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# New Red Hat Use Cases, Get More for your Business

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June 23, 2010



# No, not that kind of Use Case

- Sorry, Alistair Cockburn. This isn't about developing black box functional requirements for Agile development
  - We have taken a functional requirement approach to the particular environment and articulate which element in the Red Hat portfolio meets that need
  - Targeting the enterprise operations, including your boss' boss
- Today: *Building a Web Site using the Red Hat Stack*
  - In Flight:
    - *A/D Co-existence; Scaling Web Apps; Integrating Cloud*

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# A Web Site:

## *An Apparently Simple Use Case*

- Significant pressure for time to solution
  - Multiple development models
- Paramount security & reliability
  - Front door to the world
  - 24x7x365
- Unpredictable workloads
  - Scalability & Agility
- Operational complexity and interdependence
  - Reduce the number of moving parts



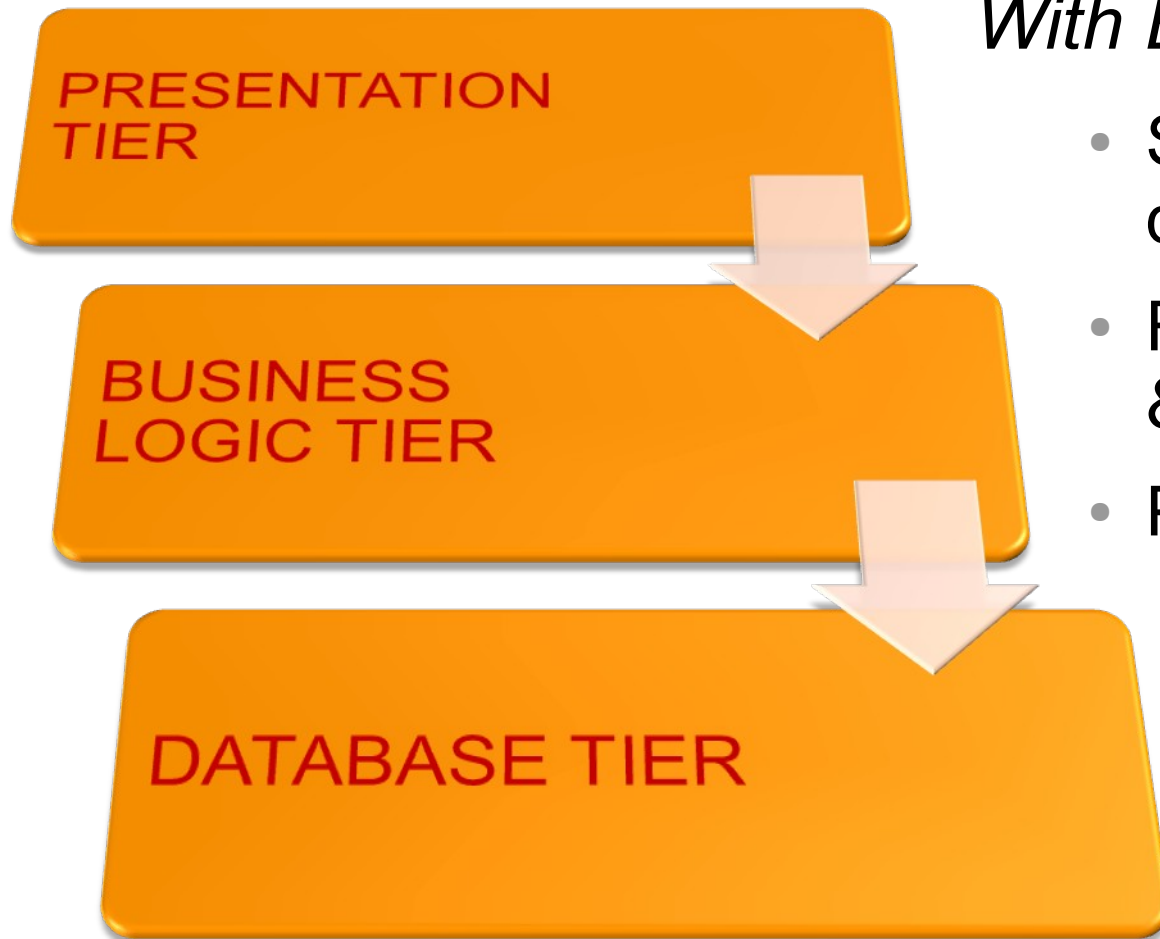
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# Classic 3-Tier Web Site



