



HX Data Platform Events


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Understanding System Events

HX Data Platform messages include the error, warning, and informational messages that the system displays during various events. These include HX storage cluster-wide events and events due to changes in HX storage cluster components.

Messages are initiated by activities in the HX storage cluster. They are distributed to assorted locations, including:

- VMware vCenter Events or Alarms pages—Some messages are directed to the vCenter Events and Alarms pages by the HX Data Platform. Some messages that are stored in HyperFlex log files are queried by vCenter and added to the vCenter Events and Alarm pages.

- HX Data Platform Plug-in Monitor > Events tab. See [View HX Data Platform Plug-in Events](#) , on page 2.
- HX Data Platform Auto Support (ASUP) system—Auto Support must be enabled to send email notifications. Typically, Auto Support is configured during HX storage cluster creation by configuring the SMTP mail server and adding email recipients.
- Smart Call Home (SCH) notifications—SCH is an automated support capability that offers around-the-clock device monitoring, proactive diagnostics, real-time email alerts, service ticket notifications, and remediation recommendations for critical system events on your HX storage clusters.
- HX Connect user interface—In the header, the bell icon () displays an alarm count of your current errors or warnings. If there are both errors and warnings, the count shows the number of errors. For more detailed information, see the **Alarms** page or the **Events** page in the HX Connect user interface.

View HX Data Platform Plug-in Events

The Monitor Events tab displays information about the state changes of the HX storage cluster. Events include user actions and system actions that occur on the HX storage cluster, hosts, or datastores. For example, adding a node to the HX storage cluster, removing a node from the HX storage cluster, or reconfiguring a VM resource.

You can perform the following tasks in the Events tab:

- Select an event to display the event details at the bottom of the tab.
- Use the filter controls above the list to filter the list. For example, type `memory` to display a subset of events.
- Click a column heading to sort the list.

From the vSphere Web Client Navigator, select **vCenter Inventory Lists** > **Cisco HyperFlex** > **Systems** > **Cisco HX Data Platform** > *cluster* > **Monitor** > **Events**. You have the following fields:

Field	Description
Description	Event message content. See the section for each event type.
Type	Type of message.
Date Time	Timestamp when the event occurred. Time is displayed in local browser time, calculated from UTC.
Target	Name of the target. Target type options include: storage cluster, host, datastore, or disk.
User	Consumer of the resource for the event.
VC Cluster Events	Link to vSphere storage cluster Events.

Field	Description
Event Detail	Same content for the event as the Event table. Target link - The Target object in the Event detail links to the vSphere target Summary page. For example, the HX storage cluster Summary page or node Summary page.

Automatically Acknowledged Events

Storage cluster-wide events have an auto-acknowledge feature. When an event occurs, a message is published. When the condition for the message is corrected, for example, a node returns to healthy, the original alarm is acknowledged. Alarms can also be manually acknowledged.

The following events are automatically acknowledged when the corresponding event occurs.

Triggering Event	Resetting Event	Alarm Reset to
ClusterHealthCriticalEvent	ClusterHealthNormalEvent	Green
ClusterPolicyComplianceDegradedEvent	ClusterPolicyComplianceSatisfiedEvent	Green
ClusterPolicyComplianceFailedEvent	ClusterPolicyComplianceSatisfiedEvent	Green
ClusterPolicyComplianceImprovedEvent	ClusterPolicyComplianceSatisfiedEvent	Green
ClusterReadOnlyEvent	ClusterOnlineEvent	Green
ClusterUnhealthyEvent	ClusterHealthNormalEvent	Green
CriticalInfraComponentEvent	ClusterHealthNormalEvent	Green
FileSystemUsageAlertEvent	FileSystemUsageNormalEvent	Green
HighMemoryUsageAlertEvent	NormalMemoryUsageEvent	Green
HXHostUnreachable	HXHostReachable	Green
HXSshAccessToggleActionFailed	HXSshAccessToggleActionSuccess	Green
HXSyslogServerNotReachableWarningEvent	HXSyslogServerReachableEvent	Green
LowSystemMemoryAlertEvent	SystemMemoryNormalEvent	Green
NtpServerOfflineEvent	NtpServerOnlineEvent	Green
SmartLicenseEvalExpiringEvent	SmartLicenseEvalExpiringEvent	Green
SmartLicenseFeatureNotInLicenseEvent	SmartLicenseEvalExpiringEvent	Green
SpaceAlertEvent	SpaceRecoveredEvent	Green
SpaceCriticalEvent	SpaceRecoveredEvent	Green

