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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



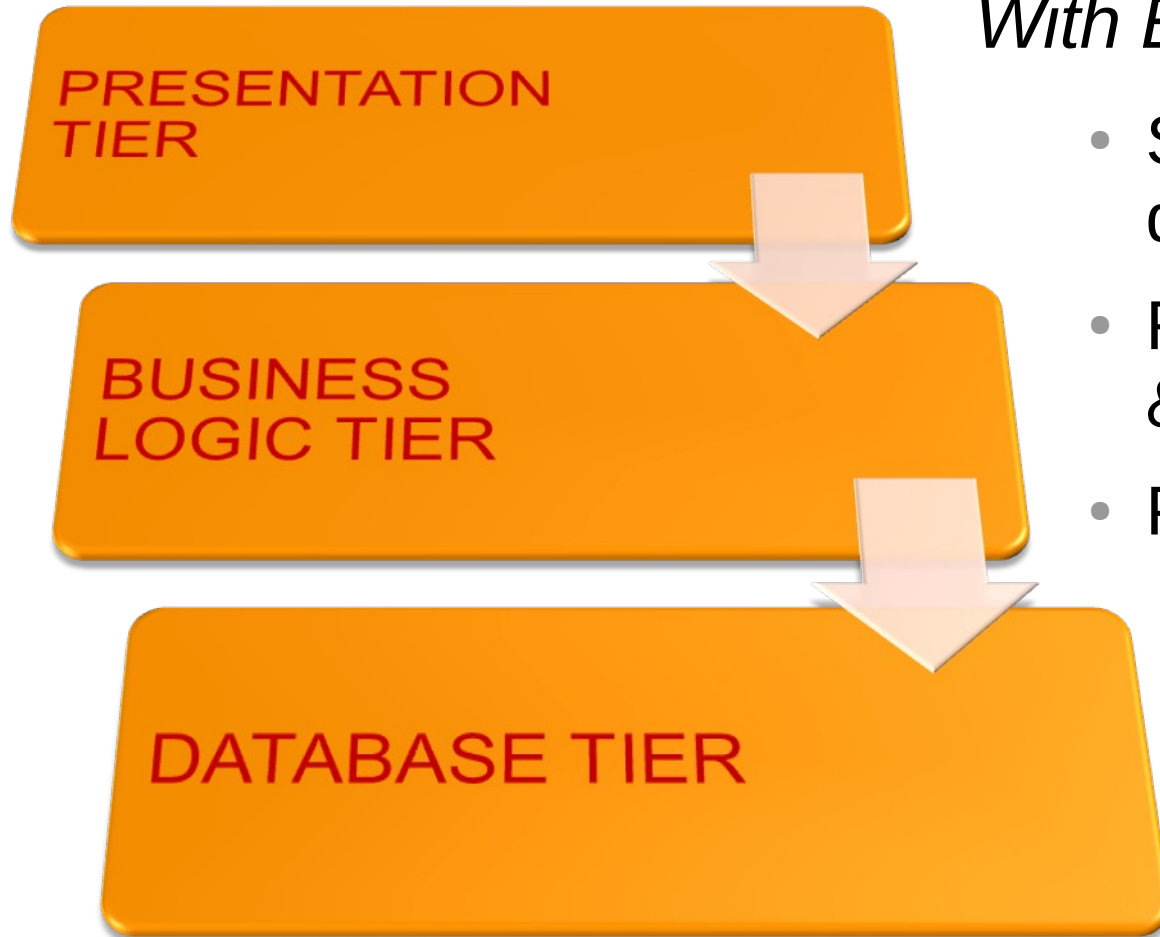
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Classic 3-Tier Web Site



