

Data Center Construction Market in APAC - Industry Analysis and Forecast 2018-2023

<https://marketpublishers.com/r/D054BA4ABE3EN.html>

Date: June 2018

Pages: 225

Price: US\$ 4,000.00 (Single User License)

ID: D054BA4ABE3EN

Abstracts

This market research report on APAC data center construction market offers analysis on market size & forecast, market share, industry trends, growth drivers, and vendor analysis. The market study also includes insights on segmentation by electrical infrastructure (UPS systems, generators, transfer switches & switchgear, rack PDU, and other electrical infrastructure), by mechanical infrastructure (cooling systems, rack, and other infrastructure), by tier standard (Tier 1 & 2, Tier 3, and Tier 4), by general construction (building development, installation and commissioning services, building design, physical security, and DCIM), and by country (China & Hong Kong, Australia, Singapore, Japan, India, and rest of APAC).

APAC Data Center Construction Market – Overview

The strong internet connectivity slowly spreading across various countries and exponential transformation of the e-commerce industries is attributing to the growth of the APAC data center construction market. The growing popularity of Internet-based services, use of smartphones, and social media platforms is revolutionizing the APAC market. The growing focus on establishment of submarine cables by government agencies, telecommunication providers, and enterprises will grow the investment in the construction of new facilities across the APAC market. The growing penetration of internet in countries such as Indonesia, Thailand, Philippines, Vietnam, Cambodia and countries in Pacific Island will boost the demand in the APAC market. The exponential use of desktop systems, smartphone penetration, social media, wearable devices, and connected devices has led to a 50 times increase in data generated in the APAC market. Colocation providers such as Global Switch, Equinix, Digital Realty, GDS Holdings, ST Telemedia, Telehouse, AirTrunk Operating and Singtel are making significant investments in the APAC market. The growing demand for cloud-based

services is creating lucrative opportunities for leading hyperscale operators and cloud hosting service providers in the APAC market. The increasing investments to promote and establish fiber cables, improve rural and urban broadband connectivity, and aid in the establishment of new facilities that expedite technological advancements will transform the APAC data center construction market.

The rising number of M&A activities leading to the investment in millions of dollars towards facilities construction and expansion projects to accommodate the demand for services is promoting the development of the market in APAC. The deployment of edge computing locations after 2020 across multiple countries, especially China and India, to accommodate the data growth will boost revenues in the APAC market. The APAC data center construction market is estimated to generate revenue of around \$12 billion by 2023, growing at a CAGR of over 9% during 2017-2023. The report will also provide market size analysis in terms of square feet area and power MW.

APAC Data Center Construction Market – Dynamics

The increasing number of submarine fiber cable deployments will propel the growth of the APAC data center construction market. The growing adoption of technologies such as cloud, big data, and IoT is driving the requirement for strong fixed broadband connectivity in the APAC region. Additionally, the government initiatives to improve the wireless connectivity through the deployment of high-speed 4G LTE networks in the APAC market will be major boost for the market growth. The development of submarine fiber cables that can transmit data at higher speeds with reduced latency is attracting new investments in the APAC market. The construction of cloud facilities by internet giants and the need for interconnection services is one of the major driving factors in the APAC region. For instance, Google is involved in more than 10 submarine cable projects that are likely to be operational by 2019, connecting various cities in APAC region. Such projects will propel the development of the APAC data center construction market during the forecast period.

APAC Data Center Construction Market – Segmentation

This market research report includes a detailed segmentation of the market by electrical construction, mechanical construction, tier standards, general construction, and geography.

APAC Data Center Construction Market – By Electrical Infrastructure

Innovations in UPS solutions to improve efficiency to remain a primary focus in the APAC data center construction market

The APAC data center construction market by electrical infrastructure is segmented into UPS systems, generators, transfer switches & switchgear, rack PDU, and other electrical infrastructure. UPS systems held the majority of the market share in 2017, growing at a CAGR of more than 9% during the forecast period. The growing interest among large and mega facilities to procure UPS systems of more than 750 kVA and small and medium facilities are procuring UPS systems with a capacity of less than 500 kVA will augment the growth of the APAC market. The adoption of modern UPS systems with battery monitoring controls to predict the possibility of failure and maintenance needs will propel the development of the APAC data center construction market. The leading vendors are also continually coming up with innovative UPS solutions that increase efficiency and reduce the cost to attract new consumers and gain larger market share.

