



Pushing Configuration Bundles in an Indexer Cluster

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Agenda

- ▶ Overview of Indexer Clustering
- ▶ Configuration Management in an Indexer Cluster.
 - What is a bundle? And why should I care?
 - Creating and distributing the bundle to all peers
 - Other bundle operations (validate, check restart, and roll back)
 - To restart or not to restart
 - Phased bundle downloads
- ▶ Demo
- ▶ Troubleshooting and Best Practices
- ▶ QA

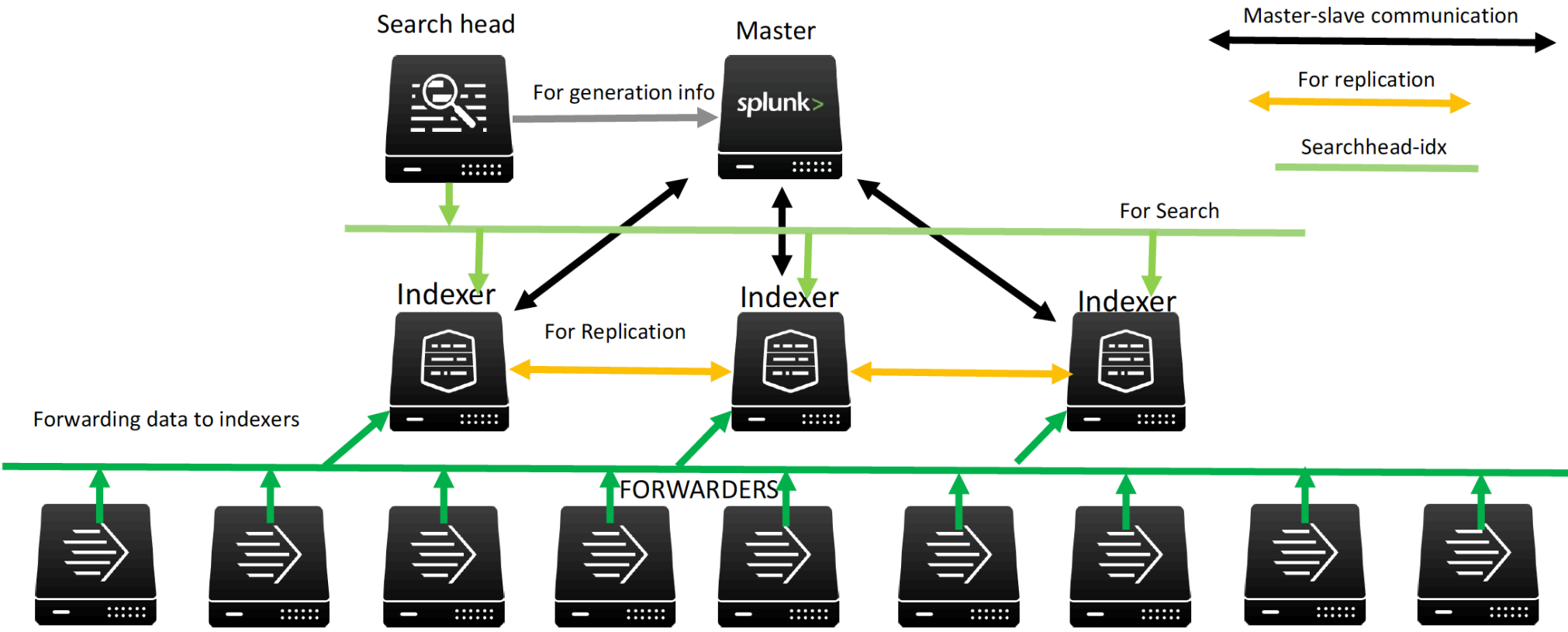
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130.60.4 - - [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&JSESSIONID=SD5L9FF1ADFF3 HTTP/1.1" 404 720 "http://buttercup-shopping.com/cart.do?action=view&itemId=EST-6&product_id=FL-SW-01"
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```

Indexer Cluster Overview

Pushing Configuration Bundles in an Indexer Cluster

Indexer Clustering

Indexer cluster topology



```

130.60.4 - - [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&JSESSIONID=SD1SLAFF10ADFF10 HTTP 1.1" 404 720 "http://buttercup-shopping.com/category.screen?category_id=GIFTS"
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item_id=EST-16&product_id=RP-LI-02" 408 125.17.14 [oldlink?category_id=FLOWERS&JSESSIONID=SD5SL7FF6ADFF9 HTTP 1.1" 200 3865 "http://buttercup-shopping.com/category.screen?category_id=FLOWERS&JSESSIONID=SD5SL7FF6ADFF9"
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```

Why Use Clustering?

Index Replication, Of Course



Data Availability



Data Fidelity



Data Resiliency



Disaster Recovery



Search Affinity

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Elements of an Indexer Cluster

► Cluster Master

- Manages the cluster activities (peer addition, configuration distribution)
- Maintains an in-memory state of all the peers & their corresponding buckets, configs
- Orchestrates remedial activities during peer failures
- Tells search heads where to search

► Cluster Peer (Indexer)

- Receive and index incoming data (typically from forwarders)
- Replicate data to other peers for data availability
- Respond to the incoming searches by providing search results
- Update cluster master on any state change (peer, buckets, configs etc.)

