Nolio - What's New in Version 6.7

Product Management

Jan 2020

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Agenda

➢ General Information
   ○ Nolio - Product lifecycle update

➢ About Nolio 6.7 Release
   ○ OpenJDK support
   ○ All-Inclusive Improved User Experience
   ○ Refined Agent Upgrade Functionality
   ○ DSL JSON Functionality Extended
   ○ New + Updated Action Packs
   ○ Stability and Quality Improvements

➢ Questions & A, Feedback

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General Information

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Nolio - Product lifecycle update

CA Technologies, a Broadcom Company, is pleased to announce that Nolio v6.7 is generally available in early 2020.

➜ Additionally, we are demonstrating our commitment to engineering excellence and our Nolio customers' DevOps effort by increasing our product focus and providing continued development, enhancement, and support for Nolio with <u>no planned end date (versus a previously announced 2025 date)</u>."

Nolio GA 6.7 - Overview

❖ Planned release date for Nolio 6.7 is in early 2020

❖ Nolio version 6.7 is a major version (no minor version or service pack)

Highlights

❖ Nolio's OpenJDK Compliancy

➢ *Adopt OpenJDK 8*

❖ All-Inclusive Improved User Experience

❖ Refined Agent Management Experience

❖ DSL Functionality Extended.

➢ *JSON Functionality further extended due to popular customer demand.*

➢ *DSL JSON is the baseline for the upcoming Feature [**NolioCode**].*

❖ New + Updated Action Packs

➢ *Full-Stack Environment Provisioning*

➢ *Modern Architecture Governance*

➢ *Other Action Packs (Terraform Hashicorp Vault, Ansible, YAML)*

More info can be found at: Nolio Release Automation [Release and Support Lifecycle Dates]

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Nolio's OpenJDK Compliancy

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AdoptOpenJDK

➔ Nolio 6.7 GA will be bundled with AdoptJDk hotspot_8u232-b09 from the prior the Oracle Java 1.8.0_242

About

- AdoptOpenJDK has nightly build JDK publicly open and comes with added features, security and performance patches.
- AdoptOpenJDK mission statement is to provide a reliable source of OpenJDK binaries for all platforms, for the long term future
- All AdoptOpenJDK binaries and scripts are open source licensed and available for free unlike the commercial Oracle Java.

Go to https://adoptopenjdk.net for more information

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All-Inclusive Improved User Experience

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All-Inclusive Improved User Experience

★ **Improve Performance**

  ○ Performance around the deployment steps have been optimized.

★ **Reliability & Security**

  ○ Removed unsafe technology stack. (execute code vulnerabilities)
    ■ *commons-collection updated to version 3.2.2*

★ **Artifacts Improved Areas**

  ○ Agent's reaction time for the disconnected supernode.
  ○ Deployments steps processing times shorted between steps.
  ○ Robust artifacts distribution & file transfer mechanism

★ **User Management Rebooted**

  ○ Improved usability and functionality over larger topologies.

★ **Improved Logging & Error Handling**

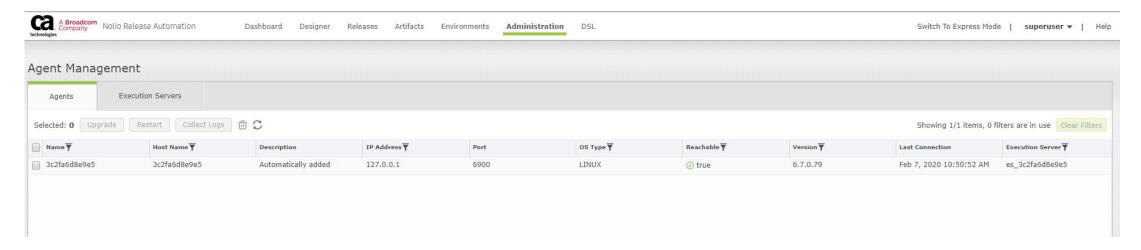 ○ Nimi logging has been improved to better troubleshoot errors.

