



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 (CASMadmin, spadmin, uapmadmin, 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



