

# Interop NYC General Session: Green Data Centers

**Frank E. Gillett**

VP, Principal Analyst  
Forrester Research

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## Richard Campbell

Built his first microcomputer in 1977 (ELF – 1K of RAM)

Data Center design and consulting engineer since 1998

Co-Founder of Strangeloop Networks in 2006

We build an appliance that makes web farms more efficient!



**Making web applications more efficient**

# Mark Linebaugh, Dell

- Mark's primary role is leader of Dell's world-wide PowerEdge Server Product Engineering team
- Mark has also been working across Dell's Product and Services teams to address IT Power & Cooling challenges
- Dell is focused on Simplifying IT, enabling businesses to reclaim, time, money and people
  - With a commitment to industry standards
  - With the lowest environmental impact
  - Without an army of consultants
- A key area of focus for Dell is Simplifying the complexities of dealing with IT Infrastructure, especially Power & Cooling challenges



# Vikram Mehta, President & CEO

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- 20 years in the industry (servers, storage, and networking)
- Worked at HP, Alteon Web Systems, Nortel
- Blade Network Technologies (BLADE) , is the world's #1 provider of network Ethernet, IP, and Application switches for HP, IBM, and NEC blade server systems
- “Greening” an enterprise’s network is a key agenda item at BLADE

**WAKE UP CALL - Our children and their children are going to suffer the environmental consequences of the IT architecture decisions we make today!!**



3Leaf Systems



- **Bob Quinn, Chief Technology Officer, Chairman and Founder, 3Leaf Systems**
- **20+ years of domestic/international executive level management experience in high tech including Unisys, Trilogy, Arix and Exxon**
- **3 Leaf Systems provides server virtualization solutions by delivering mainframe–class availability and reliability for commodity servers while optimizing data center resources & dramatically reducing costs**

# The scope of green IT

## Design

- Increase power efficiency
- Improve power handling
- Design for the environment

## Manufacture

- Cleaner manufacturing processes
- Apply CSR principles to suppliers
- Reduce use of hazardous substances
- Minimize transport & packaging impacts

## Operation

- Manage IT energy usage, in the data center and beyond
- Actively manage app workloads
- Implement green sourcing criteria
- Source sustainable energy

## Disposal

- Reuse and refurbish systems
- Recycle systems at end-of-life
- Recycle consumables

# Is there a Data Center energy crisis?

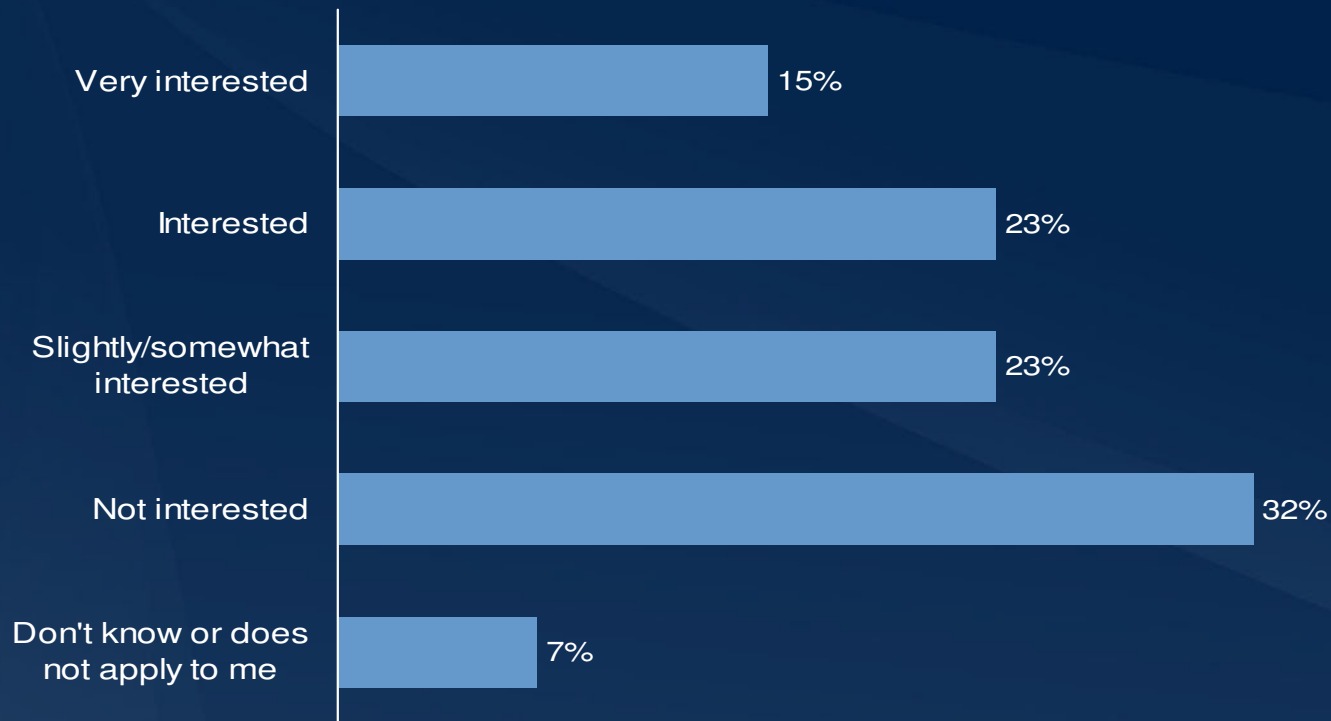
- Forrester's data says "no" for most companies
- There is strong interest in data center consolidation