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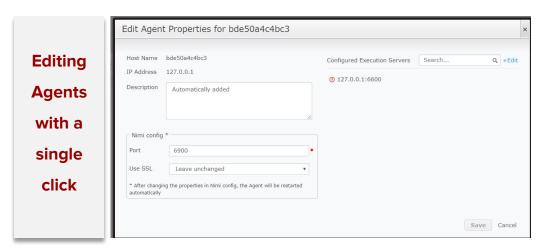# Refined Agent-Management/ Agent-Group Experience

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Refined Agent Management Experience

A fresh-new look for how the Agents are maintained within Nolio 6.7

➔ Improved table ordering and new filtration grid functionality.

➔ A new button-toolbar for better control and maintenance for agents.
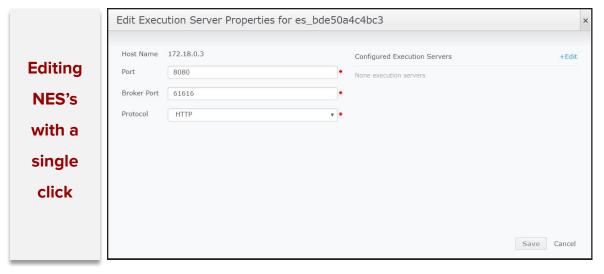
   (*Upgrading, restarting, collecting logs*)

Editing Agents with a single click

Refined Agent Management Experience

A fresh-new look for how the Execution-Servers are maintained within Nolio 6.7

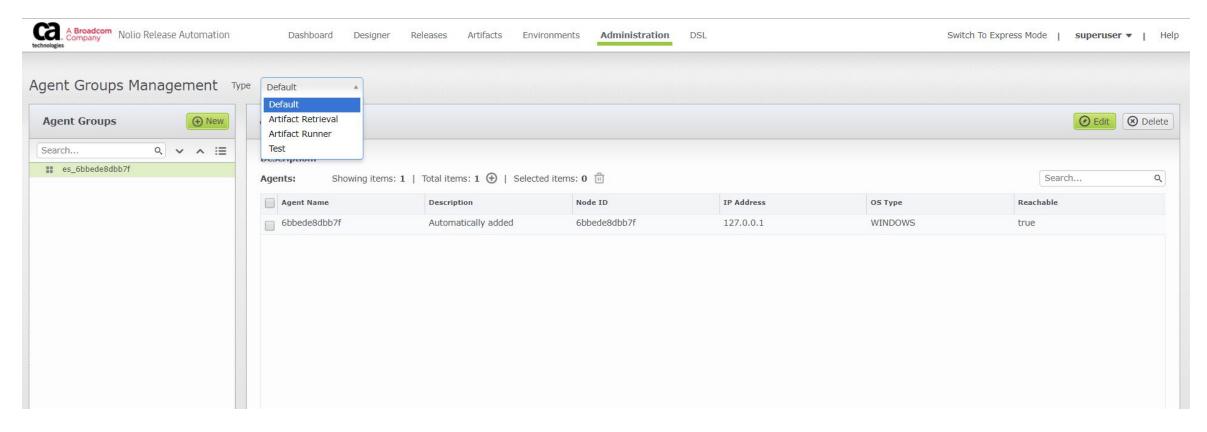**Editing NES's with a single click**

Or Adding Execution Servers

Refined Agent Group Management Experience

- A cleaner design into how the the "Agent Groups" are managed within Nolio 6.7.
- Nolio Users can switch between the different types of Groups without changing views by toggling through the drop down:
  - Default
  - Testing
  - Retrieval
  - Artifact-Runners

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DSL JSON Functionality Extended

DSL JSON Functionality Extended

➔ DSL JSON now has a newer version 6 with added functionality in Nolio 6.7.

