

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

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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 Protocol, Version 2 [\[2\]](#).

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.

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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 0
    # The Device ID string of this printer as defined in IEEE 1284 [3]
    # which identifies the printer type, model, etc.

-----template ends here-----
```


4. References

- [1] St. Pierre, P., Isaccson., S. and I. McDonald,
"Definition of printer: URLs for use with Service Location",
<[draft-ietf-svrloc-printer-scheme-03.txt](#)> (work in progress),
February 1999.
- [2] Guttman, E., Perkins, C., Veizades, J. and M. Day, "Service
Location Protocol Version 2", [RFC 2608](#), June 1999.
- [3] "IEEE Std.1284-1994 Standard Signaling Method for a
Bi-directional Parallel Peripheral Interface for Personal
Computers", 1994.
- [4] Guttman, E., Perkins, C. and J. Kempf, "Service Templates and
service: Schemes", [RFC 2609](#), June 1999.

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