

[HOME](#) > [NEWS](#) > [THE DATA CENTER COOLING CHANNEL](#)

# Australia's DUG develops immersion cooling data center container

Deploys prototype pod in Maryland; is also licensing immersion tech to BAC

October 20, 2024 By: [Dan Swinhoe](#) [Have your say](#)

Australian data center firm DUG had deployed a demonstration immersion cooling data center pod in Maryland.

DUG, best known as an early adopter of immersion-cooled data center designs, has deployed a Nomad container at the Adacen data center in Silver Spring, Maryland, to demonstrate the prototype to customers.

First announced at its November 2023 AGM, the company has developed a high-density modular container equipped with DUG's proprietary single-phase immersion cooling technology.

DUG said it was targeting applications including defense, mining, and education. After a 'soft launch to gauge customer appetite,' the company said it had seen "strong engagement" from potential clients and was "actively engaging" in conversations with energy sector clients across India, the Middle East, Indonesia, and Japan.

In the company's October 2024 report, DUG said it had spoken to clients about potential deployments including on a seismic acquisition crew in the Saudi Arabian desert; in the car park of a major oil and gas company where the current data center can't handle modern equipment; and onboard a moving ship.



**DUG's pod in Maryland**

– DUG

The company has said it currently has two 10ft prototype pods to show to clients; one in the US and another in Perth, Australia. DUG aims to develop 20 ft and 40 ft variants. The 10 ft container offers space for up to 26RU of immersed hardware. The 4.5-ton module offers 40kW of heat rejection and supplies up to 150kW of 3-phase power.

A new business unit was formed in July 2024 to commercialize the Nomad technology. Ron Schop, former CEO of seismic survey solutions provider HiSeis, has been brought on board to run the DUG Nomad business.

Previously known as DownUnder GeoSolutions, the company was founded in Perth in 2003 to provide immersion-cooled high-performance computing (HPC) solutions for scientific data analysis and provides HPC as-a-service to customers.

Clients include Murdoch University, Australian National University, University of Western Australia, Monash University, shipbuilder Austal Australia, Australia's CSIRO research agency, crypto firm HODL Ranch and a number of oil and gas firms.

DUG currently has HPC deployments in [Houston](#), Texas; Kuala Lumpur, Malaysia; and Perth, Australia. The company is also planning another Australian site in [Geraldton](#), some 400km north of Perth in Western Australia.

The last 12 months have seen DUG upgrade its data centers with 1,500 new AMD Epyc Genoa servers and 600 Intel Xeon CPU Max Series machines. The upgrades more than doubled the compute capacity at its Houston site.

While it has historically kept its data center designs and technology to itself, DUG is starting to offer its wares to others. The expansion into modular data centers follows the company's recent move to license its immersion cooling designs.

In August, cooling solutions provider Baltimore Aircoil Company, Inc. (BAC), secured an exclusive worldwide licensing agreement with DUG, granting BAC exclusive rights to DUG's patented immersion-cooling technology.

In an investor presentation delivered in August, DUG said the agreement includes the right to use, manufacture, market and sell the licenced IP and will be used by BAC to manufacture and sell immersion cooling tanks. DUG will earn royalties of up to five percent of net sales until the patent expiry date in 2036. DUG will also retain the ability to utilize the licensed IP for its own use and for use in the company's Nomad line.

In the investor presentation, DUG said it had sold one of its COOL immersion tanks to BP Castrol.

Adacen operates two US data centers, one in Albuquerque, New Mexico, and one in Maryland. The 214,000 sq ft (19,880 sqm) Silver Spring site, at 12401 Prosperity Drive, was acquired by Lincoln Rackhouse [in 2019](#) from ByteGrid. Adacen has previously partnered with Hypertec to deploy immersion cooling.

---

Subscribe to The Data Center Cooling Channel for regular news round-ups, market reports, and more.

[Create an Account to Subscribe Now](#)

## More in Cooling



**Keeping IT Cool**



**Data centers, water shortages, and AI: It's time to consider WUE**



Discussion **The Future of Cooling Hosted Lunch Briefing**

---

## Tags

Silver Spring

DUG Nomad

Liquid Cooling

containerized data centers

Modular Data Centers

DUG

|