Hortonworks DataFlow

Release Notes

(January 31, 2018)

Hortonworks DataFlow: Release Notes

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1.1. Component Support

HDF 3.1.0 includes the following components:

- Apache Ambari 2.6.1

- Apache Kafka 1.0.0

- Apache NiFi 1.5.0

- NiFi Registry 0.1.0

- Apache Ranger 0.7.0

- Apache Storm 1.1.1

- Apache ZooKeeper 3.4.6

- Apache MiNiFi Java Agent 0.4.0

- Apache MiNiFi C++ 0.4.0

- Hortonworks Schema Registry 0.5.0

- Hortonworks Streaming Analytics Manager 0.6.0

1.1.1. Component Availability in HDF

Previous HDF releases shipped with the following components versions.

	NiFi	Storm	Kafka	ZooKeeper	Ambari	Ranger	MiNiFi Java Agent	MiNiFi C ++	Streaming Analytics Manager	Schema Registry	NiFi Registry
HDF 3.1.0	1.5.0	1.1.1	1.0.0	3.4.6	2.6.1	0.7.0	0.4.0	0.4.0	0.6.0	0.5.0	0.1.0
HDF 3.0.3 (IBM Power System only)	1.2.0	1.1.0`	0.10.2.1	3.4.6	2.6.0	0.7.0	0.2.0	TP	0.5.0	0.3.0	N/A
HDF 3.0.2	1.2.0	1.1.0`	0.10.2.1	3.4.6	2.6.0	0.7.0	0.2.0	TP	0.5.0	0.3.0	N/A
HDF 3.0.1	1.2.0	1.1.0	0.10.2.1	3.4.6	2.5.1	0.7.0	0.2.0	TP	0.5.0	0.3.0	N/A
HDF 3.0.0	1.2.0	1.1.0	0.10.2.1	3.4.6	2.5.1	0.7.0	0.2.0	TP	0.5.0	0.3.0	N/A
HDF 2.1.4	1.1.0	1.0.2	1.10.1	3.4.6	2.4.2.0	0.6.2	0.1.0	TP	N/A	N/A	N/A
HDF 2.1.2	1.1.0	1.0.2	0.10.1	3.4.6	2.4.2.0	0.6.2	0.1.0	TP	N/A	N/A	N/A
HDF 2.1.1	1.1.0	1.0.2	0.10.1	3.4.6	2.4.2.0	0.6.2	0.1.0	TP	N/A	N/A	N/A
HDF 2.1.0	1.1.0	1.0.2	0.10.1	3.4.6	2.4.2.0	0.6.2	0.1.0	TP	N/A	N/A	N/A
HDF 2.0.2	1.0.0	1.0.1	0.10.0.1	3.4.6	2.4.1.0	0.6.0	0.0.1	TP	N/A	N/A	N/A
HDF 2.0.1	1.0.0	1.0.1	0.10.0.1	3.4.6	2.4.1.0	0.6.0	0.0.1	TP	N/A	N/A	N/A
HDF 2.0.0	1.0.0	1.0.1	0.10.0.1	3.4.6	2.4.0.1	0.6.0	0.0.1	TP	N/A	N/A	N/A
HDF 1.2.1	0.6.1	0.10.0	0.9.0.1	3.4.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HDF 1.2.0.1	0.6.1	0.10.0	0.9.0.1	3.4.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HDF 1.2.0	0.6.0	0.10.0	0.9.0.1	3.4.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HDF 1.1.0	0.4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HDF 1.0	0.3.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1.2. What's New in HDF 3.1.0

HDF 3.1.0 is a minor release that includes the following improvements and bug fixes.

What's new in Flow Management

• **Improved data flow management using Apache NiFi Registry**

Apache NiFi Registry, a new Apache sub-project now included within HDF Enterprise Management Services, facilitates the development, management and portability of data flows. Core to its functionality is the ability to abstract data flow schemas and programs to enable users to track and monitor data flow changes at a more granular level. Data flow schemas are stored in a shared repository that allows for easy sharing on a global basis as well as versioning of schemas.

Through this, the export and import of data flows allow easy porting and enables smooth migration of data flows from one environment to another. The functionality significantly improves the storage, control, and management of versioned flows, further shortening the software development life cycle and accelerating application deployment to achieve faster time to value.

