

# **ARINr v.0.1.0 Manual**

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# Part I. Background and Installation

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# Chapter 1. Interacting with ARIN

## The Different Protocols and Services

Registering information within ARIN's system has been traditionally accomplished with plain text templates send in via email. Users were expected to download the templates from ARIN's website, fill them out appropriately, and send them in. This is a process that was inherited from the InterNIC, the registry for IP addresses before ARIN was formed to take on that responsibility.

The process of using email templates was also used by the InterNIC for the registration of domain names, a function now conducted by domain registries and registrars (depending on the top-level domain in question). Email templates are no longer used for domain registration.

Public views into the ARIN's registration data has been traditionally accomplished using the NICNAME/WHOIS protocol. This protocol is currently defined by RFC 3912, but dates back before the definition of IPv4. NICNAME/WHOIS, or just WHOIS as stated by RFC 3912, is in use today by all of the Regional Internet Registries as well as domain registries and registrars and the IANA.

In recent years, ARIN has been adding RESTful web services on top of the traditional email templates and WHOIS services. These RESTful web services are intended to take advantage of more mainstream technologies commonly found in web infrastrucutes throughout the Internet. Because RESTful web services re-use the technology set of mainstream web infrastructure, programmers can easily find libraries with which to build tools.

ARIN currently offers two distinct RESTful web services: Whois-RWS and Reg-RWS. Whois-RWS is a RESTful web service for querying and viewing the pubic data in ARIN's registration database and is analogous to ARIN's traditional WHOIS service. Reg-RWS is a more complicated service for registering and administering information in ARIN's registration database and is analogous to ARIN's traditional email templates.

Reg-RWS limits interactions to only those resources, IP networks and AS numbers, and administrative objects for which a user has authority over. This authority flows from the linkages between a users web account in ARIN Online to Points of Contact (POCs) and the linkages between POCs and organizations holding resources. Authentication of users in Reg-RWS requires an API-KEY, which users can generate in ARIN Online. ARIN also offers an Operational Testing and Evaluation environment (OT&E) for Reg-RWS, an environment with the same data intended to help development against Reg-RWS without compromising data in the production registration system.

## What is ARINr?

ARINr is a set of Ruby scripts that utilize both the Whois-RWS service and the Reg-RWS service. Because ARIN's RESTful web services share common code and infrastructure with ARIN Online, these scripts were created using completely separete tooling to help expose issues with the RESTful web services that may not be obvious to developers familiar with and developing with standard ARIN tools.

However, ARIN believes these tools could also be of value to the general public and has therefore released them with a BSD open source license.

The ARINr script 'arinw' is designed to work against Whois-RWS, while the rest of the main scripts are designed to work against Reg-RWS; they can even be used against the Reg-RWS OT&E system.

At the time of this writing, the ARINr scripts should be considered "alpha" quality. A lot of functionality is still missing from the scripts, and ARIN has not conducted any qualified degree of quality assurance against them.