System Center Operations Manager Management Pack Guide for CRM 2016

Microsoft Corporation

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System Center Operations Manager Management Pack Guide for CRM 2016

This guide describes the features of the Microsoft System Center Operations Manager management pack for Microsoft Dynamics CRM 2016, with deployment and configuration information. The Operations Manager management pack for CRM enables you to monitor Microsoft Dynamics CRM Server 2016 and in Microsoft System Center Operations Manager.

Important

 Microsoft System Center Operations Manager management pack for Microsoft Dynamics CRM 2016 requires Microsoft System Center Operations Manager 2012 or a later version.

 If you are currently running a version of System Center Operations Manager 2007, you will need to install Microsoft System Center Operations Manager 2012 before installing the management pack.

Revision History

|  |  |
| --- | --- |
| Release Date | Changes |
| December 2015 | Original release of this guide. |

In This Section

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Introduction to the Operations Manager management pack for CRM 2016

Operations Manager is a powerful infrastructure tool with comprehensive event and performance management, proactive monitoring and alerting, and reporting and trend analysis. Other functionality includes system and application-specific knowledge and tasks to improve the manageability of Windows servers and applications.

By managing these Microsoft Dynamics CRM components in Operations Manager, the administrator can respond quickly to critical events and key performance indicators, and take action to prevent service outages, reduce the resolution time for alert conditions, and increase the overall availability and performance of the Microsoft Dynamics CRM system.

For information about Microsoft Dynamics CRM, see the [Microsoft Dynamics CRM Product Overview](http://go.microsoft.com/fwlink/p/?LinkId=120152).

For information about Microsoft System Center Operations Manager, see [Operations Manager](http://go.microsoft.com/fwlink/p/?LinkId=511645).

Get the latest management pack and documentation

You can download the Microsoft System Center Operations Manager management pack for Microsoft Dynamics CRM 2016 [here](http://go.microsoft.com/fwlink/?LinkId=513163).

Note

If you already have the Operations Manager management pack for a previous version of Microsoft Dynamics CRM installed, the Operations Manager management pack for CRM 2016 will replace it.

For information about using management packs, see [Using Management Packs](http://go.microsoft.com/fwlink/p/?LinkId=511653).

System Requirements

For information on software requirements, see [Software requirements for Microsoft Dynamics CRM Server](http://go.microsoft.com/fwlink/p/?LinkId=511581).

Getting Started

Before you install the Microsoft System Center Operations Manager management pack for Microsoft Dynamics CRM 2016, read this topic that covers the prerequisites and the basic items you’ll need to cover, including information about customizations.

Prerequisites

Before you can install the management pack you need to already have installed one of the following versions of Operations Manager:

 Microsoft System Center Operations Manager 2012

 System Center 2012 SP1 - Operations Manager

 System Center 2012 R2 Operations Manager

Next, install the Operations Manager agent on all Microsoft Dynamics CRM Server 2016 servers that you want to manage. This is required because this management pack doesn’t support agentless monitoring.

Install the management pack

This management pack contains the files listed in the following table.

|  |  |
| --- | --- |
| File name | Description |
| Microsoft.Dynamics.CRM.mp | Contains class definitions, discoveries, and monitoring components. |
| Microsoft System Center Management Pack for Dynamics CRM 2016 Supplemental Notice.rtf | License agreement. |

For instructions about importing a management pack, see [How to Import a Management Pack](http://go.microsoft.com/fwlink/p/?LinkId=511596) .

You might also find it useful to install the following management packs:

 Internet Information Services (IIS) Management Pack for general IIS monitoring

 Microsoft SQL Server Management Pack

This management pack will provide rich monitoring of the Microsoft SQL Server computer that Microsoft Dynamics CRM is deployed on.

Note that some basic IIS monitoring is included in the Operations Manager management pack for CRM.

After you import the management pack, create a new management pack for storing overrides and other customizations.

Create a new management pack for customizations

Most vendor management packs are sealed so that you can’t change any of the original settings in the management pack file. However, you can create customizations, such as overrides or new monitoring objects, and save them to a different management pack. By default, Operations Manager saves all customizations to the default management pack. As a best practice, create a separate management pack for each sealed management pack you want to customize.

Creating a new management pack for storing overrides has the following advantages:

 It simplifies the process of exporting customizations that were created in your test and pre-production environments to your production environment. For example, instead of exporting the default management pack that contains customizations from multiple management packs, you can export just the management pack that contains customizations of a single management pack.

 You can delete the original management pack without first needing to delete the default management pack. A management pack that contains customizations is dependent on the original management pack. This dependency requires you to delete the management pack with customizations before you can delete the original management pack. If all your customizations are saved to the default management Pack, you must delete it before you can delete an original management pack.