```
130.60.4 - - [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&JSESSIONID=SD1SLAFF10ADFF10 HTTP/1.1" 404 720 "http://buttercup-shopping.com/cart.do?action=view&itemId=EST-6&product_id=FL-SW-01" "Opera/9.80.20
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```

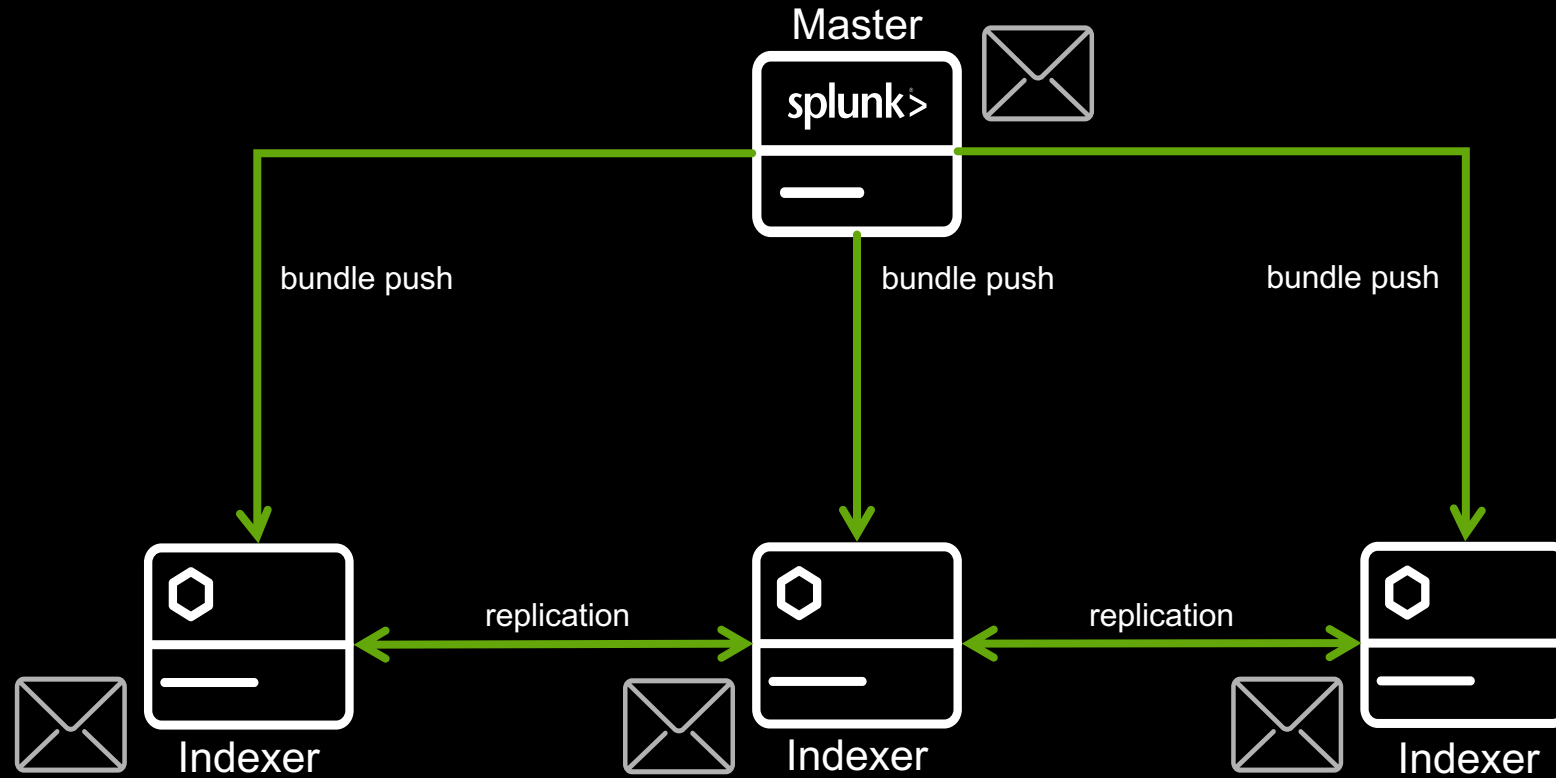
Configuration Management in the Cluster

Pushing Configuration Bundles in an Indexer Cluster

To distribute new or edited configuration files or apps across peers, execute a **Bundle Push Operation**.

