

# What's new in SharePoint 2010 for IT Pros

DEV111

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# About the Speakers

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- Microsoft Certified Master | SharePoint 2007
- Microsoft Certified Master | SharePoint Instructor & Author



# Agenda

- ▶ “Top 10” New features for IT Pros
  - Brief Coverage
- ▶ An appetiser for the IT Pro Track
  - To help you pick your Sessions
- ▶ Zero Demos!
- ▶ Primer for IT102:  
The SharePoint 2010 Architecture and Service applications model for IT Pros
  - Immediately after this session

# SHAREPOINT 2010

# SharePoint Server 2010

- ▶ Brand new architecture
- ▶ Delivers enterprise readiness
- ▶ Topologies to suit your organizational needs
- ▶ Scales further than ever before
- ▶ Flexible deployment models

**IT102, Monday 11am**

▶ In no particular order...

# **THE TOP 10**

10

**SANDBOX SOLUTIONS**

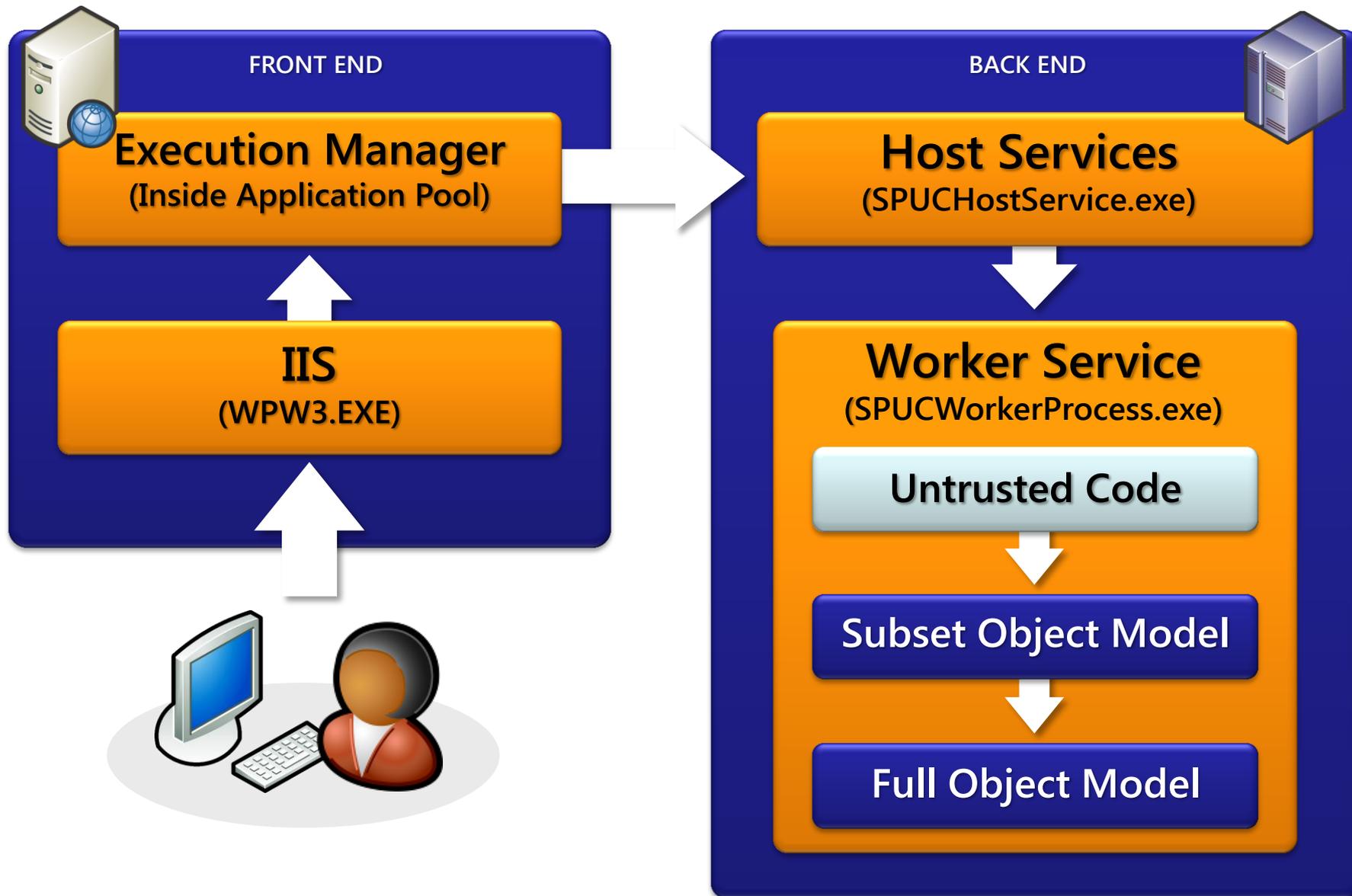
# Overview of the Sandbox



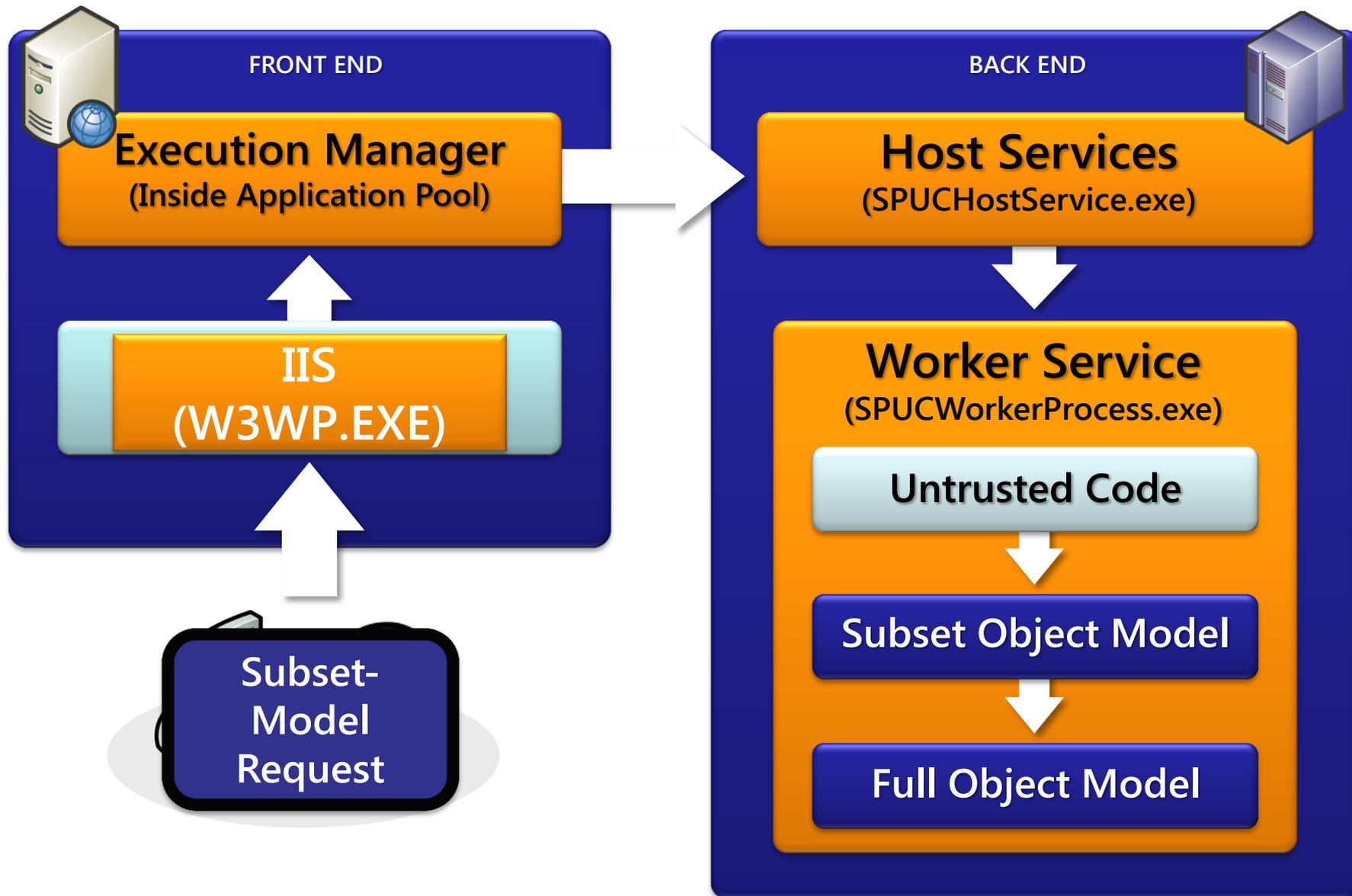
- ▶ Secure
  - Code Access Security policy limits functionality
  - Execute in a partially trusted environment
  - Code executes in a special service process
- ▶ Exposes a subset of Microsoft.SharePoint
- ▶ Site Collection Solution Gallery for deployment
- ▶ Plays a big role in hosting scenarios
  - Agility with stability

