

XenApp & XenDesktop Troubleshooting Assessment



Executive Summary:

- Customer experiencing persistent XenApp and XenDesktop performance issues with printing and logon process
- Root cause of performance issues could not be determined
- Goliath retained to perform troubleshooting assessment
- Root cause of printing and logon issues identified
- Fix actions recommended and implemented
- Support tickets decreased by 25% in 30 Days

Table of Contents

- I. Overview 4**
- II. Deployment Description 4**
- III. Configuration..... 5**
 - Monitoring Rules 5
 - Reports 5
 - Dashboards..... 5
- IV. Observations..... 6**
 - Printing Issues..... 6
 - Profile Problems..... 7
 - Other Findings..... 9
- V. Proactive Initiatives and Resolutions 11**
 - Monitoring Rules11
 - Reports11
 - Remediation Action12
- VI. Reports and Dashboards 15**

I. Overview

Client requests an investigation into the root cause of persistent performance issues. Goliath Technologies was retained to interrogate the XenApp and XenDesktop farm and role servers along with the supporting infrastructure. Data was gathered over a two week period with the following observations and reports by Goliath. The Proactive initiatives and resolutions suggested by Goliath are also included.

Results Highlight:

- Pinpointed root cause of printing and profile issues with resolution steps
 - Printing:
 - Unknown Drivers from Unknown Printers
 - Citrix Print Driver Failures
 - Incorrect Printer Port Mappings
 - Citrix Print Manager Service Crashes
 - Profile:
 - Group Policy & Registry Problems
 - Folder Redirection
 - Windows User Profile Service Errors
- Identified 6 additional high risk failure points
 - Gold Image Problems
 - Citrix XenApp Server Errors
 - SSL Communication Issues
 - Application Failures
 - Application Load Balancing Problems
 - Remote User Performance
- Deployed monitors to all elements of the XenApp and XenDesktop delivery infrastructure including:
 - All role servers: StoreFront (XenDesktop), Web Interface (XenApp), License Server, XenApp ZDCs, XenDesktop DDCs, XenApp Session Hosts, Gold Image
 - Supporting Servers: Active Directory, SQL Servers, File/Profile Servers, Application Servers
 - Infrastructure: VMware Hypervisor, Storage, and Firewalls for WAN performance
- Set alert sequences based on events, thresholds, and faults
 - During assessment, Goliath allowed administrators to avoid XenDesktop farm downtime:
 - Alerted on High Memory usage by the DDC and identified that all VDI sessions were going through one broker.
 - After alert, Administrators applied Citrix hotfix and, as a result, were able to confirm that sessions were again being balanced effectively across DDCs
- Scheduled reports to run daily, weekly, and monthly
- Iterated Help Desk actions in alert resolution feature

II. Deployment Description

Goliath Technologies was deployed to the following infrastructure elements:

Connections to:

- 2 VMware vCenter Servers and 250 Hosts
- 2 XenApp Farms: XenApp 6.5 and 4.5
- 1 XenDesktop Farm: 7.1
- 2 Data Centers

Elements Monitored:

- 75 VMware Hosts
- 2500 VMs
- 175+ XenApp Servers
- 2000 VDI Sessions
- 3500 XenApp/XenDesktop sessions
- 1165 Agents Deployed
- Gold Image Updated with Agent
- 200 Workstations
- 783 Datastores
- 100 physical servers
- 6 NetScalers

III. Configuration: 1 Day

After installation, out-of-the-box rules and dashboards were automatically applied to the inventory. Immediately afterward, a follow-on configuration effort was initiated to deploy agents and build custom rules and reports to identify printing and profile issues.

Monitoring Rules:

The following monitoring rules were added over the course of the first day:

- 50 Out-of-the-Box Monitoring Rules
- 20 XenApp Out-of-the-Box Monitoring Rules
- 25 XenDesktop Out-of-the-Box Monitoring Rules
- 60 Custom Monitoring Rules based on problems found in the environment with the Out-of-the-Box Rules. The following rules were built to identify conditions before a problem occurs or alert the moment a failure happens, as appropriate.
 - 8 for Printing Issues
 - 10 for Profile Errors
 - 15 for Application Errors
 - 10 for Citrix Session and XenApp Server Faults
 - 6 for Group Policy Issues
 - 10 for Server Communication Problems

Reports:

15 Reports were scheduled to run weekly to identify:

- Printing Health Report
- User Profile & Profile Management Errors
- Gold Image Health Report
- Citrix Session Host Errors
- XenApp Server Health Reports
- Logon Duration
- Licensing
- Application Failures
- Citrix XenApp & XenDesktop Peak Usage Reports
- SSL & Communication Errors
- Application Session/Usage Report
- Load Balanced Application Performance Report
- User Investigation Report
- Application Resource Usage Report
- Citrix ICA Latency Report

Dashboards:

6 Out-of-the-Box Dashboards configured:

- VMware Dashboards
- XenApp Dashboards
- XenDesktop Dashboard
- Logon Simulator
- Network Usage Dashboard
- Environment Heat Map by Citrix Farm and Desktop Group

IV. Observations

Over the course of deployment and configuration, environmental events and issues are picked up by Goliath Technologies. Goliath was able to immediately determine the nature of the printing and profiles problems that had affected the Citrix environment and other conditions taking place as well. These are defined below:

A. Printing Issues

Printer driver issues were manifesting in four ways in the environment: Unknown drivers from unknown printers, bad printer drivers, incorrect printer port mappings, and Citrix Print Manager Service crashes. Reports and alerts were created to identify when these failures happen and, if possible, prevent them from impacting end users.

