



## The Purple Guide to Greener Networking

Your enterprise is environmentally responsible. You take care not to waste energy unnecessarily. You turn off lights and switch off appliances after hours. However, there is one area of energy consumption that is often overlooked: the network!

IT equipment can consume vast amounts of energy. In fact, you could probably save more energy and associated costs by tackling this one area of your business, than all your other power consumables combined. And, you'll be doing your bit for the environment at the same time.

Establishing the right network foundation, can help you:

- Cut your network energy consumption
- Shave thousands off your energy bill
- Reduce your carbon footprint

This quick guide "Three Smart Ways to Save Network Power" outlines how you can cut energy consumption and costs – from the core to the edge of the network.

### Buy Green

Save energy over the life of your network and reduce operational costs by making sure your products pass the procurement green test:

- Specify network equipment that uses less power
- Include power consumption in your RFP process
- Assess how much power products consume over the life of the network

**Introduce energy-efficient switches throughout your enterprise to reduce your operational costs and carbon footprint.**

**Save energy over the life of your network and reduce operational costs.**

## It's Official:

### Extreme Networks Switch is "Greener"

Extreme Networks, Inc. commissioned The Tolly Group to evaluate the power consumption of its BlackDiamond 8810 series switch versus comparable core switches\*. The results of the test show that the BlackDiamond 8810 consistently demonstrates more efficient power consumption than the Cisco and Foundry switches tested, both of which use from 2X to 3.5X more power.

A number of different traffic load scenarios were used to test the switches, from no load on the switch to a heavily taxed load.

The results of the tests showed that the BlackDiamond 8810 Core Switch:

- Uses 3.3X to 1.7X less power when all line cards modules and cables were connected
- Uses 3.5X to 2.3X less power when maximum Layer 2 bidirectional traffic was introduced
- Exhibits the "greenest" or most energy efficient chassis switch tested, using from 3.4X to 2X less power on average across all test scenarios

The tests were concluded in January 2008.

\* The Tolly Group tested the Cisco Catalyst 6509, and the Foundry BigIron RX-16.



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Reduce costs and power usage by between 50 and 75 percent by automating and managing the power at your network's edge.

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A typical Ethernet modular switch supporting 400 total ports can consume between 6 and 12 watts per port, or between 2.6 and 5.2 Kilowatts per device. With updated technology and innovative power saving design from Extreme Networks, you can reduce consumption to as little as 1.3 Kilowatts per device. The enclosed independent Tolly Report shows that Extreme Networks, "exhibits the "greenest" or most energy efficient chassis switch tested using from 3.4 times to 2 times less power than the Cisco and Foundry devices tested on average across all test scenarios".

### Design Green

The introduction of more powerful Ethernet switches and technological breakthroughs such as system resiliency has meant that the network designers can now collapse the traditional three tier network to just two tiers. Intelligent design can reduce the number of switches and devices by a third or more. And as a result, less power is needed to run the network and you save on capital expenditure.

Use power more efficiently by reducing the number of switches and devices required to serve the organisation:

- Design the network to be more energy efficient
- Collapse the traditional three-tier network to just two tiers – the core and the edge

**Specify a network design that uses less switches and devices, and removes the energy-hungry aggregation layer.**

### A Greener Edge

In the same way that maintenance teams turn off lights and appliances in an unoccupied building, you can use less power at the network's edge by optimising powered devices:

- Introduce automated power management to optimise Power over Ethernet devices
- Use Extreme Networks Universal Port technology to intelligently power down non-essential devices, such as Voice-over-IP handsets, during out of office hours

### Green By Extreme

We're taking green to the extreme. Our networks not only deliver performance, reliability and security – they're environmentally intelligent too.

Extreme Networks are a global mature organisation with a history of innovation. We have a culture of partnership with other organisations and are committed to quality and innovation. We are unique in the market place delivering secure green converged solutions with a lower cost of ownership giving our clients in public sector, medium to large enterprises and service provider the choice and openness they should demand.

To find out more about our Go Green solutions or to arrange a meeting or product demonstration please email [pgoddard@extremenetworks.com](mailto:pgoddard@extremenetworks.com)



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