

# Saving Money in the Enterprise With OpenCms

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# Quick Overview

## Content

- CME Background
- Why OpenCms
- What we are doing
- Where are we going

## Format

- Questions are good
- My German ist nicht so gut

# What is the Enterprise?

- Large company
  - Defined by employees
  - Defined by \$\$\$
  - Defined by complexity
- Pay for 'Enterprise Licenses'
  - 'Enterprise Support'
  - 'Quality'
  - ...Someone to blame




# What is CME?

- Background on CME
  - World's largest and most diverse derivatives exchange
  - Over 10 million contracts traded daily with notional value of hundreds of billions of dollars
  - cmegroup.com is the medium for marketing messages and data distribution
  - In 2006, purchased Chicago Board of Trade, 2008 purchased NYMEX with practically all operating cash (no debt)

# Timewarp

- 2001 – Purchase of a licensed CMS Solution
  - Percussion Rhythmyx v4.0
    - List price of ~\$500K (US) for one production license, one disaster recovery license, one QA license, and the 'developer studio'
      - License for version 4.x, future versions would cost additional
    - ~\$80K (US) annually for support
    - Additionally budgeted on average \$40K annually for consulting services
    - Required a dedicated Sun 440 Server for each environment ~ \$10K (US) per server
  - Open Source solutions not even considered

# cme.com ~2004


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> [Delayed Quotes](#) - Updated 02/06/04 03:20 PM

CONTRACT	LAST	NET CHANGE
<a href="#">E-mini.cme S&amp;P 500@ MAR04</a>	1139.50	+1300
<a href="#">E-mini.cme NASDAQ-100@ MAR04</a>	1494.00	+2650
<a href="#">Eurodollar MAR04</a>	98.845	+1.5
<a href="#">EuroFX MAR04</a>	1.2693	+168
<a href="#">Live Cattle APR04</a>	73.075	+22

(Quotes delayed at least 10 minutes)

#### QUICK LINKS

<a href="#">CME International</a>	<a href="#">Investor Relations</a>
<a href="#">CME News</a>	<a href="#">GLOBEX eTrading</a>
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#### > CME NEWS HIGHLIGHTS