1. Unknown Drivers from Unknown Printers:

Unknown drivers are generally the result of users attempting to print to home or personal printers which are not part of the supported driver set for the Citrix Universal Print Driver. A print failure report includes a number of these cases and rules were created to identify when these events happen.

Suggestions:

- a) Create policy that indicates if user signs in from home/outside network that local printers don't get mapped.
- b) Check to see how Citrix UPD is being replicated

Questions:

- a) If mapping from home PCs, is that a HIPPA compliance issue?
- b) Is it necessary to enable users to print from home?
- c) If it is deemed unnecessary to print from home, would it be possible to implement a policy to not allow mapped printers from home?

2. Citrix Print Driver Failures:

Driver corruption or failures can often occur after the Citrix Print Manager service gets stuck or a print job causes the print spooler process to crash. A series of rules were created to identify these conditions.

Suggestions:

- a) Identify the issue and send to Service Desk with the instruction to kill the process and restart the printer service. Let the Users know that they should resubmit the print job. If approved, Goliath will kill the process and restart the service; Service Desk will notify users to resubmit print jobs
- b) Run stressprint.exe from Citrix to test the drivers to ensure compatibility

3. Incorrect Printer Port Mappings:

Printer auto-creation failures in this environment were frequently a derivative of the first two items above, but sometimes they were the result of printers not able to map the port correctly. An alert was created to identify these occurrences.

Suggestions: Give instructions to Service Desk on how to go fix the problem and map the printers manually. Include these instructions in the *Alert Resolution Feature*

4. Citrix Print Manager Service Crashes:

A monitoring rule was put in place to alert if the Citrix Print Manager self-recovery does not take place or does not succeed. In this environment, the print manager service's restart would often not succeed, so a corresponding rule was created to identify if the CpSvc.exe process was stuck as well.

Suggestions:

- a) To triage the event, identify the issue, and send information to Service Desk with the instruction to kill the process and restart the printer service. Let the Users know that they should resubmit the print job. If approved MonitorIT will kill the process and restart the service; Service Desk will notify users
- b) Run CDFTrace to see what is causing the service to crash, and analyze the output to understand if it was a driver issue, print job, etc. at the core of the problem

Monitoring Rules and Auditing the Resolution:

Monitoring Rules were created to immediately identify the issues that were occurring, so that the Help Desk can be notified and advised as to the best way to triage the condition. These events can also be tracked in the reports to understand the week-over-week persistence of these events and their effect on the ultimate resolution.

Long Term Resolution for Printing Issues:

If printing is core to the business and needs to be done from multiple locations then a combination of a third party print management tool and Citrix UPD would normally be the best way to deliver an effective printing solution. In order to determine this, it is important to understand the frequency of printing and if proximity printing is allowed or needed, the client device landscape, and ultimately what needs to be done with printing. A solution would need to be put in place and the administrators should be furnished with a process for introducing new print drivers to ensure ongoing stability.

B. Profile Problems

Profile problems appear to stem from underlying registry and security issues that result in the following problems:

1. Group Policy & Registry Problems:

Group Policy problems along with registry corruption seem to be the root cause or related to most profile problems. These events can start when a policy fails to apply or there is insufficient security to apply a group policy. Alerts and a report were created to identify and track these conditions.

Suggestions: To start with run DSDiag and analyze the output to understand where the problems could be coming from. An understanding of the topology followed by a review of the registry and group policy would be necessary in order to fix the core issue here.

2. Folder Redirection:

Folder redirection issues manifest with the Citrix Profile Manager, Windows User Profile Services, and Terminal Server User Home Directory. Files or Folders cannot be found, profiles fail to load, or users are put into temporary profiles. Alerts were built to identify if any of these three conditions occur.

Suggestions: Folder Redirection needs to be reviewed to first understand what is being redirected with a close look at what is being excluded or more importantly, not excluded. Citrix Profile Manager allows for a lot of configuration and may be able to be adjusted and configured properly to resolve these problems. In some cases, the best way to address this is with third party tools.

3. Windows User Profile Service Errors:

These issues are not to be confused with Citrix Profile Manager problems, which while present in the environment, are few and far between. These issues generally start when there are insufficient security rights present to load the profile or a registry problem has prevented group policy from being applied. A local profile generally then tries to be loaded and where group policy problems persist. Alerts were built to identify these events.

Suggestions: Resolving the Group Policy and Registry issues along with a properly configured Profile Management solution should mitigate these errors.