Bundle Pushing

It's not like replication



Rolling Back a Bundle

- ▶ Did something go wrong with the bundle that was just pushed? You can rollback the latest bundle
- ▶ \$./bin/splunk rollback cluster-bundle



```
130.60.4 - - [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&JSESSIONID=SD15L4FF10ADFF10 HTTP 1.1" 404 720 "http://buttercup-shopping.com/cart.do?action=view&itemId=EST-6&product_id=FL-SW-01" "Opera/9.80.
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/buttercup-shopping.com/cart.do?action=remove&itemId=EST-10&product_id=FL-SW-01" "Opera/9.80.
/buttercup-shopping.com/cart.do?action=purchase&itemId=EST-16&product_id=RP-LI-02" "Opera/9.80.
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/buttercup-shopping.com/cart.do?action=purchase&itemId=EST-16&product_id=RP-LI-02" "Opera/9.80.
/buttercup-shopping.com/cart.do?action=purchase&itemId=EST-16&product_id=RP-LI-02" "Opera/9.80.
```

To Restart or Not To Restart

- ▶ Configuration changes which need a restart to apply
 - Changes to indexes.conf (deleting an index), inputs.conf
 - Change home path in index.conf
 - Delete an existing App
- ▶ Configuration changes which do not need a restart to apply
 - Adding a new index in indexes.conf, or a new app with reloadable configuration
 - Changes or additions to transforms.conf or props.conf

```