## *With Enterprise Features*

- Support multiple SW development environments
- Readily managed, secured & audited
- Performance at scale

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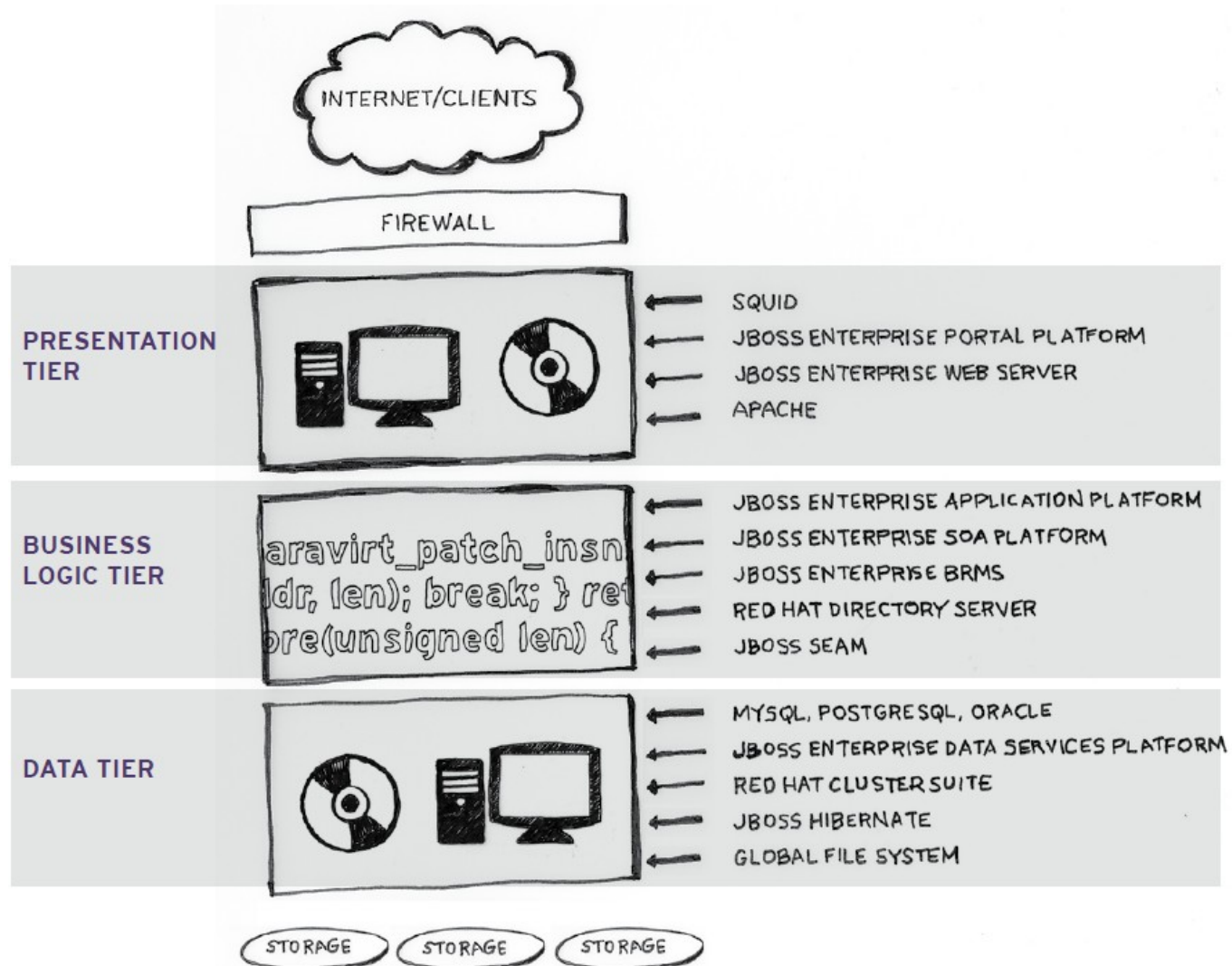
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# Classic 3-Tier Web Site *Simplified*



