



Designing a Licensing Model for Mission Critical, Compliant, Highly Available, Best Practice, IT Departments

Or, How to please your Customer
and make your Executives, Legal,
Marketing and Sales Happy, too

- Introduction
- Challenge
- Requirements, Landscape
- Example
- Solutions

Introduction

- Gary Albitz
- Hyperion Solutions
- Director, eLicensing
- First Year Sox
- 30-40-50 Rule

Hyperion Solutions Corporation is the global leader in **Business Performance Management** software.

With Hyperion you can collect, organize and analyze data—then **distribute** it throughout your **enterprise** using a rich, unified workspace that makes business performance management **easier** and more powerful than ever before.

→← Conflict

- Executives and Legal want:
 - Tighter controls over revenue and compliance
- Engineering, Sales and Marketing want:
 - Simplified product Definition and Release
 - Easier and Increased Strategic Sales
- Customers want:
 - Simplified Product Installation and Activation
 - Global Reach
 - Increased Availability, Reliability, and Maintainability
 - Decreased TCO

Does this match our target?

- Hang those Pirates high!
- Let's nail those non-compliant b.....!
- We're going to tighten the screws down!
- What if customer wants to cheat us?

- What in this mindset makes it easier to deploy enterprise-wide (Globally)?

Who are we talking about?

- Vertical Markets
 - High Tech, Software, Services
 - Health, Medical, Pharmaceuticals, Insurance
 - Industrial, Manufacturing, Transportation,
 - Retail, Consumer, Agriculture
- Fortune and Global 3000+
- Revenue Generating (++):
 - Banks and Financial Institutions
 - Telephone, Wireless, Internet, Utilities
- Our Customers and/or Target Customers/Markets

How to accomplish this – and please everyone?

- Design Licensing for an IT environment that is:
 - Mission Critical
 - Compliance-Oriented
 - Highly Available
 - Best Practice Oriented
 - Meets or Exceeds their internal requirements
 - Has Value for the Customer
 - Can stand up to Real time Rev Gen

What does this mean?

- Compliance, Best Practice =
 - Integrity, Audit, Report
 - Promotion to Production Process
 - Separation of Duty
- Highly Available =
 - 24x7, Failover
 - **No** Single Point of Failure
- Mission Critical =
 - Disaster Recovery
- Revenue Generating =
 - Every minute counts (e.g., AT&T, BofA, etc.)

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-
- If our target is a Compliance-oriented, Best Practice IT, these are self-regulating, non-issues
 - Let their auditors nail them and they'll come begging
 - Make our Licensing have a value!

Shift in Focus

- Focus on Piracy:
 - Assumption: Customers are bad and evil
 - Customer is your enemy, adversarial relationship
 - Potential target? (Typically: 1-5%)
- Focus on Value:
 - Target: 100%
 - Assumption: Customer's IT has a job to do
 - How to make it easier?
 - e.g., Microsoft's Certification has value to me

Where do we want to engage our customer?

Shift in Focus

- Customers demand a different conversation:
 - Requesting Licensing compliance review
 - Requiring pre-Sales review (New and Add-on)
 - Know their complete global deployment plan
- Before:
 - Activate each Contract
- After:
 - Configuration and License Pool
 - MV Op Manager and Globalware Legos

What are Current Environments?

