
- Most of the choices are in Asia, as opposed to Europe or North America.



Base = Expansion Plans (N=230)

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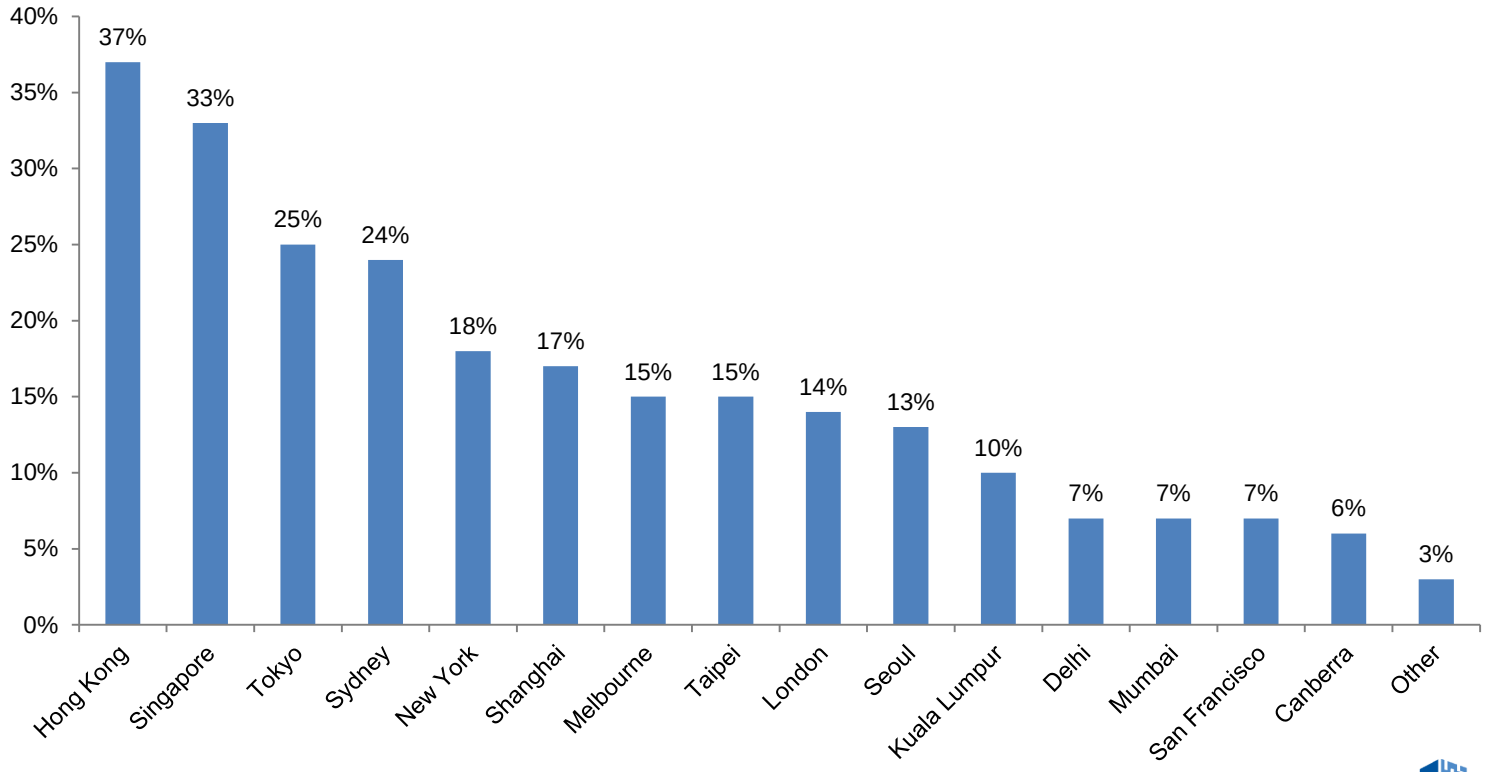
Cities to Locate a New Data Centre

- This chart shows cities where respondents would like to locate a new data centre. Multiple responses were allowed.
- Most of the locations are cities in Asia and Australia.
  - New York City and London are exceptions.



