Hortonworks DataFlow

Release Notes

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Hortonworks DataFlow: Release Notes

Hortonworks DataFlow (HDF) is powered by Apache NiFi. A version of this documentation originally appeared on the Apache NiFi website.

HDF is the first integrated platform that solves the real time challenges of collecting and transporting data from a multitude of sources and provides interactive command and control of live flows with full and automated data provenance. HDF is a single combined platform that provides the data acquisition, simple event processing, transport and delivery mechanism designed to accommodate the diverse dataflows generated by a world of connected people, systems and things.

Unlike other providers of platforms built using Apache Hadoop, Hortonworks contributes 100% of our code back to the Apache Software Foundation. Hortonworks DataFlow is Apache-licensed and completely open source. We sell only expert technical support, training and partner-enablement services. All of our technology is, and will remain free and open source.

Please visit the Hortonworks page for more information on Hortonworks technology. For more information on Hortonworks services, please visit either the Support or Training page. Feel free to Contact Us directly to discuss your specific needs.

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1. Hortonworks DataFlow 2.1.2 Release Notes

This document provides you with the latest information about the HDF 2.1.2 release and its product documentation.

For complete information about the 2.1.x releases, see the HDF 2.1 Release Notes and the HDF 2.1.1 Release Notes.

1.1. Apache Component Support

HDF 2.1.2 includes the following Apache components:

- Ambari 2.4.2.0
- Kafka 0.10.1
- NiFi 1.1.0
- Ranger 0.6.2
- Storm 1.0.2
- ZooKeeper 3.4.6
- MiNiFi Java Agent 0.1.0
- MiNiFi C++ (Technical Preview)

1.1.1. Apache Component Availability in HDF

HDF has shipped with the following versions of Apache components:

Table 1.1. Apache Component HDF availability

	NiFi	Storm	Kafka	ZooKeeper	Ambari	Ranger
HDF 2.1.2	1.1.0	1.0.2	0.10.1	3.4.6	2.4.2.0	0.6.2

	NiFi	Storm	Kafka	ZooKeeper	Ambari	Ranger
HDF 2.1.1	1.1.0	1.0.2	0.10.1	3.4.6	2.4.2.0	0.6.2
HDF 2.1.0	1.1.0	1.0.2	0.10.1	3.4.6	2.4.2.0	0.6.2
HDF 2.0.1	1.0.0	1.0.1	0.10.0.1	3.4.6	2.4.1.0	0.6.0
HDF 2.0.0	1.0.0	1.0.1	0.10.0.1	3.4.6	2.4.0.1	0.6.0
HDF 1.2.1	0.6.1	0.10.0	0.9.0.1	3.4.6	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
HDF 1.1.0	0.4.0	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

1.2. Release Summary

HDF 2.1.2 is a maintenance release that includes the following improvements and bug fixes:

Table 1.2. Bugs fixed in HDF 2.1.2

Apache Jira	Description
NIFI-3278	TextLineDemarcator fails when InputStream ends with '\r' and its length equals buffer length.
NIFI-3355	When nifi.web.http(s) is set to 0.0.0.0 in a NiFi cluster, you may experience replication errors.
NIFI-3389	FlowFileSchema writes attribute name and values as STRING, which may cause errors when values esceed 65536 bytes and are encode as UTF-8.
NIFI-3447	The PutSplunk processor may not recover from a connection loss.
NIFI-3153	Update NiFi's AWS SDK to version 1.11.68.
NIFI-3095	Add Expression Lanaguage support to the Elasticsearch Hosts and Cluster Name fields in the PutElasticSearch processor.
NIFI-3158	Improve ZooKeeper Migrator resource utilization and provide more specifi exception errors.
NIFI-3300	ZooKeeper Migrator should allow you to import data to a new root node.
NIFI-3179	MergeContent extracts demarcator property value bytes without specifiying the character set encoding.
NIFI-3055	StandardRecordWriter may encounter UTFDataFormatException errors.
NIFI-3495	TextLineDemarcator may incorrectly set the index.
N/A	Improve the HDF management pack initial start up behavior.
N/A	Update Express upgrade messagees.