Chicago Mercantile Exchange Holdings Inc. reports record





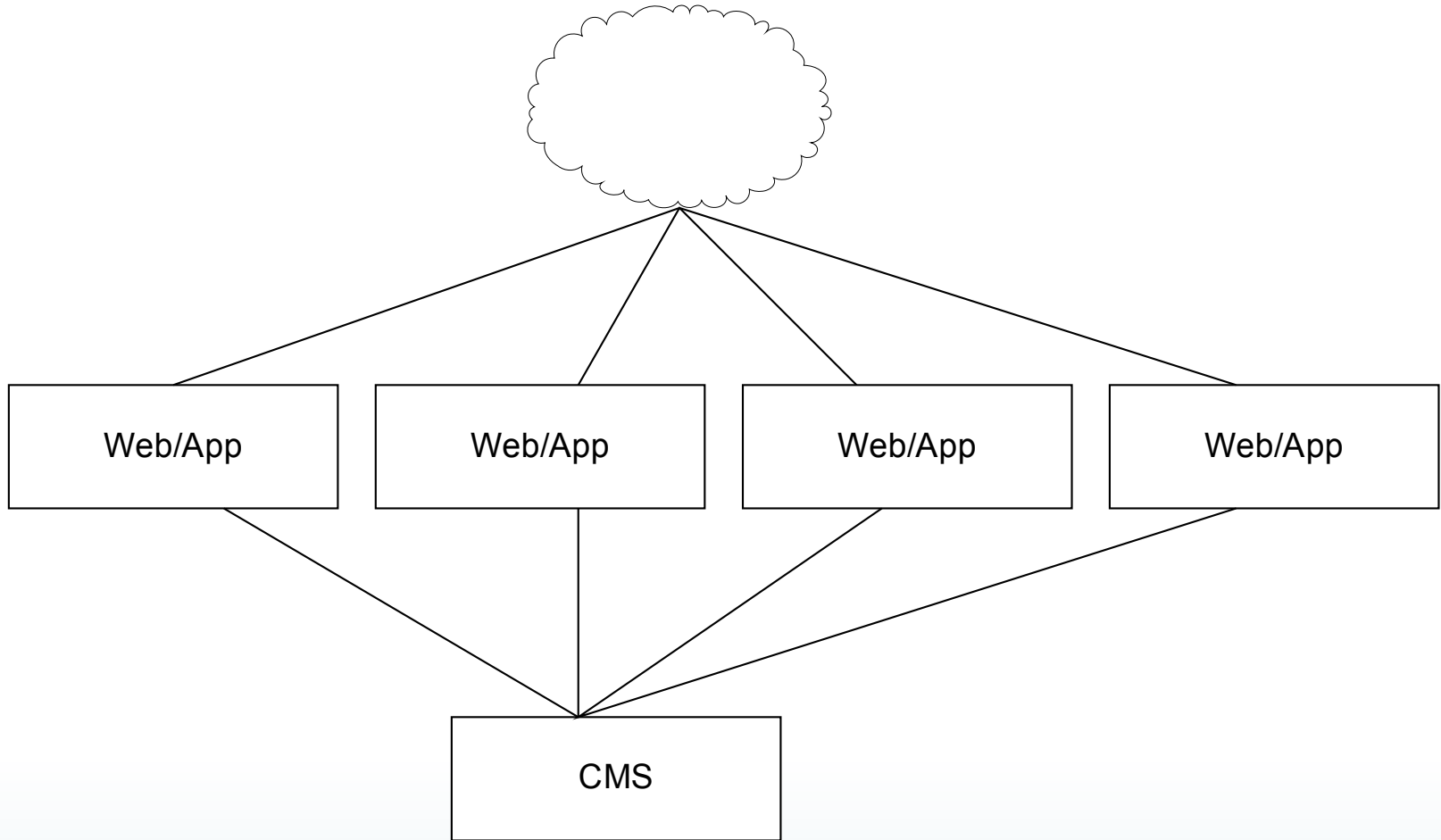
### CME Launches Global Incentive Programs

CME announced it will offer two additional pricing incentive programs to further develop its customer bases in North America and Asia. [Full Story](#).

### CME Hosts FX Roundtable

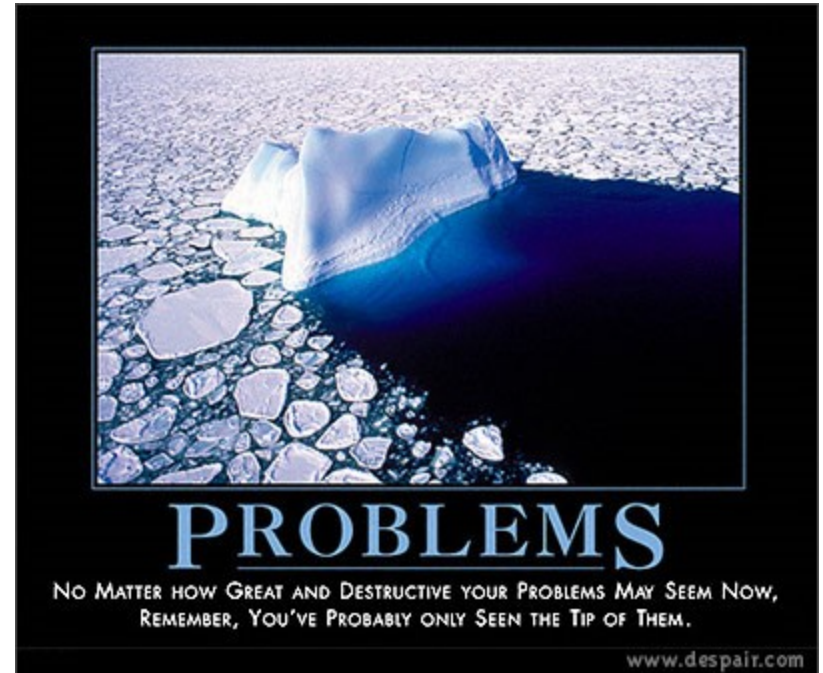
On Feb. 4, CME hosted a lively and wide ranging roundtable discussion on economic and political developments in global foreign exchange markets featuring a distinguished panel of economists and market participants. A replay of the discussion is available via telephone through Feb. 11. Dial (800) 633-8284 if in the U.S. or (402) 977-9140 if outside the U.S. Both numbers require callers to enter reservation number **21184529** to hear the replay. The opinions expressed in this roundtable discussion are solely those of the participants and not of

