

Universal Event Subsystem 6.9.x

Event Definitions

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1. Universal Event Subsystem 6.9.x Event Definitions	3
1.1 Universal Agent Architecture	4
1.2 Event Data Export Formats	7
1.3 Event Records Structure	
1.4 Event Header	9
1.5 Event Types	11
1.6 Event Definition Details	15
1.6.1 USER_AUTHENTICATION (100)	17
1.6.2 UACL_AUTHORIZATION (101)	18
1.6.3 RESOURCE_AUTHORIZATION (102)	19
1.6.4 UCMSRV_JOB_START (200)	20
1.6.5 UCMSRV_JOB_STOP (201)	22
1.6.6 UCM_WORK (204)	24
1.6.7 UCMSRV_WORK (205)	26
1.6.8 UBR_START (300)	29
1.6.9 UBR_STOP (301)	30
1.6.10 UBR_SRV_COMP_START (302)	31
1.6.11 UBR_SRV_COMP_STOP (303)	32
1.6.12 UBR_COMP_COMM_STATE (304)	34
1.6.13 UBR_MGR_COMP_START (305)	36
1.6.14 UBR_MGR_COMP_STOP (306)	37
1.6.15 UBR_COMP_STOP_REQUEST (307)	38
1.6.16 UBR_MGR_RESTART (308)	39
1.6.17 UDM_OPEN_COMMAND_START (400)	40
1.6.18 UDM_COPY_COMMAND_START (401)	41
1.6.19 UDM_COPYDIR_COMMAND_START (402)	42
1.6.20 UDM_DELETE_COMMAND_START (403)	43
1.6.21 UDM_RENAME_COMMAND_START (404)	44
1.6.22 UDM_OPEN_COMMAND_STOP (405)	
1.6.23 UDM_COPY_COMMAND_STOP (406)	46
1.6.24 UDM_COPYDIR_COMMAND_STOP (407)	47
1.6.25 UDM_DELETE_COMMAND_STOP (408)	48
1.6.26 UDM_RENAME_COMMAND_STOP (409)	49
1.6.27 UDM_MKDIR_COMMAND_START (410)	50
1.6.28 UDM_MKDIR_COMMAND_STOP (411)	51
1.6.29 UDM_RMDIR_COMMAND_START (412)	52
1.6.30 UDM_RMDIR_COMMAND_STOP (413)	53
1.6.31 UDM_FILE_DELETE (450)	54
1.6.32 UDM_FILE_RENAME (451)	55
1.6.33 UDM_FILE_XFER_START (452)	56
1.6.34 UDM_FILE_XFER_STOP (453)	57
1.6.35 UDM_DIR_CREATE (454)	58
1.6.36 UDM_EXEC_OPERATION_START (470)	59
1.6.37 UDM_EXEC_OPERATION_END (471)	60
1.6.38 UDM_EXECSAP_OPERATION_START (472)	61
1.6.39 UDM_EXECSAP_OPERATION_END (473)	62
1.6.40 INDESCA_JOB (700)	63
1.6.41 INFITRAN_JOB (701)	
1.6.42 FILE_TRANSFER (702)	70
1.6.43 UCTSRV_CMD_START (800)	72
1.6.44 UCTSRV CMD STOP (801)	73
1.6.45 UCT_CMD_REQUEST (802)	74
1.7 Universal Agent Error Codes	75

Universal Event Subsystem 6.9.x Event Definitions

Overview

Within Universal Agent, an event is the occurrence of some action or condition at a particular location in the computer network and at a particular time at that location.

There are a number of different types of events, such as:

- Start of a Universal Agent component.
- User authentication failure.
- Completion of a file transfer.

The Universal Event Subsystem (UES), a subsystem of Universal Enterprise Controller (UEC), provides the means by which Universal Agent components generate data (event messages) about those events and, in a single repository, have those events recorded. This collection of recorded events (event records) is maintained in the UES database (*uec.evm.db*) and archived to external storage. It represents the work and activity of all distributed workload managed by Universal Agent components.

An event definition defines the fields in an event record for each event type.

Universal Agent consists of a set of components distributed across a computer network. The components work together to perform some unit of work. The components that are working together have an association that must be maintained in the event data. For that reason, UES event records not only include information about the event, but also information about associations between the components reporting the events.

The Universal Enterprise Controller (UEC) maintains a central UES database (*uec.evm.db*) for all event data within its domain of responsibility. The UES database contains all UES event records collected by UEC from Universal Broker components that are defined to it. The UES database provides medium-term persistent storage for the UES events. Periodically, the UES database events must be exported to long-term storage in order to maintain a historical record of events. If the export is not performed periodically, the UES database will continue to grow and eventually exhaust all disk space available to it.

Detailed Information

The following pages provide detailed information for UES Event Definitions:

- Universal Agent Architecture
- Event Data Export Formats
- Event Records Structure
- Event Header
- Event Definition Details
- Universal Agent Error Codes

Universal Agent Architecture

- Overview
 - Components and Associations
 - UUID Values
 - Example

Overview

Universal Agent consists of many product components distributed throughout a computer network working together to perform a unit of work. Some components remain executing as long as the operating system on which they are installed remains executing. Other components are being started and stopped, as necessary, when new work is requested.

Universal Event Subsystem (UES) event data provides the information necessary to associate the distributed Universal Agent components working together in performing a unit of work.

Examples of components and their associations are:

- Universal Command Manager is associated with a remote Universal Command Server, and the Universal Command Server is associated with the job process it has started on behalf of the Universal Command Manager.
- Universal Data Mover Manager is associated with a remote Universal Data Mover Server, and the Universal Data Mover Server is associated with a file being transferred on behalf of the Universal Data Mover Manager.

The components and their associations partly define the Universal Agent architecture. This page provides the necessary understanding of the Universal Agent architecture as presented by the UES event data.

Components and Associations

UES event data has many references to components. In the context of UES, a component is a Universal Agent program, a job or command, a file, or any object that is being managed by Universal Agent.

Components are highly likely to be associated with other components, since Universal Agent consists of components distributed across a computer network working together to accomplish a unit of work. UES event data represents component associations in order to provide a complete understanding of a distributed unit of work.

Components are uniquely identified using a Universally Unique Identifier (UUID). The UUID format is based upon a version 4 UUID as defined in ISO/IEC 11578:1996. The value of each UUID is unique regardless of the time or location in which it was generated. The UUID allows for each instance of a component execution to be uniquely identified.

UUID Values

There are four UUID values maintained in all event records:

- Object UUID
- Parent UUID
- Unit UUID
- Group UUID

Object UUID

The object UUID uniquely identifies the component, or object, from all other component instances. No two components will have the same object UUID value.

Parent UUID

The parent UUID defines the association between a child object and its parent object. The parent object either starts or is responsible for the child object. For example, a Universal Command Manager starts a Universal Command Server. In this case, the Server component is the child object and the Manager component is the parent object.

Unit UUID

The unit UUID identifies a set of components working together to perform a service. The set of components are distributed on different host systems and communicating with each other over the network to accomplish the requested service. The set of components is considered a work unit and identified by the unit UUID. An example would be a Universal Command Manager job is comprised of a Manager, Server and Job component. The three components comprise the work unit.

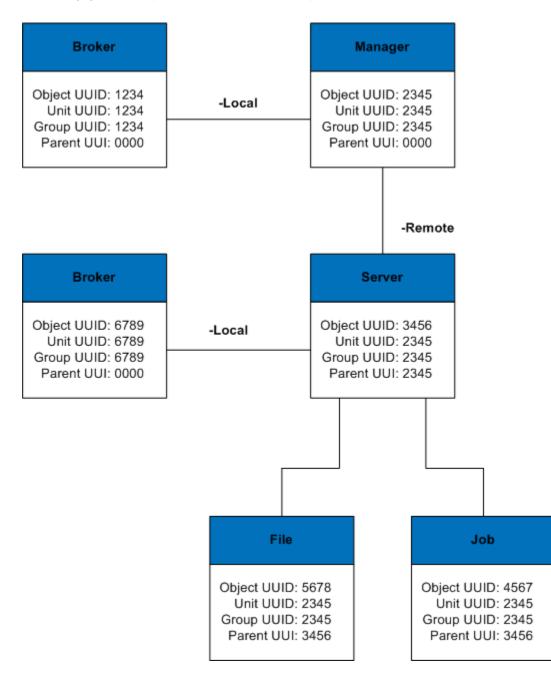
Group UUID

The group UUID identifies a set of work units that are working together to perform a service. Some services require multiple work units to accomplish the service. A work group may consist of one to many work units. An example would be a Universal Data Mover (UDM) Manager that executes a Universal Command Manager (UCM) to perform a service. There are two work units: UDM and UCM.

There is one component that is the head of a work unit and work group. A component with an object UUID that matches a unit UUID is the head of the work unit. Similarly, a component with an object UUID that matches the group UUID is the head of the work group.

Example

The following figure, for example, illustrates several different components and their associations with each other.



The following points should be noted about this illustration:

- Each component has an object, a parent, a unit, and a group UUID. The object UUID uniquely identifies each component.
- The Manager component is the unit and group leader, as its object UUID is equal to its unit and group UUID.
- The Manager, Server, Job, and File objects all have the same unit and group UUID.

- The Server's parent UUID identifies the Manager as its parent, while the job's parent UUID identifies the Server as its parent.
 Broker components report on Manager and Server components, but there are no associations made between a Broker and components started on some other entity's behalf.

Event Data Export Formats

- Overview
 - Exported Fields
- XML Format
- CSV Format
- ARC Format

Overview

UES event data is exported from Universal Enterprise Controller's UES database using the UECLoad utility.

There are three formats for UES exported data:

X ML	Event data is exported as an XML (extensible markup language) document. XML is often used for exchanging data between two systems.
CSV	Event data is exported as a CSV (comma separated value) text file. The CSV file can be used by most spreadsheet software, such as Microsoft Excel.
ARC	Event data is exported in ARC (archival) format for long-term storage. The exported ARC format data (written in UTF-8) is portable between operating systems with differing code pages.

Exported Fields

Exported event data includes all the event fields defined by the event record including the event header and event body.

Additionally, two other fields are exported that are maintained by Universal Enterprise Controller:

- agentName is the name of the agent assigned to the agent definition in UEC.
- agentUuid is the UUID that identifies the Universal Agent installation. The UUID is provided by the Universal Broker and remains the same for the life of the Broker installation. Note that if the product is uninstalled and reinstalled, or the Broker databases are deleted, a new agent UUID is generated.

XML Format

The XML (extensible markup language) format consists of an exported document enclosed in an export tag. Each event record is enclosed in a record tag. The event fields are enclosed in tags named after the field name.

Date and time formats are specified as:

yyyy-mm-ddThh:mm:ss

The date and time are separated by the character T.

CSV Format

The CSV (comma separated value) format consists of all event records exported as a row and all event fields as a column in the CSV file. The first row is a column heading row.

Since all event records are exported in the CSV file, there is a column for each event field for all the event types. This produces a large number of columns of which only a subset pertain to any particular row (event record). The column names are based upon the event field name.

Due to limitations in CSV date and time formats, two columns are produced for all date and time fields. The column names are appended with _date and _t ime for the date portion and time portion, respectively.

ARC Format

The ARC (archival) format data is used internal to the product only. It can be read by UECLoad and exported into either XML or CSV formats.

Event Records Structure

- Overview
- Event Types
- Event Data
 - Data Formats
 - Data Characteristics

Overview

Event records are comprised of an event header and an event body:

- Event header is comprised of a fixed number of fields, regardless of the event type.
- Event body content varies based on the event type.

Event data generated by a Universal Agent component is related either to the component itself or to another component or object. The event header distinguishes between these two cases within the reporter fields and source fields.

- Reporter fields identify the component reporting the event.
- Source fields identify the component or object that is the topic of the event.

If the reporter and the source are the same entity, the reporter fields are empty.

Event Types

There are a number of different types of events (event records) created by UES. New types of events may be added with new releases or product maintenance.

Each type of event is identified by the eventType field in an Event Header.

Event Data

Each event record consists of multiple fields. The data in the fields has different formats and characteristics.

Data Formats

Field Format	Description
String	Text value consisting of any printable character. Depending on the value there may or may not be any restrictions on its length.
Signed integer	Signed integer value ranging from -2,147,483,646 to 2,147,483,647.
Unsigned integer	Unsigned integer value ranging from 0 to 4,294,967,295.
Boolean	 True or false (or yes or no) value, where: 1 represents true or yes. 0 represents false or no.
UUID	Universally Unique Identifier that is a 128-bit value that is represented externally as a string value according to ISO/IEC 11578: 1996.
Date and time	All date and time values are represented as Coordinated Universal Time (UTC).

