

CA Release Automation Upgrade Upgrade Checklist – High Availability



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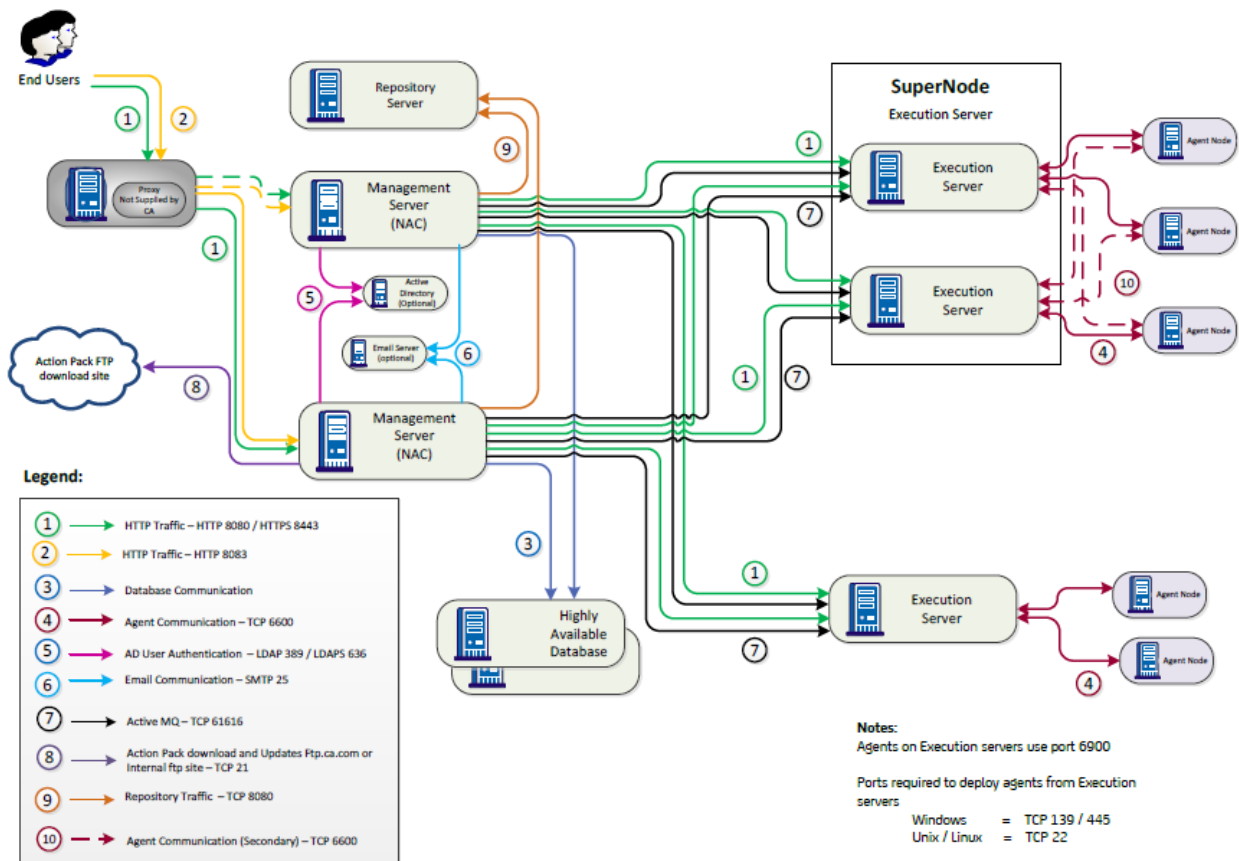
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Document History

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Upgrade Checklist – High Availability

The following list was gathered from numerous client engagements. In some cases, you will not need to perform all of these tasks, but we combined them here in hopes that nothing is missed and it will give you reason to check and double check key items related to your upgrade.

Terminology:

➤ CA Release Automation	RA
➤ Release Automation Management Server	NAC
➤ Execution Server	NES
➤ Release Operation Center	ROC
➤ Automation Studio	ASAP
➤ RA Installation Folder	RA_HOME

Pre-Upgrade Tasks:

- Verify that the following network ports are open between the Servers:
 - TCP Port 61616 between all NAC and all NES servers.
 - TCP Port 8083 between the Web browser (ROC) and all NAC servers, this is required for Action Pack Manager
- Backup the Database
- Backup NAC and NES File Systems under RA_HOME
- Backup all the below files and folders
 - Backup the distributed.properties file.
 - Backup the nolio-repo.properties file.
 - Backup the Actions Lib folder on the NAC server
 - Back up any custom action JAR files to an external location.
- Backup these 3 files especially if changes have been made, note these changes will need to be made to the new files after you have completed the upgrade
 - Server.xml
 - Log4j.properties (also on agents)
 - ApplicationContext-acegi-security.xml
- Backup the customer Keystore if a secured connection has been used which is stored in the JRE security folder, note this will need to be updated after the upgrade is completed
- Write down the NAC and NES Service Owners if on Windows, backup catalina.sh (Linux) or NolioService.bat (Windows) in case service startup settings are modified
- Check the permissions of the person performing the upgrade:
 - Windows - The user who performs the upgrade must have permissions to stop, start, and create Windows services.
 - Linux - The user who performs the upgrade must have the following permissions:
 - Write permissions for the CA Release Automation installation folder
 - Permissions to stop and start the Nolio Server process
- Check to see if the “Run As User” functionality is using “sudo”, if so backup configuration files that may be overwritten during upgrade
- If the NAC and NES servers are virtual machines take a Snapshot of each server
- If this is a 4.7.1 version run the RA 4.7.1 Pre-Upgrade Discovery Utility to identify parameters that may need to be modified once the upgrade is completed

Upgrade Task:

1. Send out an email notifying all Stakeholders that upgrade is about to start
2. Turn off all monitoring systems that will setoff alerts once the upgrade activity starts
3. Disable User Interface Load Balancer
4. Disable any CI tools to prevent processes being started during the upgrade process
5. Disable Command Interface Plugins or External systems
6. Disable scheduled Processes and Releases
7. Ensure that there are no active Jobs
8. Pause Database Mirroring (If required)
9. On both NAC servers stop RA Services
10. On all NES Servers stop RA services
11. Upgrade Primary NAC Server
12. Upgrade a single NES Server
13. If Windows, verify that the NAC and NES RA Service Owners are correct
14. Verify that RA Services are started on Primary NAC and upgraded NES Server
15. Modify these 3 files according to the changes that had been made previously
 - Server.xml
 - Log4j.properties
 - ApplicationContext-acegi-security.xml
16. Restore or update the customer Keystore if a secured connection is being used which is stored in the JRE security folder
17. Log into ASAP and upgrade a few Agents for testing and validation purposes
18. Verify that these test Agents have upgraded to the new version
19. Run verification workflows to assure RA infrastructure is working, this workflow should include design, execution, authorization, and admin activities
20. Uninstall and Reinstall any CI Server Plugins that are being used and Enable them
21. Modify the REST calls being used by any external systems
22. Validate upgrade is successful, if not follow instruction in box below

- If there are issues determine if the Rollback Plan should be implemented
- If Rollback Plan should be implemented pull log files and go to Rollback Plan
- If there are no significant issues proceed to next step to finish upgrade and then perform the Post Upgrade Tasks

23. Upgrade Secondary NAC Server
24. Upgrade remaining NES Servers
25. Upgrade remaining Agents
26. Restart User Interface Load Balancing Tool
27. Switch Primary NAC back to being the Primary NAC
28. Log into ASAP and verify RA architecture is properly configured for failover
29. Enable scheduled Process and Releases
30. Turn on monitoring systems
31. Send out an email notifying all Stakeholders that upgrade has been successfully completed

Rollback Plan

1. Stop all NAC and NES RA Services
2. Restore Database (full backup)
3. Restore File Systems to NAC and NES services (use backup created by Upgrade)
4. Start all NAC RA Services
5. Uninstall and Reinstall any CI Server Plugins that are being used and Enable them
6. Log into ASAP and upgrade (installs old Agent) to the a few test Agents that were upgraded
7. Verify that these test Agents are at the old version
8. Run verification workflows to assure RA infrastructure is working
9. Restart User Interface Load Balancing Tool
10. Enable scheduled Process and Releases
11. Turn on monitoring systems
12. Send out an email notifying all Stakeholders that Rolled Back Plan was implemented

Post Upgrade Tasks

- Verify that environment is working properly
 - Verify User Interface Load Balancing Tool reverts to Secondary NAC
 - Verify that Primary and Secondary NAC Servers failover properly
 - Verify that Agents are reporting to correct Primary and Secondary NES Server and that if a NES fails the Agents fail over to Secondary NES
- Run Deployments on each Application to verify completely that everything is working
- If RA Version older than 5.0 you may need to modify or reconfigure parameters which are impacted by Upgrade. These were identified when you ran the RA 4.7.1 Pre-Upgrade Discovery Utility
- The following should be done from every computer that is used to access RA:
 - Open a Command Prompt and clear the Java cache by entering `javaws –uninstall`
 - Open all Browsers that has been used in the past to access RA and clear the Browser's cache