

Previous Doc. Number	Document Type	Document ID
	PUMA-Infrastructure operation manual	IS_1690963
	GeodIS	Version
	Coolin	2.0

Title IOM - GIS EAI Platform - Infrastructure Operation Manual - Kafka

Reason for Revision

	Approval Name	Date	Reason for Signature
		(Universal Time)	
Approval	GRZESIUK Grzegorz	30 Apr 2021	I am approving this document as
**	Sanofi	09:51:15	an author
Approval	SHUKLA Milan	30 Apr 2021	I am approving this document
**	TCS	09:52:54	on behalf of my company under
			contract with sanofi
Approval	RICE Kenneth	03 May 2021	I am approving this document
		09:51:12	
Approval	HACHAICHI Mustapha	07 May 2021	I am approving this document
**		08:59:17	
Approval	MITTAL Animesh	10 May 2021	I am approving this document
**	SANOFI	15:48:59	on behalf of my company under
			contract with sanofi
	Effective Date:	10 May 2021	

Accessed by: NAIK Vinutan

Uncontrolled document

Document ID: IS_1690963

Document Version: 2.0

Access date: 5 May 2022 11:3:31 AM





INFRASTRUCTURE OPERATIONS MANUAL

KAFKA

	Name / Project Role	Signature	Date
Author	Grzegorz GRZESIUK/ PTC	See GeodIS	See GeodIS
	Kenneth RICE /PM/ SO/ UPL See GeodIS S		See GeodIS
Approvers*	Milan SHUKLA/VEX	See GeodIS	See GeodIS
	Mustapha Hachaichi /IPL	See GeodIS	See GeodIS
	Animesh MITTAL /ISE	See GeodIS	See GeodIS

Title	Page
Infrastructure Operations Manual - kafka	2/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963

Document Version: 2.0

Access date: 5 May 2022 11:3:31 AM Forbidden to modify, copy content, and annotate Document Status: Effective



Distribution List

Names & Department	Rationale
Managed in GeodIS	See GeodIS

Version History

Version	Date (dd/mmm/yyyy)	Modification
1.0	See GeodIS	Document creation
2.0	See GeodIS	Document refactoring. Added section 2.1.9 "Kafka topic creation and ACL enforcement" as per changes in the scope of Integration Services PI 21.1

Title	Page
Infrastructure Operations Manual - kafka	3/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963
Document Version: 2.0

Forbidden to modify, copy content, and annotate Document Status: Effective



Table of Contents

1. Introduction	6
1.1. Related Documents	6
1.2. Glossary	6
2. Detailed Architecture Description	
2.1. Production Environment	7
2.1.1. General Description	7
2.1.2. Infrastructure Components Description	7
2.1.3. Application or Service logs location	
2.1.4. Interfaces, Gateways and Application Programming Interface's	8
2.1.5. Kafka connect	g
2.1.6. Kafka REST	10
2.1.7. Kafka Web UI	10
2.1.8. Kafka Burrow	10
2.1.9. Kafka topic creation and ACL enforcement	11
3. Installation instructions	13
4. Services Level Description	14
4.1. Productive systems	14
4.2. Non-Productive systems	15
5. Hosting and Operations	16
5.1. Hosting	16
5.1.1. Monitoring	16
5.1.2. Job Schedule	16
5.1.3. Backup Schedule	16
5.2. Operations	17
5.2.1. Maintenance	17
5.2.2. Application or Service shutdown	18
5.2.3. Application or Service start-up	18
5.2.4. Application or Service health check	19
5.2.5. Application or Service Reporting	20
Title	Page
Infrastructure Operations Manual - kafka	4/23



5.2.6. Proactive tasks	20
5.2.7. Other Operation instruction	21
6. Specific support contract and License Management	21
6.1. Specific support contract	21
6.2. License management	21
7. Disaster Recovery	21
8. Change Control	22
9. Incident Management	22
10. Security Management	23
10.1. Service & applicative Accounts	23
10.1.1. External Connectivity	23
10.1.2. Secure Sockets Layer certificates	23
10.1.3. Remote connectivity, Firewall and Secure Access Gateway	23

Title	
Infrastructure Operations Manual - kafka	5/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963

Document Version: 2.0

Access date: 5 May 2022 11:3:31 AM Forbidden to modify, copy content, and annotate Document Status: Effective



1. Introduction

The objective of this document is to describe the required operational activities to ensure successful services operation from an Infrastructure perspective with the architecture information and description of the different environments.

1.1. Related Documents

Doc ID	Title
IS_1664528	AS Kafka
IS_1664527	IP Kafka AWX
IS_1689387	Technical recovery Plan

1.2. Glossary

Accessed by: NAIK Vinutan

Term or Acronym	Definition
IaC	Infrastructure as Code

Title	Page
Infrastructure Operations Manual - kafka	6/23

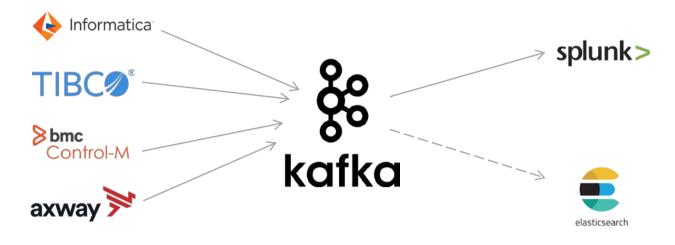
This document is the property of Sanofi – Strictly confidential



2. <u>DETAILED ARCHITECTURE DESCRIPTION</u>

2.1. Production Environment

2.1.1. General Description



Kafka brokers operate in cluster mode which is fault tolerant. Each Kafka broker is running in deferent AWS Availability Zone to increase the cluster availability. Kafka broker cooperate with Zookeeper which is collocated on the same hosts.