Data Characteristics

Field Format	Description
Case dependent	String value that may be case sensitive depending on the originating O/S or file system.
Optional	Some fields may not contain any value if not applicable or not provided by the source of the event.

Event Header

The following table describes the fields in an event header.

Field Name	Description
eventCatego ry	 Category of the event: Availability (10) Deals with situations reported from the component regarding its operational state and availability. Configuration (20) Deals with components identifying configuration changes. Stop (30) Deals with the shutdown process for a component. Start (40) Deals with the startup process for a component. Network (50) Deals with situations related to network errors between components. Exception (60) Some exception has occurred within the resource not covered by any other category. Security (70) Some security issue has been detected. Heartbeat (80) A component has been configured to send a heartbeat event. Status (90) Some change of status that does not affect availability or capability of the component. Log (100) A component has been configured to report log entries. Diagnostic (110) A component has been configured to generate diagnostic events.
eventSeverit y	 This category list is ordered by priority, from highest to lowest. Severity of the event with respect to the reporting component: Fatal (10) A condition is unrecoverable and the service is no longer available. Critical (20) A condition affecting the service has occurred. Immediate corrective action is required. Major (30) A problem with relatively high severity has occurred. It is likely that normal use of the service is impeded. Minor (40) A problem with relatively low severity has occurred. It is unlikely that normal use of the service is impeded. Warning (50) A problem with the service may occur or may have occurred. Diagnostic and corrective action is recommended. Informational (60) A message considered purely normal and expected.
eventTopic	 Type of object to which the event pertains. Event topic values are: Job A process created by a Universal Agent component to perform work on behalf of a client request. User A user identity associated with work performed by a Universal Agent component. UACL A Universal Access Control List entry. Component A Universal Agent component, which includes a manager or server component. File A file resource in the O/S file system. Event A Universal Event Monitor event resource. Spool A Universal Agent spool database resource. Command An O/S command, an O/S API, or a component script command.
eventType	Three-digit number that uniquely identifies the event class. Events of the same type represent a specific class of events.
eventUuid	Universally Unique Identifier of each event message generated on any system at any time.

recordedTim e	UTC date and time that the event was recorded by the local Broker.
recordedTim eUsec	Microsecond portion of the TIME value.
reporterGrou pUuid	Universally unique identifier of the work group of which the reporter is a member. If the reporterGroupUuid and the reporterObjectUuid are the same, the component is the work group leader.
reporterlpAd dr	Host name of the component that generated the event. This is the host name as reported by the operating system, typically using the get hostname() function.
reporterNam e	Name of the component that generated the event: UBROKER UCMD-MANAGER UCMD-SERVER UDM-MANAGER UDM-SERVER UEM-MANAGER UEC USAP UCTL-MANAGER UCTL-SERVER
reporterObje ctUuid	Universally unique identifier of the object identified as the reporter of the event.
reporterPare ntUuid	Universally unique identifier of the parent component of the process that reported the event.
reporterSysl d	Installation system identifier of the component that generated the event. The system identifier identifies a specific Universal Agent installation on a host system.
reporterUnit Uuid	Universally unique identifier of the work unit of which the reporter is a member. If the reporterUnitUuid and the reporterObjectUuid are the same value, the component is the unit leader.
sourceGroup Uuid	Universally unique identifier of the work group of which the source is a member. If the sourceGroupUuid and the sourceObjectUuid are the same, the component is the work group leader.
sourcelpAdd r	Host name of the component that generated the event. This is the host name as reported by the operating system, typically using the get hostname() function.
sourceName	Name of the component that generated the event. Valid names include: UBROKER UCMD-MANAGER UCMD-SERVER UDM-MANAGER UDM-SERVER UEM-MANAGER UEM-SERVER UEM-SERVER UEC USAP UCTL-MANAGER UCTL-SERVER
sourceObjec tUuid	Universally unique Identifier of the object identified as the source of the event. The type of object is represented by the eventTopic.
sourceParen tUuid	Universally unique identifier of the parent component of the process that generated the event.
sourceSysId	Installation system identifier of the component that generated the event. The system identifier identifies a specific Universal Agent installation on a host system.
sourceUnitU uid	Universally unique identifier of the work unit of which the source is a member. If the sourceUnitUuid and the sourceObjectUuid are the same value, the component is the unit leader.
	Time zone in which the event was generated. The value is the number of seconds between UTC and local time.
timeZone	The zone in which the event was generated. The value is the number of seconds between one and local time.

Event Types

- Overview
- Universal Agent
- Universal Command
- Universal Broker
- Universal Data Mover
 - UDM Sessions
- Universal Enterprise Controller
- Universal Control

Overview

Each Universal Agent event is categorized by event type. Each event type uniquely identifies a specific class of events.

Each event type has a unique three-digit number. This number is identified in the eventType field of an Event Header.

Each Universal Agent component is assigned a range of numbers for its event types:

Universal Agent Component	Event Type Range
Universal Agent (all)	100-199
Universal Command	200-299
Universal Broker	300-399
Universal Data Mover	400-499
Universal Enterprise Controller	700-799
Universal Control	800-899

For detailed information on a specific event type, as identified in one of the following tables, click its Event Type Name.

Universal Agent

Universal Agent event types represent events that apply generically to all Universal Agent components. The header source fields identify the component that generated the event.

Universal Agent event types are in the range of 100-199.

Event Type Name	Number	Category	Description
USER_AUTHENTICATION	100	Security	Authentication of a user identifier failed.
UACL_AUTHORIZATION	101	Security	A client request was denied access to a Universal Access Control List protected resource.
RESOURCE_AUTHORIZATION	102	Security	Authorization was denied to a general resource. The resource is a non-UACL protected resource.

Universal Command

Universal Command (UCMD) event types represent events that are generated by Universal Command Managers and Servers.

Universal Command event types are in the range of 200-299.

Event Type Name	Number	Category	Description
UCMSRV_JOB_START	200	Start	A UCMD Server starts a job process at the request of a UCMD Manager.

UCMSRV_JOB_STOP	201	Stop	A UCMD Server detects the job process stopped.
UCM_WORK	204	Status	UCMD Manager logs the work it has performed.
UCMSRV_WORK	205	Status	UCMD Server logs the work it has performed.

Universal Broker

Universal Broker event types represent events that are generated by Universal Brokers.

Universal Broker event types are in the range of 300-399.

Event Type Name	Number	Category	Description
UBR_START	300	Start	Universal Broker has started and completed its stage 1 initialization steps. Stage 1 initialization steps include all steps required to initialize the event subsystem.
UBR_STOP	301	Stop	Universal Broker has stopped.
UBR_SRV_COMP_START	302	Start	Universal Broker started a Server component at the request of a client.
UBR_SRV_COMP_STOP	303	Stop	Server component that the Universal Broker started has stopped.
UBR_COMP_COMM_STATE	304	Status	Component's communication state changed.
UBR_MGR_COMP_START	305	Start	Universal Broker detected the start of a Manager component.
UBR_MGR_COMP_STOP	306	Stop	Universal Broker detected the stop of a Manager component.
UBR_COMP_STOP_REQUEST	307	Log	Universal Broker receives and processes a request to stop a component.
UBR_MGR_RESTART	308	Start	Universal Broker has been notified by a Universal Command Manager that it has successfully restarted with a Universal Command Server.

Universal Data Mover

Universal Data Mover (UDM) event types represent events that are generated by Universal Data Mover Managers and Servers.

Universal Data Mover event types are in the range of 400-499.

Event Type Name	Number	Category	Description			
Command-Related Events						
UDM_OPEN_COMMAND_START	400	Start	UDM opens a session.			
UDM_COPY_COMMAND_START	401	Start	UDM starts a copy operation.			
UDM_COPYDIR_COMMAND_START	402	Start	UDM starts a directory copy operation.			
UDM_DELETE_COMMAND_START	403	Start	UDM starts a delete operation.			
UDM_RENAME_COMMAND_START	404	Start	UDM starts a rename operation.			
UDM_OPEN_COMMAND_STOP	405	Stop	UDM session has stopped.			
UDM_COPY_COMMAND_STOP	406	Stop	UDM copy operation has stopped.			
UDM_COPYDIR_COMMAND_STOP	407	Stop	UDM directory copy operation has stopped.			
UDM_DELETE_COMMAND_STOP	408	Stop	UDM delete operation has stopped.			
UDM_RENAME_COMMAND_STOP	409	Stop	UDM rename operation has stopped.			
UDM_MKDIR_COMMAND_START	410	Start	UDM mkdir operation has started.			
UDM_MKDIR_COMMAND_STOP	411	Stop	UDM mkdir operation has stopped.			
UDM_RMDIR_COMMAND_START	412	Start	UDM rmdir operation has started.			
UDM_RMDIR_COMMAND_STOP	413	Stop	UDM rmdir operation has stopped.			

File-Related Events			
UDM_FILE_DELETE	450	Status	UDM file or directory is deleted.
UDM_FILE_RENAME	451	Status	UDM file is renamed.
UDM_FILE_XFER_START	452	Start	UDM starts a transfer operation for an individual file or directory.
UDM_FILE_XFER_STOP	453	Stop	UDM transfer operation for an individual file or directory has stopped.
UDM_DIR_CREATE	454	Status	UDM directory is created.
Execution Events			
UDM_EXEC_OPERATION_START	470	Start	UDM starts an EXEC operation.
UDM_EXEC_OPERATION_END	471	Stop	UDM EXEC operation ends.
UDM_EXECSAP_OPERATION_START	472	Start	UDM starts an EXECSAP operation.
UDM_EXECSAP_OPERATION_END	473	Stop	UDM EXECSAP operation ends.

UDM Sessions

In most operations, UDM is session oriented. A UDM session is a connection between a UDM Manager and one or more UDM servers through which commands are executed. There is no limit to the number of commands that can be executed (sequentially) in a given session. Sessions are identified by a session UUID that is created when an **open** command is issued in UDM.

It is also important to keep in mind that a single UDM Manager instance may establish and close (sequentially) more than one session during its lifetime.

Events are not issued for every UDM command, but some commands (file operation and the open command) will have events that are issued by the UDM manager. The body of command events will have a session UUID (if applicable) and a transaction ID. The transaction ID is an identifier used by UDM that uniquely identifies a given command within the context the UDM Manager instance. This identifier cannot be assumed to be unique outside of the manager instance in which it was generated.

Universal Enterprise Controller

Universal Enterprise Controller (UEC) event types represent events that are generated by Universal Enterprise Controller.

Universal Enterprise Controller event types are in the range of 700-799.

Event Type Name	Number	Category	Description
INDESCA_JOB	700	Status	This is a consolidated event generated by UEC. The contents of the event are consolidated from multiple related events received by UEC.
INFITRAN_JOB	701	Status	This is a consolidated event generated by UEC. The contents of the event are consolidated from multiple related events received by UEC.
FILE_TRANSFER	702	Status	This is a consolidated event generated by UEC. The contents of the event are consolidated from multiple related events received by UEC.

Universal Control

Universal Control event types represent events that are generated by Universal Control Managers and Servers.

Universal Control event types are in the range of 800-899.

Event Type Name	Number	Category	Description
UCTSRV_CMD_START	800	Start	Universal Control Server initiates a request for a control command to be executed by the local Universal Broker on behalf of a Universal Control Manager client.
UCTSRV_CMD_STOP	801	Stop	A control command initiated by a Universal Control Server has stopped.

UCT_CMD_REQUEST	802	Log	Universal Control Manager requests the execution of a control
			command by a Universal Control Server.

Event Definition Details

Overview

The pages in this section provide the following information for each event definition:

- Description
- Event headerEvent body

The event definitions are listed in numerical order by event type.