**IT106, Tuesday 8.45am**

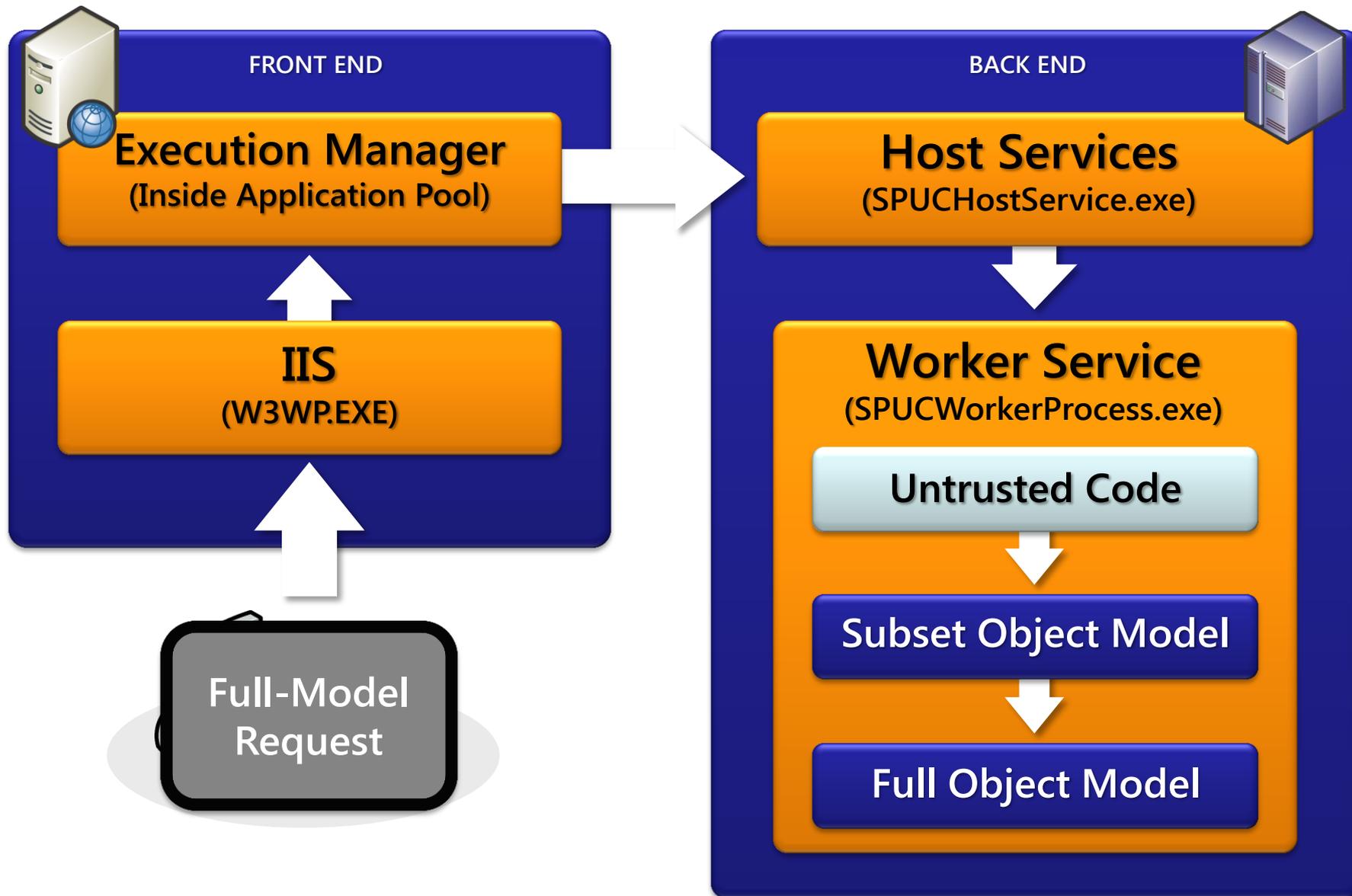
# Sandbox Architecture



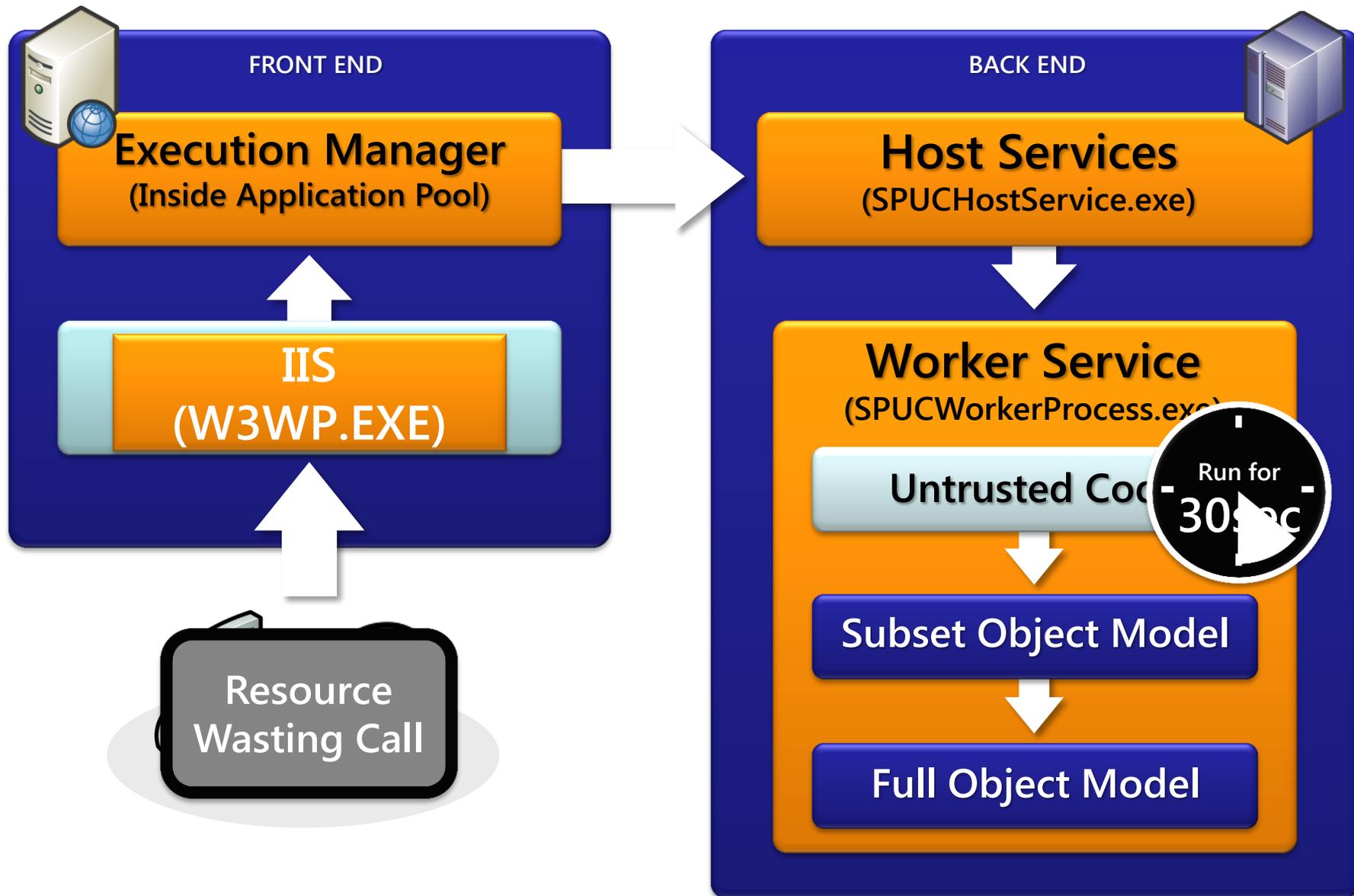
# Sandbox Architecture



# Sandbox Architecture



# Sandbox Architecture



A large, white, hollow outline of the number 9 is centered on the slide. It is positioned behind the main title text.

# **MANAGED ACCOUNTS**

# Managed Accounts

- ▶ Domain Accounts registered with SharePoint
  - Manages password change automatically
  - Complies with Domain password policy
  - Email notification – on change/post change
- ▶ No need to store Passwords in a repository
- ▶ 'Fire and forget' concept for service accounts

IT116, Wednesday 3.30pm



# **LIST THROTTLING**

# Controlling Large Lists

- ▶ No more of that "SharePoint can't handle lists with more than 2,000 items"
- ▶ As lists grow larger, performance suffers
- ▶ Result sets are trimmed down
  - Users and admin have different settings
  - 'Happy hour' settings
  - Object Model override (or not)