Kafka production cluster in NGDC hosts production and no-production topics and data. (This service is gradually replaced by the clusters mentioned below).

Kafka production cluster in AWS hosts only production topics and data.

Kafka uat cluster in AWS hosts all non-production topics and data.

Kafka dev cluster in AWS is not meant to host any business topics and data as it used to test and and develop new features of Kafka service.

More details on the AS doc: IS 1664528

2.1.2. Infrastructure Components Description

Component	Description	AZ
xspl50k163t.pharma.aventis.com	eu-kafka-prd	N/A
xspl50k164a.pharma.aventis.com	eu-kafka-prd	N/A
xspl50k165f.pharma.aventis.com	eu-kafka-prd	N/A
xsnl62f191p.pharma.aventis.com	Kafka_DEV_AWS	AZ1

Title	Page
Infrastructure Operations Manual - kafka	7/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963

Document Version: 2.0

Forbidden to modify, copy content, and annotate Document Status: Effective



xsnl62f192w.pharma.aventis.com	Kafka_DEV_AWS	AZ2
xsnl62f193b.pharma.aventis.com	Kafka_DEV_AWS	AZ3
xsnl62f256x.pharma.aventis.com	Kafka_UAT_AWS	AZ1
xsnl62f270f.pharma.aventis.com	Kafka_UAT_AWS	AZ2
xsnl62f273c.pharma.aventis.com	Kafka_UAT_AWS	AZ3
xspl62f224a.pharma.aventis.com	Kafka_PRD_AWS	AZ1
xspl62f226s.pharma.aventis.com	Kafka_PRD_AWS	AZ2
xspl62f228c.pharma.aventis.com	Kafka_PRD_AWS	AZ3

2.1.3. Application or Service logs location

The Log Storage Server platform is deployed on top of the Sanofi AWS standards available in the Amazon. All standard processes are applicable. AWX is used to deploy the Kafka service on environments (awx-ships.pharma.aventis.com). Gitlab is used to store the configuration and installation scripts (https://emea-aws-gitlab.sanofi.com:3001/integrationservices/kafka)

To check the log as user on the server, you should launch this command to obtain the live log. You could filter with grep to obtain only the desired log level.

```
$sudo journalctl -xe -l -u kafka -f
$sudo journalctl -xe -l -u zookeeper -f
$sudo journalctl -xe -l -u telegraf -f
```

2.1.4. Interfaces, Gateways and Application Programming Interface's

2.1.4.1. Internal Interfaces

The following interfaces are exposed:

Service	Port number
Zookeeper	2181
Kafka SALS SSL	9093
Jolokia	8778

Accessed by: NAIK Vinutan

Title	Page
Infrastructure Operations Manual - kafka	8/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963

Document Version: 2.0



2.1.5. Kafka connect

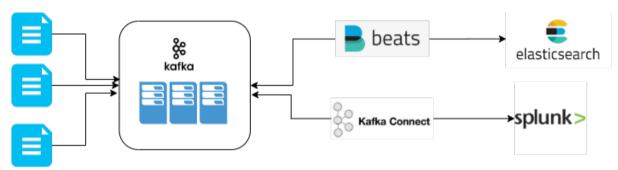
Kafka Connect is an open source component of Apache Kafka. It is a framework for connecting Kafka with external systems such as databases, key-value stores, search indexes, and file systems.

Kafka Connect instances are created per each Kafka cluster and are running on OpenShift cluster.

Reminder: Kafka connect for DEV will be only for testing activity.

All non-prod DATA should go to KAFKA UAT AWS. (SND, DEV, INT, UAT, ...)

Only Production data should go to KAFKA PRD AWS.



Kafka Connect run on OpenShift and used to publish data from Kafka topics to respective SPLUNK indexes.

There are 2 workers per Kafka Cluster (Legacy NGDC, DEV-AWS, UAT-AWS, PRD-AWS)

OpenShift route API for Kafka Connect are today:

Kafka Cluster	Kafka connect endpoint	Kafka Connect Deployment Configuration
AWS DEV	https://dev-kafka-connect.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/	https://openshift-console.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/k8s/ns/tibco-scale-common- prd/deploymentconfigs/dev-kafka-connect
AWS UAT	https://uat-kafka-connect.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/	https://openshift-console.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/k8s/ns/tibco-scale-common- prd/deploymentconfigs/uat-kafka-connect
AWS PRD	https://prd-kafka-connect.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/	https://openshift-console.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/k8s/ns/tibco-scale-common- prd/deploymentconfigs/prd-kafka-connect
NGDC PRD	https://ngdc-kafka-connect.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/	https://openshift-console.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/k8s/ns/tibco-scale-common-

Title	Page
Infrastructure Operations Manual - kafka	9/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963

Document Version: 2.0

Forbidden to modify, copy content, and annotate Document Status: Effective



2.1.6. Kafka REST

For compatibility reason, Kafka REST has been implemented to manage Kafka Topic via API system.