100	USER_AUTHENTICATION
101	UACL AUTHORIZATION
102	RESOURCE_AUTHORIZATION
200	UCMSRV_JOB_START
200	UCMSRV_JOB_STOP
201	UCM_WORK
205	UCMSRV_WORK
300	UBR_START
301	UBR_STOP
302	UBR_SRV_COMP_START
303	UBR_SRV_COMP_STOP
304	UBR_COMP_COMM_STATE
305	UBR_MGR_COMP_START
306	UBR_MGR_COMP_STOP
307	UBR_COMP_STOP_REQUEST
308	UBR_MGR_RESTART
400	UDM_OPEN_COMMAND_START
401	UDM_COPY_COMMAND_START
402	UDM_COPYDIR_COMMAND_START
403	UDM_DELETE_COMMAND_START
404	UDM_RENAME_COMMAND_START
405	UDM_OPEN_COMMAND_STOP
406	UDM_COPY_COMMAND_STOP
407	UDM_COPYDIR_COMMAND_STOP
408	UDM_DELETE_COMMAND_STOP
409	UDM_RENAME_COMMAND_STOP
410	UDM_MKDIR_COMMAND_START
411	UDM_MKDIR_COMMAND_STOP
412	UDM_RMDIR_COMMAND_START
413	UDM_RMDIR_COMMAND_STOP
450	UDM_FILE_DELETE
451	UDM_FILE_RENAME
452	UDM_FILE_XFER_START

453	UDM_FILE_XFER_STOP
454	UDM_DIR_CREATE
470	UDM_EXEC_OPERATION_START
471	UDM_EXEC_OPERATION_END
472	UDM_EXECSAP_OPERATION_STAR T
473	UDM_EXECSAP_OPERATION_END
700	INDESCA_JOB
701	INFITRAN_JOB
702	FILE_TRANSFER
800	UCTSRV_CMD_START
801	UCTSRV_CMD_STOP
802	UCT_CMD_REQUEST

USER_AUTHENTICATION (100)

The event is generated when a Universal Agent component was not able to successfully authenticate a user identifier and password.

USER_AUTHENTICATION Event Header

Field Name	Description
eventCategory	Security
eventSeverity	Major
eventTopic	User
eventType	100
(Source Fields)	Universal Agent component that encountered the failed user authentication.
(Reporter Fields)	

USER_AUTHENTICATION Event Body

Field Name	Notes	Description
certId	1, 2	UACL certificate map identifier to which the client's digital certificate mapped.
clientCertIssuer	1, 2	Issuer field of the digital certificate provided by the client.
clientCertSerialNo	1, 2	Serial number of the digital certificate provided by the client.
clientCertSubject	1, 2	Subject field of the digital certificate provided by the client.
clientIpAddr	1	IP address from which the client's socket connection was established.
clientUserId	1, 3, 4	User identifier of the client.
clientWorkId	1	Work identifier of the client.
userld	3	User identifier that failed authentication.

Notes

1. Client fields identify the client that requested user authentication. A client is not always the initiator of the authentication request however. Authentication may be performed by a Universal Agent component on its own behalf as part of its normal processing.

2. Digital certificate information is only provided if the client provided a digital certificate.

3. A case-dependent value.

4. A case-dependent value, but for pre-3.2 clients, the value always is considered case sensitive.

UACL_AUTHORIZATION (101)

The event is generated when a Universal Agent component was denied access by a Universal Access Control List entry.

The conditions under which the event is generated include:

A Broker or Server component finds that a client request matched a UACL entry that denies access to the protected resource.

UACL_AUTHORIZATION Event Header

Field Name	Description
eventCategory	Security
eventSeverity	Major
eventTopic	UACL
eventType	101
(Source Fields)	Universal Agent component denying access based on the UACL entry.
(Reporter Fields)	

UACL_AUTHORIZATION Event Body

Field Name	Notes	Description
clientCertIssuer	1, 2, 5	Issuer field of the digital certificate provided by the client.
clientCertSerialNo	1, 2, 5	Serial number of the digital certificate provided by the client.
clientCertSubject	1, 2, 5	Subject field of the digital certificate provided by the client.
clientIpAddr	1	IP address from which the client's socket connection was established.
clientUserId	1, 3, 4, 5	User identifier of the client.
clientWorkId	1, 5	Work identifier of the client.
uaclEntryNumber		Entry number of the UACL entry that denied access to the resource.
uaclEntryRule		Rule of the UACL entry that denied access to the resource.
uaclEntryType		Type of UACL entry that denied access to the resource.
uaclResource		UACL resource name to which access was denied.

Notes

Client fields identify the client that requested access to the UACL protected resource.
 Digital certificate information is only provided if the client provided a digital certificate.

3. A case-dependent value.

4. A case-dependent value, but for pre-3.2 clients, the value is always considered case sensitive.

5. The field is not provided when the uaclEntryType is ubroker_access.

RESOURCE_AUTHORIZATION (102)

The event is generated when a Universal Agent component was denied access to a general resource protected by a Universal Agent component.

Conditions under which the event is generated include:

- A UCMD Manager was restarted and reattached to a UCMD Server in a pending, disconnected or orphaned communication state and the user ID
- specified by the restarted Manager is different than the user ID specified by the originating UCMD Manager.
 A UCTL STOP command specified a user ID that is not authorized to STOP the requested Server component.

RESOURCE_AUTHORIZATION Event Header

Field Name	Description
eventCategory	Security
eventSeverity	Major
eventTopic	Specific to the resource.
eventType	102
(Source Fields)	Universal Agent component denying access to the resource.
(Reporter Fields)	

RESOURCE_AUTHORIZATION Event Body

Field Name	Notes	Description
clientCertIssuer	1, 2	Issuer field of the digital certificate provided by the client.
clientCertSerialNo	1, 2	Serial number of the digital certificate provided by the client.
clientCertSubject	1, 2	Subject field of the digital certificate provided by the client.
clientIpAddr	1	IP address from which the client's socket connection was established.
clientUserId	1, 3, 4	User identifier of the client.
clientWorkId	1	Work identifier of the client.
owner		User identifier that owns the resource.
securityResource		Name of the resource to which access was denied.
userld	3	User identifier that was denied access to the resource.

Notes

- 1. Client fields identify the client that requested access to the protected resource.
- 2. Digital certificate information is only provided if the client provided a digital certificate.

3. A case-dependent value.

4. A case-dependent value, but for pre-3.2 clients, the value is always considered case sensitive.

UCMSRV_JOB_START (200)

The event is generated when a job has been started by the Universal Command Server. The job executes the work as requested by a Universal Command Manager. The job may be a command or script.

UCMSRV_JOB_START Event Header

Field Name	Description	
eventCategory	Start	
eventSeverity	Informational	
eventTopic	Job	
eventType	200	
(Source Fields)	Job that started.	
(Reporter Fields)	UCM Server that started the job.	

UCMSRV_JOB_START Event Body

Field Name	Notes	Description
certId		Certificate map identifier that the client certificate was mapped to by the Universal Access Control List cert_map entries.
clientCertIssuer	1	Issuer field of the digital certificate provided by the UCMD Manager.
clientCertSerialNo	1	Serial number of the digital certificate provided by the UCMD Manager.
clientCertSubject	1	Subject field of the digital certificate provided by the UCMD Manager.
clientIpAddr		IP address from which the UCMD Manager's socket connection was established.
clientUserId	2, 3	User identifier of the UCMD Manager.
clientUserIdCaseSensitive		 Indication of whether or not clientUserId is case sensitive: 0 = false (clientUserId is not case sensitive). 1 = true (clientUserId is case sensitive).
clientWorkId		Work identifier of the UCMD Manager.
jobCommand		Command line used to start the job. The field is relevant only if the jobFormat value is CMD.
jobFormat		Format of job requested by the UCMD Manager. Valid values are: • CMD (1) • SCRIPT (2)
jobLoginEnvironment		 Specification for whether or not a login environment was established for the job. Possible values are: 0 - Job ran with the Login Environment option off. 1 - Job ran with the Login Environment option on.
jobType		 Type of job requested by the UCMD Manager. Valid values are: shell: Job is executed by a shell environment, such as Windows CMD.EXE, UNIX Bourne or Korn shell, or z/OS USS shell. stc: Job is a z/OS started task. cmdref: Job is a UCM Server command reference.
jobUserld	2	User identifier with which the job executed.

jobUserIdCaseSensitive	 Indication of whether or not jobUserId is case sensitive: 0 = false (jobUserId is not case sensitive). 1 = true (jobUserId is case sensitive).
jobWorkld	Work identifier of the job started by UCMD Server.
managerFaultTolerant	 Specification for whether or not the UCMD Server ran with the Manager Fault Tolerant protocol. Possible values are: 0 - Job did not execute in Manager Fault Tolerant mode. 1 - Job executed in Manager Fault Tolerant mode.
networkFaultTolerant	 Specification for whether or not the UCMD Server ran with the Network Fault Tolerant protocol. Possible values are: 0 - Job did not execute in Network Fault Tolerant mode. 1 - Job executed in Network Fault Tolerant mode.
startDateTime	UTC date and time the job started.

Notes

Digital certificate information is only provided if the client provided a digital certificate.
 A case-dependent value.
 A case-dependent value, but for pre-3.2 clients, the value is always considered case sensitive.

UCMSRV_JOB_STOP (201)

The event is generated when a job has stopped. The job process executes the work requested by the Universal Command Manager.

UCMSRV_JOB_STOP Event Header

Field Name	Description
eventCategory	Stop
eventSeverity	Informational
eventTopic	Job
eventType	201
(Source Fields)	Job that stopped.
(Reporter Fields)	UCM Server that started the job.

UCMSRV_JOB_STOP Event Body

Field Name	Notes	Description
certId		Certificate map identifier that the client certificate was mapped to by the Universal Access Control List cert_map entries.
clientCertIssuer	1	Issuer field of the digital certificate provided by the UCMD Manager.
clientCertSerialNo	1	Serial number of the digital certificate provided by the UCMD Manager.
clientCertSubject	1	Subject field of the digital certificate provided by the UCMD Manager.
clientIpAddr		IP address from which the UCMD Manager's socket connection was established.
clientUserId	2, 3	User identifier of the UCMD Manager.
clientUserIdCaseSensitive		 Indication of whether or not clientUserId is case sensitive: 0 = false (clientUserId is not case sensitive). 1 = true (clientUserId is case sensitive).
clientWorkId		Work identifier of the UCMD Manager.
elapsedTime		Number of seconds in which the job executed. The value may be zero if the job ran less than a second, resulting in the start and end time not changing at the 1 second resolution.
exitCode		Final exit code of the job as reported by operating system.
exitStatus		 Final exit status of the job as reported by the operating system. Valid values are: Normal (1) Abnormal (2) An abnormal end indicates the job was interrupted by the operating system before it completed processing. Examples of abnormal exits are, for example, UNIX signals, Windows exceptions, and z/OS ABENDs.
jobCommand		Command line used to start the job. The field is relevant only if the jobFormat value is CMD.
jobFormat		Format of job requested by the UCMD Manager. Valid values are: • CMD (1) • SCRIPT (2)

jobLoginEnvironment	Specification for whether or not a login environment was established for the job. Possible values are:
	 0 - Job ran with the Login Environment option off. 1 - Job ran with the Login Environment option on.
jobType	 Type of job requested by the UCMD Manager. Valid values are: shell: Job is executed by a shell environment, such as Windows CMD.EXE, UNIX Bourne or Korn shell, or z/OS USS shell. stc: Job is a z/OS started task. cmdref: Job is a UCM Server command reference.
jobUserId	2 User identifier with which the job executed.
jobUserIdCaseSensitive	 Indication of whether or not jobUserId is case sensitive: 0 = false (jobUserId is not case sensitive). 1 = true (jobUserId is case sensitive).
jobWorkId	Work identifier of the job started by UCMD Server.
managerFaultTolerant	 Specification for whether or not the UCMD Server ran with the Manager Fault Tolerant protocol. Possible values are: 0 - Job did not execute in Manager Fault Tolerant mode. 1 - Job executed in Manager Fault Tolerant mode.
networkFaultTolerant	 Specification for whether or not the UCMD Server ran with the Network Fault Tolerant protocol. Possible values are: 0 - Job did not execute in Network Fault Tolerant mode. 1 - Job executed in Network Fault Tolerant mode.
startDateTime	UTC date and time the job started.
stopDateTime	UTC date and time the job stopped.

Notes

- Digital certificate information is only provided if the client provided a digital certificate.
 A case-dependent value.
 A case-dependent value, but for pre-3.2 clients, the value is always considered case sensitive.

UCM_WORK (204)

UCM_WORK (204)

The event is generated by Universal Command Manager to log the work it has performed.