- **Deployment improvements**

  - Deploying NiFi in edge environments using MiNiFi C++

  - Containerized NiFi deployment using Docker

  - NiFi and MiNiFi Java Agent are available for deployment on Windows platforms

  - iOS/Android MiNIFi libraries available for deployment on mobile devices

What's new in Streaming Analytics and Schema Registry

- **Kafka 1.0 Support with full integration with HDF Services**

  - Apache Kafka 1.0 provides important new features including more stringent message processing semantics including support for message headers and transactions, performance improvements and advanced security options

  - Apache Ambari support for Kafka 1.0 - Install, configure, manage, upgrade, monitor, and secure Kafka 1.0 clusters with Ambari.

  - Apache Ranger support for Kafka 1.0 - Manage access control policies (ACLs) using resource or tag-based security for Kafka 1.0 clusters.

  - New NiFi and SAM processors for Kafka 1.0 - New processors in NiFi and Streaming Analytics Manager support Kafka 1.0 features including message headers and transactions.

- **SAM Test Mode and New SAM Operations Module**

  - SAM continues to make the Developers and DevOps jobs easier with two new capabilities: SAM Test Mode and the new SAM Operations Module.

  - SAM "Test Mode" allows developers to test SAM apps by mocking out sources using test data enabling the creation of unit tests for SAM Apps integrated into their continuous integration and delivery (CI/CD) environments.

  - The new SAM Operations module provides DevOps tooling with rich visualization to monitor and troubleshoot app performance/failure issues.

- **SAM Extensibility Improvements**

  - Developers can now build and register custom sources and sinks integrated with Schema Registry

  - Developers can use existing Storm code and wrap it with the SAM SDK and register it with SAM.

- **Schema Registry's New Schema Version Lifecycle Management**

  - Developers and platform teams can update and manage schema states including archive, disable and build custom states.

  - Developers and governance teams can branch schema versions and provide workflow lifecycle actions including fork, start review, finish review, enable and merge.

- **Oracle 11/12 Support for SAM and Schema Registry backend stores**

What's new in Platform Integration

- **Increased operational efficiencies through automation:**

  - Improvements to Apache Ambari and Apache Ranger that automate a significant portion of the processes for managing Apache NiFi resources. Users can now easily add a new NiFi node to an existing cluster without manually updating node information. They can also quickly define group-based policies for NiFi resources. The elimination of repetitive manual process streamlines the operations to achieve optimal efficiency and utilization of people .

- **Integration with Atlas, SmartSense, and Knox**

  When HDF is co-located with Hortonworks Data Platform (HDP), HDF will now be able to integrate with Apache Atlas for governance, Hortonworks SmartSense, and Apache Knox for security to provide better manageability and access of data as well as toolsets across the platform. This integration creates opportunities for:

- Comprehensive cross-component lineage view at dataset level with Atlas

- Easier data collection process with SmartSense for proactive support and troubleshooting

- Convenience of single sign-on capability with Knox as a standard security gateway

- The integration also allows Atlas to obtain meta information of NiFi data flows to enable holistic data governance across data at-rest and in-motion for compliance.

1.3. Unsupported Features

Some features exist within HDF 3.1.0, but Hortonworks does not currently support these capabilities.

- Technical Preview Features [4]

- Community Driven Features [5]

- Unsupported Customizations [8]

1.3.1. Technical Preview Features

The following features are available within HDF 3.1.0 but are not ready for production deployment. Hortonworks encourages you to explore these technical preview features

in non-production environments and provide feedback on your experiences through the Hortonworks Community Forums.

Table 1.1. Technical Previews

Component	Feature
MiNiFi	Android/iOS MiNiFi libraries for mobile integration

1.3.2. Community Driven Features

The following features are developed and tested by the Hortonworks community but are not officially supported by Hortonworks. These features are excluded for a variety of reasons, including insufficient reliability or incomplete test case coverage, declaration of non-production readiness by the community at large, and feature deviation from Hortonworks best practices. Do not use these features in your production environments.