Base = Expansion Plans (N=230)

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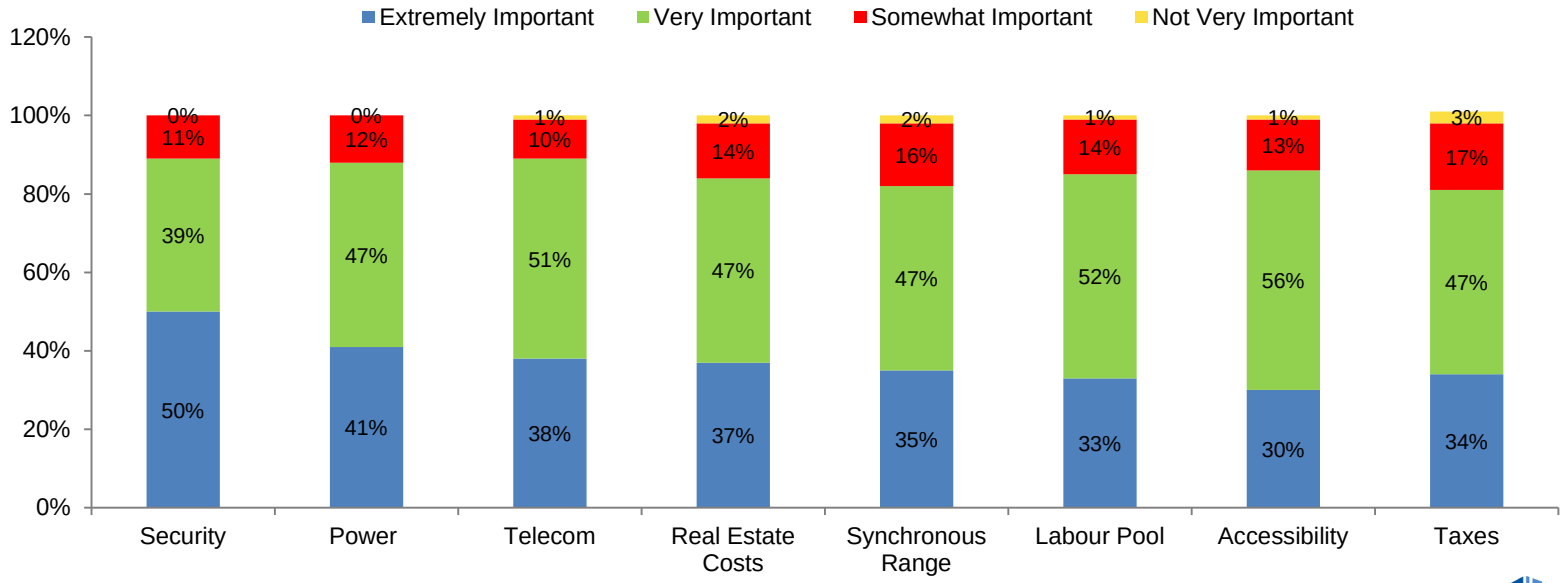
Factors in Choosing a Location

- Participants were asked to rate the importance of several factors in selecting a geographic location for their data centres.
- Security is most important, followed by power availability/costs and telecom (access to fiber). Taxes and worker accessibility are less important.
- Telecom (access to fiber) is most important for the largest companies (US$20B+).
- Synchronous range is most important for companies in Singapore.



Base = Expansion Plans (N=230)

