

Phone Port Control Protocol (PPCP)

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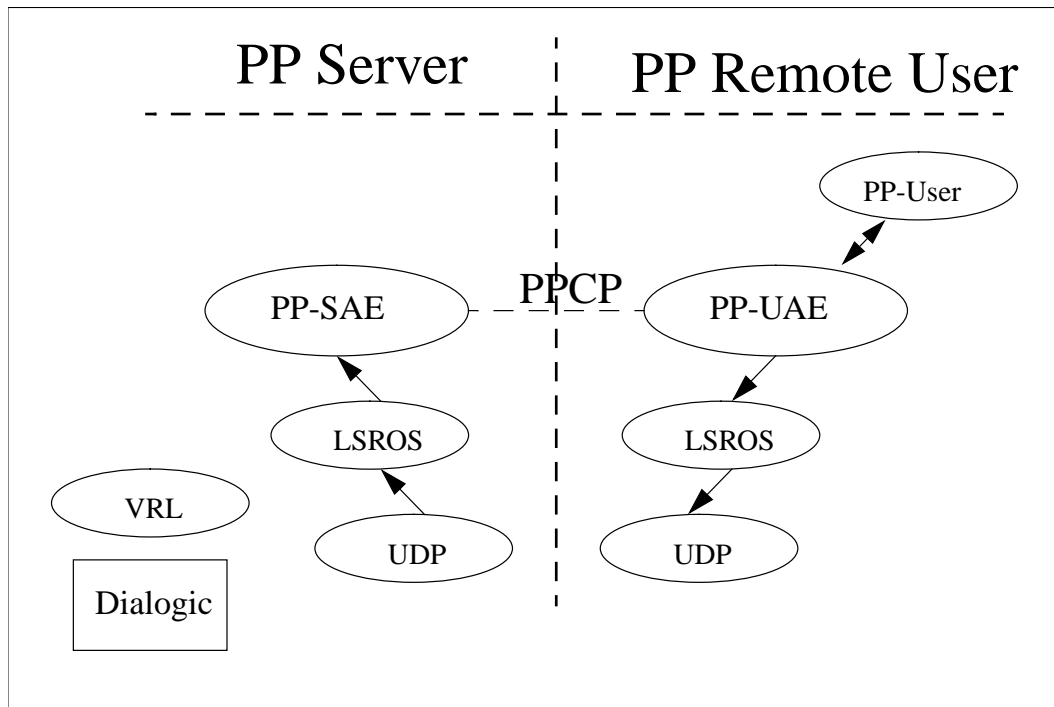


Figure 1: General Use Of PPCP

1 Introduction

2 PPCP Protocol / System Overview

2.1 Use of ASN.1

Basic Encoding Rules (BER) [X.209] provides an encoding mechanism to enable transfer of information expressed in ASN.1. BER uses the Type-Length-Value (TLV) concept for its encoding,

The Packed Encoding Rules (PER) of ASN.1 [X.691] [ISO/IEC 8825-2] is a recent International Standard. PER is a much more compact set of encoding rules than BER, but the amount of compaction varies based upon the subtype notation. It does simple things such as omitting transmitting tags or transmitting lengths when the length is known not to vary, but it also relies heavily on the subtype notation to achieve maximum compaction. The document number is ITU-T Rec. X.691 — ISO/IEC 8825-2.

ASN.1 is designed to be independent of the specific encoding rules that are in use. A properly designed system which uses BER today can easily convert to using PER

Operation / Systems	UAE	SAE
PP_sapBind	invoke	perform
PP_onHook	invoke	perform
statusNotificationReport	perform	invoke
desireToCommunicateRequest	invoke	perform
desireToCommunicateNotification		invoke

Table 1: Invoked and Performed Operations by the SNS, C-ES, and M-ES

in the future without much engineering effort. SNS protocols which use ASN.1 will initially use Basic Encoding Rules.

2.2 Encoding Rules

Use of Basic Encoding Rules is mandatory for both Format Standards and Submission and Delivery Protocol.

In order to enable the smallest amount of data transfer, the following restrictions shall be maintained in the formatting of PDUs:

1. PDUs shall be encoded in the fewest number of octets possible, regardless of the encoding rules in use.
2. Specifically, when ASN.1 Basic Encoding Rules are being used:
3. Only the "Definite" form of Length encoding shall be used,
4. The "Short" form of Length encoding shall be used whenever possible (i.e. when the Length is less than 128), and
5. OCTET STRING and BIT STRING values, and any other native ASN.1 types which may be encoded as either "Primitive" or "Constructed", shall always be encoded as "Primitive" and shall never be "Constructed".

2.3 Use of ESROS

Efficient Short Remote Operations (ESRO) Service Access Point Selectors 6, 7, 8, and 9 shall be used by the EMSD-P&FS. See [EMSD].

2.4 Use of UDP

Port Number 2002 shall be used by the ESRO Protocol.

3 PPC Protocol for CDPD