APM Software Administration Lifecycle FAQ

Part 1: Pre- and Post-Upgrade Steps

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APM Support Team

APM Software Administration Lifecycle FAQ

Updated October 2018

Contents

1. Introduction

*This document covers the APM Software Administration Lifecycle **with a focus of upgrades and migrations**.* The document will be updated to ensure it stays current with the product.

2. APM Lifecycle Overview

Q. Is there an APM Software Lifecycle? What are the steps?

A. Yes there is. Typically, most administrators think of the install and upgrade steps. Yet there is a lot of activity taking place between those two steps. There are also parallel efforts in terms of Monitoring Strategy/Governance and Best Practices. This is shown in the following diagram:
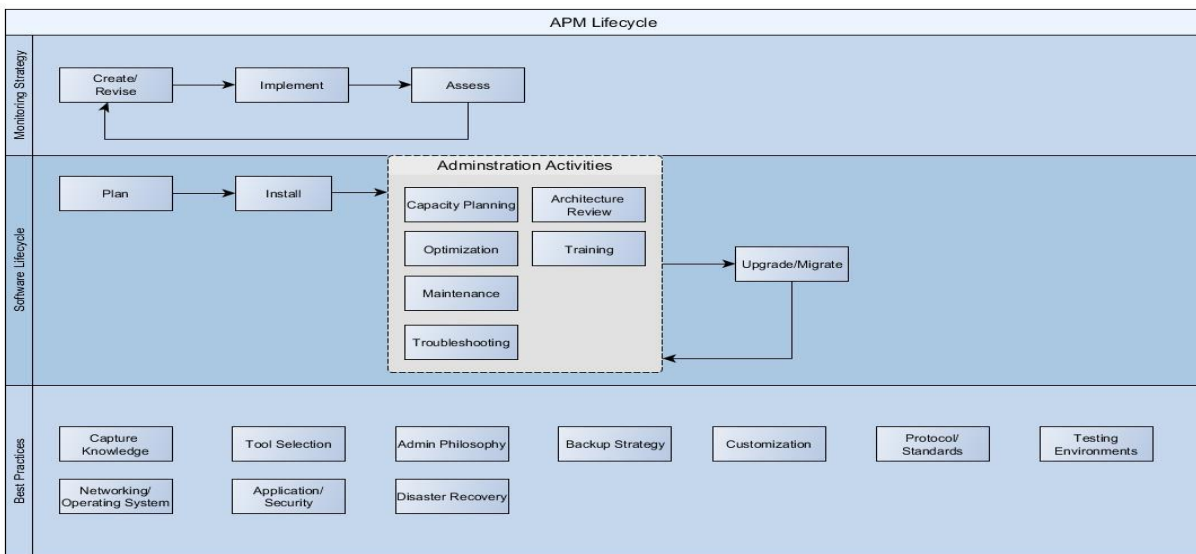
Q. Where can I learn more about APM Administration Best Practices?

A. Many of these are covered in the APM Community which can be found at https://communities.ca.com/community/ca-apm. Especially review the Documentation and Blog sections.

3. Monitoring Strategy and Governance Activity

Q. What is typical Monitoring Strategy Tasks?

A. Determining the following:

- Which applications to monitor.

- Metrics to generate and alert.

- Reports to create

Q. How often should these Strategy Tasks be performed?

A. As often as needed. But typically, either monthly or quarterly.

Q. What are typically Application Monitoring Governance Tasks?

A. Minimally, do the following:

- Set up and Review Administration Audits.

- Administration Operational Procedures.

- Install/Upgrade/Migration/Optimization/Maintenance Procedures

- Business Continuity and Disaster Planning for Software/Hardware Environments.

-Monitoring Strategy

4. Planning for Installs and Upgrades

Q. Why should I upgrade now? Things are working fine!

 A. There are numerous reasons why to upgrade soon. These include the following:

-   You are using a release which although current and supported has an announced end of life.

-   Later releases support more current releases of application/web servers, Java, or operating system than what you may be using.

-   Better performance and fixed bugs

-   Fixed security vulnerabilities

-   New functionality

-   Improved documentation

In the APM Community, see Why Upgrade? for more details.