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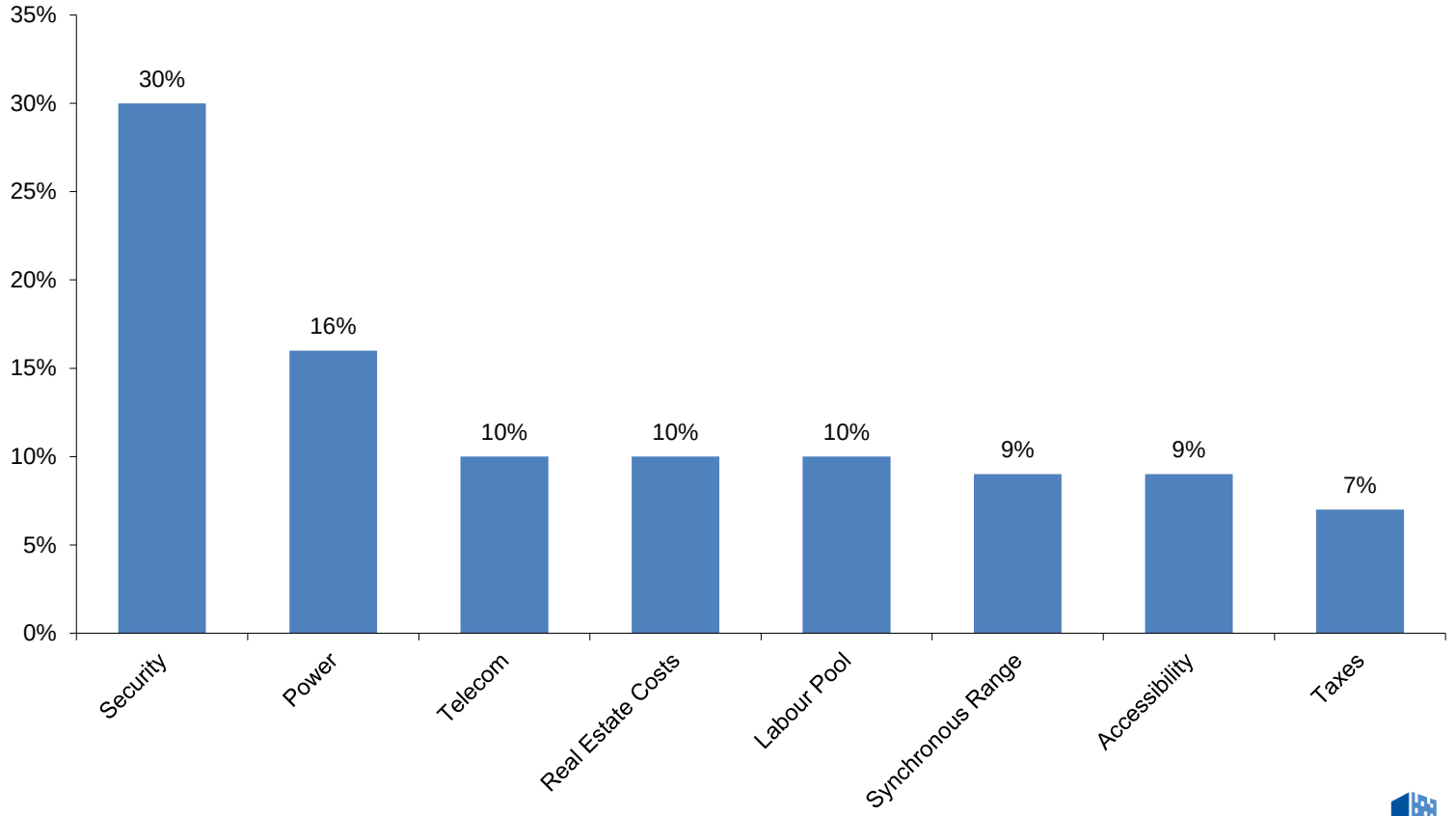
Most Important Factor in Choosing a Location

- Participants were asked to choose the single most important of several factors in selecting a geographic location for their data centres.
- Security is most important, followed by power availability/costs.