Kafka Cluster	Kafka REST endpoint	Kafka REST Deployment Configuration
AWS DEV	https://dev-kafka-rest.apps.scale-683b0e3a.p560298742787.aws-emea.sanofi.com/	https://openshift-console.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/k8s/ns/tibco-scale-common- prd/deploymentconfigs/dev-kafka-rest
AWS UAT	https://uat-kafka-rest.apps.scale-683b0e3a.p560298742787.aws-emea.sanofi.com/	https://openshift-console.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/k8s/ns/tibco-scale-common- prd/deploymentconfigs/uat-kafka-rest
AWS PRD	https://prd-kafka-rest.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/	https://openshift-console.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/k8s/ns/tibco-scale-common- prd/deploymentconfigs/prd-kafka-rest
NGDC PRD	https://ngdc-kafka-rest.apps.scale-683b0e3a.p560298742787.aws-emea.sanofi.com/	https://openshift-console.apps.scale- 683b0e3a.p560298742787.aws- emea.sanofi.com/k8s/ns/tibco-scale-common- prd/deploymentconfigs/ngdc-kafka-rest

2.1.7. Kafka Web UI

Kafka WebUI is a full-featured web-based <u>Apache Kafka</u> consumer. **Kafka WebView** presents an easy-to-use web based interface for reading data out of kafka topics and providing basic filtering and searching capabilities.

Kafka WebUI is available in OpenShift.

https://kafka-web-view-tibco-scale-common-prd.apps.scale-683b0e3a.p560298742787.aws-emea.sanofi.com/login

2.1.8. Kafka Burrow

Kafka Burrow monitor lag on consumer topics. This is help full to identify blocked pipeline activity.

Title	Page
Infrastructure Operations Manual - kafka	10/23

This document is the property of Sanofi – Strictly confidential

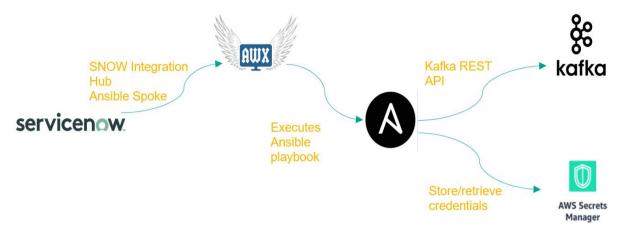
Document Version: 2.0

Forbidden to modify, copy content, and annotate Document Status: Effective



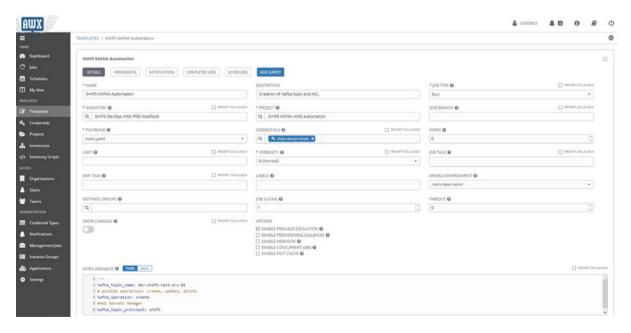
2.1.9. Kafka topic creation and ACL enforcement

To standardize Kafka topic creation and enforce ACL on specific topic a set of Ansible scripts were developed to automate the process. The diagram below depicts the whole process.



To request a new Kafka topic creation a user needs to place a new request in SNOW portal. Once all the required information are captured, including Kafka topic name, SNOW My App Id and required Kafka cluster.

Once the form is submitted SNOW uses Ansible Spoke (part of SNOW Integration HUB) which triggers execution of "SHIPS Kafka Automation" job template in AWX passing inputs gathered in SNOW form.



The Ansible playbook performs the following actions:

Accessed by: NAIK Vinutan

- Uses Kafka REST API to perform operations on selected Kafka cluster
- Based on selected action (specified in SNOW form) "create", "update" or "delete" performs

Title	Page
Infrastructure Operations Manual - kafka	11/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963



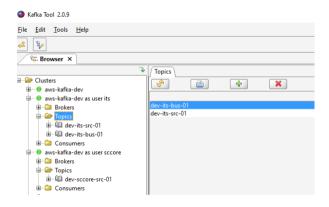
respective operation on Kafka topic

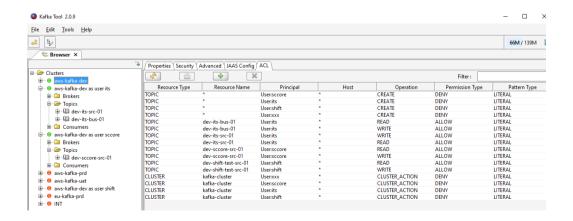
- In case a new topic is created then the following ACL rules are applied on the topic and user (specific to SNOW MyApp Id): A user gets READ and WRITE access to the newly created topic. A user is DENIED creation of any topics and any cluster related operations.
- In case a topic is to be deleted then after deleting the topic the ACL rules related to accessing topic are removed.
- In case of creation of a new Kafka topic Ansible scripts generates a new password and uses AWS Secrets Manager to store credentials for newly created user.

Once the AWX Job template is executed then SNOW invokes job template called "Kafka JAAS refresh" which perform the following actions:

- Connects to AWX Secrets manager and retrieves all the secrets for a given Kafka cluster
- Generates a new kafka_server_jaas.conf with the credentials retrieved from AWX Secrets Manager and overwrite existing file on each host forming Kafka cluster
- Restarts Kafka and Zookeeper service on each host on a sequential manner

After completion of the scripts a new Kafka topic is created with respective ACL assigned and a user account dedicated to specific application.