 It’s easier to track and update customizations to individual management packs.

For more information about sealed management packs, see [Sealed Management Pack Files](https://technet.microsoft.com/library/hh457596.aspx). For more information about management pack customizations and the default management pack, see [Management Packs Installed with Operations Manager](http://go.microsoft.com/fwlink/p/?LinkId=511598).

Enabling performance threshold rules

It’s difficult to deliver a performance threshold rule that is suitable for most environments; therefore, performance threshold rules are initially disabled. Before you enable a performance threshold rule, you should establish a baseline for the relevant performance counters, and then apply the appropriate overrides to define and enable a suitable threshold for your environment.

Tuning performance collection rules

Although the Operations Manager management pack for CRM doesn’t contain any default performance thresholds, all the performance collection rules are turned on by default. These performance collection rules write to the Operations Manager database and the data can be used to analyze performance trends and create reports. You can also configure performance collection rules to generate alerts if they surpass certain thresholds.

Security Considerations

You may need to customize your management pack. Certain accounts cannot be run in a low-privilege environment or must have minimum permissions.

Low-Privilege Environments

A low-privilege agent action account must meet the following requirements:

 Be a member of the Users group

 Be a member of the Performance Monitors group

 Be granted Allow log on locally permission

Understanding Management Pack Operations

The views, tasks, monitors, rules, and knowledge specific to Microsoft Dynamics CRM that comprise this management pack provide the means for Operations Manager users to centrally manage the server application, its component services, and the computers on which they run. The Operations Manager management pack for CRM also collects performance analysis information.

In This Section

 [Objects the Management Pack Discovers](#z18ce7fcae77747d491fe7d0f5747e517)

 [How Health Rolls Up](#z7ad7f41fae56469b89a10822640da4cc)

 [Key Monitoring Scenarios](#z68d70b69bc95487087e17cb65d9bb675)

Objects the Management Pack Discovers

The Operations Manager management pack for CRM discovers the object types shown in the following table.

|  |  |
| --- | --- |
| Discovered Type | Target |
| Microsoft Dynamics CRM Asynchronous Processing Service | Microsoft Dynamics CRM Server |
| Microsoft Dynamics CRM Deployment Web Service | Microsoft Dynamics CRM Server |
| Microsoft Dynamics CRM Discovery Service | Microsoft Dynamics CRM Server |
| Microsoft Dynamics CRM Email Integration Service | Microsoft Dynamics CRM Server |
| Microsoft Dynamics CRM E-mail Router | Microsoft Windows Computer |
| Microsoft Dynamics CRM Help Server | Microsoft Dynamics CRM Server |
| Microsoft Dynamics CRM Organization Web Service | Microsoft Dynamics CRM Server |
| Microsoft Dynamics CRM Reporting Extensions | Microsoft Windows Server |
| Microsoft Dynamics CRM Sandbox Processing Service | Microsoft Dynamics CRM Server |
| Microsoft Dynamics CRM Server | Microsoft Windows Server |
| Microsoft Dynamics CRM Web Application Server | Microsoft Dynamics CRM Server |

You can use an override to change the setting for automatic discovery. For example, follow these steps to use a discovery override for the Asynchronous Processing Service object to narrow data collection to Windows computers:

1. In the Authoring pane, expand Management Pack Objects, and then click Object Discoveries.

2. On the Operations Manager toolbar, click Scope, and then filter the objects that appear in the details pane to include only Microsoft Dynamics CRM objects.

3. In the Object Discoveries pane, click Change Scope to filter the list of objects, and then click Microsoft Dynamics CRM Asynchronous Processing Service.

4. Right-click Microsoft Dynamics CRM Server Discovery, point to Overrides, point to Override the Object Discovery, and then click For a group.

5. Click All Windows Computers, and then click OK.

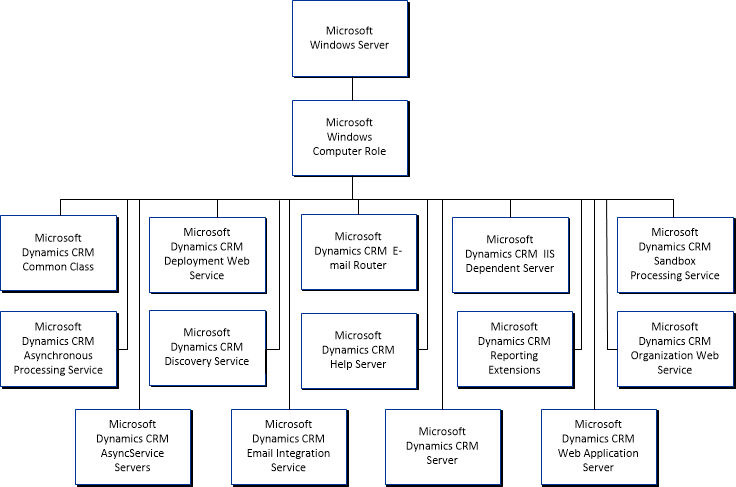
6. Click to place a check mark in the Override column, and then click OK.