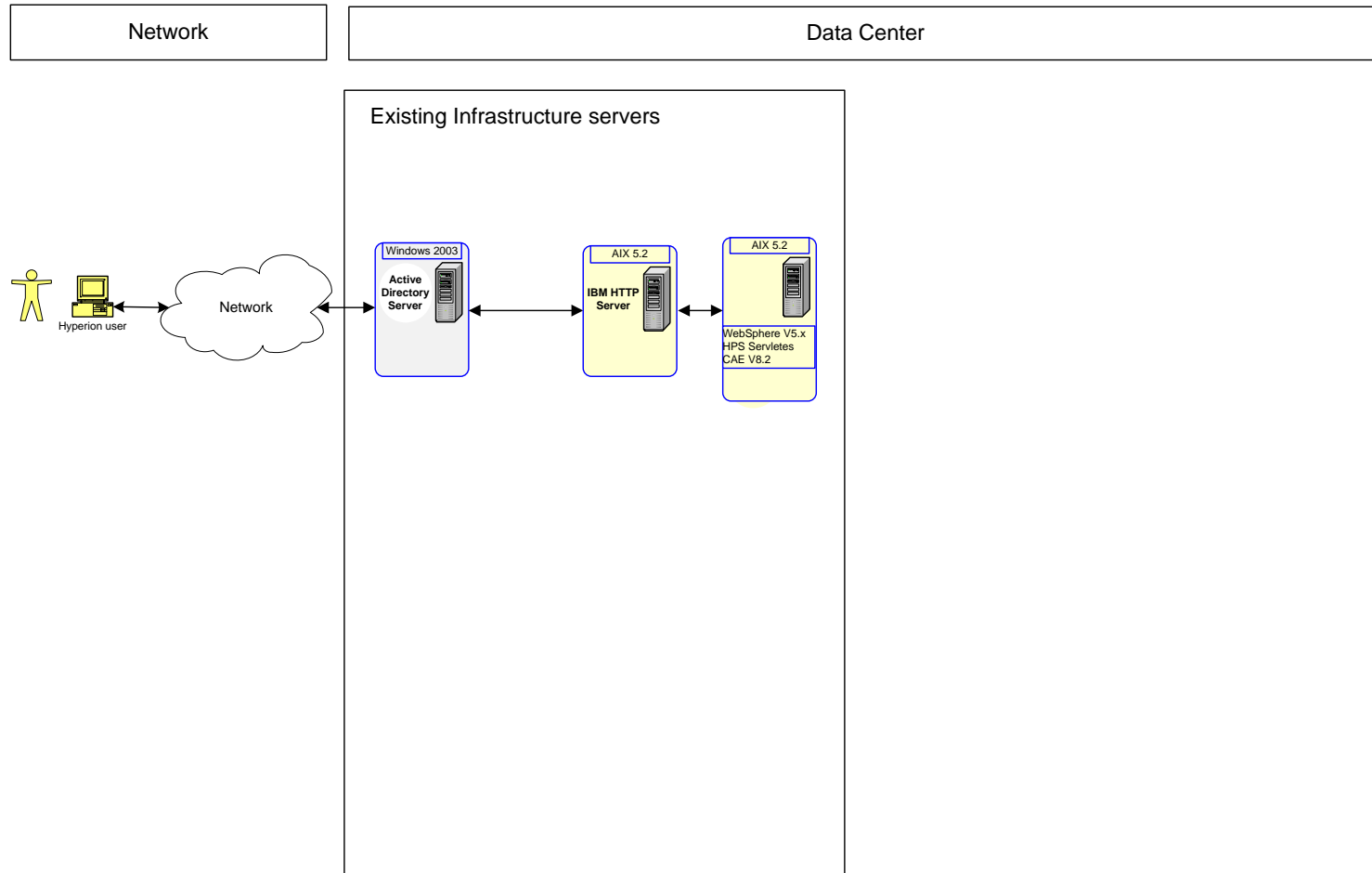
- Production (4+)
 - Primary (Single, Networked, Clustered, etc.)
 - Backup/Restore (Dynamic or Off-Site Media)
 - Failover (May not be Physically close)
 - Disaster Recovery (Physically Separate environment)
- Non-Production (9+)
 - Development, Sandbox, Unit Test
 - QA and User Acceptance Test (UAT),
 - Problem resolution (identification, replication, troubleshoot)
 - Staging, Pre-Production,
 - Compliance Copy (for on-demand Audits)

What are Current Requirements?

- Mission Critical Infrastructure
 - Logical Layers, N-tier (Client, Application, Data)
 - Physical Layers - Host, Network, Storage
- Double/Triple Redundant Systems
 - Cluster
 - Network Fabric
- Multiple, separate, brick-walled environments
- Firewalls, DMZ – Big impact on Activation
- Promotion to Production Process (SOX) (+ or -)