Monitoring Rules and Auditing the Resolution:

Monitoring Rules were created to immediately identify the issues that were occurring, so that the Help Desk can be notified and advised as to the best way to triage the condition. These events can also be tracked in the reports to understand the week-over-week persistence of these events and their effect on the ultimate resolution.

Long Term Resolution for Profile Issues:

A close review and diagnosis of the Active Directory in the environment needs to be done in order to fix the Group Policy and Registry problems that are taking place. Ultimately, a review of the Citrix Profile Management configuration should be done to understand the folder redirection issues.

C. Other Findings

Over the course of reviewing the environment, we found a number of reoccurring issues in the environment, including Citrix XenApp Server failures, SSL Communication Issues, problems propagated by configuration in the Gold Image, and a proliferation of application failures. Alerts and Reports were created.

1. Gold Image Problems:

Gold Image problems were identified by issues that were taking place persistently, 24 hours a day, seven days a week. There were three issues:

- DCOM remote activation request failures for users logging on
- Update Manager Service trying to execute from a mapped drive

- McKesson Media Library update tries to take place and fails due to a newer version being present. This was a known issue for McKesson, but did not have a resolution. A report has been configured to track these events.

2. Citrix XenApp Server Errors:

Occurrences were found where the RDP protocol detected an error or the security layer of terminal services on the Citrix XenApp servers detected a problem with the protocol stream and disconnected users. Alerts were created so administrator were notified when this happened.

3. SSL Communication Issues:

This was one of the most common errors seen across the environment and occurred as one of four types of errors, all of which resulted in connection refusals. Alerts were set up to identify when this happened and a report was created to run automatically and identify how many occurrences had taken place. They are:

- The server hostname listed in the certificate is not correct and does not match the server's actual hostname
- Certificate Authority could not be located or could not be matched to a known, trusted CA
- SSL 3.0 connections failed because the cipher suites on server and client did not match
- SSL connections were refused due to an untrusted certificate

4. Application Failures:

There were a number of application failures, which were identified and tracked so that they can be readily identified before a user calls. A few stand out issues include:

- Microsoft Outlook Crashes: In addition to failures and crashes, at times Outlook would load in safe mode, and even then would fail to load into safe mode. These are usually the result of plugin/add-on problems. Alerts were set up to identify when this occurred as the users would most likely be unable to access email.
- Line of Business Application Errors: The LoB App Launcher, LoB App Document Management, and Bootstrap process failures were all identified with alerts configured to notify when future occurrences took place.
- General Application Hangs & Crashes: These were identified with alerts created to catch when these events happen.

5. Application Load Balancing Problems

- Goliath was able to identify a number of applications that were attempting to be opened by unsupported browsers, resulting in user errors.
- Some of the application pages were not loading and users were getting errors when accessing some of the application sections. These errors were only happening on certain servers which Goliath was able to identify.

6. Remote User Performance

In general, users launching published application and desktop sessions from outside the network were seeing high ICA Latency and client-side round trip times. These issues were not related to internal infrastructure or corporate network problems, but rather users with poor internet connections attempting to access resources. Goliath configured alerts for when these events happen so the Help Desk knows it is not a problem on the corporate side, but rather the end user's responsibility.

V. Proactive Initiatives

A. Monitoring Rules

The following rules were created to identify all problem events:

Error Category	Error Source	Proactive Action	Notes
App - General	Application Hang	Report	All application failures; catch all
App - General	Application Hang	Report	Program Stopped interacting with windows and closed
App - LoB	MsiInstaller	Report	Line of Business App Update Failure
App - LoB	Application Error	Alert	Line of Business App BootStrap Failure
App - LoB	Application Error	Alert	Line of Business application failures; catch all
App - LoB	Application Error	Alert	Line of Business app Document Management Error
App - MS Communicator	Application Error	Report	Rule created to capture events/failures for reporting
App - MS Communicator	LiveMeeting		LiveMeeting unable to resolve DNS hostname of the login server
App - MS Excel	Application Error	Alert	Microsoft Excel hung or crashed
App - MS IE	Application Error	Alert	Microsoft Internet Explorer hung or crashed
App - MS Media Player	Application Error	Alert	MS Media Player hung or crashed
App - MS Outlook	Application Error	Alert	Microsoft Outlook hung or crashed
App - MS Outlook	Microsoft Office 14	Alert	Outlook in Safe Mode
App - MS Outlook	Microsoft Office 14	Alert	Outlook launch in Safe Mode rejected
Citrix - Citrix ICA	Application Error	Alert	can cause session close/crash
Citrix - Citrix ICA	Citrix.Xip.ClientService	Alert	no update server found; client service stopped
Citrix - Terminal Services	TermDD	Alert	RDP protocol detected an error in the protocol stream and disconnected
Citrix - Terminal Services	TermDD	Alert	Terminal Server security layer detected an error in the protocol stream and disconnected the client
Group Policy	Group Policy Registry	Alert	Could not apply user policy settings
Group Policy	Group Policy Registry	Alert	client-side extension caught the unhandled exception 'execution of package to apply policy' inside
Group Policy	Microsoft-Windows-GroupPolicy	Alert	Group Policy Processing Failed
Group Policy	Group Policy Folder Option	Alert	client-side extension caught the unhandled exception
Group Policy	Group Policy Folders	Alert	could not apply policy due to access violation; memory could not be read
Group Policy	Microsoft-Windows-GroupPolicy	alert	Could not apply the registry-based policy settings for the Group Policy object.
Printing	MetaFrameEvents	Alert	Printer Auto-Creation Failure
Printing	Application Error	Alert	Citrix Print Manager Service
Printing	MetaFrameEvents	Alert	Driver not installed
Printing	MetaFrameEvents	Report	Printer Auto-Creation Failure

