

Data Sheet

MetrixInsight for CVAD



Overview

MetrixInsight for CVAD is a Management Pack for Microsoft System Center Operation Manager (SCOM) designed to monitor your on-premise Server Based Computing (SBC) and/or Virtual Desktop Infrastructure (VDI) platform based on Citrix® Virtual Apps and Desktops 7.x (formerly known as XenDesktop and/or XenApp).

This Management Pack models and visualizes your platform within a single pane of glass to monitor all parts of your virtualized End User Computing environment.



Features

With MetrixInsight for CVAD on SCOM you are able to integrate, visualize and monitor your on-premise Citrix® Virtual Apps and Desktops infrastructure. It discovers and visualizes the CVAD stack topologies in a drilldown dashboard using the different layers that exist in a typical End-User-Computing platform deployment and provides the monitoring and reporting services that are essential to keep the end-user computing platform up and running and your end users happy.



User Experience Monitoring

Real End User Computing Logons and Sessions



User Layer Monitoring

Desktop OS and Server OS Delivery Groups



Access Layer Monitoring

StoreFront Server Groups, StoreFront Servers, StoreFront Stores, Application Delivery Controller



Control Layer Monitoring

Delivery Controllers, Sites, Zones, License Servers, Licenses, Provisioning Services Farms, Sites, Servers, vDisks

State Monitoring and Alerting



State Monitoring and Alerting

State Monitoring and Alerting for all End User Computing layers to alarm you whenever user experience gets, or may get disturbed, components fail, or resources are low

Performance and Utilization



Performance and Utilization

Performance and Utilization data collection for dozens of metrics giving insight into every layer of your End User Computing platform and User Experience



Resource Layer Monitoring

Catalogs, Server OS Machines



Hardware Layer Monitoring

Hosting Connections

Product Updates

Regular product updates with new features and improvements

E-mail support

Response time within 24 hours

Product knowledge

Product Knowledge for Monitors and Alerts to quickly solve problems

Integration



Integration Packs

Integrates with your current SQL, AD and WinOS MPs by using our Integration MPs to get even richer topology views



Squared Up Dashboard Pack

Integrates with Squared Up by using our free available community Dashboard Pack for MetrixInsight for CVAD

Reporting

Capacity and Performance Management reports to analyze trends over time

Presentation

Alert views, State views

Performance views

Topology views

Single-Pane-of-Glass Dashboards

Performance Metrics

Citrix Virtual Apps and Desktops

1. Maximum Logon Duration within Site
2. Maximum Logon Duration within Delivery Group
3. Average Logon Duration within Site
4. Average Logon Duration within Delivery Group
5. Logon Duration per User
6. Interactive Session Duration per User
7. Authentication Duration per User
8. HDX Duration per User
9. GPO Duration per User
10. Logon Script Duration per User
11. Virtual Machine Start Duration per User
12. Brokering Duration per User
13. Profile Load Duration per User
14. Average Session Round Trip Time (ICA RTT) within Delivery Group
15. Max Session Round Trip Time (ICA RTT) within Delivery Group
16. Session Round Trip Time (ICA RTT) per User
17. Concurrent Sessions within Site
18. Concurrent Sessions within Delivery Group
19. Concurrent Sessions on Server OS Machine
20. Disconnected Sessions within Site
21. Disconnected Sessions on Delivery Group
22. Disconnected Sessions on Server OS Machine
23. Connected Sessions within Site
24. Connected Sessions within Delivery Group
25. Connected Sessions on Server OS Machine
26. Logons within Site
27. Logons within Delivery Group
28. Reconnections within Delivery Group
29. Load Capacity Usage within Delivery Group
30. Max Load Capacity within Delivery Group
31. % Load Capacity Usage within Delivery Group
32. Available Servers within Delivery Group
33. Available Desktops within Delivery Group
34. Maximum Capacity Reached Server OS Machines within Delivery Group
35. Failed Connections within Site
36. % Failed Connections within Site
37. % Failed Connections within Delivery Group
38. Failed Connections within Delivery Group
39. Succeeded Connections within Delivery Group
40. Connections within Delivery Group
41. Failed Connections for each type within Delivery Group
42. Expired Disconnected Sessions within Site
43. Expired Disconnected Sessions within Delivery Group
44. Available Unassigned Machines within Catalog
45. Machine Failures within Site
46. Machine Failures within Delivery Group
47. Load Index Server OS Machine
48. % CPU Usage Server OS Machine
49. % Memory Usage Server OS Machine