Note

As a best practice, you should not save overrides to the Default Management Pack.

How Health Rolls Up

All Microsoft Dynamics CRM Server classes roll up to the Availability health of the Microsoft Windows Computer Role Health Rollup. The health of the Windows Computer Role rolls up to the Availability health of the Windows Server class. The following diagram shows how the health states of components roll up in this management pack.



Key Monitoring Scenarios

This section describes the monitors and rules in this management pack.

In This Section

 [Microsoft Dynamics CRM Monitors](#z99a037edb6194f8eb87b32149bab0b5d)

 [Microsoft Dynamics CRM Asynchronous Processing Service Rules](#za174572512f54b75b54369ba4a0a1f2c)

 [Microsoft Dynamics CRM AsyncService Servers Rules](#z533d9e4cdb3349dd95b94898eb41cd15)

 [Microsoft Dynamics CRM Common Class Rules](#z120c0a7993e3408fa7116518961d636f)

 [Microsoft Dynamics CRM Discovery Service Rules](#z1a7af439f44e4dd98a4c4e721ea371e0)

 [Microsoft Dynamics CRM E-mail Router Rules](#z1cbc4b3814f445f8b37eaaa05557d89d)

 [Microsoft Dynamics CRM IIS Dependent Server Rules](#z87b353386cd8477db2332de45f905866)

 [Microsoft Dynamics CRM Organization Web Service Rules](#z5bb55889d4a54122b7a47c01182a2181)

 [Microsoft Dynamics CRM Reporting Extensions Rules](#zb58fc01752b941a086bdfb3c4b2cccfe)

 [Microsoft Dynamics CRM Sandbox Processing Service Rules](#z1d152daac185482780e192d0825051ad)

 [Microsoft Dynamics CRM Web Application Server Rules](#z07cde5fcd91044f6a7c2ff6a72b95302)

Microsoft Dynamics CRM Monitors

|  |  |  |  |
| --- | --- | --- | --- |
| Monitor | Category | Enabled | Monitored Health States |
| Microsoft Dynamics CRM Asynchronous Processing Service | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM AsyncService Servers | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM Common Class | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM Deployment Web Service | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM Discovery Service | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM Email Integration Service | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM Email Router | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM Help Server | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM IIS Dependent Server | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM Organization Web Service | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM Reporting Extensions | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM Sandbox Processing Service | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM Server | Availability Health | Yes | Running/Not Running |
| Microsoft Dynamics CRM Web Application Server | Availability Health | Yes | Running/Not Running |

Note that the following monitors do not have associated rules:

 Microsoft Dynamics CRM Deployment Web Service

 Microsoft Dynamics CRM Email Integration Service

 Microsoft Dynamics CRM Help Server

 Microsoft Dynamics CRM Server

Microsoft Dynamics CRM Asynchronous Processing Service Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rule | Description | Category | Enabled | Severity |
| Failed To Create New Partition On AuditBase | The ALTER PARTITION FUNCTION failed. | Alert | True | Warning |
| Deletion Service Failed To Retrieve List Of Tables For Cleanup | The Microsoft Dynamics CRM Deletion service has failed to retrieve the list of tables for cleanup from the Microsoft Dynamics CRM Organization database. The retrieval likely failed due to a database error or SQL Server deadlock. | Event Collection | False | Warning |
| Total Succeeded Offline Sync Requests | The number of successful offline synchronization requests made from CRM for Outlook clients to a Microsoft Dynamics CRM server.  A count that is much lower than the total number of offline synchronization requests may indicate a problem with clients that try to synchronize with the server. | Performance Collection | True | N/A |
| Deletion Service Failed To Successfully Perform Cleanup | The Microsoft Dynamics CRM Deletion service failed to clean up one or more tables in the Microsoft Dynamics CRM Organization database. | Event Collection | False | Warning |
| Total ABP Sync Requests | The total number of Address Book Provider (ABP) synchronization requests made from CRM for Outlook clients to a Microsoft Dynamics CRM server.  This counter is useful to indicate the client load on the Asynchronous Processing service. | Performance Collection | True | N/A |
| Total Offline Sync Requests | The total number of offline synchronization requests made from CRM for Outlook clients to a Microsoft Dynamics CRM server.  This counter is useful to indicate the client load on the Asynchronous Processing service. | Performance Collection | True | N/A |
| Reindexing failed | This job, which reindexes the organization database periodically, failed. There could be an intermittent SQL connection failure or some other issue that caused the failure. | Event Collection | False | Warning |
| Error while backing up database for organization | The backup log share could not be reached. This error only applies to Microsoft Dynamics CRM Online. | Event Collection | True | Warning |
| Async Maintenance Service Failed To Start | A service can fail to start for many reasons. View the event logs to determine the cause. | Alert | False | Critical |
| Async Database Backup Failed | An error occurred while backing up the Microsoft Dynamics CRM database. If this message appears frequently, either there is not enough disk space to complete the operation or the database might be corrupt. | Alert | True | Warning |
| ISV Plug-in Has Thrown An Unexpected Exception | An ISV plug-in has thrown an unknown exception. Review the event log for details that can help identify the root cause. | Event Collection | True | Warning |
| Error while backing up database transaction log for organization | There was an error backing up the database transaction log. This error only applies to Microsoft Dynamics CRM Online. | Alert | True | Warning |
| Total Outlook Sync Requests | The total number of ABP sync requests and offline sync requests.  This counter is useful to indicate the client load on the Asynchronous Processing service. A high count indicates a high client load on that service. | Performance Collection | True | N/A |
| Async Maintenance Service Timeout | A timeout (30000 milliseconds) occurred while waiting for the Microsoft Dynamics CRM Asynchronous Processing Service (maintenance) service to connect. | Alert | True | Warning |
| Async Database Transactional Log Backup Failed | An error occurred while backing up the transactional logs for an organization. This problem can occur if the media that contains the backups has failed or isn’t reachable. | Event Collection | False | Warning |

Microsoft Dynamics CRM AsyncService Servers Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rule | Description | Category | Enabled | Severity |
| Async Has Too Many System Jobs Running | The Asynchronous Process service may be overloaded. | Performance Collection | True | N/A |
| Async Job Failed in an unexpected manner | An asynchronous operation failed due to an unknown error. | Alert | True | Critical |
| Async Database Operation Failed [Will Retry] | A database operation failed but the operation will retry. This is likely due to a SQL deadlock or database error. | Event Collection | False | Warning |
| Async Organization Failed | An asynchronous organization operation failed. A problem has occurred with one of the asynchronous services. | Event Collection | False | Critical |
| Async Service Cannot Re-Start | The Microsoft Dynamics CRM Asynchronous Processing service cannot restart due to a critical failure. | Event Collection | False | Critical |
| AsyncService – Error while dequeuing from an organization database | The Async Service encountered an unexpected error while processing an organization's queue. Possible causes are environment errors or invalid data or metadata in CRM. | Alert | True | Critical |
| Database error while updating operation status | Host computer could not recover from a database error while updating status for an operation for organization. | Event Collection | True | Warning |
| Failure while monitoring async operations queue | This generally means there is a problem contacting the configuration database (MSCRM\_CONFIG) or there is a configuration issue for the server. | Alert | True | Warning |
| Async Service Has Problems Accessing Org DB | The Asynchronous Processing service has encountered multiple errors while attempting to access the Dynamics CRM database. | Event Collection | False | Critical |
| Total Operations Failed With Retry | The total number of asynchronous operations that failed and then tried again to execute for all organizations in the deployment. | Performance Health | False | Information |
| Total Operations Outstanding | The current number of outstanding asynchronous operations. This includes in-memory queued items for all organizations in the deployment. | Performance Collection | True | N/A |
| Total Operations Completion Throughput | The throughput rate of completed asynchronous operations for all organizations in the deployment. | Performance Collection | True | N/A |
| Total Operations Completed | The total number of operations completed for all organizations in the deployment. | Performance Collection | True | N/A |
| Async Service Has Problems Accessing Config DB | Microsoft Dynamics CRM Asynchronous Processing service could not run a command against the Microsoft Dynamics CRM Configuration database. | Event Collection | True | Critical |
| Microsoft Dynamics CRM Asynchronous Processing Service is not running | This monitor checks the status of the Asynchronous Processing Service and generates an alert when the service is not running. | Event Collection | False | Critical |
| Async operation has been suspended | A Microsoft Dynamics CRM Asynchronous Processing Service operation has been suspended. This can be caused by SQL Server exceptions, such a timeouts. | Event Collection | True | Warning |
| Async Job Failed | An Asynchronous Processing Service job has failed. Check the event log for more details. | Event Collection | False | Warning |
| Failure while starting monitoring for async operations queue | This generally means there is a problem contacting the configuration database (MSCRM\_CONFIG) or there is a configuration issue for the server. | Alert | True | Warning |