Error Category	Error Source	Proactive Action	Notes
Printing	UmrdpService	Report	Driver required for Printer Unknown
Printing	UmrdpService	Alert	Citrix UPD Driver failed to load Printer
Printing	Service Control Manager	Report	CPM Failures
Printing	Service Control Manager	Alert	CPM Failed to Restart
Profile	Microsoft-Windows-Folder-Redirection	Report	Failed to apply policy and redirect folder; cannot find the file
Profile	Microsoft-Windows-User Profiles Service	Report	Cannot load classes registry file
Profile	Microsoft-Windows-User Profiles Service	Report	registry load failure - insufficient memory or security rights; not in a registry file format
Profile	Microsoft-Windows-User Profiles Service	Report	cannot load the local profile - insufficient security rights or a corrupt local profile
Profile	Microsoft-Windows-User Profiles Service	Report	profile backed up
Profile	Microsoft-Windows-User Profiles Service	Report	logging user on with a temporary profile
Profile	Citrix Profile Management	Alert	The user store cannot be reached
Profile	Citrix Profile Management	Alert	CPM could not monitor the profile of a server configured for extended synchronization; windows user profile will be used
Profile	TermService	Alert	Terminal Services User Home Directory was not set because the path specified does not exist or not accessible. Default Home Directory Path Used Instead
Registry	Microsoft-Windows-Kernel-General	Report	Registry hive corrupted and recovered
Server - General	MSSOAP	Alert	HTTP Error - Connection failed or refused by Server
Server - General	DCOM	Report	Application not allowing Remote Activation
Server - General	DCOM	Alert	Server failed to register with DCOM
Server - General	Kerberos	alert	Target service is using a different password for the target service account than what the KDC has for the target service account
Server - General	volmgr	alert	crash dump initialization failed
Server - SSL	Schannel	Alert	SSL 3.0 Connection failed; none of the cipher suites supported by the client are supported by the server.
Server - SSL	Schannel	Report	SSL Connection Request Refused due to Untrusted Certificate
Server - SSL	Schannel	Alert	SSL Connection Request Failed; Certificate does not contain correct Server Name
Server - SSL	Schannel	Alert	Certificate was not accepted because the CA certificate could not be located or could not be matched with a known, trusted CA. This message is always fatal.
Server - Windows Explorer	Application Error	Alert	Windows Explorer hung or crashed

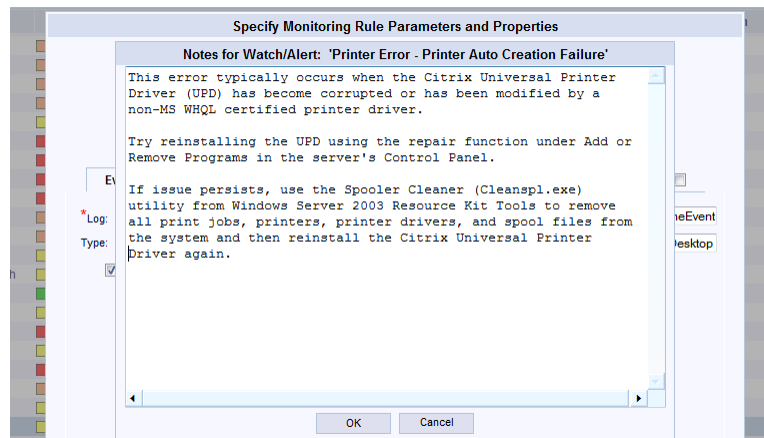
B. Reports

The following reports were created and scheduled to track events in the infrastructure:

Title	Description
Printing Health Report	Printer driver, Citrix Universal Print Driver, and printer auto-creation errors and failure
User Profile & Profile Management Errors	Errors related profile problems
Gold Image Health Report	Identifies problems that occur persistently on ALL servers
Citrix Session Host Errors	Terminal Services, ICA failures, and events preventing session launch
XenApp Server Health Reports	Report on key metrics for failure: Server load, users, disk, CPU, RAM
Logon Duration	Breaks down the logon process and how long it took a user to sign in
Citrix Licensing	Tracking Citrix licensing usage for XenApp and XenDesktop
Application Failures	Application crashes and hangs
Citrix XenApp & XenDesktop Peak Usage Reports	Trends concurrent users to identify peak usage times
SSL & Communication Errors	SSL failures, DCOM events, SOAP failures and connection terminations
Application Session/Usage Report	Identify the number of Application Launches and by whom
Load Balanced Application Performance Report	Application connections, latency, errors, max response times
User Investigation Report	Identifies all the events and problems that took place for a user
Application Resource Usage Report	Track Application resource utilization across environment
Citrix ICA Latency Report	Identify users experiencing highest latency by a threshold

