Puppet Code Review
Service Description

In-depth review of your puppet code and recommendations on how to upgrade, improve, refactor, or replace it.
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Overview
The goal of the Puppet Code Review is to give the Customer a firm understanding of the state of their puppet codebase and clear recommendations based on opportunities and challenges discussed during the engagement.

Puppet Consultants will use a combination of meetings, interviews, manual and automated code review tooling to provide the Customer with a report on the state of their code, specific issues identified, suggestions for remediation, and recommendations for future improvements.

Recommended For
• Customers using Puppet Enterprise for 6+ months OR which are bringing a code base from open source puppet
• Customers wanting an expert review of their existing puppet code
• Customers wanting an expert recommendation of next steps to take based on this code review

Consulting Services Description
Puppet will provide the following services related to the implementation of Puppet Enterprise:

1. Pre-engagement planning and preparation
   a. Remote discovery call
   b. Identify 3-5 Puppet related stakeholders/subject matter experts (SMEs) to interview during engagement and confirm their availability
   c. Other preparation items as needed (systems access, logistics, etc.)
      i. Access to puppet code base
      ii. Prepare Puppet Enterprise installation to gather performance data
      iii. Request a meeting room is scheduled or available for the portions of the engagement which require meetings (first day, interviews mid-week, findings review on last on-site day)
      iv. Workspace for PSE (work surface and chair)
   d. To be completed by the Customer prior to the start of the engagement:
      i. Confirm availability of at least one technical contact has been committed for the duration of the engagement.
      ii. Confirm systems and version control access will be ready for engagement
      iii. If 3.x->4.x parser upgrade information is desired confirm that a server is available for this.
      iv. Turn on profiling for performance data

2. On-site kick-off
   a. Overview goals of engagement and review project plan in Trello
   b. Discuss current usage of Puppet
i. History of usage
ii. What is/isn’t working related to puppet code
iii. Customer’s specific goals for this Puppet Code Review
iv. What the future plans are for managing additional items with puppetv. Other background information to make the engagement most useful

3. **Initial Automated Code Review**
   a. Use automated tools to collect baseline data on Customer code base such as puppet-lint warnings, performance, and other static analysis determined findings
   b. Use automated code review output to create appendix for leave behind documentation

4. **Interview Identified Stakeholders/SMEs**
   a. Interview the stakeholders/SMEs identified in the pre-engagement or kickoff meeting to learn about the current puppet usage and areas of challenge/opportunity with the puppet code base
   b. Briefly discuss problem areas, potential workarounds, and if applicable newer features that may help
   c. Note relevant items in leave-behind report

   a. Review Customer’s current and planned usage of Puppet Enterprise, with a focus on technical and non-technical topics related to Puppet code such as:
      i. Workflows
      ii. Module Development and Testing
      iii. Security
      iv. Classification and Data
      v. Upgrade Path
      vi. Other areas determined during engagement
   b. Manually review Customer Puppet code as time allows for structure, version compatibility, style, adherence to module design best practices, and other related practices
      i. This review will focus on Customer created or customized modules and manifests
      ii. Customer should provide a list of specific modules to be reviewed or guidance on selecting a representative sample
   c. Note findings in leave-behind report

6. **Findings Review**
   a. Recap meeting to review the draft report findings, reinforce concepts covered, and close out the engagement
   b. Areas of most interest from this meeting will impact the areas of emphasis in the final report

7. **Final Report Revisions and Engagement Close-Out**
Service Description

a. Complete the final version of the report and send to Customer within 5 business days of the end of the engagement

Deliverables
1. Expert review of Puppet code base and related processes and workflows
2. Post engagement documentation including:
   a. Summary of findings and recommendations
   b. Detailed report of findings and recommendations
   c. Appendices of additional data gathered
Delivery Approach

Our delivery approach combines automated and manual collection of data about the Customer’s Puppet Enterprise installation as well as in depth interviews of multiple stakeholders to understand the technical and business goals and problems being faced. This approach allows for a high level of detail to be gathered in a short amount of time, enabling both very specific recommendations for technical issues and also a high level perspective for non-technical items.

Phase 0 (Remote): Kick-Off Call, Prep, & Initial Discovery

The Puppet Consultant will spend up to 4 hours performing remote preparation and discovery work before the on-site engagement. This includes pre-engagement call(s) with the Customer to discuss logistics and begin the Discovery phase, project planning and preparation, and creation and review of an initial project plan using Trello.

Phase 1 (On-site): Kick-Off Meeting and Automated Discovery

The Puppet Consultant collaborates with the Customer to understand their technical and business goals. The consultant runs the puppet code analysis tooling that gathers various detailed technical information and creates an appendix for the initial report that will be added to as the engagement progresses.

Phase 2 (On-site): Interviewing

The Puppet Consultant and Customer stakeholders have in depth discussions on technical and business struggles and successes that impact configuration management efforts. These interviews provide the Puppet Consultant with the detail needed to tailor the focus of the manual discovery.

Phase 3 (On-site): Manual Code Review

The Puppet Consultant manually reviews the Customer’s puppet code with a focus on areas of opportunity or concern identified in the previous phases.

Phase 4 (On-site): Findings Review Meeting

The Puppet Consultant reviews their findings from manual and automated code review activities and discusses these findings with the Customer team. The areas of Customer interest and focus from this meeting will impact the areas of emphasis in the final report.