Microsoft Dynamics CRM Common Class Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rule | Description | Type | Enabled | Severity |
| Alert on Claims Authentication Attempts | The total number of authentication requests that use claims-based authentication. | Performance Health | False | Warning |
| Alert on Claims Authentication Failures | The total number of failed authentication requests per minute that use claims-based authentication. | Performance Health | False | Warning |
| Alert On CRM Post Authentication Attempts | The number of HTTP POST authentication requests on a Microsoft Dynamics CRM system. | Performance Health | False | Warning |
| Alert On CRM Post Authentication Failures | The number of HTTP POST requests that fail to yield access. | Performance Health | False | Warning |
| Alert On Passport Authentication Attempts | Total number of authorization requests per minute that use Passport authentication credentials. | Performance Health | False | Warning |
| Alert On Passport Authentication Failures | Total number of failed Passport authentication attempts per minute. | Performance Health | False | Warning |
| Alert On Windows Authentication Attempts | The total number of authentication requests on a Microsoft Dynamics CRM system. | Performance Health | False | Warning |
| Alert On Windows Authentication Failures | The number of attempts to gain access to a Microsoft Dynamics CRM system, which include invalid Windows authentication credentials. | Performance Health | False | Warning |
| Config DB Configuration Error | This event is recorded when CRM Platform Service identifies an error condition on the connection to configuration database. | Event Collection | False | Critical |
| ConfigDB Windows Authentication Attempts In The Last Minute | The total number of authentication requests that are processed per minute by using the MSCRM\_CONFIG database. This counter includes successful and unsuccessful authentication attempts for a particular organization. | Performance Collection | True | N/A |
| ConfigDB Windows Authentication Failures In The Last Minute | Total number of failed authorization attempt requests with Microsoft Dynamics CRM authentication credentials per minute. | Performance Health | False | Critical |
| Failed to Load Authentication Pipeline | The initialization of the Microsoft Dynamics CRM authentication pipeline has failed and all user requests to this Microsoft Dynamics CRM Server role computer will be denied. | Event Collection | True | Critical |
| Locator Service Failed Cache Flush Requests | The number of Locator Service cache flush requests that were unsuccessful for any reason. For example, a request may fail because it was for an invalid cache entry, or the cache may not flush because of an incorrect cache state. A high count may indicate a problem with the LocatorService cache, or a problem with the connection to CONFIG\_DB. | Performance Collection | True | N/A |
| Certificate Close to Expiration | A certificate registered for use by Microsoft Dynamics CRM is nearing its expiration date. | Alert | True |  |
| Certificate Expired | A certificate registered for use by Microsoft Dynamics CRM has expired. | Alert | True |  |
| Locator Service Total Cache Flush Requests | The total number of Locator Service flush requests that have been received. This includes successful and unsuccessful requests.  A high count may indicate that the caching algorithm is not optimized, or that the data is changing frequently. | Performance Collection | True | N/A |
| Passport Authentication Attempt Failures In The Last Minute | Total number of failed Passport authorization requests with CRM cookie authentication credentials per minute. | Performance Collection | True | N/A |
| Performance Counters Load Failure Alert | The Microsoft Dynamics CRM server fails to load or to successfully interpret performance counter definitions.  This error condition prevents any Microsoft Dynamics CRM component services running on the server from using the Windows performance counter services. Any rules that use data provided by the performance counters will also be unavailable. | Event Collection | True | Warning |
| Trace File Failure Alert | This rule generates an event when the tracing service is not able to access tracing files for reading/writing or create/open/close.  If this event occurs frequently, the tracing service might not be able to log traces to the trace file. | Event Collection | True | Warning |

Microsoft Dynamics CRM Discovery Service Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rule | Description | Type | Enabled | Severity |
| Failed Discovery Service Requests | The number of requests to the Microsoft Dynamics CRM Discovery service that are unsuccessful for any reason. For example, a request may fail because the requesting party is not recognized as a user in the requested organization.  A high count may indicate that the system is possibly under a Denial of Service attack, or there is some problem with the Discovery service configuration. | Performance Collection | True | N/A |
| Total Discovery Service Requests | The total number of requests received by the Microsoft Dynamics CRM Discovery service. This includes successful and unsuccessful requests.  This counter can be used to track traffic patterns for Discovery service capacity planning. | Performance Collection | True | N/A |

