

Mythbusters

Debunking common server farm misconceptions

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About the speaker...

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Enterprise Architect working with some of Microsoft's largest customers deploying Office SharePoint Server 2007
15 years in Enterprise IT
ISPA Board Member

Agenda

- ▶ Common SharePoint Myths
 - ▶ Farm Topologies
 - ▶ Shared Service Providers
 - ▶ Global Deployments
 - ▶ High Availability
- ▶ SharePoint “Magic Numbers”
- ▶ Interactive session

Farm Topologies

Farm Topologies (Roles)

- ▶ “Web Front End” (WFE)
 - ▶ Terminology hangover from previous version
 - ▶ WSS Web Application Service
- ▶ Functional Decomposition of:
 - ▶ Search Index & Search Query
 - ▶ Excel Services
 - ▶ InfoPath Forms Services
 - ▶ Document Conversions
 - ▶ Content Deployment Export/Import

Farm Topologies

demo

Farm Topologies

▶ “No Topology Restrictions”

- ▶ No enforced restrictions
- ▶ Plenty of real world restrictions, for example
 - ▶ Number of “WFE”s
 - ▶ Number of Web Applications
 - ▶ Topology Models remain appropriate

▶ “Load balancing” of:

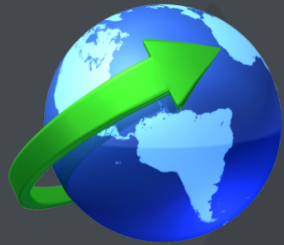
- ▶ Search Query Servers
- ▶ Excel Calculation Services

Shared Services

Shared Service Providers (SSPs)

- ▶ “SSPs are implemented as Web Applications”
 - ▶ Many elements make up a SSP
 - ▶ Web Application is for administration only
- ▶ “SSP Admin can be provisioned on dedicated servers”
 - ▶ It’s a Web Application!
 - ▶ Therefore deployed to every “WFE”

Shared Service Providers (SSPs)



Office Server
Web Services (IIS)



SSP DB



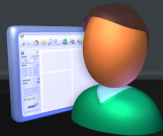
SSP Search DB



SharedServices1 (Web App)



Content DB



My Site Host (Web App)



Search Index

Shared Service Providers demo

Shared Service Providers (SSPs)

- ▶ “It’s OK to run SSP Admin on a high port”
 - ▶ Not if you want to delegate control
 - ▶ “renaming” later is non trivial
 - ▶ Besides, high ports are evil!
- ▶ “The SSP database will only ever be small”
 - ▶ It stores your user profiles
 - ▶ It stores your audiences
 - ▶ Etc

Global Deployments and High Availability

Global Deployments

- ▶ “SharePoint can’t do geo-distribution”
 - ▶ Plenty of options
 - ▶ Consider carefully why you may need them
 - ▶ SharePoint Online
- ▶ “SharePoint doesn’t work over the WAN”
 - ▶ A slow WAN link problem is a slow WAN link problem!
 - ▶ Not a SharePoint problem

High Availability

- ▶ “Web Gardens give you better performance”
 - ▶ Don’t use them (yet!)
- ▶ “A single Farm can host 100s of Web Applications”
 - ▶ ~10 Web Applications per Farm is reasonable
 - ▶ SharePoint loves RAM
 - ▶ Request Routing or DNS increases operational service burden considerably

