

Ready for

IBM. | **Tivoli.**

software



*Blue Medora ITM Agent for
Remote SSL Certificates*









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- Founded 2007 – Privately Backed
- Independent ISV focused exclusively on developing extensions for the Tivoli SAPM product portfolio
- OEM Developer of IBM Tivoli Composite Application Manager (ITCAM) for Applications: PeopleSoft & ITCAM for Applications: Siebel CRM
- Only ISV (other than IBM) to have developed commercial IBM Tivoli Monitoring (ITM)/ and Tivoli Common Reporting (TCR) Report packages

- **8 IBM Tivoli Monitoring Agents released in the past 12 months**
 -  ITCAM for Applications: PeopleSoft Enterprise 6.2.2(OEM Licensed)
 -  Tivoli Monitoring Agent for IBM Tivoli Directory Server
 -  Tivoli Monitoring Agent for Symantec Endpoint Protection
 -  Tivoli Monitoring Agent for Files & Directories
 -  Tivoli Monitoring Agent for Ping Probe
 -  Tivoli Monitoring Agent for Remote SSL Certificates
 -  Tivoli Monitoring Agent for Amazon Elastic Computer Cloud (EC2)
 -  Tivoli Monitoring Agent for Amazon Simple Storage Service (S3)

- **4 IBM Tivoli Monitoring Agents Currently Under Development**
 -  ITCAM for Apps: Siebel CRM 6.2.4
 -  Tivoli Monitoring Agent for Citrix XenServer (July 2010)
 -  Tivoli Monitoring Agent for Google App Engine (Q3/10)
 -  Tivoli Monitoring Agent for Microsoft Azure (Q3/10)

- **4 TCR Report Bundles released in 2009**
 -  TCR Reports for ITCAM for Applications: PeopleSoft
 -  bluemedora TCR Report Package for IBM Tivoli Directory Server
 -  bluemedora TCR Report Package for Remote SSL Certificates
 -  bluemedora TCR Report Package for Ping Probe