**IT104, Monday 2.30pm**



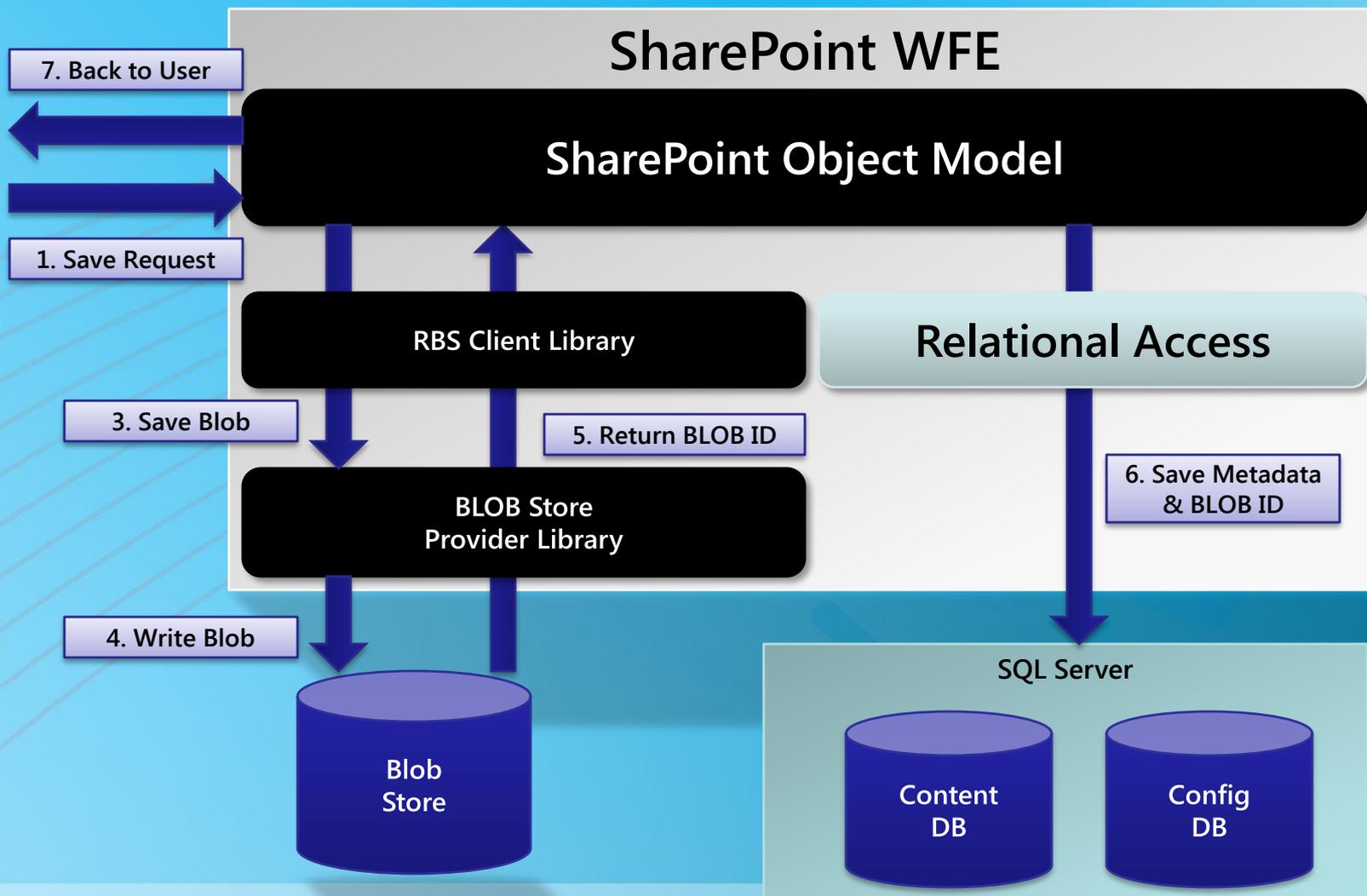
# REMOTE BLOB STORAGE

# Remote BLOB Storage (RBS)

- ▶ BLOBs are biggest contributor to content database footprint
- ▶ SQL 2008 feature allowing storage outside the database file
  - FILESTREAM provider shipped with RBS
- ▶ Option for managing large storage requirements
  - SQL Server Storage can be expensive
  - BLOBs can be stored on commodity disks

**TBD WEDNESDAY**

# Overview of how RBS works



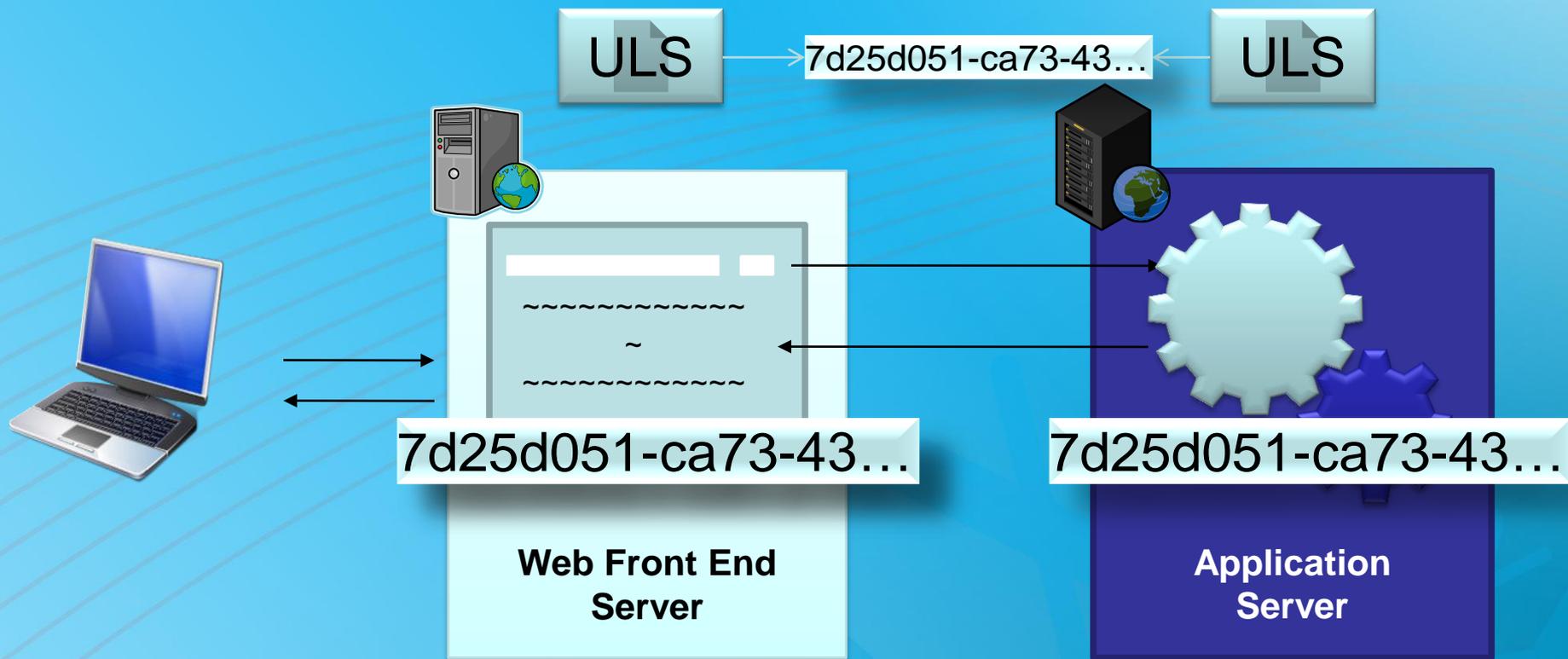


# **CORRELATION IDS**

# Correlation IDs

- ▶ Enables an administrator to follow a conversation across servers
  - Presented as events that are raised through the user interface
  - Exposed through SQL Profiler and ULS logs