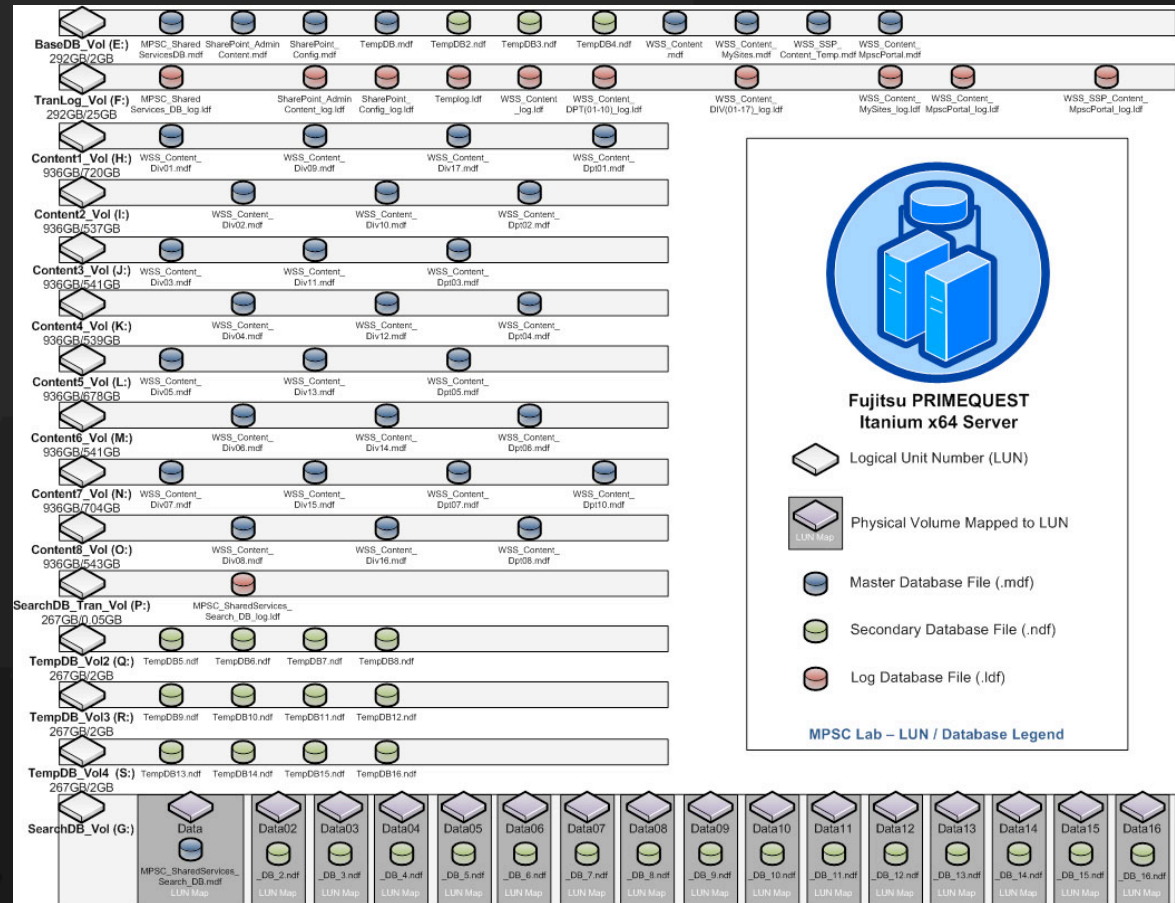
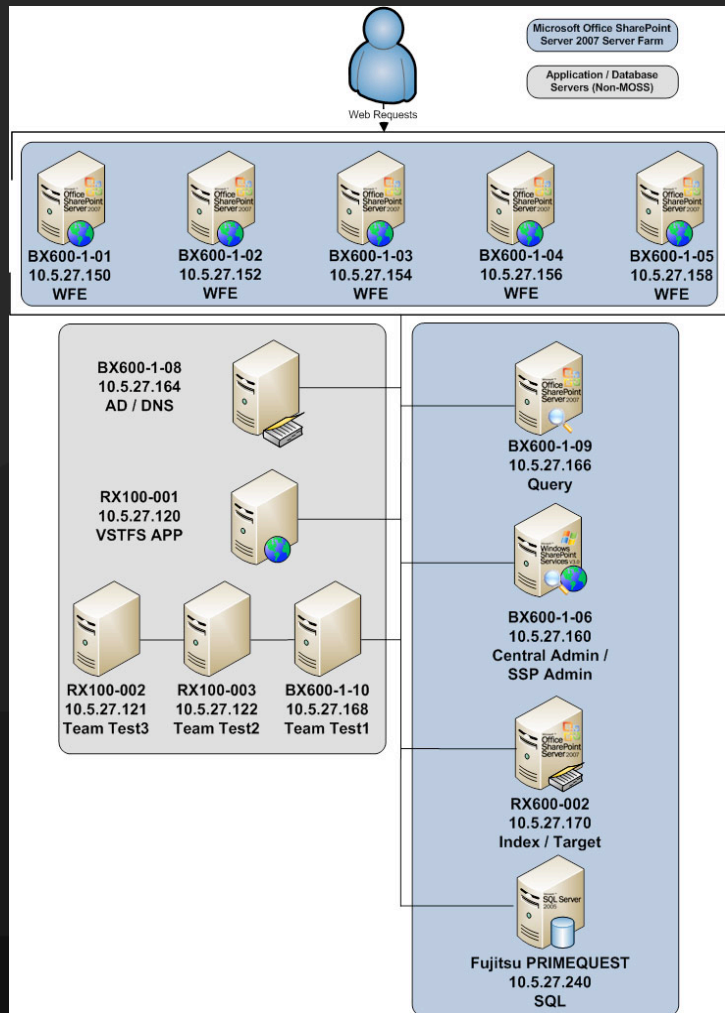
High Availability