DSL_V5 - Covered the following deployment entities:

- Application
  - Assigned components
  - Assigned shared components
  - Architecture
    - Environments
      - Agent assignment
      - Assigned process tags
      - Environment parameter values
    - Processes tree
  - Assigned Server Types
    - Map Server Types to components
  - Template categories
    - Deployment templates
  - Projects

DSL_V6 - Covers the following deployment entities:

- Application
  - Components
    - Flow category
      - Flow
    - Action category
      - Action
  - Architecture
    - Environments
      - Assigned agents
      - Assigned process tags
      - Parameter values
      - Component parameter value
    - Process Category
      - Process
        a. Process Server Type
          i. Flow
          ii. Action
        b. Process tag
  - Server types
    - Map Server Types to components
  - Template categories
  - Deployment templates
  - Projects
  - Application Parameters

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New + Updated Action Packs

ActionPack - Overview

> *Full-Stack Environment Provisioning*

> *Modern Architecture Governance*

> *Other Action Packs*

  ■ *Terraform Hashicorp Vault, Ansible, YAML...*

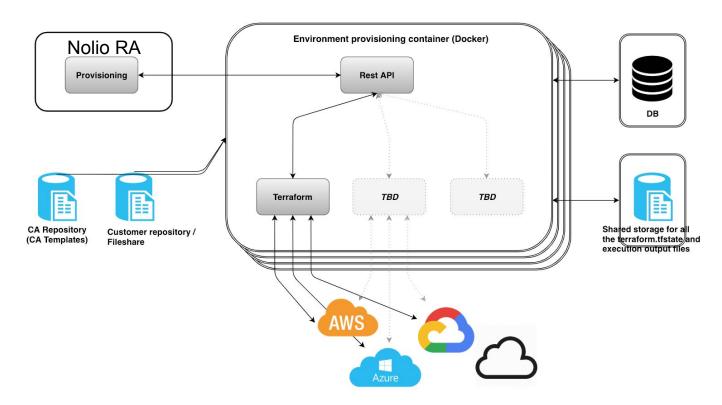**More action pack information can be found at:** Nolio Action-Pack Portal

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Full-Stack Environment Provisioning

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Full-Stack Environment Provisioning

We are replacing the existing provisioning functionality based on action packs in Nolio with a new module called full stack provisioning.
The new implementation uses Terraform to provide full stack provisioning integrations and templeting functionality.

Full-Stack Environment Provisioning

Advantages:

➢ Provides as code, versioning and templeting out of the box

➢ Large community with many available examples.

➢ Can support single click full stack provisioning.

➢ Can be used for self service with approved templates

➢ Provides access control, compliance and traceability.

Value:

➢ Standardize infrastructure provisioning by using templates and "as-code".

➢ Reduce cost by providing visibility and control of the infrastructure lifecycle.

➢ Improved time-to-value by providing provisioning through self-service.

➢ Provide full working environments including running applications, not just infrastructure
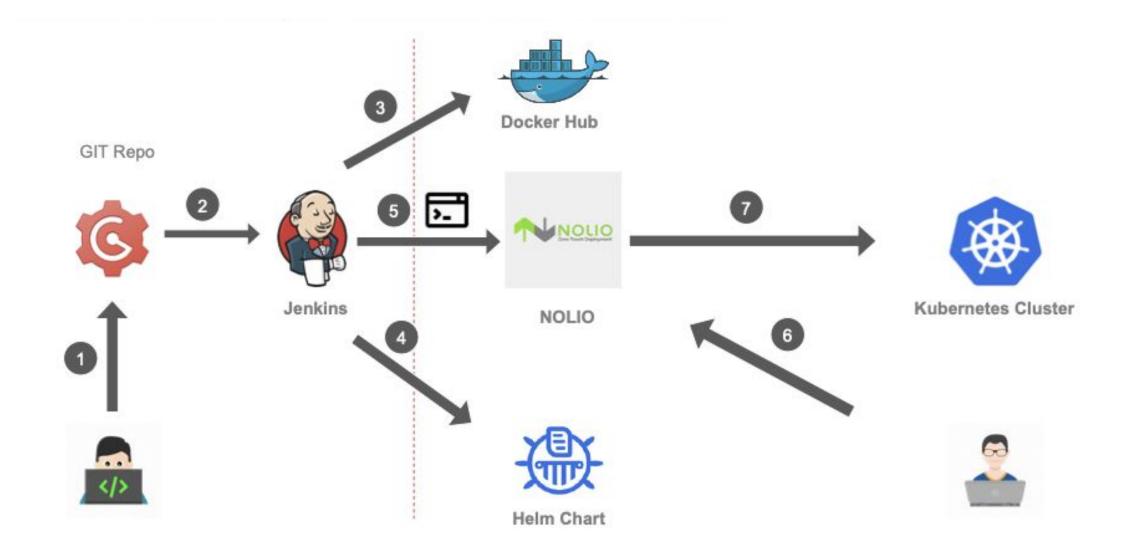
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Modern Architecture Governance