C. Remediation Actions and Alert Resolution Feature

Rules were created to identify the problems listed above, and in appropriate cases, populated with suggested fix and troubleshooting actions, as depicted below. This is valuable as an audit trail for consistent response behavior and instructional for Service Desk. Furthermore remediation actions can and should continue to be built by your consultants and your engineers. As the monitoring technology identifies issues and clarifies the source of problems, remediation actions can often be built to mitigate or fix problems. Furthermore, as the environment evolves, new problems or issues will appear, where the resolution can be automated or documented for Service Desk and admins to address the conditions:



Issue and Remediation Actions Documented in Alert Resolution Feature for Service Desk:

Issue	Proactive Action with MonitorIT
Application using a full CPU core for a sustained period of time	Alert admin and notify user/restart app
Sustained XenApp Server CPU Utilization over 90% (threshold custom set)	Alert admin/reboot server/notify users of system restart
XenApp Server is misconfigured or is having configuration issues and is reporting with a Server Load of 20000.	Perform common resolution steps – restarting WMI service, turning off logins, and alerting admins.
XenApp Servers are close to capacity	Alert admin/disable logins
XenDesktop VMs are reporting unregistered	Alert admin and restart VM so the VDA agent can register back with the broker
WAN bandwidth is a sustained 85% Utilization or higher	Notify admin before external users start seeing performance impact
Drive space availability falls below 1 GB	Clear all temp files and notify admin if space not recovered-admin can take more aggressive action to prevent profile and session issues
VDI Session or XenApp Server experiencing high CPU Ready (VM waiting on available CPU cycles)	Alert admin and migrate VM to another host with more CPU resources available

VI. Report Samples

Monitor **IT**

Configure Monitor View **Report** Log Management

Schedule Manage View

Report > View demo - Sign Out | Settings | Help

Status Results

Analysis Results

XenApp Session Report - XenApp Session Report for Specified Period

Reporting Period: Sun, December 15, 2013, 10:41 PM - Tue, January 14, 2014, 10:41 PM Report Run: Tue, January 14, 2014, 10:41 PM