With Enterprise Features

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

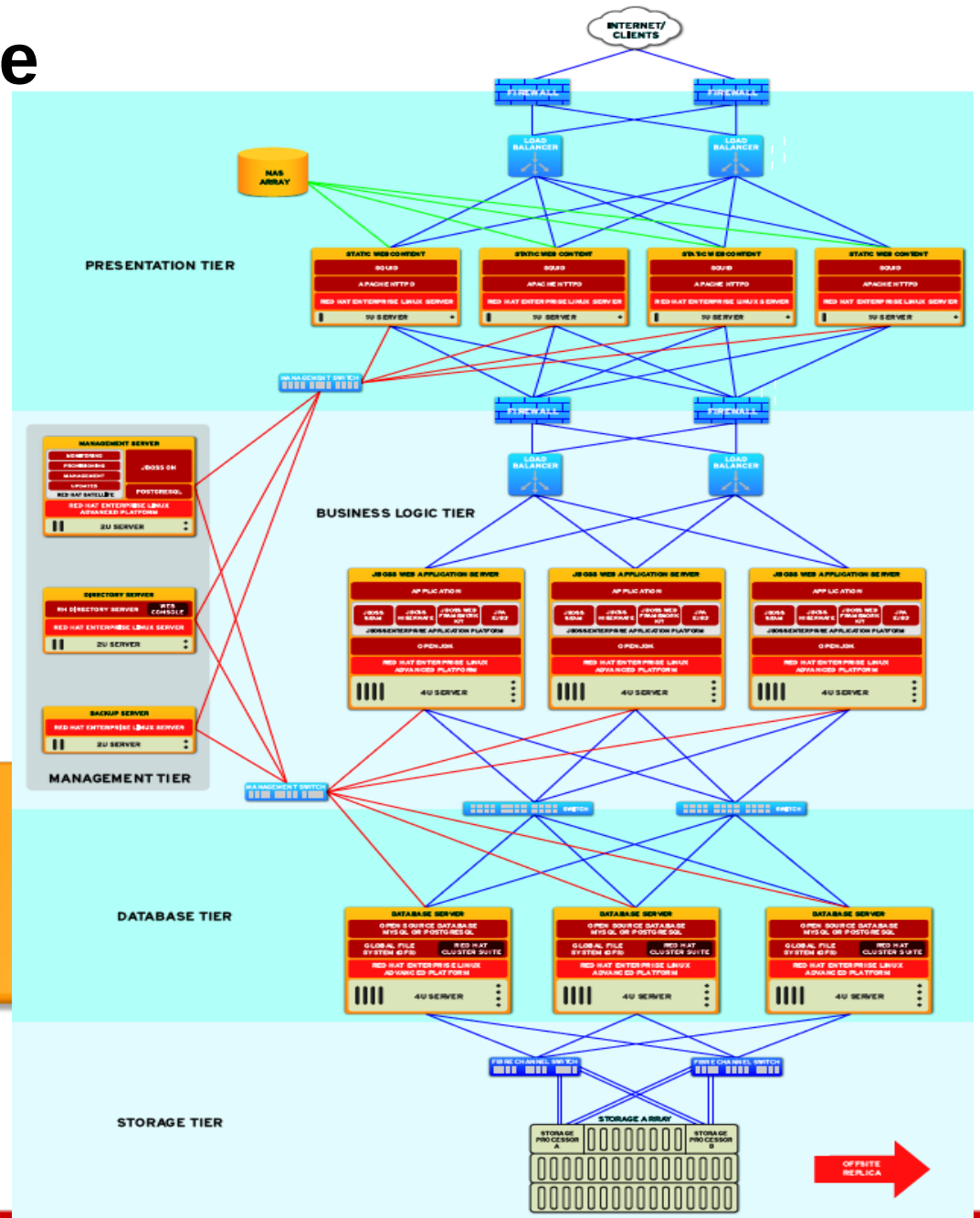
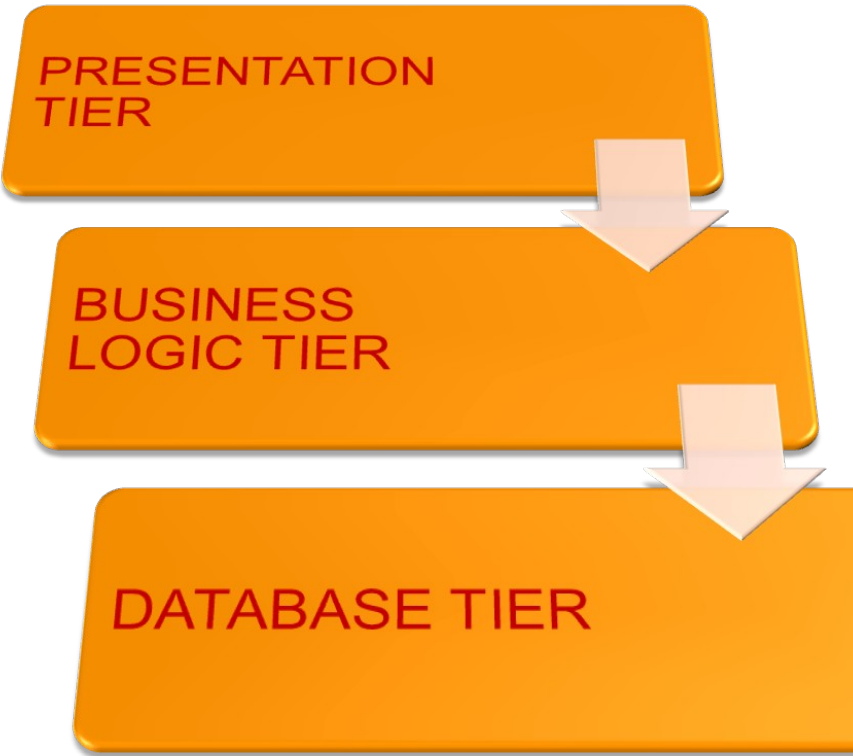
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Classic 3-Tier Web Site