Base = Expansion Plans (N=230)

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Asia Pacific Campos Survey 2012

APPENDIX

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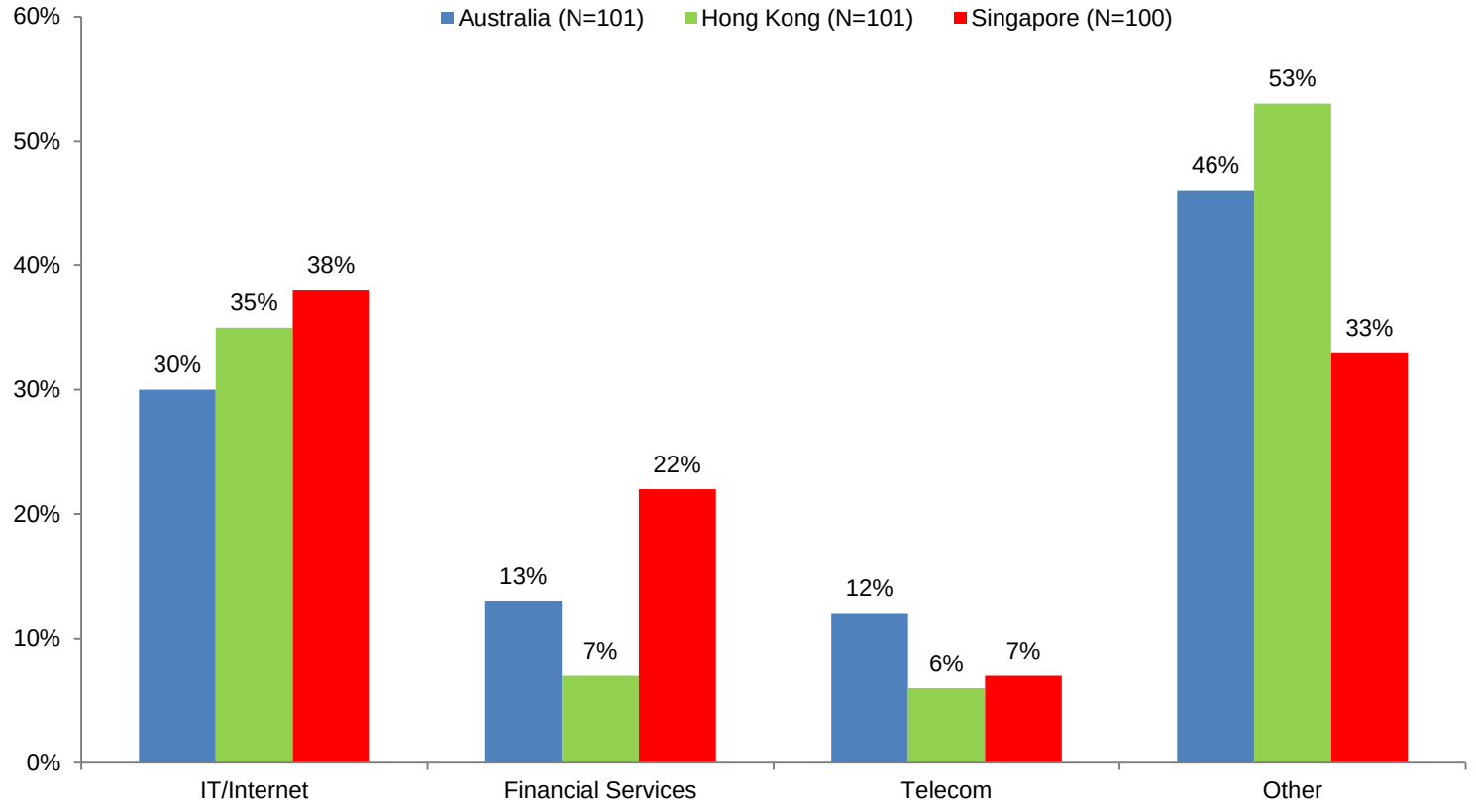
Country Comparison: Industry

- This chart shows the composition of the samples by industry.
- “Other” industries include manufacturing, healthcare, retail, logistics and various other industries.



