Opengate
data systems

SwitchAir™ 1U Cooling for Cisco 4948

Network Switch Cooling

Oracle, Husky Energy, Army Corp of Engineers, Ag Canada, General Dynamics, Dell and CGI Canada are a few companies that have selected Opengate systems to automate cooling and maximize energy efficiency. ASHRAE recently increased the acceptable intake temperature to 80.6 ºF (27 ºC) specifically for improved data center cooling efficiency and the industry is following by increasing the supply air temperature delivered to the IT equipment space. With raised supply air temperature chillers are operational less of the time and Opengate cooling flow control and automation for Data Centers and IT racks becomes necessary.

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www.Prairiehvac.com

PRAIRIE HVAC

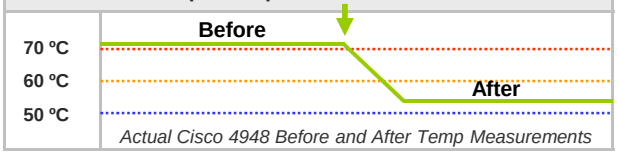
204-257-4822

SiteX EC SwitchAir™ 1U
Network Switch Cooling Solution PATENT PENDING

Switch Cooling for effective cool air delivery to rear rack mounted Cisco 4948 Series 1U switches when stacked with 1U space between each switch

SwitchAir™ 1U Specification	
Item Number	SA1-001
Rack Mounting	27-5/8" to 29-5/8 Rail Depth Range
Custom	Call for Custom Rail Depths
Input Power	n/a (passive solution)
Safety / Approvals	n/a
Warranty	2 Years

4948 Switch Temp Example — **SwitchAir 1U Installed**



Actual Cisco 4948 Before and After Temp Measurements

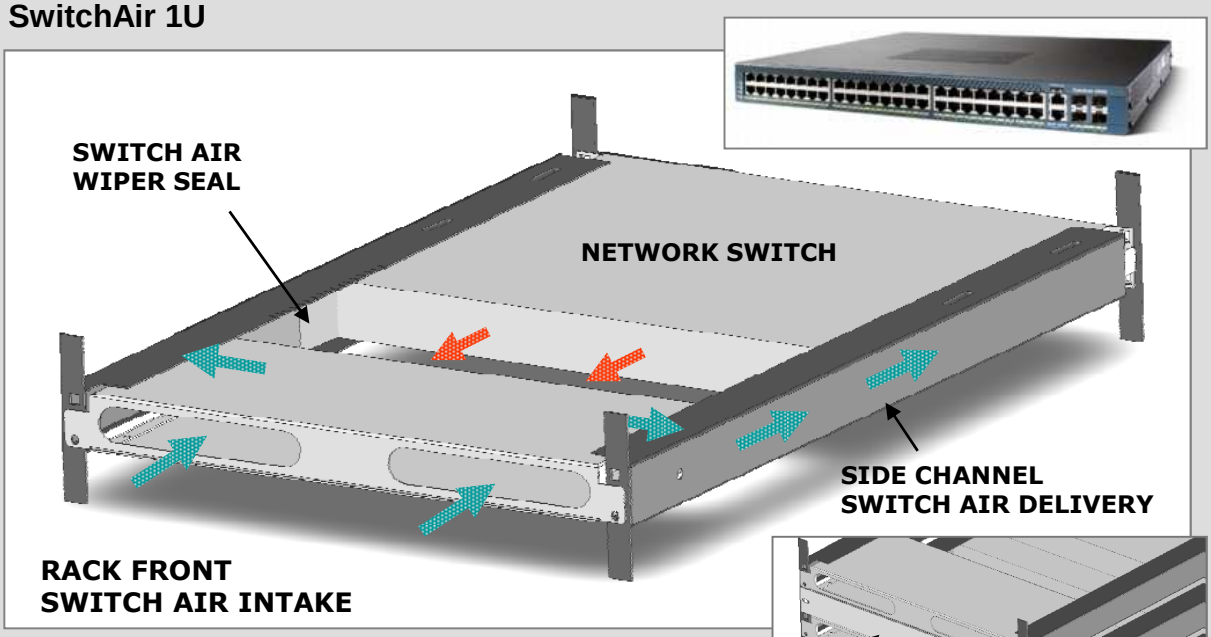
Switch port density makes it very convenient to place network switches facing the rear of rack where sever port density resides to simplify network cabling.