130.60.4 - - [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&JSESSIONID=SD5L9FF1ADFF3 HTTP/1.1" 200 2423 "http://buttercup-shopping.com/cart.do?action=view&item_id=EST-6&product_id=FL-SW-01"
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```


Checking for Restart

- ▶ Do you want to know whether your config changes require a restart?
- ▶ Allows admins to plan ahead when the configuration changes will trigger a rolling restart.
- ▶ \$./bin/splunk validate cluster-bundle -check-restart



Reload and Restart Simulation

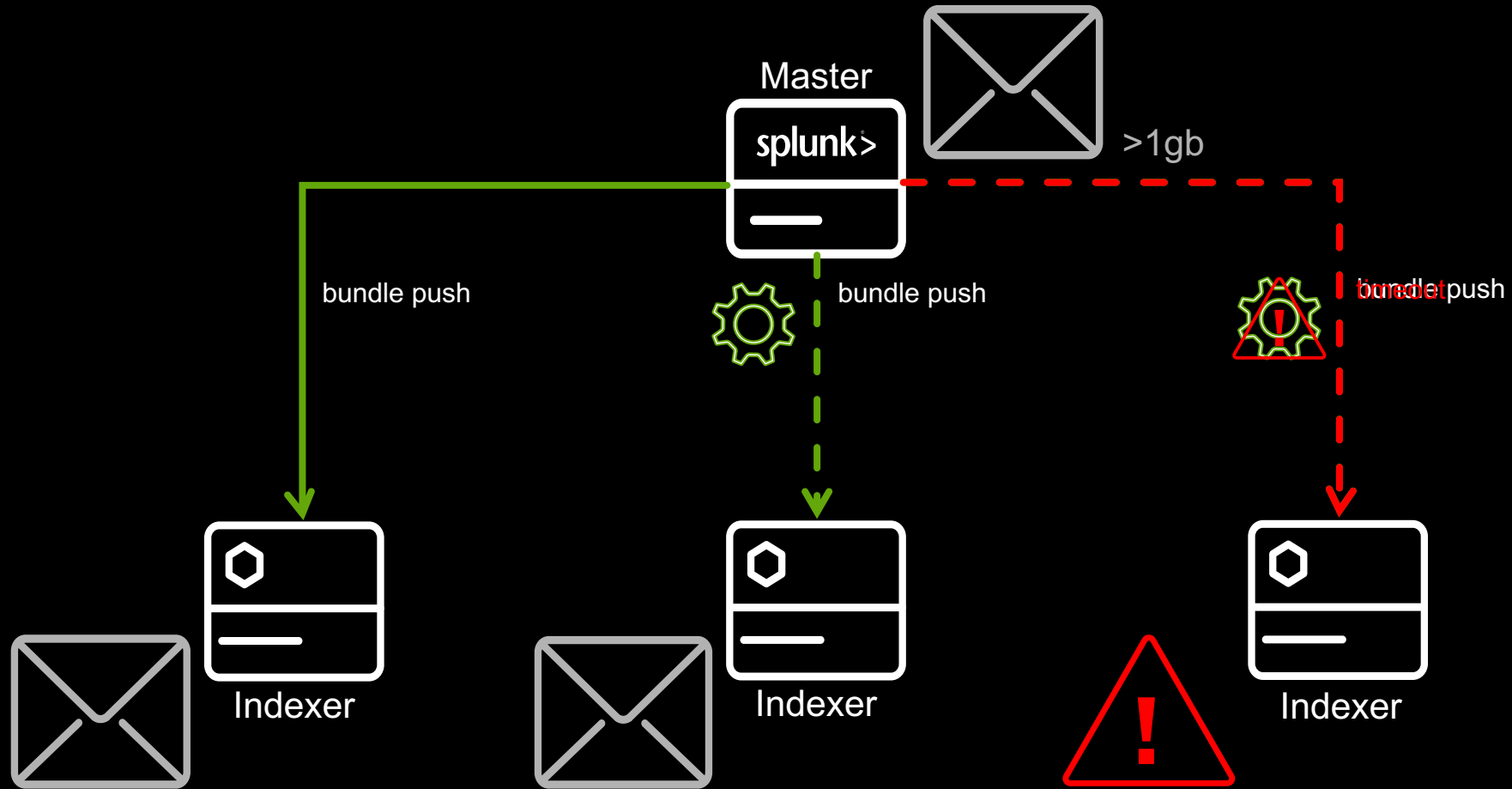
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317.27.160.0 0 - - [07/Jan 18:10:56:150] "GET /oldlink?item_id=EST-16&product_id=RP-LI-02" 468 125.17.14 [link?item_id=EST-26&JSESSIONID=SD5SL9FF1ADFF3 HTTP 1.1" 200 1316 "http://buttercup-shopping.com/cart.do?action=changequantity&itemId=EST-18&product_id=AV-CB-01&JSESSIONID=SD10SL9FF2ADFF9 HTTP 1.1" 200 2423 "http://buttercup-shopping.com/category.screen?category_id=K9-CU-01"
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```

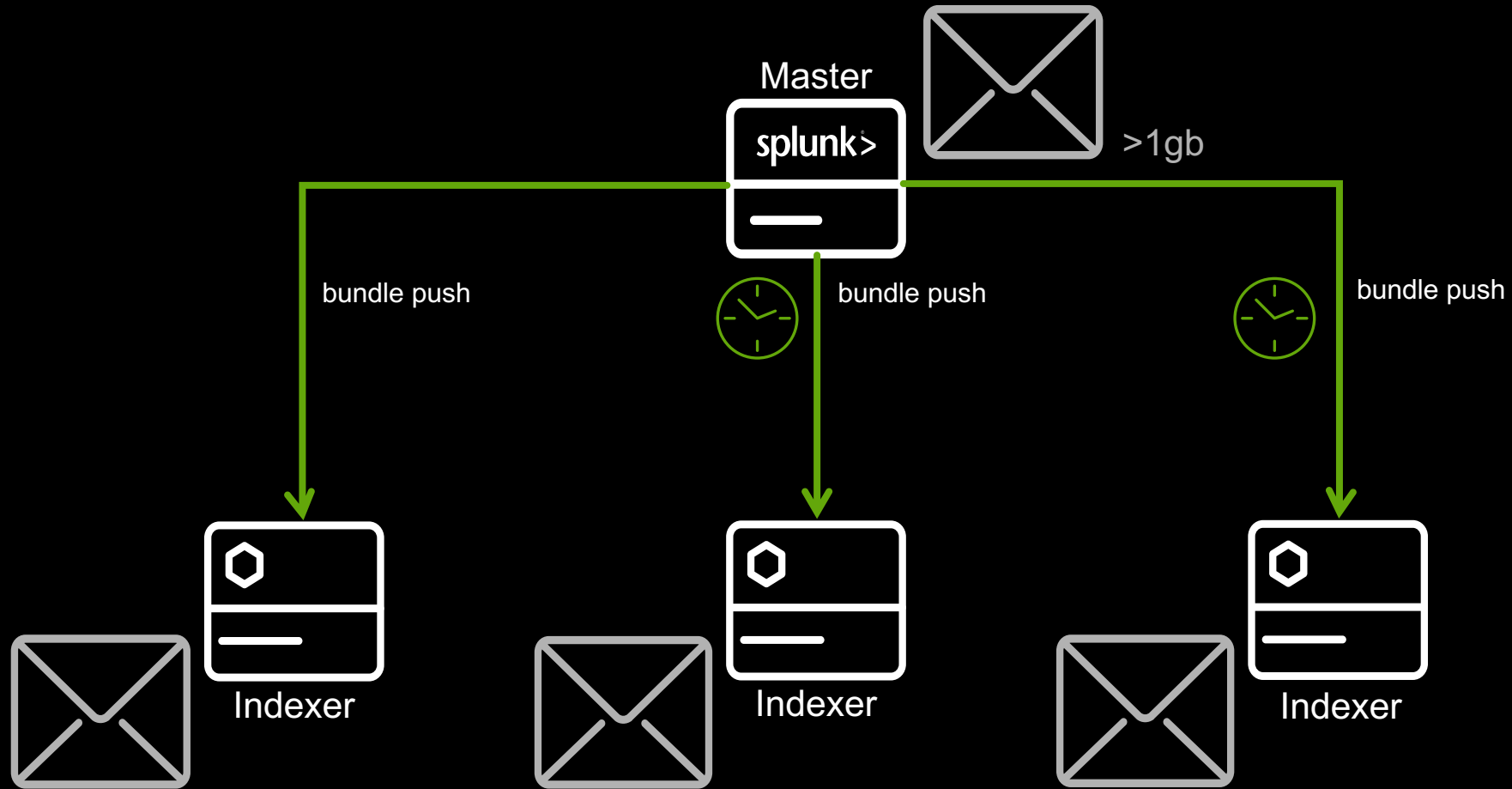
Oh No! Large Bundles

Network Congestion and Timeouts



Phased Bundle Downloads

Sending to One Peer at a time



Enabling Phased Bundle Downloads

- ▶ This is recommended if a cluster master is pushing large bundles or even a smaller bundle but to a large cluster (20 or more indexers).
- ▶ To enable, set the following configuration within server.conf

