

SERVICE DESCRIPTION

# Open Source Puppet Capability Pack

**Get Fast and Sustainable Results with Open Source Puppet with expert assistance for Setups, Workflows, and Pair Programming**

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## Overview

Puppet consultants will provide services to help the Customer rapidly deploy Open Source Puppet and successfully integrate it into their infrastructure. The engagement will consist of knowledge transfer and paired development.

The objective is a working implementation of Puppet solutions that are designed to meet the Customer's configuration management automation goals, and a Customer team that is well prepared to continue its configuration management automation effort.

## Recommended for

- Customers implementing a desired state solution for their infrastructure.
- Customers who need guidance on building a Puppet implementation that scales.

## Consulting Services Description

Puppet will provide the following services related to the implementation of Puppet (Subject to the number of Capability Packs purchased):

### 1. Pre-engagement planning and preparation

- a. Discovery call(s)
- b. Draft project plan
- c. Other preparation items as needed (research, testing, etc.)
- d. To be completed by the Customer prior to the start of the engagement:
  - i. Validate appropriate compute, network, and storage has been provisioned
  - ii. Confirm full-time availability of at least one technical contact for the duration of the engagement

### 2. Discovery and concept review

- a. Determine goals and business needs
- b. Provide high-level overview of Puppet concepts, if needed

### 3. Open Source Puppet installation

- a. Installation of Open Source Puppet
- b. Puppet agent deployment
  - i. Knowledge transfer of Puppet agent installation
  - ii. Installation of Puppet agents on as many nodes as possible

iii. Knowledge transfer of options for automated Puppet agent installation using one of the following techniques:

1. Puppet Bolt Tasks for mass agent installation via SSH/WinRM
2. Windows Group Policy
3. Suitable pre-existing Customer tooling

iv. Knowledge transfer of approaches to integrate Puppet agent installation into the Customer's OS-provisioning system

#### 4. Puppet module abstraction best practices, as follows

- a. Knowledge transfer on Roles & Profiles pattern, which simplifies the classification of nodes, facilitates code reuse, and makes it simpler for users to have a high-level understanding of what Puppet is managing
- b. Pairing with the Customer to create an initial "base" profile to manage common system settings and an additional profile to practice using the pattern
- c. High-level definition of at least 1 additional profile
- d. Knowledge transfer on the use of the site.pp, which is used to assign roles, profiles, and component module code to managed nodes

#### 5. Collaborate on component module development

- a. Pair with the Customer to convert at least 1 short (fewer than 100 lines) script into Puppet modules using the version control workflow OR to select appropriate Forge modules as replacements

#### 6. Collaborate on Hiera for Code-Data Separation to increase module reusability

- a. Pair with the Customer to create a simple Hiera hierarchy containing a demonstrative number of facts (no more than 4 levels) as an introduction to the use of Hiera
- b. Knowledge transfer on appropriate use of Hiera and effective hierarchy design

#### 7. Collaborate on how to use Forge modules

- a. Pair with the Customer to select up to 5 appropriate modules from the Puppet Forge for incorporation into the profiles created in step 4(b) to give insight into how to pick modules and assess their quality. Please see Key Assumption 10 for limitations

#### 8. Workflow setup, as follows

- a. Review of version control system options and assistance in selecting one that meets Customer requirements and is supported by r10k (e.g., GitLab, GitHub, GitHub Enterprise, Bitbucket Enterprise)
- b. Configure r10k to manage Puppet code and Hiera data on the Puppet primary
- c. Explain the purpose of a "Control Repo" and assist in its creation
- d. Explain the purpose of a Puppet file for module pinning and assist in its creation

## 9. Build code deployment workflow

- a. Pair with the Customer to deploy the profiles and component modules to one Puppet code environment of the Customer's choice
- b. Knowledge transfer of techniques for promoting Puppet modules through pre-production environments (i.e., Dev, Test, Q/A, Staging)
- c. If time allows and the Customer's IT infrastructure and processes permit, the Puppet Consultant will pair with the Customer's staff to demonstrate the promotion of Puppet code to at least one additional environment

## 10. Recap meeting to close out engagement and to reinforce all concepts covered

### Deliverables

1. Open Source Puppet installation
2. Puppet agent deployment on as many nodes as possible
3. Code development and deployment workflow setup
4. Pair programming sessions
5. Post-engagement documentation, including:
  - a. Open Source Puppet installation details
  - b. Workflow summary
  - c. Recap of work performed
  - d. Recommendations

### Delivery Approach

Our delivery approach is designed to effectively deliver fast time to value with Puppet solutions. We work with you throughout the engagement to implement initial base configuration of the solutions and prepare you to extend configuration to align to expanding business objectives.