Microsoft Dynamics CRM E-mail Router Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rule | Description | Type | Enabled | Severity |
| E-mail Router Work Item Aborted | An email router provider work item has been stopped because it has been running for longer than the allowed execution time. This behavior may occur when there is a problem with the network or because the email server is busy. | Alert | True | Warning |
| Insufficient Privileges to Send E-Mail | The access credentials that you have specified have insufficient delegate permissions to send the email message. Contact your Microsoft Exchange administrator to grant the required permissions. | Alert | False | Warning |
| Error Occurred While Checking Connection to CRM Server | An error occurred while checking the connection to the Microsoft Dynamics CRM server.  This is likely due to an issue with credentials. | Alert | True | Warning |
| Error Occurred While Checking Connection to E-mail Server | An error occurred while checking the connection to the email server.  This is likely due to an issue with credentials. | Alert | True | Warning |
| E-mail Router Service Cannot Connect to CRM Server | The Email Router service cannot connect to the Microsoft Dynamics CRM server or the Microsoft Dynamics CRM Online server to access user and queue information. | Alert | False | Warning |
| Insufficient Privileges to Access Mailbox | The remote Microsoft Exchange email server returned the error "(401) Unauthorized". Verify that you have permission to connect to the mailbox. | Alert | False | Warning |
| Mailbox Not Found for User or Queue | The remote Microsoft Exchange email server returned the error "(404) Not Found". This user or queue does not have a mailbox. Create a mailbox and try again. | Alert | True | Warning |
| Incorrect Exchange Web Services URL | The remote Microsoft Exchange email server returned the error code 405.  Verify that you specified the correct Exchange Web Services URL. | Alert | False | Warning |
| Target Mailbox Not Found in Store | The specified object was not found in the store. Verify that the specified user credentials have Receive permission on the target mailbox. | Alert | False | Warning |
| Service Account Cannot be Authenticated | The selected Microsoft Dynamics CRM account cannot be authenticated. Make sure the selected account is a valid account for the specified Microsoft Dynamics CRM organization, or has permission to impersonate other users. | Alert | False | Warning |
| Service Account Has Insufficient Permissions | The selected Microsoft Dynamics CRM account has insufficient permissions. Select an account with the Microsoft Dynamics CRM Administrator role, or permission to impersonate other users. | Alert | False | Warning |
| Missing Credentials for Queue | The credentials to access the mailbox to send and receive e-mail are not specified in the Microsoft Dynamics CRM queue record for the queue. | Alert | False | Warning |
| Missing Credentials for User | The credentials to access the mailbox to send and receive e-mail are not specified in the Microsoft Dynamics CRM user record for the user. | Alert | False | Warning |
| Error Occurred While Opening Mailbox | The mailbox may not exist or the credentials to connect may be insufficient or incorrect. | Alert | True | Warning |
| Organization Name is Case Sensitive | The organization name in the URL is case-sensitive. You must type the organization name in the URL exactly as it appears in the Microsoft Dynamics CRM server. | Alert | False | Warning |
| Organization Name is Not Valid | The specified Microsoft Dynamics CRM organization name is not valid. | Alert | False | Warning |
| Error Occurred While Checking for Outgoing E-Mail | An error occurred while checking for outgoing email messages to process. Outbound email configuration may be incorrect. | Alert | True | Warning |
| SSL Authentication Failed | SSL authentication failed because there was a problem with the certificate.  The certificate may be invalid or not installed correctly. | Alert | True | Warning |
| NLTM Authentication is Not Supported | NTLM authentication is not supported by this POP3 email server. You must specify another authentication type. | Alert | False | Warning |
| Error Occurred While Processing Outgoing E-mail | An error occurred while processing the outgoing email message.  Outbound email configuration may be incorrect. | Alert | False | Warning |
| CRM Server Version is Not Compatible with E-mail Router | The version of Microsoft Dynamics CRM is not supported with the Email Router. | Alert | False | Warning |
| E-mail Router Version is Not Compatible with CRM Server | The Email Router service that is installed is not a supported version. The Email Router version is earlier than expected by the Microsoft Dynamics CRM Server. | Alert | False | Warning |
| E-mail Router Service Could Not Run Service Background Thread | The Email Router service could not run the service main background thread. The Email Router service cannot continue and will now shut down. | Alert | True | Critical |
| Invalid CRM Discovery Service URL | You have specified an invalid Microsoft Dynamics CRM Discovery service URL. You must enter a URL for a Microsoft Dynamics CRM server that is running the Discovery Web Service. | Alert | True | Warning |
| Incoming e-mail messages discarded | Total number of incoming email messages not accepted for delivery.  A high count may indicate:  **** Email filtering option has a smaller scope.  **** Email messages between sender and receivers are being tracked as a single activity. | Performance Collection | True | N/A |
| Incoming e-mail messages potentially corrupted | Total number of incoming email messages that are potentially corrupted.  A high count may indicate that there are many email messages with invalid XML characters in the message or attachments. | Performance Collection | True | N/A |
| Incoming e-mail messages processed per second | Number of incoming email messages processed per second.  A lower number may indicate that email messages are large in size or have large attachments. This may also indicate low bandwidth exists between the email server, the email router service, and the Microsoft Dynamics CRM Server. | Performance Collection | True | N/A |
| Incoming e-mail messages undelivered | Total number of incoming email messages not delivered successfully.  A high count may indicate too many exceptions from the configured email server. | Performance Collection | True | N/A |
| Incoming mailbox access attempt failures | Total number of unsuccessful mailbox access attempts for incoming email messages.  A high count may indicate:  **** The email server name, URL, or the email address has been specified incorrectly.  **** There is a contention for resources.  **** Incorrect credentials have been specified to connect to the email server. | Performance Collection | True | N/A |
| Outgoing e-mail messages processed per second | Number of outgoing messages processed per second. | Performance Collection | True | N/A |
| Outgoing e-mail messages undelivered | Total number of outgoing email messages not delivered successfully.  This may indicate:  **** The emails have illegal XML characters in the message.  **** Recipients have been specified incorrectly.  **** Insufficient permissions exist for sending emails. | Performance Collection | True | N/A |
| Service configuration refreshes | Total number of times the configuration was refreshed. | Performance Collection | True | N/A |
| Service configuration scheduling cycles | Total number of times a scheduling cycle occurred. | Performance Collection | True | N/A |
| Service provider load failures | Total number of times a service provider could not be loaded. | Performance Collection | True | N/A |
| Service providers aborted | Total number of times a service provider was stopped because it took too long to execute. | Performance Collection | True | N/A |
| Service providers failed | Total number of times a service provider failed during execution. | Performance Collection | True | N/A |
| Service providers refreshed | Total number of times a service provider was changed and had its configuration refreshed. | Performance Collection | True | N/A |
| Service providers removed | Total number of times a service provider was deleted from the configuration and removed from the schedule. | Performance Collection | True | N/A |
| Service providers started | Total number of times a scheduled service provider was started. | Performance Collection | True | N/A |