```
#inside server.conf
[clustering]
mode=master
max_peers_to_download_bundle = 1
```

Recap

Bundle Push and Other Operations

1. Configuration Bundle
2. Bundle Operations: Apply, Validate, Check for Restart, Rollback
3. States during Bundle Push
4. Phased Bundle Downloads

DEMO

[Skip Screenshots](#)

Bundle Operations

Cluster Master UI – Indexer Clustering

splunk> Apps ▾ Admi... ▾ 7 Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Indexer Clustering: Master Node

Edit ▾ More Info ▾ Documentation ↗

✓ All Data is Searchable

2 searchable
0 not searchable
Peers

✓ Search Factor is Met

✓ Replication Factor is Met

3 searchable
0 not searchable
Indexes

Peers (2) Indexes (3) Search Heads (1)

filter 10 per page ▾

i	Peer Name ▾	Fully Searchable ▾	Status ▾	Buckets ▾ ?
>	peer2	✓ Yes	Up	24
>	peer1	✓ Yes	Up	24

Bundle Operations

Configuration Bundle Actions

splunk> Apps ▾ Administrator ▾ 7 Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Indexer Clustering: Master Node

Edit ▾ More Info ▾ Documentation ↗

✓ All Data is Searchable
✓ Search Factor is Met

2 searchable 0 not searchable
Peers

Peers (2) Indexes (3) Search Heads (1)

filter 10 per page ▾

i	Peer Name ▾	Fully Searchable ▾	Status ▾	Buckets ▾ ?
>	peer2	✓ Yes	Up	9
>	peer1	✓ Yes	Up	9

Node Type

Master Node Configuration

Configuration Bundle Actions

Data Rebalance

Rolling Restart

Disable Indexer Clustering

Bundle Operations

Configuration Bundle Actions

Configuration Bundle Actions

[Documentation](#)

Click Push to distribute the configuration bundle to the set of peers. Optionally, validate the bundle and check if peer restart is required without distributing the bundle, or rollback to the previous bundle. [Learn More](#)

[Back to Master Node](#)

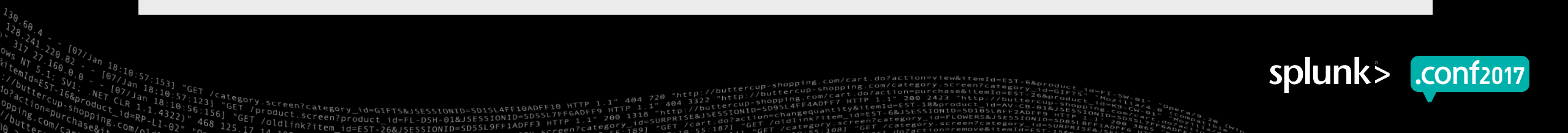
Validate and Check Restart

Push

Rollback

Bundle Information:

Updated Time	8/29/2017, 6:18:54 PM
Active Bundle ID ?	F33EA0DAB3527A2BB6C7D82F1010FC13
Latest Bundle ID ?	F33EA0DAB3527A2BB6C7D82F1010FC13
Previous Bundle ID ?	0C81B572B6DD2D9AD4BBBEF690CB676C



Bundle Operations

Bundle Push from the UI - Stages

splunk > Apps v Admi... v 7 Messages v Settings v Activity v Help v Find

Configuration Bundle Actions

Click Push to distribute the configuration bundle to the set of peers. Optionally, validate the bundle and check if peer restart is required without distributing the bundle, or rollback to the previous bundle. [Learn More](#)

[Documentation](#)

[Back to Master Node](#)

Validate and Check Restart Push Rollback

✿ Bundle validation is in progress.

Peers Validated: 2 of 2

Peers Reloaded: 0 of 2