50. Uptime Server OS Machine

Citrix License Server

- 51. % Citrix Licenses in use
- 52. Citrix Licenses in use
- 53. Available Citrix Licenses

Citrix Provisioning Services

- 54. Write Cache Size Server OS Machine
- 55. Device Count Provisioning Server
- 56. Free Space vDisk Store

Citrix Application Delivery Controller

- 57. % /flash Disk Space Used
- 58. % /var Disk Space Used
- 59. % Authentications Failed
- 60. % HTTP Authorizations Failed
- 61. % LDAP Authentications Failed
- 62. % Management CPU Usage
- 63. % Memory Usage
- 64. % Non-HTTP Authorizations Failed
- 65. % Packet CPU Usage
- 66. % RADIUS Authentications Failed
- 67. Active SSL Sessions
- 68. Authentication Failure Count
- 69. Authentication Failure Rate
- 70. Authentication Success Count
- 71. Authentication Success Rate
- 72. Certificate Days To Expiration
- 73. Current AAA TM Sessions Count
- 74. Current AAA TM Sessions Rate
- 75. Current Basic ICA only Connections Count
- 76. Current Gateway Users Count
- 77. Current Smart Access AAA Sessions Count
- 78. Current Smart Access AAA Sessions Rate
- 79. Current Smart Access ICA Connections Count
- 80. Failed LDAP Authentications
- 81. Failed RADIUS Authentications
- 82. Gateway Client Configuration Request Rate
- 83. Gateway Client Configuration Requests
- 84. Gateway Login Page Display Failures
- 85. Gateway Login Page Hits
- 86. Gateway Virtual Server Current AAA Users Count
- 87. Gateway Virtual Server Request Bytes Rate
- 88. Gateway Virtual Server Requests Rate
- 89. Gateway Virtual Server Response Bytes Rate
- 90. Gateway Virtual Server Responses Rate
- 91. HA Heartbeat Packets Received Rate
- 92. HA Node Heartbeat packets sent Rate
- 93. HA Node Synchronization Failures
- 94. HA Node Timed Out HA Propagations
- 95. HDX Connection Failure Rate

96. HDX Connection Success Rate
97. HTTP Connection Authorization Failure Count
98. HTTP Connection Authorization Failure Rate
99. HTTP Connection Authorization Success Count
100. HTTP Connection Authorization Success Rate
101. HTTP Requests Rate
102. HTTP Response Rate
103. Incoming Appliance Throughput Rate
104. Interface Discarded Inbound Packets Rate
105. Interface Dropped Inbound Packets Rate
106. Interface Dropped Outbound Packets Rate
107. Interface Received Bytes Rate
108. Interface Received Error Packets Rate
109. Interface Received Packets Rate
110. Interface Total Discarded Inbound Packets
111. Interface Total Dropped Inbound Packets
112. Interface Total Dropped Outbound Packets
113. Interface Total Received Bytes Count
114. Interface Total Received Error Packets
115. Interface Total Received Packets Count
116. Interface Total Transmitted Bytes Count
117. Interface Total Transmitted Error Packets
118. Interface Total Transmitted Packets Count
119. Interface Transmitted Bytes Rate
120. Interface Transmitted Error Packets Rate
121. Interface Transmitted Packets Rate
122. Internal Temperature
123. License Days To Expiration
124. Load Balancing Virtual Server % Health State
125. Load Balancing Virtual Server Current Client Connections Count
126. Load Balancing Virtual Server Current Server Connections Count
127. Load Balancing Virtual Server Hits Rate
128. Load Balancing Virtual Server Request bytes Rate
129. Load Balancing Virtual Server Response Bytes Rate
130. Load Balancing Virtual Server Total Hits Count
131. Memory Used (MBytes)
132. Non-HTTP Connection Authorization Failure Count
133. Non-HTTP Connection Authorization Failure Rate
134. Non-HTTP Connection Authorization Success Count
135. Non-HTTP Connection Authorization Success Rate
136. Outgoing Appliance Throughput Rate
137. Resolved DNS Queries Rate
138. SOCKS Client Error Rate
139. SOCKS Connect Request Received Rate
140. SOCKS Connect Request Sent Rate
141. SOCKS Connect Respond Received Rate
142. SOCKS Connect Respond Sent Rate
143. SOCKS Method Request Received Rate
144. SOCKS Method Request Sent Rate
145. SOCKS Method Respond Received Rate
146. SOCKS Method Respond Sent Rate
147. SOCKS Server Error Rate