## Audience poll:

- » Are you very, somewhat, or not concerned about:
  - Power and cooling consumption
  - Environmental impact of computing
- » Run data center for:
  - Internal use
  - As service provider to others

# One-third of enterprise Senior IT are interested in electrical efficiency in the data center

“What is your company's level of interest in increasing the electrical efficiency of the data center?”



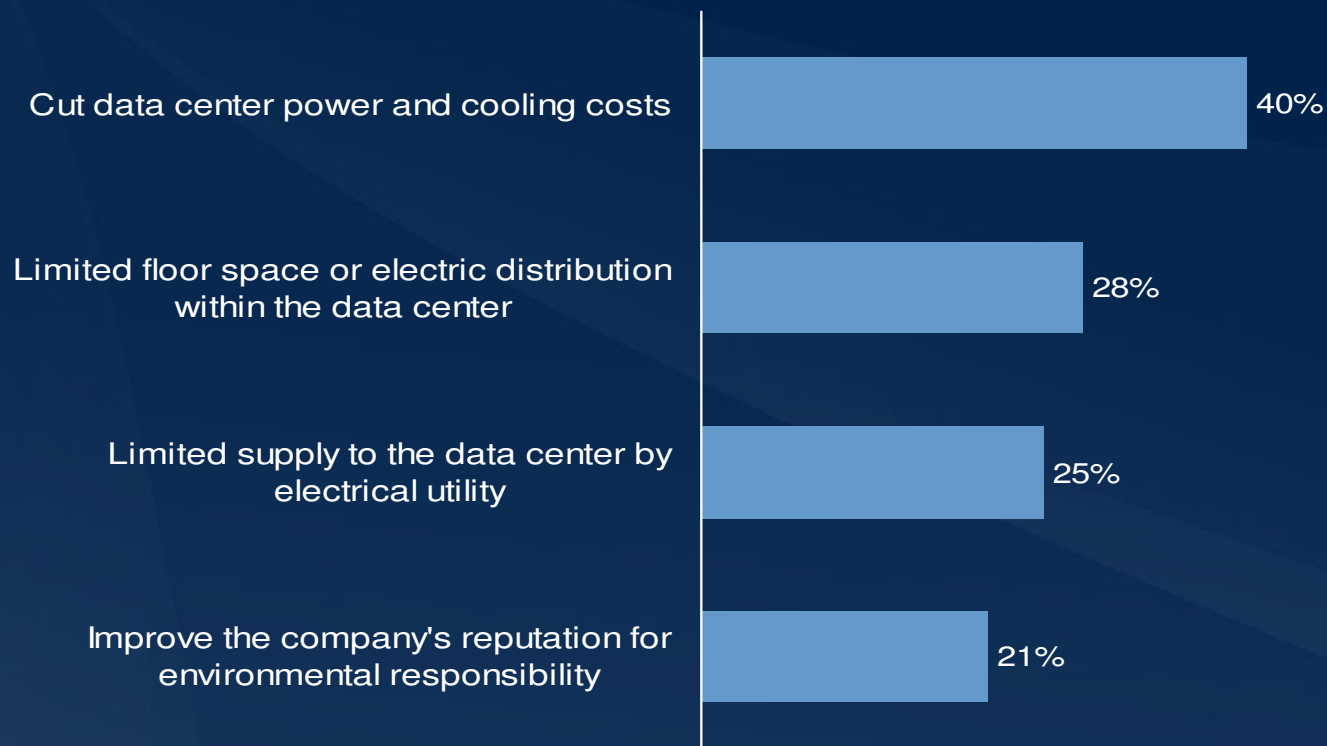
Base: 189 data center decision-makers at North American and European enterprises

