

Workgroup: Network Working Group
Internet-Draft:
draft-dconmy-notes-uri-scheme-00
Published: 23 February 2022
Intended Status: Standards Track
Expires: 27 August 2022
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The 'notes' URI Scheme for viewing HCL Notes/Domino resources

Abstract

This document describes the 'notes' URI scheme. Specifically, it lays out the syntactic components and how those components are used by URI resolution to locate and view or edit a Notes resource, typically an application and/or document.

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1. Goals

The primary goal of the 'notes' URI is to view or edit a resource. Typically, a 'notes' URI would be encountered in MIME Email which contains links to other applications and/or documents residing on Domino server(s). A 'notes' URI can also be used with operating system clipboard operations to share a link with a native application or a browser application.

When a 'notes' URI is clicked, a local installation of an application that supports the protocol will be launched and the resource will be located and shown.

2. Conventions and Definitions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in

BCP 14 [[RFC2119](#)] [[RFC8174](#)] when, and only when, they appear in all capitals, as shown here.

3. Applications and/or Protocols which use this URI Scheme Name

All HCL Notes, HCL Nomad, HCL Client Application Access, IBM Client Application Access, IBM Notes and Lotus Notes clients since 1999 have supported the 'notes' URI scheme. [[HCLDomino](#)]

4. Syntax Rules

4.1. General Syntax

The 'notes' URI comes in several forms described below.

4.2. ABNF Grammar

The full ABNF (certain values are included by reference from [[RFC2396](#)]):

```

notes-uri      = "notes:" (formDoc | formDocNew |
                        formApp1 | formApp2 | formApp3 |
                        formUI)
formDoc        = "://" [server] "/" application "/" (viewUNID | folde
formDocNew     = "://" [server] "/" application "/" name "?OpenForm"
formApp1       = "://" [server] "/" application
formApp2       = "://" [server] "/" application "/" (viewUNID | folde
formApp3       = "://" [server] "/" application "/" name "?" queryEle
formUI         = "///ClientBookmark?" uiElement

server         = hostname
hostname       = // as specified in {{RFC2396}}

application    = (appReplicaID | appFileAndPath)
appReplicaID   = 16*HEXDIG
appFileAndPath = 1*(unreserved | escaped)(".nsf" | ".ntf")

viewUNID       = (32*HEXDIG | "0")
folderUNID     = (32*HEXDIG | "0")
docUNID        = 32*HEXDIG

name           = 1*(unreserved | escaped)
queryDoc       = ("EditDocument" | "OpenDocument")
queryElement   = ("OpenFrameset" | "OpenView")
uiElement      = ("OpenDatabases" | "OpenReplication" | "OpenWorkspa
parameter      = ("view=" viewUNID)

unreserved     = alphanum | allowedmark
alphanum       = // as specified in {{RFC2396}}
allowedmark    = "-" | "_" | "~" | "(" | ")"
escaped        = "%" hex hex
hex            = "0" | "1" | "2" | "3" | "4" | "5" | "6" | "7" |
                "8" | "9" | "A" | "B" | "C" | "D" | "E" | "F"

```

4.3. Special Cases and Default Values

4.3.1. If a Server is not specified and an application or document is to be located

In the case where the 'notes' URI does not contain a named server and the appReplicaID is specified, the client application SHOULD locate the specified application.

In the case where the 'notes' URI does not contain a named server and an appFileAndPath is specified, the client applicaiton SHOULD locate a local copy of the application.

4.3.2. If a Server is specified but not available

In the case where the 'notes' URI does contain a named server and the named server is currently unreachable, the client application MAY locate the resource on an alternate server as if the server were not specified. See [Section 4.3.1](#)

4.3.3. If a view or folder is not supplied

In the case where the 'notes' URI does not contain a viewUNID, folderUNID or name, and the application initially shows a view or folder, the client application WILL choose a default.

4.3.4. If a view or form name is supplied

Where available, a view or form alias should be used instead of the name shown in the user interface. [[HCLDominoNamingAView](#)]

4.3.5. If a viewUNID or folderUNID of 0 is supplied

In this case, the document is still opened.

4.3.6. If OpenForm is specified

A 'notes' URI of type formDocNew will create a new document in the user interface using the specified form.