Title	Page
Infrastructure Operations Manual - kafka	12/23



3. INSTALLATION INSTRUCTIONS

Order #	Software Component Name	Installation procedure reference and location*	Software source name and location*	Comments
1.	Kafka Broker Install	IS_1664527	GeodIS	https://emea-aws- gitlab.sanofi.com:3001/integrationservices/kafka/kafkatibco
2.	IP Kafka Connect	N/A (Code in the pipeline)	OpenShift	https://docs.openshift.com/container- platform/4.6/applications/application_life_cycle_management/odc- creating-applications-using-developer-perspective.html#odc- creating-applications-using-developer-perspective
3.	IP Kafka Web view	N/A (Code in the pipeline)	OpenShift	https://docs.openshift.com/container- platform/4.6/applications/application_life_cycle_management/odc- creating-applications-using-developer-perspective.html#odc- creating-applications-using-developer-perspective
4.	Kafka REST/API	N/A (Code in the pipeline)	OpenShift	https://docs.openshift.com/container- platform/4.6/applications/application_life_cycle_management/odc- creating-applications-using-developer-perspective.html#odc- creating-applications-using-developer-perspective
5.	Kafka Burrow	N/A (Code in the pipeline)	OpenShift	https://docs.openshift.com/container- platform/4.6/applications/application_life_cycle_management/odc- creating-applications-using-developer-perspective.html#odc- creating-applications-using-developer-perspective

^{*} Make sure the Operation teams can access the installation procedures and the software source locations

Title	Page
Infrastructure Operations Manual - kafka	13/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963

Document Version: 2.0 Forbidden to modify, copy content, and annotate Document Status: Effective



4. SERVICES LEVEL DESCRIPTION

4.1. Productive systems

The service levels is SILVER:

· SERVICE CRITICALITY + IMPACT = PRIORITY



Service Management, Continuity and Disaster Recovery

		🔆 Gold	Silver	math Bronze	Workplace / Lab	Best Effort No SLA
į.	Disaster Recovery Plan (Documented Recovery Plan)	Mandatory	Mandatory	N/A	N/A	N/A
mer	Conduct DR Test	Mandatory - Yearly	Mandatory- Every 2 Years	N/A	N/A	N/A
Commitment	Backup & Restore Data Test (Backup/Restore Test Document)	Mandatory - Yearly	Mandatory-Every 2 Years	N/A	N/A	N/A
	Obsolescence ¹	Standard	Standard/Restricted	Standard/Restricted/Retir ed	N/A	N/A
e Level	Monitoring	Mandatory – Application and Infrastructure	Requested – Application and Infrastructure	Infrastructure Only	Yes – Basic for Infrastructure Components	N/A
Service	Performance Testing	Strongly Recommended – Enhance Synthetic	Optional – Basic or Enhanced Synthetic	Mandatory - Basic		
Se	Resiliency (Production Platform)	Required - Full	Required - Moderate	Not Required		

Title	Page
Infrastructure Operations Manual - kafka	14/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963

Document Version: 2.0



PRIMS OLA

Time to resolve an Incident for Application Services and related CI

Priority	Gold	Silver	Bronze	Infra Basic (Best effort)
Critical (P1)	1h (4h*)	4h (10h*)	12h	72h (best effort)
High (P2)	4h (9h*)	4h (41h)	12h (61h *)	72h (best effort)
Moderate (P3)	12h (62h*)	12h (102h*)	12h (174h [*])	72h (best effort)
Low (P4)	36h (160h*)	36h (232h*)	36h (309h*)	72h (best effort)
Very Low (P5)	48h (196h*)	48h (372h*)	48h (644h*)	72h (best effort)

4.2. Non-Productive systems

The service levels of non-productive systems is **SILVER**.

Please refer to the boards above.

Title	Page
Infrastructure Operations Manual - kafka	15/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963

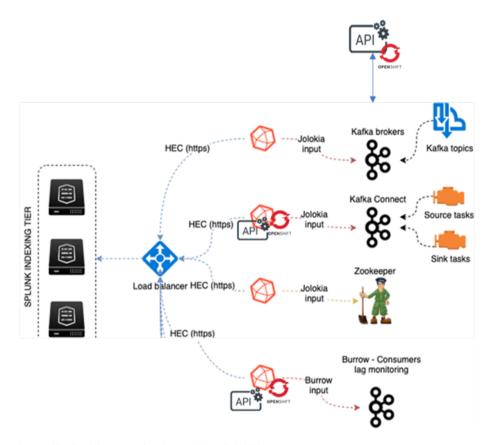


5. HOSTING AND OPERATIONS

5.1. Hosting

5.1.1. Monitoring

Kafka Broker is monitored via Splunk requirement tools. Based on Jolokia and Telegraf.



https://splunkbase.splunk.com/app/4268/

https://readthedocs.org/projects/splunk-guide-for-kafka-monitoring/downloads/pdf/latest/

https://github.com/guilhemmarchand/splunk-guide-for-kafka-monitoring

5.1.2. Job Schedule

Accessed by: NAIK Vinutan

There is no ControlM Jobs scheduled for Kafka.

5.1.3. Backup Schedule

The normal backup mechanism is used. The standard backup policies are applicable for the servers, shared folder and the database. That means a daily full backup of each server (VM), kept for 56 days. Every server peer env work in cluster mode with active process on every AZ to secure the service

Title	Page
Infrastructure Operations Manual - kafka	16/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963

Document Version: 2.0

Access date: 5 May 2022 11:3:31 AM Forbidden to modify, copy content, and annotate Document Status: Effective



availability.

5.2. Operations

All the infrastructure operations are managed and done by PRIMS EAI.

Update certificate from notification of PKI team.

