

Building High-Performance Portals on Liferay

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Fast Facts about Portals & Performance

- Single Gateways to Enterprise Information
- A framework for integrating information, people and processes across organizational boundaries

Performance \propto (User Experience)

Performance \propto (Portal Adoption)

Performance \propto (Customer Satisfaction)

Performance \propto (Revenue, Brand Reputation)

Performance is a journey, not a single destination

“40% of consumers will wait no more than 3 seconds for a page to load before abandoning a site” - Forrester

“conversion rates increase 74 percent when page load times decrease from eight to two seconds.” - Aberdeen Group

Motivation

WWW
(World Wide WAIT)

Happy
Customers !!



CA\$HING



- Caching systems are a key factor in boosting performance
- Caching
 - Volatility of the data
 - Business Impact of State Data
- Direct link between Page Performance and the slowest performing portlets

JSR-286 – Portlet Caching Specifications

Expiry Based

- Public cache scope added over JSR-168
- Ideal for static content

[LPS-25203](#)

[Randy Zhu](#) added a comment - 14/Feb/13
3:02 PM

In preparation for Ideation; we are merging New Feature and Improvement tickets into a singular ticket type called “Feature Request”. Additional information to follow soon.

Version Affected

6.1.0 CE GA1, 6.2.0 CE M3

Validation Based

- Done using Entity Tags (ETag)
- Constructed using attributes that make them unique to a specific server hosting a site.

```
# # The ETag filter is used to generate ETag headers.  
#  
com.liferay.portal.servlet.filters.etag.ETagFilter=true
```

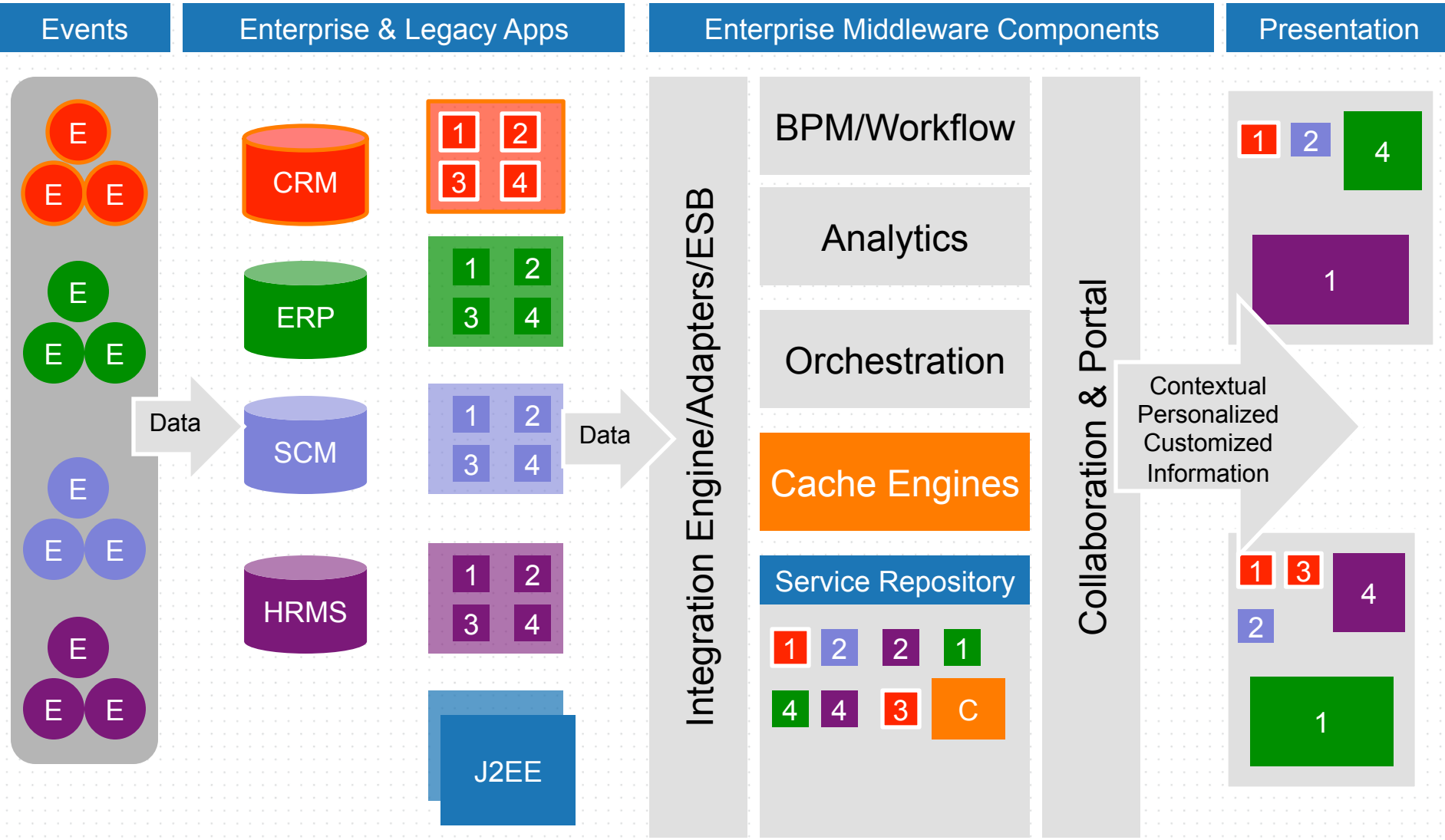
- ETag based on the content

```
String eTag =  
Integer.toHexString(java.util.Arrays.hashCode(  
cacheResponse.getData()));
```