Community Driven Kafka features

- Kafka Connect

- Kafka Streams

Community Driven NiFi Tools and Services

- Embedded ZooKeeper

- Sensitive key migration toolkit

Community Driven NiFi Processors

- AttributeRollingWindow

- AWSCredentialsProviderControllerService

- CompareFuzzyHash

- ConsumeAzureEventHub

- ConsumeEWS

- ConsumeIMAP

- ConsumeKafka_0_11

- ConsumeKafkaRecord_0_11

- ConsumePOP3

- ConvertExcelToCSVProcessor

- CountText

- DebugFlow

- DeleteDynamoDB

- DeleteGCSObject

- DeleteHDFS

- DeleteMongo

- DeleteRethinkDB

- ExecuteFlumeSink

- ExecuteFlumeSource

- ExecuteSparkInteractive

- ExtractCCDAAttributes

- ExtractEmailAttachments

- ExtractEmailHeaders

- ExtractMediaMetadata

- ExtractTNEFAttachments

- FetchAzureBlobStorage

- FetchGCSObject

- FuzzyHashContent

- GetDynamoDB

- GetHDFSEvents

- GetRethinkDB

- GetSNMP

- InvokeGRPC

- ISPEnrichIP

- InferAvroSchema

- ListenBeats

- ListenGRPC

- ListenLumberjack

- ListenSMTP

- ListAzureBlobStorage

- ListGCSBucket

- ListS3

- LogMessage

- ModifyBytes

- MoveHDFS

- PublishKafka_0_11

- PublishKafkaRecord_0_11

- PutKudu

- PutMongoRecord

- PutRethinkDB

- OrcFormatConversion

- PutAzureBlobStorage

- PutDynamoDB

- PutGCSObject

- PutIgniteCache

- PutKinesisFirehose

- PutKinesisStream

- PutLambda

- PutSlack

- PutTCP

- PutUDP

- QueryDNS

- SetSNMP

- SpringContextProcessor

- StoreInKiteDataset

Note

HDF 3.1.x does not support Hive 2. As a result, NiFi Processors working with Hive (PutHiveQL, PutHiveStreaming, SelectHiveQL) and the NiFi Controller Service HiveConnectionPool may not support Hive 2.

Community Driven NiFi Controller Services

- AWSCredentialsProviderControllerService

- ConfluentSchemaRegistry

- GCPCredentialsControllerService

- GraphiteMetricReporterService

- IPLookupService

- JettyWebSocketClient

- JettyWebSocketServer

- LivySessionController

- MongoDBControllerService

- MongoDBLookupService

- PropertiesFileLookupService

- RedisConnectionPoolService

- RedisDistributedMapCacheClientService

- SimpleCsvFileLookupService

- SimpleKeyValueLookupService

- XMLFileLookupService

Community Driven NiFi Reporting Tasks

- DataDogReportingTask

- MetricsReportingTask

- SiteToSiteBulletinReportingTask

- SiteToSiteStatusReportingTask

- StandardGangliaReporter

1.3.3. Unsupported Customizations

Hortonworks cannot guarantee that default NiFi processors are compatible with proprietary protocol implementations or proprietary interface extensions. For example, we support interfaces like JMS and JDBC that are built around standards, specifications, or open protocols. But we do not support customizations of those interfaces, or proprietary extensions built on top of those interfaces.

1.4. Deprecated Technologies

This section points out any technology from previous releases that has been deprecated or removed from this release (operating systems, Java versions, databases, product features). Use this section as a guide for your implementation plans.

Deprecated   Technology that Hortonworks is removing in a future release. Deprecated items are supported until they are removed; deprecation gives you time to plan for removal.

Removed   Technology that Hortonworks has removed from production and is no longer supported.

Table 1.2. Deprecated Operating Systems

Operating System	Release Deprecated	Release Removed
Ubuntu 12	HDF 3.0.0	HDF 3.0.0
Debian 6	HDF 2.1.2	HDF 3.0.0

Table 1.3. Deprecated NiFi Processors

Processor	Release Deprecated
ConvertCSVToAvro	HDF 3.0.0
ConvertJSONToAvro	HDF 3.0.0
GetKafka	HDF 2.0.0
PutKafka	HDF 2.0.0
EvaluateRegularExpression	HDF 1.0.0

Table 1.4. Deprecated Kafka APIs

API	Release Deprecated	Use Instead
kafka.producer.Producer	HDF 3.1.0	org.apache.kafka.clients.producer.KafkaProducer
kafka.consumer.SimpleConsumer	HDF 3.1.0	org.apache.kafka.clients.consumer.KafkaConsumer
SecurityProtocol.PLAINTEXTSASL	HDF 3.1.0	SASL_PLAINTEXT

1.5. HDF Repository Locations

Use the following table to identify the HDF 3.1.0 repository location for your operating system and operational objectives. HDF 3.1.0 supports the following operating systems:

- RHEL/Oracle Linux/CentOS 6 HDF repository & additional download locations [10]

- RHEL/Oracle Linux/CentOS 7 HDF repository & additional download locations [11]

- **SLES 11 SP3/SP4** HDF repository & additional download locations [11]

- SLES 12 HDF repository & additional download locations [12]

- Ubuntu 14 HDF repository & additional download locations [13]

- Table 1.10, "Ubuntu 16 HDF repository & additional download locations" [14]

- Debian 7 HDF repository & additional download locations [15]