148. SSL VPN Tunnels Formed Rate
149. STA Connection Failure Rate
150. STA Connection Success Rate
151. STA Request Sent Rate
152. STA Response Received Rate
153. Successful LDAP Authentications
154. Successful RADIUS Authentications
155. Total AAA TM Sessions Count
156. Total AAA TM Sessions Rate
157. Total Failed LDAP Authentications
158. Total Failed RADIUS Authentications
159. Total HA Heartbeat Packets Received
160. Total HA Heartbeat Packets Sent
161. Total HDX Connection Failures
162. Total HDX Connection Success
163. Total Resolved DNS Queries
164. Total Smart Access AAA Sessions Count
165. Total Smart Access AAA Sessions Rate
166. Total SOCKS Client Errors
167. Total SOCKS Connect Request sent
168. Total SOCKS Connect Requests Received
169. Total SOCKS Connect Respond Received
170. Total SOCKS Connect Respond Sent
171. Total SOCKS method request sent
172. Total SOCKS Method Requests Received
173. Total SOCKS Method Respond Received
174. Total SOCKS Method Respond Sent
175. Total SOCKS Server Errors
176. Total SSL VPN Tunnels Formed
177. Total STA Connection Failures
178. Total STA Connection Success
179. Total STA Request Sent
180. Total STA Responses Received
181. Total Successful LDAP Authentications
182. Total Successful RADIUS Authentications
183. Total Timed-out AAA Sessions Count
184. Total Timed-out AAA Sessions Rate
185. Total VPN License Failures

Monitors

Citrix Virtual Apps and Desktops

1. Broker State Delivery Controller
2. Availability Delivery Controller Windows Services (monitor for each Windows Service)
3. Database Connectivity Delivery Controller (monitor for each Windows Service)
4. License Server State Delivery Controller
5. Licensing Grace State Delivery Controller
6. SSL Certificate Validity Delivery Controller
7. % Load Capacity within Delivery Group
8. Server Capacity Available within Delivery Group
9. Desktop Capacity Available within Delivery Group
10. Connected Sessions within Delivery Group
11. Disconnected Sessions within Delivery Group

12. Concurrent Sessions within Delivery Group
13. Expired Disconnected Sessions within Delivery Group
14. Maximum Capacity Reached Server OS Machines within Delivery Group
15. Maintenance Mode Enabled for Delivery Group
16. % Connections Failed within Delivery Group
17. Failed Machines within Delivery Group
18. Logon Duration within Delivery Group
19. Average Logon Duration within Delivery Group
20. Maximum Logon Duration within Delivery Group
21. User Session Round Trip Time (ICA RTT)
22. Max User Session Round Trip Time (ICA RTT)
23. Connection State to Hypervisor
24. Available Unassigned Machines within Catalog
25. Concurrent Sessions on Server OS Machine
26. Maintenance Mode Enabled for Server OS Machine
27. Load Index Server OS Machine
28. Fault State Server OS Machine
29. ICMP Ping Server OS Machine
30. Uptime Server OS Machine
31. VDA Windows Services Server OS Machine