APAC Data Center Construction Market – By Mechanical Infrastructure

Use of water-based cooling systems to continue to grow in the APAC data center construction market during forecast period

The mechanical infrastructure segment in the APAC data center construction market is categorized into cooling systems, rack, and other infrastructure. Cooling systems dominated the market share in 2017 and is expected to grow at a CAGR of around 9% during the forecast period. The increase in rack power density and unfavorable outside environment to support free cooling across many countries in the region is boosting the adoption of water-based cooling systems in the APAC market. The market is witnessing the adoption of N+1 or N+N redundant cooling among tier 3 facilities in the APAC market. The top operators are focusing on implementing efficient solutions to reduce their CAPEX and OPEX, conserve space, and reduce power supply to cooling units in the APAC market. The integration of cooling systems with accessories and system level monitoring controls will transform the APAC data center construction market.

APAC Data Center Construction Market – By General Construction

Installation and commissioning services for modular power components to grow in the APAC data center construction market

The APAC data center construction market by general construction is divided into

building development, installation and commissioning services, building design, physical security, and DCIM. The installation and commissioning services segment occupied a significant market share in 2017, growing at a CAGR of over 9% during the forecast period. The growing popularity of modern facilities that require installation and commissioning services for power connectivity with the grid, network cabling, and heat transfer mechanism will propel the growth of this segment in the APAC market. The increase in average labor costs and increasing growth in Greenfield facilities will generate higher revenues for installation and commission service providers in the APAC market. The growing focus on reliability, efficiency, and scalability of facilities in the region will create lucrative opportunities for leading players on the APAC market.

APAC Data Center Construction Market – By Tier Standards

Tier 3 certification from Uptime Institute to attract consumers in the APAC data center construction market

The tier standards in the APAC data center construction market is classified into Tier 1 & 2, Tier 3, and Tier 4. Tier 3 segmented dominated the market share in 2017, growing at a CAGR of approximately 8% during the forecast period. The designing and deployment of new facilities of Tier 3 standards with a minimum of N+1 redundancy is attributing to the growth of this segment in the APAC market. The deployment of modular facilities with a minimum redundancy in power and cooling capacity to avoid power fluctuation and outages issue is gaining immense traction in the APAC market. Furthermore, it is estimated that a decline in pricing of efficient infrastructure will reduce the average square feet cost to around \$680 in the APAC market during the forecast period.

APAC Data Center Construction Market – By Country

Mega facilities deployment in China and Hong Kong to generate revenues in the APAC data center construction market

The APAC data center construction market by countries is segmented into China & Hong Kong, Australia, Singapore, Japan, India, and rest of APAC. China and Hong Kong were the largest revenues generators in 2017, growing at a CAGR of around 10% during the forecast period. The growing number of hyperscale operators, colocation service providers, and cryptocurrency data center operators is driving the growth of the China and Hong Kong in the APAC market. Million dollar investments by telecommunication service providers such as Baidu, Alibaba, China Unicom, China

Telecom, and China Mobile will generate the demand for new facilities in the Chinese market. The growing demand for hybrid infrastructure services will also increase the construction of colocation facilities and encourage regional cloud service providers to establish multiple availability zones across the country. Moreover, the growth of media and content providers (Youku and Letv) in Hong Kong will create lucrative opportunities for leading operators in the APAC data center construction market over the next few years.

Key Vendor Analysis

The competition in the APAC data center construction market is driven by the presence of various international players. The top vendors are focusing on offering innovative products, especially those products that help to reduce power wastage and improve efficiency to attract more end-users in the APAC market. The growing demand for real-time monitoring and management solutions in facilities will create new investment opportunities for key service providers operating in the APAC market. The growing number of urban development projects will increase the competition levels in the region. The operators will have to collaborate with construction contractors, installation and commissioning service providers, and architectural and engineering firms to offer aftermarket services to major companies in the APAC data center construction market.

The major vendors in the market are:

By Infrastructure Providers

ABB

Eaton

Huawei

Schneider Electric

STULZ

Vertiv

By Construction Contractors

AECOM

Arup

Aurecon Construction

CSF Group

DSCO Group

M+W Group

Nikom Infrasolutions

NTT FACILITIES Group

The other prominent players in the APAC data center construction market are Alfa Laval, Caterpillar, Cummins, Delta Group, Fuji Electric, GE, HPE, Hitachi Hi-Rel Power Electronics, Legrand, Mitsubishi Electric Corporation, MTU On Site Energy, Rittal, Renovo Zhuhai, KSTAR, Toshiba, United Technology, Yanmar Group, AWP, DPR Construction, Commtech Asia, Corgan, LSK Engineering, Hutchinson Builders, Nakano Corporation, and Obayashi Corporation.