Due to high switch port density, intake air is typically at the sides of the switch chassis with heat exhaust out the rear or other side of the network switch chassis.

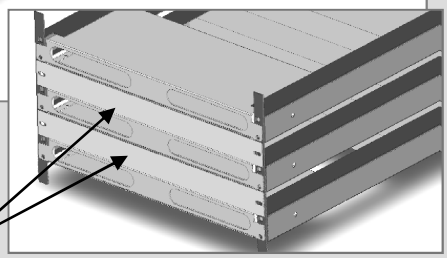
SwitchAir 1U ensures a rear mounted Cisco 4948 switch is able to receive the required cool air from outside the rack. Network switch pulls air through the SwitchAir Chassis and Channels.

Before and after temperature data is required for use with other switches. If the fans in the switch are not adequate to draw air through channels, over temperature conditions will continue.

SwitchAir 1U



SwitchAir 1U can be installed while network switch is operational. SwitchAir 1U must be installed with 1U space between each switch. Use blank panels between each SwitchAir to block heat to front.



1U SPACE BETWEEN EACH SWITCH AIR REQUIRED

SiteX EC SwitchAir™ 1U
Network Switch Cooling Solution

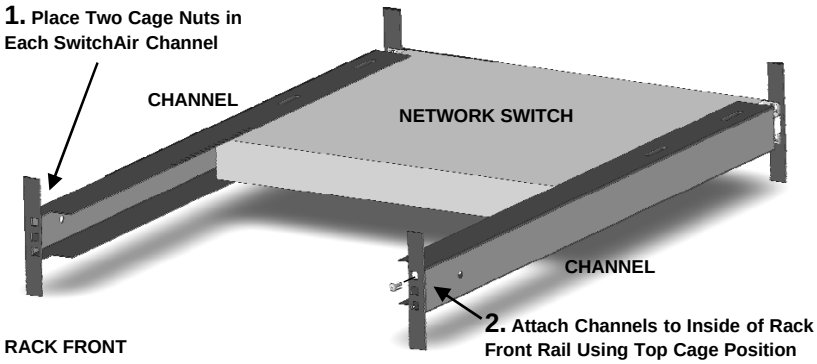
PATENT PENDING

Switch Cooling for effective cool air delivery to rear rack mounted Cisco 4948 Series 1U switches when stacked with 1U space between each switch

SwitchAir 1U Install

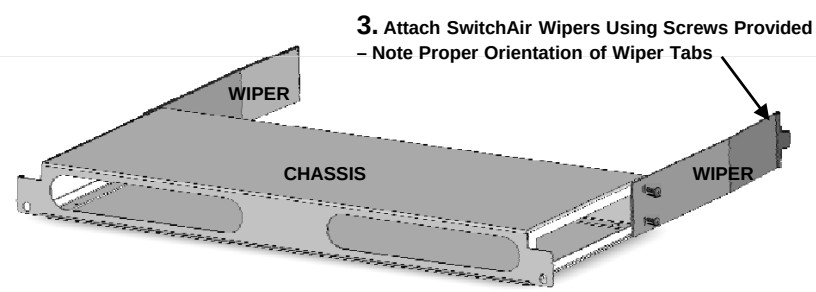
Install SwitchAir Channel

Place cage nuts in channel mounting holes. Attach Channel to inside of front rail using a single screw at the top cage nut position. (rack rail cage nuts and screws not included)



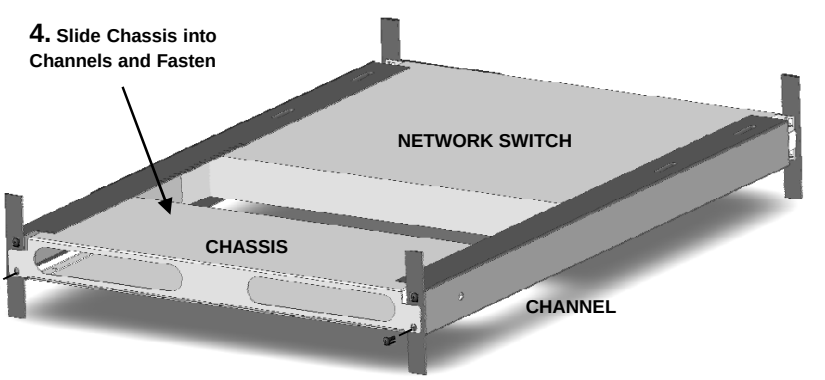
Install SwitchAir Wipers

Attach each SwitchAir Wiper to the sides of the SwitchAir Chassis using the two screws provided.