UCM_WORK Event Header

Field Name	Description	
eventCategory	Log	
eventSeverity	Informational	
eventTopic	Component	
eventType	204	
(Source Fields)	UCM Manager that performed the work.	
(Reporter Fields)		

UCM_WORK Event Body

Field Name	Notes	Description
brokerHost		IP address of the Universal Broker that UCM Manager connected to request the execution of its work.
brokerPort		TCP port number of the Universal Broker that UCM Manager connected to request the execution of its work.
certIssuer	1	Issuer name of the digital certificate with which UCM Manager is executing.
certSerialNo	1	Serial number of the digital certificate with which UCM Manager is executing.
certSubject	1	Subject name of the digital certificate with which UCM Manager is executing.
commandId		Command identifier with which UCM Manager executed.
comment		Comment with which UCM Manager executed.
controlCipher		SSL/TLS cipher suite used for the control session between the UCM Manager and Server.
forceComplete		Specification for whether or not the UCM Manager executed with the FORCE_COMPLE TE option set to a value of yes .
jobExitCode		Exit code of the job that was executed at the request of UCM Manager.
jobExitStatus		Exit status of the job that was executed at the request of UCM Manager.
jobUserId		User identifier with which the UCM Manager requested the job to execute.
licenseCustomer		Customer name of the UCM Manager license.
licenseExpiration		Expiration date of the UCM Manager license.
managerComponentId		Component identifier of the UCM Manager.
managerFaultTolerant		 Specification for whether or not the UCM Manager executed with the MANAGER_FAULT _TOLERANT option set to a value of yes. Possible values are: 0 - Job did not execute in Manager Fault Tolerant mode. 1 - Job executed in Manager Fault Tolerant mode.
messageLevel		Message level with which UCM Manager is executing.

networkFaultTolerant		Specification for whether or not the UCM Manager executed with the NETWORK_FAUL T_TOLERANT option set to a value of YES.
		Possible values are:
		 0 - Job did not execute in Network Fault Tolerant mode. 1 - Job executed in Network Fault Tolerant mode.
restarted		Specification for whether or not the UCM Manager was restarted:
		Value of TRUE indicates it was restarted.Value of FALSE indicates it was not restarted.
		If the UCM Manager RESTART option was set to auto , this field is set to TRUE only if the Manager reestablished a session with a pending, orphaned, or disconnected UCM Server.
serverComponentId		Component identifier of the UCM Server with which the Manager is communicating.
stderrCipher		SSL cipher suite used for the standard error session between the UCM Manager and Server.
stderrCompression		Compression method used for the standard error session between the UCM Manager and Server.
stderrMode		Data translation mode used for the standard error session between the UCM Manager and Server.
stdinCipher		SSL/TLS cipher suite used for the standard input session between the UCM Manager and Server.
stdinCompression		Compression method used for the standard input session between the UCM Manager and Server.
stdinMode		Data translation mode used for the standard input session between the UCM Manager and Server.
stdoutCipher		SSL/TLS cipher suite used for the standard output session between the UCM Manager and Server.
stdoutCompression		Compression method used for the standard output session between the UCM Manager and Server.
stdoutMode		Data translation mode used for the standard output session between the UCM Manager and Server.
userId	2	User identifier with which UCM Manager is executing.
version		Version of the UCM Manager program.
workld		Work identifier with which UCM Manager is executing.

Notes

1. Digital certificate information is provided only if the Manager is configured to use digital certificates.

A case-dependent value.

UCMSRV_WORK (205)

The event is generated by Universal Command (UCM) Server to log the work it has performed.

UCMSRV_WORK Event Header

Field Name	Description
eventCategory	Log
eventSeverity	Informational
eventTopic	Component
eventType	205
(Source Fields)	UCM Server that performed the work.
(Reporter Fields)	

UCMSRV_WORK Event Body

Field Name	Notes	Description
clientCertIssuer	1	Issuer field of the digital certificate provided by the UCM Manager.
clientCertSerialNo	1	Serial number of the digital certificate provided by the UCM Manager.
clientCertSubject	1	Subject field of the digital certificate provided by the UCM Manager.
clientIpAddr		IP address from which the UCM Manager's socket connection was established.
clientUserId	2, 3	User identifier of the UCM Manager.
clientUserIdCaseSensitive		 Indication of whether or not clientUserId is case sensitive: 0 = false (clientUserId is not case sensitive). 1 = true (clientUserId is case sensitive).
clientWorkId		Work identifier of the UCM Manager.
controlCipher		SSL/TLS cipher suite used for the control session between the UCM Manager and Server.
forceComplete		Specification for whether or not the UCM Server performed a force completion request.
jobCommand		Command used to start the job. The field is relevant only if the jobFormat value is CMD.
jobElapsedTime		Number of seconds that the job executed. The value may be zero if the job ran less than a second.
jobExitCode		Exit code of the job as reported by the operating system.
jobExitStatus		 Final exit status of the job as reported by the operating system. Valid values are: Normal (1) Abnormal (2) An abnormal end indicates the job was interrupted by the operating system before it completed processing. Examples of abnormal exits include UNIX signals, Windows exceptions, and z/OS ABENDs.
jobFormat		Format of the job request. Valid values are: • CMD (1) • SCRIPT (2)

jobLoginEnvironment	Specification for whether or not a login environment was established in which to execute the job.
	Possible values are:
	 0 - Job ran with the Login Environment option off. 1 - Job ran with the Login Environment option on.
jobStartDateTime	UTC time the job started.
jobStopDateTime	UTC time the job stopped.
јоbТуре	 Type of job requested. Valid values are: shell: Job is executed by a shell environment, such as Windows CMD.EXE, UNIX Bourne or Korn shell, or z/OS USS shell. stc: Job is a z/OS started task. cmdref: Job is a UCM Server command reference.
jobUserId	User identifier with which the job executed.
jobWorkld	Work identifier of the job.
managerFaultTolerant	Specification for whether or not the UCM Server is in Manager Fault Tolerant mode.
	Possible values are:
	 0 - Job did not execute in Manager Fault Tolerant mode. 1 - Job executed in Manager Fault Tolerant mode.
messageLevel	Message level with which UCM Server is executing.
networkFaultTolerant	Specification for whether or not the UCM Server is in Network Fault Tolerant mode. Possible values are:
	 0 - Job did not execute in Network Fault Tolerant mode. 1 - Job executed in Network Fault Tolerant mode.
restarted	Specification for whether or not the UCM Server was restarted.
serverComponentId	Component identifier of the UCM Server with which the manager is communicating.
stderrCipher	SSL/TLS cipher suite used for the standard error session between the UCM Manager and Server.
stderrCompression	Compression method used for the standard error session between the UCM Manager and Server.
stderrMode	Data translation mode used for the standard error session between the UCM Manager and Server.
stdinCipher	SSL/TLS cipher suite used for the standard input session between the UCM Manager and Server.
stdinCompression	Compression method used for the standard input session between the UCM Manager and Server.
stdinMode	Data translation mode used for the standard input session between the UCM Manager and Server.
stdoutCipher	SSL/TLS cipher suite used for the standard output session between the UCM Manager and Server.
stdoutCompression	Compression method used for the standard output session between the UCM Manager and Server.
stdoutMode	Data translation mode used for the standard output session between the UCM Manager and Server.
version	Version of the UCM Server program.
workId	Work identifier with which UCM Server is executing.

Notes

- Digital certificate information is provided only if the Manager provided a digital certificate.
 A case-dependent value.
 A case-dependent value, but for pre-3.2.0 clients, the value always is considered case sensitive.

UBR_START (300)

The event is generated when the Universal Broker is started.

UBR_START Event Header

Field Name	Description
eventCategory	Start
eventSeverity	Informational
eventTopic	Component
eventType	300
(Source Fields)	Universal Broker that started.
(Reporter Fields)	

UBR_START Event Body

Field Name	Notes	Description
CertIssuer	1	Issuer subject field of the digital certificate with which the Broker is executing.
CertSerialNo	1	Serial number of the digital certificate with which the Broker is executing.
CertSubject	1	Subject field of the digital certificate with which the Broker is executing.
servicePort		TCP port number on which the Broker is servicing network requests.
startDateTime		UTC date and time the Broker has started executing.
userld	2	User identifier with which the Broker is executing.

Notes

1. Digital certificate information is only provided if the Broker is configured to use digital certificates.

2. A case-dependent value.

UBR_STOP (301)

The event is generated when the Universal Broker is stopped.

There are cases when a UBR_STOP event will not be generated. When the Broker is stopped with a method that does not permit the Broker program to continue executing, the event is not generated. Some methods that stop a Broker in this manner are:

- Windows termination with the Windows Task Manager.
- UNIX SIGKILL signal.
- z/OS CANCEL command or JES \$C command.
- IBM i immediate end.

UBR_STOP Event Header

Field Name	Description	
eventCategory	Stop	
eventSeverity	Informational	
eventTopic	Component	
eventType	301	
(Source Fields)	Universal Broker that stopped.	
(Reporter Fields)		

UBR_STOP Event Body

Field Name	Notes	Description
elapsedTime		Amount of time (in seconds) that the Broker executed.
exitCode		Exit code with which the Broker stopped executing.
stopDateTime		UTC date and time the Broker stopped.

UBR_SRV_COMP_START (302)

The event is generated when the Broker starts a server component. A Broker server component is typically started at the request of a Universal Agent Manager; however, there are times when the Broker starts a server component on its own behalf.

UBR_SRV_COMP_START Event Header

Field Name	Description
eventCategory	Start
eventSeverity	Informational
eventTopic	Component
eventType	302
(Source Fields)	Server component that started.
(Reporter Fields)	Universal Broker that started the component.

UBR_SRV_COMP_START Event Body

Field Name	Notes	Description
applProperties		Application-specific properties used for event correlation by UEC.
certId		Certificate map identifier that the client certificate was mapped to by the Universal Access Control List cert_map entries.
clientCertIssuer	1, 2	Issuer field of the digital certificate provided by the client.
clientCertSerialNo	1, 2	Serial number of the digital certificate provided by the client.
clientCertSubject	1, 2	Subject field of the digital certificate provided by the client.
clientIpAddr	1	IP address from which the client's socket connection was established.
clientPort	1	TCP port number from which the client's socket connection was established.
clientUserId	1, 3, 4	User identifier of the client.
clientWorkId	1	Work identifier of the client.
commandId		Command identifier, specified by the Manager, that is used to identify the unit of work.
comment		User-provided comment associated with the unit of work.
componentId		Component identifier the Broker assigns to the component.
compRestart		Whether or not the component is being restarted.
managerFaultTolerant		 Specification for whether or not the server component is manager fault tolerant. Possible values are: 0 - Job did not execute in Manager Fault Tolerant mode. 1 - Job executed in Manager Fault Tolerant mode.
startDateTime		UTC date and time the component started.

Notes

- 1. The client information identifies the entity that requested the Broker to start the component. The Broker may have started the component on its own behalf, in which case, the client information identifies the Broker.
- 2. Client digital certificate information is provided only if the client provided a digital certificate.
- 3. A case-dependent value.
- 4. A case-dependent value, but for pre-3.2 clients, the value is always considered case sensitive.

UBR_SRV_COMP_STOP (303)

The event is generated when the Broker detects that a server component has stopped.

UBR_SRV_COMP_STOP Event Header

Field Name	Description	
eventCategory	Stop	
eventSeverity	 Informational (if the component ended successfully) Warning (if the component ended unsuccessfully or with a PENDING communication state) 	
eventTopic	Component	
eventType	303	
(Source Fields)	Server component that stopped.	
(Reporter Fields)	Universal Broker that started the component.	

UBR_SRV_COMP_STOP Event Body

Field Name	Notes	Description
applProperties		Application-specific properties used for event correlation by UEC.
certId		Certificate map identifier that the client certificate was mapped to by the Universal Access Control List cert_map entries.
clientCertIssuer	1, 2	Issuer field of the digital certificate provided by the client.
clientCertSerialNo	1, 2	Serial number of the digital certificate provided by the client.
clientCertSubject	1, 2	Subject field of the digital certificate provided by the client.
clientIpAddr	1	IP address from which the client's socket connection was established.
clientPort	1	TCP port number from which the client's socket connection was established.
clientUserId	1, 3, 4	User identifier of the client.
clientWorkId	1	Work identifier of the client.
commandId		Command identifier, specified by the manager, that is used to identify the unit of work.
comment		User-provided comment associated with the unit of work.
componentId		Component identifier the Broker assigns to the component.
elapsedTime		Number of seconds that the server component executed.
exitCode		Exit code with which the component ended as reported by the operating system.
exitStatus		Final exit status of the component as reported by the operating system.
		Valid values are:
		Normal (1)Abnormal (2)
		An abnormal end indicates the component was interrupted by the operating system before it completed processing. Examples of abnormal exits include UNIX signals, Windows exceptions, and z/OS ABENDs.

managerFaultTolerant	 Specification for whether or not the server component is manager fault tolerant. Possible values are: 0 - Job did not execute in Manager Fault Tolerant mode. 1 - Job executed in Manager Fault Tolerant mode.
pending	Specifies whether or not the server component ended in a PENDING communication state. A PENDING state indicates that the server was running with the Manager Fault Tolerant feature and ended while no manager connection was established with the server.
startDateTime	UTC date and time that the server component started.
stopDateTime	UTC date and time that the component stopped.