Key market insights include

1. The analysis of APAC data center construction market provides market size and growth rate for the forecast period 2018-2023.
2. It offers comprehensive insights on current industry trends, trend forecast, and growth drivers about the APAC data center construction market.
3. The report provides the latest analysis of market share, growth drivers, challenges, and investment opportunities.
4. It offers a complete overview of market segments and the regional outlook of APAC data center construction market.
5. The report offers a detailed overview of the vendor landscape, competitive analysis, and key market strategies to gain competitive advantage.

REPORT SNAPSHOT

The APAC data center construction market size is expected to generate revenues of approximately \$12 billion by 2023, growing at a CAGR of over 9% by 2017–2023.

The APAC data center construction market is driven by the increasing internet penetration across various countries and especially in India and China. The million dollar projects by AWS, Microsoft, Google, Baidu, Alibaba, and Apple will revolutionize the APAC data center construction market during the forecast period. The market research report provides in-depth market analysis and segmental analysis of the APAC data center construction market by electrical construction, mechanical construction, tier standards, general construction, and country.

Base Year: 2017

Forecast Year: 2018–2023

The report considers the present scenario of the APAC data center construction market and its market dynamics for the period 2018–2023. It covers a detailed overview of various APAC data center construction market growth enablers, restraints, and trends. The study covers both the demand and supply sides of the market. It also profiles and analyzes the leading companies and various other prominent companies operating in the APAC data center construction market.

Major Vendors in the APAC Data Center Construction Market

By Construction Infrastructure Providers

ABB

Overview

Product Offering

Key News

Eaton

Huawei

Schneider Electric

STULZ

Vertiv

By Construction Contractors

AECOM

Arup

Aurecon Construction

CSF Group

DSCO Group

M+W Group

Nikom Infrasolutions

NTT FACILITIES Group

Prominent Players in the APAC Data Center Construction Market

By Other Prominent Infrastructure Providers

Alfa Laval

Caterpillar

Cummins

Delta Group

Fuji Electric

GE

HPE

Hitachi Hi-Rel Power Electronics

Legrand

Mitsubishi Electric Corporation

MTU On Site Energy

Rittal

Renovo Zhuhai

KSTAR

Toshiba

United Technology

Yanmar Group

Other Prominent Construction Contractors

AWP

DPR Construction

Commtech Asia

Corgan

LSK Engineering

Hutchinson Builders

Nakano Corporation

Obayashi Corporation

Market Segmentation by Electrical Construction

UPS systems

Generators

Transfer Switch and Switchgear

Rack PDU

Other Electrical Infrastructure

Market Segmentation by Mechanical Infrastructure

Cooling Systems

Rack

Other Infrastructure

Market Segmentation by Cooling Systems

CRAC & CRAH Systems

Chillers

Cooling Towers & Dry Coolers

Economizer & Evaporative Coolers

Other Cooling Units

Market Segmentation by Cooling Technique

Air-based Cooling Technique

Liquid-based Cooling Technique

Market Segmentation by Cooling Technique

Water-based Cooling Technique

Direct Liquid and Immersion Cooling Techniques

Market Segmentation by General Construction

Building Development

Installation & Commissioning

Building Design

Physical Security

DCIM

Market Segmentation by Tier Standard

Tier 1 and Tier 2

Tier 3

Tier 4

Market Segmentation by Geography

China & Hong Kong

Australia

Singapore

Japan

India

Rest of APAC

Contents

1 RESEARCH METHODOLOGY

2 RESEARCH OBJECTIVES

3 RESEARCH PROCESS

4 REPORT COVERAGE

4.1 Market Definition

4.2 Base Year

4.3 Scope of Study

4.3.1 Market Segmentation by Type

4.3.2 Market Segmentation by Electrical Infrastructure

4.3.3 Market Segmentation by Mechanical Infrastructure

4.3.4 Market Segmentation by General Construction

4.3.5 Market Segmentation by Tier Standards

4.3.6 Market Segmentation by Geography

5 REPORT ASSUMPTIONS & CAVEATS

5.1 Key Caveats

5.2 Currency Conversion

5.3 Market Derivation

6 MARKET AT A GLANCE

7 INTRODUCTION

7.1 Internet and Data Growth

7.2 Data Center Site Selection Criteria

7.3 Data Center Construction Project Flow

7.4 Electricity Prices Across Major Data Center Locations

8 MARKET DYNAMICS

8.1 Market Growth Enablers

8.1.1 Increasing adoption of cloud-based services, big data, and IoT

- 8.1.2 Increase in construction of hyperscale data centers
- 8.1.3 Growing demand for colocation and managed service providers
- 8.1.4 Growing adoption of high-performance infrastructure and rack power density
- 8.1.5 Increasing construction of green data center facilities
- 8.1.6 Tax incentives and availability of quality resources
- 8.1.7 YOY Impact of Market Growth Enablers