Source: Enterprise And SMB Hardware Survey, North America And Europe, Q3 2007

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# Cutting costs is the top reason for more efficient data centers

“What is your company’s motivation for wanting to increase electrical efficiency in the data center?”



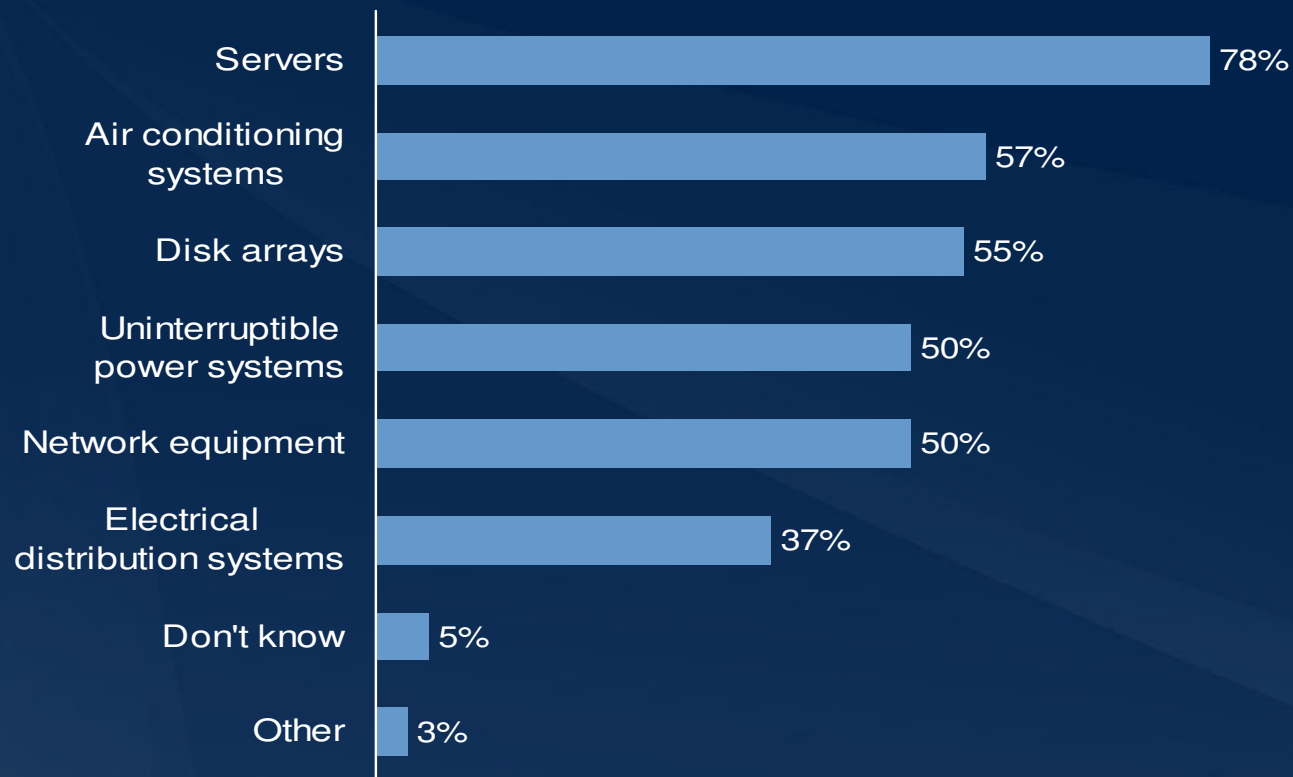
Base: 97 data center decision-makers at North American and European enterprises that are at least somewhat interested in increasing the electrical efficiency of the data center (multiple responses accepted)

Source: Enterprise And SMB Hardware Survey, North America And Europe, Q3 2007



# Servers are the most common target for electrical efficiency

“Which data center elements are you targeting for reduction in electrical consumption or waste?”