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# Presentation Tier: *Red Hat Enterprise Linux*

- Key Characteristics:
  - Lightweight, Fast, Secure
  - Manages connections
  - Serves static content
  - Quickly deployed
- Key Technologies:
  - Fast scalable file system
  - HTTPs Support
  - Load balancing

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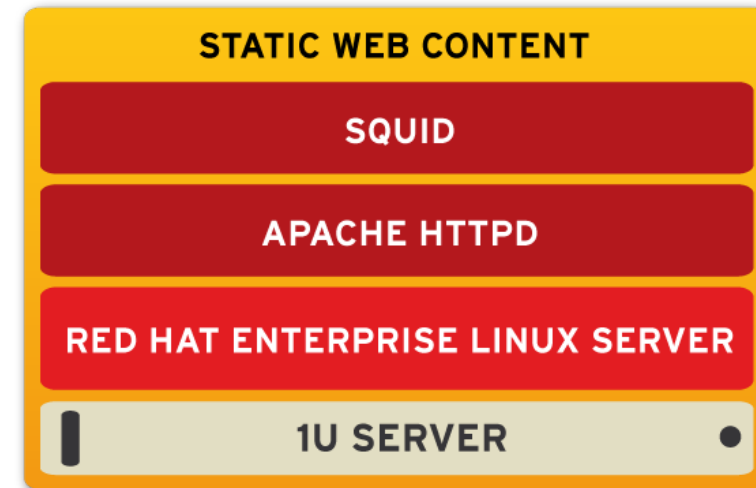
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# Presentation Tier: *Red Hat Enterprise Linux*

- How it Works:
  - Connected to NFS-based NAS
  - Squid, for rapid static content serving & pass-through of dynamic content
  - Apache HTTPD to preload Squid
  - SELinux & IP Tables
  - Rapidly deployed: RHEL image on 1U



# Application Tier:

## *Red Hat Enterprise Linux & JBoss EAP*

- Key Characteristics:
  - High performance
  - Multiple development languages
  - Multiple data sources
  - Robust & persistent logic
- Key Technologies:
  - Leading Spec<Java> benchmarks
  - J2EE compliant
  - Certified for 1000s of applications
  - Clustering & persistent caching

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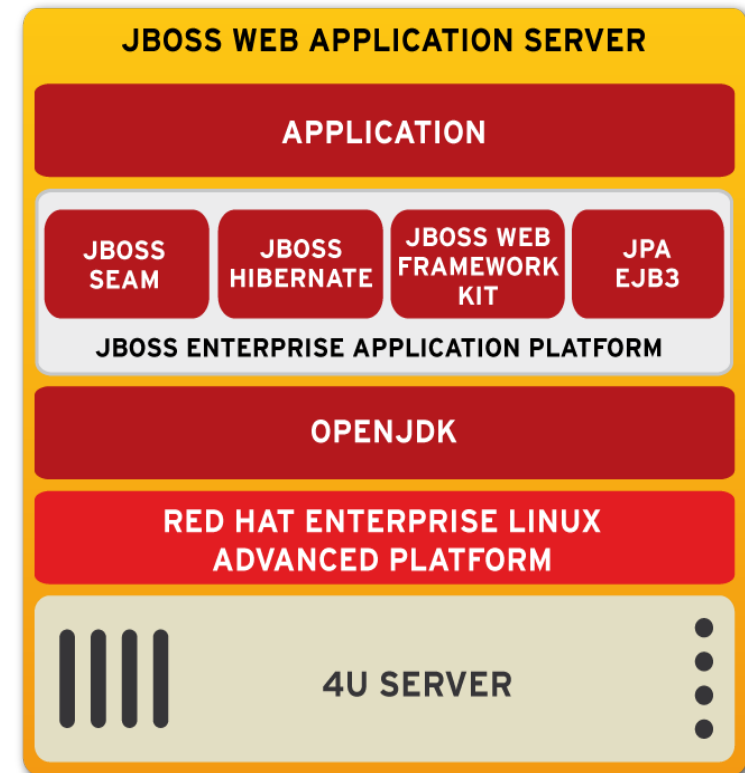
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# Application Tier: *Red Hat Enterprise Linux & JBoss EAP*