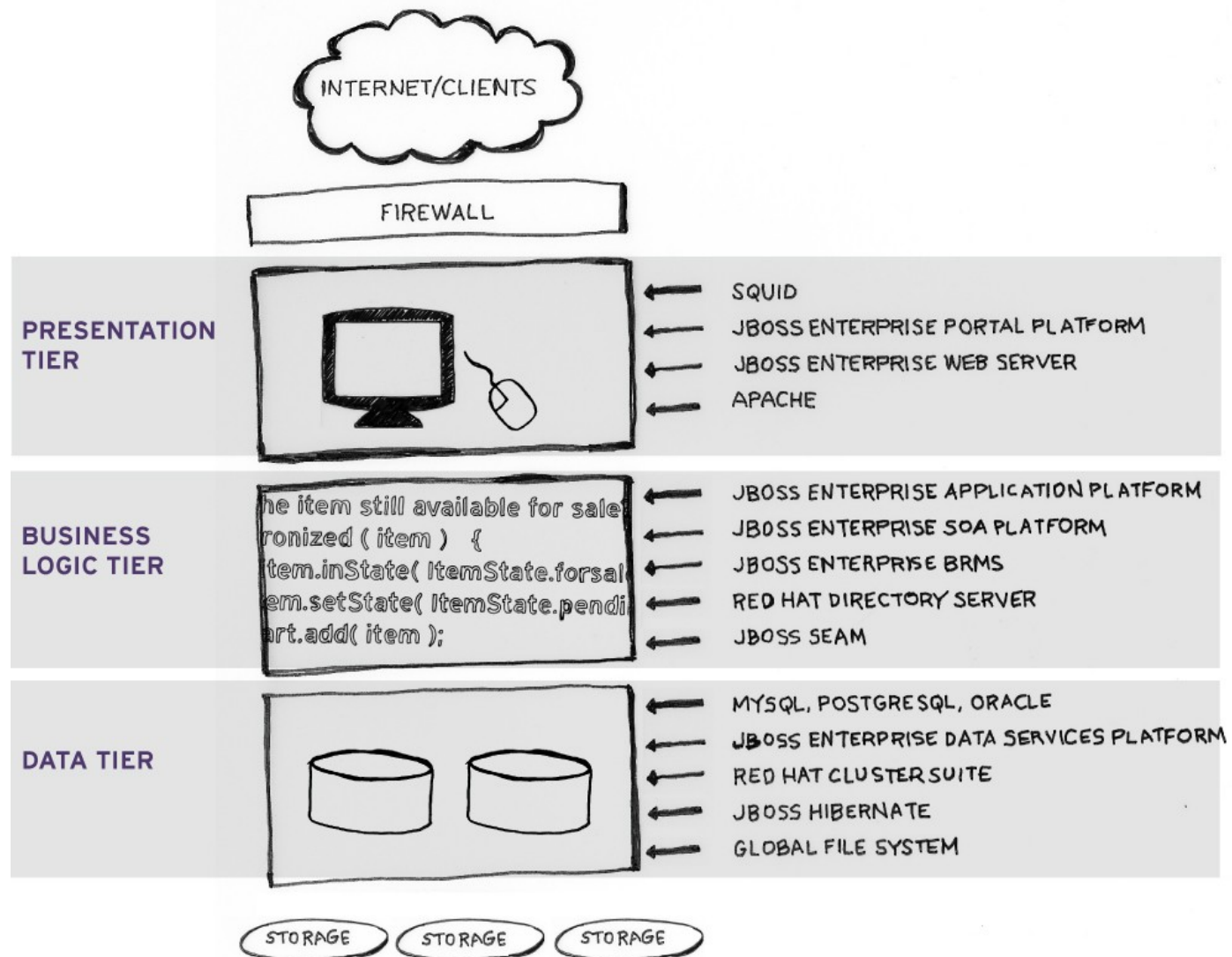


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Classic 3-Tier Web Site *Simplified*



