

37signals leaves the cloud for Deft's data centers



A CASE STUDY BY

[deft]



COMPANY

37signals (makers of Basecamp and HEY)

EMPLOYEES

<100

VALUATION

"I don't know and I don't care" —co-founder Jason Fried

USERS:

The Fortune 5,000,000

Challenge

- Leave the cloud
- Run 37signals' project management and email applications entirely on owned, colocated hardware to save on out-of-control cloud costs

"The cloud is often just as complicated as running things yourself, and it's usually ridiculously more expensive. So if the money matters – and when does it not? – I urge you to do your own math. Consider whether you have a service that really benefits from constantly scaling the capacity up and down. Then have a serious look at what your own cloud exit could look like. We pulled out seven applications in six months. You can do that too. The tools are there. They're free. So don't just stay in the cloud because of the hype."

David Heinemeier Hansson
CTO, 37signals

Requirements:

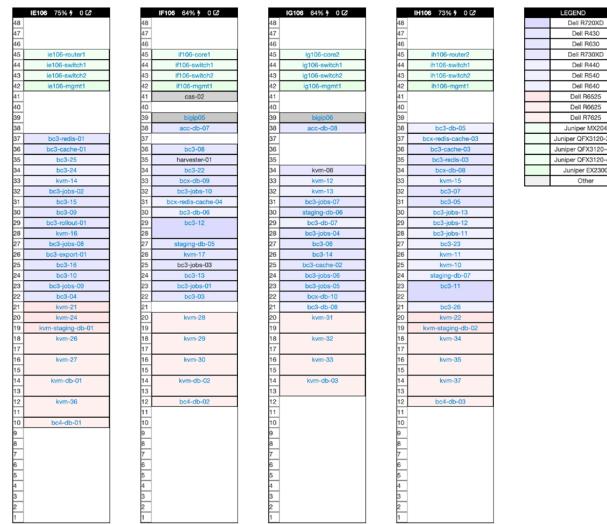
- Uptime is non-negotiable – customers depend on Basecamp and HEY for business-critical interactions
- Managed services bills must make sense – no surprise charges for opening doors or arranging cables
- Provider must truly be able to augment 37signals' small team – competence and a human approach are key

"With AWS, we give them \$300,000 a month and they don't care about us. They don't answer our calls. But we call Deft and they're on the phone with us immediately. They care about our problems, they want to help us."

David Heinemeier Hansson
CTO, 37signals

Solution:

- **Identical, future-proofed footprints in Deft's Ashburn and Chicago data centers**
 - » (4) 48U cabinets in Ashburn with ~90 Dell R7625 servers
 - » (4) 48U cabinets in Chicago with ~90 Dell R7625 servers
 - » 40 kW of power split among four cabs in each site, so about 10 kW per cab



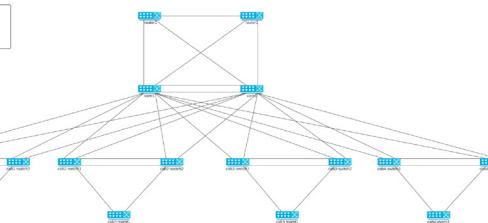
37signals' rack layout ([Source](#))

• New, modern network setup

- » Redundancy at each layer to withstand the loss of any single link or device
- » External connections to the internet, AWS, and between data center sites
- » Each connection uses different providers and diverse physical paths to ensure resilience

• Disaster recovery plan

- » Critical apps run in Deft's Ashburn and Chicago data centers in an active/standby capacity
- » One site can be quickly moved to the other during a disaster event



37signals' network topology ([Source](#))

Performance Results:

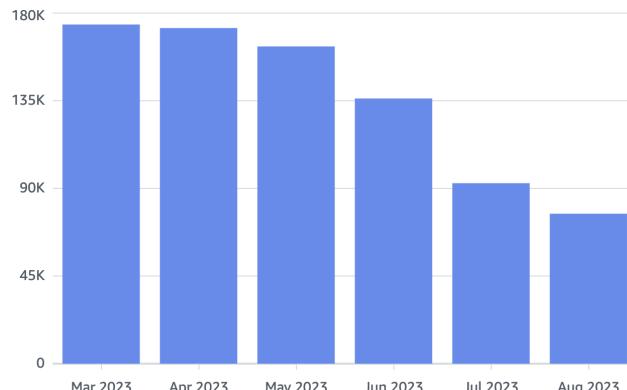
- The median Basecamp request now runs in just 19ms, compared to 67ms before
- The mean request is 95ms now vs. 138ms before
- The median query time dropped in half



37signals' cloud exit app performance ([Source](#))

Cost Results:

- Cloud spend is down by 60%
- 37signals expects to save \$10m over five years after moving off of the cloud



37signals' cloud spend per month in 2023 ([Source](#))

“Let’s see where things end up when it’s all said and done, but we don’t have to squint hard to see the eventual savings climb all the way up to about \$2m/year. That would be TEN MILLION DOLLARS over five years. Just absolutely bonkers amount of money straight to the bottom line.”

David Heinemeier Hansson
CTO, 37signals

Conclusion:

The 37signals team builds everything as if “no decision is forever,” says Eron Nicholson, Director of Operations at 37signals. When you approach infrastructure with the understanding that “we can always decide to reevaluate and do things better,” you need a partner willing to do that with you. The relationship between Deft and 37signals has worked since 2010 because we both:

- Constantly seek incremental improvements; and
- Experiment with techniques to push us forward while still delivering total uptime for services that businesses depend on.

In Deft, 37signals found an infrastructure partner capable of managing the day-to-day hardware maintenance and the all-hands emergencies with the same attention and dedication as its own staff.