IT110, Tuesday 3.15pm



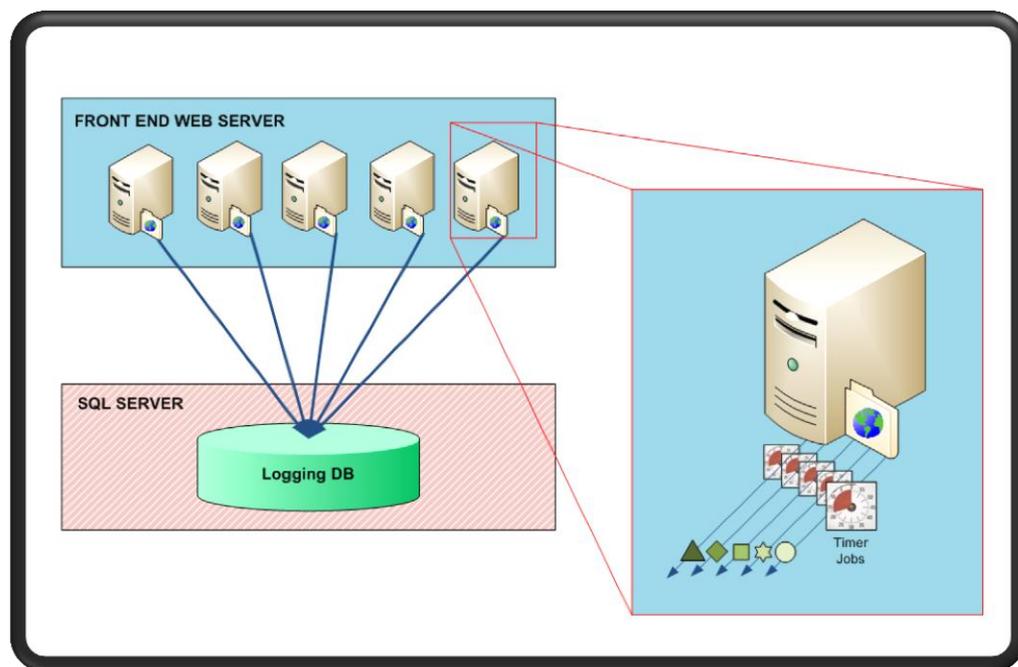


# **LOGGING DATABASE**

# Logging Database

## ▶ Central DB storing following information

- NT Event Log
- ULS Log events
- SQL queries and IO/CPU intensive queries
- Search statistics
- Usage statistics
- Performance counters
- Correlation ID's



IT110, Tuesday 3.15pm

# Don't be afraid to enable it !

- ▶ Manageability - SQL partitioned DB
- ▶ Timer Jobs - process locally collected data
- ▶ IT Pro controls retention period
- ▶ Might need a dedicated instance for high-end systems



# **PATCHING IMPROVEMENTS**

# Patching Improvements

- ▶ Almost zero down-time patching is possible
  - Flexible patching approach
  - Build + 1 (N) supported state
- ▶ Central view of patching status in the farm
  - Binaries
  - Databases
- ▶ Upgrade is restartable
- ▶ Concurrent DB upgrade scenarios

**IT116, Wednesday 3.30pm**



# **SHAREPOINT HEALTH ANALYZER**

# SharePoint Health Analyzer

- ▶ Proactive management engine to identify and resolve problems in SharePoint
- ▶ Developed in the spirit of the Best Practices Analyzer engine
- ▶ Categorizes and reports on common configuration issues in a server farm environment
- ▶ Reports issues in Central Administration and SCOM

**IT110, Tuesday 3.15pm**

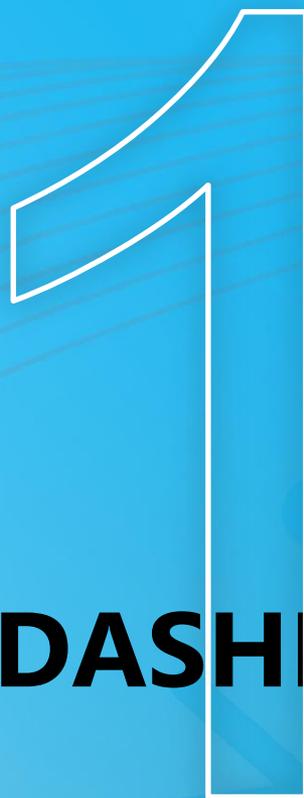


# **TIMER JOB INFRASTRUCTURE**

# Timer Job Infrastructure

- ▶ User interface and administration improvements over previous design
- ▶ Scheduling control and flexibility
  - **Run Now** is cool!
  - Preferred server for ContentDB timer jobs
- ▶ Improved visibility
  - Scheduled
  - Running
  - History