For complete information about the 2.1.x releases, see the HDF 2.1 Release Notes and the HDF 2.1.1 Release Notes.

1.3. Unsupported Features

Some features exist within HDF 2.1, but Hortonworks does not currently support these capabilities.

- Technical Preview Features
- Community Driven Features
- Unsupported Customizations

1.3.1. Technical Preview Features

The following features are available within HDF 2.1 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 1.3. Technical Previews

Component	Feature

NiFi	New in this release:
	• LDAPS
	• Sensitive key migration toolkit
	Introduced in a previous release:
	• Hive processors:
	  • PutHiveQL
	  • GetHiveQL
	  • HiveStreaming
	• OrcFormatConversion
	• GetEmail

MiNiFi	MiNiFi C++

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.

- ConvertCSVToAvro
- ConvertJSONToAvro
- DebugFlow
- DeleteDynamoDB
- DeleteHDFS
- ExtractEmailAttachments
- ExtractEmailHeaders
- ExtractMediaMetadata
- ExtractTNEFAttachments

- GetDynamoDB
- GetHDFSEvents
- GetSNMP
- ListenLumberjack
- ListenSMTP
- ListS3
- ModifyBytes
- PutDynamoDB
- PutIgniteCache
- PutKinesisStream
- PutLambda
- PutSlack
- PutTCP
- PutUDP
- QueryDNS
- SetSNMP
- StoreInKiteDataset
- AWSCredentialsProviderControllerService
- DataDogReportingTask

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. HDF Repository Locations

Use the following table to identify the HDF 2.1.2 repo location for your operating system and operational objectives.

Table 1.4. HDF repo locations

OS	File & Format	Download location
Red Hat Enterprise Linux / CentOS 6 (64-bit):	Repo	http://public-repo-1.hortonworks.com/HDF/centos6/2.x/updates/2.1.2.0/hdf.repo
	RPM tarball	http://public-repo-1.hortonworks.com/HDF/centos6/2.x/updates/2.1.2.0/HDF-2.1.2.0-centos6-rpm.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/centos6/2.x/updates/2.1.2.0/HDF-2.1.2.0-centos6-tars-tarball.tar.gz
	HDF Management Pack tarball	http://public-repo-1.hortonworks.com/HDF/centos6/2.x/updates/2.1.2.0/tars/hdf_ambari_mp/hdf-ambari-mpack-2.1.2.0-10.tar.gz
	MiNiFi C++ tarball	http://public-repo-1.hortonworks.com/HDF/centos6/2.x/updates/2.1.2.0/tars/nifi-minifi-cpp/nifi-minifi-cpp-0.1.0-bin.tar.gz
RedHat Enterprise Linux / CentOS 7 (64-bit):	Repo	http://public-repo-1.hortonworks.com/HDF/centos7/2.x/updates/2.1.2.0/hdf.repo
	RPM tarball	http://public-repo-1.hortonworks.com/HDF/centos7/2.x/updates/2.1.2.0/HDF-2.1.2.0-centos7-rpm.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/centos7/2.x/updates/2.1.2.0/HDF-2.1.2.0-centos7-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/centos7/2.x/updates/2.1.2.0/tars/hdf_ambari_mp/hdf-ambari-mpack-2.1.2.0-10.tar.gz
	MiNiFi C++ tarball	http://public-repo-1.hortonworks.com/HDF/centos7/2.x/updates/2.1.2.0/tars/nifi-minifi-cpp/nifi-minifi-cpp-0.1.0-bin.tar.gz
SUSE Enterprise Linux 11 SP3, SP4 (64-bit)	Repo	http://public-repo-1.hortonworks.com/HDF/suse11sp3/2.x/updates/2.1.2.0/hdf.repo
	RPM tarball	http://public-repo-1.hortonworks.com/HDF/suse11sp3/2.x/updates/2.1.2.0/HDF-2.1.2.0-suse11sp3-rpm.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/suse11sp3/2.x/updates/2.1.2.0/HDF-2.1.2.0-suse11sp3-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/suse11sp3/2.x/updates/2.1.2.0/tars/hdf_ambari_mp/hdf-ambari-mpack-2.1.2.0-10.tar.gz
	MiNiFi C++ tarball	http://public-repo-1.hortonworks.com/HDF/suse11sp3/2.x/updates/2.1.2.0/tars/nifi-minifi-cpp/nifi-minifi-cpp-0.1.0-bin.tar.gz
SUSE Linux Enterprise Server (SLES) v12 SP1:	Repo	http://public-repo-1.hortonworks.com/HDF/sles12/2.x/updates/2.1.2.0/hdf.repo