9 Tivoli Certified Tivoli Monitoring Agents

3 Tivoli Certified TCR Report Packages

12 Blue Medora Tivoli Certified Solutions

**World's Leading ISV focused on Tivoli
Monitoring Value-Added Products**

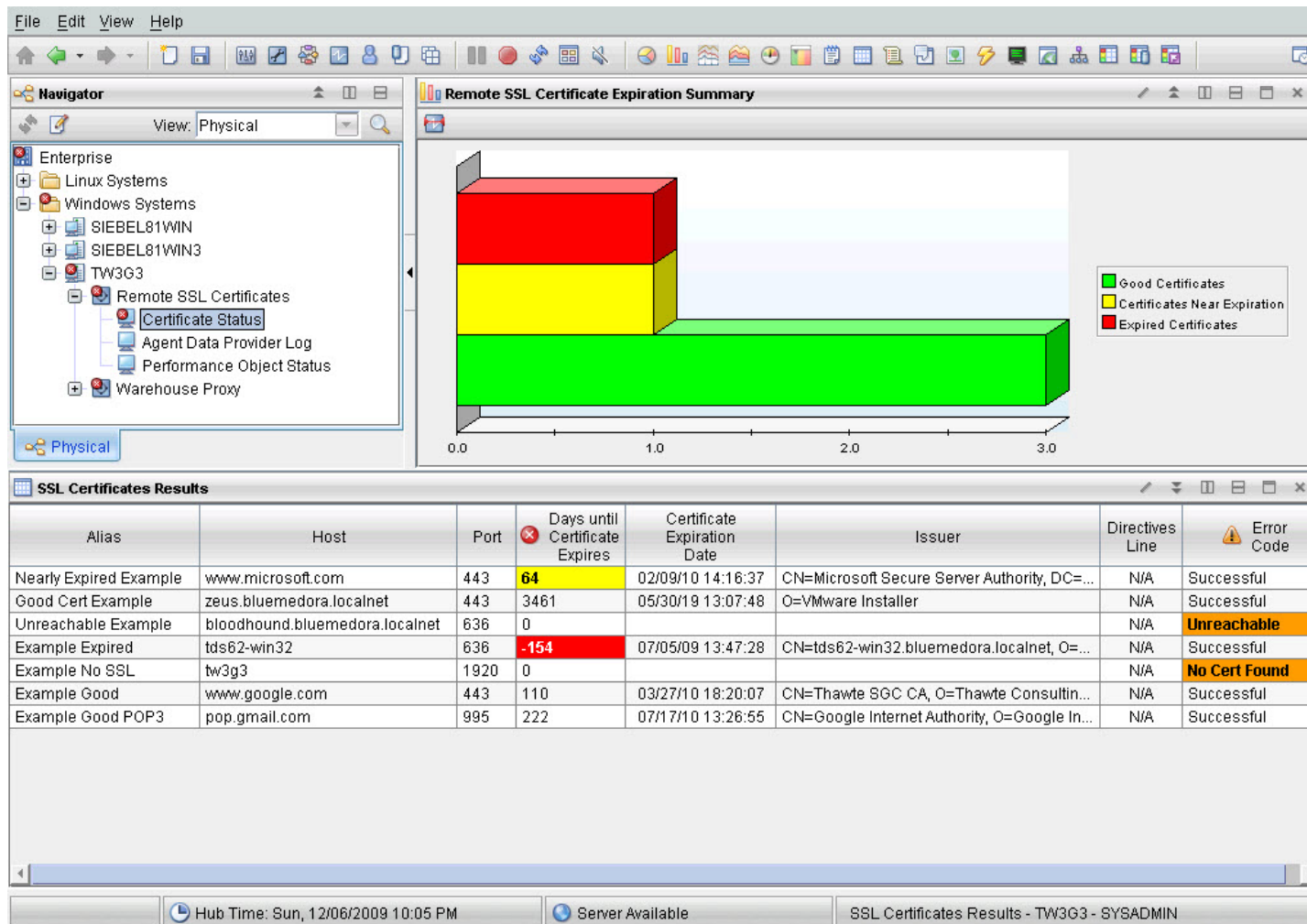
- Extends IBM Tivoli Monitoring (ITM) by adding the capability of remotely interrogating X.509 digital certificates throughout the enterprise and determining whether the certificates are in danger of expiring or have expired
- Two distinct Configuration mechanisms designed to provide ITM Administrators maximum flexibility in their approach to defining the Certificates to be monitored
- When combined with the accompanying TCR Report Package ITM Administrators are able to quickly and easily generate high level reports detailing the overall status of their remotely deployed X.509 certificates -- providing a pro-active understanding of when certificates will be expiring in the organization and causing outages.
- Supports monitoring of Certificates on standard SSL enabled TCP/IP hosts as well as TLS/SMTP accessible hosts
- IBM Certified
 - Ready for IBM Tivoli



Consistency With Existing ITM Infrastructure



ITM Agent for Remote SSL Certificates **has been designed from the ground up to look, feel, and operate like IBM-developed ITM agents** in terms of ITM remote deployment, manageability via ITM command-line utilities, installation and configuration



1st Class Citizens of the Tivoli Monitoring Ecosystem



ITM Agent for Remote
SSL Certificates
operates as **first-class
citizens of the ITM
ecosystem**

Remote SSL
Certificates Agent
**leverage ITM's Tivoli
Enterprise Portal
(TEP) visualization
capabilities** to include
best practices, expert
advice, customized
workspaces, and
historical data
gathering

Remote SSL Certificate Expiration Summary

View: Physical

Enterprise

- Linux Systems
- Windows Systems
 - SIEBEL81WIN
 - SIEBEL81WIN3
 - TW3G3

Critical

- KB4_SSL_Certificate_Expired Example_SSL_Services:TW3G3:B4 12/06/09 22:15:53 tds62-win32