Notes

- The client information identifies the entity that requested the Broker to start the component. The Broker may have started the component on its own behalf, in which case, the client information identifies the Broker.
 Client digital certificate information is provided only if the client provided a digital certificate.
 A case-dependent value.

- 4. A case-dependent value, but for pre-3.2 clients, the value is always considered case sensitive.

UBR_COMP_COMM_STATE (304)

The event is generated when the Broker detects if a component's communications state has changed.

The conditions in which the event is generated include:

- State changing to DISCONNECTED, ORPHANED or PENDING.
- State changing from DISCONNECTED, ORPHANED or PENDING to ESTABLISHED.

UBR_COMP_COMM_STATE Event Header

Field Name	Description	
eventCategory	Exception	
eventSeverity	Warning	
eventTopic	Component	
eventType	304	
(Source Fields)	Component whose communicate state changed.	
(Reporter Fields)	Universal Broker that started the component.	

UBR_COMP_COMM_STATE Event Body

Field Name	Notes	Description
changeDateTime		UTC date and time the component state changed.
clientCertIssuer	1, 2	Issuer field of the digital certificate provided by the client.
clientCertSerialNo	1, 2	Serial number of the digital certificate provided by the client.
clientCertSubject	1, 2	Subject field of the digital certificate provided by the client.
clientIpAddr	1	IP address from which the client's socket connection was established.
clientPort	1	TCP port number from which the client's socket connection was established.
clientUserId	1, 3, 4	User identifier of the client.
clientWorkId	1	Work identifier of the client.
componentId		Component identifier the Broker assigns to the component.
newCommState	5	New communication state of the component.
prevCommState	5	Previous communication state of the component.

Notes

- 1. The client information identifies the entity that requested the Broker to start the component. The Broker may have started the component on its own behalf, in which case, the client information identifies the Broker.
- 2. Client digital certificate information is provided only if the client provided a digital certificate.

3. A case-dependent value.

- 4. A case-dependent value, but for pre-3.2 clients, the value is always considered case sensitive.
- 5. The component communication state (new or previous) is represented by one of numeric values identified in the following table.

Value	Name	Description
1	STARTING	Started by Broker.
2	ESTABLISHED	Started and connected.
3	DISCONNECTED	No working connection to Manager.
4	ORPHANED	Manager has terminated.
5	RECONNECTING	Reconnect received and is in progress.

6	RESTARTING	Restart received and is in progress.
7	RESTART_ACCEPTED	Restart received by Broker.
8	PENDING	Manager has not received results.
9	COMPLETED	Manager has received results.

UBR_MGR_COMP_START (305)

The event is generated when a manager component registers with the Broker.

UBR_MGR_COMP_START Event Header

Field Name	Description
eventCategory	Start
eventSeverity	Informational
eventTopic	Component
eventType	305
(Source Fields)	Manager component that started.
(Reporter Fields)	Universal Broker with which the manager component registered.

UBR_MGR_COMP_START Event Body

Field Name	Notes	Description
clientCertIssuer	1	Issuer field of the digital certificate identifying manager.
clientCertSerialNo	1	Serial number of the digital certificate identifying manager.
clientCertSubject	1	Subject field of the digital certificate identifying the manager.
clientUserId	2	User identifier of the manager.
clientUserIdCaseSensitive		 Indication of whether or not clientUserId is case sensitive: 0 = false (clientUserId is not case sensitive). 1 = true (clientUserId is case sensitive).
clientWorkId		Work identifier of the manager.
componentId		Component identifier the Broker assigns to the component.
startDateTime		UTC date and time the component started.

Notes

1. Client digital certificate information is provided only if the client provided a digital certificate.

2. A case-dependent value.

UBR_MGR_COMP_STOP (306)

The event is generated when the Broker detects a manager component has stopped.

UBR_MGR_COMP_STOP Event Header

Field Name	Description	
eventCategory	Stop	
eventSeverity	 Informational (if the component ended successfully) Warning (if the component ended unsuccessfully) 	
eventTopic	Component	
eventType	306	
(Source Fields)	Manager component that stopped.	
(Reporter Fields)	Universal Broker with which the manager component registered.	

UBR_MGR_COMP_STOP Event Body

Field Name	Notes	Description
clientCertIssuer	1	Issuer field of the digital certificate identifying the manager.
clientCertSerialNo	1	Serial number of the digital certificate identifying the manager.
clientCertSubject	1	Subject field of the digital certificate identifying the manager.
clientUserId	2	User identifier of the manager.
clientUserIdCaseSensitive		 Indication of whether or not clientUserId is case sensitive: 0 = false (clientUserId is not case sensitive). 1 = true (clientUserId is case sensitive).
clientWorkId		Work identifier of the manager.
componentId		Component identifier the Broker assigns to the component.
elapsedTime		Number of seconds in which the manager component ended.
exitCode		Exit code with which the component ended as reported by the operating system.
exitStatus		 Final exit status of the component as reported by the operating system. Valid values are: Normal (1) Abnormal (2) An abnormal end indicates the component was interrupted by the operating system before it completed processing. Examples of abnormal exits include UNIX signals, Windows exceptions, and z/OS ABENDs.
startDateTime		UTC date and time that the component started.
stopDateTime		UTC date and time that the component stopped.

Notes

- Client digital certificate information is provided only if the client provided a digital certificate.
 A case dependent value.

UBR_COMP_STOP_REQUEST (307)

The event is generated when a Universal Broker receives and processes a request to stop a component. The stop request is sent to the targeted component. The event does not indicate the components response to the stop request.

The conditions under which the event is generated are:

- Universal Broker requesting a component stop as the result of a manager termination matching a server stop condition value.
- Universal Control Server requesting a component stop on behalf of a Universal Control Manager.
- Universal Enterprise Controller requesting a component stop on behalf of a Universal Enterprise Controller Client Application, such as I-Activity Monitor.

UBR_COMP_STOP_REQUEST Event Header

Field Name	Description	
eventCategory	Log	
eventSeverity	Informational	
eventTopic	Command	
eventType	307	
(Source Fields)	Target component of the STOP command.	
(Reporter Fields)	Universal Broker.	

UBR_COMP_STOP_REQUEST Event Body

Field Name	Notes	Description
clientCertIssuer	1	Issuer field of the digital certificate provided by the client.
clientCertSerialNo	1	Serial number of the digital certificate provided by the client.
clientCertSubject	1	Subject field of the digital certificate provided by the client.
clientIpAddr		IP address from which the client's socket connection was established.
clientUserId	2, 3	User identifier of the client.
clientWorkId		Work identifier of the client.
componentId		Component identifier of the component whose is the target of the STOP request.
startDateTime		UTC time that the STOP request was sent to the target component.
userld	2	Local user identifier with which the STOP request executes.

Notes

1. Client digital certificate information is provided only if the client provided a digital certificate.

2. A case-dependent value.

3. A case dependent value, but for pre-3.2 clients, the value is always considered case sensitive.

UBR_MGR_RESTART (308)

The event is generated by Universal Broker when it has been notified by a Universal Command Manager that it has successfully restarted with a Universal Command Server.

UBR_MGR_RESTART Event Header

Field Name	Description		
eventCategory	Start		
eventSeverity	Informational		
eventTopic	Component		
eventType	308		
(Reporter Fields)	Universal Broker		
(Source Fields)	Universal Command Server		

UBR_MGR_RESTART Event Body

Field Name	Notes	Description
certId	1	Certificate map identifier that the client certificate was mapped to by the Universal Access Control List cert_map entries.
clientCertIssuer	1	Issuer field of the digital certificate identifying the manager.
clientCertSerialNo	1	Serial number of the digital certificate identifying the manager.
clientCertSubject	1	Subject field of the digital certificate identifying the manager.
clientlpAddr		IP address from which the client is connecting.
clientPort		TCP port number from which the client is connecting.
clientUserId	2	User identifier of the manager.
clientUserIdCaseSensitive		 Indication of whether or not clientUserId is case sensitive: 0 = false (clientUserId is not case sensitive). 1 = true (clientUserId is case sensitive).
clientWorkId		Work identifier of the manager.
componentId		Component identifier of the UCM server.

Notes

1. Digital certificate information is provided only if the Manager is configured to use digital certificates.

2. A case dependent value.

UDM_OPEN_COMMAND_START (400)

The event signals the beginning of an attempt to open a UDM session.

To identify the UDM session, the manager creates a SESSION_UUID and places it in the body of the message.

UDM_OPEN_COMMAND_START Event Header

Field Name	Description
eventCategory	Start
eventSeverity	Informational
eventTopic	Command
eventType	400
(Source Fields)	UDM Manager that issued the open command.
(Reporter Fields)	

UDM_OPEN_COMMAND_START Event Body

Field Name	Notes	Description
networkFaultTolerant		Specification for whether or not the session was created using network fault tolerance.
		Possible values are:
		 0 - Job did not execute in Network Fault Tolerant mode. 1 - Job executed in Network Fault Tolerant mode.
primSrvHost	1	Host or IP address of the primary server.
primSrvUserId	1	User ID of the primary server.
secSrvHost		Host or IP address of the secondary server.
secSrvUserId		User ID of the secondary server.
sessionUuid		Unique identifier for a UDM session.
startDateTime		UTC date and time the command was issued.

Notes

1. If the session is a two-party session, there is no primary server information as the manager plays the role of the primary server.

UDM_COPY_COMMAND_START (401)

The event signals the beginning of a UDM copy operation.

UDM_COPY_COMMAND_START Event Header

Field Name	Description
eventCategory	Start
eventSeverity	Informational
eventTopic	Command
eventType	401
(Source Fields)	UDM Manager that issued the copy command.
(Reporter Fields)	

UDM_COPY_COMMAND_START Event Body

Field Name	Notes	Description
dstComponentUuid		UUID of the UDM component acting as the destination in the transfer.
dstFileMask	1	Destination file mask in the copy operation.
sessionUuid		Unique identifier for a UDM session.
srcComponentUuid		UUID of the UDM component acting as the source in the transfer.
srcFileMask		Source file mask in the copy operation.
startDateTime		UTC date and time the command was issued.
transactionId		Unique identifier for the command within a UDM manager instance.

Notes

1. There may not be a destination file mask.

UDM_COPYDIR_COMMAND_START (402)

The event signals the beginning of a UDM directory copy operation.

UDM_COPYDIR_COMMAND_START Event Header

Field Name	Description
eventCategory	Start
eventSeverity	Informational
eventTopic	Command
eventType	402
(Source Fields)	UDM Manager that issued the copydir command.
(Reporter Fields)	

UDM_COPYDIR_COMMAND_START Event Body

Field Name	Notes	Description
dstComponentUuid		UUID of the UDM component acting as the destination in the transfer.
dstFileMask	1	Destination file mask in the copy operation.
sessionUuid		Unique identifier for a UDM session.
srcComponentUuid		UUID of the UDM component acting as the source in the transfer.
srcFileMask		Source file mask in the copy operation.
startDateTime		UTC date and time the command was issued.
transactionId		Unique identifier for the command within a UDM manager instance.

Notes

1. There may not be a destination file mask.

UDM_DELETE_COMMAND_START (403)

The event signals the beginning of a UDM delete operation.

UDM_DELETE_COMMAND_START Event Header

Field Name	Description
eventCategory	Start
eventSeverity	Informational
eventTopic	Command
eventType	403
(Source Fields)	UDM Manager that issued the delete command.
(Reporter Fields)	

UDM_DELETE_COMMAND_START Event Body

Field Name	Notes	Description
componentUuid		UUID of the UDM component on which the deletion operation will take place.
fileMask		File mask for the delete operation.
sessionUuid		Unique identifier for a UDM session.
startDateTime		UTC date and time the command was issued.
transactionId		Unique identifier for the command within a UDM manager instance.

UDM_RENAME_COMMAND_START (404)

The event signals the beginning of a UDM rename operation.