8.2 Market Growth Restraints

- 8.2.1 Issues with power outages and reliability
- 8.2.2 Budget constraints limiting operations of efficient data centers
- 8.2.3 Data center design constraints
- 8.2.4 Location constraints for data center construction
- 8.2.5 Increased carbon emissions from data centers
- 8.2.6 YOY Impact of Market Growth Restraints

8.3 Market Opportunities & Trends

- 8.3.1 Increase in submarine fiber cable deployments
- 8.3.2 Increasing procurement of renewable energy for data centers
- 8.3.3 Growth in construction of cryptocurrency data centers
- 8.3.4 Increasing importance of end-to-end monitoring solutions
- 8.3.5 Emergence of lithium-ion batteries and fuel cells
- 8.3.6 YOY Impact of Market Opportunities & Trends

9 DATA CENTER CONSTRUCTION MARKET IN APAC

9.1 Market Overview

9.2 Market Size & Forecast

9.3 Porter's Five Forces Analysis

- 9.3.1 Threat of new entrants
- 9.3.2 Bargaining power of suppliers
- 9.3.3 Bargaining power of buyers
- 9.3.4 Threat of substitutes
- 9.3.5 Competitive rivalry

10 MARKET BY INFRASTRUCTURE TYPE

10.1 Market Overview

10.2 Market by Electrical Infrastructure

10.2.1 Market Overview

10.2.2 Market Size & Forecast

10.3 Market by Mechanical Infrastructure

- 10.3.1 Market Overview
- 10.3.2 Market Size & Forecast
- 10.4 Market by General Construction
 - 10.4.1 Market Overview
 - 10.4.2 Market Size & Forecast

11 MARKET BY ELECTRICAL INFRASTRUCTURE

- 11.1 Uninterruptible Power Supply (UPS)
 - 11.1.1 Market Overview
 - 11.1.2 Market Size & Forecast
- 11.2 Generators
 - 11.2.1 Market Overview
 - 11.2.2 Market Size & Forecast
- 11.3 Transfer Switches & Switchgears
 - 11.3.1 Market Overview
 - 11.3.2 Market Size & Forecast
- 11.4 Rack Power Distribution UnitS (PDUs)
 - 11.4.1 Market Overview
 - 11.4.2 Market Size & Forecast
- 11.5 Other Electrical Infrastructure
 - 11.5.1 Market Overview
 - 11.5.2 Market Size & Forecast

12 MARKET BY MECHANICAL INFRASTRUCTURE

- 12.1 Cooling Systems
 - 12.1.1 Market Overview
 - 12.1.2 Market Size & Forecast
- 12.2 Racks
 - 12.2.1 Market Overview
 - 12.2.2 Market Size & Forecast
- 12.3 Other Infrastructure
 - 12.3.1 Market Size & Forecast

13 MARKET BY COOLING SYSTEMS

- 13.1 CRAC and CRAH Units
 - 13.1.1 Market Overview

- 13.1.2 Market Size & Forecast
- 13.2 Chiller Units
 - 13.2.1 Market Overview
 - 13.2.2 Market Size & Forecast
- 13.3 Cooling Towers and Dry Coolers
 - 13.3.1 Market Overview
 - 13.3.2 Market Size & Forecast
- 13.4 Economizers and Evaporative Coolers
 - 13.4.1 Market Overview
 - 13.4.2 Market Size & Forecast
- 13.5 Other Cooling Units
 - 13.5.1 Market Overview
 - 13.5.2 Market Size & Forecast

14 MARKET BY COOLING TECHNIQUE

- 14.1 Air-Based Cooling Techniques
 - 14.1.1 Market Size & Forecast
- 14.2 Liquid-Based Cooling Techniques
 - 14.2.1 Market Size & Forecast

15 MARKET BY LIQUID COOLING TECHNIQUES

- 15.1 Water-based Cooling Techniques
 - 15.1.1 Market Size & Forecast
- 15.2 Direct Liquid and Immersion Cooling Techniques
 - 15.2.1 Market Size & Forecast

16 MARKET BY GENERAL CONSTRUCTION

- 16.1 Building Development
 - 16.1.1 Market Overview
 - 16.1.2 Market Size & Forecast
- 16.2 Installation and commissioning Services
 - 16.2.1 Market Overview
 - 16.2.2 Market Size & Forecast
- 16.3 Building Design
 - 16.3.1 Market Overview
 - 16.3.2 Market Size & Forecast