# Environment Then



# Problems in Paradise

- User interface was an applet
- Support nightmare
- Upgrades impossible
- Slow
- Pegged the server
- Support not very supportive
- Licensing 'disagreement'





# The tides begin to turn - 2004

- We didn't have time for depth search
- Tired of vendors and vaporware
- Quick research based on our development standards (Java / XML)
- Internal prototyping
- Low risk, low entry point
- Wanted an active community, stable product

# Choice made, migration to OpenCms

- Code was what we knew – Java, XML, XSD
- Active Community
- Mature Product
- Had what we needed, didn't have what we didn't need, easily extensible
- Ease of standing up
- No 'weird errors' during smoke testing

# Immediate cost savings (expected)

	Percussion	OpenCms
License	\$250K	Free
Support	\$80K	\$10K
Services	At least \$40K if we wanted to try and upgrade	Varies based on needs
Hardware	\$40K (dedicated)	\$5K (shared)

# Not just free licenses

- **Support**
  - Average time to resolve a production impacting problem – 2 weeks (large sample set)
  - Average time with Open Source – 1 day
  - Higher quality, less defects
  - All adds up to \$\$\$ savings
- **Bug Fixes / Release Schedule**
  - Twice yearly releases, problematic bug fixes or 'pay for'
  - Nightly updates, fix it yourself
  - Its like CI for your software stack

# More....

- **Deployable / Installation base**
  - Footprints
- **Transparency**
  - Not sure what the code is doing? Debug it
- **Community**

# And still more...

- **Frees up developers**
- **Allows us to do things we couldn't do before**
- **Innovation - New ideas come to open source first**

# So Why OpenCms?

- Its not just about licensing dollars

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## Strategic Partnerships

- BM&FBOVESPA
- CMA
- KFX Korea Exchange

## LIQUIDITY THAT

### Economic Event Products Homepage

Nonfarm Payroll

Option products available.

### CME ClearPort: Celebrating Seven Years of OTC Clearing

With expanded services and multiple asset classes, CME ClearPort continues to meet market needs. [Read here](#)

## Exchange News

## Press Releases

**June 15, 2009** [IDG's Computerworld Names CME Group to Annual List of Best Places to Work](#)

**June 15, 2009** [CME Group Announces Latin American Commercial Incentive Program](#)

**June 10, 2009** [CME Group Executive Chairman and Managing Director of Products and Services to Testify Before Congress](#)

**June 9, 2009** [CME Group's Duffy to Testify Before Congressional Committee on Proprietary Trading](#)

**June 8, 2009** [CME Group Achieves Record Trading Volume in Eurodollar Futures](#)

[More News Items](#)

CME GROUP IS WHERE THE WORLD COMES TO MANAGE RISK

## Delayed Quotes: Featured Products

Product	Month	Last Change
Corn	Jul 09	406'4
E-mini S&P 500 (Dollar)	Sep 09	919.00 -
EUR/USD	Sep 09	1.3773 -0.0001
30-Day Federal Funds	Nov 09	99.685 +0.0001

[Get Real-time Quotes](#)