Citrix License Server

32. Expiration License Subscription Advantage (SA) Date
33. % Citrix Licenses In Use
34. Availability License Server Windows Services (monitor for each Windows Service)

Citrix Provisioning Services

35. State Provisioning Server
36. Availability Provisioning Services Windows Services (monitor for each Windows Service)
37. Device Count Provisioning Server
38. Free Space Store
39. Load Balancing vDisk
40. Cache type vDisk
41. Replication vDisk
42. Write Cache Size Server OS Machine

Citrix StoreFront

43. Availability StoreFront Windows Services (monitor for each Windows Service)
44. Availability StoreFront discovery URL
45. SSL Certificate Validity StoreFront Server
46. Availability XML Broker Service (synthetic transactions)

Citrix Application Delivery Controller

46. % Disk Usage
47. % Failed Authentications
48. % Failed HTTP Authentications
49. % Failed LDAP Authentications
50. % Failed non-HTTP Authentications
51. % Failed RADIUS Authentications
52. % Health Load Balancing Virtual Server
53. % Management CPU Usage
54. % Memory Usage

55. % Packet CPU Usage
56. ADC Device Availability
57. Certificate Expiration
58. HA State
59. License Expiration
60. Power Supply
61. State Gateway Virtual Server
62. State Load Balancing Service
63. State Load Balancing Service Group
64. State Load Balancing Virtual Server
65. State Network Interface
66. Unsaved Config

Squared Up Dashboard Pack



We have created a Squared Up Community Dashboard Pack with more than 60 drill-down views to complement MetrixInsight for CVAD. Squared Up is a HTML5, extremely fast, multi-platform web console.

More information about this dashboard and how to get it, you can find [here](#).

Supported software versions

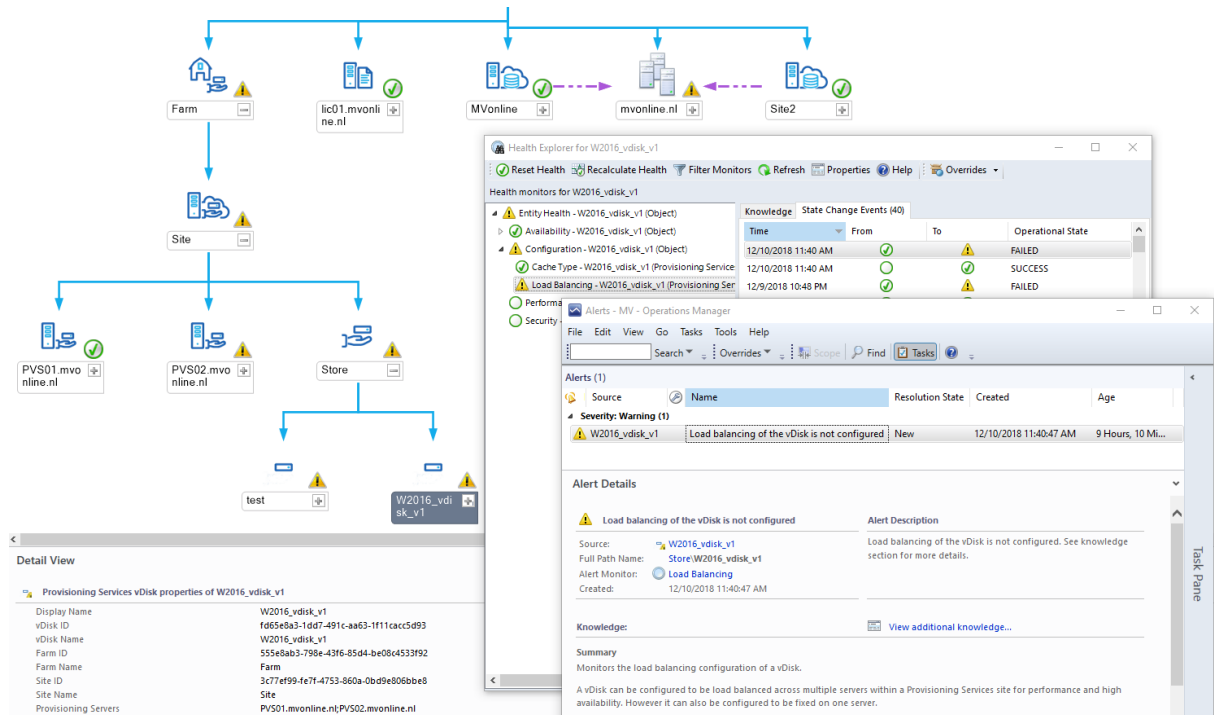
- Microsoft System Center Operations Manager 2012 R2
- Microsoft System Center Operations Manager 2016
- Microsoft System Center Operations Manager 2019
- Microsoft Windows Server 2008 R2 and higher
- Citrix Virtual Apps and Desktop 7 1808 and higher CR and LTSR deployments
- Citrix XenApp and XenDesktop 7.6 and higher CR and LTSR deployments