Base = Total

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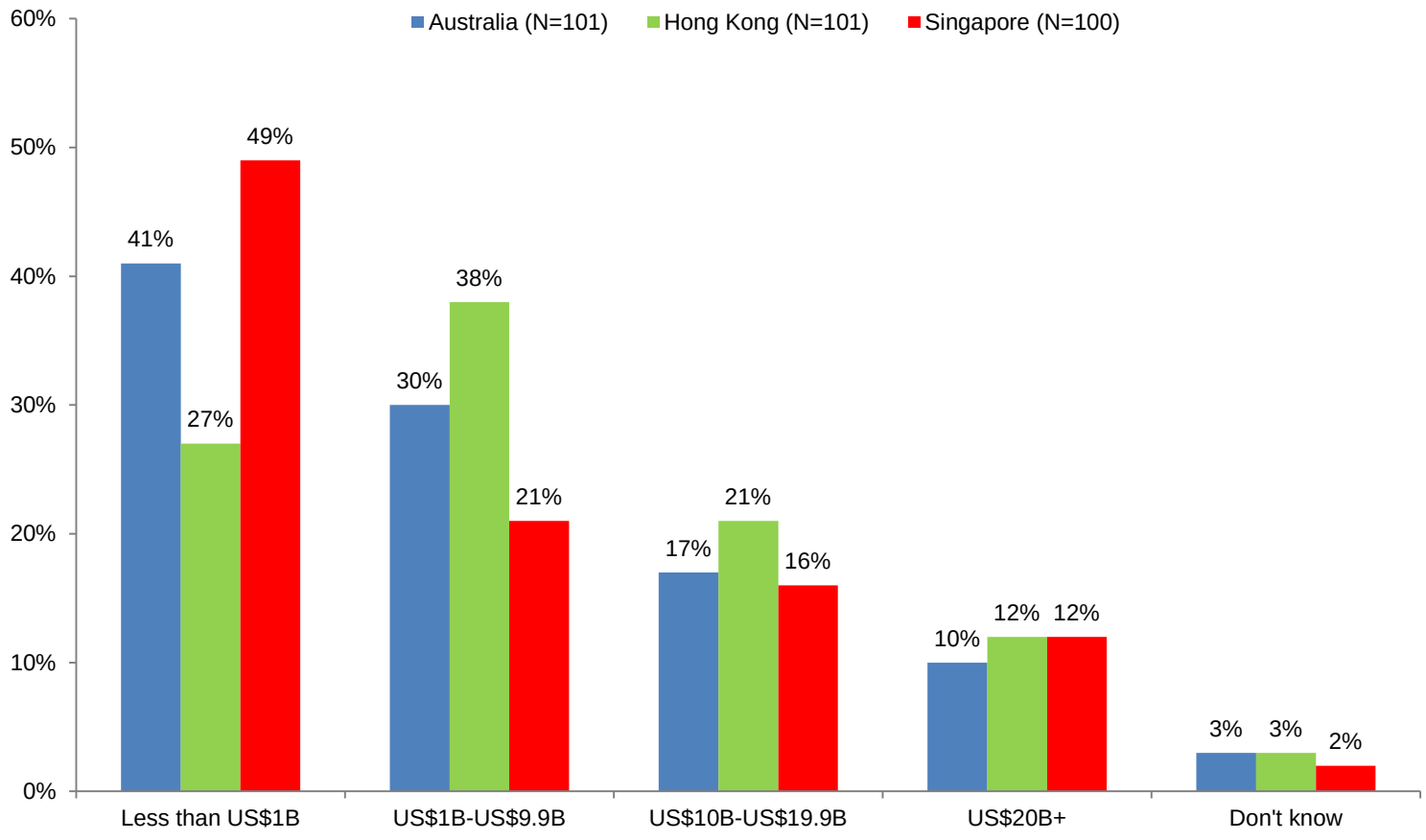
Country Comparison: Revenues

- This chart shows the composition of the samples by annual revenues.



