

MITEL NETWORKS

MiSN

Knowledge Base Article

MiTAI Call Reference ID

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Summary

This document contains information regarding the MITAI call reference ID in a MiTAI event and when the call reference ID is changed throughout the life of a call.

Article

Call Status

The Switch invokes Call-Status to notify the Host application of an event relative to a “monitor” registered by the Host. Each state change / call event of interest to the Host application, expressed via the monitor filter, is reported via this mechanism.

The information elements in the message are also subject to the filtering requested in the Monitor command. Not all Call-Status messages contain each of the information elements i.e. the information elements are reported in the appropriate context.

Please refer to the MiTAI Programmer’s reference manual for information on each Call Progress event. The reference manual also specifies which information elements are to be found in the different Call-Status messages. This information can be retrieved using the various data extraction macros.

Call Reference ID

A key piece of information in the Call Status events is the Call Reference Identifier. This is a call identifier that has had a state change. This allows the Host to refer to a specific call in subsequent feature activations

The call reference is used in situations where actual calls are in progress. Hence a device which is idle or unavailable would have a nil (0) call reference.

The call reference is based on the Half Call Model. Each Party in a call has its own unique call reference. Any actions initiated must indicate which party in the call is the controlling party for the action and all call status messages report the point of view of the party being monitored.

There is no single call id which identifies the call and all of the parties involved in the call.

The call reference is needed to distinguish between instances of calls on the same LID (Logical Identifier or Monitor Handle). It is possible that due to glare situations, the device may have abandoned one call and started another before the Host is informed. If the Host sends an invoke call function for the first call, the Switch will return an error because the call reference used will be the old one.

It is expected that call reference ids will not be reused immediately but will be incremented with each call and will wrap around through zero when all values permitted by the field width have been used.

When is a new call-ref-no (new call record) generated?

The dynamics of the call-ref-no are minimized to allow applications to track the call. For example, when a call is put on hold (soft-hold), the call-ref-no shall not change; otherwise for the application to continue tracking the call, a mechanism to communicate the new call-ref-no and to relate it to the old call-ref-id is required. This would represent an overhead on the switch as well as the application.

Consequently, the generation of a call-ref-no follows the following rules:

- When a call is put on soft-hold (by either the local end or the remote end), or retrieved, the call-ref-no, of the monitored device, must stay the same. This is valid at the holding (retrieving) device as well as the held (retrieved) device.
- When a call is transferred to the monitored device, the call-ref-no of the monitored device shall not change.
- When a call at the monitored device is transferred by another device, the call-ref-no, of the monitored device, shall not change.
- When the monitored device conferences two calls, the call-ref-no of the monitored device shall not change.
- When the monitored device is added to a conference call, the call-ref-no of the monitored device shall not change.
- When the monitored device is a member of a conference and a new conference member is added, the call-ref-no, of the monitored device, shall not change.
- When the monitored device is put on hard hold by the other party, the call-refno of the monitored device shall not change.
- When the monitored device is retrieved (either locally or remotely) from hard hold by the other party, the call-reference-no of the monitored device shall not change. The third-party-info shall indicate the invoker of the hard hold.
- When a call, that was previously put on hard hold, is locally retrieved at the monitored device, the call-ref-no of the monitored device is not necessarily the same.
- When a call, that was previously put on hard hold by the monitored device, is remotely retrieved at a third device, the call-ref-no may change and the "third-party-info" parameter shall indicate the device retrieving the call.
- If the monitored device remotely retrieves a call that was put on hard hold by device A then, third-party-info = A and the event to be sent is retrieve-invoked.
- When a call is put on hard hold by the monitored device and then retrieved (either locally or remotely), the call-ref-no may change and the third-party-info shall indicate the retrieving device.

The monitor handle will remain the same over the period of the monitor but the call reference will change each time the device enters the Dialing state without a Consultation Hold party (or when the device enters Seized state). Also a new call reference is generated whenever a device enters a call when the device was previously in idle, key-line-active, or unavailable state. Therefore the use of the call reference number will ensure that the invoke call function operates on the expected instance of the call.