Increase FS if /apps FS is too small.

Topic Creation:

Action							I - Identii	fication					
Action [Handstor y]	Kufka Topic Name(s) (Mandatory)	Kufta Connect Insutnce location [Mandatory]	SPLUNK Index Name (Mandatory)	SPLUNK Index Retention Policy [Mandatory]	SPLUNK HEC Name [Optional]	SPLUHK Source type [Optional]	MEC data filtering criteria [Optional]	Data Sensitivity [Handstory]	Data Format	AO Group Name (Read only) [Mandatory]	AO Group Name [admin] [Optional]	Daily Data Injection (MD) [Mandatory]	Connent [Optional]
Overlin	in the standard of the standar	Angustuse kalks- connect ages scale- 6606-0-5-p6602087427 67-aur-mos sandicom/	rage first dres whose hopeast record	744	ite kalke iteratori obujokjipasi vite ili			Normal	json	SPLUMK-PSP-EBUT-BYPASS-LISERS	SPLUNK-POP-EBUT-BYPASS-ADMIN-USERS	50,00	
Creation	According Appearance (II	Ampsilvankalla- connectapps scale- 66500x3sp6663397427 87.aur.encasandi.com/	rag. For var. obug. hyparz. nomał	30 days	ita, kalka, ita wat- obujedypara-sec-dit			Normal	json	SPLUMK-POP-EBUT-BYPASS-USBPS	SPLUNK-PUP-EBUT-BYPASS-ADMIN-USBRS	50,00	
Gration	üci prikobuj bypasi incili	Arguiljud kalla- connoctappu usik- 6000-0-y-5602007427 67.avu-omoauanati.com	rag, icc, prel, obuy, bypare, high	30 mys	ita, kalka, ikergod- obug-lypass-src-01			High	ison	SPLUME FOR EBUT BYTHISS USERS	SPLUMK FOR EBUT BYTHISS ADMINUSERS	50.00	
													\vdash
_													\vdash
_													
													$\overline{}$
													$\overline{}$
													\vdash
													$\overline{}$
				_									
	Please do	NOT fill more tha	an 20 lines.										



Accessed by: NAIK Vinutan

5.2.1. Maintenance

5.2.1.1. <u>Infrastructure maintenance time frame</u>

Application is online 7days/7 and 24hours/24.

Standard GOLD application time frame is applied to this system.

When a maintenance is planned on the infrastructure, a communication will be sent by PRIMS Service Control Team to the Sanofi Service Owner & Service Manager:

- Once the change is approved by the CAB ('Scheduled' status)
- When the maintenance starts ('Started' status)
- At the end of the maintenance ('Completed' status)
- In case of unexpected impact or delay, other notifications will be sent ('Update' status)

Title	Page
Infrastructure Operations Manual - kafka	17/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963

Document Version: 2.0

Access date: 5 May 2022 11:3:31 AM Forbidden to modify, copy content, and annotate Document Status: Effective



5.2.1.2. Setting the application on maintenance mode

5.2.2. Application or Service shutdown

sudo service kafka stop
sudo service zookeeper stop
sudo service telegraf stop

5.2.3. Application or Service start-up

Accessed by: NAIK Vinutan

Access date: 5 May 2022 11:3:31 AM

sudo service kafka start
sudo service zookeeper start
sudo service telegraf stop

Title	Page
Infrastructure Operations Manual - kafka	18/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document