Base = Total

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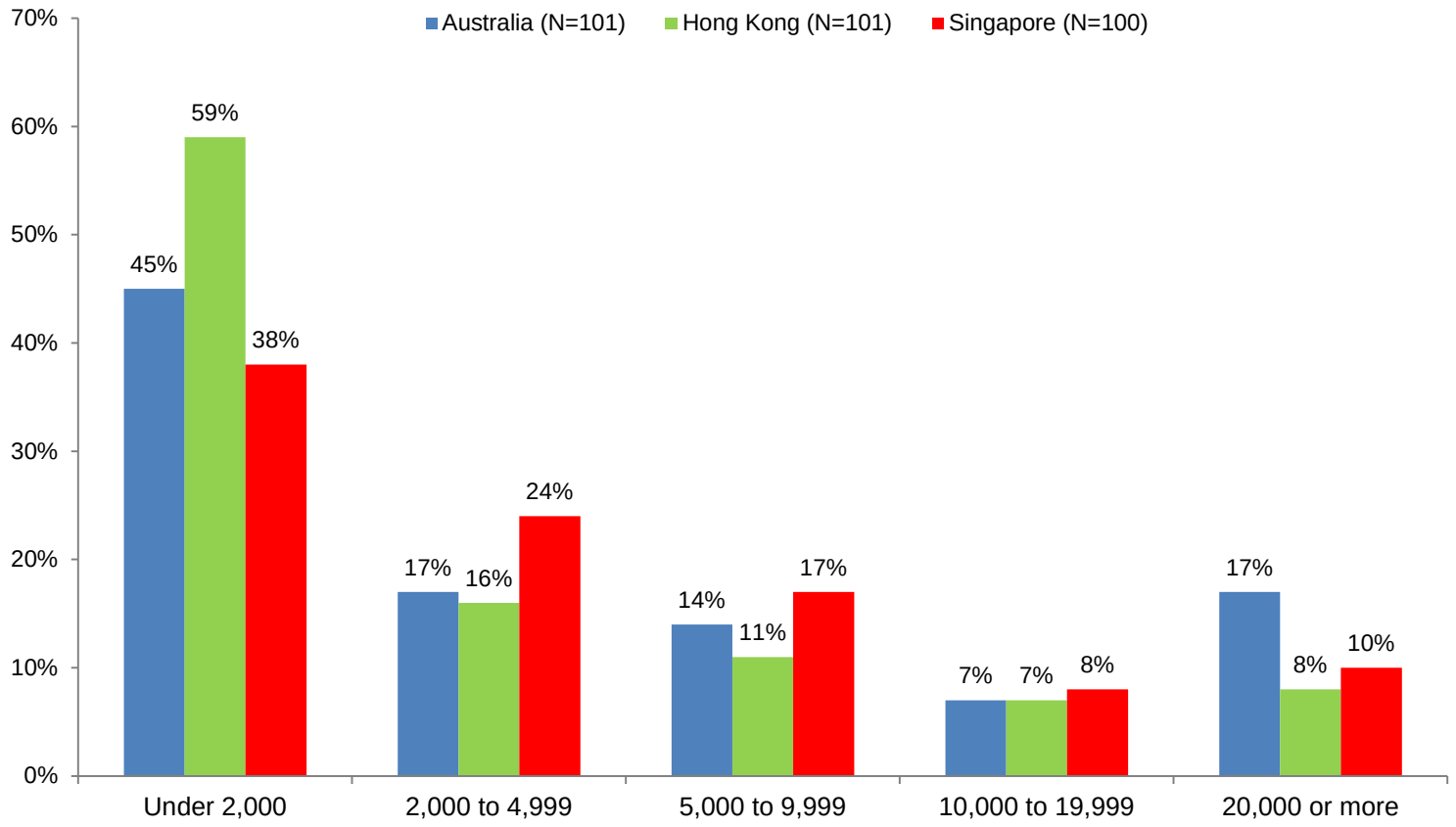
Country Comparison: Employee Size

- This chart shows the composition of the samples by the number of employees.