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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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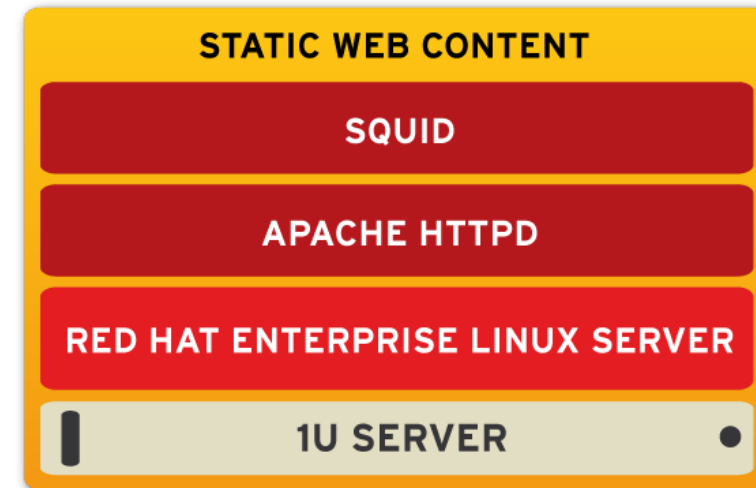
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Presentation Tier: *Red Hat Enterprise Linux*

- 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



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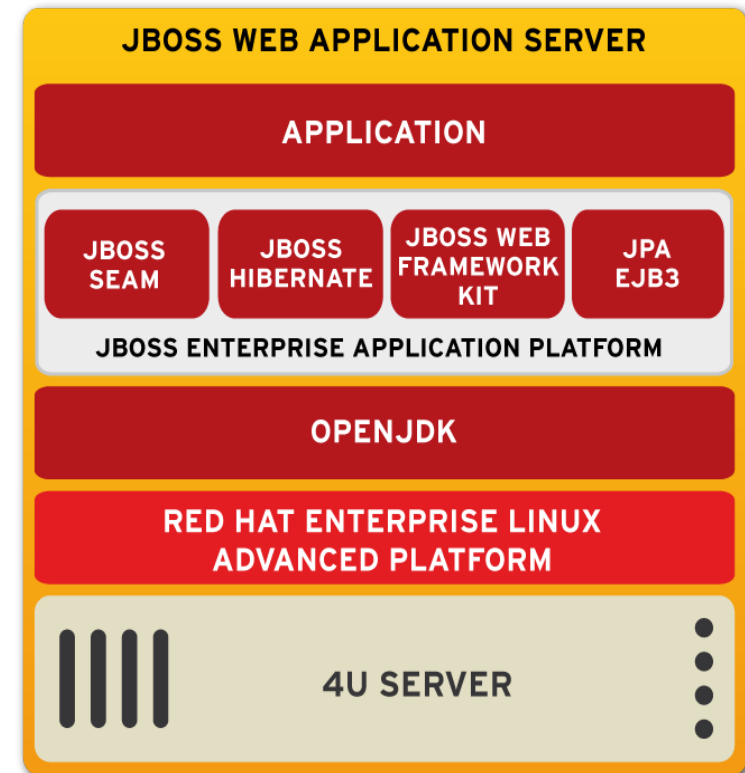
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Application Tier: *Red Hat Enterprise Linux & JBoss EAP*