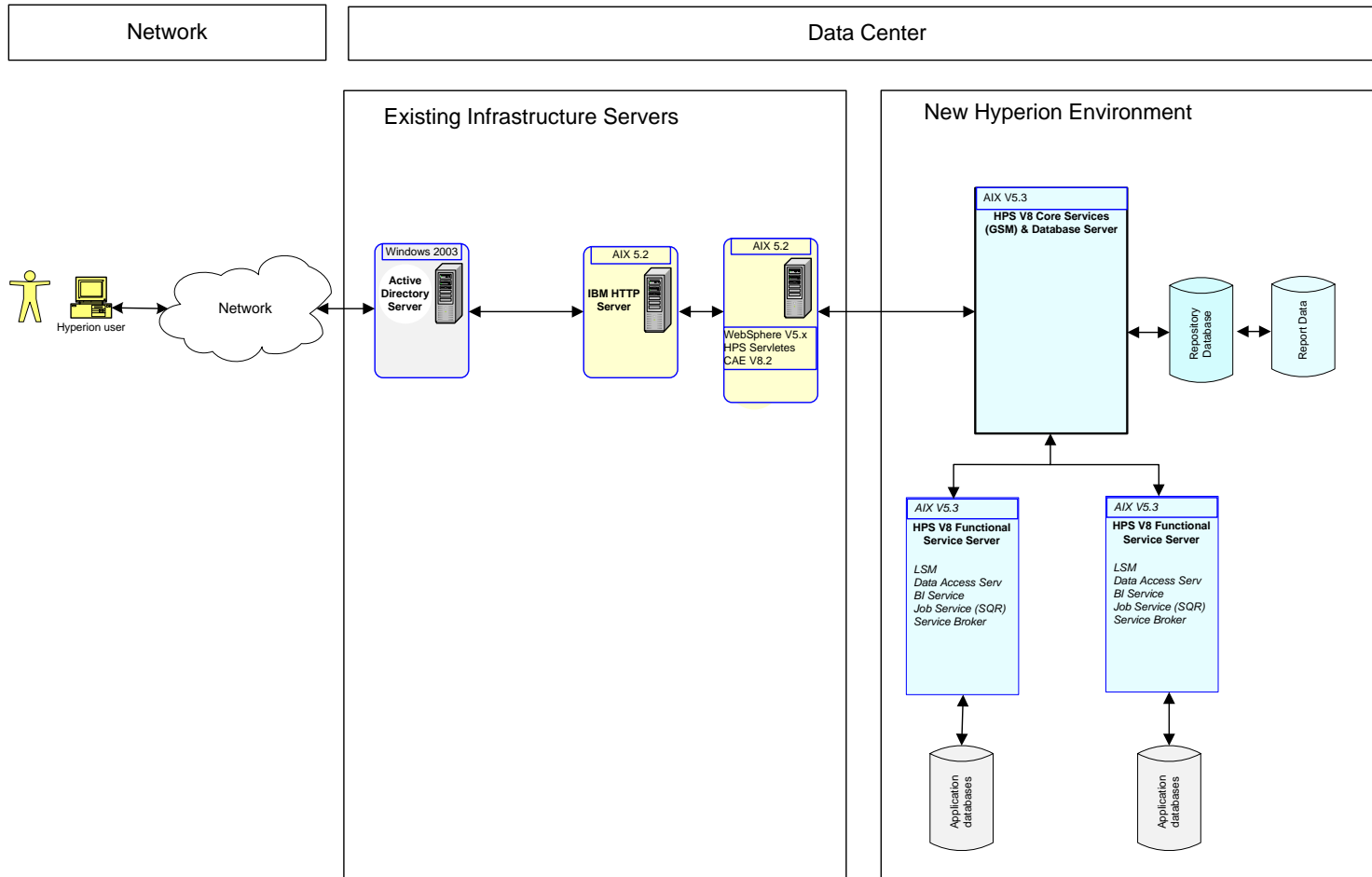
Before: Add Hyperion Products

Hyperion Performance Suite System Architecture



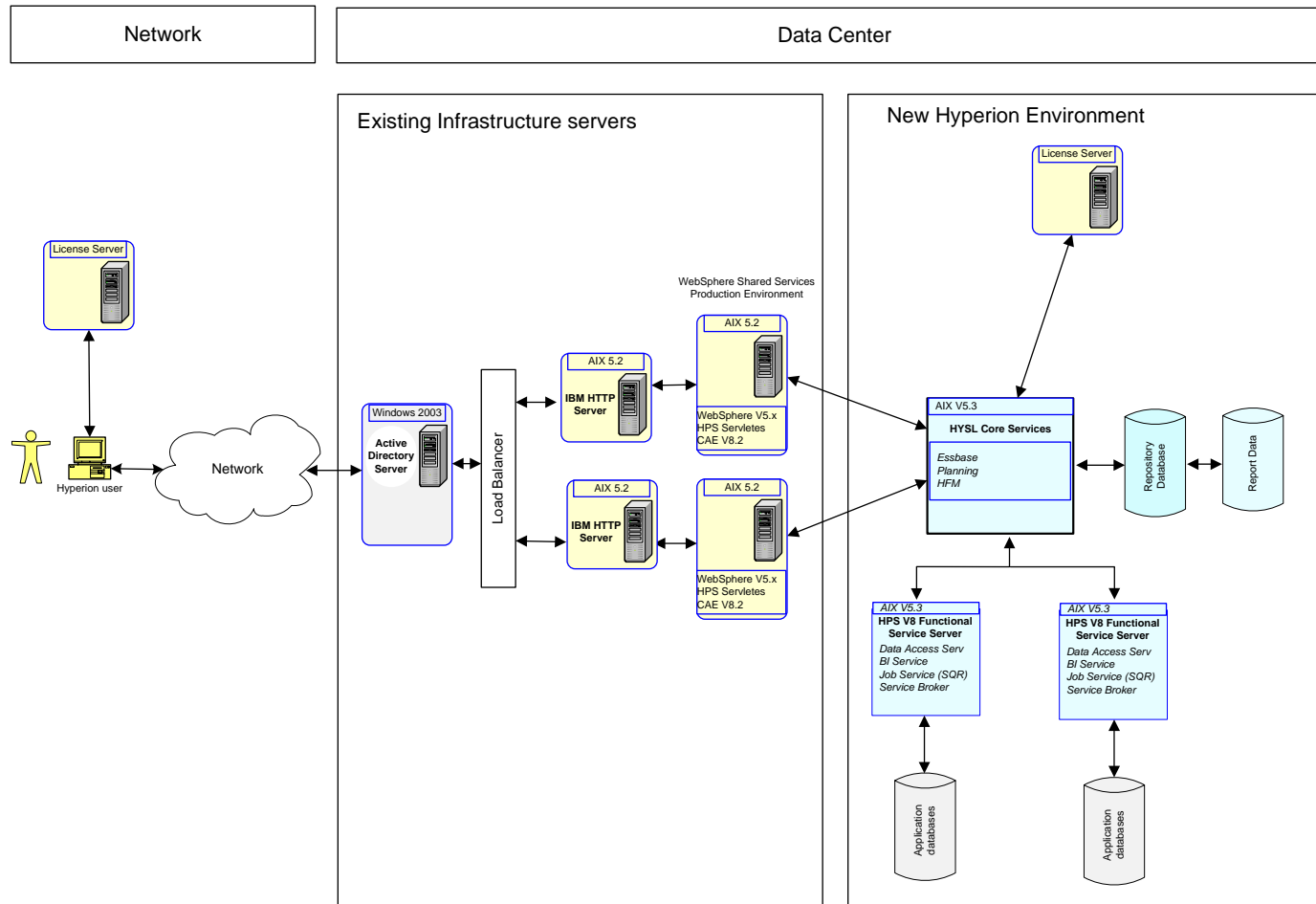
Before: Hyperion Sales View

Hyperion Performance Suite System Architecture



Hyperion Initial Deployment Plan