Warning

- KB4_Unable_to_Read_Cert Example_SSL_Services:TW3G3:B4 12/06/09 22:16:04 tw3g3
- KB4_SSL_Cert_Near_Expiration Example_SSL_Services:TW3G3:B4 12/06/09 22:15:45 www.microsoft.com
- KB4_Host_Unreachable Example_SSL_Services:TW3G3:B4 12/06/09 22:15:36 bloodhound.bluemedora.local

KFWITM1011 Select workspace link button to view situation event results.

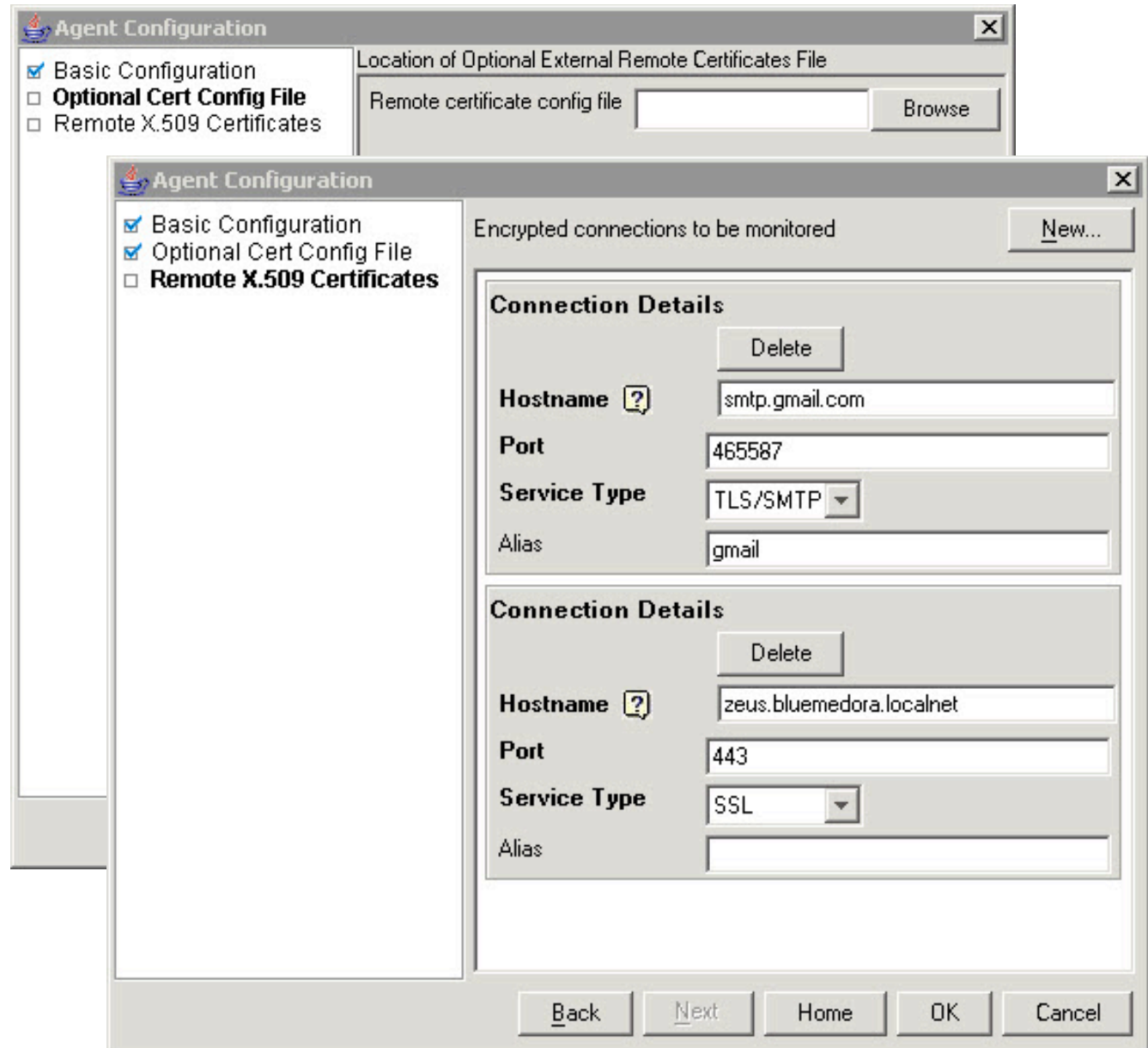
Example	Hostname	CPU	Memory	Alert Time	Alert Message	Alert Type	Status
Unreachable Example	bloodhound.bluemedora.localnet	636	0			N/A	Unreachable
Example Expired	tds62-win32	636	-154	07/05/09 13:47:28	CN=tds62-win32.bluemedora.localnet, O=...	N/A	Successful
Example No SSL	tw3g3	1920	0			N/A	No Cert Found
Example Good	www.google.com	443	110	03/27/10 18:20:07	CN=Thawte SGC CA, O=Thawte Consulti...	N/A	Successful
Example Good POP3	pop.gmail.com	995	222	07/17/10 13:26:55	CN=Google Internet Authority, O=Google I...	N/A	Successful

