Energy Crisis Not a Problem for Digital Control of Power

Demand rises in concert with increases in energy rates

By Marijana Vukicevic, iSuppli Corporation

While many businesspeople fret that their enterprises are being hurt by the high cost of energy, those in the Digital Control of Power (DCP) industry actually are getting a boost from rising energy rates, according to iSuppli Corp.

iSuppli defines DCP as the utilization of digital techniques to control the power-switching functions within a power supply. DCP silicon is being adopted at a much faster pace than expected in power-management applications. While several factors are contributing to this trend, one significant element is the rising cost of energy.

The amount of heat produced by some network/telecommunications equipment is so great that additional powerful air-conditioning systems must be used to prevent overheating of facilities. With electricity rates so high, energy bills are approaching the level of hardware costs for some networking operations.

DCP can mitigate such heat issues by enabling more efficient operation of power systems in communications gear, in turn reducing energy costs.

With the network/telecommunications equipment segment the largest initial market for DCP, this demand is having a significant impact on the growth of the technology. The market for DCP silicon in network/telecommunications will rise to $639 million in 2010, up from $144 million in 2006, iSuppli predicts.

A second factor propelling the acceleration of the DCP market is the proliferation of new features in mobile phones.

Mobile phones are far more functional than they were five years ago—or even

just one year ago—sporting features from PDAs to digital video cameras. These mobile phones are making use of more powerful processors to support this functionality. Greater functionality and faster processor speed imply that more energy is used, generating more heat.

This requires greater power efficiency and tighter management, things that can be accomplished with DCP.

Because they have more features, it is the high-end mobile phones that are seeing the first adoption of DCP technology in power management. Market revenue for DCP silicon in mobile phones is expected to more than quadruple to $215 million by 2010, up from a small base of $48 million in 2006, iSuppli predicts.

Hoping to cash in on this growth, semiconductor suppliers are entering the DCP area, or are increasing their participation in the market.

Previously skeptical companies now understand the viability of DCP, including some of the strong, established analog IC sellers. For example, analog IC house Linear Technology Corp. in April announced it is partnering with DCP pioneer Primarion Corp. Several other semiconductor companies now are spending significant resources on DCP hardware and firmware development.

While the potential of DCP is great, the technology is paving the way for an even more exciting innovation—the Power Operating System (POS).

POS encompasses very sophisticated control of power through software, firmware and hardware. In order to communicate, a power supply must have intelligence to talk to the brain of the POS—intelligence that can only be implemented through DCP. POS offers the most sophisticated means of solving the issues power conversion faces in the critical fields of network equipment and mobile handset, offering unprecedented levels of control and efficiency.

The easy availability of system information brought by the POS will change decision processes and resourcing in IT organizations, iSuppli believes.

Thus, while the latest energy crisis is a problem for many, it is a boon for the power-management industry, as high electricity costs boost demand for DCP and POS solutions.

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For more information on DCP and POS, read Vukicevic's latest report: The Spring of Digital Control in Power Management. For more information, please visit: http://www.isuppli.com/catalog/detail.asp?id=7907

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