Base = Total

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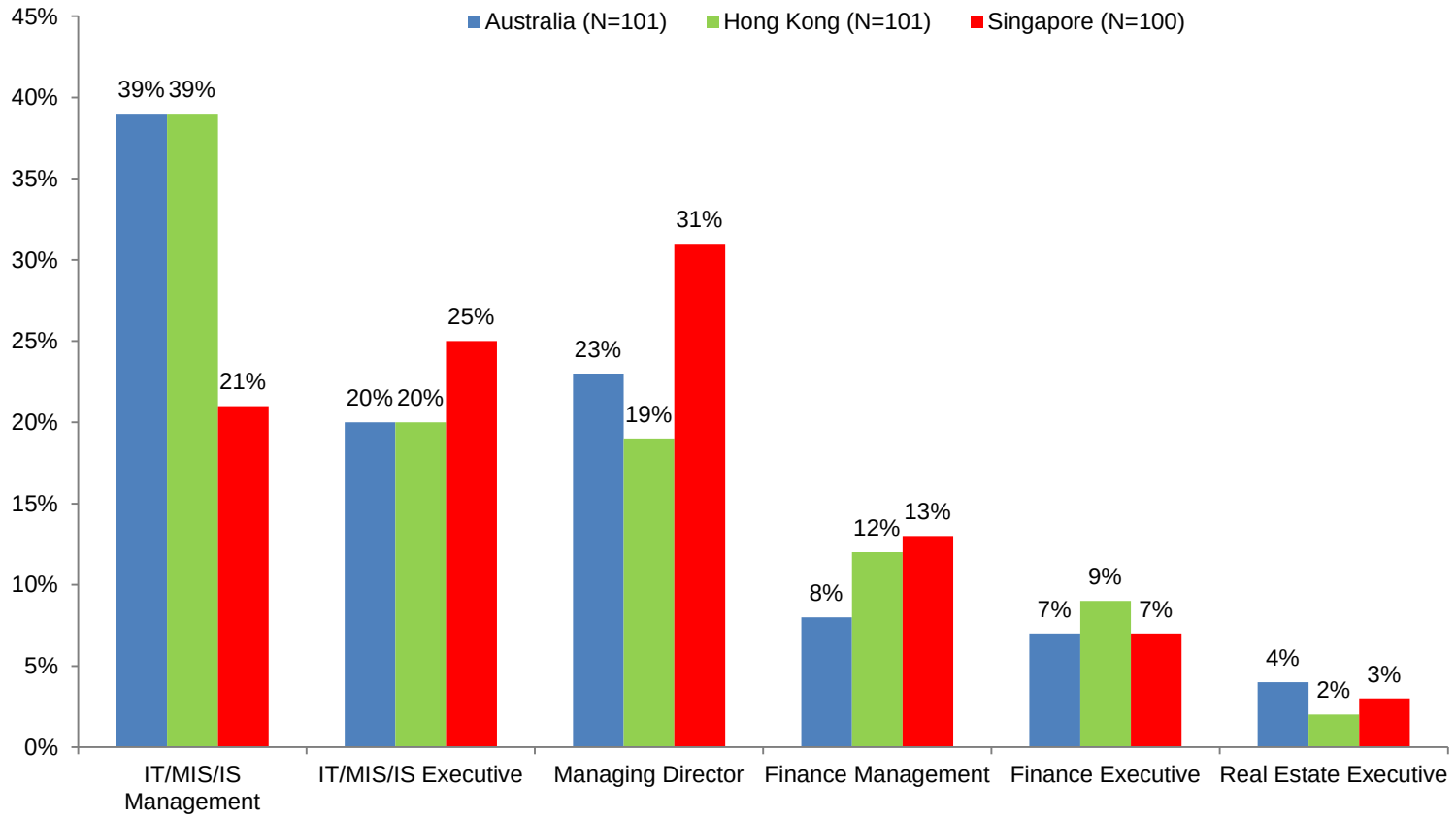
Country Comparison: Title

- This chart shows the composition of the samples by their titles.
  - Management titles include Director and Vice President.
  - Executive titles include CIO and CFO.



