#### **BI-WEEKLY**

## NEWSLETTER

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Global News, financial analyses, data center related laws & regulations and further latest updates about technologies transforming the data center industry.

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# Global Switch brings direct liquid cooling to Hong Kong data center

Global Switch has introduced direct liquid cooling at its Hong Kong data center to meet the growing demand for AI services from Chinese clients. This cooling system, available at the Tseung Kwan O data center, supports high-density racks and AI chips like Nvidia's H100 and H200 GPUs. It aims to reduce energy consumption and operational costs, making it ideal for AI workloads. Global Switch partnered with companies like Supermicro, xFusion, and Liquidstack to implement this system. The Hong Kong data center, part of Global Switch's network of 13 data centers, opened in 2021. This move highlights Global Switch's efforts to cater to the evolving needs of AI-driven businesses in the region.

Source: datacenterdynamics, September 16th, 2024

# Oracle sees \$104 billion sales in fiscal 2029 on cloud expansion

Oracle Corporation aims to achieve \$104 billion in annual revenue by fiscal 2029, driven by its cloud infrastructure expansion. Announced by Executive Vice President Doug Kehring, the company raised its fiscal 2026 sales outlook to \$66 billion. Competing with Amazon Web Services, Microsoft Azure, and Google Cloud, Oracle's cloud services are recognized for handling generative AI workloads, attracting customers like Reka and Elon Musk's xAI. The company's shares have risen by 5%, making it one of the topperforming software stocks this year with a 53% rally. Key growth strategies include transitioning on-premise database customers to the cloud and partnering with larger cloud infrastructure rivals. These moves highlight Oracle's growth potential and competitive position the tech industry.

Source: Bloomberg, September 13th, 2024

### Mox joins Google's Topaz subsea cable

MOX Networks has acquired spectrum from Google on the Topaz subsea cable system, establishing the first fiber-optic connection between Canada and Asia. The Topaz cable features 16 fiber pairs, a total capacity of 240Tbps, and utilizes advanced Selective Wavelength Switch (WSS) technology for flexible enhanced resilience. This cutting-edge cable connects Vancouver, Canada, to Japan's Mie and Ibaraki prefectures. creating a critical link between the two regions.

With this acquisition, MOX can now offer up to 400G wavelengths and dark fiber channels, significantly enhancing connectivity between data hubs in North America and Japan. This development is expected to meet the growing demands of businesses relying on robust global networks for cloud services, content delivery, and AI-driven applications.

Ian Clarke, Google's Director of Global Submarine Networking, emphasized the importance of partnerships like this in extending the benefits of improved global connectivity. Allen Meeks, President and CEO of MOX, highlighted the critical role of strong network infrastructure in driving technological advancements and enabling transformative innovations across industries.

Source : <u>Datacenterdynamics</u>, January 19th, 2025

### AWS Launches Infrastructure Region in Malaysia

Amazon Web Services (AWS) has launched a new infrastructure region in Malaysia, enhancing its cloud services in the Asia Pacific region. This new region will help customers, including startups, enterprises, and public sector organizations, run applications and store data securely within Malaysia. AWS plans to invest approximately \$6.2 billion in Malaysia through 2038, creating over 3,500 jobs annually. The investment is expected to add around \$12.1 billion to Malaysia's GDP. This move aligns with Malaysia's New Industrial Master Plan 2030, aiming to boost digital innovation and economic growth. The new region will also support lower latency and meet the high demand for cloud services across Southeast Asia. AWS's expansion underscores its commitment to supporting transformation in Malaysia and the broader region. This development will enable Malaysian leverage advanced businesses to technologies like AI and machine learning.

Source: Amazon Press Center, August 22nd, 2024

## Equinix Expands in Singapore with \$260M Al-Ready Data Center

Equinix announced plans for SG6, its sixth data center in Singapore, with a US\$260M investment to support Al and computeintensive workloads. Expected to open in Q1 2027, the 9-story facility will offer 20MW capacity and advanced features like liquid cooling and renewable energy integration. SG6 aligns with Singapore's Green Plan 2030 Equinix's and sustainability goals. enhancing environmental and operational expansion efficiency. This Singapore's status as a digital hub, meeting growing for Al-driven demands infrastructure. SG6 will integrate into Equinix's global network of 268 data centers across 73 metros. With 100% renewable since 2020. Equinix energy coverage continues to enable sustainable digital evolution for businesses in the region.