16.4 Physical Security

16.4.1 Market Overview

16.4.2 Market Size & Forecast

16.5 Data Center Infrastructure Management (DCIM)

16.5.1 Market Overview

16.5.2 Market Size & Forecast

17 MARKET BY TIER STANDARDS

17.1 Overview of Tier Standards

17.2 Data Center Tier Cost Analysis

17.2.1 Tier 1 & Tier 2 Data Centers

17.2.2 Tier 3 Data Centers

17.2.3 Tier 4 Data Centers

17.3 Tier 1 &

17.3.1 Market Overview

17.3.2 Market Size & Forecast

17.4 Tier

17.4.1 Market Overview

17.4.2 Market Size & Forecast

17.5 Tier

17.5.1 Market Overview

17.5.2 Market Size & Forecast

18 GEOGRAPHICAL SEGMENTATION

19 DATA CENTER CONSTRUCTION MARKET IN CHINA & HONG KONG

19.1 Market Overview

19.2 Market Size & Forecast

19.3 Market by Type of Construction

19.3.1 Electrical Infrastructure: Market Size & Forecast

19.3.2 Mechanical Infrastructure: Market Size & Forecast

19.3.3 General Construction: Market Size & Forecast

19.4 Key Market Trends, Enablers, & Restraints

19.5 Site Selection Criteria Analysis in China & Hong Kong

20 DATA CENTER CONSTRUCTION MARKET IN AUSTRALIA

- 20.1 Market Overview
- 20.2 Market Size & Forecast
- 20.3 Market by Type of Construction
 - 20.3.1 Electrical Infrastructure: Market Size & Forecast
 - 20.3.2 Mechanical Infrastructure: Market Size & Forecast
 - 20.3.3 General Construction: Market Size & Forecast
- 20.4 Key Market Trends, Enablers, & Restraints
- 20.5 Site Selection Criteria Analysis in Australia

21 DATA CENTER CONSTRUCTION MARKET IN SINGAPORE

- 21.1 Market Overview
- 21.2 Market Size & Forecast
- 21.3 Market by Type of Construction
 - 21.3.1 Electrical Infrastructure: Market Size & Forecast
 - 21.3.2 Mechanical Infrastructure: Market Size & Forecast
 - 21.3.3 General Construction: Market Size & Forecast
- 21.4 Key Market Trends, Enablers, & Restraints
- 21.5 Site Selection Criteria Analysis in Singapore

22 DATA CENTER CONSTRUCTION MARKET IN REST OF APAC

- 22.1 Market Overview
- 22.2 Market Size & Forecast
- 22.3 Market by Type of Construction
 - 22.3.1 Electrical Infrastructure: Market Size & Forecast
 - 22.3.2 Mechanical Infrastructure: Market Size & Forecast
 - 22.3.3 General Construction: Market Size & Forecast
- 22.4 Key Market Trends, Enablers, & Restraints
- 22.5 Site Selection Criteria Analysis in Rest of APAC

23 COMPETITIVE SCENARIO

- 23.1 Electrical Infrastructure
- 23.2 Mechanical Infrastructure
- 23.3 General Construction