Hub Time: Sun, 12/06/2009 10:16 PM | Server Available | SSL Certificates Results - TW3G3 - SYSADMIN

Agent Configuration – Global Config Options



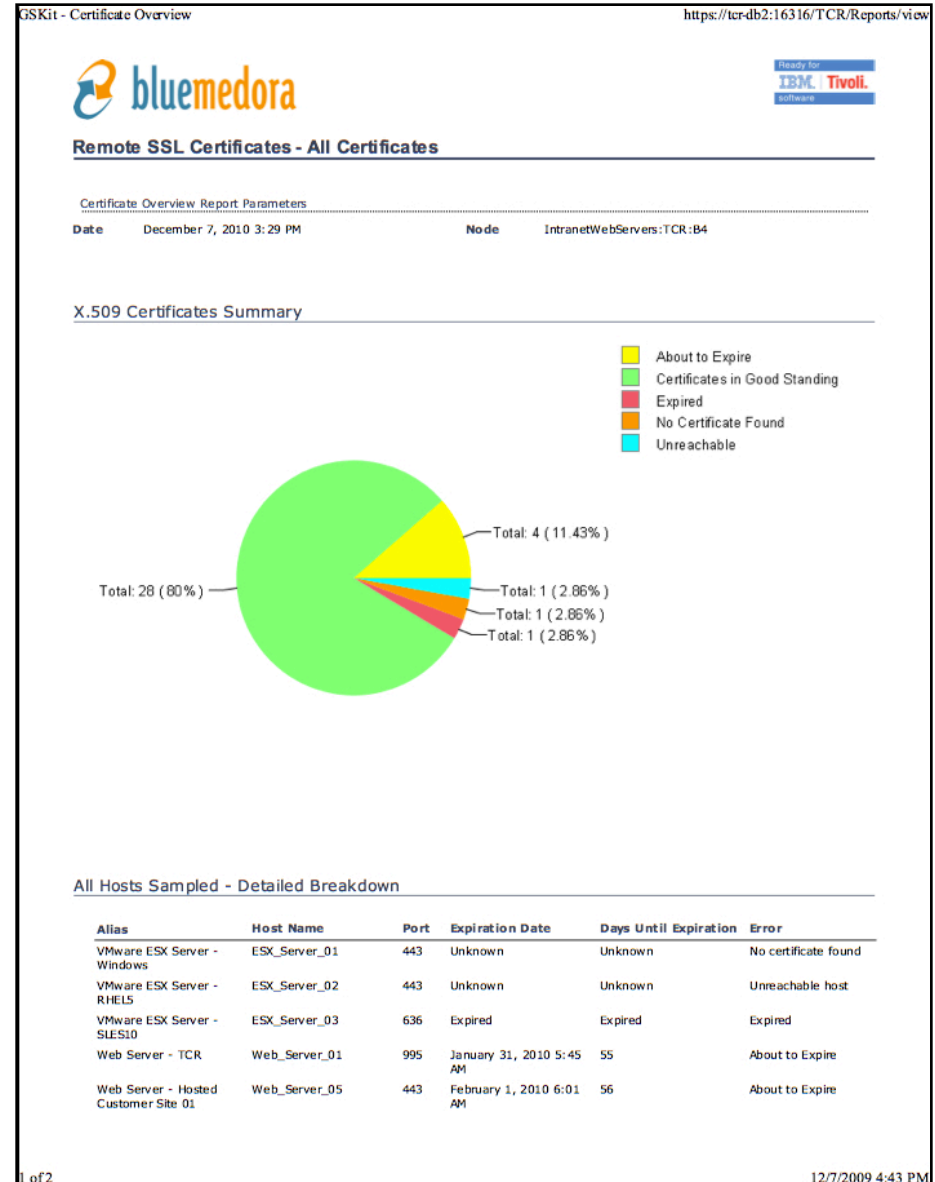
SSL Certificates can be added via Traditional ITM Agent Configuration panels and / or an Remote Certificate Configuration file (in CSV format) that provides for the configuration of **up to thousands of SSL Certificates**