UDM_RENAME_COMMAND_START Event Header

Field Name	Description
eventCategory	Start
eventSeverity	Informational
eventTopic	Command
eventType	404
(Source Fields)	UDM Manager that issued the rename command.
(Reporter Fields)	

UDM_RENAME_COMMAND_START Event Body

Field Name	Notes	Description
componentUuid		UUID of the UDM component on which the rename operation will take place.
newFileName		New file name used in the rename operation.
oldFileName		Old file name used in the rename operation.
sessionUuid		Unique identifier for a UDM session.
startDateTime		UTC date and time the command was issued.
transactionId		Unique identifier for the command within a UDM Manager instance.

UDM_OPEN_COMMAND_STOP (405)

The event indicates a UDM session created with the OPEN command has been closed.

UDM_OPEN_COMMAND_STOP Event Header

Field Name	Description	
eventCategory	Stop	
eventSeverity	Informational	
eventTopic	Command	
eventType	405	
(Source Fields)	UDM Manager that issued the open command.	
(Reporter Fields)		

UDM_OPEN_COMMAND_STOP Event Body

Field Name	Notes	Description
commandRc		Return value for the command once the session has terminated.
networkFaultTolerant		 Specification for whether or not the session was created using network fault tolerance. Possible values are: 0 - Job did not execute in Network Fault Tolerant mode. 1 - Job executed in Network Fault Tolerant mode.
primSrvHost	1	Host name or IP address of the primary server.
primSrvUserId	1	User ID of the primary server.
secSrvHost		Host name or IP address of the secondary server.
secSrvUserid		User ID of the secondary server.
sessionUuid		Unique identifier for a UDM session.
stopDateTime		UTC date and time the command finished executing.

Notes

1. If the session is a two-party session, there is no primary server information, as the manager plays the role of the primary server.

UDM_COPY_COMMAND_STOP (406)

The event indicates a UDM copy operation has ended.

UDM_COPY_COMMAND_STOP Event Header

Field Name	Description		Description	
eventCategory	Stop			
eventSeverity	Informational			
eventTopic	Command			
eventType	406			
(Source Fields)	UDM Manager that issued the copy command.			
(Reporter Fields)				

UDM_COPY_COMMAND_STOP Event Body

Field Name	Notes	Description
commandRc		Return value for the command.
dstComponentUuid		UUID of the UDM component acting as the destination in the transfer.
dstFileMask	1	Destination file mask in the copy operation.
numFilesAttempted		Number of files in which a transfer was attempted.
numFilesTransferred		Number of files successfully transferred.
sessionUuid		Unique identifier for a UDM session.
srcComponentUuid		UUID of the UDM component acting as the source of the transfer.
srcFileMask		Source file mask in the copy operation.
stopDateTime		UTC date and time the command finished executing.
transactionId		Unique identifier for the command within a UDM manager instance.

Notes

1. There may not be a destination file mask.

UDM_COPYDIR_COMMAND_STOP (407)

The event indicates a UDM copy directory operation has ended.

UDM_COPYDIR_COMMAND_STOP Event Header

Field Name	Description
eventCategory	Stop
eventSeverity	Informational
eventTopic	Command
eventType	407
(Source Fields)	UDM Manager that issued the copydir command.
(Reporter Fields)	

UDM_COPYDIR_COMMAND_STOP Event Body

Field Name	Notes	Description
commandRc		Return value for the command.
dstComponentUuid		UUID of the UDM component acting as the destination in the transfer.
dstFileMask	1	Destination file mask in the copy operation.
numFilesAttempted		Number of files in which a transfer was attempted.
numFilesTransferred		Number of files successfully transferred.
sessionUuid		Unique identifier for a UDM session.
srcComponentUuid		UUID of the UDM component acting as the source of the transfer.
srcFileMask		Source file mask in the copy operation.
stopDateTime		UTC date and time the command finished executing.
transactionId		Unique identifier for the command within a UDM Manager instance.

Notes

1. There may not be a destination file mask.

UDM_DELETE_COMMAND_STOP (408)

The event indicates a UDM delete operation has ended.

UDM_DELETE_COMMAND_STOP Event Header

Field Name	Description
eventCategory	Stop
eventSeverity	Informational
eventTopic	Command
eventType	408
(Source Fields)	UDM Manager that issued the delete command.
(Reporter Fields)	

UDM_DELETE_COMMAND_STOP Event Body

Field Name	Notes	Description
commandRc		Return value for the command.
componentUuid		UUID of the component on which the operation will take place.
fileMask		File mask used in the delete operation.
sessionUuid		Unique identifier for a UDM session.
stopDateTime		UTC date and time the command finished executing.
transactionId		Unique identifier for the command within a UDM Manager instance.

UDM_RENAME_COMMAND_STOP (409)

The event indicates a UDM delete operation has ended.

UDM_RENAME_COMMAND_STOP Event Header

Field Name	Description
eventCategory	Stop
eventSeverity	Informational
eventTopic	Command
eventType	409
(Source Fields)	UDM Manager that issued the rename command.
(Reporter Fields)	

UDM_RENAME_COMMAND_STOP Event Body

Field Name	Notes	Description
commandRc		Return value for the command.
componentUuid		UUID of the component on which the operation will take place.
newFileName		New file name used in the rename operation.
oldFileName		Old file name used in the rename operation.
sessionUuid		Unique identifier for a UDM session.
stopDateTime		UTC date and time the command finished executing.
transactionId		Unique identifier for the command within a UDM Manager instance.

UDM_MKDIR_COMMAND_START (410)

The event signals the beginning of a UDM mkdir operation.

UDM_MKDIR_COMMAND_START Event Header

Field Name	Description
eventCategory	Start
eventSeverity	Informational
eventTopic	Command
eventType	410
(Source Fields)	UDM Manager that issued the mkdir command.
(Reporter Fields)	

UDM_MKDIR_COMMAND_START Event Body

Field Name	Notes	Description
componentUuid		UUID of the UDM component on which the mkdir operation will take place.
dirName		Name of the relative directory for the mkdir operation.
sessionUuid		Unique identifier for the UDM session.
startDateTime		UTC date and time the command was issued.
transactionId		Unique identifier for the command within a UDM Manager instance.

UDM_MKDIR_COMMAND_STOP (411)

The event signals the end of a UDM mkdir operation.

UDM_MKDIR_COMMAND_STOP Event Header

Field Name	Description
eventCategory	Stop
eventSeverity	Informational
eventTopic	Command
eventType	411
(Source Fields)	UDM Manager that issued the mkdir command.
(Reporter Fields)	

UDM_MKDIR_COMMAND_STOP Event Body

Field Name	Notes	Description
commandRc		Return value from the command.
componentUuid		UUID of the UDM component on which the mkdir operation took place.
dirName		Name of the relative directory for the mkdir operation.
sessionUuid		Unique identifier for the UDM session.
stopDateTime		UTC date and time the command finished executing.
transactionId		Unique identifier for the command within a UDM Manager instance.

UDM_RMDIR_COMMAND_START (412)

The event signals the beginning of a UDM rmdir operation.

UDM_RMDIR_COMMAND_START Event Header

Field Name	Description
eventCategory	Start
eventSeverity	Informational
eventTopic	Command
eventType	412
(Source Fields)	UDM Manager that issued the rmdir command.
(Reporter Fields)	

UDM_RMDIR_COMMAND_START Event Body

Field Name	Notes	Description
componentUuid		UUID of the UDM component on which the rmdir operation will take place.
dirName		Name of the relative directory for the rmdir operation.
sessionUuid		Unique identifier for the UDM session.
startDateTime		UTC date and time the command was issued.
transactionId		Unique identifier for the command within a UDM Manager instance.

UDM_RMDIR_COMMAND_STOP (413)

The event signals the end of a UDM rmdir operation.

UDM_RMDIR_COMMAND_STOP Event Header

Field Name	Description
eventCategory	Stop
eventSeverity	Informational
eventTopic	Command
eventType	413
(Source Fields)	UDM Manager that issued the rmdir command.
(Reporter Fields)	

UDM_RMDIR_COMMAND_STOP Event Body

Field Name	Notes	Description
commandRc		Return value from the command.
componentUuid		UUID of the UDM component on which the rmdir operation took place.
dirName		Name of the relative directory for the rmdir operation.
sessionUuid		Unique identifier for the UDM session.
stopDateTime		UTC date and time the command finished executing.
transactionId		Unique identifier for the command within a UDM Manager instance.

UDM_FILE_DELETE (450)

A message is posted when a file is deleted.

UDM_FILE_DELETE Event Header

Field Name	Description	
eventCategory	Status	
eventSeverity	Informational	
eventTopic	File	
eventType	450	
(Source Fields)	File object that was deleted.	
(Reporter Fields)	UDM Manager or Server that deleted the file or directory.	

UDM_FILE_DELETE Event Body

Field Name	Notes	Description
dateTime		UTC date and time of the operation.
filePath		Absolute path of the file or directory being deleted.
fileResult		Indication of success or failure of the file operation.A value of 0 indicates success.Any other value indicates failure.
fileType		Type of file being deleted, either a file or a directory.
sessionUuid		Unique identifier for a UDM session.
transactionId		Transaction identifier associated with the command invoking the copy.

UDM_FILE_RENAME (451)

A message is posted when a file is renamed.

UDM_FILE_RENAME Event Header

Field Name	Description	
eventCategory	Status	
eventSeverity	Informational	
eventTopic	File	
eventType	451	
(Source Fields)	File object that was renamed.	
(Reporter Fields)	UDM Manager or Server that renamed the file.	

UDM_FILE_RENAME Event Body

Field Name	Notes	Description
dateTime		UTC date and time of the operation.
fileResult		Indication of success or failure of the file operation.A value of 0 indicates success.Any other value indicates failure.
fileType		Type of file being transferred, either a file or a directory.
newFilePath		Absolute path of the new name for the file.
oldFilePath		Absolute path of the old name of the file.
sessionUuid		Unique identifier for a UDM session.
transactionId		Transaction identifier associated with the command invoking the copy.

UDM_FILE_XFER_START (452)

A message is posted to indicate the beginning of a transfer operation for an individual file or directory.

UDM_FILE_XFER_START Event Header

Field Name	Description	
eventCategory	Start	
eventSeverity	Informational	
eventTopic	File	
eventType	452	
(Source Fields)	File object that is being transferred.	
(Reporter Fields)	UDM Manager or Server that started the transfer.	

UDM_FILE_XFER_START Event Body

Field Name	Notes	Description
fileMode		READ, WRITE, or APPEND
filePath		Absolute path of the file.
fileType		Type of file being transferred, either a file or a directory.
hostName		Host name of the machine that issued the event.
sessionUuid		Unique identifier for a UDM session.
startDateTime		UTC date and time the operation was begun.
transactionId		Transaction identifier associated with the command invoking the copy.
transferMode		Mode (text or binary) of the transfer.
transferUuid		Unique identifier for the transfer operation.

UDM_FILE_XFER_STOP (453)

A message is posted to indicate the end of a transfer operation for an individual file or directory.

UDM_FILE_XFER_STOP Event Header

Field Name	Description	
eventCategory	Start	
eventSeverity	Informational	
eventTopic	File	
eventType	453	
(Source Fields)	File object that is being transferred.	
(Reporter Fields)	UDM Manager or Server that started the transfer.	

UDM_FILE_XFER_STOP Event Body

Field Name	Notes	Description
byteCount		Number of bytes processed.
fileMode		READ, WRITE, or APPEND
filePath		Absolute path of the file.
fileResult		Indication of success or failure of the file operation.A value of 0 indicates success.Any other value indicates failure.
fileType		Type of file being transferred, either a file or a directory.
hostName		Host name of the machine that issued the event.
sessionUuid		Unique identifier for a UDM session.
stopDateTime		UTC date and time the operation ended.
transactionId		Transaction identifier associated with the command invoking the copy.
transferMode		Mode (text or binary) of the transfer.
transferUuid		Unique identifier for the transfer operation.

UDM_DIR_CREATE (454)

A message is posted to indicate the end of a transfer operation for an individual file or directory.

UDM_DIR_CREATE Event Header

Field Name	Description		
eventCategory	Status		
eventSeverity	Informational		
eventTopic	File		
eventType	454		
(Source Fields)	File object representing the directory created.		
(Reporter Fields)	UDM Manager or Server that created the directory.		

UDM_FILE_XFER_STOP Event Body

Field Name	Notes	Description
dateTime		UTC date and time the directory was created.
filePath		Full path name of the directory created.
fileResult		Indication of success or failure of the file operation.A value of 0 indicates success.Any other value indicates failure.
hostName		Host name of the system on which the directory was created.
sessionUuid		Unique identifier for the UDM session.
transactionId		Unique identifier for the command within a UDM Manager instance.