Microsoft Dynamics CRM IIS Dependent Server Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rule | Description | Type | Enabled | Severity |
| Application Pool Could Not Respond To Ping | The IIS application pool serving Microsoft Dynamics CRM has experienced unexpected problems and is either terminated, cannot communicate, or does not reply to communication requests. | Event Collection | True | Critical |
| Application Pool Ended Unexpectedly | The IIS application pool serving Microsoft Dynamics CRM has experienced unexpected problems and is either terminated, cannot communicate, or does not reply to communication requests. | Event Collection | True | Critical |
| Application Pool Fatal Communication Error | The IIS application pool serving Microsoft Dynamics CRM has experienced unexpected problems and is either terminated, cannot communicate, or does not reply to communication requests. | Event Collection | True | Critical |

Microsoft Dynamics CRM Organization Web Service Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rule | Description | Type | Enabled | Severity |
| Solution import failed | A solution import failed. Possible causes include:  **** The solution contains dependencies on components not present on the system.  **** The contents of the solution package are malformed.  **** A timeout occurred. | Event Collection | True | Information |
| Customization Uninstall Failed | Uninstalling a customization failed. Possible causes include:  **** Dependencies prevent the solution from being uninstalled.  **** A timeout occurred. | Event Collection | True | Warning |
| Failed CrmService Requests | The number of requests to the Microsoft Dynamics CRM Web service (part of the Microsoft Dynamics CRM SDK) that failed because of a time-out error or other SOAP failure. | Performance Collection | True | N/A |
| Failed Metadata Requests | The number of requests to the Metadata Service that failed because of a timeout or other SOAP failure. | Performance Collection | True | N/A |
| Language Translations Labels Import Failed | Language Translations Labels import failed. A possible cause is the translation file is malformed. | Event Collection | True | Information |
| Language provisioning failed | Provisioning failed for a language. A possible cause is a timeout has occurred. | Event Collection | True | Information |