Triggering Event	Resetting Event	Alarm Reset to
SpaceWarningEvent	SpaceRecoveredEvent	Green
VCConnectionDown	VCConnectionUp	Green

Manually Acknowledging Alarms Using HX Connect

The **Alarms** page displays a list of HX storage cluster and ESXi alarms raised by the HyperFlex Data Platform. Acknowledging an alarm lets other users know that you are taking ownership of the issue. After an alarm is acknowledged, its alarm actions are discontinued. However, the alarm is still visible in the system. Alarms are neither cleared, nor reset when acknowledged.



Note Starting with HX 4.0(2a), you must acknowledge and reset alarms from the HX Connect user interface and in vCenter. Resetting and acknowledging alarms from vCenter will not reflect in HX Connect and vice versa. For full context about the alarm, it is recommended that you view in HX Connect.

- Step 1** Log in to HX Connect.
- Step 2** In the menu, click **Alarms**.
- Step 3** Click the alarm you want to acknowledge, and then click **Acknowledge**.

vCenter recognizes a session with HX Connect, therefore system messages that originate with vCenter might indicate the session user; for example, **Acknowledged By** might list `com.springpath.sysmgmt.domain-c7`.

Cluster Access Policy Compliance Events

ClusterPolicyComplianceDegradedEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Cluster access compliance has degraded.		Event and Alarm			No	No	See the Cisco HyperFlex Data Platform Administration Guide for information about managing the HX storage cluster.

ClusterPolicyComplianceFailedEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Cluster access compliance has failed.		Event and Alarm		Yes	No	No	See Cisco HyperFlex Data Platform Administration Guide for information about managing the HX storage cluster.

ClusterPolicyComplianceImprovedEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Cluster access compliance has improved.		Event and Alarm			No	No	None.

ClusterPolicyComplianceSatisfiedEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Cluster access compliance is satisfied.					No	No	None.

Cluster Events

ClusterAddedEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
New storage cluster has been added.	Online	Event			No	No	None

ClusterCapacityChangedEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Effective physical capacity was changed with addition or removal of disks or nodes.	Online	Event		Yes	Yes	No	See Cisco HyperFlex Data Platform Administration Guide for information about managing the HX storage cluster.

ClusterHealthCriticalEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
There are three simultaneous non-collocated HDD or SSD, or node failures.	Offline	Event and Alarm		Yes	Yes	Yes	See Cisco HyperFlex Data Platform Administration Guide for information about managing the HX storage cluster.

ClusterHealthNormalEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Cluster returned to normal health state. The system recovers from HDD or SSD, or node failure. Or You replaced failed resources.	Online	Event		Yes	No	No	None

ClusterOnlineEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
You created the storage cluster successfully.	Online	Event		Yes	No	No	See Cisco HyperFlex Data Platform Administration Guide for information about managing the HX storage cluster.

ClusterReadOnlyEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Cluster transitions to ReadOnly mode.	ReadOnly	Event and Alarm		Yes	Yes	Yes	See Cisco HyperFlex Data Platform Administration Guide for information about managing the HX storage cluster. If ASUP enabled, TAC ticket created.

ClusterReadyEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Cluster is online and serving I/Os. NFS datastores are reachable.	Online	Event			No	No	None

ClusterShutdownEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
<p>The system triggered the Cluster Health Critical Event.</p> <p>The storage cluster is shutdown.</p> <p>All VMs are inaccessible.</p>	Offline	Event and Alarm	Yes	Yes	Yes	Yes	See Cisco HyperFlex Data Platform Administration Guide for information about managing the HX storage cluster.

ClusterUnhealthyEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Cluster is unhealthy.	Online	Event and Alarm		Yes	Yes	Yes	See Cisco HyperFlex Data Platform Administration Guide for information about managing the HX storage cluster.

VmMetadataNotSyncedWithIntersight

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Cluster {ClusterName} metadata is not synced with Intersight.	Online	Event and Alarm		Yes	Yes	Yes	See Cisco HyperFlex Data Platform Administration Guide for information about managing the HX storage cluster.

VmMetadataSyncedWithIntersight

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Cluster {ClusterName} metadata is synced with Intersight.	Online	Event and Alarm		Yes	Yes	Yes	See Cisco HyperFlex Data Platform Administration Guide for information about managing the HX storage cluster.

Critical Infrastructure Events

CriticalInfraComponentEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH report results in an SR	Action
Information message when controller VM fails or is shutdown.	Offline	Event and Alarm		Yes	Yes	Yes	See TAC.

Disk Events

DiskAddedEvent

Description Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
You added a new disk.		Event		Event	No	No	None.

DiskFailedEvent

Description Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A disk failed.		Event and Alarm		Yes	Yes	No	Replace the disk.

DiskHardBlacklistedEvent

Description Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A disk has failed permanently.		Event and Alarm		Yes	Yes	Yes	

DiskHealthEvent

Description Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Disk health deteriorated.		Event	Yes	No	No	No	Customer to review the remaining life value or the disk and decide if it needs replacment. See the following Disk Life Values table for more details.

Table 1: Disk Life Values

Life Remaining %	Comments
0%	<ul style="list-style-type: none"> • May be raised for any drive type - SSDs and HDDs. • The event happens when the internal SMART Health status of the drive reports a predictive failure or the drive fails to power up. • Drive needs Return Merchandise Authorization (RMA).
1% to 14%	<ul style="list-style-type: none"> • Applies to SSDs only. • SSD Wear Level reporting 14% or less life remaining. • Replacement drive needs to be ordered by Customer. <p>Purchase a replacement SSD(s) to replace any drive(s) past the wear condition not covered by HW replacement contracts.</p> <p>Note It is possible for a SSD to wear out eventually and report 0% life remaining. However, the wearout may be identified by reviewing the nightly wear-level check logs; Look for logs and events from 14% remaining life onwards.</p>

DiskPhysicalAddedEvent

Description Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A disk was added to the storage cluster.		Event and Alarm		Yes	No	No	None.

DiskPhysicalRemovedEvent

Description Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A disk was removed from the storage cluster.		Event and Alarm		Yes	No	No	Replace the disk.

DiskRepairingEvent

Description Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A disk is being repaired.		Event		Yes	No	No	

DiskRepairSucceededEvent

Description Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A disk was successfully repaired.		Event		Yes	No	No	

DiskRemovalCompletedEvent

Description Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A disk removal succeeded.		Event		Yes	No	No	

DiskRemovalFailedEvent

Description Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A disk removal failed.		Event		Yes	No	No	

DiskRemovalInProgressEvent

Description Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A disk removal is in progress.		Event		Yes	No	No	

DiskRemovedEvent

Description Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
You either physically removed a disk or it became offline.		Event and Alarm		Yes	No	No	Replace the disk.

Host Events

HXHostUnreachable

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Triggered when HX HyperV host is unreachable.	Online	Event		Yes		No	No	None

HXHostOffline

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Triggered when Get-ClusterNode command fails when FOC is down	Online	Event		Yes		No	No	None

HXUBRNotSupported

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Triggered when UBR is unsupported version or quorum configuration for the fail over cluster is using SMB access point.	Online	Event		Yes		No	No	None

Node Events

NodeDecommissionedEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Node removed from storage cluster.		Events		Yes	No	No	

NodeJoinedEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A new node joined the storage cluster.		Event		Yes	No	No	

NodeMaintenanceEnteredEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Node entered Maintenance Mode.					No	No	

NodeMaintenanceExitedEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Node exited Maintenance Mode.		Events		Yes	No	No	

NodePoweredDownEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
You powered down a storage controller VM node. The storage cluster operates with reduced capacity or might be in a Degraded state.		Event		Yes	No	No	

NodeReadyForIOEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Node is ready for I/O operations.		Event		Yes	No	No	

NodeReadyForShutdownEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Node prepared for shutdown.				Yes	No	No	

NodeCriticalEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Cannot access the node due to I/O failure to the node.	Offline	Event and Alarm		Yes	No	No	

ComputeNodeAddedEvent

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Compute node added to HX cluster successfully				Yes	No	No	

Encryption Events

Cluster Level SED Events

- **EncryptionLocalConfigDisableCompletedEvent**
- **EncryptionRemoteConfigDisableCompletedEvent**
- **EncryptionLocalConfigEnableCompletedEvent**
- **EncryptionRemoteConfigEnableCompletedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Disabling or enabling encryption configuration on the local or remote cluster successful.	Online	Events				No	No	None

- **EncryptionLocalConfigDisableFailedEvent**
- **EncryptionRemoteConfigDisableFailedEvent**
- **EncryptionLocalConfigEnableFailedEvent**
- **EncryptionRemoteConfigEnableFailedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Disabling or enabling encryption configuration on the local or remote cluster failed.	Online	Events		Yes		No	No	Identify and correct the issue and retry the task.

- **EncryptionLocalConfigDisableStartedEvent**
- **EncryptionRemoteConfigDisableStartedEvent**

- **EncryptionLocalConfigEnableStartedEvent**
- **EncryptionRemoteConfigEnableStartedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Disabling or enabling encryption configuration on the local or remote cluster started.	Online	Events		Yes		No	No	None.

- **EncryptionLocalConfigRekeyCompletedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Configuring Rekey of a disk on the local cluster successful. Message for ConfigRekey task precedes the ReKey task for local cluster encryption.	Online	Events				No	No	None

- **EncryptionLocalConfigRekeyFailedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Configuring ReKey of a disk on the local cluster failed. Message for ConfigRekey task precedes the ReKey task for local cluster encryption.	Online	Events		Yes		No	No	Identify and correct the issue and retry the task.

- **EncryptionLocalConfigRekeyStartedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Configuring ReKey of a disk on the local cluster started. Message for ConfigRekey task precedes the ReKey task for local cluster encryption.	Online	Events		Yes		No	No	None.

- **EncryptionLocalRekeyCompletedEvent**
- **EncryptionRemoteRekeyCompletedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Configuring Rekey of a disk on the local or remote cluster successful.	Online	Events				No	No	None

- **EncryptionLocalRekeyFailedEvent**
- **EncryptionRemoteRekeyFailedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Configuring ReKey of a disk on the local or remote cluster failed.	Online	Events		Yes		No	No	Identify and correct the issue and retry the task.

- **EncryptionLocalRekeyStartedEvent**
- **EncryptionRemoteRekeyStartedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Configuring ReKey of a disk on the local or remote cluster started.	Online	Events		Yes		No	No	None.

- **EncryptionLocalDisableCompletedEvent**
- **EncryptionLocalEnableCompletedEvent**
- **EncryptionRemoteDisableCompletedEvent**
- **EncryptionRemoteEnableCompletedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Disabling or enabling encryption on the local or remote cluster successful.	Online	Events				No	No	None

- **EncryptionLocalDisableFailedEvent**
- **EncryptionLocalEnableFailedEvent**
- **EncryptionRemoteDisableFailedEvent**
- **EncryptionRemoteEnableFailedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Disabling or enabling encryption on the local or remote cluster failed.	Online	Events		Yes		No	No	Identify and correct the issue and retry the task.

- **EncryptionLocalDisableStartedEvent**
- **EncryptionLocalEnableStartedEvent**
- **EncryptionRemoteDisableStartedEvent**
- **EncryptionRemoteEnableStartedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Disabling or enabling encryption on the local or remote cluster started.	Online	Events		Yes		No	No	None.

- **EncryptionLocalRemoteCompletedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Encryption task on the local or remote cluster successful.	Online	Events				No	No	None

• **EncryptionLocalRemoteFailedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Encryption task on the local or remote cluster failed.	Online	Events		Yes		No	No	Identify and correct the issue and retry the task.

• **EncryptionLocalRemoteStartedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Encryption task on the local or remote cluster started.	Online	Events		Yes		No	No	None.

• **EncryptionLocalRemoteConfigCompletedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Encryption configuration on the local or remote cluster successful.	Online	Events				No	No	None

• **EncryptionLocalRemoteConfigFailedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Encryption configuration task on the local or remote cluster failed.	Online	Events		Yes		No	No	Identify and correct the issue and retry the task.

- **EncryptionLocalRemoteConfigStartedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Encryption configuration task on the local or remote cluster started.	Online	Events		Yes		No	No	None.

- **EncryptionOperationTimeoutEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Encryption task on the local or remote cluster timed out.	Online	Events		Yes		No	No	Identify and correct the issue and retry the task.

Node Level SED Events

- **EncryptionNodeDisableStartEvent**

- **EncryptionNodeEnableStartEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Disable or enable encryption on a node in the HX cluster started.	Online	Events				No	No	None.

- **EncryptionNodeDisableSuccessEvent**

- **EncryptionNodeEnableSuccessEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Disable or enable encryption on a node in the HX cluster successful.	Online	Events				No	No	None

- **EncryptionNodeRekeyStartEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
ReKey a node in the HX cluster started.	Online	Events				No	No	None.

- EncryptionNodeRekeySuccessEvent

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
ReKey a node in the HX cluster successful.	Online	Events				No	No	None

Disk Level SED Events

- EncryptionDiskDisableEvent
- EncryptionDiskEnableEvent

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Disable or enable encryption on a disk on a node in the HX cluster task.	Online	Events				No	No	None

- EncryptionDiskDisableFailedEvent
- EncryptionDiskEnableFailedEvent

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Disable or enable encryption on a disk on a node in the HX cluster failed.	Online	Events				No	No	None

- EncryptionDiskEraseEvent

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Erase an encrypted disk on a node in the HX cluster task.	Online	Events				No	No	None

- **EncryptionDiskEraseFailedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Erasing an encrypted disk on a node in the HX cluster failed.	Online	Events				No	No	None

- **EncryptionDiskRekeyEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
ReKey an encrypted disk on a node in the HX cluster task.	Online	Events				No	No	None

- **EncryptionDiskRekeyFailedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
ReKey an encrypted disk on a node in the HX cluster failed.	Online	Events				No	No	None

- **EncryptionDiskSecureDriveEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Secure an encrypted disk on a node in the HX cluster task.	Online	Events				No	No	None

- **EncryptionDiskSecureDriveFailedEvent**

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
An encryption secured disk on a node in the HX cluster failed.	Online	Events				No	No	None

- EncryptionDiskSecureDriveUnlockFailedEvent

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Unlocking a failed encryption secured disk on a node in the HX cluster failed.	Online	Events				No	No	None

- EncryptionDiskUnlockForeignEvent

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Unlocking an unknown disk on a node in the HX cluster task.	Online	Events				No	No	None

- EncryptionDiskUnlockForeignFailedEvent

Description	Cluster State	Reported in vCenter	Reported in HXDP Plug-in	Reported HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Unlocking an unknown disk on a node in the HX cluster failed.	Online	Events				No	No	None

Replication and Recovery Events



Note Events that are reported in vCenter are listed in the respective *object* > **Events** page. For example, virtual machine events or resource pool events.