- Table 1.12, "NiFi and MiNiFi MSI files" [16]

Table 1.5. RHEL/Oracle Linux/CentOS 6 HDF repository & additional download locations

OS	Format	Download location
RHEL/Oracle Linux/CentOS 6 (64-bit):	HDF Build number	3.1.0.0-564
	HDF Base URL	http://public-repo-1.hortonworks.com/HDF/centos6/3.x/updates/3.1.0.0
	HDF Repo	http://public-repo-1.hortonworks.com/HDF/centos6/3.x/updates/3.1.0.0/hdf.repo
	RPM tarball	http://public-repo-1.hortonworks.com/HDF/centos6/3.x/updates/3.1.0.0/HDF-3.1.0.0-centos6-rpm.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/centos6/3.x/updates/3.1.0.0/HDF-3.1.0.0-centos6-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/centos6/3.x/updates/3.1.0.0/tars/hdf_ambari_mp/hdf-ambari-mpack-3.1.0.0-564.tar.gz
	MiNiFi C++	http://public-repo-1.hortonworks.com/HDF/centos6/3.x/updates/3.1.0.0/tars/nifi-minifi-cpp/nifi-minifi-cpp-0.4.0-bin.tar.gz
HDP and Ambari Repositories		
	Ambari	http://public-repo-1.hortonworks.com/ambari/centos6/2.x/updates/2.6.1.0/ambari.repo
	HDP	http://public-repo-1.hortonworks.com/HDP/centos6/2.x/updates/2.6.4.0/hdp.repo
OS Agnostic Downloads		
	NiFi only	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.tar.gz
	NiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.tar.gz
	Docker Hub	https://hub.docker.com/r/hortonworks/nifi/
	NiFi Registry	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Java Agent	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-0.4.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.tar.gz
	iOS/Android Libraries	• Android – https://github.com/hortonworks/nifi-android-s2s • iOS – https://github.com/hortonworks/nifi-ios-s2s

Table 1.6. RHEL/Oracle Linux/CentOS 7 HDF repository & additional download locations

OS	Format	Download location
RHEL/Oracle Linux/CentOS 7 (64-bit):	HDF Build Number	3.1.0.0-564
	HDF Base URL	http://public-repo-1.hortonworks.com/HDF/centos7/3.x/updates/3.1.0.0
	HDF Repo	http://public-repo-1.hortonworks.com/HDF/centos7/3.x/updates/3.1.0.0/hdf.repo
	RPM tarball	http://public-repo-1.hortonworks.com/HDF/centos7/3.x/updates/3.1.0.0/HDF-3.1.0.0-centos7-rpm.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/centos7/3.x/updates/3.1.0.0/HDF-3.1.0.0-centos7-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/centos7/3.x/updates/3.1.0.0/tars/hdf_ambari_mp/hdf-ambari-mpack-3.1.0.0-564.tar.gz
	MiNiFi C++ Agent	http://public-repo-1.hortonworks.com/HDF/centos7/3.x/updates/3.1.0.0/tars/nifi-minifi-cpp/nifi-minifi-cpp-0.4.0-bin.tar.gz
	HDP and Ambari Repositories	
	Ambari	http://public-repo-1.hortonworks.com/ambari/centos7/2.x/updates/2.6.1.0/ambari.repo
	HDP	http://public-repo-1.hortonworks.com/HDP/centos7/2.x/updates/2.6.4.0/hdp.repo
	OS Agnostic Downloads	
	NiFi only	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.tar.gz
	NiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.tar.gz
	Docker Hub	https://hub.docker.com/r/hortonworks/nifi/
	NiFi Registry	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Java Agent	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-0.4.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.tar.gz
	iOS/Android Libraries	• Android – https://github.com/hortonworks/nifi-android-s2s • iOS – https://github.com/hortonworks/nifi-ios-s2s

Table 1.7. SLES 11 SP3/SP4 HDF repository & additional download locations

OS	Format	Download location
SUSE Enterprise Linux 11 SP3, SP4	HDF Build Number	3.1.0.0-564