Phase 5 (Remote): Documentation

The Puppet Consultant will spend four (4) hours off-site in order to complete engagement documentation. The final documentation deliverable will be provided to Customer within five (5) business days of the end of the on-site and will consist of the following:

- Summary of findings and recommendations
- Detailed report of findings and recommendations
- Appendices of additional data gathered
Timeline
The on-site portion of the Puppet Code Review requires 4 days (32 hours) delivered over one week to complete. In addition to this, 8 hours are set aside for remote preparation and documentation. The chart below reflects the expected on-site project timeline.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Prior to On-site</th>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Post On-site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prep</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Kick-off &amp; Automated Code Review</td>
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<tr>
<td>Interviewing</td>
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<tr>
<td>Manual Code Review</td>
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<td></td>
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<tr>
<td>Findings Review</td>
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<td></td>
<td></td>
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<tr>
<td>Documentation</td>
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</tbody>
</table>

Fees
The fees for this project will be a fixed price for up to a maximum of 40 hours. 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.

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Hours</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puppet Code Review</td>
<td>Up to 40</td>
<td>$9,995.00 or 100 PS Units</td>
</tr>
<tr>
<td>Estimated travel &amp; expenses</td>
<td></td>
<td>Provided on quote</td>
</tr>
</tbody>
</table>

Services for this engagement will be provided on-site at the Customer’s facility and remotely.

If desired the code review can be done remotely so long as remote access to the needed systems can be setup.

A travel and expense estimate will be provided on the quote and billed at actuals not to exceed the estimate.
Key Assumptions
The following assumptions are reflected in the services, timeline, and estimated effort outlined in this service description:

1. The 32-hour on-site portion of the engagement will be performed in one week at the Customer’s location during normal business hours (Monday through Thursday 8:00am – 5:00pm local time), unless otherwise agreed to in writing by the parties.

2. Customer will provide prompt feedback on all deliverables.

3. Customer will provide prompt access to all systems and resources that Puppet will need in order to complete the work.

4. Customer will provide Puppet staff with a consistent physical work area for the duration of the engagement.

5. Customer must provide a single point of contact that will be available at least 75% time during 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 routes, computer and storage resources available prior to the start of the on-site portion 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 Enterprise solution such as version control systems, repository management, packaging, and other software that is not part of the Puppet Enterprise stack.
Appendix 1 – Engagement Technical Requirements

A successful consulting engagement requires preparation ahead of time. 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 and any that are not met should be reporting 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 on-site.

The Puppet Code Review Review is a less technically involved engagement but still requires the following:

- Access to the version control system used to store Puppet Code
- Access to any other systems, documents, workflows, etc which Customer desires be reviewed as part of this engagement

This access can be handled via a Customer laptop used as a terminal to interact with a virtual machine capable of running Puppet Enterprise. If a Customer laptop is used there will need to be a method to transfer code review tool output to the Puppet Consultant’s laptop for use in report creation.

Appendix 2 – Summary of Roles & Responsibilities

**Puppet Consultant:** This refers to the Puppet Consultant who will be responsible for the delivery of the engagement. They will be involved in most if not all aspects of the engagement.

**Puppet Practitioner:** The Puppet Practitioner is the Customer’s technical point of contact who is primarily responsible for the Puppet Enterprise implementation and is assumed to be championing the continued expansion of the usage of Puppet Enterprise post-engagement. They bear the majority of the responsibility for working with Puppet during the engagement and are expected to be present for ~75% of the on-site portion of the engagement. Their schedule should be adjusted to ensure they are able to give the engagement the focus necessary.

**Manager/Director:** This is most often the buyer or project sponsor at the Customer. Their role is to be aware of what is happening on the engagement and act as a point of contact/escalation should any assistance be needed from other groups, or if work is blocked at a level that the Practitioner cannot resolve.

**Stakeholders/Subject Matter Experts:** Subject Matter Experts are the technical specialists in non-Puppet systems/software who are aware of but may not be heavily involved in the use of Puppet Enterprise. Examples include networking, provisioning, database, application, and development teams – basically any group that might be valuable to speak with as part of this engagement.
**NO**TE: Any group that could be a blocker of progress during the engagement should be informed that the engagement is happening so they are not surprised by any urgent needs.

<table>
<thead>
<tr>
<th>Responsibilities ((=) may need to be involved)</th>
<th>Puppet Consultant</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Puppet Practitioner</td>
<td>Manager/Director</td>
</tr>
<tr>
<td><strong>Prep</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review and verify pre-engagement requirements are met via email</td>
<td>✓</td>
<td>?</td>
</tr>
<tr>
<td>Pre-engagement preparation</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Pre-engagement kickoff call</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Pre-engagement discovery call(s)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Kick-Off and Automated Code Review</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-site kickoff/discovery meeting</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Finalize project plan</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Run automated code review tooling against puppet code</td>
<td>✓</td>
<td>?</td>
</tr>
<tr>
<td><strong>Interviewing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interview 3-5 Customer Subject Matter Experts</td>
<td>✓</td>
<td>?</td>
</tr>
<tr>
<td><strong>Manual Code Review</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manually inspect puppet code</td>
<td>✓</td>
<td>?</td>
</tr>
<tr>
<td>Review other related systems</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Review related goals, processes, workflows</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Other review areas TBD during engagement</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Findings Review</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Findings review meeting</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Documentation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create final documentation</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Review and check-in final documentation to version control</td>
<td>✓</td>
<td>?</td>
</tr>
</tbody>
</table>

? = May be needed, ✓ = Required