



# CA Service Management Office Hours

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# TIPS & TRICKS FOR A SUCCESSFUL UPGRADE

- Upgrade Planning
- Dos and Don'ts of an Upgrade
- Best practice guidance
- Checklist of resources to keep handy



# Why Upgrade?

- To stay on a supported release
- To receive the best level of support possible
- Access to new features and functionalities (major versions & RUs)
- Stay current with platforms and techstack, minimizing any security or quality concerns



# Upgrade Planning

Checklist of things to consider to plan an upgrade



# Upgrade Planning

## Checklist of things to consider to plan an upgrade

- **EOS dates**
  - Plan upgrades according to EOS dates of versions running in your environment
  - Check EOS dates [here](#)
  - Download DVDs from [here](#)
- **Supportability matrix**
  - For a seamless upgrade, comply with the supported versions for OS, DB, Common components & 3rd party components.
  - RollUp's(RU) consist of certifications & techstack upgrades, please check RU release notes before applying.
    - For ex: **RedHat 8.1 and above is ONLY supported from 17.3 RU2 onwards, Search Server component is upgraded to Elastic 7.10.2 from RU6 onwards**

# Upgrade Planning contd..

## Checklist of things to consider to plan an upgrade

- **Integrations to factor in**
  - Common components(EEM, PAM, Jaspersoft, Email, LDAP etc.)
  - Other Broadcom products (Spectrum, ITCM , Automic etc)
  - 3rd party products (SAM ,Xtraction)
  - Verify if integrated products also needs an upgrade
- **Analyse Infrastructure Requirements**
  - To enable new features in the ecosystem, check for additional server requirements.
    - **For ex: HA Setup,VA requires RASA installed, xFlow/SP requires Search Server**

# Upgrade Planning contd..

## Checklist of things to consider to plan an upgrade

- **In-place vs Swing box upgrade**

- In-place Upgrade: Application upgrade ONLY
  - For ex: **17.2 on Win2k16+ SQL 2k16 upgrade to 17.3 GA + any RU**
- Swing box: Underlying platform (OS, DB, HW changes) along with Application upgrade.
  - For ex: **14.1 on Win2k8 +SQL 2k8 -> Swing Box Method -> Upgrade to 17.3 GA + any RU**

- **Backout plan**

- Critical to take snapshots (VMs) of all the environments including the DB to be upgraded
- In case of physical machines, take a backup of MDB, customizations and product specific configuration files
- For a smooth **system restoration** to its last production state, it is recommended to create MDB backup before migration/upgrade/update.
- Recommended steps to be followed for the backout plan are documented [here](#)



# Dos & Don'ts while performing an Upgrade

Collected from customers upgrade experiences



# Do's & Dont's of an Upgrade

Things to “consider” and “avoid” categorized under themes/areas

## ❑ Compatibility

### – Do's-

- Application & related components **should apply the same RU** to ensure consistency and avoid issues due to version mismatch
- Follow the [Supportability Matrix](#) for running supported versions of product components.
  - For ex: **EEM 12.6.3 with cipher suite updates supported from 17.3 RU2 and beyond.**
- **Note** : After upgrading to a major version, any rollup for that version can be directly applied.
  - For ex: **Upgrade 17.1 → 17.3, thereafter 17.3 RU12 can be applied directly**

# Do's & Dont's of an Upgrade contd..

Things to “consider” and “avoid” categorized under themes/areas

## □ Upgrade Prep

- Do's-
- **Sequence of Installation**
  - i. OS, DB, HW migration in case of SwingBox Upgrades
  - ii. Common Components (EEM, PAM) followed by Product installation
  - iii. Recommended Product Installation sequence - Catalog -> SDM -> xflow/SP. ITAM can be installed at any point in this sequence.
- Prior to upgrade/update,review the installed products version in all the nodes (env.info,.His files)
- **Disable/exclude Antivirus** in the product installation/temp location **to avoid interference or prohibited connections.**
- Mandatorily **run the DB cleanup utility** when **uninstall of a product,moving database or migrating** from one environment to another
- Acquire **required permission to filesystem** before kickstarting the upgrade. For ex: **R/W permissions**
- Maintain **sufficient disk space/RAM/CPU's** to prevent upgrade failures.
- Verify **availability of all ports** consumed by various product components