Document ID: IS_1690963

Document Version: 2.0

Forbidden to modify, copy content, and annotate Document Status: Effective



5.2.4. Application or Service health check

Test		Expe	cted res	sult			
Check Broker	The second secon	***					
Availability	Custer Kafka_UAT_AWS Broke	ers					Search
	Broker Id	Hostname					Rack
	1	vsni62f256x.pharma.aventis.com:909	3				azi
.08		xsni62f270f.pharma.aventis.com/909					azž
	3	xsnl62f273c.pharma.aventis.com/909	3				823
	Cluster Kafka_UAT_AWS Topic	s				Search	© Create ne
						200	
	Topic		Partitions	Status			
	_consumer_offsets		50	TuTy Replicated	ternal topic		
	devicft src 01 devidemo-lice-die-src-01		2	Fully Replicated			
	dev-demo-licscle-src-01		3	Fully Replicated			
	dev-securetransport-src-01		3	Pully Replicated			
	dev-shift-tibeolog-bus-01		3	Fully Replicated			
	dev-shift-tibcolog-src-01.		3	Day Lephone			
	dev shiftmtc-tibcolog-bus-01		3	Fully Replicated			
	dev-shiftmtc-tibcolog-src-01		3	Tully Replicated			
	ics.dev.corp.approve.src-01		3	Fully Replicated			
	Int-shift-tibcolog-bus-DI		3	Fully Replicated			
	Int-shift-tibcolog-src-01		3	Fully Replicated			
Check consumer					🗓 josep	h.zacharie-e	oxt@sanofi.com *
	Mome / Cluster Explorer / eu-kal	fka-prd int-shiftmtc-tibcolog-src-01			□ josep Stable		
	Home / Cluster Explorer / eu-kar	int-shiftmtc-tibcolog-src-01				1	Actions *
	Home / Cluster Explorer / eu-kal int-shiftmtc-be- logenrichment-src	int-shiftmtc-tibcolog-src-01	oromomats-tibcolo		Stable	1	Actions *
	Home / Cluster Explorer / eu-kai int-shiffmitc-be- logenfichment-src int-shiffmitc-tibcolog-bus- 01 int-veevayault-tibcolog- src-01	int-shiftmtc-tibcolog-src-01 int-shiftmtc-tibcolog-bus-01 int-etmf-tibcolog-src-01.int-s	oromomats-tibcolo		Stable Stable Stable	1 1 1	Actions ▼ Actions ▼ Actions ▼
	Home / Cluster Explorer / eu-kal int-shiftmitbe- logenrichment-src int-shiftmittibcolog-bus- 01 int-veevavault-tibcolog- src-01 int-webblog	Int-shiftmtc-tibcolog-src-01 Int-shiftmtc-tibcolog-bus-01 Int-shiftmtc-tibcolog-src-01.int- int-etmf-tibcolog-src-01.int- int-webb-tibcolog-src-01		g-arc-01	Stable Stable Stable	1 1 1 1	Actions • Actions • Actions •
	Home / Cluster Explorer / eu-kai int-shiffmitc-be- logenfichment-src int-shiffmitc-tibcolog-bus- 01 int-veevayault-tibcolog- src-01	int-shiftmtc-tibcolog-src-01 int-shiftmtc-tibcolog-bus-01 int-etmf-tibcolog-src-01.int-s	shift-tibcolog-src-l	g-src-01 01.prd-shift-tibcolog-	Stable Stable Stable	1 1 1 1	Actions ▼ Actions ▼ Actions ▼
check consumer oresence are stable	Home / Cluster Explorer / eu-kal int-shiftmitbe- logenrichment-src int-shiftmittibcolog-bus- 01 int-veevavault-tibcolog- src-01 int-webblog	Int-shiftmtc-tibcolog-src-01 Int-shiftmtc-tibcolog-bus-01 Int-etmf-tibcolog-src-01.int- Int-webb-tibcolog-src-01.prd prd-sbc-tibcolog-src-01.prd bus-01.prd-bwce-filebeat-src	shift-tibcolog-src-l	g-src-01 01.prd-shift-tibcolog-	Stable Stable Stable	1 1 1 1 2	Actions • Actions • Actions •
	Home / Cluster Explorer / eu-kal int-shiftmtc-be- logenrichment-sxc int-shiftmtc-tibcolog-bus- 01 int-veevavault-tibcolog- sxc-01 int-webblog logstash	int-shiftmtc-tibcolog-src-01 int-shiftmtc-tibcolog-bus-01 int-etmf-tibcolog-src-01.int- int-webb-tibcolog-src-01.prd- brd-sbc-tibcolog-src-01.prd- bus-01.prd-bwc-filebest-src Joseph.prd-emsbeat	shift-tibcolog-src-l	g-src-01 01.prd-shift-tibcolog-	Stable Stable Stable Stable Stable	1 1 1 1 2 2 2	Actions • Actions • Actions • Actions • Actions •
	Home / Cluster Explorer / eu-kal int-shiftmic-be- logenrichment-src int-shiftmitc-tibcolog-bus- 01 int-veevarault-tibcolog- src-01 int-webbiog logstash prd-be-tibcobeat	Int-shiftmtc-tibcolog-trc-01 Int-shiftmtc-tibcolog-bus-01 Int-etmf-tibcolog-src-01.int-g Int-webb-tibcolog-src-01.prd- prd-sb-tibcolog-src-01.prd-bus-01.prd-bwc-filebest-src Joseph.prd-emsbeat prd-tibcobest	shift-tibcolog-src-l	g-src-01 01.prd-shift-tibcolog-	Stable Stable Stable Stable Stable Stable	1 1 1 2 2 2 1 1	Actions * Actions * Actions * Actions * Actions * Actions *
	Home / Cluster Explorer / eu-kal int-shiftmitc-be- logenrichment-sxc int-shiftmitc-tibcolog-bus- 01 int-veevarault-tibcolog- src-01 int-webblog logstash prd-be-tibcobeat prd-bwce-filebeat	int-shiftmtc-tibcolog-trc-01 Int-shiftmtc-tibcolog-bus-01 Int-etmf-tibcolog-src-01.int-g Int-webb-tibcolog-src-01.prd-bus	shift-tibcolog-src-l	g-src-01 01.prd-shift-tibcolog-	Stable Stable Stable Stable Stable Stable	1 1 1 2 2 2 1 1 1	Actions *