Base = Total

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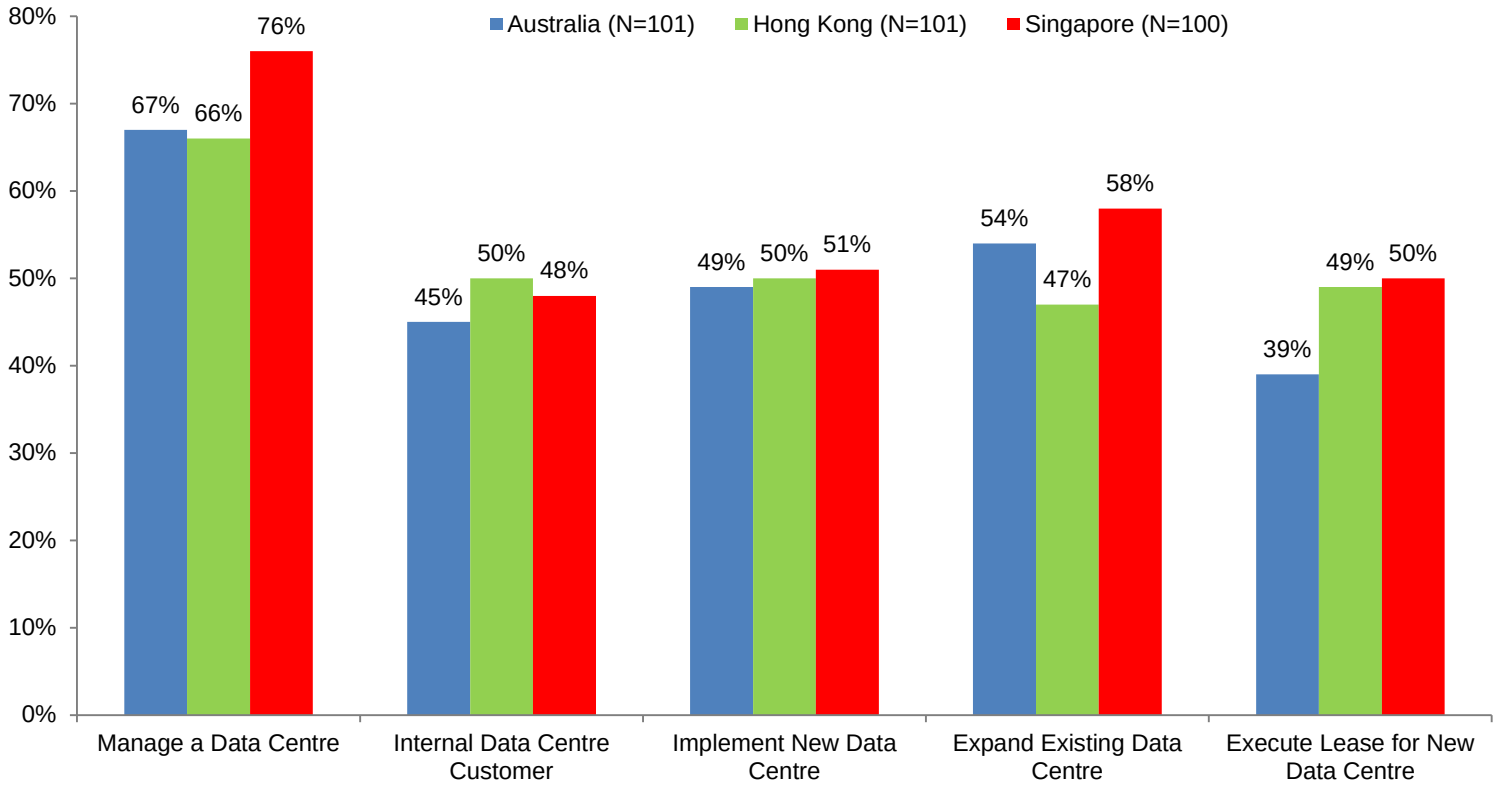
Country Comparison: Responsibilities

- This chart shows the composition of the samples by their responsibilities.
  - Respondents could indicate multiple responsibilities, so the percentages add up to more than 100%.



Base = Total

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Confidence Intervals

- At the 90% level of confidence for N=302:
  - The confidence interval around 50% is ± 4.7%
  - The confidence interval around 25% is ± 4.1%
- At the 95% level of confidence for N=302:
  - The confidence interval around 50% is ± 5.6%
  - The confidence interval around 25% is ± 4.9%
- At the 90% level of confidence for N=200:
  - The confidence interval around 50% is ± 5.8%
  - The confidence interval around 25% is ± 5.0%
- At the 95% level of confidence for N=200:
  - The confidence interval around 50% is ± 6.9%
  - The confidence interval around 25% is ± 6.0%

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