Troubleshooting and Monitoring Your XenApp Environment with EdgeSight

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Agenda

1. Overview of EdgeSight
2. End User Experience Monitoring
3. Dashboards & Reports
4. Migration From Resource Manager
5. Key Areas of Issues
6. Demo
7. Q & A

What Is It?

- "End User Experience Management" (EUEM)
- "Quality of Experience"
- Acquisition of Reflectent Software in 2006
- <u>Very</u> complex, configurable, and scalable architecture.
- Several variances based on products – XenApp, End Point, Load Testing, Netscaler, etc.
- Replacement for Resource Manager
- Licensing agent now free (No more useless reports from LM – yea!)
- Will (already is) evolving as default tool

Keywords

- Visibility
- Utilization
- Availability
- Monitoring
- Root Cause (Troubleshooting)
- Reporting
- Real-time*
- History

Components

- ES for XA Agent (uses local db)
- ES Server
  - Database & Reporting Services (can be hosted)
  - IIS Web Server
- Management & Reporting Console
- Optional:
  - Management Packs (SCOM – Project "Sedna")

Modes

- Two modes (set on Agent and in Console)
  - Basic –"Resource Manager powered by EdgeSight"
    - XenApp Fundamentals & Advanced
    - License Only Logging available as free download
  - Advanced
    - XenApp Enterprise & Platinum
    - Enables XenDesktop & End Point Agents
- PDF available of differences between Resource Mgr., Basic, & Advanced – CTX124427