24 KEY COMPANY PROFILES

24.1 ABB

24.1.1 Overview

24.1.2 Product offerings

24.1.3 Key news

24.2 Eaton

24.2.1 Overview

24.2.2 Product offerings

24.2.3 Key news

24.3 Huawei

24.3.1 Overview

24.3.2 Product offerings

24.3.3 Key news

24.4 Schneider Electric

24.4.1 Overview

24.4.2 Product offerings

24.4.3 Key news

24.5 STULZ

24.5.1 Overview

24.5.2 Product offerings

24.5.3 Key news

24.6 Vertiv

24.6.1 Overview

24.6.2 Product offerings

24.6.3 Key news

25 KEY DATA CENTER CONSTRUCTION CONTRACTORS

25.1 AECOM

25.1.1 Overview

25.1.2 Service offerings

25.2 Arup

25.2.1 Overview

25.2.2 Service offerings

25.3 Aurecon

25.3.1 Overview

25.3.2 Service offerings

25.4 CSF Group

25.4.1 Overview

25.4.2 Service offerings

25.5 DSCO Group

25.5.1 Overview

25.5.2 Service offerings

25.6 M+W Group

25.6.1 Overview

25.6.2 Service offerings

25.7 Nikom Infrasolutions

25.7.1 Overview

25.7.2 Service offerings

25.8 NTT Facilities Group

25.8.1 Overview

25.8.2 Service offerings

26 OTHER PROMINENT INFRASTRUCTURE VENDORS

26.1 Alfa Laval

26.1.1 Product offerings

26.2 Caterpillar

26.2.1 Product offerings

26.3 Cummins

26.3.1 Product offerings

26.4 Delta Group

26.4.1 Product offerings

26.5 Fuji Electric

26.5.1 Product offerings

26.6 General Electric (GE)

26.6.1 Product offerings

26.7 Hewlett Packard Enterprise (HPE)

26.7.1 Product offerings

26.8 Hitachi Hi-Rel Power Electronics

26.8.1 Product offerings

26.9 Legrand

26.9.1 Product offerings

26.1 Mitsubishi

26.10.1 Product offerings

26.11 MTU ON SITE ENERGY (Rolls-Royce Power Systems AG)

26.11.1 Product offerings

26.12 Rittal

26.12.1 Product offerings

26.13 Renovo Zhuhai

26.13.1 Product offerings

26.14 Shenzhen KSTAR Science and Technology

26.14.1 Product offerings

26.15 Toshiba

26.15.1 Product offerings

26.16 United Technologies (CARRIER)

26.16.1 Product offerings

26.17 Yanmar Group (HIMOINSA)

26.17.1 Product offerings

27 OTHER PROMINENT DATA CENTER CONSTRUCTION CONTRACTORS

27.1 AWP Architects

27.1.1 Service offerings

27.2 DPR Construction

27.2.1 Overview

27.2.2 Service offerings

27.3 Commtech Asia

27.3.1 Overview

27.3.2 Service offerings

27.4 Corgan

27.4.1 Overview

27.4.2 Service offerings

27.5 LSK Engineering

27.5.1 Overview

27.5.2 Service offerings

27.6 Hutchinson Builders

27.6.1 Overview

27.6.2 Service offerings

27.7 Nakano Corporation

27.7.1 Overview

27.7.2 Service offerings

27.8 Obayashi Corporation

27.8.1 Overview

27.8.2 Service offerings

28 REPORT SUMMARY

- 28.1 Key Takeaways
- 28.2 Qualitative Summary
- 28.3 Quantitative Summary
 - 28.3.1 Overall Market
 - 28.3.2 Market by APAC Countries
 - 28.3.3 Market by Area
 - 28.3.4 Market by Power Capacity
 - 28.3.5 Market by Construction Type
 - 28.3.6 Market by Electrical Infrastructure
 - 28.3.7 Market by Mechanical Infrastructure
 - 28.3.8 Market by Cooling Systems
 - 28.3.9 Market by Cooling Technique
 - 28.3.10 Market by Liquid Cooling Technique
 - 28.3.11 Market by General Construction
 - 28.3.12 Market by Tier Standard
 - 28.3.13 Market by China & Hong Kong
 - 28.3.14 Market by Australia
 - 28.3.15 Market by Singapore
 - 28.3.16 Market by Rest of APAC

29 APPENDIX

- 29.1 Abbreviations
- List Of Exhibits
- Exhibit 1 Segmentation of Data Center Construction Market in APAC
- Exhibit 2 Key Geographies Definition
- Exhibit 3 Market Size Calculation Approach 2017
- Exhibit 4 Internet and Data Growth
- Exhibit 5 Internet, Platform, and Data Center Traffic Growth
- Exhibit 6 Average Internet Connection Speed in APAC 2017 (in Mbps)
- Exhibit 7 Data Center Site Selection Criteria and Weightage
- Exhibit 8 APAC Electricity Pricing 2017
- Exhibit 9 Rack Power Density in Data Center Construction Market in APAC (2010–2023)
- Exhibit 10 Data Center Construction Market in APAC 2017–2023 (\$ billion)
- Exhibit 11 Data Center Construction Market in APAC by Area 2017–2023 (Million Square Feet)
- Exhibit 12 Data Center Construction Market in APAC by Power Capacity 2017–2023 (MW)

Exhibit 13 Five Forces Analysis 2017

Exhibit 14 Market by Construction Infrastructure Type 2017 & 2023

Exhibit 15 Data Center Construction Market in APAC by Type

Exhibit 16 Data Center Construction Market in APAC by Type (%)

Exhibit 17 Data Center Construction Market in APAC by Electrical Infrastructure
2017–2023 (\$ billion)

Exhibit 18 Data Center Construction Market in APAC by Mechanical Infrastructure
2017–2023 (\$ billion)

Exhibit 19 Data Center Construction Market in APAC by General Construction
2017–2023 (\$ billion)