- How it works
  - Red Hat Enterprise Linux 5, Advanced Platform
  - JBoss EAP
  - JBoss Seam
    - Interface to AJAX, Portlets, BPM
  - JBoss Hibernate
    - SQL mapping, Persistence
  - OpenJDK



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# Data Tier:

## *Red Hat Enterprise Linux*

- Key Characteristics:
  - Robust & reliable
  - High performance
  - Choice of data sources
  - Scalable
- Key Technologies:
  - Storage clustering
  - Leading TPC benchmarks
  - Commercial, Open Source & non-SQL choices
  - Optimized for many core & large filesystems

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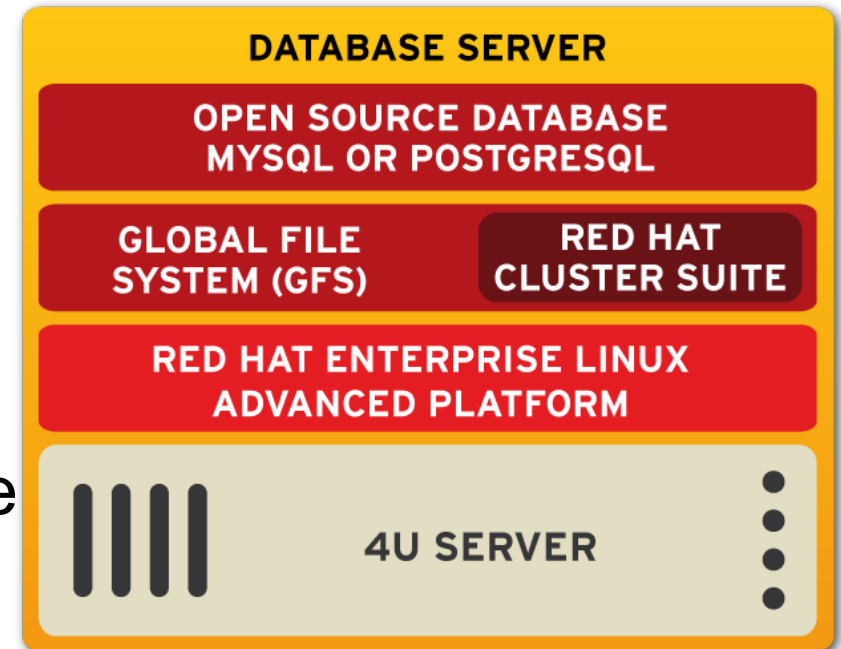
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# Data Tier:

## *Red Hat Enterprise Linux*

- How it works:
  - GFS & Cluster suite native in AP
  - 8 ExB file systems
  - Up to 200 nodes in a cluster
  - Active-Standby, with Hibernate balancing load
  - Device Mapper for cost savings, performance, & redundancy



