Summary of Protel AVW Card Reader Events Reported in IVS

Card Reader Configuration Error
This error event occurs when a CR has a bad configuration file, and it will be reported when:

- A card reader (CR) has never been configured
- After a firmware download occurs, or new firmware is flashed directly into the CR.
- After CR flash memory is erased by powering up the card reader with the Service Button pressed for > 10 seconds.
- If CR ever gets a corrupted configuration or a configuration that puts the reader out of service.

Card Reader In Service
Occurs when a card reader goes back into service after one or more of the problems below. All problems must be cleared before the Card Reader In Service will occur.

- Just received a valid configuration after a Card Reader Configuration Error condition.
- Started operating after power failure, and a valid configuration is available.
- An unexpected reset occurs (CCR), and then CR gets correct time from AVW200.
- Card Reader Out-Of-Service: Settlement Failure occurs due to settlement denial (QD or RB response). The reader goes into service when the Service Button is pressed or when a new configuration is received.
- Card Reader Not Responding serial communication failure on RS485 bus.
- Card Reader Memory Full.
- Card Reader Memory Fill Level Warning.
- Card Reader Internal Fault due to some internal circuit failure.

Card Reader Internal Fault
Due to a card reader circuit failure. This event causes the reader to be out of service, and the Card Reader In Service event is recorded when/if the condition clears.

Card Reader Memory Fill Level Warning
This event would occur if the amount of serial flash memory available to store credit card transaction records is nearly full. It should never occur unless the card reader cannot communicate with the bank or the monitor cannot cummunicate with IVS for a long time, and heavy credit card use is occurring. The card reader will remain in service when this event occurs.

Card Reader Memory Full
This event would occur if the serial flash memory in the card reader was ever full, and it occurs after the memory Card Reader Fill Level Warning event occurs. This event causes the reader to be out of service, and the In Service event is recorded when the memory is cleared. See Memory Fill Level Warning event.

Card Reader Not Responding (Recorded by AVW200)
This event is reported by the AVW200 controller when the card reader does not respond to polling for 10 minutes. It indicates the monitor is not able to communicate with the card reader. The AVW200 monitor continues to poll for the card reader.

Card Reader Out-of-Service: Settlement Failure
When a Credit Card Settlement Denied event occurs, the CR attempts to correct problems and settle again. If the same problem occurs, a Credit Card Out-Of-Service: Settlement Failure event is recorded, the CR is put out of service, and the CR stops trying to settle any batches.
NOTE: Contact Protel when this event occurs!

If the reader receives a new configuration or the service button is pressed long enough to trigger settlement, the Card Reader In Service event is generated, the CR goes back into service, and another settlement attempt will occur. Downloading a configuration or pressing the service button without fixing the settlement problem causes the reader to make another settlement attempt, encounter the same problem, and go out of service again.

Card Reader Out-of-Service: Auth
This event occurs when an authorization communication to the card processor fails five times in a row (i.e. five Credit Card Authorization Failure events). If the card reader is in off-line mode, card vends can still occur, but no batch settlements will occur. If the card reader is in on-line mode, no card vends can occur until a sucessful authorization occurs.

Note that this is NOT due to a bad card. It indicates a communication problem with the card processor.

Card Reader Responding to Polls (Recorded by AVW200)
This event is reported by the AVW200 controller when the card reader resumes responding to polls after a Card Reader Not Responding failure occurs.

Card Reader Sale (Recorded by AVW200)
Records a sale paid with a debit or credit card. The "Additonal Info" field on the Event Detail screen in IVS shows the vend price and which timer was used (timer 1 or timer 2).

This event is reported by the AVW200 controller. For a typical credit card purchase on an air/vac machine, the sequnce of recorded events will be:
- Credit Card Accepted
- Select Button Pressed
- Card Reader Sale
- Card Reader Timer #1 OFF

Card Refused
A card was inserted in the reader, but it was not seen as a valid Visa or MasterCard. The IVS Event Detail Screen indicates the following in the "Additional Information" field:
- Busy Settling: a card was inserted while the reader was communicating with the card processor.
- Expired Card: a Visa or MasterCard was read, but the card is expired.
- Insert Error: the reader was not able to read the card.
- Unacceptable Card: the card is not a Visa or MasterCard.
- Settlement Pending: the card reader is out of service (cannot settle, does not have a configuration, etc.).

Credit Card Accepted
Occurs when a good card read occurs, and there is then a potential to complete the card sale. Anytime a card is inserted in the reader, either a Card Refused or a Credit Card Accepted event occurs. After a Credit Card Accepted event occurs, either a Card Sale event or a Purchase Cancelled event will occur.

Credit Card Authorization Failure
This event reports when the authorization communication did not complete. It does not include a Denied Authorization, so it does not mean the card is bad. It means the communication to the card processor failed, and the card reader will try the communication again later.

Credit Card Authorization In-Service
This event occurs when the Card Reader Out-Of-Service: Authorization error condition clears (i.e. a successful authorization occurs).

Credit Card Batch Deleted
If problem conditions occur that prevent a batch from settling, Protel can delete a batch in a card reader using the card reader configuration file. This event is recorded when a batch is deleted.

Credit Card Purchase Canceled
This event is recorded when a purchase is canceled for various reasons such as the user did not press a selection button, the AVW200 saw a relay failure so the vend failed, power failed during the card session, a firmware download was pending, an internal card reader fault was detected, the card reader memory was full, etc.

Credit Card Settlement
This event gets recorded when a Good Batch (GB) response occurs after a successful settlement. The "Additional Info" field on the Event Details screen in IVS shows:

      Z:CCCC:NNN:BBBBBBB:XXX

where:
    Z is the reason for the settlement, and valid values for Z are:
        1. S for scheduled settlement
        2. M for manually requested settlement via push button on card reader
        3. F for firmware download
        4. L for memory fill level caused settlement
    CCCC is the net deposit value of the settlement in cents.
    NNN is the number of transactions in the settlement
    BBBBBBB is the Protel batch number
    XXX is the HPS batch number.

NOTE: A CR can contain more than one batch that needs settlement. Each batch settled will result in a separate Credit Card Settlement event.

Credit Card Settlement Denied
This event occurs when there is a problem with a settlement. The card reader can automatically clear some settlement problems, and a Credit Card Settlement event will then occur. If the card reader cannot automatically clear the settlement problem, a Card Reader Out-Of-Service: Settlement Failure event will occur, and Protel must be contacted to clear the problem.

Credit Card Settlement Failure
This event occurs when the settlement communication did not complete. It does not mean there was a problem with the batch. It means the communication to the card processor failed, and the card reader will try the communication again later.

Credit Card Transaction Removed-from-batch
In off-line mode, this event gets recorded when an authorization is denied (i.e. bad card, such as the card is over the credit limit, stolen, etc.). This event is also recorded when a Rejected Batch (RB) response occurs during a settlement attempt that was caused by a problem in the transaction detail record. The transaction associated with the problem detail record gets deleted, this event is recorded, and an attempt is made to settle the batch again.

Select Button Pressed (Recorded by AVW200)
When selection buttons are used on an air/vac machine to select the vend, this event indicates which button was pressed.

Select Button Timeout (Recorded by AVW200)
If a user does not press a selection button for a card vend on an air/vac machine, timeout occurs after 30 seconds, and this event is recorded.

Credit Card Timer #1 (or #2) OFF (Recorded by AVW200)
This event indicates when the timer turns off at the end of a credit card purchase.