AddedDpGroup

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Virtual Machine protection group created.	Online	Event		Yes		No	No	None

AddedDpVm

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Virtual Machine protection initiated.	Online	Event		Yes		No	No	None

CreateDpVmSnapshotFailed

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Virtual Machine snapshot creation failed.	Online	Event		Yes		No	No	None

FailoverFailed

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Triggered when virtual machine recovery fails.	Online	Event		Yes		No	No	None

RecoveryFailed

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Virtual Machine recovery failed.	Online	Event		Yes		No	No	None

RecoveryInitiated

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Initiated recovery of Virtual Machine.	Online	Event		Yes		No	No	None

RecoverySucceeded

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Successfully recovered Virtual Machine.	Online	Event		Yes		No	No	None

ReplicationFailed

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Virtual Machine replication failed.	Online	Event		Yes		No	No	None

ReplicationPeriodExceeded

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Virtual Machine replication did not complete in the specified interval.	Online	Event		Yes		No	No	None

TestFailoverFailed

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Triggered when virtual machine test recovery fails.	Online	Event		Yes		No	No	None

Security Events

LockdownModeEnabledAlarm

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Triggered when lock down mode is enabled on one or more nodes.	Online	Event		Yes		No	No	None

HXSyslogServerNotReachableWarningEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Triggered when syslog server is not reachable."	Online	Event		Yes		No	No	None

v

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported in HX Connect	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Triggered when controller VM SSH access toggle action failed.	Online	Event		Yes		No	No	None

Resource Monitoring Events and Alarms

This table describes the possible event severities in increasing order of severity:

Severity Level	Description
info	A basic notification or informational message that is possibly independently insignificant.
warning	A potential or impending service-affecting fault that currently has no significant effects in the system. An action should be taken to further diagnose, if necessary, and correct the problem to prevent it from becoming a more serious service-affecting fault.
error	A nonservice-affecting fault condition that requires corrective action to prevent a more serious fault from occurring. If the issue can not be resolved, contact support at http://www.cisco.com/techsupport .
critical	A service-affecting condition that requires immediate corrective action. If the issue can not be resolved, contact support at http://www.cisco.com/techsupport .

Name/Description	Cluster State	Reported to vCenter	Shown on HX Connect UI as Event	Send ASUP	Send SCH	SCH report results in an SR	Action
Info Severity Level							
CoreFileInfoEvent-HX Controller VM has one or more core files		Yes	Yes	Yes	No	No	No user action required
Warning Severity Level							
FileSystemUsageAlertEvent Not enough free capacity on one or more partitions of HX Controller VM		Yes	Yes	Yes	No	No	Login to the Controller VM and check the File System usage.
NtpClockDriftEvent-HX Controller VM clock not in sync with configured NTP servers		Yes	Yes	Yes	No	No	Confirm whether your NTP source is reachable from the Controller VM or from the Storage cluster. Run the show ntp command to determine the issue.

Name/Description	Cluster State	Reported to vCenter	Shown on HX Connect UI as Event	Send ASUP	Send SCH	SCH report results in an SR	Action
NtpClockOfflineEvent -One or more NTP servers configured on HX controller VM are not responding		Yes	Yes	Yes	No	No	<p>Confirm whether your NTP source is reachable from the Controller VM or from the Storage cluster. Run the show ntp command to determine the issue.</p> <p>Note If this alarm persists for more than 24 hours then contact support.</p>
VCCconnectionDown -Node has lost connection to vCenter		Yes	Yes	Yes	No	No	<p>Confirm whether the vCenter is reachable from the Controller VM.</p> <p>Note If this alarm persists for more than 24 hours then contact support.</p>
Error Severity Level							

Name/Description	Cluster State	Reported to vCenter	Shown on HX Connect UI as Event	Send ASUP	Send SCH	SCH report results in an SR	Action
ClusterUnhealthyEvent -Cluster is unhealthy		Yes	Yes	Yes	Yes	Yes	See list of possible alarms.
Critical Severity Level							
NodeCriticalEvent -Cannot access the node due to I/O failure to the node		Yes	Yes	Yes	No	No	Requires immediate corrective action. Contact support for assistance to resolve the issue.