```

130.60.4 - - [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&JSESSIONID=SD15L9FF10ADFF10 HTTP/1.1" 404 720 "http://buttercup-shopping.com/cart.do?action=view&itemId=EST-6&product_id=FL-SW-01"
128.241.220.82 - - [07/Jan 18:10:57:123] "GET /product.screen?product_id=FL-DH-01&JSESSIONID=SD55L7FF6ADFF9 HTTP/1.1" 404 3322 "http://buttercup-shopping.com/category.screen?category_id=GIFTS&JSESSIONID=SD15L9FF10ADFF10 HTTP/1.1"
317.27.160.0 - - [07/Jan 18:10:56:156] "GET /oldlink?item_id=EST-26&JSESSIONID=SD55L9FF1ADFF3 HTTP/1.1" 200 1316 "http://buttercup-shopping.com/cart.do?action=changequantity&itemId=EST-18&product_id=AV-CB-01&JSESSIONID=SD10SL9FF12ADFF9 HTTP/1.1"
...

```

Bundle Operations

Bundle Push from the UI - Stages

splunk> Apps ▾ Admi... ▾ 7 Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Configuration Bundle Actions


Click Push to distribute the configuration bundle to the set of peers. Optionally, validate the bundle and check if peer restart is required without distributing the bundle, or rollback to the previous bundle. [Learn More](#)


[Documentation](#)

[← Back to Master Node](#)

Validate and Check Restart Push Rollback

✿ Bundle reload is in progress. Waiting for all peers to return the status.

Peers Validated: 2 of 2 

Peers Reloaded: 2 of 2 

Bundle Operations

Bundle Push from the UI - Stages

splunk> Apps ▾ Admi... ▾ 7 Messages ▾ Settings ▾ Activity ▾ Help ▾ Find


Configuration Bundle Actions Documentation [🔗](#)


Click Push to distribute the configuration bundle to the set of peers. Optionally, validate the bundle and check if peer restart is required without distributing the bundle, or rollback to the previous bundle. [Learn More](#) [🔗](#)


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Validate and Check Restart
Push
Rollback

✿ Rolling restart of the peers is in progress.

Peers Validated: 2 of 2 

Peers Reloaded: 2 of 2 

Restarting Peer: 2 of 2 

Bundle Operations

Bundle Push from the UI - Complete

splunk> Apps ▾ Admi... ▾ 6 Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Configuration Bundle Actions

Click Push to distribute the configuration bundle to the set of peers. Optionally, validate the bundle and check if peer restart is required without distributing the bundle, or rollback to the previous bundle. [Learn More](#)

[Documentation](#)

[Back to Master Node](#)

[Validate and Check Restart](#)
[Push](#)
[Rollback](#)

Last Push: ✓ Successful

Updated Time	9/23/2017, 4:02:34 PM
Active Bundle ID ?	46E49DA3A1C1972A85A4E49DE0F83BB9
Latest Bundle ID ?	46E49DA3A1C1972A85A4E49DE0F83BB9
Previous Bundle ID ?	F33EA0DAB3527A2BB6C7D82F1010FC13

Bundle Operations

UI – Before Bundle Push

splunk > Apps ▾ Admi... ▾ 7 Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Configuration Bundle Actions

Click Push to distribute the configuration bundle to the set of peers. Optionally, validate the bundle and check if peer restart is required without distributing the bundle, or rollback to the previous bundle. [Learn More](#) >

[Documentation](#) >

[< Back to Master Node](#)

Validate and Check Restart
Push
Rollback

Bundle Information:

Updated Time	8/29/2017, 6:18:54 PM
Active Bundle ID ?	F33EA0DAB3527A2BB6C7D82F1010FC13
Latest Bundle ID ?	F33EA0DAB3527A2BB6C7D82F1010FC13
Previous Bundle ID ?	0C81B572B6DD2D9AD4BBBEF690CB676C

Bundle Operations

UI – After Bundle Push

splunk> Apps ▾ Admi... ▾ 6 Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Configuration Bundle Actions

Click Push to distribute the configuration bundle to the set of peers. Optionally, validate the bundle and check if peer restart is required without distributing the bundle, or rollback to the previous bundle. [Learn More](#)

[Documentation](#)

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Last Push: ✓ Successful

Updated Time	9/23/2017, 4:02:34 PM
Active Bundle ID ?	46E49DA3A1C1972A85A4E49DE0F83BB9
Latest Bundle ID ?	46E49DA3A1C1972A85A4E49DE0F83BB9
Previous Bundle ID ?	F33EA0DAB3527A2BB6C7D82F1010FC13