Hyperion Performance Suite Production System Architecture

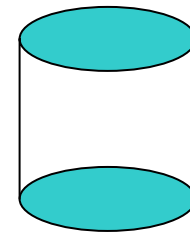


Trusted Communications



Socket: Requires 2 ends, 2 listeners

+

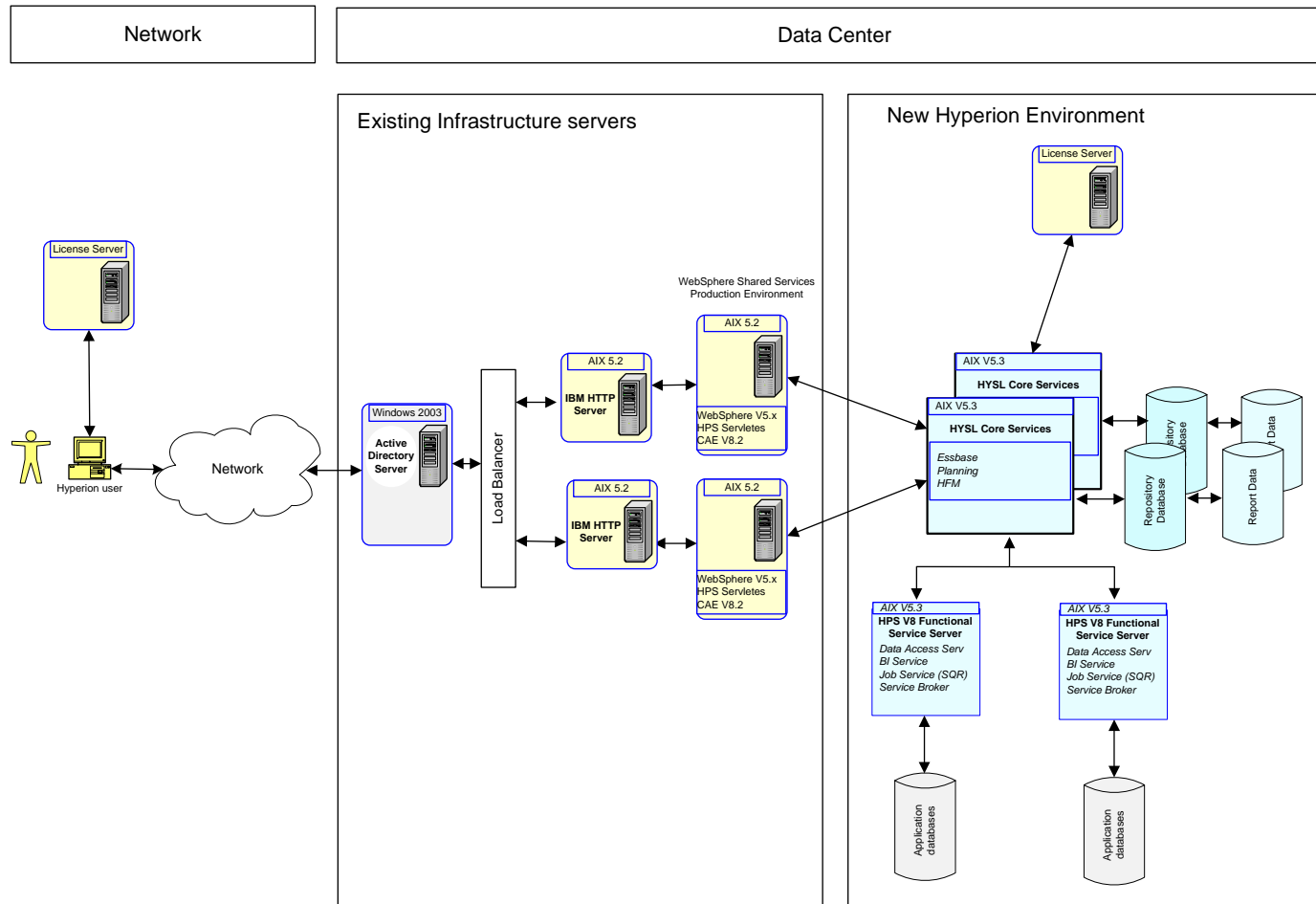


Trusted Storage

Can these be Virtualized?

