*Verdaccio*

A lightweight Node.js private proxy registry

Contents

[Objective 1](#_Toc142569640)

[Verdaccio 1](#_Toc142569641)

[Features 1](#_Toc142569642)

[Installation Steps in Ubuntu 1](#_Toc142569643)

[Running as Docker 2](#_Toc142569644)

[Challenges 2](#_Toc142569645)

[Screenshots 2](#_Toc142569646)

10 August 2023

Brane Enterprises

# **Objective**

This document provides comprehensive information about Verdaccio, a private registry artifact management solution. It outlines the product's features, pricing, installation steps, challenges involved, and its potential applications within Brane Enterprises.

# **Verdaccio**

Verdaccio is a private npm (Node Package Manager) registry that allows organizations to create their own secure and controlled environment for hosting and sharing npm packages.

Verdaccio can be used to set up a safe and closely managed private hub to handle and circulate Node.js packages exclusively within Brane Enterprises. This hub acts as a protected space to securely store, conveniently share, and effectively handle npm packages within the organization, boosting teamwork and productivity.

## Features

1. Using a private npm registry like Verdaccio is one of the [Top 10 NPM Security Best Practices](https://cheatsheetseries.owasp.org/cheatsheets/NPM_Security_Cheat_Sheet.html#6-use-a-local-npm-proxy) recommended by the Open Web Application Security Project ([OWASP](https://owasp.org)).
2. Provides Web User interface with [advanced UI](https://verdaccio.org/docs/next/ui-components)
3. Has a [customizable built-in logger](https://verdaccio.org/docs/logger). Can define multiple types of outputs.
4. Can be extended in many ways, either new authentication methods, adding endpoints or using a custom storage ([Authentication plugin](https://verdaccio.org/docs/plugin-auth) is one of the [5 types of plugins](https://verdaccio.org/docs/plugins)).

# **Proof Of Concepts**

In the POC, I have deployed Verdaccio in the AWS EC2 Instance (i23-Dev-R1-Utils-Registries) with Ubuntu operating system.

I have created the POC with below configurations:

1. Max users allowed to register: 2
2. Uplink: https://registry.npmjs.org/

(An uplink is a link with an external registry that provides access to external packages, if package is not available locally, proxy requests to 'npmjs' registry)

1. Access: all

(we can restrict to authenticated user only)

1. Public/unpublish: Authenticated

## Installation Steps in Ubuntu

1. Install NVM (Node Version Manager)
   * $ wget -qO- <https://raw.githubusercontent.com/creationix/nvm/v0.33.11/install.sh> | bash
   * $ nvm install node
2. Install Verdaccio & pm2, will require to run Verdaccio service in background
   * Edit config.yml
   * Run Verdaccio and stop it. It will create a config file we will use
3. Restart
   * pm2 start verdaccio
   * If that does not work, use $ verdaccio
4. Create User
   * npm adduser --registry <http://15.207.87.207:4873/>
5. Login
   * sudo npm login <http://localhost:4873>
   * Username: nslhubuser
   * Username: July12345@31$#
   * Email: (this IS public) santosh.kar@braneenterprises.com
6. Publish a file:
   * Create a node.js file having package.json
   * npm install
   * npm publish --registry <host>:4873

## Running as Docker

Running the instance within a Docker container is a viable option. However, the proof of concept I developed was exclusively deployed on an Ubuntu virtual machine, and I haven't yet created a proof of concept specifically tailored for Docker.

# **Challenges**

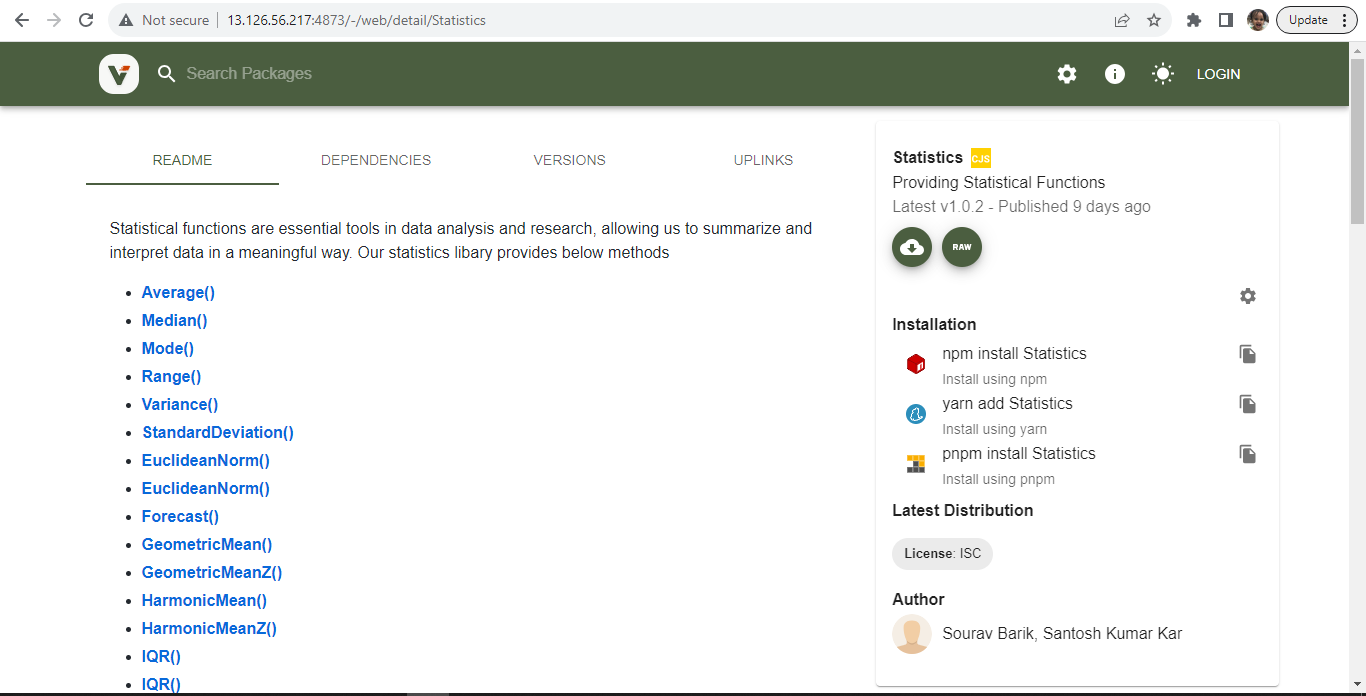
### Not accessible from the RDP

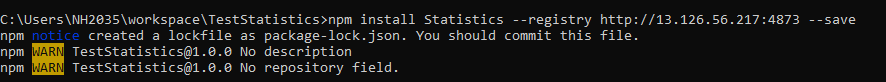
While the VM (EC2) instances are reachable from our local machines, they currently aren't accessible from the RDP environment. To resolve this, I believe we require assistance from a network engineer who can provide the necessary expertise in configuring the network settings to enable accessibility from the VDI infrastructure.

### EC2 not attached to a static IP address

Presently, the EC2 instance is linked to a dynamic IP address, resulting in an IP change whenever it's restarted. To ensure consistency, we're considering attaching a static IP address, though this could incur a monthly expense of around 200 to 400 INR..

# **Screenshots**





A screen shot of a computer program

Description automatically generated

A screenshot of a test

Description automatically generated