UDM_EXEC_OPERATION_START (470)

A message is posted to indicate the beginning of an EXEC operation.

Since an EXEC operation involves UDM invoking the UCMD manager, the UCMD Manager's parent UUID will be that of the UDM instance that invoked it.

UDM_EXEC_OPERATION_START Event Header

Field Name	Description		
eventCategory	Start		
eventSeverity	Informational		
eventTopic	Component		
eventType	470		
(Source Fields)	UCM Manager started by UDM Manager.		
(Reporter Fields)	UDM Manager that started the UCM Manager.		

UDM_EXEC_OPERATION_START Event Body

Field Name	Notes	Description
sessionUuid		Identifier of the session if the exec command is issued in the context of a session.
startDateTime		UTC date and time the command was issued.
transactionId		Unique identifier for the command within a UDM Manager instance.

UDM_EXEC_OPERATION_END (471)

A message is posted to indicate the end of an EXEC operation.

UDM_EXEC_OPERATION_END Event Header

Field Name	Description	
eventCategory	Stop	
eventSeverity	Informational	
eventTopic	Component	
eventType	471	
(Source Fields)	UCM Manager started by UDM Manager.	
(Reporter Fields)	UDM Manager that started the UCM Manager.	

UDM_EXEC_OPERATION_END Event Body

Field Name	Notes	Description
commandRc		Return value for the command.
execRc		Return value of the executed job.
sessionUuid		Identifier of the session if the exec command is issued in the context of a session.
stopDateTime		UTC date and time the command finished executing.
transactionId		Identifier for the command that is unique within a UDM Manager instance.

UDM_EXECSAP_OPERATION_START (472)

A message is posted to indicate the beginning of an EXECSAP operation. Since an EXEC operation involves UDM invoking the USAP Manager, the USAP Manager's parent UUID be will that of the UDM instance that invoked it.

UDM_EXECSAP_OPERATION_START Event Header

Field Name	Description	
eventCategory	Start	
eventSeverity	Informational	
eventTopic	Component	
eventType	472	
(Source Fields)	USAP component started by UDM Manager.	
(Reporter Fields)	UDM Manager that started the USAP component.	

UDM_EXECSAP_OPERATION_START Event Body

Field Name	Notes	Description
startDateTime		UTC date and time the command was issued.
transactionId		Unique identifier for the command within a UDM Manager instance.

Notes

The execsap command can be issued outside of the context of a session, so there may not be a group UUID.

UDM_EXECSAP_OPERATION_END (473)

A message is posted to indicate the end of an $\ensuremath{\mathsf{EXECSAP}}$ operation.

UDM_EXECSAP_OPERATION_END Event Header

Field Name	Description	
eventCategory	Stop	
eventSeverity	Informational	
eventTopic	Job	
eventType	473	
(Source Fields)	USAP component started by UDM Manager.	
(Reporter Fields)	UDM Manager that started the USAP component.	

UDM_EXECSAP_OPERATION_END Event Body

Field Name	Notes	Description
commandRc		Return value for the command.
execRc		Return value of the executed job.
stopDateTime		UTC date and time the command finished executing.
transactionId		Identifier for the command that is unique within a UDM Manager instance.

INDESCA_JOB (700)

The event is generated when UEC receives a UES event that relates to a Universal Command job.

INDESCA_JOB Event Header

Field Name	Description
eventCategory	Status
eventSeverity	Informational
eventTopic	Job
eventType	700
recordedTime	recordedTime of the consolidated event is set to the recordedTime value of the first UES event received that applies to the consolidated event.
recordedTimeUsec	recordedTimeUsec of the consolidated event is set to the recordedTimeUsec value of the first UES event received that applies to the consolidated event.
reporterGroupUuid	Same as reporterObjectUuid.
reporterIpAddress	Reporter IP address is UEC host for consolidated events.
reporterName	Reporter name is "UEC" for all consolidated events.
reporterObjectUuid	Unique UUID generated by UEC at startup. Each execution of UEC will have a unique reporterObjectUuid.
reporterParentUuid	Not applicable - not reported.
reporterSysId	Not applicable - not reported.
reporterUnitUuid	Same as reporterObjectUuid.
sourceGroupUuid	Group UUID that groups (and is shared by) all UES events that comprise the consolidated event.
sourcelpAddress	Source IP address is UEC host for consolidated events.
sourceName	Source name is "UEC" for all consolidated events.
sourceObjectUuid	Same as reporterObjectUuid.
sourceParentUuid	Not applicable - not reported.
sourceSysId	Not applicable - not reported.
sourceUnitUuid	Unit UUID that groups (and is shared by) all UES events that comprise the consolidated event.
timeZone	Time zone in which the event was generated. The value is the number of seconds between UTC and local time.
version	Numeric value that is incremented whenever the header changes (that is, changes to the header format or header fields).

INDESCA_JOB Event Body

Field Name	Notes	Description
bHistorical		Indicates that the job has been recognized as having at least one restart job associated with it.
bRestarted		 Specification for whether or not the UCMD Manager was restarted: Value of TRUE indicates it was restarted. Value of FALSE indicates it was not restarted. If the Manager RESTART option was set to auto, this field is set to TRUE only if the Manager reestablished a session with a pending, orphaned, or disconnected UCM Server.
certId		Certificate map identifier that the client certificate was mapped to by the Universal Access Control List cert_map entries.
clientCertIssuer		Issuer field of the digital certificate provided by the UCMD Manager.

clientCertSerialNo	Serial number of the digital certificate provided by the UCMD Manager.
clientCertSubject	Subject field of the digital certificate provided by the UCMD Manager.
clientIpAddr	IP address from which the UCMD Manager's socket connection was established.
clientPort	TCP port number from which the UCMD Manager's socket connection was established.
clientUserId	User identifier of the UCMD Manager.
clientWorkId	Work identifier of the UCMD Manager.
commandId	Command identifier with which the UCMD job executed.
comment	User comment with which UCMD job.
jobCommand	Command line used to start the job. The field is relevant only if the jobFormat value is CMD.
jobFormat	Format of job requested by the UCMD Manager. Valid values are: • CMD (1) • SCRIPT (2)
jobLoginEnvironment	 Specification for whether or not a login environment was established for the job. Possible values are: 0 - Job ran with the Login Environment option off. 1 - Job ran with the Login Environment option on.
jobType	 Type of job requested by the UCMD Manager. Valid values are: cmdref Job is a UCM Server command reference. service Job is executed by Universal Command Agent for SOA. shell Job is executed by a shell environment, such as Windows CMD.EXE, UNIX Bourne o Korn shell, or z/OS USS shell. stc Job is a z/OS started task.
jobUserId	User identifier with which the job executed.
jobUUID	UUID that uniquely identifies the user's started work process.
jobWorkId	Work identifier of the job started by UCMD Server.
managerFaultTolerant	 Specification for whether or not the UCMD job executed in Manager Fault Tolerant mode. Possible values are: 0 - Job did not execute in Manager Fault Tolerant mode. 1 - Job executed in Manager Fault Tolerant mode.
mgrAgentName	Name of the Universal Broker on the system where the UCMD Manager component

mgrCommState	Last recorded communication state of the UCMD Manager component. Possible values are: • 1 - Starting • 2 - Established • 3 - Disconnected • 4 - Orphaned • 5 - Reconnecting • 6 - Restarting • 7 - Restart accepted • 8 - Pending • 9 - Completed
mgrComponentId	Component identifier the UCMD Manager component.
mgrElapsedTime	Number of seconds that the UCMD Manager component executed. The value may be zero if the job ran less than a second, resulting in the start and end time not changing at the 1 second resolution.
mgrExitCode	Exit code with which the UCMD Manager ended as reported by the operating system.
mgrExitStatus	 Final exit status of the UCMD Manager component as reported by the operating system. Valid values are: Normal (1) Abnormal (2) An abnormal end indicates the component was interrupted by the operating system before it completed processing. Examples of abnormal exits include UNIX signals, Windows exceptions, and z/OS ABENDS.
mgrStartDateTime	UTC date and time the UCMD Manager component started.
mgrStopDateTime	UTC date and time the UCMD Manager component stopped.
networkFaultTolerant	 Specification for whether or not the UCMD job executed in Manager Fault Tolerant mode. Possible values are: 0 - Job did not execute in Network Fault Tolerant mode. 1 - Job executed in Network Fault Tolerant mode.
restartUuid	sourceUnitUUID of the job that was started as the restart job for this job.
serverlpAddr	IP address from which the UCMD Server's socket connection was established.
serverPort	TCP port number from which the UCMD Server's socket connection was established.
srvAgentName	Name of the Universal Broker on the system where the UCMD Server component executed.
srvCommState	Last recorded communication state of the UCMD Manager component. Possible values are: • 1 - Starting • 2 - Established • 3 - Disconnected • 4 - Orphaned • 5 - Reconnecting • 6 - Restarting • 7 - Restart accepted • 8 - Pending • 9 - Completed
svrComponentId	Component identifier the UCMD Server component.
svrElapsedTime	Number of seconds that the UCMD Server component executed. The value may be zero if the job ran less than a second, resulting in the start and end time not changing at the 1 second resolution.

svrExitCode	Exit code with which the UCMD Server ended as reported by the operating system.
svrExitStatus	 Final exit status of the UCMD Server component as reported by theoperating system. Valid values are: Normal (1) Abnormal (2) An abnormal end indicates the component was interrupted by the operating system before it completed processing. Examples of abnormal exits include UNIX signals, Windows exceptions, and z/OS ABENDs.
svrStartDateTime	UTC date and time the UCMD Server component started.
svrStopDateTime	UTC date and time the UCMD Server component stopped.
userJobElapsedTime	Number of seconds in which the user process executed. The value may be zero if the job ran less than a second, resulting in the start and end time not changing at the 1 second resolution.
userJobExitCode	Exit code of the job (user process) that was executed at the request of UCMD Manager.
userJobExitStatus	 Final exit status of the job (user process) as reported by the operating system. Valid values are: Normal (1) Abnormal (2) An abnormal end indicates the component was interrupted by the operating system before it completed processing. Examples of abnormal exits include UNIX signals, Windows exceptions, and z/OS ABENDs.
userJobStartDateTime	UTC date and time the user process started.
userJobStopDateTime	UTC date and time the user process stopped.

INFITRAN_JOB (701)

The event is generated when UEC receives a UES event that relates to a Universal Data Mover job.

INFITRAN_JOB Event Header

Field Name	Description
eventCategory	Status
eventSeverity	Informational
eventTopic	Job
eventType	701
recordedTime	recordedTime of the consolidated event is set to the recordedTime value of the first UES event received that applies to the consolidated event.
recordedTimeUsec	recordedTimeUsec of the consolidated event is set to the recordedTimeUsec value of the first UES event received that applies to the consolidated event.
reporterGroupUuid	Same as reporterObjectUuid.
reporterlpAddress	Reporter IP address is UEC host for consolidated events.
reporterName	Reporter name is "UEC" for all consolidated events.
reporterObjectUuid	Unique UUID generated by UEC at startup. Each execution of UEC will have a unique reporterObjectUuid.
reporterParentUuid	Not applicable - not reported.
reporterSysId	Not applicable - not reported.
reporterUnitUuid	Same as reporterObjectUuid.
sourceGroupUuid	Group UUID that groups (and is shared by) all UES events that comprise the consolidated event.
sourcelpAddress	Source IP address is UEC host for consolidated events.
sourceName	Source name is "UEC" for all consolidated events.
sourceObjectUuid	Same as reporterObjectUuid.
sourceParentUuid	Not applicable - not reported.
sourceSysId	Not applicable - not reported.
sourceUnitUuid	Unit UUID that groups (and is shared by) all UES events that comprise the consolidated event.
timeZone	Time zone in which the event was generated. The value is the number of seconds between UTC and local time.
version	Numeric value that is incremented whenever the header changes (that is, changes to the header format or header fields).