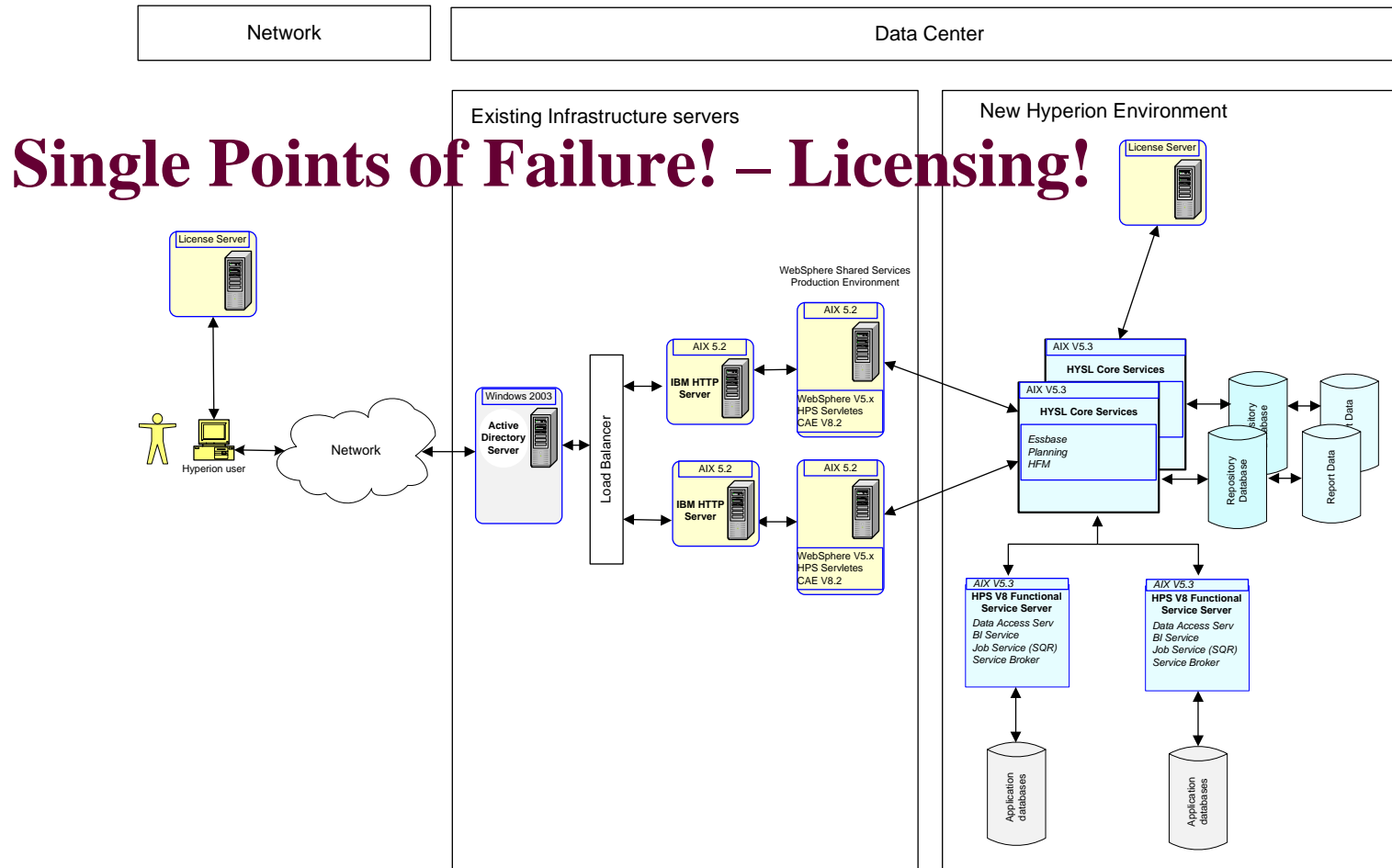
Highly Available, \$\$

Hyperion Performance Suite Production