IT116, Wednesday 3.30pm



# **DEVELOPER DASHBOARD**

# Developer Dashboard

- ▶ Displays detailed diagnostics information for each page load
- ▶ Eases diagnosis of performance issues
- ▶ Off by default
- ▶ Enabled through Windows PowerShell or STSADM

IT107, Tuesday 10am

Team Site - Home - Windows Internet Explorer

http://spcdemo/SitePages/Home.aspx

Team Site - Home

Give Feedback System Account

Recycle Bin  
All Site Content

### Getting Started

- Share this site
- Change site theme
- Set a site icon
- Customize the Quick Launch

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### Developer Dashboard

- Request (GET: http://spcdemo:80/SitePages/Home.aspx) (1056.99 ms)
  - BeginRequestHandler (0.11 ms)
  - PostAuthenticateRequestHandler (0.04 ms)
  - PostResolveRequestCacheHandler (846.69 ms)
    - GetWebPartPageContent (818.18 ms)
      - GetFileAndMetaInfo (817.08 ms)
  - Wiki Edit OnInit (0.09 ms)
  - Wiki Edit OnInitComplete (12.09 ms)
    - Add WebParts (1.09 ms)
      - Shared Documents (0.76 ms)
  - Wiki Edit OnLoad (47.07 ms)
    - EnsureListItemsData (40.04 ms)
  - ToolBarMenuButton.CreateChildControls for SiteActions (0.38 ms)
  - ToolBarMenuButton.CreateChildControls for PersonalActions (0.14 ms)
  - SearchBoxEx.OnLoad (0.18 ms)
  - IsCheckedOutToSystem (0.02 ms)
  - SPPageStateControl.OnLoad (0.13 ms)
  - Activate web part connections (0.04 ms)
  - Wiki Edit OnPreRender (0.20 ms)
  - CachedObjectFactory: Caching ListItem at: /SitePages/Home.aspx (69.96 ms)
    - EnsureListItemsData (30.24 ms)
  - DataBinding DataFormWebPart (Shared Documents) (13.92 ms)
    - Parse CAML XML (0.09 ms)
    - EnsureListItemsData (10.56 ms)
  - SPPageStateControl.OnPreRender (0.17 ms)
  - Wiki Edit OnPreRenderComplete (0.07 ms)
  - Wiki Edit Render (22.25 ms)
    - Render Ribbon (3.52 ms)

#### Web Server

Execution Time	1068.82 ms
Current User	SHAREPOINT\system
Page Checkout Level	Published
Current SharePoint Operations	1
Log Correlation Id	9d400551-c47e-4d8c-b395-2b724016d321

#### Asserts and Critical Events

8059 Warning Configuration

#### Database Queries

dbo.proc_getSiteIdOfHostHeaderSite	18.30 ms
proc_fetchDocForHttpGet	816.49 ms
dbo.proc_getObjectsByClass	10.43 ms
proc_getListMetaDataAndEventReceivers	8.58 ms
SELECT t13.[ntext2],	18.56 ms
proc_getTpWebMetaDataAndListMetaData	13.10 ms
proc_getTpWebMetaDataAndListMetaData	10.29 ms
proc_getListMetaDataAndEventReceivers	9.94 ms
SELECT t13.[ntext2],	9.98 ms
DECLARE @DocParentIdForRF	7.58 ms

#### Service Calls

#### SPRequest Allocations

SPWeb: http://spcdemo/SitePages/Home.aspx  
 SPWeb: http://spcathvsqjp/SitePages/Home.aspx

#### WebPart Events Offsets

SPWebPartManager OnLoad	+0.00 ms
Shared Documents OnLoad	+1.44 ms
SPWebPartManager OnPreRender	+0.00 ms
Shared Documents OnPreRender	+18.05 ms