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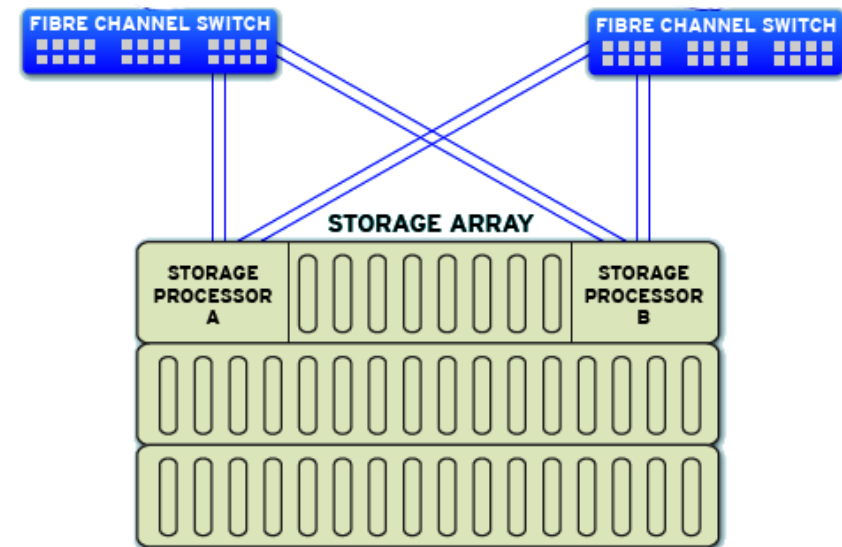
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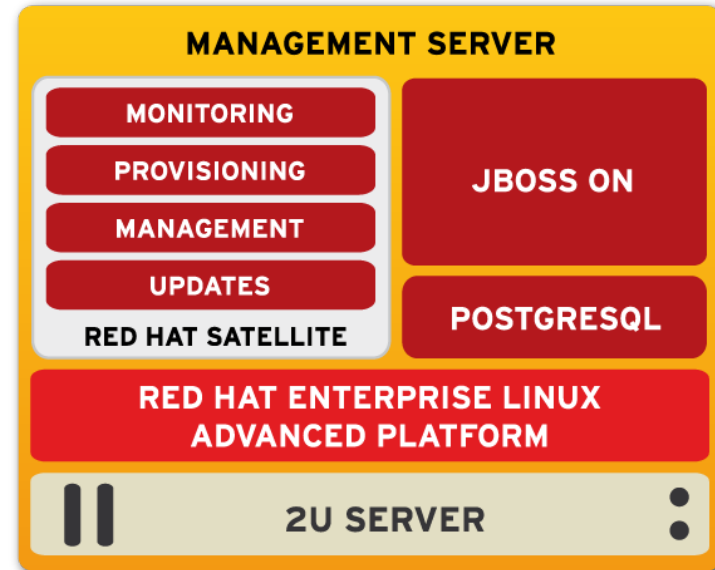


# Unified Storage Option: *Red Hat Enterprise Linux*

- How it works
  - iSCSI, a common option
  - Native RHEL tools, fully vendor certified
  - Linux Multipathing
  - 4Gbps throughput/Server
  - RAID 10
  - Single port HBAs
  - Global Server Load Balancing