System Architecture



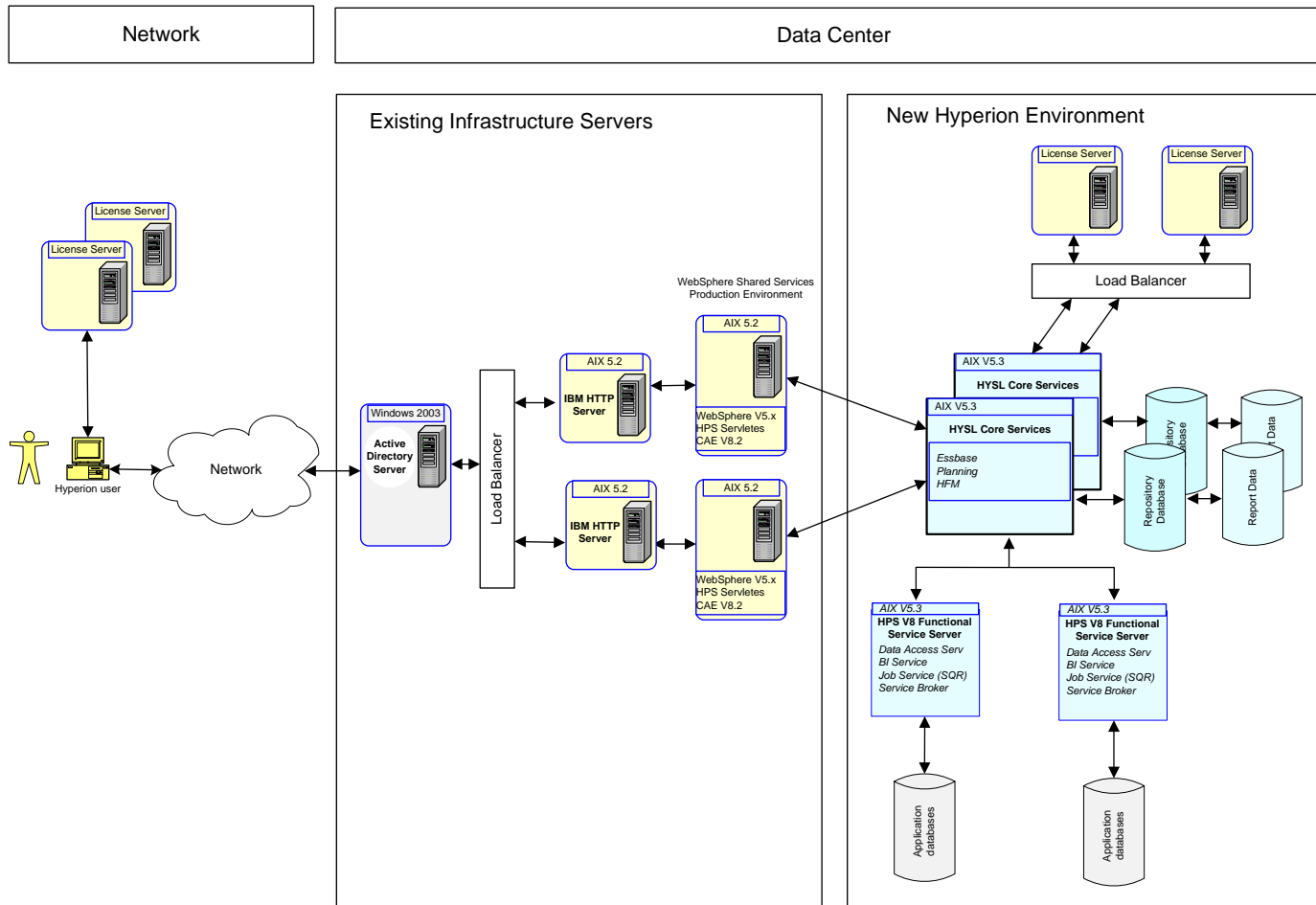
But what is the problem with this Picture?