Components
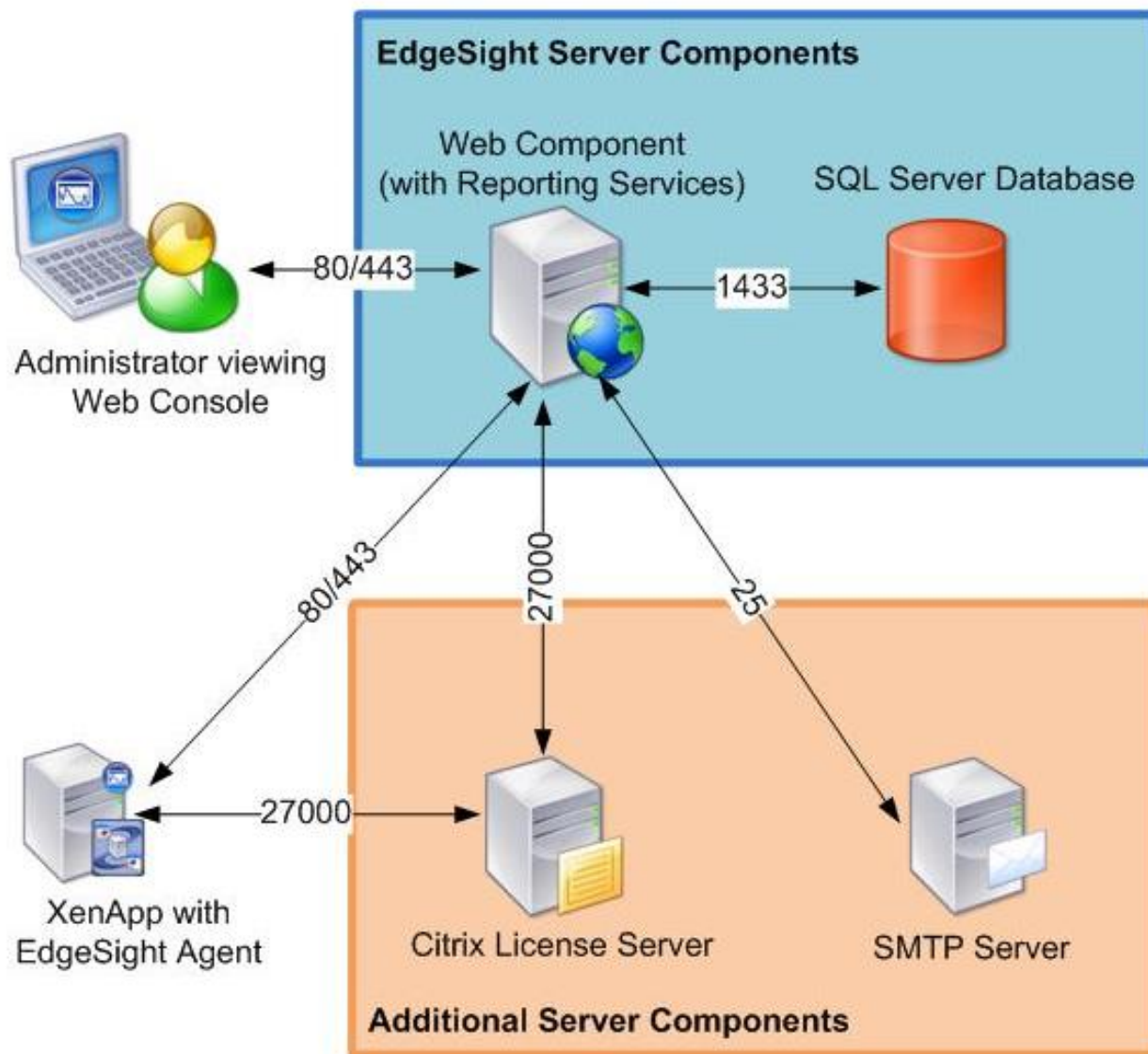
Editions

- ES for XenApp
  - Included in Enterprise / Platinum
- ES for End Points
  - Not needed for backend XA monitoring
  - Good for end-2-end monitoring (beware of firewalls and non-compatible devices)
- ES for Load Testing
  - For load testing your XA environment
- ES for Netscaler
  - Detailed information on NS operations
  - Virtual appliance (somewhat complex)

What Could We Use It For?

- Alerting (integrates via SNMP to 3rd parties)
- License Usage & Trends
- Application Usage & Monitoring
- Troubleshooting – Network, client, infrastructure, application, etc.…
- Performance Monitoring & Trending
- Environmental Statistics
- Capacity Planning
- Dashboards – *Excel 2007 Dashboards and Reports for Dummies*
- User Profiling
- XA Lifespan Data Warehousing
- Etc.….

AAM or ESLT?

- Active Application Monitoring

  "Citrix EdgeSight Active Application Monitoring is an automated performance testing tool that periodically samples critical application transactions to monitor the availability and responsiveness of virtualized applications, providing insight into application performance and end-user experience."

- EdgeSight for Load Testing

  "EdgeSight for Load Testing is an automated load and performance testing solution for Citrix XenApp and Presentation Server environments. The product extends the application performance visibility that Citrix EdgeSight for XenApp provides by introducing pre-production application performance tools."

- Bottom Line

  "ESLT measures scalability and load tests in XA, while AAM monitors virtualized application availability."

Source – Thanks to Alexander Ervik Johnsen at www.ervik.as

Anyone Remember This?

The Citrix Presentation Server 4.0 Logon Process

Citrix Presentation Server 4.0 running on the 32-bit version of Microsoft Windows Server 2003, connecting from a bit Windows ICA client

EUEM Document

Disclaimer: This document and it's contents are in no way supported by Citrix, it's employees, partners, or anyone even remotely affiliated with Citrix in any way, shape, or form. It is also not supported by me and it is outdated.

In other words, don't ask for it.

CTX114495 – EUEM Statistics Explained

Dashboards

Citrix Application Usage and Delivery	Current Month	Previous Month	Change
Users per Business Day	774	836	-7%
Hosted Applications	119	131	-9%
Virtual Desktops	460	462	-0.5%

Citrix Availability	Current Month	Previous Month	YTD
Core Citrix Availability	100.00	99.966	99.973 %
Unavailable Minutes	0	15	45

Business Unit	Current Month	Previous Month	Change
ITS Application Delivery	26%	25%	⇧
Finance & Accounting	25%	25%	⇨
Sourcing and Supply	13%	13%	⇨
External Contractors (Non-BSD)	9%	11%	⇩
Enterprise Users	9%	9%	⇨
HR	7%	9%	⇩
Other	6%	4%	⇧
ITS Infrastructure	5%	4%	⇧