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Modern Architecture Governance

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Modern Architecture Support - Value

➢ Modern architectures like Docker and serverless are changing the model in order to go faster.

➢ Nolio aims to provide the enterprise features like traceability, access control, governance and visibility without slowing things down.

➢ Nolio will provide the guards and traceability and manage parameters defined in the Helm chart to supply the necessary configuration data for each environment.

➢ Nolio will provide additional visibility into which container and which version was actually deployed in each environment.

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Other Action Packs

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Other Action Packs

★ We have provided many new integrations with 3rd party tools:

- ■ YAML Action Pack
- ■ HashiCorp Vault Action Pack
- ■ Ansible
- ■ APIM/Layer7

Download at:
https://marketplace.automic.com

More information can be found at:
Nolio Action-Pack Portal

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Stability and Quality Improvements

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Reliability and Stability Reinstilled

Before any new features or extend current functionality could be introduced, the engineering team addressed the common problem areas within the architecture design over a several months period back in 2019. The stability cadence was split into three parts.

Part 1/3

- ➢ US597299: Improve Nimi logging (file transfer)
- ➢ DE421245: Nimi proxy fails to rebind new sender with old getter

Completion Date: July 2019

Part 2/3

- ➢ DE421243: Nimi does false retry on stalled send
- ➢ US601129: Agent's reaction time for the disconnected supernode is too long

Completion Date: August 2019

Part 3/3

- ➢ DE425367: Uses too many file descriptors for NES comms
- ➢ US597301: Investigate Nimi keep-alive code
- ➢ US606332: DB Index Improvements [basic_parameter].[parent_id]
- ➢ DE421246: Distribution self-recovery on agent changing NES

Completion Date: September 2019

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Nolio v6.7 - Included Product Fixes

IMPACTED AREA [DESIGN]	COMMENT
DE355756 -- Case 00933908	Parameter View is not aligned properly
DE366291 -- Case 01012918	lock the loop editor in the UI level of shared components flows
DE371950	No ability to delete an application
CARA-1916 -- Case 01333979	Can not import application

IMPACTED AREA [ROC] CASE_ID	COMMENT
DE310662	Token search filter now properly filters numbers
DE351180 -- Case 00979287	Release Automation changes some parameters when importing a shared component
DE331674 -- Case 00861820	Corrupted actions and processes preventing export of applications can now be deleted from ROC
DE393123 -- Case 01234858	Shared components are not displayed after migration to 6.6
DE335526 -- Case 00915806	Not Able to assign agents to server type due to search assignment partial results
DE371523 -- Case 01094004	Translation issue on Process Designer page after upgrade to 6.6
DE357342	UI User management - No refresh between tabs
DE386044	Close window button was misplaced
DE411751	Filter does not work properly when searching for LDAP groups (during import)
US575676	New Rest API End-Point to obtain a list of Environments
US592404	Action HashiCorp Vault MyPass Error
US605953	Error with updating Application level Parameter