Install SwitchAir Chassis

Slide the SwitchAir Chassis into the SwitchAir Channels from the front of the rack. Attach the SwitchAir Chassis using two screws (not included).



Opengate
data systems

HIGH DENSITY DATA CENTER SOLUTIONS

Deploy more IT *with* CONFIDENCE and *without* HEAT issues…

… In Data Centers

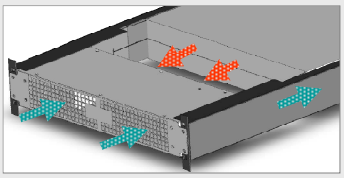
SiteX Containment Cooling®
Automated Heat Containment

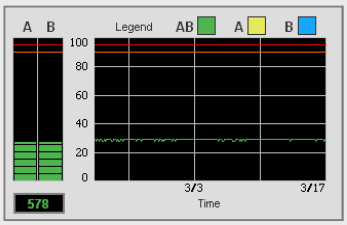
Unity Cooling®
Cooling Control & Monitoring

… In Racks

SwitchAir™
Network Switch Cooling

SiteX EP™ & SiteX EM™
Power & Environment

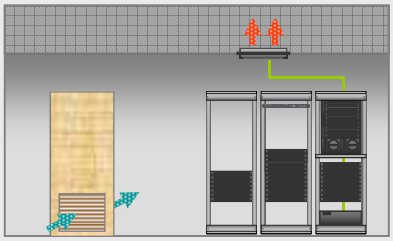




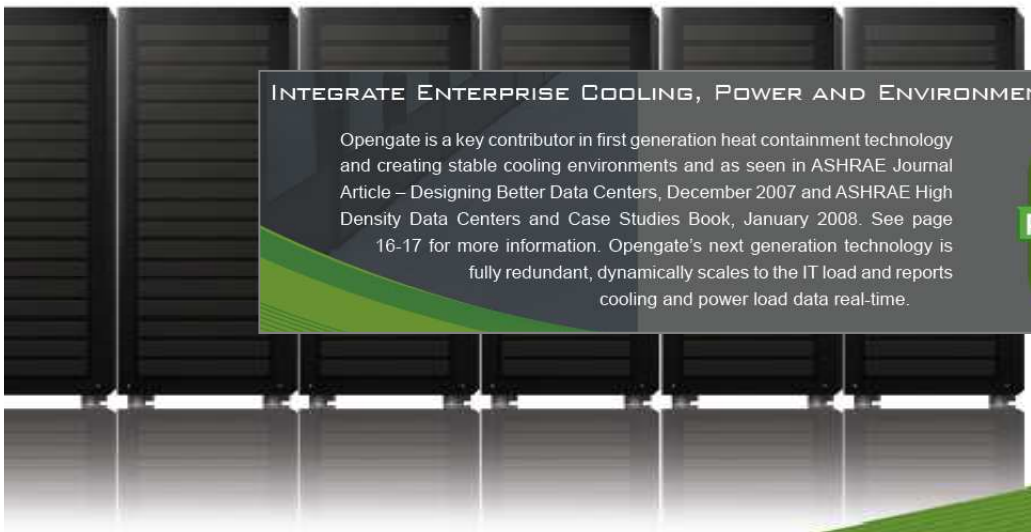
… In Small Spaces

SiteX Small Space™ Cooling
Automated IT Space Cooling

SiteX EM™
Environment Monitoring



Tested and Accepted by; Oracle, EMC, HP, Dell, General Dynamics, Army Corp of Engineers, CGI, Ag Canada and others…



INTEGRATE ENTERPRISE COOLING, POWER AND ENVIRONMENT MONITORING SYSTEMS

Opengate is a key contributor in first generation heat containment technology and creating stable cooling environments and as seen in ASHRAE Journal Article – Designing Better Data Centers, December 2007 and ASHRAE High Density Data Centers and Case Studies Book, January 2008. See page 16-17 for more information. Opengate's next generation technology is fully redundant, dynamically scales to the IT load and reports cooling and power load data real-time.

C Enterprise **Cooling**
P Intelligent Rack **Power**
Environment Monitoring S
SiteX Services
E

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