	Home / Cluster Explorer / eu-kal int-shifmist-be- logenrichment-src int-shifmist-tibcolog-bus- 01 int-veevaxault-tibcolog- src-01 int-webblog logstash prd-be-tibcobeat prd-bwce-filebeat: prd-bwce-metricbeat	int-shiftmtc-tibcolog-src-01 int-shiftmtc-tibcolog-bus-01 int-etmf-tibcolog-src-01.int-shiftmtc-tibcolog-src-01.int-shiftmtc-tibcolog-src-01.int-shiftmtc-tibcolog-src-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-filebest-src-01 prd-tibcobest prd-buce-filebest-src-01 prd-metricbest prd-metricbest-src-01	shift-tibcolog-src- -01.prd-bwce-met -01.prd-bwce-met	g-src-01 21. prd-shift-tibcolog- ricbeat-src-01. dev-	Stable Stable Stable Stable Stable Stable Stable Stable	1 1 1 1 2 2 2 1 1 1 1 1	Actions *
	Home / Cluster Explorer / eu-kal int-shiftmitc-be- logenrichment-src int-shiftmitc-tibcolog-bus- 01 int-veewavault-tibcolog- src-01 int-webbiog logstash prd-be-tibcobeat prd-bwce-filebeat prd-bwce-metricbeat prd-metricbeat prd-openshift-bwce-event prd-sbolog	int-shiftmtc-tibcolog-src-01 int-shiftmtc-tibcolog-bus-01 int-etmf-tibcolog-src-02.int-g int-webb-tibcolog-src-02.int-g int-webb-tibcolog-src-01.prd-bus-01.prd-bwcs-filebest-src- joseph.prd-emsbest-src- joseph.prd-emsbest-src-01 prd-bwcs-filebest-src-01	shift-tibcolog-src- -01.prd-bwce-met -01.prd-bwce-met	g-src-01 21. prd-shift-tibcolog- ricbeat-src-01. dev-	Stable	1 1 1 1 2 2 1 1 1 1	Actions *
	Home / Cluster Explorer / eu-kal int-shiftmitc-be- logenichment-acc int-shiftmitc-tibcolog-bus- 01 int-veevavault-tibcolog- sco-01 int-webblog logstash prd-be-tibcobeat prd-bwce-filebeat. prd-bwce-metricbeat prd-metricbeat prd-metricbeat prd-metricbeat	int-shiftmtc-tibcolog-trc-01 int-shiftmtc-tibcolog-bus-01 int-etmf-tibcolog-src-01.int-g int-webb-tibcolog-src-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-o1.prd-bus-o1.prd-bus-o1.prd-bus-o1.prd-bus-o1.prd-bus-o1.prd-bus-o1.prd-bus-o1.prd-bus-o1.prd-bus-o1.prd-bus-o1.prd-bus-o1.prd-bus-o1.prd-ppd-sbibcolog-src-01.prd-ppd-sbibcolog-src-01.prd-ppd-sbibcolog-src-01.prd-sbibcolog-src-01.prd-ppd-sbibcolog-spd-sbibcolog-spd-sbibcolog-spd-sbibc	shift-tibcolog-src- -01.prd-bwce-met -01.prd-bwce-met	g-src-01 21. prd-shift-tibcolog- ricbeat-src-01. dev-	Stable	1 1 1 1 2 2 1 1 1 1	Actions *
	Home / Cluster Explorer / eu-kal int-shiftmitc-be- logenrichment-acc int-shiftmitc-tibcolog-bus- 01 int-veevavault-tibcolog- stc-01 int-webblog logstash prd-be-tibcobeat prd-bwce-filebeat prd-bwce-metricbeat prd-metricbeat prd-openshift-bwce-event prd-sbolog prd-shift-mtl13500-	int-shiftmtc-tibcolog-src-01 int-shiftmtc-tibcolog-bus-01 int-etmf-tibcolog-src-02.int-g int-webb-tibcolog-src-02.int-g int-webb-tibcolog-src-01.prd-bus-01.prd-bwcs-filebest-src- joseph.prd-emsbest-src- joseph.prd-emsbest-src-01 prd-bwcs-filebest-src-01	shift-tibcolog-src- -01.prd-bwce-met -01.prd-bwce-met	g-src-01 21. prd-shift-tibcolog- ricbeat-src-01. dev-	Stable	1 1 1 1 1 1 1 1 2 2 2 2 1 1 1 1 1 1 1 1	Actions *
	Home / Cluster Explorer / eu-kal int-shiftmist-be- logenrichment-acc int-shiftmist-tibcolog-bus- 01 int-veevavault-tibcolog- scc-01 int-webblog logstash prd-be-tibcobeat prd-bwce-filebeat prd-bwce-metricbeat prd-metricbeat prd-penshift-bwce-event prd-sbolog prd-shift-mtl13500- logenrichment-src	int-shiftmtc-tibcolog-src-01 int-shiftmtc-tibcolog-bus-01 int-etmf-tibcolog-src-01.int-shiftmtc-tibcolog-src-01.int-shiftmtc-tibcolog-src-01.int-shift-tibcolog-src-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-shift-bus-01.prd-shift-tibcolog-src-01.prd-shi	shift-tibcolog-src- -01.prd-bwce-met c-01 c-01 c-m-tibcolog-src-	g-src-01 01.prd-shift-tibcolog-icbeat-src-01.dev- 01.prd-ecomm-	Stable	1 1 1 1 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1	Actions *
	Home / Cluster Explorer / eu-kai int-shifmist-be- logenrichment-arc int-shifmist-tibcolog-bus- 01 int-veevaxault-tibcolog- src-01 int-webblog logstash prd-be-tibcobeat prd-bwce-filebeat: prd-bwce-metricbeat prd-metricbeat prd-openshift-bwce-event prd-sbolog prd-shift-mt13500- logenrichment-arc prd-shift-tibcolog-bus-01 prd-veevaxault-tibcolog-	int-shiftmtc-tibcolog-src-01 int-shiftmtc-tibcolog-bus-01 int-etmf-tibcolog-src-01.int-shiftmtc-tibcolog-src-01.int-shiftmtc-tibcolog-src-01.int-shift-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-01.prd-bus-nilocolog-src-01 prd-buce-filebeat-src-01 prd-buce-metricbeat-src-01 prd-metricbeat prd-openshift-buce-event-sr prd-openshift-buce-src-01.prd-shift-bibcolog-src-01 prd-shift-bibcolog-src-01 prd-shift-bibcolog-src-01	shift-tibcolog-src- -01.prd-bwce-met c-01 1crm-tibcolog-src- -01.prd-etmf-tibco	ig-src-01 01.prd-shift-tibcolog- incbeat-src-01.dev-	Stable	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Actions * Actions *