HX Data Platform Alarms

Name/Description	Alarm Code	Message	Severity	Send SCH	SCH Generates an SR
DiskRemovedEvent -Triggered when a disk is removed.	HXA-DSK-0001	A disk {UUID} was removed. {DISKDETAILS}	Warning	No	No
DiskFailedEvent -Triggered when a disk fails in a host.	HXA-DSK-0002	A disk failed. {DISKDETAILS}	Warning	Yes	No
DiskPhysicalRemovedEvent -Triggered when a physical disk is removed in a host.	HXA-DSK-0003	Physical disk {UUID} ({DISKPATH}) on controller host {HOSTNAME} at slot {DISKSLOT} was removed. {DISKDETAILS}	Warning	No	No

Name/Description	Alarm Code	Message	Severity	Send SCH	SCH Generates an SR
DiskHardBlacklistedEvent -Triggered when disk in a HX cluster is in a hard black list and cannot be recovered.	HXA-DSK-0004	{DISKMEDIUM} Disk {DISKPATH} on node {HOSTNAME} has failed permanently. {DISKDETAILS}	Warning	Yes	Yes
DiskHealthEvent -Triggered when a disk deteriorates in a cluster.	HXA-DSK-0005	Disk health has deteriorated. SSD with UUID: {UUID} and S/N: {SN} on host {HOSTNAME} ({IPADDRESS}) has {LIFE_LEFT}% remaining life. SSD must be replaced. {DISKDETAILS}	Warning	No	No
VCConnectionDown -Triggered when node has lost connection to VCenter.	HXA-NOD0012	{NAME} has lost connection to VCenter.	Warning	No	No
ClusterUnhealthyEvent -Triggered when the health status of the HX cluster is unhealthy. This alarm is reset to green when the cluster health status is back to normal.	HXA-CLU-0002	Cluster [{NAME}] is unhealthy.	Critical	Yes	Yes
NodeCriticalEvent -Triggered due to I/O access failure to the node.	HXA-NOD0001	Cannot access the node due to I/O failure to the node.	Critical	No	No

Smart Call Home Events

CallhomeEndpointConnectionFailedEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Node is unable to reach Smart Call Home endpoint.	Online	Event			No	No	None

CallhomeEndpointConnectionOKEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Node is able to reach Smart Call Home endpoint.	Online	Event			No	No	None

Smart License Events

SmartLicenseEvalEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Smart License for the cluster is in Evaluation Mode.	Online	Event			No	No	None

SmartLicenseEvalExpiringEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Smart License Evaluation period is expiring soon	Online	Event		Yes	No	No	Check the system information page in HX Connect for details on license expiry register the cluster with Cisco Smart Software Manager by going to Cisco Software Central and clicking “Smart Software Licensing”

SmartLicenseEvalExpiredEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Smart License Evaluation period for the cluster has expired.	Online	Event		Yes	No	No	Register the cluster with Cisco Smart Software Manager by going to Cisco Software Central and clicking “Smart Software Licensing”

SmartLicenseFeatureNotInLicenseEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
The feature used in the cluster isn't available in the HX license tier.	Online	Event		Yes	No	No	The feature will reset when the license meets compliance.

SmartLicenseInComplianceEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
The number of licenses allocated to the cluster is compliant with Smart Licensing.	Online	Event			No	No	None.

SmartLicenseOutOfComplianceEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Insufficient number of Smart Licenses in the Virtual Account makes the cluster non compliant.	Online	Event		Yes	No	No	Purchase or transfer applicable licenses to your Cisco Smart Software Manager Virtual Account by going to Cisco Software Central and clicking “Smart Software Licensing”

Snapshot Events

ScheduledSnapshotRPREachedMaxLimitEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A VM resource pool scheduled snapshot failed. Scheduled snapshot failed since the virtual machine has reached maximum number of supported snapshots.		Event and Alarm			No	No	Adjust the retention policy on scheduled snapshot or delete user created snapshots.

ScheduledSnapshotVMFolderReachedMaxLimitEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A VM folder scheduled snapshot failed. Scheduled snapshot failed since the Virtual Machine has reached maximum snapshots supported.		Event and Alarm			No	No	Adjust the retention policy of scheduled snapshot or delete user created snapshots.