- Citrix Provisioning Services 7.x
- Citrix StoreFront 2.6 or higher
- Citrix License Server for Windows 11.11.1 or higher

Impression



An impression of our management pack in action.



The screenshot displays the management console interface. On the left, a hierarchical tree view shows the structure of Provisioning Services objects, including Farms, Sites, and Stores. On the right, a 'Health Explorer' window is open, showing a table of health monitors and their operational states. Below this, an 'Alerts' window displays a list of alerts, with one alert selected: 'W2016_vdisk_v1' with the message 'Load balancing of the vDisk is not configured'. The 'Alert Details' section provides further information about the alert, including its source, full path name, and alert monitor.

Health Monitor	Time	From	To	Operational State
Entity/Health - W2016_vdisk_v1 (Object)				
Availability - W2016_vdisk_v1 (Object)	12/10/2018 11:40 AM			FAILED
Configuration - W2016_vdisk_v1 (Object)	12/10/2018 11:40 AM			SUCCESS
Cache Type - W2016_vdisk_v1 (Provisioning Service)	12/10/2018 11:40 AM			SUCCESS
Load Balancing - W2016_vdisk_v1 (Provisioning Ser	12/9/2018 10:48 PM			FAILED

Source	Name	Resolution State	Created	Age
W2016_vdisk_v1	Load balancing of the vDisk is not configured	New	12/10/2018 11:40:47 AM	9 Hours, 10 Mi...

Alert Details

Alert Description

Load balancing of the vDisk is not configured. See knowledge section for more details.

Source: W2016_vdisk_v1
 Full Path Name: Store:W2016_vdisk_v1
 Alert Monitor: Load Balancing
 Created: 12/10/2018 11:40:47 AM

Knowledge: View additional knowledge...

Summary

Monitors the load balancing configuration of a vDisk.

A vDisk can be configured to be load balanced across multiple servers within a Provisioning Services site for performance and high availability. However it can also be configured to be fixed on one server.

Licensing



Our products are licensed on a volume based annual subscription license model. This means that there is no big upfront investment for you, but you pay yearly as long as you want to use our products. We believe this kind of licensing model fits perfect in the Cloud era we live in today.

