



# TAM Service Engineer Engagement Check

## Module Dependency Assessment Report

*for*

# Acme Corp

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**Last Revision:** v1.0.0

**Last Revision Date:** February 1, 2022

## Document Summary

This Technical Account Management Service Engineer (TSE) quarterly assessment check report has been prepared after obtaining Puppet Server and Puppet Agent diagnostic and log information and focusing on Module Dependency specific items. The Puppet TSE and Solution Architect teams have reviewed your specific environment details against Puppet Best Practices associated with Module Dependencies.

This report will be presented during a customer advisory session to review the noted findings, suggested Puppet environment changes / updates and other Puppet recommendations. Optionally, your Puppet account team will follow-up with a SOW for a Puppet Professional Services Engineer or Puppet Solutions Architect to implement the recommendations if your team is unable to perform the suggested changes.

## Engagement Check Contacts

	Puppet TAM	Puppet TSE	Puppet Architect
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## Engagement Check Summary

The Puppet Enterprise Module Dependency assessment check will identify which modules can be updated, whilst avoiding dependency clashes, highlight new features of more recent module versions, suggest Puppet-supported versions of modules, and identify if your environment is using forked or self-developed modules that are not currently supported by Puppet posing a risk to operational stability and future upgrades.

## Recommendations

The following recommendations are suggested based on the performed Module Dependency assessment check:

### 1. Module configuration review:

There are several module dependency issues, many involving third-party modules:

```
Warning: Module 'puppetlabs-apt' (v7.4.0) fails to meet some dependencies:
  'garethr-docker' (v5.3.0) requires 'puppetlabs-apt' (>= 1.8.0 <= 3.0.0)
Warning: Module 'puppetlabs-concat' (v1.2.5) fails to meet some dependencies:
  'datadog-datadog_agent' (v3.1.0) requires 'puppetlabs-concat' (>=4.0.0 <7.0.0)
  'saz-ssh' (v4.0.0) requires 'puppetlabs-concat' (>= 2.2.0 < 5.0.0)
Warning: Module 'puppetlabs-inifile' (v4.1.0) fails to meet some dependencies:
  'puppetlabs-puppet_agent' (v3.0.2) requires 'puppetlabs-inifile' (>= 2.4.0 <= 4.0.0)
```

```

Warning: Module 'puppetlabs-stdlib' (v5.1.0) fails to meet some dependencies:
'puppetlabs-apache' (v1.11.1) requires 'puppetlabs-stdlib' (>= 4.2.0 < 5.0.0)
'puppetlabs-concat' (v1.2.5) requires 'puppetlabs-stdlib' (>= 3.2.0 < 5.0.0)
'bryana-ec2tagfacts' (v0.3.0) requires 'puppetlabs-stdlib' (>= 3.2.0 < 5.0.0)
'puppetlabs-gcc' (v0.3.0) requires 'puppetlabs-stdlib' (>= 2.0.0 < 5.0.0)
'puppetlabs-java' (v1.6.0) requires 'puppetlabs-stdlib' (>= 2.4.0 < 5.0.0)
'razorsedge-network' (v3.11.1) requires 'puppetlabs-stdlib' (>= 2.3.0 < 5.0.0)
'puppetlabs-ntp' (v4.2.0) requires 'puppetlabs-stdlib' (>= 4.6.0 < 5.0.0)
'reidmv-pe_mco_shell_agent' (v2.0.0) requires 'puppetlabs-stdlib' (>= 3.2.0 < 5.0.0)
'razorsedge-snmp' (v3.9.0) requires 'puppetlabs-stdlib' (>= 2.3.0 < 5.0.0)
'saz-ssh' (v4.0.0) requires 'puppetlabs-stdlib' (>= 4.24.0 < 5.0.0)
'walkamongus-sssd' (v1.2.3) requires 'puppetlabs-stdlib' (>= 3.4.0 < 5.0.0)
'ULHPC-sudo' (v0.3.9) requires 'puppetlabs-stdlib' (v4.x)
'pjorg-sumo' (v1.1.0) requires 'puppetlabs-stdlib' (>= 4.0.0 < 5.0.0)
'openstackci-vcsrepo' (v0.0.8) requires 'puppetlabs-stdlib' (>= 4.0.0 < 5.0.0)
'svarrette-ulimit' (v1.0.6) requires 'puppetlabs-stdlib' (>= 4.2.2 < 5.0.0)
Warning: Module 'stm-debconf' (v3.0.0) fails to meet some dependencies:
'saz-timezone' (v5.1.1) requires 'stm-debconf' (>= 2.0.0 < 3.0.0)
Warning: Missing dependency 'puppetlabs-facts':
'puppetlabs-puppet_agent' (v3.0.2) requires 'puppetlabs-facts' (>= 0.5.0 < 1.0.0)
Warning: Missing dependency 'puppetlabs-host_core':
'ghoneycutt-hosts' (v2.7.0) requires 'puppetlabs-host_core' (>= 1.0.1 < 2.0.0)
Warning: Missing dependency 'puppetlabs-mount_core':
'petems-swap_file' (v4.0.2) requires 'puppetlabs-mount_core' (>= 1.0.0 < 2.0.0)
Warning: Missing dependency 'puppetlabs-powershell':
'datadog-datadog_agent' (v3.1.0) requires 'puppetlabs-powershell' (>= 2.3.0 < 3.0.0)
Warning: Missing dependency 'puppetlabs-puppetserver_gem':
'datadog-datadog_agent' (v3.1.0) requires 'puppetlabs-puppetserver_gem' (>= 1.0.0 < 2.0.0)
Warning: Missing dependency 'puppetlabs-translate':
'puppetlabs-apt' (v7.4.0) requires 'puppetlabs-translate' (>= 1.0.0 < 3.0.0)
'puppetlabs-inifile' (v4.1.0) requires 'puppetlabs-translate' (>= 1.0.0 < 3.0.0)
'puppetlabs-mysql' (v10.4.0) requires 'puppetlabs-translate' (>= 1.0.0 < 3.0.0)
Warning: Missing dependency 'puppetlabs-yumrepo_core':
'datadog-datadog_agent' (v3.1.0) requires 'puppetlabs-yumrepo_core' (>= 1.0.3 < 2.0.0)

