

WCTP 1.1 Corrections and Clarifications
Technical Note #7

*Immediate Acknowledgment of
Polled Messages*

Revision: 1.1
Release Date: 2001-September-7

Status: Released
Document ID: wctp-v1r1-tn7.doc



Personal Communications Industry Association
<http://www.pcia.com>

1 Purpose

The purpose of this technical note is to clarify the relationship between maxMessagesInBatch in wctp-PollForMessages and minNextPollInterval in wctp-PollResponse when acknowledging delivered messages.

2 Discussion of minNextPollInterval

The wctp-PollResponse allows carriers to meter the demand on their systems by providing a minNextPollInterval field. This is an integer value indicating the number of seconds a user must wait until issuing another PollForMessages. The WCTP protocol also provides an error (600 or 601) for polling too quickly and the possibility of disabling polling (see error 503) for habitual offenders. The algorithms for determining the minNextPollInterval and determining when to disable a habitual offender are considered business decisions and are not covered by the protocol.

3 Problem

When a user receives messages via a PollForMessages operation, the messages must be acknowledged by issuing another PollForMessages. However, the minNextPollInterval forces the user to wait until another PollForMessages may be issued. This delay could cause problems for the user. The argument has been justly made that acknowledging delivered messages is part of (the completion of) the previous poll. It is not part of the next poll.

4 Solution

The wctp-PollForMessages operation provides a maxMessagesInBatch field. It usually indicates the maximum number of messages a user can accept. However if it is set to 0, it indicates that no new messages are to be returned. This is useful when the only purpose of the poll operation is to acknowledge messages. This was thought to be useful only during a graceful shutdown.

However, since this action is just acknowledging messages and not polling for new messages, it has been agreed that it is not under the minNextPollInterval time constraint and it will NOT alter the waiting interval provided to the user in the previous poll.

Additionally, it was decided that returning a new minNextPollInterval when only acknowledging previously delivered messages would be confusing. Therefore, minNextPollInterval is not returned in this case. A simple PollResponse with no messages is returned.

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation SYSTEM
  "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="WCTP-DTD-V1R1">
  <wctp-PollResponse>
    <wctp-NoMessages/>
  </wctp-PollResponse>
</wctp-Operation>
```

5 Cautions

Developers should heed the `minNextPollInterval` even if their primary carriers are not yet enforcing it. As demand grows, carriers may be forced to meter their resources and turn on the enforcement without warning.

Even though a new `minNextPollInterval` is not returned in the `PollResponse` for the acknowledge poll, the previous `minNextPollInterval` is still in affect and has not been altered.