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Information technology – UPnP device architecture – Part 18-10: Remote Access Device Control Protocol – Remote Access Inbound Connection Configuration Service

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INFORMATION TECHNOLOGY – UPNP DEVICE ARCHITECTURE –

Part 18-10: Remote Access Device Control Protocol – Remote Access Inbound Connection Configuration Service

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The list of all currently available parts of the ISO/IEC 29341 series, under the general title *Information technology – UPnP device architecture*, can be found on the IEC web site.

This International Standard has been approved by vote of the member bodies, and the voting results may be obtained from the address given on the second title page.

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1 UPnP Forum Steering committee, UPnP Forum, 3855 SW 153rd Drive, Beaverton, Oregon 97006 USA. See also "Introduction".

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1 Overview and Scope

This service definition is compliant with the UPnP Device Architecture version 1.0. It defines a service type referred to herein as *InboundConnectionConfig* service.

1.1 Introduction

The *InboundConnectionConfig* service is a UPnP service that allows control points to configure the parameters that will enable the service to test if the host device is reachable from the internet. InboundConnectionConfig uses Dynamic DNS to manage at least one public address for home-network services; it uses STUN to ensure that any intermediate NAT device is navigatable, i.e. it is a full-cone NAT. Thus, this service provides control points with the following functionality:

- Configure the dynamic DNS client co-located with the service,
- Configure the STUN client co-located with the service,
- Check if the device hosting the service is reachable from the internet.

This service does not address:

- Configuration of relay services in the public network, e.g. TURN.

1.2 Notation

- In this document, features are described as Required, Recommended, or Optional as follows:

  The key words “MUST,” “MUST NOT,” “REQUIRED,” “SHALL,” “SHALL NOT,” “SHOULD,” “SHOULD NOT,” “RECOMMENDED,” “MAY,” and “OPTIONAL” in this specification are to be interpreted as described in [RFC 2119].

  In addition, the following keywords are used in this specification:

  PROHIBITED – The definition or behavior is an absolute prohibition of this specification. Opposite of REQUIRED.

  CONDITIONALLY REQUIRED – The definition or behavior depends on a condition. If the specified condition is met, then the definition or behavior is REQUIRED, otherwise it is PROHIBITED.

  CONDITIONALLY OPTIONAL – The definition or behavior depends on a condition. If the specified condition is met, then the definition or behavior is OPTIONAL, otherwise it is PROHIBITED.

  These keywords are thus capitalized when used to unambiguously specify requirements over protocol and application features and behavior that affect the interoperability and security of implementations. When these words are not capitalized, they are meant in their natural-language sense.
- Strings that are to be taken literally are enclosed in “double quotes”.
- Placeholder values that need to be replaced are enclosed in the curly brackets “{” and “}”.
- Words that are emphasized are printed in *italic*.
- Keywords that are defined by the UPnP Working Committee are printed using the *forum* character style.
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- A double colon delimiter, “::”, signifies a hierarchical parent-child (parent::child) relationship between the two objects separated by the double colon. This delimiter is used in multiple contexts, for example: Service::Action(), Action()::Argument, parentProperty::childProperty.

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