```

As a result, several modules are flagged as invalid:

```

└─ puppetlabs-apt (v7.4.0)  invalid
└─ puppetlabs-concat (v1.2.5)  invalid
└─ puppetlabs-inifile (v4.1.0)  invalid
└─ puppetlabs-stdlib (v5.1.0)  invalid
└─ stm-debconf (v3.0.0)  invalid

```

## 2. Benefit analysis of updated modules:

Module updates regularly contain security patches and bug fixes. As a general rule, aim for your modules to be on the latest version that's compatible with your Puppet Enterprise version, Puppet version and other dependent modules.

Reviewing a subset of your modules, these are a few modules to consider updating:

- a. 'enterprisemodules-wls\_config' v3.8.0 -> v3.13.0 update includes:
  - i. Fixing code refactor errors
  - ii. Adds support for RHEL 8
- b. 'datadog-datadog\_agent' v3.1.0 -> v3.14.0:
  - i. Adds more logging to Puppet reports
  - ii. Adds support for third party integrations
  - iii. Adds OOM kill check
  - iv. Adds support for trusted fact tags in reports
  - v. Allows creating more than one config file per integration

### 3. Module recommendations:

These recommendations are based on Puppet's guidance to, where possible, use module with:

- A higher quality score
- A higher number of downloads
- A more recent release date
- A higher endorsement level
- Compatibility to your other modules and applications

- a. **'garethr-docker' (v5.3.0) requires 'puppetlabs-apt' (>= 1.8.0 <= 3.0.0)**

You are currently using the forge module "garethr-docker" which is a non supported module. We recommend considering using puppet's own "puppetlabs-docker" module, which is reviewed, maintained, and supported by Puppet. This would also alleviate the module dependency error that "garethr-docker" is not compliant with the latest version of "puppetlabs-apt".

- b. **'openstackci-vcsrepo' (v0.0.8) requires 'puppetlabs-stdlib' (>= 4.0.0 < 5.0.0)**

The "openstackci-vcsrepo" module is raising dependency errors. Reviewing this module, it was noticed that this module has not been updated since 2013, has a relatively low quality score, and 80,000 downloads. In contrast, the "Puppetlabs-vcsrepo" module has 23 million downloads, a quality score of 5.0/5.0 and is supported. This means that the Puppet support team is able to support any issues you experience with this module.

- c. Your custom module "acmecorp-dashboard" appears to be a forked version of an old version of the forge module "puppet-puppetboard". Puppetboard is an active module with regular releases bringing additional functionality. Using forge modules saves your internal teams from having to manage and maintain modules, and ensures an easy upgrade cycle.

### 4. Other noted items:

- a. In your "puppet module list --all" output, several modules list dependency warnings against newer versions of released modules. Consider testing module versions for breaking changes before updating them in your production environment. However it should also be noted that there is no guarantee that community modules will be updated by their authors.