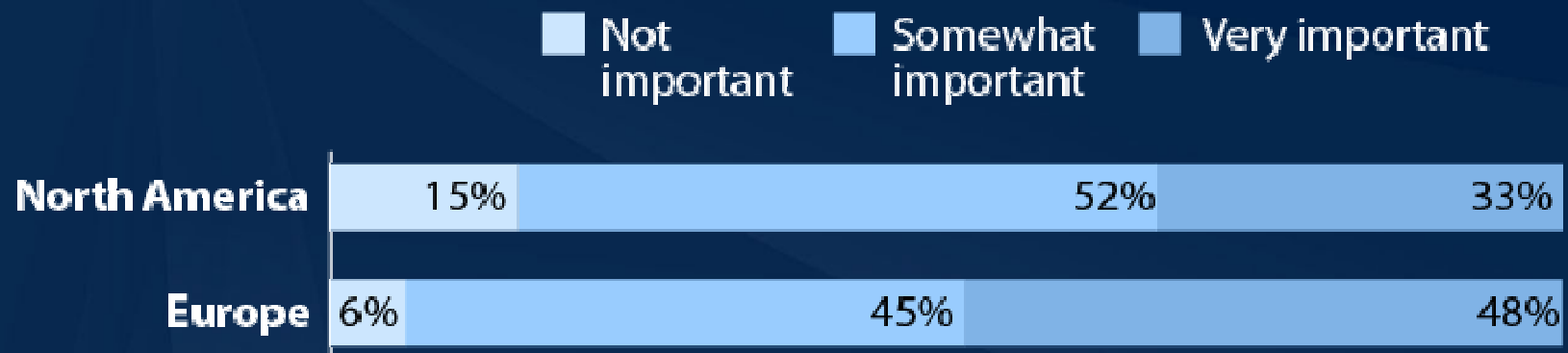
Base: 94 data center decision-makers at North American and European enterprises that are at least somewhat interested in increasing the electrical efficiency of the data center (multiple responses accepted)

Source: Enterprise And SMB Hardware Survey, North America And Europe, Q3 2007



# Environmental concerns are important to enterprise IT shops . . .

“How important are environmental concerns in planning your company’s IT operations?”



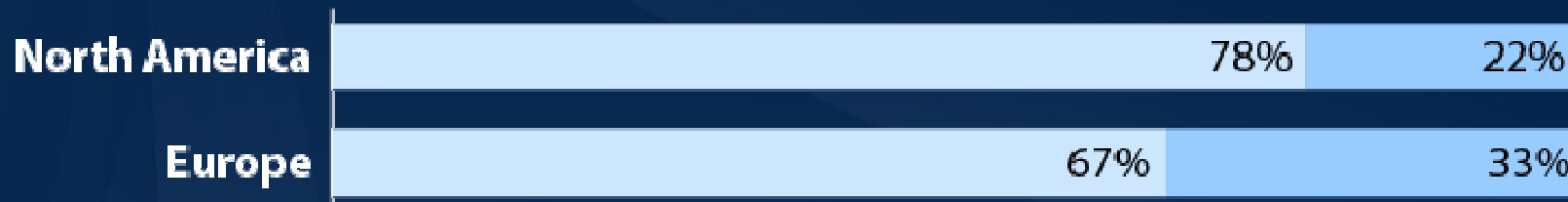
Base: 91 North American and 33 European IT procurement and operations professionals (percentages may not total 100 because of rounding)

Source: May 2007, Trends “Tapping Buyers’ Interest In Green IT”

# Currently few IT shops include green in their purchasing criteria

“Are green factors in manufacturing, operation, and/or disposal written into your evaluation and selection criteria for IT systems and devices?”

■ No ■ Yes



Base: 91 North American and 33 European IT procurement and operations professionals

Source: May 2007, Trends “Tapping Buyers’ Interest In Green IT”

# Moderator

Frank E. Gillett

+1 617 613-6017

[fgillett@forrester.com](mailto:fgillett@forrester.com)

[www.forrester.com](http://www.forrester.com)