4.4. Encoding Rules

The server, appFileAndPath and name must be encoded using the UTF-8 encoding scheme, and any octet that is not one of the permitted characters per the above grammar MUST instead be represented by a "%" followed by two characters from the <hex> character set above. The two characters give the hexadecimal representation of that octet.

The maximum length of a view or form name is 64 bytes after decoding.

4.4.1. Case sensitivity of URI components

The values of server, appFileAndPath and name are case insensitive. For clarity, the actual case of the underlying resource SHOULD be used but is not REQUIRED.

5. Examples

5.1. Application Examples

notes:///1234567890ABCDEF

This example would locate and view an application
appReplicaID=1234567890ABCDEF

notes://server1.example.com/1234567890ABCDEF

This example would view an application
appReplicaID=1234567890ABCDEF
on server server1.example.com

notes://server1.example.com/1234567890ABCDEF/1234567890ABCDEF1234567890A

This example would open a view with
viewUNID=1234567890ABCDEF1234567890ABCDEF
in appReplicaID=1234567890ABCDEF
on server server1.example.com and navigate to

notes://server1.example.com/By%20Author?OpenView

This example would open a view with
name "By Author"
in appReplicaID=1234567890ABCDEF
on server server1.example.com and

notes://server1.example.com/1234567890ABCDEF/MainFrameset?OpenFrameset&v

This example would open a frameset with
name "MainFrameset" and
viewUNID=1234567890ABCDEF1234567890ABCDEF
in appReplicaID=1234567890ABCDEF
on server server1.example.com and

5.2. Document Examples

notes://server1.example.com/1234567890ABCDEF/1234567890ABCDEF1234567890A

This example would view a document with
docUNID=1234567890ABCDEF1234567890FEDCBA
from viewUNID=1234567890ABCDEF1234567890ABCDEF
in appReplicaID=1234567890ABCDEF
on server server1.example.com

notes:///1234567890ABCDEF/1234567890ABCDEF1234567890ABCDEF/1234567890ABC

This example would view a document with
docUNID=1234567890ABCDEF1234567890FEDCBA
from viewUNID=1234567890ABCDEF1234567890ABCDEF
after locating appReplicaID=1234567890ABCDEF

notes://server1.example.com/teamroom%2Fourteamroom.nsf/1234567890ABCDEF1

This example would view a document with
docUNID=1234567890ABCDEF1234567890FEDCBA
from viewUNID=1234567890ABCDEF1234567890ABCDEF
in appPathAndFile=teamroom/ourteamroom.nsf
on server server1.example.com

notes://server1.example.com/1234567890ABCDEF/1234567890ABCDEF1234567890A

This example would edit a document with
docUNID=1234567890ABCDEF1234567890FEDCBA
from viewUNID=1234567890ABCDEF1234567890ABCDEF
in appReplicaID=1234567890ABCDEF
on server server1.example.com

notes://server1.example.com/1234567890ABCDEF/MainTopic?OpenForm

This example would create a new document with
form name "MainTopic"
in appReplicaID=1234567890ABCDEF
on server server1.example.com

5.3. Application User Interface Examples

notes:///ClientBookmark?OpenWorkspace

This example would launch/focus the client application and navigate

notes:///ClientBookmark?OpenReplication

This example would launch/focus the client application and navigate

notes:///ClientBookmark?OpenDatabases

This example would launch/focus the client application and navigate

6. Security Considerations

All operations initiated as a result of locating and viewing a
'notes' URI are done so under the access rights of the user logged

into the client application. All access restrictions including application access control list [[HCLDominoACL](#)], readers fields [[HCLDominoReadersField](#)] and execution control lists [[HCLDominoECL](#)] are in effect when locating the application and/or document referred to by a 'notes' URI.

7. IANA Considerations

The IANA is asked to register the URL registration template found in [Section 8](#) in accordance with [[RFC7595](#)]

8. Appendix A: Registration Template

URL scheme name: notes

URL scheme syntax: [Section 4](#)

Character encoding considerations: [Section 4.4](#)

Intended usage: [Section 1](#)

Applications and/or protocols which use this scheme: [Section 3](#)

Interoperability considerations: None not specified

Security considerations: [Section 6](#)

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