- 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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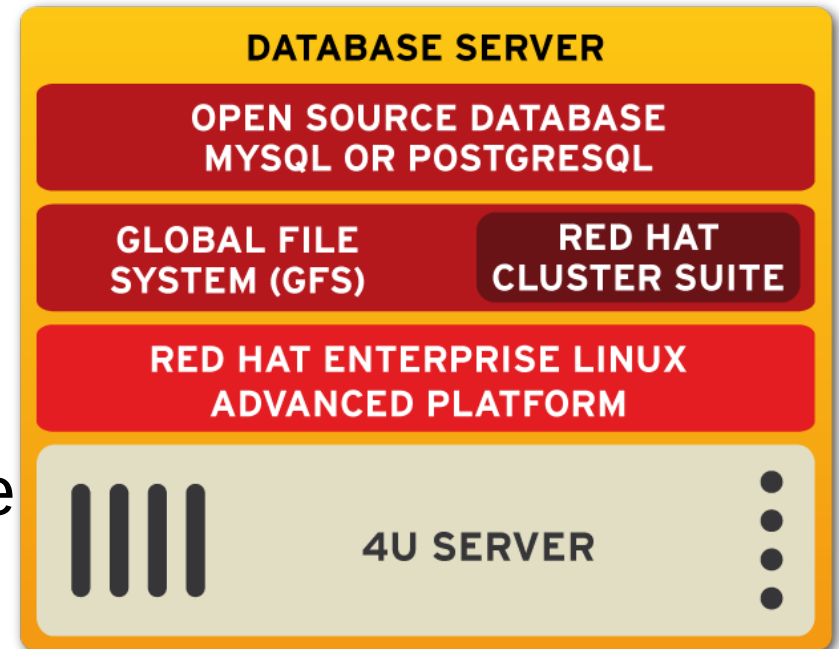
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Data Tier:

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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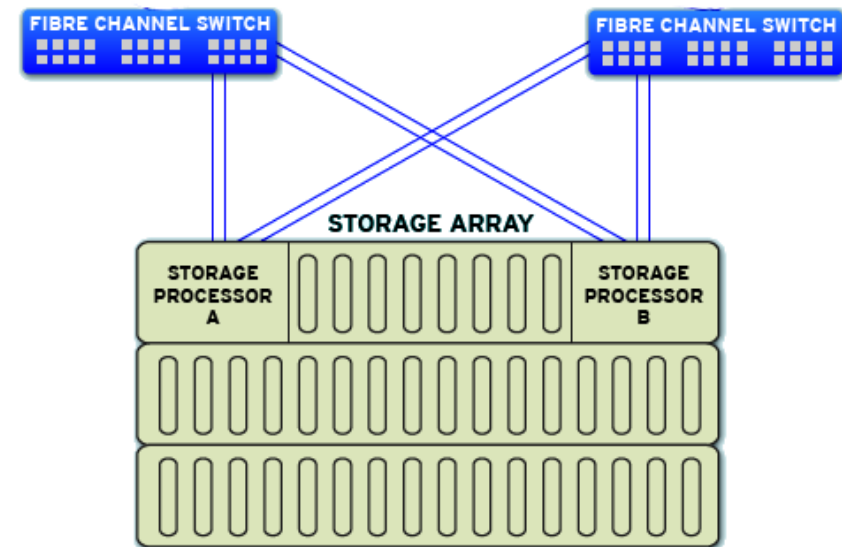
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Unified Storage Option: *Red Hat Enterprise Linux*

- 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



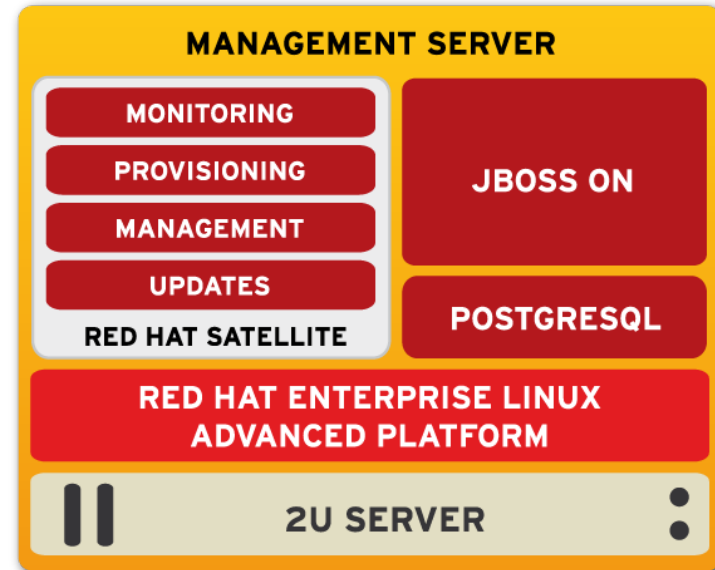
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Managing Change: Red Hat Services, Satellite & JON