Source: Equinix, November 19th, 2024

# NVIDIA AI instances costing \$2M in power, annually: Liftr Insights data

NVIDIA's advanced AI workloads, powered by GPUs like the Hopper H100 and A100, are driving high energy costs, with some configurations costing up to \$2 million annually for power consumption. A typical setup of 1,000 H100s and 1,000 A100s can achieve performance levels exceeding 44.7 FP64 petaflops, but these capabilities come at a substantial operational cost. For example, running such infrastructure in Dallas incurs a power bill of \$2 million, while costs vary by location, reaching \$2.1 million in Houston and as low as \$1.6 million in Austin. Despite these expenses, major cloud providers like AWS, Azure,

and Google Cloud continue adopting NVIDIA's GPUs due to their vital role in Al and machine learning.

The report also highlights a growing pricing disparity between older and newer chips, as legacy infrastructure struggles to meet modern AI power demands. NVIDIA's Hopper series, particularly the H100, is becoming central to AI training workloads, showcasing the shift towards more energy-intensive and high-performing systems.

Source: Yahoo Finance, August 20th, 2024

# North America sees 70% jump in data center supply in construction, CBRE report says

Data center construction in North America has surged by 70% compared to the previous year, reaching a record 3.9 gigawatts, driven by the rapid growth of artificial intelligence (AI) and cloud computing demands. The first half of 2024 saw over 500 megawatts of new capacity added across key markets like Northern Virginia, Dallas, Silicon Valley, and Chicago. Despite this expansion, vacancy rates have hit a historic low of 2.8%, reflecting strong demand and higher prices for modern, high-powered facilities. Older data centers are struggling to meet rising power requirements, creating a gap between legacy and new infrastructure. Smaller markets such as Northern Indiana and Idaho are becoming more attractive for future developments as the industry faces challenges like power shortages and extended lead times for electrical infrastructure

Source: Reuters & CBRE, August 21th, 2024

### Bain Capital and Aquila Group Partner to Advance Sustainable Data Centers in Europe

Bain Capital has jointly acquired an 80% stake in AQ Compute with Aguila Group's center subsidiary to develop sustainable data centers across Europe. With a multi-billion-euro investment plan, the partnership will expand AQ Compute's Al-ready, clean energy-powered facilities. Projects include existing operations in Oslo and new developments in Barcelona and Milan. Bain Capital leverages its global expertise, including building Bridge Data Centers in Asia, to accelerate Compute's growth and address Europe's rising demand for cloud and AI services. Aguila Group retains a 20% stake to ensure alignment with its vision of sustainable infrastructure. The partnership aims to set new standards in eco-friendly data center operations, meeting Europe's increasing digital and environmental needs.



### **Data Center Due Diligence**

RSI as a proven partner to help you make informed investment decisions

RSI provides a proven strategy for business success by thoroughly evaluating all aspects of your Data Center Due Diligence projects, from the proposed land to the existing facility, to assess its asset value. The condition of buildings and facilities, and the local land characteristics are

essential in deciding whether to add it to the portfolio as an investment. RSI's experienced Staffs can assist potential investor and seller with land and facility due diligence for data centers and data center evaluation while developing a long-term business strategy.

### **RSI Data Center Due Diligence**

RSI support for due diligence is widely demanded by professionals in various range of industries, including but not limited to data center provider companies, real estate investment companies, and major construction companies. We help them maximize results for their business. Most (but not all) of our clients' demands for data center due diligence support are as follows:

- Data Center Asset Evaluation
- Facility Standards Assessments
- PUE calculation support
- Design, supervision, and site verification
- Due diligence of real estate and proposed land acquisitions
- Due diligence of existing data centers

#### What RSI has to its credit

RSI has successfully achieved various projects in Data Center Due Diligence. It has indeed supported numerous global companies while applying recognized Japan and global standards and methods in all aspects of site due diligence, data center evaluation as well as facility due diligence.

RSI work consists namely of an in-depth analysis of various aspects of the projects, highlighting potential risks and proposing efficient risks mitigation or, when applicable, risks elimination, while evaluating the matching between the potential deal and the client's portfolio.

For further scope of services provided by RSI, please reach out to us with your inquiry at the contact information depicted below.

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