Delayed at least 20 min as of June 15, 2009

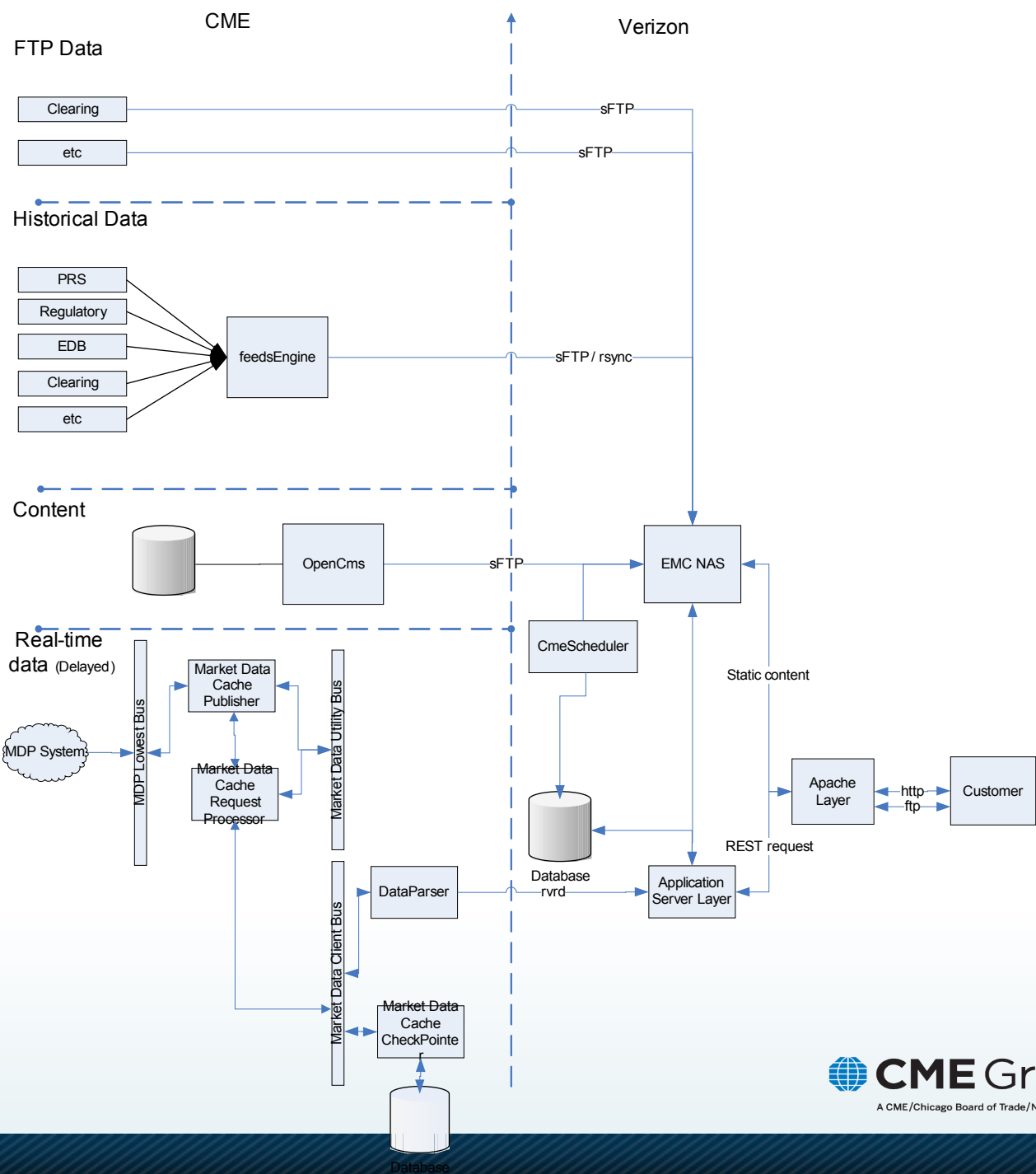
[Purchase Historical Data](#)