Exhibit 20 Market by Electrical Infrastructure 2017 & 2023

Exhibit 21 Data Center Construction Market in APAC by UPS Systems 2017?2023 (\$
million)

Exhibit 22 Data Center Construction Market in APAC by Generators 2017?2023 (\$
million)

Exhibit 23 Data Center Construction Market in APAC by Transfer Switches &
Switchgears 2017?2023 (\$ million)

Exhibit 24 Data Center Construction Market in APAC by Rack PDUs 2017?2023 (\$
million)

Exhibit 25 Data Center Construction Market in APAC by Other Electrical Infrastructure
2017?2023 (\$ million)

Exhibit 26 Market by Mechanical Infrastructure 2017 & 2023

Exhibit 27 Data Center Construction Market in APAC by Cooling Systems 2017–2023 (\$
million)

Exhibit 28 Data Center Construction Market in APAC by Racks 2017–2023 (\$ million)

Exhibit 29 Data Center Construction Market in APAC by Other Mechanical Infrastructure
2017–2023 (\$ million)

Exhibit 30 Market by Cooling Systems 2017 & 2023

Exhibit 31 Data Center Construction Market in APAC by CRAC and CRAH Units
2017–2023 (\$ million)

Exhibit 32 Data Center Construction Market in APAC by Chiller Units 2017–2023 (\$
million)

Exhibit 33 Data Center Construction Market in APAC by Cooling Towers and Dry
Coolers 2017–2023 (\$ million)

Exhibit 34 Data Center Construction Market in APAC by Economizers and Evaporative
Coolers 2017–2023 (\$ million)

Exhibit 35 Data Center Construction Market in APAC by Other Cooling Units 2017–2023
(\$ million)

Exhibit 36 Market by Cooling Technique 2017 & 2023

- Exhibit 37 Data Center Construction Market in APAC by Air-based Cooling Techniques 2017-2023 (\$ million)
- Exhibit 38 Data Center Construction Market in APAC by Liquid-based Cooling Technique 2017-2023 (\$ million)
- Exhibit 39 Market by Liquid Cooling Technique 2017 & 2023
- Exhibit 40 Data Center Construction Market in APAC by Water-based Cooling Techniques 2017-2023 (\$ million)
- Exhibit 41 Data Center Construction Market in APAC by Direct Liquid and Immersion Cooling Techniques 2017-2023 (\$ million)
- Exhibit 42 Market by General Construction 2017 & 2023
- Exhibit 43 Data Center Construction Market in APAC by Building Development 2017-2023 (\$ million)
- Exhibit 44 Data Center Construction Market in APAC by Installation and Commissioning Services 2017-2023 (\$ million)
- Exhibit 45 Data Center Construction Market in APAC by Building Design 2017-2023 (\$ million)
- Exhibit 46 Data Center Construction Market in APAC by Physical Security 2017-2023 (\$ million)
- Exhibit 47 Data Center Construction Market in APAC by DCIM 2017-2023 (\$ million)
- Exhibit 48 Market by Tier Standards 2017 & 2023
- Exhibit 49 Data Center Tier Standards
- Exhibit 50 APAC Data Center TCO Analysis by Tier 1-4 Facilities
- Exhibit 51 Data Center Construction Market in APAC by Tier 1 and Tier 2 Facilities 2017-2023 (\$ billion)
- Exhibit 52 Data Center Construction Market in APAC by Tier 3 Facilities 2017-2023 (\$ billion)
- Exhibit 53 Data Center Construction Market in APAC by Tier 4 Facilities 2017-2023 (\$ billion)
- Exhibit 54 Data Center Construction Market in China & Hong Kong 2017-2023 (\$ million)
- Exhibit 55 Data Center Construction Market in China & Hong Kong by Area 2017-2023 (Million Square Feet)
- Exhibit 56 Data Center Construction Market in China & Hong Kong by Power Capacity 2017-2023 (MW)
- Exhibit 57 Data Center Construction Market in China & Hong Kong by Electrical Infrastructure 2017-2023 (\$ million)
- Exhibit 58 Data Center Construction Market in China & Hong Kong by Mechanical Infrastructure 2017-2023 (\$ million)
- Exhibit 59 Data Center Construction Market in China & Hong Kong by General

Construction 2017–2023 (\$ million)

Exhibit 60 Data Center Construction Market in China & Hong Kong: Site Selection Criteria and Weightage

Exhibit 61 Data Center Construction Market in Australia 2017–2023 (\$ million)

Exhibit 62 Data Center Construction Market in Australia by Area 2017–2023 (Million Square Feet)

Exhibit 63 Data Center Construction Market in Australia by Power Capacity 2017–2023 (MW)