- ▶ “Web Apps can be deployed to specific servers in a Farm”
 - ▶ Request Routing or DNS increases operational service burden considerably
 - ▶ There is nothing wrong with multiple farms

“SharePoint can’t scale”

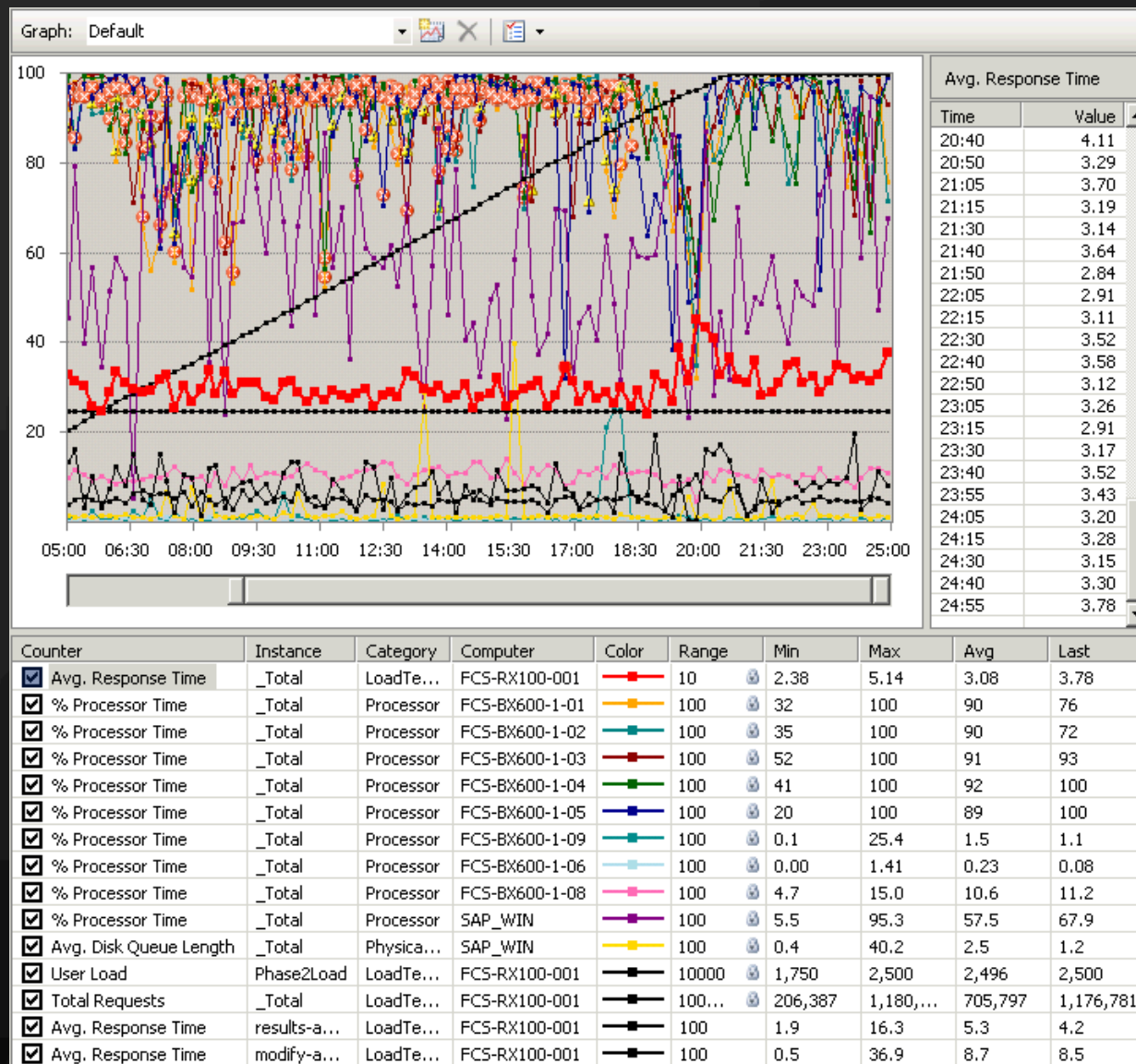
- ▶ average daily load throughput of:
 - ▶ ~5 million TIFF images
 - ▶ ~1.9 million Microsoft Office documents.
- ▶ 40+ million content items were loaded into SharePoint in only 13 days
- ▶ Average content database size of:
 - ▶ 200.65 GB for Divisional Site Collections
 - ▶ 137.60 GB for departmental site collections
 - ▶ 539 GB for the search database
- ▶ Over 5TB content storage with capacity for double

