

# Dominion Protocol v3

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Figure 1 shows a revised grammar for *action*, *play*, and *notification*, plus a new *defense* production. The extension adds two action cards, their associated plays, and new interactions to handle attack and defense.

While the new *plays* have no interesting constraints, the new action cards expand the overall communication pattern between the server and players:

- *(act militia)* — This action triggers an *(attacked (act militia) name state)* notification to each other player (after the similar *moved* notification), where *name* indicates the attacking player. Each other player must respond with a *defense*. The *state* in an *attacked* notification has zero *actions*, *buys*, and *coins*, and it includes no *cards* in *plays*.

A *defense* response has one of two forms:

- *(moat)* — defends against the attack, but requires a *moat* card in the player's hand.
- *(discard card ...)* — Discards the *cards* to bring the player's hand down to three cards. The *cards* must be a subset of the player's hand, leaving three other cards in the player's hand. (It turns out that the number of *cards* will be zero or two in the current game configuration.)

Each *defense* is reflected back to other players as a *(defended name defense)* notification, where *(discard card ...)* as *defense* shows only the first *card* (if any), corresponding to the card that gets exposed by the discard. Players do not reply to a *defended* notification.

When a player uses *(act militia)*, the *attacked* notification is sent to each other player in order; after all players respond, *defended* notifications are sent to all players.

- *(act moat)* — No extra constraints; the player draws two cards.

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action = .... ; all from version 2
          | militia
          | moat

play = .... ; all from version 2
         | (act militia)
         | (act moat)

notification = .... ; all from version 1
                | (attacked (act militia) name state)
                | (defended name defense)

defense = (moat)
           | (discard card ...)

```

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Figure 1: Dominion protocol, changes for version 2