Definition of printer:raw-tcp:  URLs for use with Service Location
  draft-ietf-svrloc-rawtcp-printer-scheme-01.txt

Status of This Memo

This document is a submission by the Service Location Working Group
of the Internet Engineering Task Force (IETF). Comments should be
submitted to the srvloc@srvloc.org mailing list.

Distribution of this memo is unlimited.

This document is an Internet-Draft and is in full conformance with
all provisions of Section 10 of RFC2026. Internet-Drafts are working
documents of the Internet Engineering Task Force (IETF), its areas,
and its working groups. Note that other groups may also distribute
working documents as Internet-Drafts.

Internet-Drafts are draft documents valid for a maximum of six months
and may be updated, replaced, or obsoleted by other documents at
any time. It is inappropriate to use Internet-Drafts as reference
material or to cite them other than as "work in progress."

The list of current Internet-Drafts can be accessed at:
  http://www.ietf.org/ietf/1id-abstracts.txt

The list of Internet-Draft Shadow Directories can be accessed at:

Abstract

This document defines the ‘printer:raw-tcp’ service type and the
attributes associated with it. It is a concrete service type of the
abstract printer service type defined in [1] for the Service Location
1. Introduction

Service Type templates are used to describe in a standard way those services which use the service: URL. The template described in this document extends the abstract service type described in [1], called printer, with another concrete service type, called raw-tcp.

2. Raw TCP printing

Printing using TCP for transparent communication between a client and a print service is common today. How print data, status, messages, etc is formatted when exchanged across the TCP connection varies. It is up to the printing client to determine how data should be formatted and interpreted. This may be determined based on the information available in the service attributes.

For example, a client without any prior configuration may use the ’ieee-1284-device-id’ attribute, described below, to select a printer driver for the advertised printer. The client can then let the printer driver communicate transparently with the printer service by opening a TCP connection to the host and port indicated by the advertised URL.

2.1. Service Attributes

Attributes of the raw-tcp print service includes those defined in [1] and a new optional attribute ‘ieee-1284-device-id’ defined in this service template. This attribute is the Device ID string of the advertised printer as defined in IEEE 1284 [3].
3. 'printer:raw-tcp' Service Template

The service template defined below, conforms to the grammar described in "Service Templates and service: Schemes". Please refer to [4] for detailed explanation of the syntax.

Name of submitter: Mikael Pahmp <Mikael.Pahmp@axis.com>

Language of service template: en

Security Considerations:
This service neither adds nor detracts from the security of the opaque raw-tcp data stream itself. See also the security considerations of the ‘printer:’ template [1].

Template Text:
-------------------------template begins here-----------------------
template-type = printer:raw-tcp
template-version = 0.1

template-description = The printer:raw-tcp: URL describes a transparent bidirectional communication channel for printing. Print data, status, messages, etc is written or read by opening a TCP connection to the port in the service URL. How data is formatted and sent across the connection is decided by the printing client and the printer service and is not defined by this template.

template-url-syntax=
url-path    = ippurl / lprurl / raw-tcp-url
    ; This template adds ‘raw-tcp-url’ to the url-path definition in [1].
    ; ‘ippurl’ and ‘lprurl’ as defined in [1].
raw-tcp-url = "raw-tcp://" hostport
    ; raw-tcp URLs don’t have a path section.
hostport    = host ":" port
    ; raw-tcp doesn’t have a well-known port assigned by IANA. The port must therefor be specified in all raw-tcp URLs.
    ; ‘host’ and ‘port’ as defined in [1].

ieee-1284-device-id = STRING L O
    # The Device ID string of this printer as defined in IEEE 1284 [3] which identifies the printer type, model, etc.
--------------------------template ends here------------------------

Mikael Pahmp             Expires 28 December 1999               
[Page 2]
4. References


5. Full Copyright Statement

Copyright (C) The Internet Society (1999). All Rights Reserved.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this paragraph are included on all such copies and derivative works. However, this document itself may not be modified in any way, such as by removing the copyright notice or references to the Internet Society or other Internet organizations, except as needed for the purpose of developing Internet standards in which case the procedures for copyrights defined in the Internet Standards process must be followed, or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by the Internet Society or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and THE INTERNET SOCIETY AND THE INTERNET ENGINEERING TASK FORCE DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

6. Author’s Address

Questions about this memo can be directed to:

Mikael Pahmp
Axis Communications
Scheeelev. 16
S - 223 70 Lund
Sweden
Phone: +46 46 270 1881
email: Mikael.Pahmp@axis.com