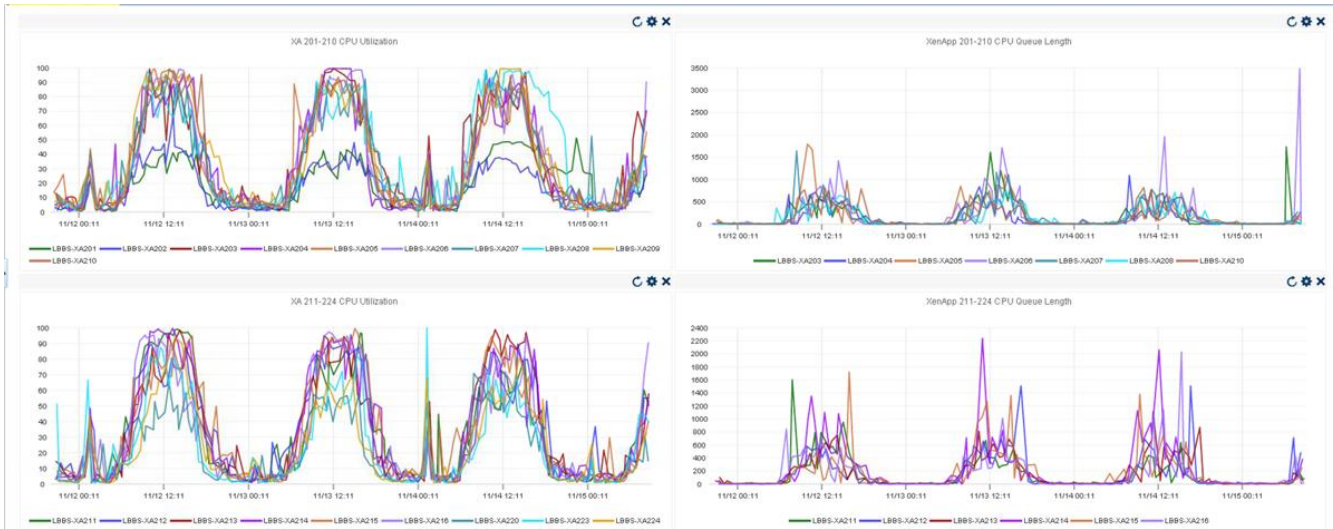
Farm Name	XA Server Name	Session Name	User Account	State	Client Name	Version	Client Address	App Name	Connect D/T	Disconnect D/T
Support	SVR-XA08	RDP-Tcp#0	GOLIATHFloyd Roberts	Active	SVR-TS02		10.20.30.101		2014-01-05 09:20:40	
Finance	SVR-XA02	RDP-Tcp#1	GOLIATHFloyd Roberts	Active	SVR-TS02		10.20.30.101		2013-12-18 11:31:15	2013-12-18 11:31:13
Support	SVR-XA08	RDP-Tcp#2	GOLIATHJames hidefo	LoggedOff	SVR-XA06		10.20.30.48		2013-12-18 11:58:26	
Support	SVR-XA08		GOLIATHJames hidefo	Disconnected		14.1.0.0	192.168.200.50	MonitorIT - Demo	2013-12-18 11:49:21	2013-12-18 11:44:33
Support	SVR-XA08	ICA-TCR#1	GOLIATHJames hidefo	LoggedOff	JNDEFO-TRANS	14.1.0.0	192.168.200.50	MonitorIT - Demo	2013-12-19 12:00:15	2013-12-19 12:00:11
Support	SVR-XA08		GOLIATHJames hidefo	Disconnected		14.1.0.0	192.168.200.50	Jira - Support Ticketing	2013-12-19 12:00:15	2013-12-19 14:54:57
Support	SVR-XA08	ICA-TCR#1	GOLIATHJames hidefo	LoggedOff	JNDEFO-TRANS	14.1.0.0	192.168.200.50	Jira - Support Ticketing	2013-12-20 04:52:17	2013-12-20 04:52:15
Support	SVR-XA08		GOLIATHJames hidefo	Disconnected		14.1.0.0	192.168.200.50	Jira - Support Ticketing	2014-01-02 15:20:34	2014-01-02 17:14:06
Support	SVR-XA08	ICA-TCR#1	GOLIATHJames hidefo	LoggedOff	JNDEFO-TRANS	14.1.0.0	192.168.200.50	Jira - Support Ticketing	2014-01-03 08:33:48	2014-01-03 08:33:46
Finance	SVR-XA02		GOLIATHJames hidefo	Disconnected		14.1.0.0	192.168.200.50	Quickbooks 11	2013-12-05 13:13:51	2013-12-05 15:31:14
Support	SVR-XA08	ICA-TCR#3	GOLIATHJames hidefo	LoggedOff	JNDEFO-TRANS	14.1.0.0	192.168.200.50	Jira - Support Ticketing	2014-01-14 11:02:57	2014-01-14 11:02:55
Support	SVR-XA08		GOLIATHJames hidefo	Disconnected		14.1.0.0	192.168.200.50	MonitorIT - Demo	2014-01-14 11:02:57	2014-01-14 17:35:17
Support	SVR-XA08		GOLIATHJames hidefo	Disconnected		14.1.0.0	192.168.200.50	Jira - Support Ticketing	2014-01-14 11:02:57	2014-01-14 17:35:17
Finance	SVR-XA03	ICA-TCR#0	GOLIATHMichael Corneve	LoggedOff	WRN-EL3MAARESI	14.1.0.0	10.20.30.208	Microsoft Excel	2014-01-14 08:55:31	
Finance	SVR-XA02	RDP-Tcp#1	GOLIATHRaja Jadeja	LoggedOff	SVR-TS02		10.20.30.101		2013-12-14 11:30:22	
Support	SVR-XA08		GOLIATHRaja Jadeja	Disconnected		14.0.1.4	10.20.1.106	MonitorIT - Demo	2013-12-14 11:37:25	2013-12-14 14:54:22
Support	SVR-XA08	ICA-TCR#0	GOLIATHRaja Jadeja	LoggedOff	LT-RAJA	14.0.1.4	10.20.1.106	MonitorIT - Demo	2013-12-18 21:53:07	2013-12-18 21:53:05
Support	SVR-XA08	ICA-TCR#0	GOLIATHRaja Jadeja	LoggedOff	SVR-MGMT1	14.0.0.87	10.20.30.28	Firefox - 24	2013-12-17 14:53:06	
Support	SVR-XA08	ICA-TCR#2	GOLIATHRaja Jadeja	LoggedOff	LT-RAJA	14.0.0.87	10.20.30.28	Firefox - 24	2013-12-20 10:24:42	2013-12-20 10:24:38
Finance	SVR-XA03	ICA-TCR#0	GOLIATHRaja Jadeja	LoggedOff	SVR-MGMT1	14.0.0.87	10.20.30.28	Microsoft Excel	2013-12-17 14:53:24	
Finance	SVR-XA03	ICA-TCR#0	GOLIATHRaja Jadeja	LoggedOff	SVR-MGMT1	14.0.0.87	10.20.30.28	Microsoft Word	2013-12-17 14:53:24	

Full View Next Previous Print

Click any column header label to sort accordingly; click again to reverse sort. Use click, ctrl-click & shift-click to select Reports

HOW TO USE: Run this report on a daily or weekly basis, or as required by management to show utilization of the farm.

PURPOSE: Identify Users that have persistently high ICA Latency conditions and track Session growth. This report can be filtered to track a user's behavior and session performance, or a particular Application's utilization over a given period of time.