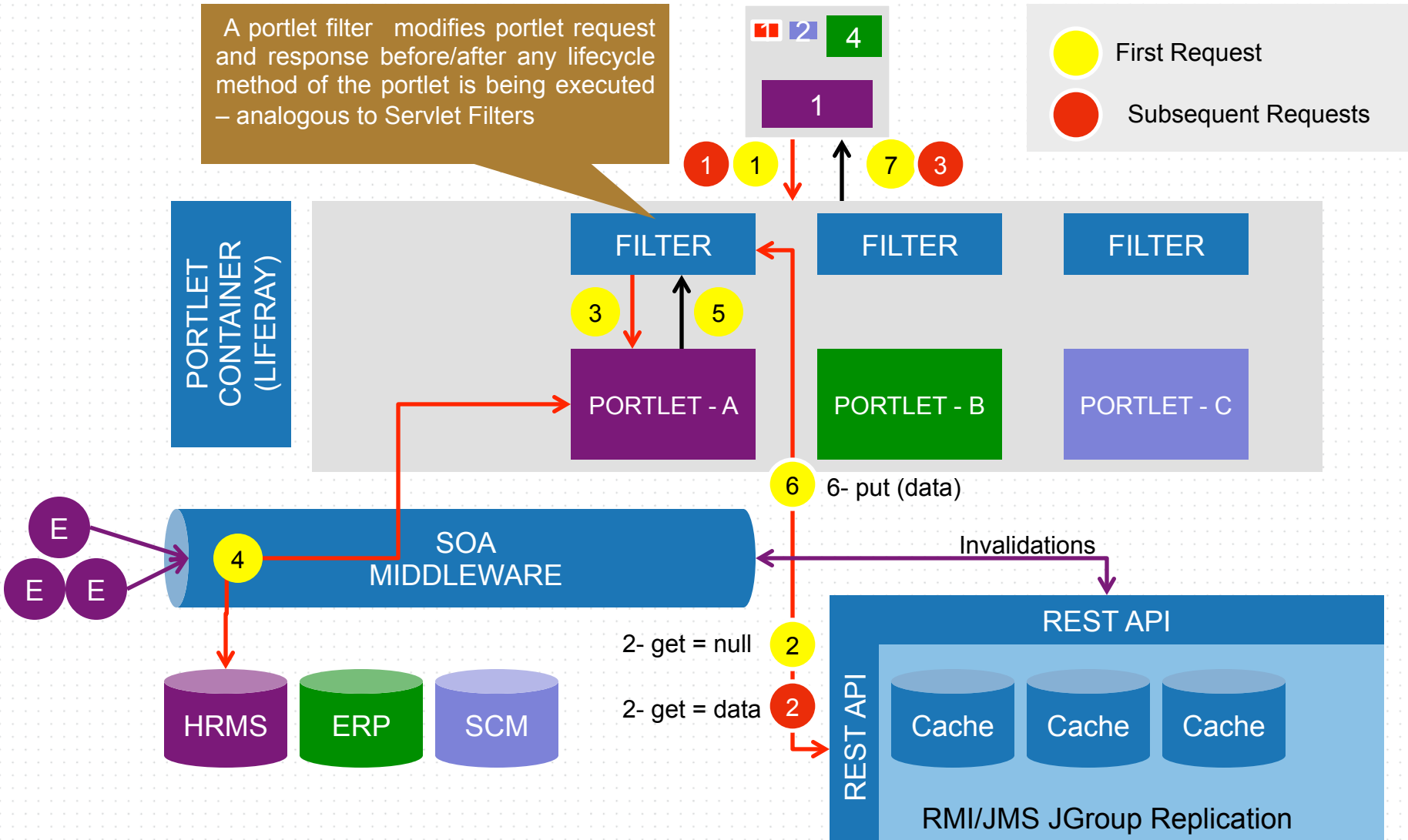
- Validation-based caching takes place after the initial portlet creation and requires hand coding.

[LPS-28799](#)

Enterprise Information Flow



Fusing SOA, Portals and Caching



Advantages

- 10-15 fold performance improvement
- Cache Infrastructure (Terracotta/GemFire) provides a much broader set of configurations around caching & cache evictions rules as compared to the JSR specs
- Plug-and-play of portlet filters
- No dependency on browser or HTTP headers
- Integrates business events external to the portal to deliver “fresh” data in near real-time
- Framework used by a leading bank to deliver different reports around Equity, Credit, Rates & Currencies, Commodities, Securitized Products, and Global Emerging Markets

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