# Managing Change: Red Hat Services, Satellite & JON



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# A Complete Picture

## Presentation

- Protected DMZ
- Rapid static content serving

## Business Logic

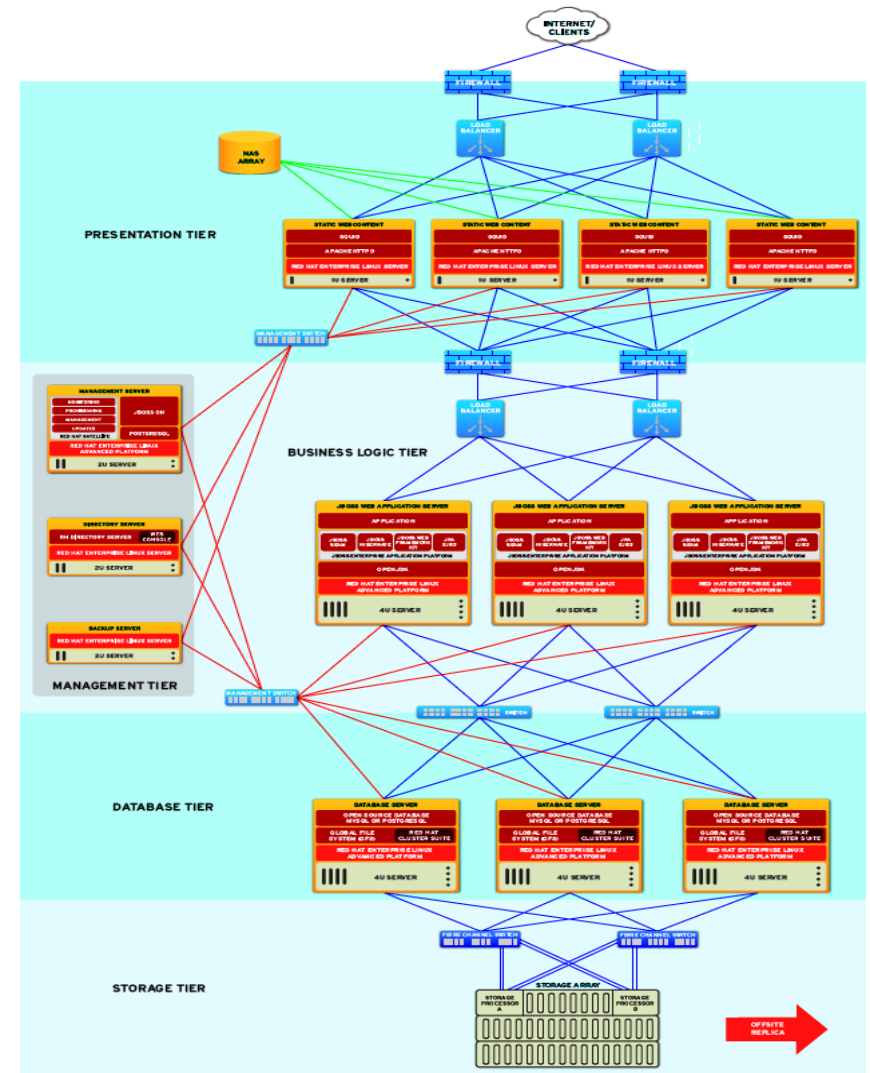
- Native integrated, JBoss & RHEL
- Scalable performance

## Database

- Low cost, resilience
- Native clustering

## Storage

- Vendor certified redundancy methods
- Off-site mirroring



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# Based upon real world best practices

“ Working with Red Hat and JBoss as a single company helps lower our costs and increases our uptime by providing a complete software stack, from the operating system through the application layer.”

–Ron Rose, CIO at  
Priceline.com

“ We are more than happy with JBoss Enterprise Application Platform. Our 60-strong development team is happy with the implementation and the operations teams understand it, laying strong foundations for the future.”

– Peter Hanlon, chief technical architect, Trader Media Group

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# Plan for the Future

- Leverage Red Hat Virtualization
  - Leading performance, scaling and certifications
- Migrate seamlessly to the Cloud
  - Certified Cloud Provider Program
- Manage the software development cycle
  - Integrate Cloud features for provisioning and consistent environment from development through staging to production
- Control SLAs
  - Cgroups in RHEL6

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# Red Hat delivers tools you can use

*Use Cases articulate the benefits of the Red Hat Stack*

- Use Case Sections
  - Business Case
  - Architectural Overview
  - Product Features
  - Customer References

*Reference Architectures support deployment*

- Web Tier
  - SPEC, LAMP
- Business Tier
  - SPEC, scaling, clustering
- Data Tier
  - Unix v. Windows v. RHEL

[www.redhat.com/usecase](http://www.redhat.com/usecase)

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[www.redhat.com/rhel/resource\\_center/reference\\_architecture.html](http://www.redhat.com/rhel/resource_center/reference_architecture.html)



# Questions?



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