Title	Page
Infrastructure Operations Manual - kafka	19/23

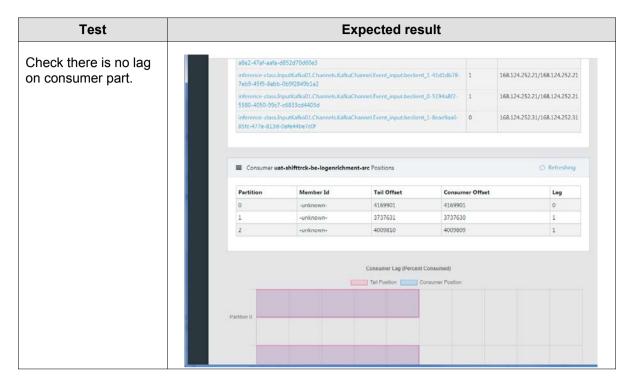
This document is the property of Sanofi – Strictly confidential

Uncontrolled document

Document ID: IS_1690963 Document Version: 2.0

Access date: 5 May 2022 11:3:31 AM Forbidden to modify, copy content, and annotate Document Status: Effective

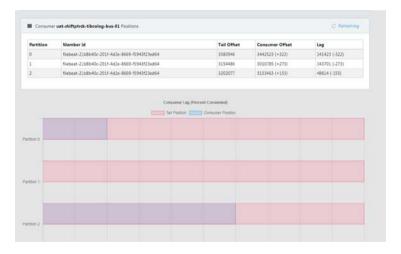




5.2.5. Application or Service Reporting

5.2.6. Proactive tasks

Identify the lag and consumer issue on the pipeline.



If consumer is stop manage the worker on OpenShift side and notify owner of the worker.

Title	Page
Infrastructure Operations Manual - kafka	20/23

This document is the property of Sanofi - Strictly confidential Document ID: IS_1690963



5.2.7. Other Operation instruction

Check Splunk Apps Kafka Smart Monitoring.



6. SPECIFIC SUPPORT CONTRACT AND LICENSE MANAGEMENT

6.1. Specific support contract

Provide operation procedure and specific support instruction defined by these contracts.

PRIMS.EAI PRIMS.EAI@accenture.com

PRIMS.UNIX PRIMS.UNIX@accenture.com

PRIMS.UNIX.LEADS PRIMS.UNIX.LEADS@accenture.com

6.2. License management

Apache License Version 2.0, January 2004 http://www.apache.org/licenses/

http://kafka.apache.org/contact

7. DISASTER RECOVERY

DRP could be test on peer year base on TRP: IS_1689387 TRP Technical Recovery Plan.

Title	Page
Infrastructure Operations Manual - kafka	21/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document Document ID: IS_1690963

Document Version: 2.0

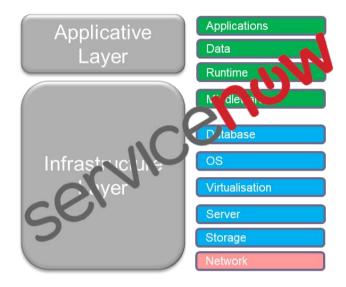
Forbidden to modify, copy content, and annotate Document Status: Effective



8. CHANGE CONTROL

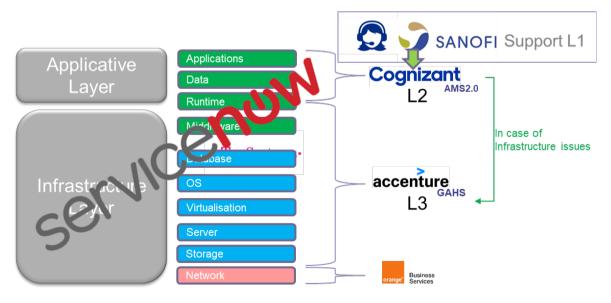
Sending infrastructure change request to PRIMS ACCENTURE.

The whole SANOFI change management is performed with SNOW.



9. INCIDENT MANAGEMENT

Sending infra incidents to ACCENTURE PRIMS can be done by following this incident management process:



Title	Page
Infrastructure Operations Manual - kafka	22/23

This document is the property of Sanofi - Strictly confidential

Document ID: IS_1690963 Uncontrolled document

Document Version: 2.0



10. SECURITY MANAGEMENT

10.1. Service & applicative Accounts

Environment	Product	Version	Service Account
DEV	Kafka	2.4.1	PS105054
UAT	Kafka	2.4.1	PS105054
PRD	Kafka	2.4.1	PS105056
NGDC	Kafka	1.1.0	kafka

PS106960 (For LDAP binding)

10.1.1. External Connectivity

N/A

10.1.2. Secure Sockets Layer certificates

Certification authority used:

https://pki-ra.sanofi-aventis.com/EE/

Reference to working instruction to use for certificate renewal:

Replace the JKS on every broker minimum 2 week before certificate expiration.

Don't restart all broker in the same time! One after one.

Email address used to receive SSL renewal notifications.:

ITS-IS-COE-DEVOPS ITS-IS-COE-DEVOPS@emailph4.aventis.com

10.1.3. Remote connectivity, Firewall and Secure Access Gateway

N/A

Accessed by: NAIK Vinutan

Title	Page
Infrastructure Operations Manual - kafka	23/23

This document is the property of Sanofi – Strictly confidential

Uncontrolled document

Docume

Document ID: IS_1690963

Document Version: 2.0

Access date: 5 May 2022 11:3:31 AM

Forbidden to modify, copy content, and annotate Document Status: Effective