Hyperion Performance Suite Production System Architecture



Highly Available, \$\$\$

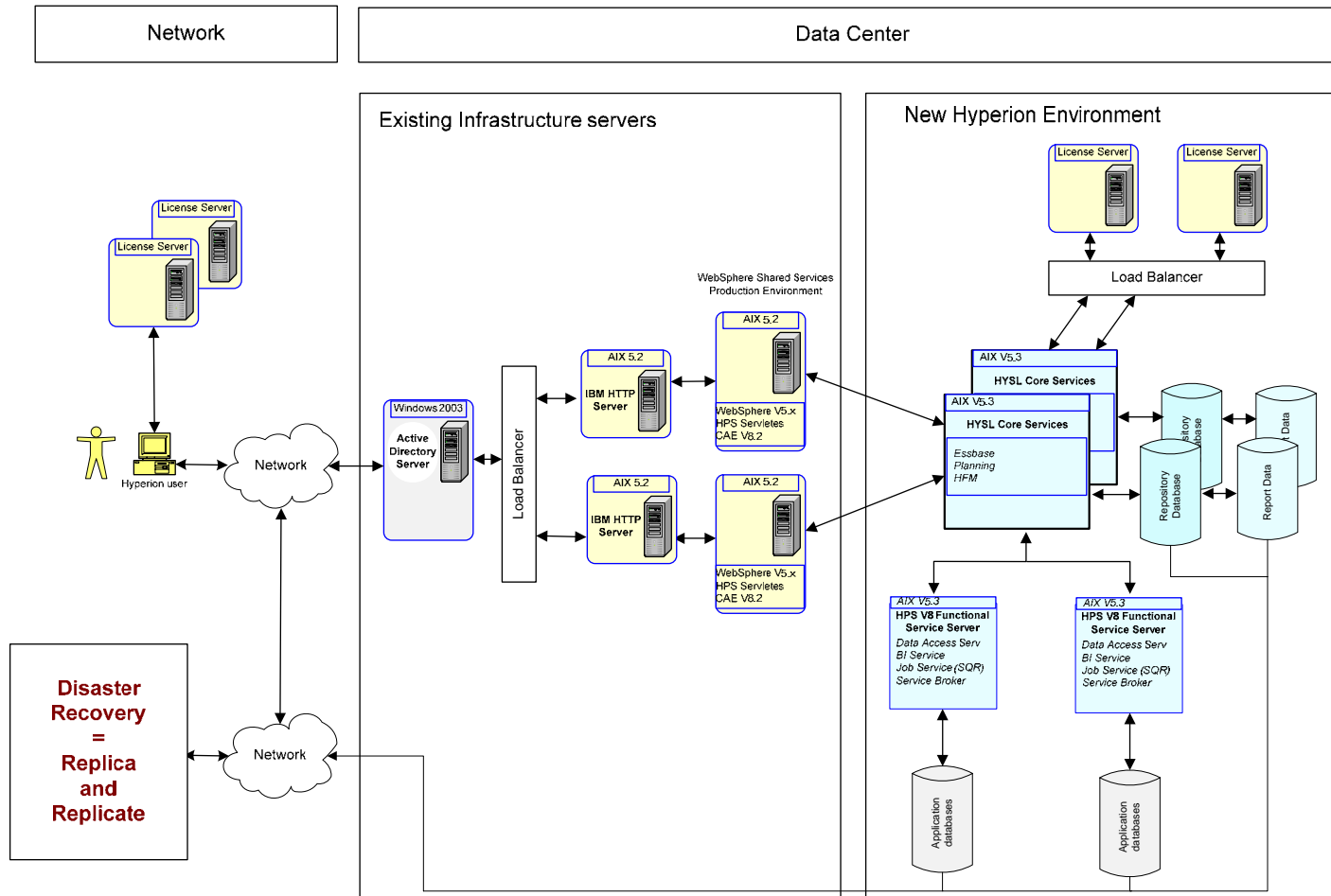
Hyperion Performance Suite Production System Architecture



Highly Available, Mission Critical (\$\$\$*)*2

8 LS → 32 Globally; \$250K+

Hyperion Performance Suite Production System Architecture



What are Future Requirements?