OS	Format	Download location
	HDF Base URL	http://public-repo-1.hortonworks.com/HDF/suse11sp3/3.x/updates/3.1.0.0
	Repo	http://public-repo-1.hortonworks.com/HDF/suse11sp3/3.x/updates/3.1.0.0/hdf.repo
	RPM tarball	http://public-repo-1.hortonworks.com/HDF/suse11sp3/3.x/updates/3.1.0.0/HDF-3.1.0.0-suse11sp3-rpm.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/suse11sp3/3.x/updates/3.1.0.0/HDF-3.1.0.0-suse11sp3-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/suse11sp3/3.x/updates/3.1.0.0/tars/hdf_ambari_mp/hdf-ambari-mpack-3.1.0.0-564.tar.gz
	HDP and Ambari Repositories	
	Ambari	http://public-repo-1.hortonworks.com/ambari/suse11/2.x/updates/2.6.1.0/ambari.repo
	HDP	http://public-repo-1.hortonworks.com/HDP/suse11sp3/2.x/updates/2.6.4.0/hdp.repo
	OS Agnostic Downloads	
	NiFi only	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.tar.gz
	NiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.tar.gz
	Docker Hub	https://hub.docker.com/r/hortonworks/nifi/
	NiFi Registry	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Java Agent	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-0.4.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.tar.gz
	iOS/Android Libraries	• Android – https://github.com/hortonworks/nifi-android-s2s • iOS – https://github.com/hortonworks/nifi-ios-s2s

Table 1.8. SLES 12 HDF repository & additional download locations

OS	Format	Download location
SUSE Linux Enterprise Server (SLES) v12 SP1	HDF Build Number	3.1.0.0-564
	HDF Base URL	http://public-repo-1.hortonworks.com/HDF/sles12/3.x/updates/3.1.0.0
	Repo	http://public-repo-1.hortonworks.com/HDF/sles12/3.x/updates/3.1.0.0/hdf.repo
	RPM tarball	http://public-repo-1.hortonworks.com/HDF/sles12/3.x/updates/3.1.0.0/HDF-3.1.0.0-sles12-rpm.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/sles12/3.x/updates/3.1.0.0/HDF-3.1.0.0-sles12-tars-tarball.tar.gz

OS	Format	Download location
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/sles12/3.x/updates/3.1.0.0/tars/ hdf_ambari_mp/hdf-ambari-mpack-3.1.0.0-564.tar.gz
	HDP and Ambari Repositories	
	Ambari	http://public-repo-1.hortonworks.com/ambari/sles12/2.x/updates/2.6.1.0/ ambari.repo
	HDP	http://public-repo-1.hortonworks.com/HDP/sles12/2.x/updates/2.6.4.0/hdp.repo
	OS Agnostic Downloads	
	NiFi only	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/ nifi-1.5.0.3.1.0.0-564-bin.tar.gz
	NiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.tar.gz
	Docker Hub	https://hub.docker.com/r/hortonworks/nifi/
	NiFi Registry	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Java Agent	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/ minifi-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/ minifi-0.4.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.tar.gz
	iOS/Android Libraries	• Android – https://github.com/hortonworks/nifi-android-s2s • iOS – https://github.com/hortonworks/nifi-ios-s2s

Table 1.9. Ubuntu 14 HDF repository & additional download locations

OS	Format	Download location
Ubuntu Trusty (14.04) (64-bit)	HDF Build Number	3.1.0.0-564
	HDF Base URL	http://public-repo-1.hortonworks.com/HDF/ubuntu14/3.x/updates/3.1.0.0
	Repo	http://public-repo-1.hortonworks.com/HDF/ubuntu14/3.x/updates/3.1.0.0/hdf.list
	Deb tarball	http://public-repo-1.hortonworks.com/HDF/ubuntu14/3.x/updates/3.1.0.0/ HDF-3.1.0.0-ubuntu14-deb.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/ubuntu14/3.x/updates/3.1.0.0/ HDF-3.1.0.0-ubuntu14-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/ubuntu14/3.x/updates/3.1.0.0/tars/ hdf_ambari_mp/hdf-ambari-mpack-3.1.0.0-564.tar.gz
	HDP and Ambari Repositories	
	Ambari	http://public-repo-1.hortonworks.com/ambari/ubuntu14/2.x/updates/2.6.1.0/ ambari.list
	HDP	http://public-repo-1.hortonworks.com/HDP/ubuntu14/2.x/updates/2.6.4.0/hdp.list

OS	Format	Download location
	OS Agnostic Downloads	
	NiFi only	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.tar.gz
	NiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.tar.gz
	Docker Hub	https://hub.docker.com/r/hortonworks/nifi/
	NiFi Registry	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Java Agent	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-0.4.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.tar.gz
	iOS/Android Libraries	• Android – https://github.com/hortonworks/nifi-android-s2s • iOS – https://github.com/hortonworks/nifi-ios-s2s