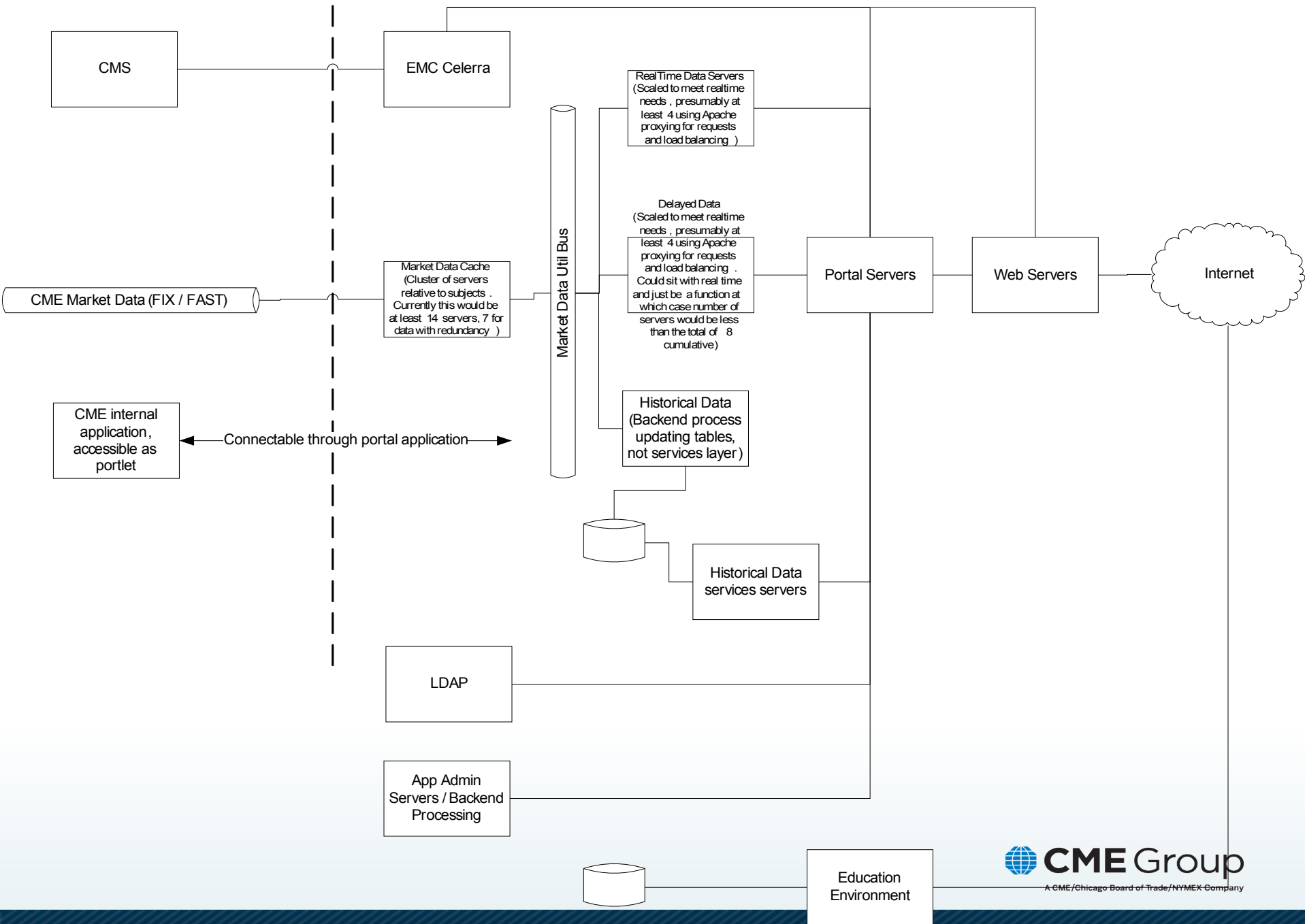
## CME Group Market Volume

Trade Date	06/16/09	06/12/09
Est. Electronic	1,192,826	8,680,368
Est. Open Outcry	Closed	1,689,614
Est. Clearport	100	431,333









# Thanks!

- Joel Tosi – Lead Application Architect CME Group
  - Clojure, Scala, Ruby
  - Open Source, REST Services, NetKernel, TerraCotta
  - Agile Development
  - Joel.Tosi@cmegroup.com

# Questions?