ScheduledSnapshotVMReachedMaxLimitEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
A VM scheduled snapshot failed. Scheduled snapshot failed since the virtual machine has reached maximum number of supported snapshots.		Event and Alarm			No	No	Adjust the retention policy on scheduled snapshot or delete user created snapshots.

Space Utilization Events

This section describes the messages that appear related to the space used by the storage cluster.



Note When you add more nodes to the storage cluster, the HX Data Platform plug-in does not immediately reflect the storage cluster capacity.

SpaceAlertEvent

Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH report results in an SR	Action
<p>Space capacity usage remains at error level. This alert is issued after storage capacity has been reduced, but is still above the warning threshold.</p> <p>The overall cluster storage capacity consumed is beyond the healthy threshold.</p> <p>The storage cluster is online and can perform write operations.</p> <p>HX Summary Health bar: Orange</p>	Online	Event and Alarm	Event	Yes	Yes	Yes	<p>Add storage or delete files.</p> <p>Continue to reduce the amount of storage capacity used, until it is below the warning threshold.</p>

SpaceCriticalEvent

Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH report results in an SR	Action
<p>Space capacity usage is at error level.</p> <p>The cluster storage is full and offline.</p> <p>Your system has exceeded the functional amount of allocated capacity.</p> <p>The storage cluster transitions to read-only mode. It does not accept any write operations.</p> <p>This is a critical threshold. The system triggers a Critical alarm in vCenter.</p> <p>HX Summary Health bar: Red</p>	Read Only	Event and Alarm	Event	Yes	Yes	No	<p>Add storage or delete files.</p> <p>Reduce the amount of storage capacity used to below the warning threshold.</p> <p>Reclaimed space released after deleting files within few hours of deletion, based on system workload.</p> <p>The storage controller VM monitors and reclaims space until the system becomes operational (transitions out of read-only state).</p>

SpaceRecoveredEvent

Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH report results in an SR	Action
Used capacity is below the warning threshold. Usage is back to normal. HX Summary Health bar: Blue	Online		Event	Yes	No	No	None.

SpaceWarningEvent

Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH report results in an SR	Action
Space capacity usage is at error level. This is the first level warning you are approaching a critical state. The overall cluster storage capacity consumed is beyond the healthy threshold. This is a warning threshold. The system triggers an Error alarm in vCenter. The storage cluster can perform write operations. HX Summary Health bar: Yellow	Online	Alarm	Event	Yes	Yes	No	Add storage or delete files. Do not continue the storage cluster operations until you reduce the amount of storage capacity used to below this warning threshold.

VirtualSpaceWarnEvent

Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH report results in an SR	Action
Cluster virtual usage is above warning threshold.		Event and Alarm		Yes	Yes	No	

VirtualSpaceWarnClearEvent

Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH report results in an SR	Action
Cluster virtual space usage is back to normal.		Event		Yes	No	No	

Storage Events

StorageApdTimeoutEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
On an ESX server and APD state was entered and was not exited within defined number of seconds.				Yes	Yes	Yes	

Upgrade Events

ClusterUpgradeCompletedEvent

Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
The storage cluster upgraded successfully.	Online	Event		Yes	No	No	

ClusterUpgradeFailedEvent

Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
One or more nodes in the storage cluster failed to upgrade.	Offline	Event		Yes	No	No	See TAC.

ClusterUpgradeStartedEvent

Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Cluster upgrade to version <i><version></i> started.	Online	Event		Yes	No	No	

NodeUpgradeCompletedEvent

Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Node upgrade to version <i><version></i> for <i>node_ID</i> completed successfully. <i>node_ID</i> is the ID of the node that appears in the message.	Online	Event		Yes	No	No	

NodeUpgradeFailedEvent

Trigger	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Node upgrade for <i>node_ID</i> failed. <i>node_ID</i> is the ID of the node that appears in the message.	Degraded	Event and Alarm		Yes	No	No	See TAC.

NodeUpgradeStartedEvent

Description	Cluster State	Reported vCenter	Reported HXDP Plug-in	Reported ASUP	Reported SCH	SCH Generates an SR	Action
Node upgrade to version <i><version></i> started.	Degraded	Event		Yes	No	No	