Citrix Application Usage

■ Outlook ■ SAP Portal ■ Internet Explorer
■ Remote Desktop ■ Office Communicator ■ Mainframe
■ Home Drive ■ HP Service Desk ■ Other
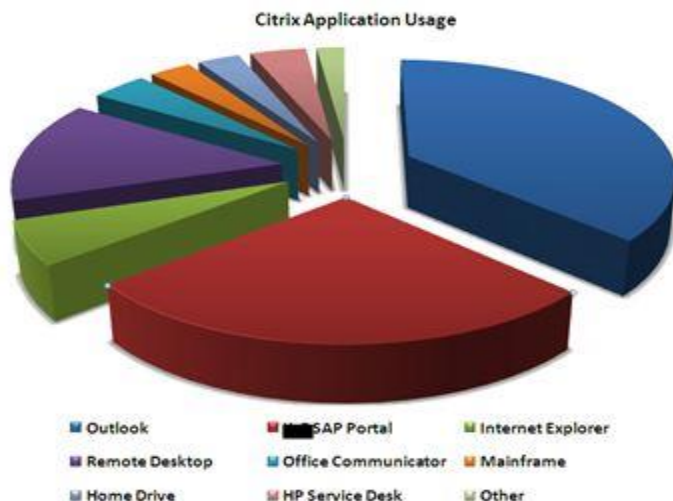
Support

There were a total of 200 service tickets assigned to the Citrix Services team in April 2009. Enterprise Users, accounted for 26% of the tickets opened. Training and New Requests accounted for the largest category of tickets for the month.

Citrix Support	Current Month	Previous Month	Change
Service Calls	200	196	2%
Changes (Work Orders)	139	108	28%

Business Unit	Support %
Enterprise Users	26%
ITS Infrastructure	22%
External Contractors (Non-BSD)	19%
Finance & Accounting	18%
ITS Application Delivery	11%
HR	2%
Sourcing and Supply	2%

Support Category	Support %
Training and Requests	32%
Planned Maintenance	15%
Client Environment	11%
Session Errors	11%
Authentication	10%
Hosted Applicaton Errors	7%
Proactive Monitoring	5%
Citrix Stability	4%
Virtual Desktop	3%
Other	2%
Performance	0%

Custom Reports

- Create new using Access, RS Report Designer, Crystal, etc. (RDL file required)
- Modify existing via XML
- Export Options
- Global or Individual Reports
- Reporting Services is Awesome!
  - Utilize Subscriptions & Scheduling
- Excellent source for customs and info –
  - www.edgesightunderthehood.com
- Required reading –
  - http://community.citrix.com/display/ocb/2009/12/09/EdgeSight+Custom+Reporting

Resource Manager Migration

- There is a migration process document available for migrating from Res. Mgr. to EdgeSight – CTX116798
- Report equivalent document – CTX124424
- No clean path
- Time to start over??

Key Areas for Issues

- User environment
  - From the Perception to the DMARC
- Network
  - Latency is critical (Accelerator technology does work! See Claudio!)
- Application
  - "Crap" app or just the way it is?
- XenApp
  - Processes, load, capacity, diversity
- OS & Hardware
  - Bare metal issues, OS patches

Systematic Troubleshooting

- Challenge your assumptions
- Break down big problems
- Ask others
- Write the problem down
- Change your perspective

number

num-ber   numb-er

hijklmno

H_2O

There is a dead man lying in the desert next to a rock. How did he die?

The dead man is Superman and the rock is Green Kryptonite

Some Observations

- "End User Experience Management" is a very broad term & should not be taken literally
- Drill, Baby, Drill (but leave a breadcrumb trail)
- Understand what all that data means
  - "Anatomy of an EdgeSight Report"
- Custom reports & extensive configurations are not for the faint at heart
- Measure Twice, Cut Once with the Deployment
- Upgrades are relatively painless (so far?)
- Baseline & customize your agent collections

Some Observations

- Watch Your DB Grooming & Jobs
- ES in XenDesktop/PVS environments
  - ES for XD Best Practices Guide, ES Install Guide
- Not designed to be highly available
- ES "mirrors" XA farm construction. Difficult to organize if farm is not organized.
- The initial installs requires almost "sa" rights
- Agent install – reboot required
- Forcing data uploads not recommended
- "Environmental Usage" NOT recommended
- Anti-Virus software

References & Links

- Citrix Wiki Beta Site **NEW** –
  - https://community.citrix.com/display/edgesight/Citrix+EdgeSight+Reporting+Wiki+%28Beta%29
- John Smith's site –
  - http://www.edgesightunderthehood.com
- Stephane Thirion's Archy.Net site –
  - http://www.archy.net/2010/04/28/citrix-edgesight-architecture-scenario-part-12/
- CitrixTV & Citrix Blogs
- Google is your friend ☺

DEMO