Table 1.10. Ubuntu 16 HDF repository & additional download locations

OS	Format	Download location
Ubuntu Trusty (14.04) (64-bit)	HDF Build Number	3.1.0.0-564
	HDF Base URL	http://public-repo-1.hortonworks.com/HDF/ubuntu16/3.x/updates/3.1.0.0
	Repo	http://public-repo-1.hortonworks.com/HDF/ubuntu16/3.x/updates/3.1.0.0/hdf.list
	Deb tarball	http://public-repo-1.hortonworks.com/HDF/ubuntu16/3.x/updates/3.1.0.0/HDF-3.1.0.0-ubuntu16-deb.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/ubuntu16/3.x/updates/3.1.0.0/HDF-3.1.0.0-ubuntu16-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/ubuntu16/3.x/updates/3.1.0.0/tars/hdf_ambari_mp/hdf-ambari-mpack-3.1.0.0-564.tar.gz
	MiNiFi C++ Agent	http://public-repo-1.hortonworks.com/HDF/ubuntu16/3.x/updates/3.1.0.0/tars/nifi-minifi-cpp/nifi-minifi-cpp-0.4.0-bin.tar.gz
	HDP and Ambari Repositories	
	Ambari	http://public-repo-1.hortonworks.com/ambari/ubuntu16/2.x/updates/2.6.1.0/ambari.list
	HDP	http://public-repo-1.hortonworks.com/HDP/ubuntu16/2.x/updates/2.6.4.0/hdp.list
	OS Agnostic Downloads	
	NiFi only	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.tar.gz

OS	Format	Download location
	NiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.tar.gz
	Docker Hub	https://hub.docker.com/r/hortonworks/nifi/
	NiFi Registry	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Java Agent	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-0.4.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.tar.gz
	iOS/Android Libraries	• Android – https://github.com/hortonworks/nifi-android-s2s • iOS – https://github.com/hortonworks/nifi-ios-s2s

Table 1.11. Debian 7 HDF repository & additional download locations

OS	Format	Download location
Debian 7	HDF Build Number	3.1.0.0-564
	HDF Base URL	http://public-repo-1.hortonworks.com/HDF/debian7/3.x/updates/3.1.0.0
	Repo	http://public-repo-1.hortonworks.com/HDF/debian7/3.x/updates/3.1.0.0/hdf.list
	Deb tarball	http://public-repo-1.hortonworks.com/HDF/debian7/3.x/updates/3.1.0.0/HDF-3.1.0.0-debian7-deb.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/debian7/3.x/updates/3.1.0.0/HDF-3.1.0.0-debian7-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/debian7/3.x/updates/3.1.0.0/tars/hdf_ambari_mp/hdf-ambari-mpack-3.1.0.0-564.tar.gz
	HDP and Ambari Repositories	
	Ambari	http://public-repo-1.hortonworks.com/ambari/debian7/2.x/updates/2.6.1.0/ambari.list
	HDP	http://public-repo-1.hortonworks.com/HDP/debian7/2.x/updates/2.6.4.0/hdp.list
	OS Agnostic Downloads	
	NiFi only	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-1.5.0.3.1.0.0-564-bin.tar.gz
	NiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-toolkit-1.5.0.3.1.0.0-564-bin.tar.gz
	Docker Hub	https://hub.docker.com/r/hortonworks/nifi/
	NiFi Registry	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.zip

OS	Format	Download location
		• Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/nifi-registry-0.1.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Java Agent	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-0.4.0.3.1.0.0-564-bin.tar.gz
	MiNiFi Toolkit	• Zip File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.zip • Tar.gz File – http://public-repo-1.hortonworks.com/HDF/3.1.0.0/minifi-toolkit-0.4.0.3.1.0.0-564-bin.tar.gz
	iOS/Android Libraries	• Android – https://github.com/hortonworks/nifi-android-s2s • iOS – https://github.com/hortonworks/nifi-ios-s2s

Table 1.12. NiFi and MiNiFi MSI files

File	Location
NiFi MSI	http://public-repo-1.hortonworks.com/HDF/windows/3.x/updates/3.1.0.0/nifi-3.1.0.0-564.msi
MiNiFi MSI	http://public-repo-1.hortonworks.com/HDF/windows/3.x/updates/3.1.0.0/minifi-3.1.0.0-564.msi

1.6. Common Vulnerabilities and Exposures

The following CVEs have been fixed in HDF 3.1.0.

1.6.1. CVE-2017-12632

Summary: Apache NiFi host header poisoning issue
Severity: Medium
Versions Affected: Apache NiFi 0.1.0 - 1.4.0, HDF 1.x, 2.x, 3.0.x

Description: A malicious host header in an incoming HTTP request could cause NiFi to load resources from an external server.
Mitigation: The fix to sanitize host headers and compare to a controlled whitelist was applied on the Apache NiFi 1.5.0 release. HDF users should upgrade to HDF 3.1.0.