TCR Reports for Remote SSL Certificates



- Focused Reports on Overall SSL Certificate status, Nearly Expired Certificates, and Expired Certificates
- Based on data collected by ITM and stored in the Tivoli Data Warehouse
- IBM Ready for Tivoli certified



The Remote SSL Certificates Agent for ITM helps answer the following types of questions:

- Which SSL Certificates in our environment are near expiration?
- Which SSL Certificates in our environment have expired?
- How many SSL Certificates in our environment currently Good, Expired, or Near Expiration?
- Can the Agent reach the Configured SSL Hostname/Port combination?
- Is the Configured SSL Hostname/Port combination really enabled to use SSL?

- **IBM Tivoli Monitoring (ITM)**
 - ITM 6.2.0 FP3 +
 - ITM 6.2.1 FP2 +
 - ITM 6.2.2 +
- **Operating systems**
 - Windows 2003 and 2008 (32 and 64-bit)
 - Red Hat Enterprise Linux 4 and 5 on Intel (32 and 64-bit)
 - Red Hat Enterprise Linux 4 and 5 on Power (64-bit)
 - Red Hat Enterprise Linux 4 and 5 on IBM zSeries (32 and 64-bit)
 - Suse Linux Enterprise Server (SLES) 10 and 11 on Intel (32 and 64-bit)
 - Suse Linux Enterprise Server (SLES) 10 and 11 on Power (64-bit)
 - Suse Linux Enterprise Server (SLES) 10 and 11 on IBM zSeries (32 and 64-bit)
 - AIX 5.3 and 6.1
 - Solaris 9 and 10 (Sparc)
 - HP-UX IA64

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- **Online Resources**

- Product Page -> <http://www.bluemedora.com/product/page/52>
- Camtasia Web Demo -> http://bluemedora.com/flash_demos/GSK/index.html
- Documentation -> <http://www.bluemedora.com/page/48>
- Evaluation Download -> <http://www.bluemedora.com/evaluation>

Questions?