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A Complete Picture

Presentation

- Protected DMZ
- Rapid static content serving

Business Logic

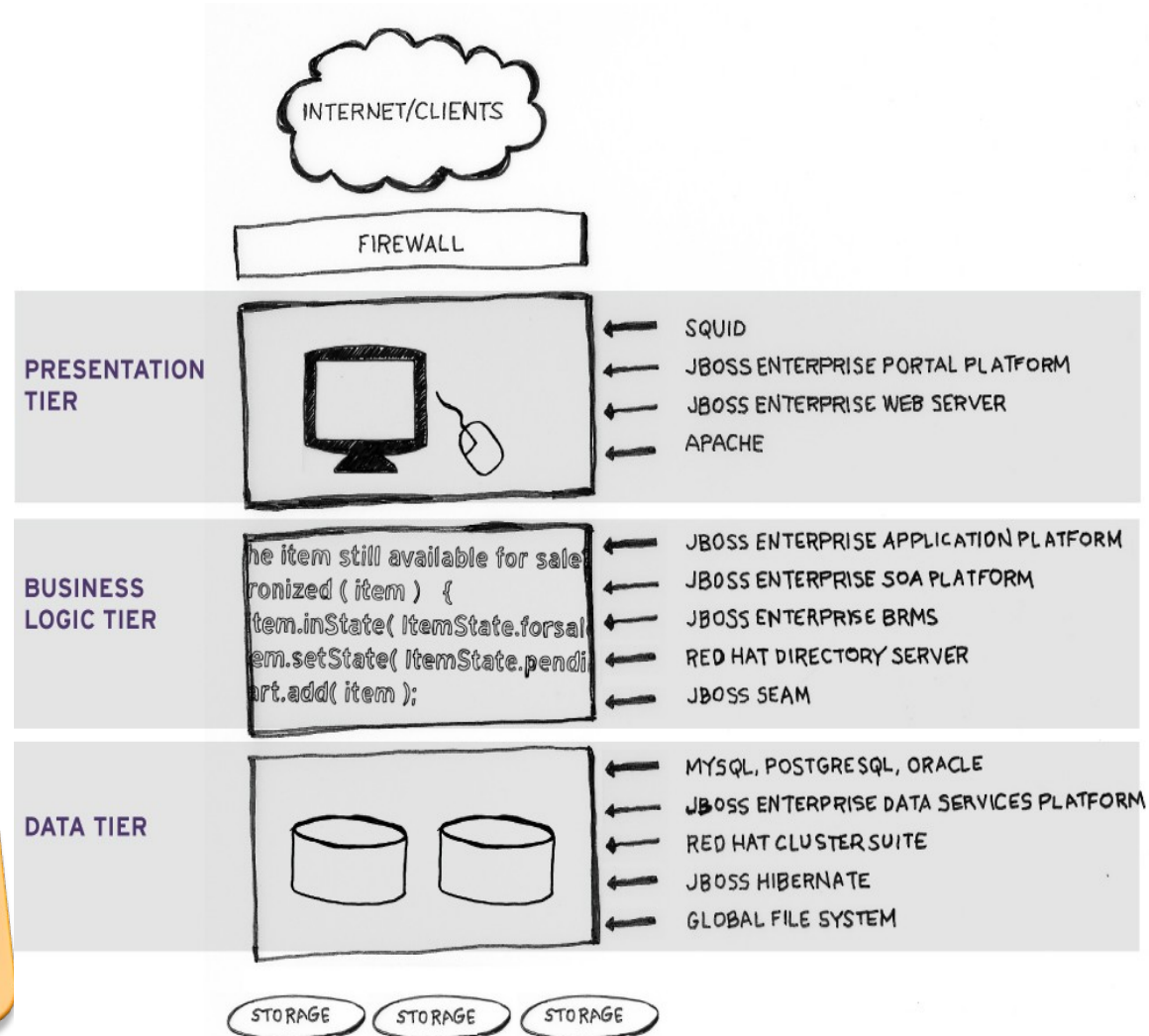
- Native integrated, JBoss & RHEL
- Scalable performance

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

www.redhat.com/usecase

Reference Architectures support deployment

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

www.redhat.com/rhel/resource_center/reference_architecture.html

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Questions?



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