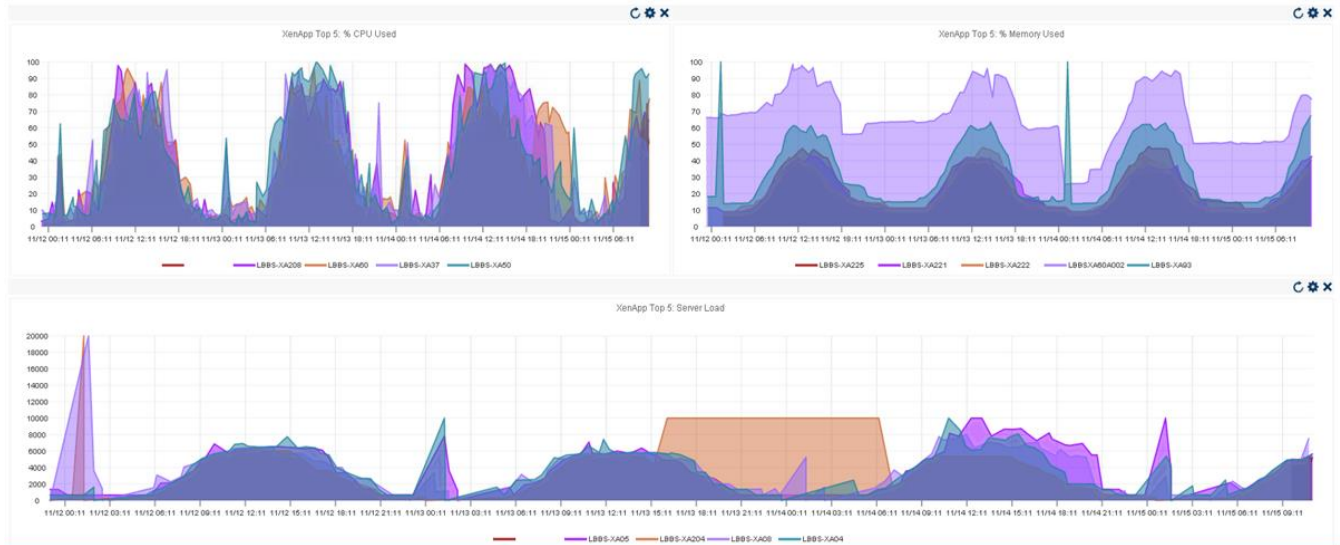
HOW TO USE: Review this information weekly and monthly to understand utilization trends.

PURPOSE: Identify CPU resource deficiencies in the farm, unbalanced servers, and identify future needs for CPU resources as utilization grows. Long transaction times and user slowness can be mitigated by identifying times where there is a persistently high CPU queue length. This information can then be leveraged to better balance workloads at those times.



HOW TO USE: Look at this dashboard in real-time, or change the charts to trend weekly or monthly utilization for reporting

PURPOSE: Quickly understand the effect of resource availability on session performance, or correlate session growth to resource utilization needs. Quickly identify sessions experiencing high ICA latency or servers with a high server load that will effect performance.



HOW TO USE: Review this information weekly and monthly to understand utilization trends.

PURPOSE: Juxtapose Server Load against CPU and Memory utilization over the same period of time. Identify Server Load growth over time to identify the growth in user adoption of XenApp and system resource availability to sustain the utilization. Quickly identify bottlenecks at certain times of day which can be used to better balance workloads, and servers with abnormal resource utilization.

Monitor IT[®]

Configure Monitor View **Report** Log Management

Schedule Manage View

Report > View demo - Sign Out | Settings | Help

Status Results

Analysis Results

XenDesktop VDI Health Report - XenDesktop VDI Essential Metrics Health Report

Report Run: Tue, January 14, 2014, 10:42 PM

Desktop Group Name	Machine Name	IP Address	Registration State	Summary State	Broker Name	Hosting Server	User Name	Login Time	Uptime
Support	VDI-SPRT03	10.20.30.232	Registered	InUse	SVR-DCC01	VS-XEN07	GOLIATHFloyd Roberts	2013-11-25 16:16:24	
Support	VDI-SPRT04	10.20.30.231	Registered	InUse	SVR-DCC01	VS-XEN07	GOLIATHRaja Jadeja	2013-11-22 15:09:00	

Report provided by Acme Corporation

www.acmecorporation.com

Full View Next Previous Print

HOW TO USE: This report should be scheduled to be emailed right to your inbox at least four times a day – first thing in the morning, mid morning, afternoon, and end of day.

PURPOSE: Busy administrators need information at their fingertips, so by receiving these reports right in their inbox, they can quickly ascertain problem conditions – unregistered VDI Sessions or a low count of VDI VMs in a pool. This report can also help identify VDI Sessions that have been up for longer than normal, especially after a new image was pushed live, and it can often be indicative of a stuck session or improperly configured VM.

