



# Generic firewall (JSON-RPC) Quick Integration Guide

for PacketFence version 7.4.0

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# Generic firewall (JSON-RPC) Quick Integration Guide

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# About this Guide

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This guide has been created in order to help sales engineers, product managers, or network specialists demonstrate the PacketFence capabilities on-site with an existing or potential customer. It can also provide guidelines to setup a proof of concept for a potential PacketFence deployment using a firewall with a **JSON-RPC** interface.

# Assumptions

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- You have a configured PacketFence environment with working test equipment;
- You have a firewall with a compatible JSON-RPC interface (see below).

# JSON-RPC interface

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The JSONRPC module shipped with PacketFence is meant as a generic firewall SSO module to be used with Linux or BSD firewalls that do not by default ship with a vendor-specific interface to do SSO with.

A compatible server must implement the methods **Start** and **Stop**, both with the identical set of parameters provided below.

- **Protocol:** JSON-RPC 2.0 over HTTPS
- **Authentication:** HTTP Basic authentication
- **Methods:** **Start** and **Stop**
- **Parameters:**
  - **user** (*string*): Username that registered the device
  - **mac** (*string*): MAC address of the device
  - **ip** (*string*): IP address of the device
  - **role** (*string*): PacketFence role assigned to the device
  - **timeout** (*int*): Duration until the registration expires in seconds
- **Response:** Success must be indicated by "**result**": ["OK"]. Every string other than **OK** is taken as an error message.

A simple JSON-RPC server written in Python that is compatible with this specification and creates ipsets based on the SSO information provided by PacketFence can be found at <https://github.com/tribut/ipset-rpcd>.

## SSO Configuration in PacketFence

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Go to **Configuration** → **Integration** → **Firewall SSO** → **Add Firewall** → **JSONRPC**.

- **Hostname or IP Address:** IP of your JSON-RPC server
- **Username and Password:** HTTP Basic credentials
- **Port of the service:** 9090
- **Roles:** Add the roles that you want to do SSO with

### New Firewall SSO JSONRPC ×

Hostname or IP Address  \*

Username  \*

Password  \*

Port of the service

If you use an alternative port, please specify

Roles

Nodes with the selected roles will be affected

Networks on which to do SSO

Comma delimited list of networks on which the SSO applies.  
Format : 192.168.0.0/24

Cache updates

Enable this to debounce updates to the Firewall.  
By default, PacketFence will send a SSO on every DHCP request for every device. Enabling this