Q. What are typical APM upgrade steps?

A. There is no correct or right way to do an APM upgrade. Here is one possible approach that has been successful for past APM upgrades.

- Know Your Environment (AS-IS)

        * Document existing environment.

        * Review existing Administration and Software and Documentation

- Get Your Environment Upgrade Ready

        *Clean up unneeded data and components that you do not wish to upgrade.

          (Smartstor and APM database content).

        * Meet new release pre-requirements

        * Upgrade third-party software

- Review/Plan New Release Environment (TO-BE)

        * Review documentation, release notes, and upgrade features of the new release.

        * Plan out your Architecture

        * Review Sizing and Performance Requirements

        * Review Upgrade Steps

    * Plan and Conduct Release Training.

    * Plan and Perform Upgrade in test environment(s).

    * Plan and Perform Upgrade in production environment(s).

    * Optimize/Maintain the environment (including capacity planning) until the next upgrade cycle.

Q. Where do I even start reading on planning for my upgrade?

A. Here are some good and helpful resources on getting started with upgrades:

Why Upgrade? -- In Communities

Sizing and Performance

Upgrade Checklist

Q. Are there APM Upgrade Checklists to help me through the major steps?

A. Yes, there are. These can be found at: https://docops.ca.com/ca-apm/10-7/en/installing/apm-installation/apm-installation-checklists

Q. What are the pre-requisites for APM upgrades?

A. These are documented at:

https://docops.ca.com/ca-apm/10-7/en/installing/apm-installation/pre-installation-requirements

Q. What are some best practices/real-world experiences on upgrading?

Six Ps of successful upgrades - https://communities.ca.com/community/ca-apm/blog/2017/07/13/the-six-ps-of-successful-apm-upgrades

How to upgrade large APM infrastructures – https://communities.ca.com/community/ca-apm/blog/2015/03/26/ca-apm-upgrade-how-we-successfully-upgraded-huge-apm-production-infrastructure

5. Optimizing and Maintaining APM

Introduction

Between upgrades, proactive APM Administrators spend time optimizing and maintaining their environment. Given the environment is always changing, this is very much an ongoing activity.

Some frequent activities include:

- Database cleanup and optimization.
- Smartstor data purging.
- Clearing Webview and EM caches.
- Cleaning up inactive agents in ACC
- Cleaning up the variance.db files.

Q. What steps are recommended to maintain and optimize the APM database?

A. There is no one document on this important topic. But the following are some crucial links for reviewing,

- Check APM Tablespace and disk space every 1-2 weeks. Setting up alerts is a more proactive approach.
- APM Database Retention – https://comm.support.ca.com/kb/how-to-purge-or-reduce-the-size-of-a-postgresql-apm-database-and-optimize-cem-data-retention/kb000009486
- Tuning Postgres for Windows - https://comm.support.ca.com/kb/how-can-we-tune-postgres-database-for-windows-box-with-16gb-memory/kb000016515
- Tuning Postgres Server - https://wiki.postgresql.org/wiki/Tuning_Your_PostgreSQL_Server
- Tune Oracle Database with 64 GB Memory - https://comm.support.ca.com/kb/how-can-we-tune-oracle-database-with-64gb-memory/kb000016409
- Cleaning up appmap_states tables – https://comm.support.ca.com/kb/apm-database-is-growing-fast-too-many-appmapstates-tables-is-there-a-property-to-prune-those-tables/kb000004232 Do this every few weeks.

Q. What should I do to purge Smartstor data?

A. This is shown in https://comm.support.ca.com/kb/how-do-i-cleanup-smartstor-data/kb000056953

Q. When and how should I remove Webview cache?

This is covered in https://comm.support.ca.com/kb/when-to-clear-webview-cache-and-how-to-do-this/kb000014162

Q. When and how should I remove EM cache?

A. See https://comm.support.ca.com/kb/how-do-i-clear-the-cache-on-a-apm-enterprise-manager/kb000014663

Q. How do I remove old agents from ACC?

A. See the following for steps:

https://comm.support.ca.com/kb/apm-command-center-does-not-clean-inactive-agents/kb000046401

Q. How can I clean up the variance db file?

A. Review https://comm.support.ca.com/kb/are-there-any-ways-to-reduce-or-limit-the-size-of-the-variancedb-file/kb000038669