Backup

Remote Certificates Agent Top Level Workspace



File Edit View Help

Navigator View: Physical

- Enterprise
 - Linux Systems
 - Windows Systems
 - SIEBEL81WIN
 - SIEBEL81WIN3
 - TW3G3
 - Remote SSL Certificates
 - Certificate Status
 - Agent Data Provider Log
 - Performance Object Status
 - Warehouse Proxy

Physical

Remote SSL Certificate Expiration Summary

Legend:

- Good Certificates
- Certificates Near Expiration
- Expired Certificates

SSL Certificates Results

Alias	Host	Port	Days until Certificate Expires	Certificate Expiration Date	Issuer	Directives Line	Error Code
Nearly Expired Example	www.microsoft.com	443	64	02/09/10 14:16:37	CN=Microsoft Secure Server Authority, DC=...	N/A	Successful
Good Cert Example	zeus.bluededora.localnet	443	3461	05/30/19 13:07:48	O=VMware Installer	N/A	Successful
Unreachable Example	bloodhound.bluededora.localnet	636	0			N/A	Unreachable
Example Expired	tds62-win32	636	-154	07/05/09 13:47:28	CN=tds62-win32.bluededora.localnet, O=...	N/A	Successful
Example No SSL	tw3g3	1920	0			N/A	No Cert Found
Example Good	www.google.com	443	110	03/27/10 18:20:07	CN=Thawte SGC CA, O=Thawte Consultin...	N/A	Successful
Example Good POP3	pop.gmail.com	995	222	07/17/10 13:26:55	CN=Google Internet Authority, O=Google In...	N/A	Successful

Hub Time: Sun, 12/06/2009 10:05 PM Server Available SSL Certificates Results - TW3G3 - SYSADMIN

Remote Certificates Agent Alternate Workspaces



File Edit View Help

Navigator View: Physical

- Enterprise
 - Linux Systems
 - Windows Systems
 - SIEBEL81WIN
 - SIEBEL81WIN3
 - TW3G3
 - Remote SSL Certificates
 - Certificate S...
 - Agent Data
 - Performanc...

Physical

Remote SSL Certificate Expiration Summary

Legend:

- Good Certificates
- Certificates Near Expiration
- Expired Certificates

SSL Certificates Results

Alias	Port	Days until Certificate Expires	Certificate Expiration Date	Issuer	Directives Line
Nearly Expired Example	443	64	02/09/10 14:16:37	CN=Microsoft Secure Server Authority, DC=redmond, DC=co...	N/A S
Good Cert Example	443	3461	05/30/19 13:07:48	O=VMware Installer	N/A S
Unreachable Example	636	0			N/A U
Example Expired	636	-154	07/05/09 13:47:28	CN=tds62-win32.bluemedora.localnet, O=Blue Medora LLC...	N/A S
Example No SSL	1920	0			N/A N
Example Good	443	110	03/27/10 18:20:07	CN=Thawte SGC CA, O=Thawte Consulting (Pty) Ltd., C=ZA	N/A S
Example Good POP3	995	222	07/17/10 13:26:55	CN=Google Internet Authority, O=Google Inc, C=US	N/A S

Hub Time: Sun, 12/06/2009 10:18 PM

Server Available

SSL Certificates Results - TW3G3 - SYSADMIN

Remote Certificates Agent Example Situations



File Edit View Help

Navigator View: Physical

- Enterprise
 - Linux Systems
 - Windows Systems
 - SIEBEL81WIN
 - SIEBEL81WIN3
 - TW3G3

Remote SSL Certificate Expiration Summary

Good Certificates

Critical

- KB4_SSL_Certificate_Expired Example_SSL_Services:TW3G3:B4 12/06/09 22:15:53 tds62-win32

Warning

- KB4_Unable_to_Read_Cert Example_SSL_Services:TW3G3:B4 12/06/09 22:16:04 tw3g3
- KB4_SSL_Cert_Near_Expiration Example_SSL_Services:TW3G3:B4 12/06/09 22:15:45 www.microsoft.com
- KB4_Host_Unreachable Example_SSL_Services:TW3G3:B4 12/06/09 22:15:36 bloodhound.bluededora.local

KFWITM1011 Select workspace link button to view situation event results.