OS	File & Format	Download location
	RPM tarball	http://public-repo-1.hortonworks.com/HDF/sles12/2.x/updates/2.1.2.0/HDF-2.1.2.0-sles12-rpm.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/sles12/2.x/updates/2.1.2.0/HDF-2.1.2.0-sles12-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/sles12/2.x/updates/2.1.2.0/tars/hdf_ambari_mp/hdf-ambari-mpack-2.1.2.0-10.tar.gz
	MiNiFi C++ tarball	http://public-repo-1.hortonworks.com/HDF/sles12/2.x/updates/2.1.2.0/tars/nifi-minifi-cpp/nifi-minifi-cpp-0.1.0-bin.tar.gz
Ubuntu Precise (12.04) (64-bit):	Repo	http://public-repo-1.hortonworks.com/HDF/ubuntu12/2.x/updates/2.1.2.0/hdf.list
	Deb Tarball	http://public-repo-1.hortonworks.com/HDF/ubuntu12/2.x/updates/2.1.2.0/HDF-2.1.2.0-ubuntu12-deb.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/ubuntu12/2.x/updates/2.1.2.0/HDF-2.1.2.0-ubuntu12-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/ubuntu12/2.x/updates/2.1.2.0/tars/hdf_ambari_mp/hdf-ambari-mpack-2.1.2.0-10.tar.gz
	MiNiFi C++ tarball	http://public-repo-1.hortonworks.com/HDF/ubuntu12/2.x/updates/2.1.2.0/tars/nifi-minifi-cpp/nifi-minifi-cpp-0.1.0-bin.tar.gz
Ubuntu Trusty (14.04) (64-bit):	Repo	http://public-repo-1.hortonworks.com/HDF/ubuntu14/2.x/updates/2.1.2.0/hdf.list
	Deb tarball	http://public-repo-1.hortonworks.com/HDF/ubuntu14/2.x/updates/2.1.2.0/HDF-2.1.2.0-ubuntu14-deb.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/ubuntu14/2.x/updates/2.1.2.0/HDF-2.1.2.0-ubuntu14-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/ubuntu14/2.x/updates/2.1.2.0/tars/hdf_ambari_mp/hdf-ambari-mpack-2.1.2.0-10.tar.gz
	MiNiFi C++ tarball	http://public-repo-1.hortonworks.com/HDF/ubuntu14/2.x/updates/2.1.2.0/tars/nifi-minifi-cpp/nifi-minifi-cpp-0.1.0-bin.tar.gz
Debian 6:	Repo	http://public-repo-1.hortonworks.com/HDF/debian6/2.x/updates/2.1.2.0/hdf.list
	Deb tarball	http://public-repo-1.hortonworks.com/HDF/debian6/2.x/updates/2.1.2.0/HDF-2.1.2.0-debian6-deb.tar.gz