1.6.2. CVE-2017-15697

Summary: Apache NiFi XSS issue in context path handling
Severity: Moderate
Versions Affected: Apache NiFi 1.0.0 - 1.4.0, HDF 2.0.0 - 3.0.x
Description: A malicious X-ProxyContextPath or X-Forwarded-Context header containing external resources or embedded code could cause remote code execution.
Mitigation: The fix to properly handle these headers was applied on the Apache NiFi 1.5.0 release. HDF users should upgrade to HDF 3.1.0.

1.6.3. CVE-2017-12623

Summary: Apache NiFi XXE issue in template XML upload

Severity: Important
Versions Affected: Apache NiFi 1.0.0 - 1.3.0; HDF 2.x, 3.0.0 - 3.0.1.1
Impact: Any authenticated user could upload a template which contained malicious code and accessed sensitive files via an XML External Entity (XXE) attack.
Mitigation: The fix to properly handle XML External Entities was applied on the Apache NiFi 1.4.0 release. Users running a prior 1.x release should upgrade to the appropriate release. HDF users should upgrade to HDF 3.1.0.

1.6.4. CVE-2017-15703

Summary: Apache NiFi Java deserialization issue in template XML upload
Severity: Moderate
Versions Affected: Apache NiFi 1.0.0 - 1.3.0; HDF 2.x, 3.0.0 - 3.0.1.1
Description: Any authenticated user (valid client certificate but without ACL permissions) could upload a template which contained malicious code and caused a denial of service via Java deserialization attack.
Mitigation: The fix to properly handle Java deserialization was applied on the Apache NiFi 1.4.0 release. HDF users should upgrade to HDF 3.1.0.

1.7. Known Issues

Hortonworks Bug ID	Apache JIRA	Component	Summary
	NIFI-4884	NiFi and NiFi Registry	**Issue:** NiFi and NiFi Registry are unable to import or change version when Processors are configured with CRON Scheduling Strategy. **Associated error message:** During an import or upgrade flow version process, a dialog displays a message indicating that a CRON expression is not a valid time duration or that a time duration is not a valid CRON expression. **Problem:** When updating the flow during an import or change version request, the properties are applied in the incorrect order. Because it is attempting to set the Run Schedule prior to configuring the Scheduling Strategy, when the Scheduling Strategy is changes it may fail to interpret the Run Schedule. This happens because the Processor is currently expecting the Run Schedule to be in a particular format based on its current Scheduling Strategy, but it is given the value that satisfies the new Scheduling Strategy. This happens during import when the incoming flow is configured with CRON driven scheduling. This is because the default Scheduling Strategy is Timer driven. This also happens during any flow version changes when the incoming version of the flow changes a Processor Schedule Strategy from CRON driven to Timer driven or vice versa. **Workaround:** To work around this issue, only configure the components in the flow with a Timer driven or Event driven Scheduling Strategy. Using Timer or Event driven scheduling does not exhibit this known issue since Timer driven is the default

Hortonworks Bug ID	Apache JIRA	Component	Summary
			Scheduling Strategy and Event driven does not attempt to interpret the Run Schedule.
BUG-95279	NIFI-4818		**Issue:** ReportLineageToAtlas may report wrong Hive database name and Kafka topic cluster name **Problem:** If the "Hive connection URL" of HiveConnectionPool Controller Service has parameters other than a database name, ReportLineageToAtlas may report incorrect database name for the Atlas hive_table entities representing lineage from/to PutHiveQL or SelectHiveQL. Even if there are more than one hostname:port values defined in "Hive connection URL" of HiveConnectionPool, or "Kafka Brokers" of PublishKafka or ConsumeKafka, ReportLineageToAtlas only uses the first hostname to analyze cluster names. **Workaround:** To work around this issue, remove parameters from HiveConnectionPool "Hive connection URL" if possible. E.g. "CJD:hive2://hive host:10000/byname". In order to map a cluster name (other than the default cluster name) from hostnames in "Hive connection URLs" or "Kafka Brokers", define Regular Expressions which match with the first hostname.
BUG-95279	NIFI-4818		**Issue:** ReportLineageToAtlas may report wrong Hive database name and Kafka topic cluster name **Problem:** If the "Hive connection URL" of HiveConnectionPool Controller Service has parameters other than a database name, ReportLineageToAtlas may report incorrect database name for the Atlas hive_table entities representing lineage from/to PutHiveQL or SelectHiveQL. Even if there are more than one hostname:port values defined in "Hive connection URL" of HiveConnectionPool, or "Kafka Brokers" of PublishKafka or ConsumeKafka, ReportLineageToAtlas only uses the first hostname to analyze cluster names. **Workaround:** To work around this issue, remove parameters from HiveConnectionPool "Hive connection URL" if possible. E.g. "CJD:hive2://hive host:10000/byname". In order to map a cluster name (other than the default cluster name) from hostnames in "Hive connection URLs" or "Kafka Brokers", define Regular Expressions which match with the first hostname.
BUG-95345		SAM	**Issue:** If the total character count of your node names assigned to services exceeds 255 characters, your upgrade fails. **Workaround:** There is no workaround for this issue.
BUG-94807		SAM	**Issue:** When using SAM's Aggregator processor, you cannot add nested fields to the **Select Key** field. **Workaround:** To work around this issue, create only top level values for **Select Key**. You can add as many top level **Select Key** fields as is needed.