Example	Host	IP	Port	Time	Details	Result
Unreachable Example	bloodhound.bluededora.localnet	636	0			Unreachable
Example Expired	tds62-win32	636	-154	07/05/09 13:47:28	CN=tds62-win32.bluededora.localnet, O=...	Successful
Example No SSL	tw3g3	1920	0			No Cert Found
Example Good	www.google.com	443	110	03/27/10 18:20:07	CN=Thawte SGC CA, O=Thawte Consulti...	Successful
Example Good POP3	pop.gmail.com	995	222	07/17/10 13:26:55	CN=Google Internet Authority, O=Google I...	Successful

Hub Time: Sun, 12/06/2009 10:16 PM Server Available SSL Certificates Results - TW3G3 - SYSADMIN

Configuration using Standard ITM Configuration



Agent Configuration [Close]

Basic Configuration
 Optional Cert Config File
 Remote X.509 Certificates

Encrypted connections to be monitored New...

Connection Details Delete

Hostname ?

Port

Service Type

Alias

Connection Details Delete

Hostname ?

Port

Service Type

Alias

Back Next Home OK Cancel

Configuration Example using External CSV File



```
KB4_hosts_sample.csv - Notepad
File Edit Format View Help
# To monitor a host, add entries to this file in the form of
# Host, Port, Alias
# without the leading '#' symbol
#
#
# CONFIGURATION FILE RULES
#
# 1. Fields must be comma separated
# 2. Commas are not supported within any field
# 3. Blank lines are discarded
# 4. The file is read and cached until agent is stopped. Restart the agent to have the agent
# 5. Lines that begin with '#' as the first non-whitespace character are skipped as comments
# 6. Both the Host (field 1), and Port(field 2) are required
# 7. Leading and trailing whitespace is trimmed from all configuration fields
# 8. If the service type is not specified, the service SSL will be set
# 9. If the alias is not provided it will be set to host:port
#
# As of right now the only two supported services types are traditional SSL connections and
#
# EXAMPLES
#
# Unix, Linux and windows Examples - remove the leading '#' symbol to activate an example
# Host, Port, Alias, Service Type
#
# gmail.com, 443, E-Mail, SSL
# gmail.com, 443
# localhost, 443, my local machine
# localhost, 3000
#
# ----- To specify a host that uses the tls/smtp service do the following -----
#
# smtp.gmail.com, 587, smpt via tls gmail, tls/smtp
smtp.gmail.com, 587, gmail, tls/smtp
zeus.bluemedora.localnet, 443, , ssl
www.microsoft.com, 443
```

Using Agent Instances for Different SSL Categories



Manage Tivoli Enterprise Monitoring Services - TEMS Mode - [Local Computer]

Actions Options View Windows Help

Service/Application	Task/SubSystem	Configured	Status	Configuration	Startup	Account	Desktop
Eclipse Help Server	HELPSVR	Yes	Started	up-to-date	Auto	LocalSystem	No
Tivoli Enterprise Portal	Browser	Yes		N/A	N/A	N/A	N/A
Tivoli Enterprise Portal	Desktop	Yes		N/A	N/A	N/A	N/A
Tivoli Enterprise Portal Server	KFWSRV	Yes (TEMS)	Started	up-to-date	Auto	LocalSystem	No
Warehouse Summarization and Pruning Agent	Primary	Yes (TEMS)	Stopped	up-to-date	Auto	LocalSystem	No
Warehouse Proxy	Primary	Yes (TEMS)	Started	up-to-date	Auto	LocalSystem	No
Monitoring Agent for Remote SSL Certificates	LDAP_Servers	Yes (TEMS)	Started	up-to-date	Auto	LocalSystem	No
Monitoring Agent for Remote SSL Certificates	ITM_Servers	Yes (TEMS)	Started	up-to-date	Auto	LocalSystem	No
Monitoring Agent for Remote SSL Certificates	Intranet_Web_Servers	Yes (TEMS)	Started	up-to-date	Auto	LocalSystem	No
Monitoring Agent for Remote SSL Certificates	External_Web_Servers	Yes (TEMS)	Started	up-to-date	Auto	LocalSystem	No
Monitoring Agent for Remote SSL Certificates	Template			N/A			
Tivoli Enterprise Monitoring Server	TEMS1	Yes	Started	up-to-date	Auto	LocalSystem	No