Exhibit 64 Data Center Construction Market in Australia by Electrical Infrastructure 2017–2023 (\$ million)

Exhibit 65 Data Center Construction Market in Australia by Mechanical Infrastructure 2017–2023 (\$ million)

Exhibit 66 Data Center Construction Market in Australia by General Construction 2017–2023 (\$ million)

Exhibit 67 Data Center Construction Market in Australia: Site Selection Criteria and Weightage

Exhibit 68 Data Center Construction Market in Singapore 2017–2023 (\$ million)

Exhibit 69 Data Center Construction Market in Singapore by Area 2017–2023 (Million Square Feet)

Exhibit 70 Data Center Construction Market in Singapore by Power Capacity 2017–2023 (MW)

Exhibit 71 Data Center Construction Market in Singapore by Electrical Infrastructure 2017–2023 (\$ million)

Exhibit 72 Data Center Construction Market in Singapore by Mechanical Infrastructure 2017–2023 (\$ million)

Exhibit 73 Data Center Construction Market in Singapore by General Construction 2017–2023 (\$ million)

Exhibit 74 Data Center Construction Market in Singapore: Site Selection Criteria and Weightage

Exhibit 75 Data Center Construction Market in Rest of APAC 2017–2023 (\$ million)

Exhibit 76 Data Center Construction Market in Rest of APAC by Area 2017–2023 (Million Square Feet)

Exhibit 77 Data Center Construction Market in Rest of APAC by Power Capacity 2017–2023 (MW)

Exhibit 78 Data Center Construction Market in Rest of APAC by Electrical Infrastructure 2017–2023 (\$ million)

Exhibit 79 Data Center Construction Market in Rest of APAC by Mechanical Infrastructure 2017–2023 (\$ million)

Exhibit 80 Data Center Construction Market in Rest of APAC by General Construction

2017–2023 (\$ million)

Exhibit 81 Data Center Construction Market in Rest of APAC: Site Selection Criteria and Weightage

List Of Tables

Table 1 Key Caveats

Table 2 Currency Conversion 2013?2017

Table 3 YOY Impact of Market Growth Enablers 2017?2023

Table 4 YOY Impact of Market Growth Restraints 2017?2023

Table 5 Submarine Fiber Cable Projects

Table 6 YOY Impact of Market Opportunities & Trends 2017?2023

Table 7 Data Center Construction by Type (Overview)

Table 8 Qualitative Summary of Data Center Construction Market in APAC

Table 9 Quantitative Summary of Data Center Construction Market in APAC 2017–2023

Table 10 Quantitative Summary of Data Center Construction Market in APAC by Country (\$ billion) 2017–2023

Table 11 Quantitative Summary of Data Center Construction Market in APAC by Area 2017–2023 (Million Square Feet)

Table 12 Quantitative Summary of Data Center Construction Market in APAC by Power Capacity 2017–2023 (MW)

Table 13 Quantitative Summary of Data Center Construction Market in APAC by Type of Construction 2017–2023 (\$ million)

Table 14 Quantitative Summary of Data Center Construction Market in APAC by Electrical Infrastructure 2017–2023 (\$ million)

Table 15 Quantitative Summary of Data Center Construction Market in APAC by Mechanical Infrastructure 2017–2023 (\$ million)

Table 16 Quantitative Summary of Data Center Construction Market in APAC by Cooling Systems 2017–2023 (\$ million)

Table 17 Quantitative Summary of Data Center Construction Market in APAC by Cooling Technique 2017–2023 (\$ million)

Table 18 Quantitative Summary of Data Center Construction Market in APAC by Liquid Cooling Technique 2017–2023 (\$ million)

Table 19 Quantitative Summary of Data Center Construction Market in APAC by General Construction 2017–2023 (\$ million)

Table 20 Quantitative Summary of Data Center Construction Market in APAC by Tier Standards 2017–2023 (\$ million)

Table 21 Quantitative Summary of Data Center Construction Market in China & Hong Kong 2017–2023 (\$ million)

Table 22 Quantitative Summary of Data Center Construction Market in Australia 2017–2023 (\$ million)

Table 23 Quantitative Summary of Data Center Construction Market in Singapore
2017–2023 (\$ million)

Table 24 Quantitative Summary of Data Center Construction Market in Rest of APAC
2017–2023 (\$ million)

I would like to order

Product name: Data Center Construction Market in APAC - Industry Analysis and Forecast 2018-2023

Product link: <https://marketpublishers.com/r/D054BA4ABE3EN.html>

Price: US\$ 4,000.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/D054BA4ABE3EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970