# Do's & Dont's of an Upgrade contd..

Things to “consider” and “avoid” categorized under themes/areas

## ❑ Upgrade Prep

### – Don'ts -

- DO NOT modify system generated configuration files. For ex: **all tpl and .his files**. Such **manual interventions** can result in **upgrade failure**. If changes are done in **NX.env**, same should be **updated in TPL files** to ensure the changes are not lost when pdm\_configure is run later.
- DO NOT perform a manual copy of Product files, MDB tables from Dev/QA to the Production, this leads to environment corruption
- Ensure the custom Filestore location is intact post upgrade
- **No backup files** should be present in the **Product installed location**

# Do's & Dont's of an Upgrade contd..

Things to “consider” and “avoid” categorized under themes/areas

## ❑ Configurations

### – Do's-

- OOTB users (CASAdmin, spadadmin, uapadmin, Servicedesk , srvcdesk) used for installation/configuration should be available in AD before upgrade
- Follow the release notes on when to perform Elastic Rebuild index
- Ensure [JRE path is configured](#) right to the Search Server Component
- Configure [third-party scripts, CSS, or images,origins](#) from external website as as trusted source in Catalog.
- **Offerings not displaying in Service Point** after upgrade? Please [check the following](#):
  - Is your ElasticSearch Server up and running?
  - Is Service Catalog installed and configured correctly in Service Point Configuration?
  - Have you followed the recommended sequence of installation and configurations?
  - Check the availability of the data using ElasticSearch Head for Chrome (plugin)
  - Verify whether the exact Service Point hostname (FQDN) is updated in Service Catalog, web.xml file
  - Check the [Security plugin](#) to give access to the search server

# Do's & Dont's of an Upgrade contd..

Things to “consider” and “avoid” categorized under themes/areas

## ❑ Environment Settings

- DB servers should be up and running before Product installation/upgrade

## ❑ Post-install steps

- Follow the [techdoc guidelines](#) for the **Post-installation steps**.
- Optimize the [Catalog performance](#) for the production grade systems
- In case of SAML with Load balancers, set the **default persistence profile** in the LB as NONE

## ❑ SSL Setup

- For 17.3 and above, use [SSL configuration utility](#) provided in the DVD
- Perform [Enable TLS 1.2 with CA EEM 12.6](#) manually
- **Keystore** should **match with the SSL certificate** of the mail server
- With browsers including built-in security features it is recommended to [enable SSL across the solution](#) to avoid cross domain cookies issue and configure [browser version upgrades](#) settings

# Best Practice Guidance

Recommendations derived from various customer upgrade experiences

- Review the Upgrade plan with Broadcom support team ([SM Upgrade/Hot Site Questionnaire](#), Weekend Upgrade Program)
- Validate **all production scenarios** at **each phase of testing** (Dev/QA/Prod) before going live
- **Backup** MDB,customizations,configuration files before upgrade
- Recommended to have **production replica in Dev/QA/Pre-prod** (includes customizations ,configurations, integrations, authentication model, 3rd party API integrations & Load balancer)
- **Periodically archive/purge** the DB to prevent growing of your historical data
  - Refer TechDocs link here [SDM](#) , [Catalog](#) ,[ITAM](#)

# Checklist of Helpful Resources

## Techdocs links & Tools at disposal

- [Pre-planning for an Upgrade](#)
- Recommend to use [Upgrade factory utility](#) to carry the customization to the upgraded server for Service Desk Manager
- Environment Promotion Utility for [Service Desk Manager](#), [Service Catalog Import Export Utility](#) & [ITAM](#)
  - Note : Source and the destination servers have to be at the same product release level
- [SSL Configurator Utility](#) to configure SSL/TLS settings
- [DB cleanup utility](#) to unregister the nodes in database
- [Post-install steps](#) to perform specific configurations



Thank you



