

# GitHub - fortra/impacket: Impacket is a collection of Python classes for working with network protocols.

By Dfte

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Impacket was originally created by [SecureAuth](#), and now maintained by Fortra's Core Security.

Impacket is a collection of Python classes for working with network protocols. Impacket is focused on providing low-level programmatic access to the packets and for some protocols (e.g. SMB1-3 and MSRPC) the protocol implementation itself. Packets can be constructed from scratch, as well as parsed from raw data, and the object-oriented API makes it simple to work with deep hierarchies of protocols. The library provides a set of tools as examples of what can be done within the context of this library.

## What protocols are featured?

- Ethernet, Linux "Cooked" capture.
- IP, TCP, UDP, ICMP, IGMP, ARP.
- IPv4 and IPv6 Support.
- NMB and SMB1, SMB2 and SMB3 (high-level implementations).
- MSRPC version 5, over different transports: TCP, SMB/TCP, SMB/NetBIOS and HTTP.
- Plain, NTLM and Kerberos authentications, using password/hashes/tickets/keys.
- Portions/full implementation of the following MSRPC interfaces: EPM, DTYPES, LSAD, LSAT, NRPC, RRP, SAMR, SRVS, WKST, SCMR, BKRP, DHCPM, EVEN6, MGMT, SASEC, TSCH, DCOM, WMI, OXABREF, NSPI, OXNSPI.
- Portions of TDS (MSSQL) and LDAP protocol implementations.

## Maintainer

## [Core Security](#)

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### Getting Impacket

#### Latest version

- Impacket v0.13.0

```
python 3.9 | 3.10 | 3.11 | 3.12 | 3.13
```

#### [Current and past releases](#)

#### Development version

- Impacket v0.14.0-dev ([master branch](#))

```
python 3.9 | 3.10 | 3.11 | 3.12 | 3.13
```

### Setup

#### Quick start

 We recommend using `pipx` over `pip` for system-wide installations.

In order to grab the latest stable release run:

```
python3 -m pipx install impacket
```

If you want to play with the unreleased changes, download the development version from the [master branch](#), extract the package, and execute the following command from the directory where Impacket has been unpacked:

```
python3 -m pipx install .
```

#### Docker Support

Build Impacket's image:

```
$ docker build -t "impacket:latest" .
```

Using Impacket's image:

```
$ docker run -it --rm "impacket:latest"
```

## Testing

The library leverages the [pytest](#) framework for organizing and marking test cases, [tox](#) to automate the process of running them across supported Python versions, and [coverage](#) to obtain coverage statistics.

A [comprehensive testing guide](#) is available.

## Licensing

This software is provided under a slightly modified version of the Apache Software License. See the accompanying [LICENSE](#) file for more information.

SMBv1 and NetBIOS support based on Pysmb by Michael Teo.

## Disclaimer

The spirit of this Open Source initiative is to help security researchers, and the community, speed up research and educational activities related to the implementation of networking protocols and stacks.

The information in this repository is for research and educational purposes and not meant to be used in production environments and/or as part of commercial products.

If you desire to use this code or some part of it for your own uses, we recommend applying proper security development life cycle and secure coding practices, as well as generate and track the respective indicators of compromise according to your needs.

## Contact Us

Whether you want to report a bug, send a patch, or give some suggestions on this package, reach out to us at <https://www.coresecurity.com/about/contact>.

For security-related questions check our [security policy](#).

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Source: <https://github.com/SecureAuthCorp/impacket>