### Phase 0: Preparation and Initial Discovery

The Puppet Consultant will spend up to half a day performing preparation and discovery work prior to the engagement. This includes pre-engagement call(s) with the Customer to discuss logistics and begin the discovery phase, project planning and preparation.

### Phase 1: Discovery

The Puppet Consultant collaborates with the Customer to understand their technical and business goals, checks their high-level understanding of how the solutions work and how it will be implemented into the Customer's organization.

## Phase 2: Installation

The Puppet Consultant and Customer installs the agreed solutions and validates their operation. Time is spent reviewing the architecture of these systems to ensure the Customer understands and can maintain them.

## Phase 3: Workflow

The Puppet Consultant collaborates with the Customer team to design and implement a workflow that works for the organizational structure. Aligning the capabilities of the solution with the technical and business objectives.

## Phase 4: Deployment

The Puppet Consultant pairs with the Customer team to bring the installed services into production readiness in line with the business and technical objectives and finish the commissioning.

## Phase 5: Documentation

The Puppet Consultant will provide engagement documentation within five (5) business days of the end of the engagement, and will consist of the following:

- Engagement recap
- Architecture description and diagrams
- Workflow description and usage
- Recommendations for future enhancements to the Puppet solution

## Timeline

For every capability pack, 8 hours are set aside for preparation and documentation, with each requiring approximately four hours. Additional capability packs can be added to engagement to further evolve core concepts dependent on Customer requirements.

|                                  | Nodes       | Roles   | Priorities | Script to Module* |
|----------------------------------|-------------|---------|------------|-------------------|
| <b>Base</b>                      | 500         | 1       | 1          | 1                 |
| <b>Additional Packs will add</b> | Up to 1,000 | Up to 2 | Up to 3    | Up to 2           |

\*Script no longer than 100 lines

Maximum of 4 capability packs, customers with larger needs are encouraged to have a custom Statement of Work scoped to ensure their project needs are addressed.

## Fees

| Product Description                | Duration | Cost        |
|------------------------------------|----------|-------------|
| Open Source Puppet Capability Pack | 40 hours | \$11,995.00 |

Puppet will use best efforts to complete the Services within this timeframe, but this project will be deemed completed if the maximum number of hours is reached.

Services for this engagement will be provided remotely, unless Customer and Puppet mutually agree that the Services will be performed on-site. In addition to the fees above, Customer will be responsible for reasonable travel and expenses for on-site Services.

## Key Assumptions

The following assumptions are reflected in the services, timeline, and estimated effort outlined in this service description:

1. Phases 1-4 of the engagement (as outlined in this service description) will be performed in one week during normal business hours (Monday through Friday, 8:00 a.m. - 5:00 p.m. local time) unless otherwise agreed to in writing by the parties.
2. Customer staff has completed PE10x, PE20x, PE30x [courses](#) within the last 12 months or has equivalent operational experience with Puppet.
3. Customer will provide prompt feedback on all deliverables.
4. Customer will provide prompt access to all systems and resources that Puppet will need to complete the work.
5. Customer must provide a single point of contact that will be available at least 75% of the time throughout the duration of the engagement.
6. Customer will provide Puppet with documentation and access to subject matter experts for non-Puppet systems/ software within the scope of the engagement.
7. Customer will have identified key personnel prior to the beginning of the engagement.
8. Customer will have all necessary security exceptions, firewall rules, network routers, computer and storage resources available prior to the start of the engagement, as detailed in Appendix 1 of this service description.
9. Puppet does not provide support for third-party software that is implemented as part of a Puppet solution, such as version control systems, repository management, packaging, and other software that is not part of the Puppet stack.
10. Forge modules may not exist for the Customer’s specific use case. Puppet makes no guarantees about specific modules being available on the Puppet Forge. Any alteration to pre-existing Forge modules to meet Customer needs will be at Puppet’s discretion and will be the responsibility of the Customer to support and maintain post-engagement.
11. Module development and/or automation task implementation is confined to work that can be reasonably completed within the engagement’s allocated hours. As a result, such work may not occur, may be incomplete, and/or may require further effort from the Customer to complete post-engagement.

## Appendix 1 - Engagement Technical Requirements

A successful consulting engagement requires advance preparation. Failure to meet these pre-engagement requirements will have a direct impact on the completion of all the goals of the engagement.

The Customer is expected to review all requirements. Any requirements that are not met should be reported during the pre-engagement call or earlier. Puppet and the Customer will discuss the issues and determine whether to delay the engagement or attempt to work around the issue during the engagement.

### **BASIC REQUIREMENTS**

The pre-engagement technical requirements as discussed in the pre-engagement call must be verified and completed by the Customer prior to the engagement. Failure to complete this will negatively impact Puppet's ability to meet all deliverables in the time allotted. Puppet bears no responsibility for delays due to incomplete pre-engagement requirements.