Microsoft Dynamics CRM Reporting Extensions Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rule | Description | Type | Enabled | Severity |
| Failure Executing Report Data Set | The report was not created from the data set. The stored procedure may not be in the database or failed to run correctly. | Event Collection | False | Information |
| Failure Opening Report Data Connection | A data connection cannot be established with the server that is running Microsoft SQL Server. | Event Collection | True | N/A |
| Report Server Cannot Create The Trace Log | The Report Server could not create a trace log. Tracing may not properly be enabled or the specified trace log location is invalid. | Event Collection | False | N/A |
| The Report Server Failed To Write To The Trace Log | The Report Server cannot write to the trace log. There might not be sufficient disk space or there are insufficient permissions to the trace log file. | Event Collection | False | N/A |
| The Report Server Has Detected A Possible Denial Of Service Attack | A possible Denial Of Service attack was detected. Numerous requests were sent to the report server. | Event Collection | False | N/A |
| The Report Server Windows Service (MSSQLSERVER) Cannot Connect To The Report Server Database | This error occurs during a service restart if a connection to the report server database cannot be established. | Event Collection | True | Warning |

Microsoft Dynamics CRM Sandbox Processing Service Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rule | Description | Type | Enabled | Severity |
| Sandbox Host Start Failed | The Sandbox Host service failed to start. The SPN for the service may not have registered correctly. | Alert | True | Critical |
| Sandbox Host Unavailable | A Sandbox Host is not available. | Alert | True | Critical |
| Sandbox Sdk Listener Start Failed | The Sandbox SDK Listener failed to start. This is typically caused by an issue in the .NET TCP Port Sharing service where the endpoint URI for the SDK Listener is not freed. | Alert | True | Critical |
| Sandbox Worker Start Failed | A Sandbox Worker process failed to start. The typical cause is the service account for the Host process is not able to start a process. | Alert | True | Critical |
| Sandbox Worker Terminated | The Sandbox Host service has terminated a Sandbox Worker process. Possible reasons for a worker process being terminated:  **** A plug-in used resources (CPU, memory, handles) excessively.  **** A Worker process was unresponsive to the Sandbox Host service. | Alert | False | Warning |

Microsoft Dynamics CRM Web Application Server Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rule | Description | Type | Enabled | Severity |
| Cached Webstore Deployment Information has Expired | Webstore cached configuration information has expired 10 times in the last 15 minutes. Low SessionTimeout value could be one of the reasons for cache expiration. | Event Collection | True | Critical |
| Error Report Upload Failure | This event is recorded when the CRM Platform Service server fails to upload the script error report to Watson server. | Event Collection | True | Warning |
| Error Reporting Settings Tampered | This event is recorded when the CRM Platform Service identifies that for the received error report, the user's preference for error reporting on the server is different than what is communicated by the client reporting the error.  If this event happens frequently, the configuration of the error reporting settings on the client have been tampered with by scripts on the page that is generating the script error. The page might have been compromised by malicious scripts. | Event Collection | False | Warning |
| Failed InProcess CrmService Requests | The number of failed Web service requests made by applications to the InProcess CrmService. The InProcess CrmService is only used by Microsoft. | Performance Collection | True | N/A |
| Failed Report Render Requests | The number of requests to render Microsoft SQL Server Reporting Services reports that failed because of a time-out or error. | Performance Collection | True | N/A |
| Failed To Drop Partition On AuditBase | A partition on AuditBase could not be dropped. The clustered indexes on the AuditBase table have been changed. | Alert | True | Warning |
| Failed to Unzip File | Unzip service failed to unzip the file. There may be an issue with credentials or the Unzip Service is not running properly. | Alert | True | Warning |
| OrgDB Timeout Alert | A timeout happened when attempting to connect or query an organization database. | Alert | True | Critical |
| Report Render Failure | This could be an issue with the installation or configuration of the Microsoft Dynamics CRM Reporting Extensions or that the reporting service account does not have sufficient privileges to the organization databases. | Event Collection | False | N/A |
| Report Server Web Service Failure | Report Server Web service failure counter. | Event Collection | False | N/A |
| Report Server Web Service SOAP Failure | Report Server Web service SOAP failure counter. | Event Collection | False | N/A |
| SMTP Service is not running | The SMTP service is not running. A service can stop for many reasons. View the event logs for more information. | Event Collection | False | Critical |
| Total Report Render Requests | The total number of requests to render Microsoft SQL Server Reporting Services reports. | Performance Collection | True | N/A |

Viewing Information in the Operations Manager Console

The Microsoft System Center Operations Manager management pack for Microsoft Dynamics CRM includes views to help you monitor the object health of your deployment.

The following views are listed directly under the Microsoft Dynamics CRM node in the Monitoring pane of the Operations Console.

|  |  |
| --- | --- |
| View Name | Description |
| CRM Active Alerts | Displays a list of the active alerts for the monitored Microsoft Dynamics CRM servers. |
| CRM Servers State | Displays a list of the monitored Microsoft Dynamics CRM servers and their current states. |