INFITRAN_JOB Event Body

Field Name	Notes	Description
clientCertIssuer		Issuer field of the digital certificate provided by the UDM Manager.
clientCertSerialNo		Serial number of the digital certificate provided by the UDM Manager.
clientCertSubject		Subject field of the digital certificate provided by the UDM Manager.
clientIpAddr		IP address from which the UDM Manager's socket connection was established.
clientPort		TCP port number from which the UDM Manager's socket connection was established.
clientUserId		User identifier of the UDM Manager.
clientWorkId		Work identifier of the UDM Manager.
comment		User comment with which UDM job.

mgrAgentName	Agent Name associated with the UDM manager component's broker.
mgrBrokerId	UEC internal ID associated with the UDM manager component's broker.
mgrComponentId	Component identifier the UDM Manager component.
mgrElapsedTime	Number of seconds that the UDM Manager component executed.
	The value may be zero if the job ran less than a second, resulting in the start and end time not changing at the 1 second resolution.
mgrExitCode	Exit code with which the UDM Manager ended as reported by the operating system.
mgrExitStatus	Final exit status of the UDM Manager component as reported by the operating system.
	Valid values are:
	 Normal (1) Abnormal (2)
	An abnormal end indicates the component was interrupted by the operating system before it completed processing.
	Examples of abnormal exits include UNIX signals, Windows exceptions, and z/OS ABENDs.
mgrStartDateTime	UTC date and time the UDM Manager component started.
mgrStopDateTime	UTC date and time the UDM Manager component stopped.
networkFaultTolerant	Specification for whether or not the UDM job executed in Manager Fault Tolerant mode
	Possible values are:
	 0 - Job did not execute in Network Fault Tolerant mode. 1 - Job executed in Network Fault Tolerant mode.
primSrvAgentName	Agent Name associated with the UDM primary server component's broker.
primSrvBrokerId	UEC internal ID associated with the UDM primary server component's broker.
primSrvComponentId	Component identifier the UDM primary server component.
primSrvElapsedTime	Number of seconds that the UDM primary server component executed.
	The value may be zero if the job ran less than a second, resulting in the start and end time not changing at the 1 second resolution.
primSrvExitCode	Exit code with which the UDM primary server ended as reported by the operating system.
primSrvExitStatus	Final exit status of the UDM primary server component as reported by the operating system.
	Valid values are:
	 Normal (1) Abnormal (2)
	An abnormal end indicates the component was interrupted by the operating system before it completed processing.
	Examples of abnormal exits include UNIX signals, Windows exceptions, and z/OS ABENDs.
primSrvHost	Host or IP address of the UDM primary server.
primSrvStartDateTime	UTC date and time the UDM primary server component started.
primSrvStopDateTime	UTC date and time the UDM primary server component stopped.
primSrvUserId	User ID of the UDM primary server.
secSrvAgentName	Agent Name associated with the UDM secondary server component's broker.
secSrvBrokerId	UEC internal ID associated with the UDM primary server component's broker.
secSrvComponentId	Component identifier the UDM secondary server component.

secSrvElapsedTime	Number of seconds that the UDM secondary server component executed. The value may be zero if the job ran less than a second, resulting in the start and end time not changing at the 1 second resolution.
secSrvExitCode	Exit code with which the UDM secondary server ended as reported by the operating system.
secSrvExitStatus	 Final exit status of the UDM secondary server component as reported by the operating system. Valid values are: Normal (1) Abnormal (2) An abnormal end indicates the component was interrupted by the operating system before it completed processing. Examples of abnormal exits include UNIX signals, Windows exceptions, and z/OS ABENDs.
secSrvHost	Host or IP address of the UDM secondary server.
secSrvStartDateTime	UTC date and time the UDM secondary server component started.
secSrvStopDateTime	UTC date and time the UDM secondary server component stopped.
secSrvUserId	User ID of the UDM secondary server.

FILE_TRANSFER (702)

The event is generated when UEC receives a UES event that relates to a Universal Data Mover File Transfer.

FILE_TRANSFER Event Header

Field Name	Description
eventCategory	Status
eventSeverity	Informational
eventTopic	File
eventType	702
recordedTime	recordedTime of the consolidated event is set to the recordedTime value of the first UES event received that applies to the consolidated event.
recordedTimeUsec	recordedTimeUsec of the consolidated event is set to the recordedTimeUsec value of the first UES event received that applies to the consolidated event.
reporterGroupUuid	Same as reporterObjectUuid.
reporterIpAddress	Reporter IP address is UEC host for consolidated events.
reporterName	Reporter name is "UEC" for all consolidated events.
reporterObjectUuid	Unique UUID generated by UEC at startup. Each execution of UEC will have a unique reporterObjectUuid.
reporterParentUuid	Not applicable - not reported.
reporterSysId	Not applicable - not reported.
reporterUnitUuid	Same as reporterObjectUuid.
sourceGroupUuid	Group UUID that groups (and is shared by) all UES events that comprise the consolidated event.
sourcelpAddress	Source IP address is UEC host for consolidated events.
sourceName	Source name is "UEC" for all consolidated events.
sourceObjectUuid	Same as reporterObjectUuid.
sourceParentUuid	Not applicable - not reported.
sourceSysId	Not applicable - not reported.
sourceUnitUuid	Unit UUID that groups (and is shared by) all UES events that comprise the consolidated event.
timeZone	Time zone in which the event was generated. The value is the number of seconds between UTC and local time.
version	Numeric value that is incremented whenever the header changes (that is, changes to the header format or header fields).

FILE_TRANSFER Event Body

Field Name	Notes	Description
bytesRead		Number of bytes read from the source file.
bytesWritten		Number of bytes written to the destination file.
destAgentName		Agent Name associated with the destination of the transfer.
destHost		Host name of the machine where the destination of the transfer resides.
fileDestPath		Absolute path of the destination file involved in the transfer.
fileResult		Indication of success or failure of the file operation.A value of 0 indicates success.Any other value indicates failure.
fileSrcPath		Absolute path of the source file involved in the transfer.

fileType	Type of file being transferred, either a file or a directory.
mgrCertIssuer	Issuer field of the digital certificate provided by the UDM Manager.
mgrCertSerialNo	Serial number of the digital certificate provided by the UDM Manager.
mgrCertSubject	Subject field of the digital certificate provided by the UDM Manager.
mgrlpAddr	IP address from which the UDM Manager's socket connection was established.
mgrPort	TCP port number from which the UDM Manager's socket connection was established.
mgrUserId	User identifier of the UDM Manager.
mgrWorkId	Work identifier of the UDM Manager.
sessionUuid	Unique identifier for the UDM session in which the file transfer occurred.
srcAgentName	Agent Name associated with the source of the transfer.
srcHost	Host name of the machine where the source of the transfer resides.
startDateTime	UTC date and time the file transfer started.
stopDateTime	UTC date and time the file transfer completed.
transactionId	Transaction identifier associated with the command invoking the file transfer.
transferMode	Mode (text or binary) of the transfer.
transferStatus	The status of the file transfer. Valid values are: • 0 (active) • 1 (complete) • 2 (failed)
transferStatusSz	Status of the file transfer. Valid values are: • active • complete • failed
transferUuid	Unique identifier for the transfer operation.

UCTSRV_CMD_START (800)

The event is generated when a Universal Control Server initiates a request for a control command (for example: STOP, START, or REFRESH) to be executed by the local Universal Broker on behalf of a Universal Control Manager client.

UCTSRV_CMD_START Event Header

Field Name	Description
eventCategory	Start
eventSeverity	Informational
eventTopic	Command
eventType	800
(Source Fields)	UCT Server that made the START request to the Universal Broker.
(Reporter Fields)	

UCTSRV_CMD_START Event Body

Field Name	Notes	Description
clientWorkId	1	Work identifier of the client.
clientUserId	1, 3, 4	User identifier of the client.
clientIpAddr	1	IP address from which the client's socket connection was established.
clientCertSubject	1, 2	Subject field of the digital certificate provided by the client.
clientCertSerialNo	1, 2	Serial number of the digital certificate provided by the client.
clientCertIssuer	1, 2	Issuer field of the digital certificate provided by the client.
command		Universal Control command being executed on behalf of Universal Control Manager client.
commandId		Command identifier provided by the Universal Control Manager client.
commandUserId	3	User identifier with which the control command executes. The user identifier is provided by the Universal Control Manager client.
startDateTime		UTC time that the control command was sent to the local Universal Broker to be executed.

Notes

1. The client information identifies the Universal Control Manager that started the Universal Control Server.

2. Client digital certificate information is provided only if the client provided a digital certificate.

3. A case-dependent value.

4. A case-dependent value, but for pre-3.2 clients, the value is always considered case sensitive.

UCTSRV_CMD_STOP (801)

The event is generated when a control command initiated by a Universal Control Server has stopped. The control command (for example: STOP, START, or REFRESH) was sent to the local Universal Broker for execution on behalf of a Universal Control Manager client.

UCTSRV_CMD_STOP Event Header

Field Name	Description
eventCategory	Stop
eventSeverity	 Informational (if the STOP request was accepted by the Universal Broker) Warning (if the Universal Broker reported an error)
eventTopic	Command
eventType	801
(Source Fields)	UCT Server that made the STOP request to the Universal Broker.
(Reporter Fields)	

UCTSRV_CMD_STOP Event Body

Field Name	Notes	Description
clientCertIssuer	1, 2	Issuer field of the digital certificate provided by the client.
clientCertSerialNo	1, 2	Serial number of the digital certificate provided by the client.
clientCertSubject	1, 2	Subject field of the digital certificate provided by the client.
clientIpAddr	1	IP address from which the client's socket connection was established.
clientUserId	1, 3, 4	User identifier of the client.
clientWorkId	1	Work identifier of the client.
command		Universal Control command being executed on behalf of Universal Control Manager client.
commandId		Command identifier provided by the Universal Control Manager client.
commandUserId	3	User identifier with which the control command executes. The user identifier is provided by the Universal Control Manager client.
elapsedTIme		Number of seconds for the control command to be accepted by the Universal Broker. The time is calculated by stopDateTime .
exitCode		Universal Agent error code returned by the Universal Broker in response to the control command request.
startDateTime		UTC time that the control command was sent to the local Universal Broker to be executed.
stopDateTime		UTC time that the Universal Broker indicated the control command was accepted. Note that the time does not necessarily indicate that the Universal Broker has completed processing the control command.

Notes

- 1. The client information identifies the Universal Control Manager that started the Universal Control Server.
- 2. Client digital certificate information is provided only if the client provided a digital certificate.
- 3. A case-dependent value.
- 4. A case-dependent value, but for pre-3.2 clients, the value is always considered case sensitive.

UCT_CMD_REQUEST (802)

The event is generated when a Universal Control Manager requests the execution of a control command by a Universal Control Server.

UCT_CMD_REQUEST Event Header

Field Name	Description
eventCategory	Log
eventSeverity	Informational
eventTopic	Component
eventType	802
(Source Fields)	UCT Manager that made the request.
(Reporter Fields)	

UCT_CMD_REQUEST Event Body

Field Name	Notes	Description
certIssuer	1	Issuer field of the digital certificate being used by the component.
certSerialNo	1	Serial number of the digital certificate being used by the component.
certSubject	1	Subject field of the digital certificate being used by the component.
command		Universal Control command requested for execution.
commandId		Command identifier associated with a component START command.
commandUserId	2	User identifier with which the control command executes.
componentUuid		UUID of the Universal Control Manager component reporting the event.
exitCode		Universal Agent error code returned by the Universal Broker in response to the command request.

Notes

1. Digital certificate information is provided only if the component is using a digital certificate to identify itself.

2. A case-dependent value.

Universal Agent Error Codes

Overview

Universal Agent uses error codes to indicate error conditions that have occurred during processing.

The error codes are used to communicate the result of a requested command or service between Universal Agent components.

Some event definitions include Universal Agent error codes as part their event definition.

Error Code Values and Descriptions

The following table identifies the value and description of all error codes.

Error Code	Description
2	General application error.
3	Resource has exceeded its maximum size.
4	Requested resource was not found.
5	Bad or invalid value was provided.
6	Syntax error.
7	Resource failed to meet minimum size requirements.
8	Protocol error.
9	Negative acknowledgement.
10	Timed out.
11	Incompatible version.
12	Resource not available.
13	Maximum number of components.
14	Process is shutting down.
15	Prematurely closed.
16	Duplicate.
17	Authorization error.
18	Access denied.
19	Invalid operation attempted.
20	Empty resource.
21	Aborted operation.
22	Receive operation pending.
23	Send operation pending.
24	Disk space exhausted.
25	License violation.
26	Connect operation pending.
500	Operating system API or services error.
501	Memory error.
502	File open error.
503	File create error.
504	I/O error.

505	Network communication error.
506	SSL/TLS protocol error.
507	Database fatal error.
508	AS/400 exception.