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**The 'acct' URI Scheme**  
**draft-saintandre-acct-uri-00**

Abstract

This document defines the 'acct' URI scheme as a way to identify a user's account at a service provider, irrespective of the particular protocols that can be used to interact with the account.

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## **1. Introduction**

Existing URI schemes that enable interaction with, or that identify resources associated with, a user's account at a service provider are tied to particular services or application protocols. Two examples are the 'mailto' scheme (which enables interaction with a user's email account) and the 'http' scheme (which enables retrieval of web files controlled by a user or interaction with interfaces providing information about a user). However, there exists no URI scheme that generically identifies a user's account at a service provider, in the absence of interaction with the account using a particular application protocol. This specification fills that gap.

## **2. Rationale**

During formalization of the WebFinger protocol [[I-D.jones-appsawg-webfinger](#)], much discussion occurred regarding the appropriate URI scheme to include when specifying a user's account as a web link [[RFC5988](#)]. Although both the 'mailto' and 'http' schemes were proposed, not all service providers support email services or web interfaces on behalf of user accounts (e.g., a microblogging or instant messaging provider might not provide email services, or an enterprise might not provide HTTP interfaces to information about its employees). Therefore, the discussants recognized that it would be helpful to define a URI scheme that could be used to generically identify a user's account at a service provider, irrespective of the particular services or application protocols that could be used to interact with the account. The result was the 'acct' URI scheme defined in this document.

## **3. Definition**

The syntax of the 'acct' URI scheme is defined under [Section 4](#) of this document. Although 'acct' URIs take the form userpart@domainpart, the scheme is designed for the purpose of identification instead of interaction (regarding this distinction, see [Section 1.2.2 of \[RFC3986\]](#)). The "Internet resource" identified by an 'acct' URI is a user's account hosted at a service provider, where the service provider is associated with a DNS domain name. Thus a particular 'acct' URI is formed by setting the userpart portion of the URI to the user's account name at the service provider and by setting the domainpart portion of the URI to the DNS domain name of the service provider.

An 'acct' URI need not be explicitly assigned by the service provider, and can be inferred if the account name and provider domain

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name are known. For example, if a user has an account name of "foobar" on a microblogging service "status.example.net", it can be inferred that the user's 'acct' URI at that provider is acct:foobar@status.example.net even if the provider has not explicitly assigned such a URI.

It is not assumed that an entity will necessarily be able to interact with a user's account using any particular application protocol, such as email; to enable such interaction, an entity would need to use the appropriate URI scheme for such a protocol, such as the 'mailto' scheme. While it might be true that the 'acct' URI minus the scheme name (e.g., user@example.com derived from acct:user@example.com) can be reached via email or some other application protocol, that fact would be purely contingent and dependent upon the deployment practices of the provider.

Because an 'acct' URI enables identification only and not interaction, it cannot be dereferenced directly (as can URIs for most application protocols). Any protocol that uses the 'acct' URI scheme, such as the WebFinger protocol, is responsible for specifying how an 'acct' URI is to be dereferenced in the context of that protocol.

#### **4. IANA Considerations**

In accordance with the guidelines and registration procedures for new URI schemes [[RFC4395](#)], this section provides the information needed to register the 'acct' URI scheme.

##### **4.1. URI Scheme Name**

acct

##### **4.2. Status**

permanent

##### **4.3. URI Scheme Syntax**

The 'acct' URI syntax is defined here in Augmented Backus-Naur Form (ABNF) [[RFC5234](#)], borrowing syntax elements from [[RFC3986](#)]:

```
acctURI      = "acct:" userpart "@" domainpart
userpart     = 1*( unreserved / pct-encoded )
domainpart   = domainlabel 1*( "." domainlabel )
domainlabel  = alphanum / alphanum *( alphanum / "-" ) alphanum
alphanum     = ALPHA / DIGIT
```



#### **[4.4.](#) URI Scheme Semantics**

The 'acct' URI scheme is used to identify user accounts hosted at service providers. It is used only for identification, not interaction. A protocol that uses the 'acct' URI scheme is responsible for specifying how an 'acct' URI is to be dereferenced in the context of that protocol. There is no media type associated with the 'acct' URI scheme.

#### **[4.5.](#) Encoding Considerations**

The 'acct' URI scheme allows any character from the Unicode repertoire [[UNICODE](#)] encoded as a UTF-8 [[RFC3629](#)] string that is then percent-encoded as necessary into valid ASCII [[RFC20](#)]. Note that domain labels need to be encoded as A-labels as defined by [[RFC5890](#)] in order to support internationalized domain names (IDNs).

#### **[4.6.](#) Applications/Protocols That Use This URI Scheme Name**

At present, only the WebFinger protocol uses the 'acct' URI scheme. However, use is not restricted to the WebFinger protocol.

#### **[4.7.](#) Interoperability Considerations**

There are no known interoperability concerns related to use of the 'acct' URI scheme.

#### **[4.8.](#) Security Considerations**

See [Section 5](#) of RFCXXXX.

[Note to RFC Editor: please replace XXXX with the number issued to this document.]

#### **[4.9.](#) Contact**

Peter Saint-Andre, [psaintan@cisco.com](mailto:psaintan@cisco.com)

#### **[4.10.](#) Author/Change Controller**

This scheme is registered under the IETF tree. As such, the IETF maintains change control.

#### **[4.11.](#) References**

For use of the 'acct' URI scheme with the WebFinger protocol, see [[I-D.jones-appsawg-webfinger](#)].





## 5. Security Considerations

Because the 'acct' URI scheme does not directly enable interaction with a user's account at a service provider, possible security concerns are minimized (aside from the fact that an 'acct' URI naturally exposes that a particular account name might exist at the provider). Protocols that make use of 'acct' URIs are responsible for defining security considerations related to such usage.

## 6. Acknowledgements

Some text in this document was borrowed from [\[I-D.jones-appsawg-webfinger\]](#).

## 7. References

### 7.1. Normative References

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### 7.2. Informative References

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[RFC5890] Klensin, J., "Internationalized Domain Names for Applications (IDNA): Definitions and Document Framework", [RFC 5890](#), August 2010.

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