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IMPACTED AREA [ADMINISTRATION]	COMMENT
DE404366 -- Case 01195432	SSL flag not updating after page refresh and filter doesn't work when Users are imported from LDAP server
DE391530 -- Case 01202352	Users are removed from group when importing new users
DE398315 -- Case 01246725	LDAP Group search base character limit was fixed
DE360968 -- Case 01069077	Password is not masked in the log file downloaded from deployment
DE362771 -- Case 01079127	login not possible with ldap account on version 6.6.0.9640
DE366292 -- Case 01102635	Fail to export an application due to template pre-plan step that points to a missing environment
US490590 -- Case 00762496	Remove Agent Rest API
US573306	Log entries should include timezone offset data in their timestamps
DE406042	No message when importing already imported Groups/Users (from LDAP)
DE406040	Filter does not work properly when searching for LDAP users (during import)
DE406053	No message when importing Users with admin rights (from LDAP)
US580793	Telemetry Switch off/On Capability
DE394839 -- Case 01195432	Issue updating Roles from LDAP (OpenLDAP Server)
DE405024	Incorrect permission after update User or Group Role
DE403138 / US574862 -- Case 01277695	Error while creating new User
DE420897 -- Case 01367172	Adding new directory server impossible
US574859	Faulty new user creation during master/ backup switch
DE419297- Case 1367988	Users tab in ROC User Management not working
CARA-2073 -- Case 20073428 / 20089459	Very long permission distribution on Application

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IMPACTED AREA [EXECUTION]	COMMENT
DE349339 -- Case 00956877	XPath action log writing
DE336420 -- Case 00915742	Release does not start after approval
DE350918 -- Case 00975132	Deployments are created in double
DE386828 -- Case 01182963	Send email action fails with custom postfix
DE388914 -- Case 01213441	Unable to Create Deployment plans and artifact packages are not created in initialization when agent stops responding after being added
DE300217 -- Case 00762496	Multi-line comments are not parsed correctly leaving the end tag (refix)
DE337095 -- Case 00911220	Retrieval agent unreachable due to out of memory numbers of threds were reduced
DE338566 -- Case 00930129	Execute Javascript Code Action giving different outputs in different jre versions
DE340515 -- Case 00929949	After migration (5.0 to 6.3) Action "Get File Or Folder From Remote Agent" can't copy symbolic link
DE365681 -- Case 01094722	Multi-line comments are not parsed correctly leaving the end tag (refix)
DE365683 -- Case 01084574	Artifact download fails and but the UI still shows is being uploaded
DE355189/DE369524 -- Case 00997671/01096771	Artifacts cleaning task was causing the execution server to hang
DE392750/DE395814 -- Case 01215789/01247671	Delay observed Between deployment steps
DE420302	Artifact distribution fails after proxy node recreates the sender
DE421243	Nimi does false retry on stalled send
DE414561 -- Case 1287121	Cannot create deployment plan with api
DE418686 -- Case 1332985	Delays observed between deployment steps_6.6.0.9640
PMARA-13556 -- Case 01355578	HTTP Download File Action is failing
CARA-1960	Wrong error when running deployment with existing definition
CARA-1895 -- Case 01224607	Performance issue with incorrect artifact path

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IMPACTED AREA [GENERAL] CASE_ID	COMMENT
DE367944 -- Case 01100000	java version of Agent still at 1.8.0_72 after update to version 6.5
DE368410 -- Case 01108001	Vulnerability - Blocked Expression Injection
DE372802 -- Case 01128474	SQL special character causes exception
US543683	Vulnerability - Upgrade JSch library to version 0.1.54
US597299	Improve Nimi logging (file transfer)
DE309836	After Updating tag in Template Category Bank (tag's data should be correct updated)
US601129	Agent's reaction time for the disconnected supernode is too long
DE425367	NAC uses too many file descriptors for NES comms
US606332	DB Index Improvements [basic_parameter].[parent_id]
US597573 -- Case 20008471	Deadlock issues
DE421246 / TA1298774	Distribution self-recovery on agent changing NES

[ADDED FIXES] DEFECT_ID	COMMENT
NOLIO-2626	Nexus repository is empty after upgrade
NOLIO-2119	Wrong link for 6.6 documentation(6.6 only fix, but we have new proper ones in 6.7)
NOLIO-2651	Cannot upgrade Linux agent(part of a new feature, but can be considered a fix)
NOLIO-2050	Connectivity check failed: could not find execution server for agent
NOLIO-2603	Cannot import application if component description is longer than 256
NOLIO-2567	Cannot upgrade SOLARIS SPARC agent

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Thank You