Monitor IT[®]

Configure Monitor View **Report** Log Management

Schedule Manage View

Report > View demo - Sign Out | Settings | Help

Status Results

Analysis Results

XenDesktop VDI Usage Report - XenDesktop VDI Usage Report for Specified Period

Reporting Period: Sat, November 16, 2013, 10:41 PM -- Tue, January 14, 2014, 10:41 PM Report Run: Tue, January 14, 2014, 10:42 PM

Desktop Group Name	Machine Name	IP Address	User Name	Client Name	Summary State	Hosting Server	Login Time	Disconnect Time
Support	VDI-SPRT03		GOLIATHFloyd Roberts	SVR-TS02	Unregistered	VS-XEN06	2013-11-15 16:45:59	2013-11-17 12:10:51
Support	VDI-SPRT03	10.20.30.232	GOLIATHRaja Jadeja	LT-RAJA	InUse	VS-XEN07	2013-11-18 14:15:21	2013-11-19 17:34:30
Support	VDI-SPRT03	10.20.30.232	GOLIATHFloyd Roberts	SVR-TS02	InUse	VS-XEN07	2013-11-25 16:16:24	
Support	VDI-SPRT04		GOLIATHFloyd Roberts	SVR-TS02	Unregistered	VS-XEN06	2013-11-14 17:54:11	2013-11-17 12:00:53
Support	VDI-SPRT04	10.20.30.231	GOLIATHRaja Jadeja	SVR-XA06	InUse	VS-XEN07	2013-11-22 15:09:00	

Report provided by Acme Corporation

www.acmecorporation.com

Full View Next Previous Print

HOW TO USE: Run this report on a daily or weekly basis, or as required by management to show utilization.

PURPOSE : Track Session growth, problematic VDI Sessions, and VDI sessions that have been locked for long periods of time.

Monitor IT®

Configure Monitor View Report Log Management

EventLog Events EventLog Archives Syslog Messages Syslog Archives

Log Management > EventLog Events demo - Sign Out | Settings | Help

Log Type	Server/Computer Name	Source	Date/Time	Event ID	User Name	Event Description
Ag1	PROD-SVR-0801	SQLAgentPROC_0801	12/16/2013 11:25:00	208		SQL Server Scheduled job 'Top past day VCD8_VCD2' (DB18142962C926A742DEBF119737735A) - Status: Failed - Invoked on: 2013-12-16 11:25:00 - Message: The job failed. The job was invoked by Schedule 15 (10 minutes schedule for top past day). The last step to run was step 1 (Control top past day).
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:24:51	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:24:51	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:24:21	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:24:21	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:23:51	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:23:51	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	PROD-SVR-3A05	PerfMon	12/16/2013 11:23:48	1023		Windows cannot load the extensible counter DLL 'MicrosoftCounterManager'. The first four bytes (DWORD) of the Data
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:23:21	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:23:21	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:22:51	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:22:51	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:22:21	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:22:21	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:21:51	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:21:51	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	PROD-SVR-3A05	PerfMon	12/16/2013 11:21:47	1023		Windows cannot load the extensible counter DLL 'MicrosoftCounterManager'. The first four bytes (DWORD) of the Data
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:21:21	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:21:21	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:20:51	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:20:51	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:20:21	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	DEV-SVR-0000	Citrix Broker Service	12/16/2013 11:20:21	1163	NETWORK SERVICE	No connection license available. To receive, free licenses by closing sessions that are not needed, or add more licenses. Details: License Server Address: SVR-00000.corp.globe technologies.com/ License Server Port: 27000/ Site License Model: 'User/Device' Site Edition: 'PLT' ProductID: 'NOT' User: 'James.North@GOLIAH' Client ID: '0732CF9B' Session Support: 'MultiSession'
Ag1	PROD-SVR-3A05	PerfMon	12/16/2013 11:20:00	308		SQL Server Scheduled job 'Post new data to VCD8_VCD2' (DB18142962C926A742DEBF119737735A) - Status: Succeeded - Invoked on: 2013-12-16 11:20:00 - Message: The job was invoked by Schedule 15 (10 minutes schedule for top past day).

Configure EventLogWatch Display Filter

Watchlist: User Profile Errors

Application Log

- DEV-SVR-0802
- DEV-SVR-0803
- DEV-SVR-0000
- DEV-SVR-0001
- GOL-SVR-0001
- GOL-SVR-FS01
- GOL-SVR-WSST01
- LTRAJA
- PROD-SVR-0801
- PROD-SVR-0002
- PROD-SVR-0001
- PROD-SVR-SF01
- PROD-SVR-VA02
- PROD-SVR-VA03
- PROD-SVR-VA05
- PROD-SVR-VA06
- PROD-SVR-VA08
- PROD-SVR-VA09
- QA-SVR-8B04
- QA-SVR-8B03
- VDI-SPRT03
- VDI-SPRT04

Show On Open: Last 3 hrs

Select All Unselect All Close

DESCRIPTION: EventLogs are a powerful source of information that can be leveraged to identify the cause of crashes, failures, or configuration issues during deployment. In a VDI environment, logs become ever more important, especially with PVS, because they can be used to identify the source of crashes and logon problems as the situation is unfolding. Because they get sent to MonitorIT in real-time, the loss of logs from reboots are no longer an issue.