```

130.60.4 - - [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&JSESSIONID=SD15LAF10ADFF10 HTTP/1.1" 404 720 "http://buttercup-shopping.com/cart.do?action=view&itemId=EST-6&product_id=FL-SW-01"
128.241.220.82 - - [07/Jan 18:10:57:123] "GET /product.screen?product_id=FL-DSH-01&JSESSIONID=SD55L9FF1ADFF3 HTTP/1.1" 200 1316 "http://buttercup-shopping.com/cart.do?action=changequantity&itemId=EST-18&product_id=AV-CB-01&JSESSIONID=SD105L9FF1ADFF3 HTTP/1.1"
317.27.160.0 - - [07/Jan 18:10:56:156] "GET /oldlink?item_id=EST-26&JSESSIONID=SD55L9FF1ADFF3 HTTP/1.1" 468 125.17.14 "http://buttercup-shopping.com/cart.do?action=remove&itemId=EST-19&product_id=FLOWERS&JSESSIONID=SD55L9FF1ADFF3 HTTP/1.1"
130.60.4 - - [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&JSESSIONID=SD15LAF10ADFF10 HTTP/1.1" 404 720 "http://buttercup-shopping.com/cart.do?action=view&itemId=EST-6&product_id=FL-SW-01"
128.241.220.82 - - [07/Jan 18:10:57:123] "GET /product.screen?product_id=FL-DSH-01&JSESSIONID=SD55L9FF1ADFF3 HTTP/1.1" 200 1316 "http://buttercup-shopping.com/cart.do?action=changequantity&itemId=EST-18&product_id=AV-CB-01&JSESSIONID=SD105L9FF1ADFF3 HTTP/1.1"
317.27.160.0 - - [07/Jan 18:10:56:156] "GET /oldlink?item_id=EST-26&JSESSIONID=SD55L9FF1ADFF3 HTTP/1.1" 468 125.17.14 "http://buttercup-shopping.com/cart.do?action=remove&itemId=EST-19&product_id=FLOWERS&JSESSIONID=SD55L9FF1ADFF3 HTTP/1.1"

```

Bundle Operations

UI – Validate and Check Restart

splunk> Apps ▾ Admi... ▾ 7 Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Configuration Bundle Actions

Click Push to distribute the configuration bundle to the set of peers. Optionally, validate the bundle and check if peer restart is required without distributing the bundle, or rollback to the previous bundle. [Learn More](#)

[Documentation](#)

[< Back to Master Node](#)

Validate and Check Restart Push Rollback

Last Push: ✓ Successful

Updated Time	9/23/2017, 4:02:34 PM
Active Bundle ID ?	46E49DA3A1C1972A85A4E49DE0F83BB9
Latest Bundle ID ?	46E49DA3A1C1972A85A4E49DE0F83BB9
Previous Bundle ID ?	F33EA0DAB3527A2BB6C7D82F1010FC13

Bundle Operations

Configuration change to effect bundle Check Restart

```

kkolla@kkolla-HP:~/Work/instances/master/etc/master-apps/_cluster/local$ cat inputs.conf
[splunktcp://33452]
disabled=0
kkolla@kkolla-HP:~/Work/instances/master/etc/master-apps/_cluster/local$ █

```