OS	File & Format	Download location
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/debian6/2.x/updates/2.1.2.0/HDF-2.1.2.0-debian6-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/debian6/2.x/updates/2.1.2.0/tars/hdf_ambari_mp/hdf-ambari-mpack-2.1.2.0-10.tar.gz
	MiNiFi C++ tarball	http://public-repo-1.hortonworks.com/HDF/debian6/2.x/updates/2.1.2.0/tars/nifi-minifi-cpp/nifi-minifi-cpp-0.1.0.tar.gz
Debian 7:	Repo	http://public-repo-1.hortonworks.com/HDF/debian7/2.x/updates/2.1.2.0/hdf.list
	Deb tarball	http://public-repo-1.hortonworks.com/HDF/debian7/2.x/updates/2.1.2.0/HDF-2.1.2.0-debian7-deb.tar.gz
	Tars tarball	http://public-repo-1.hortonworks.com/HDF/debian7/2.x/updates/2.1.2.0/HDF-2.1.2.0-debian7-tars-tarball.tar.gz
	HDF Management Pack	http://public-repo-1.hortonworks.com/HDF/debian7/2.x/updates/2.1.2.0/tars/hdf_ambari_mp/hdf-ambari-mpack-2.1.2.0-10.tar.gz
	MiNiFi C++ tarball	http://public-repo-1.hortonworks.com/HDF/debian7/2.x/updates/2.1.2.0/tars/nifi-minifi-cpp/nifi-minifi-cpp-0.1.0-bin.tar.gz
OS agnostic download options		
Software Package	**Format**	**Download location**
NiFi only	Tar file	http://public-repo-1.hortonworks.com/HDF/2.1.2.0/nifi-1.1.0.2.1.2.0-10-bin.tar.gz
	Zip file	http://public-repo-1.hortonworks.com/HDF/2.1.2.0/nifi-1.1.0.2.1.2.0-10-bin.zip
NiFi Toolkit	Tar file	http://public-repo-1.hortonworks.com/HDF/2.1.2.0/nifi-toolkit-1.1.0.2.1.2.0-10-bin.tar.gz
	Zip file	http://public-repo-1.hortonworks.com/HDF/2.1.2.0/nifi-toolkit-1.1.0.2.1.2.0-10-bin.zip
MiNiFi Java Agent	Tar file	http://public-repo-1.hortonworks.com/HDF/2.1.2.0/minifi-1.0.2.1.2.0-10-bin.tar.gz
	Zip file	http://public-repo-1.hortonworks.com/HDF/2.1.2.0/minifi-1.0.2.1.2.0-10-bin.zip
MiNiFi Toolkit	Tar file	http://public-repo-1.hortonworks.com/HDF/2.1.2.0/minifi-toolkit-1.0.2.1.2.0-10-bin.tar.gz
	Zip file	http://public-repo-1.hortonworks.com/HDF/2.1.2.0/minifi-toolkit-1.0.2.1.2.0-10-bin.zip

1.5. Common Vulnerabilities and Exposures

HDF 2.1 has two known CVEs.

CVE-2107-5635: Apache NiFi Unauthorized Data Access In Cluster Environment

Severity: Important

Versions Affected:

- HDF 1.2.x
- HDF 2.0.x
- HDF 2.1.x

Description: In a cluster environment, if an anonymous user request is replicated to another node, the originating node identity is used rather than the “anonymous” user.

Mitigation: A fix is available to remove the negative check for anonymous users before building the proxy chain and throwing an exception, and evaluating each user in the proxy chain iteration and comparing against a static constant anonymous user.

Recommended Action: If you are using HDF 2.x, upgrade to HDF 2.1.2. If you are using HDF 1.x, upgrade to HDF 1.2.1.

CVE-2107-5636: Apache NiFi User Impersonation In Cluster Environment

Severity: Moderate

Versions Affected:

- HDF 1.2.x
- HDF 2.0.x
- HDF 2.1.x

Description: In a cluster environment, the proxy chain serialization and deserialization is vulnerable to an injection attack where a username could impersonate another user and gain their permissions on a replicated request to another node.

Mitigation: A fix has been provided to modify the tokenization code and sanitize user-provided input. This fix was applied as part of NIFI-3487, and is available in HDF 2.1.2 and HDF 1.2.1.

Recommended Action: If you are using HDF 2.x, upgrade to HDF 2.1.2. If you are using HDF 1.x, upgrade to HDF 1.2.1.

1.6. Known Issues

Hortonworks Bug ID	Apache JIRA	Apache Component	Summary
BUG-78260	NIFI-3520	NiFi	**Description of Problem:** When multiple Kerberos principals are used between multiple HDFS processors, the processor

Hortonworks Bug ID	Apache JIRA	Apache Component	Summary
			instances will be able to login to Kerberos with their configured principals initially, but will not properly relogin. **Workaround:** There is currently no workaround for this isue.