



# Dell Fresh Air 2.0:

## Product specification sheet

Achieve greater data center efficiency and powerful enterprise performance you have come to expect from Dell, by deploying Dell Fresh Air hardware in your IT environment. Competitively priced, these select off-the-shelf configurations of Dell enterprise hardware can use clean outside air for cooling; and also operate in a wider range of temperature and humidity conditions: continually withstanding air intake of 40°C (104°F) plus added excursion time up to 45°C (113°F) – enabling you to economize and spend less on data center cooling.

Most data center enterprise hardware is intended to operate in a controlled air conditioned environment at a defacto industry maximum up to 35°C (95°F).

Dell Fresh Air 2.0 hardware include specific configurations of Dell server, networking, and storage products which can operate at higher temperature and humidity levels (up to 45°C/113°F at a 29°C maximum dew point), and they can also use clean outside air (meeting ISA-71 G1) for air intake instead of requiring a tightly controlled A/C environment for a cold aisle.

Using clean outdoor air for economization for all or even part of a year plus Dell Fresh Air capable hardware could reduce the number of annual hours a data center needs to run the chiller - which can help save OpEx and also lower your PUE. Using 100% outside air in favorable climates, and deciding to forgo building a chiller could help save significantly on data center CapEx.

### Deploy around the world

The Dell Fresh Air 2.0 specification increases temperature and humidity operating tolerances which expands the geographic locales where a Dell Fresh Air deployment could occur - to almost any location in the world where air quality and climate conditions are favorable.

### Economize your way

You don't even have to go full chiller-less with Dell Fresh Air hardware to realize savings benefits. Begin with a step-wise approach to economization by turning up the temperature in the data center and spending less on your A/C. Or deploy an air-side or water-side economized data center and run chiller-less for just part of the year. As you refresh your data center you can upgrade the equipment with the lowest maximum temperature capability and increase the range over which you can economize to realize even more savings benefits.

## Who could benefit from Dell Fresh Air?

From small to medium businesses up to data centers – there are several opportunities for businesses and organizations to economize using Dell Fresh Air hardware.

- **Remote and branch offices** often have a warm wiring closet that doesn't receive a lot of cooling from the common building A/C. Using Dell Fresh Air 2.0 capable hardware, these businesses and organizations can enjoy peace of mind knowing this hardware can withstand continual air intake of 40°C (104°F).
- **Small and medium businesses** often have legacy data centers with unique cooling challenges such as limited air flow and hot spots. Also, some businesses save energy by turning up the building temperature over the weekend. Dell Fresh Air 2.0 capable hardware can handle it with continuous operation up to 40°C (105°F); but if it gets even hotter – don't worry – the extra 90 hours up to 45°C (113°F) excursion capability of Dell Fresh Air 2.0 hardware can give you ride-through time to prevent data loss and initiate a graceful shutdown while waiting for the building air conditioning to bring temperatures back down.
- **Data centers and dedicated labs** usually have separate IT equipment areas from staff environments. Using Dell Fresh Air 2.0 hardware, could allow IT equipment areas to have a higher temperature air intake environment. For those wanting to use air or water side economization for cooling a data center or lab to take advantage of free, clean air there Dell Fresh Air capable hardware could be part of a step-wise transition. Whether allowing temperatures to begin increasing on a traditional 'cold aisle' or deploying an outside air economization model, Dell Fresh Air 2.0 hardware can take the heat in these environments performing for 100% of the year at 40°C (104°F) and also allowing 90 hours per year at 45°C (113°F) – and use clean outside air to do it.

## Global services and support

Reduce IT complexity, lower costs, and eliminate inefficiencies by making IT and business solutions work harder for you. You can count on Dell for end-to-end solutions to maximize your performance and uptime. A proven leader in Servers, Storage, and Networking, Dell Enterprise Solutions and Services deliver innovation at any scale. And if you're looking to preserve cash or increase operational efficiency, Dell Financial Services has a wide range of options to make technology acquisition easy and affordable. Contact your Dell sales person for more information.

For additional information about Dell Fresh Air and how it could be a part of your IT environment, please visit [dell.com/freshair](http://dell.com/freshair) or contact your Dell sales representative.

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