"SharePoint can't scale"



“SharePoint can’t scale”

▶ Don't believe the hype!



technet.microsoft.com/en-us/library/cc262067.aspx

SharePoint

“Magic Numbers”

SharePoint "Magic Numbers"

- ▶ “How many XXXX can I have in my SharePoint?”
- ▶ Plan for Software Boundaries (TechNet)
 - ▶ technet.microsoft.com/en-us/library/cc262787.aspx

There are NO magic numbers!

- ▶ There are only **guidelines** for acceptable performance
- ▶ Such guidelines are based upon test scenarios
 - ▶ 1 thru 1 Database Server
 - ▶ 1 thru 8 Web Servers
 - ▶ Team Sites (55%), Doc Workspace (20%), Meeting Workspace (10%), Blog (10%), Wiki (5%)
 - ▶ Other scenarios coming soon
 - ▶ Often refined based on customer deployments

Example "Magic Numbers"

Site object	Guidelines for acceptable performance	Scope of impact when performance degrades
Site collection	50,000 per content database	Farm
Site collection	150,000 per Web application	Farm
Web site	250,000 per site collection	Site collection
Subsite	2,000 per Web site	Site view
Document	5 million per library	Library
Item	2,000 per view	List view
Document file size	50MB (2GB max*)	Library, file save performance
List	2,000 per Web site	List view
Field type	256 per list	List view
Column	2,000 per document library 4,096 per list	Library and list view
Web Part	50 per page	Page
Managed path	20 per Web application	Web application

Logical Architecture "Magic Numbers"

Logical architecture object	Guidelines for acceptable performance
Shared Services Provider (SSP)	3 per farm (20 per farm maximum)
Zone	5* per farm
Web application	99 per SSP
Internet Information Services (IIS) application pool	8 per Web server
Site collection	50,000 per Web application
Content database	100 per Web application
Site collection	50,000 per database

There are NO magic numbers!

- ▶ Successful Solutions Architecture is basically two things:
 - ▶ Compromise
 - ▶ Reduction of Complexity
- ▶ Evaluate solution holistically ensuring adequate compromises.
- ▶ Test and monitor as you build and deploy your solution.
- ▶ Re-design the solution to ensure that you do not exceed capacity guidelines.
- ▶ **Test, test, test!**

Q & A

Thanks for listening!
Food shortly...