Hortonworks Bug ID	Apache JIRA	Component	Summary
BUG-94090		SAM	**Issue:** You may be unable to import some topologies from HDF 3.0.x **Problem:** When you have a new HDF 3.1.0 installation, you cannot import topologies created in HDF 3.0.x. **Workaround:** To work around this issue, you can upgrade your existing version of HDF to HDF 3.1.0.
		NiFi	**Issue:** When you have upgraded HDF services on your HDP cluster, the NiFi version number displayed in Ambari does not change from NiFi 1.2.0 to NiFi 1.5.0. **Workaround:** After performing the upgrade scenario for HDF services on an HDP cluster as documented in the *Ambari Managed HDF Upgrade* documentation, disregard the NiFi version displayed in Ambari. NiFi has been successfully upgraded.
		NiFi	**Issue:** Unable to load native library. **Associated error message:** You may encounter an error message similar to one of the following: • Failed to write to HDFS of libhadoop was built without snappy support... Native snappy library not available: this version of libhadoop was built without snappy support. • Failed to load native-hadoop with error: java.lang.UnsatisfiedLinkError: Native Library /path/to/hadoop/lib/native/libhadoop.so.1.0.0 already loaded in another classloader **Problem:** Native libraries can only be loaded into the Java runtime by a single ClassLoader. Once a ClassLoader loads a native library, subsequent attempts to load that same native library by a different ClassLoader will fail. If multiple components in NiFi attempt to load a native library, it will fail to do so and the components may fail to execute if it attempts to use those native libraries. Whether those components fail ultimately depend on the order they are loaded and executed which is not guaranteed by NiFi. This will occur most frequently with components that leverage the native Hadoop library. These components include but are not limited to: • NiFi Ranger Authorizer • Any HDFS Processors • Any HBase Processors • Any Hive Processors **Workaround:** This issue is most frequently encountered using an HDFS Processor with a Compression Codec that Hadoop leverages native libraries to implement. In this scenario, the dataflow can be updated to utilize a CompressContent Processor before/after the HDFS Processor to apply the desired compression. The CompressContent does not leverage native libraries and will not be susceptible to this known issue.
BUG-94989		Storm/Ambari	**Issue:** When performing an Ambari managed rolling upgrade, you may encounter an inaccurate warning message indicating that Storm topologies need to be stopped.

Hortonworks Bug ID	Apache JIRA	Component	Summary
			Associated error message: `Storm topologies need to stop.` **Workaround:** You may safely ignore this error message. Storm topologies do not need to be stopped before performing a rolling upgrade.
	KNOX-1108	NiFi/Knox	**Issue:** NiFi/Knox integration does not support HA. In NiFiHaDispatch, executeRequest is overridden and does not have the try/catch block in DefaultHaDispatch's executeRequest method which is used to catch exceptions and begin the fail over process. **Workaround:** There is no workaround for this issue.
BUG-90903	N/A	NiFi/Knox	**Issue:** Knox HA failover for NiFi is not supported. **Workaround:** There is no workaround for this issue.
BUG-63132	N/A	Storm	**Summary:** Solr bolt does not run in a Kerberos environment. **Associated error message:** The following is an example: `[ERROR] Request to collection hadoop_logs failed due to (401) org.apache.solr.client.solrj.impl.HttpSolrClient $RemoteSolrException: Error from server at http:[...] Error 401 Authentication required` **Workaround:** None at this time.

1.8. Third-Party Licenses

HDF 3.1.0 deploys numerous third-party licenses and dependencies, all of which are compatible with the Apache software license. For complete third-party license information, see the licenses and notice files contained within the distribution.