Certificate Near Expiration – Sample Situation



File Edit View Help

Navigator View: Physical

- Enterprise
 - Linux Systems
 - Windows Systems
 - SIEBEL81WIN
 - SIEBEL81WIN3
 - TW3G3
 - Remote SSL Certificates
 - Certificate Status
 - KB4_SSL_Cert_Near_Expiration**
 - Agent Data Provider Log
 - Performance Object Status

Physical

Initial Situation Values

Days until Certificate Expires	Error Code	Node	Timestamp	Alias
64	Successful	Example_SSL_Services:TW3G3:B4	12/06/09 22:14:49	Nearly Expired Example www.r

Current Situation Values

Days until Certificate Expires	Error Code	Node	Timestamp	Alias
64	Successful	Example_SSL_Services:TW3G3:B4	12/06/09 22:16:52	Nearly Expired Example www.r

Command View

Take Action

Action

Name:

Command:

Arguments...

Destination Systems

Run

Expert Advice

Location: http://tw3g3:1920///cnp/kdh/lib/classes/candle/kb4/r

Expert Advice

KB4_SSL_Cert_Near_Expiration

[Situation Description](#) **Situation Description**
Remote SSL certificate expires in 90 or less days

[Suggested Actions](#) **Suggested Actions**
Remote SSL Certificate will expire in less than 90 days.
A security administrator should review the certificate and determine whether it needs to be renewed.

Done

Hub Time: Sun, 12/06/2009 10:17 PM Server Available KB4_SSL_Cert_Near_Expiration - www.microsoft.com - TW3G3 - SYSADMIN

TCR Report – Overall SSL Certificate Status



GSKit - Certificate Overview

<https://tcr-db2:16316/TCR/Reports/view>

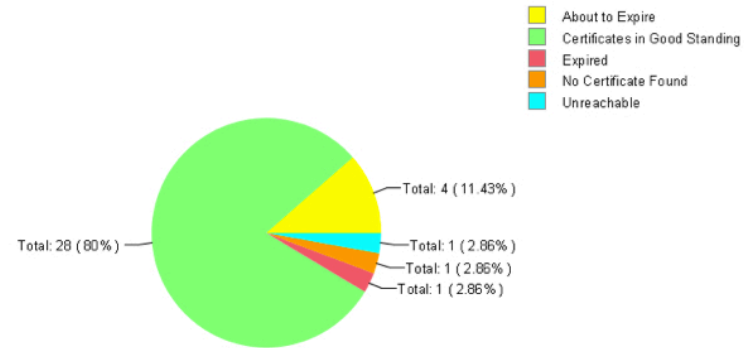


Remote SSL Certificates - All Certificates

Certificate Overview Report Parameters

Date December 7, 2010 3:29 PM Node IntranetWebServers:TCR:B4

X.509 Certificates Summary



All Hosts Sampled - Detailed Breakdown

Alias	Host Name	Port	Expiration Date	Days Until Expiration	Error
VMware ESX Server - Windows	ESX_Server_01	443	Unknown	Unknown	No certificate found
VMware ESX Server - RHEL5	ESX_Server_02	443	Unknown	Unknown	Unreachable host
VMware ESX Server - SLES10	ESX_Server_03	636	Expired	Expired	Expired
Web Server - TCR	Web_Server_01	995	January 31, 2010 5:45 AM	55	About to Expire
Web Server - Hosted Customer Site 01	Web_Server_05	443	February 1, 2010 6:01 AM	56	About to Expire