- Virtual
 - e.g., Vmware
 - SAN/NAS centric
- Compliance
 - Reporting
 - Compliance Certification
- Utility

Do we have enough License Types?

- Production Environment
 - Active, Processing Production Data, Users
 - Redundant Servers
 - Tiers: Allow enough to do job
 - Automatic failover
 - Can our licensing work with this?
 - In the case of a failure,
 - Application, Data, and License need to failover
 - Check-Out/In Status needs to persist
 - In the case of a Disaster
 - An exact replica – except host names and MAC addresses
 - A DR license adds value

Do we have the Right Licenses?

- Non-Production Environment
 - Develop
 - Current and Future
 - Test
 - Average # Users < 400
 - Functional (80%)
 - Load (100%)
 - Stress (125%)
 - Marketing Defined
 - 10 Instances
 - 500 Users
 - Tiers

Compliance

- Sox Auditors can demand bi-lateral proof
 - **From** Installed Product/License to Vendor's Order Entry and Contract
 - **From** Vendor's Contract to Your Installed Product and License
- Is your Licensing fully auditable?
 - Audit trail
 - Contract, Order, Fulfillment, Register/Activate, SW, License
 - Demonstrate Separation of Duty
 - Reports Internal and for Customer
- Typically, the designed Audit trail is only One Way:
 - Vendor to Customer

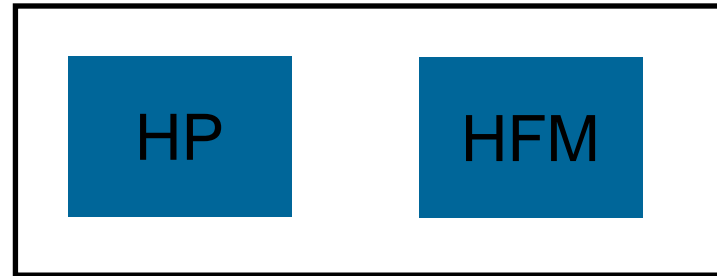
Available Solutions

- Simple Load Balancing
 - Spread the entitlements to multiple License Servers (4 out 14 MV vendors – 2X)
- Simple Redundancy (Active-Passive)
 - Off-line replacement (parts or System)
- Simple Clustering
 - Floating license with License Server out-board
- 3 License Server Configuration
 - Siamese Twins – 3*MTBF
 - SPF

Highly Available Solutions

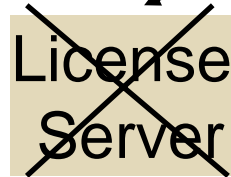
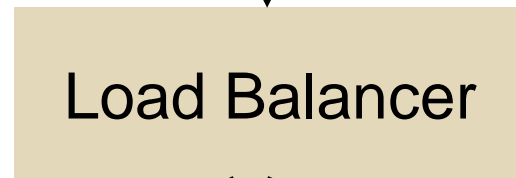
- Failover
 - Sophisticated Load Balancing
 - BigIP and 3DNS allow for a binary Load Balance
 - BigIP emulates the IP communications
- Sophisticated Redundancy (Active-Active)
 - On-line
- Sophisticated Clustering
 - Application and/or License Server Hot Failover
 - License Check Out persistence (!)

Hot Standby Deployment

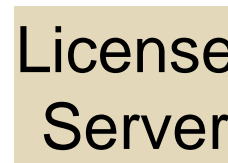


scripts to update
DNS table,
routers with IP
failover capability

Check Out is not Preserved!



Primary



Hot Standby

Mission Critical Solutions

- Shadow License File (s)
 - A copy/replica of a Primary LF
 - For a secondary Environment (Failover, DR)
 - Only one Environment can be Active at a time
 - Active = Processing Production Data!
 - Be nice, allow to set up and test DR
- Plenty of opportunity to cheat
 - Not if they intend to be Sox Compliant
 - Not if they intend to keep their jobs

Best Practice Solutions

- Hardware Refresh
 - What happens if they replace all of their Hardware?
 - Know their License History
 - Know their Entitlement Configuration
 - Can they Refresh their licenses easily? (T 27, 9, 18)
- Merger/Acquisition
 - What if they buy a company that is a customer?
 - What if you buy another company?
 - MV Licensing
 - Some other Licensing Scheme (VCG)?



Thank You!



QA?

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