http://spcdemo/\_layouts/listfeed.aspx?List=082e38

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100%

**Developer Dash**

- Request (GET:http)
  - BeginReq
  - PostAuthe
  - PostResolv

**Details**

Name: SPWeb: ht  
 AllocationId: 0  
 AllowCleanupWhe

**Callstack**

- at Microsoft.SharePoint.Utilities.SqlSession.OnPostExecuteCommand(SqlCommand command, Boolean bNotGlo, String userName)
- at Microsoft.SharePoint.Utilities.SqlSession.ExecuteReader(SqlCommand command, CommandBehavior behavior, SqlQueryData monitoringData, Boolean retryForDeadLock)
- at Microsoft.SharePoint.SPSqlClient.ExecuteQueryInternal(Boolean retryfordeadlock)
- at Microsoft.SharePoint.SPSqlClient.ExecuteQuery(Boolean retryfordeadlock)
- at Microsoft.SharePoint.Library.SPRequestInternalClass.GetListItemDataWithCallback2(IListItemSqlClient pSqlClient, String bstrUrl, String bstrListName, String bstrViewName, String bstrViewXml, SAFEARRAYFLAGS fSafeArrayFlags, ISP2DSafeArrayWriter pSACallback, ISPDataCallback pPagingCallback, ISPDataCallback pPagingPrevCallback, ISPDataCallback pFilterLinkCallback, ISPDataCallback pSchemaCallback, ISPDataCallback pRowCountCallback, Boolean pbMaximalView)
- at Microsoft.SharePoint.Library.SPRequest.GetListItemDataWithCallback2(IListItemSqlClient pSqlClient, String bstrUrl, String bstrListName, String bstrViewName, String bstrViewXml, Boolean pbMaximalView)
- at System.Web.Http
- execute ()
- at System.We

Done

http://spcdemo/SitePages/Home.aspx - Windows Internet Explorer

**Query Text**

```

SqlCommand: 'proc_GetListMetaDataAndEventReceivers'
CommandType: StoredProcedure CommandTimeout: 0
Parameter: '@RETURN_VALUE' Type: Int Size: 0 Direction: ReturnValue Value: ''
Parameter: '@SiteId' Type: UniqueIdentifier Size: 0 Direction: Input Value: '5e931ff9-a528-4b8f-8fe7-56a03928eae8'
Parameter: '@WebId' Type: UniqueIdentifier Size: 0 Direction: Input Value: '7fc5c905-8ab2-4aec-8326-1d3dc9b1df9a'
Parameter: '@ListId' Type: UniqueIdentifier Size: 0 Direction: Input Value: '352d4322-b35f-47d4-b087-1415ec257fbb'
Parameter: '@PrefetchListScope' Type: Bit Size: 0 Direction: Input Value: 'True'
Parameter: '@UserGuid' Type: UniqueIdentifier Size: 0 Direction: Input Value: '7d25d051-ca73-432a-9256-e88381633ca7'
Parameter: '@UserId' Type: Int Size: 0 Direction: Input Value: '173741823'
Parameter: '@CurrentFolderUrl' Type:.NVarChar Size: 260 Direction: Input Value: ''
Parameter: '@RequestGuid' Type: UniqueIdentifier Size: 0 Direction: Input Value: '7d25d051-ca73-432a-9256-e88381633ca7'
  
```

**Callstack**

- at Microsoft.SharePoint.Utilities.SqlSession.OnPostExecuteCommand(SqlCommand command, SqlQueryData monitoringData)
- at Microsoft.SharePoint.Utilities.SqlSession.ExecuteReader(SqlCommand command, CommandBehavior behavior, SqlQueryData monitoringData, Boolean retryForDeadLock)
- at Microsoft.SharePoint.SPSqlClient.ExecuteQueryInternal(Boolean retryfordeadlock)
- at Microsoft.SharePoint.SPSqlClient.ExecuteQuery(Boolean retryfordeadlock)
- at Microsoft.SharePoint.Library.SPRequestInternalClass.GetListItemDataWithCallback2(IListItemSqlClient pSqlClient, String bstrUrl, String bstrListName, String bstrViewName, String bstrViewXml, SAFEARRAYFLAGS fSafeArrayFlags, ISP2DSafeArrayWriter pSACallback, ISPDataCallback pPagingCallback, ISPDataCallback pPagingPrevCallback, ISPDataCallback pFilterLinkCallback, ISPDataCallback pSchemaCallback, ISPDataCallback pRowCountCallback, Boolean pbMaximalView)
- at Microsoft.SharePoint.Library.SPRequest.GetListItemDataWithCallback2(IListItemSqlClient pSqlClient, String bstrUrl, String bstrListName, String bstrViewName, String bstrViewXml, Boolean pbMaximalView)

**IO Stats**

```

proc_GetListMetaData:Table 'Webs'. Scan count 0, logical reads 2, physical reads 0, read-ahead reads 0, lob logical reads 0, lob physical reads 0, lob read-ahead reads 0.
proc_GetListMetaData:Table 'Worktable'. Scan count 0, logical reads 0, physical reads 0, read-ahead reads 0, lob logical reads 0, lob physical reads 0, lob read-ahead reads 0.
proc_GetListMetaData:Table 'AllDocs'. Scan count 0, logical reads 4, physical reads 0, read-ahead reads 0, lob logical reads 0, lob physical reads 0, lob read-ahead reads 0.
proc_GetListMetaData:Table 'AllListsAux'. Scan count 0, logical reads 2, physical reads 0, read-ahead reads 0, lob logical reads 0, lob physical reads 0, lob read-ahead reads 0.
  
```

Done

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↑  
SPMo  
Timin

- ▶ That's all folks!

# **WRAP UP**

# The Top 10

- ▶ Sandbox Solutions
- ▶ Managed Accounts
- ▶ List Throttling
- ▶ Remote Blob Storage
- ▶ Correlation IDs
- ▶ Logging Database
- ▶ Patching Improvements
- ▶ Health Analyser
- ▶ Timer Job Infrastructure
- ▶ Developer Dashboard

# Thank you for attending!