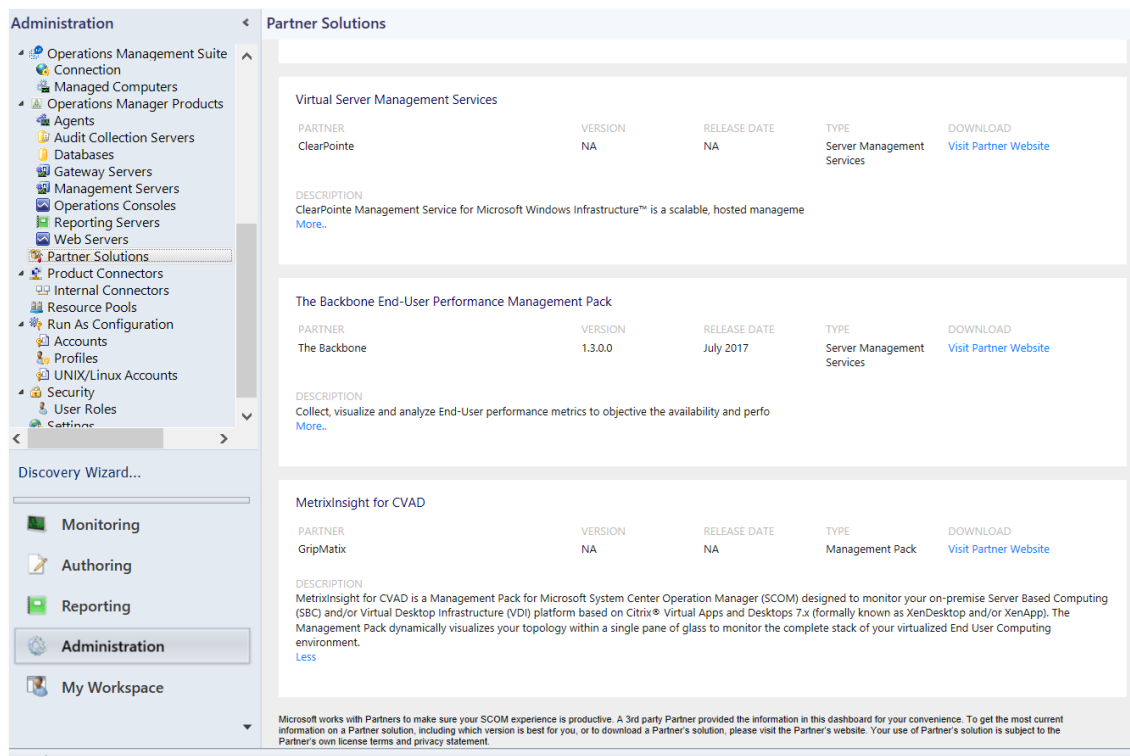
Our licenses are bound to one or more Citrix license servers within a single SCOM Management Group environment. Based on the type and amount of Citrix licenses you have, you need to select the right subscription plan that fits your needs. The number of licenses loaded on your specified Citrix license server(s) needs to be at least equal or less to your subscription plan license volume.

E.g. if you have 1250 concurrent Virtual Desktop Advanced licenses loaded on your license server, you need to request for a subscription of at least 1250 concurrent licenses.

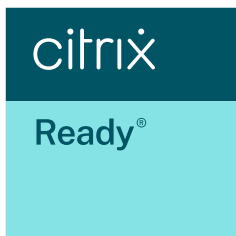
When you plan to extend your deployment with additional licenses, this also means that your MetrixInsight for CVAD subscription needs to be adjusted. This can be requested through our support channels.

Microsoft Partner Solutions and Citrix Ready

We continuously work hard to get the highest quality for our solutions. Therefore, we are delighted MetrixInsight for CVAD has been certified as [Citrix Ready](#) in the Citrix Ready Marketplace and added to Microsoft's preferred SCOM Partner Solutions area in the administration workspace in your SCOM Console.



PARTNER	VERSION	RELEASE DATE	TYPE	DOWNLOAD
ClearPointe	NA	NA	Server Management Services	Visit Partner Website
The Backbone	1.3.0.0	July 2017	Server Management Services	Visit Partner Website
GripMatix	NA	NA	Management Pack	Visit Partner Website



From there you can always find our website to get a [free trial](#) or [paid subscription](#).

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