```

130.60.4 - - [07/Jan 18:10:57:153] "GET /category.screen?category_id=GIFTS&JSESSIONID=SD15L9FF10ADFF10 HTTP/1.1" 404 720 "http://buttercup-shopping.com/cart.do?action=view&itemId=EST-6&product_id=FL-SW-01" "Opera/9.80
128.241.220.82 - - [07/Jan 18:10:57:123] "GET /product.screen?product_id=FL-DISH-01&JSESSIONID=SD55L7FF6ADFF9 HTTP/1.1" 404 3322 "http://buttercup-shopping.com/category.screen?category_id=GIFTS" "Mozilla/4.0 (compatible; MSIE6.0; Windows NT 5.1; SV1; .NET CLR 1.1.4322)"
317.27.160.0 - - [07/Jan 18:10:56:150] "GET /oldlink?item_id=EST-26&JSESSIONID=SD55L9FF1ADFF3 HTTP/1.1" 200 1316 "http://buttercup-shopping.com/cart.do?action=changequantity&itemId=EST-18&product_id=AV-CB-01&JSESSIONID=SD105L0FF2ADFF9 HTTP/1.1" 200 2423 "http://buttercup-shopping.com/product.screen?product_id=FL-DISH-01&JSESSIONID=SD55L7FF6ADFF9"
0.0.0.0 - - [07/Jan 18:10:55:187] "GET /category.screen?category_id=FLOWERS&JSESSIONID=SD55L7FF6ADFF9 HTTP/1.1" 200 3865 "http://buttercup-shopping.com/cart.do?action=remove&itemId=EST-1&SURPRISE&JSESSIONID=SD55L9FF1ADFF3"
0.0.0.0 - - [07/Jan 18:10:55:198] "GET /category.screen?category_id=FLOWERS&JSESSIONID=SD55L7FF6ADFF9 HTTP/1.1" 200 3865 "http://buttercup-shopping.com/cart.do?action=remove&itemId=EST-1&SURPRISE&JSESSIONID=SD55L9FF1ADFF3"

```

Bundle Operations

Validate and Check Restart from the UI

The screenshot shows the Splunk Configuration Bundle management interface. At the top, there's a navigation bar with 'splunk' logo, 'Apps', 'Admin', '7 Messages', 'Settings', 'Activity', 'Help', and a search bar. The main heading is 'Configuration Bundle'. Below it, there are instructions and a 'Documentation' link. Two buttons are visible: 'Validate and Check Restart' and 'Push'. A modal dialog is open in the center, titled 'Validate and Check if Restart is Required'. The dialog text reads: 'Some configuration changes might only be valid on certain versions of Splunk Enterprise, or might require a restart of all peers. Would you like to validate and check if these changes would require a restart? This will not push the changes. Learn More'. At the bottom of the dialog are 'Cancel' and 'Validate and Check Restart' buttons. Below the dialog, the 'Last Push: Successful' status is shown, followed by a table of bundle details.

Updated Time	9/23/2017, 4:02:34 PM
Active Bundle ID	46E49DA3A1C1972A85A4E49DE0F83BB9
Latest Bundle ID	46E49DA3A1C1972A85A4E49DE0F83BB9
Previous Bundle ID	F33EA0DAB3527A2BB6C7D82F1010FC13

Bundle Operations

Validate and Check Restart from the UI

splunk> Apps ▾ Admi... ▾ 7 Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Configuration Bundle Actions


Click Push to distribute the configuration bundle to the set of peers. Optionally, validate the bundle and check if peer restart is required without distributing the bundle, or rollback to the previous bundle. [Learn More](#)


[Documentation](#)

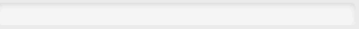
[Back to Master Node](#)

Validate and Check Restart Push Rollback

✿ Bundle validation is in progress.

Peers Validated: 2 of 2 

Peers Reloaded: 1 of 2 

Peers Checked For Restart: 0 of 2 

Bundle Operations

Validate and Check Restart from the UI

splunk> Apps ▾ Admi... ▾ 7 Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Configuration Bundle Actions


Click Push to distribute the configuration bundle to the set of peers. Optionally, validate the bundle and check if peer restart is required without distributing the bundle, or rollback to the previous bundle. [Learn More](#)


[Documentation](#)


[Back to Master Node](#)

Validate and Check Restart Push Rollback

✿ Bundle dryrun reload is in progress. Waiting for all peers to return the status.

Peers Validated: 2 of 2 

Peers Reloaded: 2 of 2 

Peers Checked For Restart: 2 of 2 

Bundle Operations

Validate and Check Restart from the UI

splunk> Apps ▾ Admi... ▾ 7 Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Configuration Bundle Actions

Click Push to distribute the configuration bundle to the set of peers. Optionally, validate the bundle and check if peer restart is required without distributing the bundle, or rollback to the previous bundle. [Learn More](#)

[Documentation](#)

[Back to Master Node](#)

[Validate and Check Restart](#)
[Push](#)
[Rollback](#)

Last Validate and Check Restart: ✔ Successful

Restart ?	Required
Updated Time	9/23/2017, 4:02:34 PM
Active Bundle ID ?	46E49DA3A1C1972A85A4E49DE0F83BB9
Latest Bundle ID ?	46E49DA3A1C1972A85A4E49DE0F83BB9
Previous Bundle ID ?	F33EA0DAB3527A2BB6C7D82F1010FC13
Latest Check Restart Bundle ?	78BEED3BF7E5FEF6E791AD3E5AEAF1B3

Troubleshooting and Best Practices

Pushing Configuration Bundles in
an Indexer Cluster

Apply Bundle

Cluster Master – splunkd.log

```
INFO CMBundleMgr - apply bundle status transitioning from='Bundle validation is in progress.', to='Bundle reload is in progress. Waiting for all peers to return the status.'
```

```
INFO CMMaster - Peers have indicated they are reload capable, issuing bundle reload.
```

```
INFO CMPeer - Bundle reload status peer=8A0E551F-227C-48DC-9018-515A63F971E8 peer_name=peer2 restart_required=1 rolling_restart=1 dryrun=0 reasons=[One or more configs require a restart to take effect. Configs=inputs]
```

```
INFO CMPeer - Bundle reload status peer=F78272B2-24DC-43BD-A402-A101123F2B4F peer_name=peer1 restart_required=1 rolling_restart=1 dryrun=0 reasons=[One or more configs require a restart to take effect. Configs=inputs]
```

```
INFO CMMaster - Restart required to apply the bundle.
```

```
INFO CMBundleMgr - apply bundle status transitioning from='Bundle reload is in progress. Waiting for all peers to return the status.', to='Rolling restart of the peers is in progress.'
```

```
INFO CMMaster - Starting a rolling restart of the peers.
```

Apply Bundle

Viewing the cluster bundle

► \$./bin/splunk show cluster-bundle-status

```
17:03 $ splunk show cluster-bundle-status

master
  cluster_status=None
  active_bundle
    checksum=ED4C6043FBF5345DBDCD3DD304636F9C
    timestamp=1501714888 (in localtime=Wed Aug  2 16:01:28 2017)
  latest_bundle
    checksum=ED4C6043FBF5345DBDCD3DD304636F9C
    timestamp=1501714888 (in localtime=Wed Aug  2 16:01:28 2017)
  last_validated_bundle
    checksum=ED4C6043FBF5345DBDCD3DD304636F9C
    last_validation_succeeded=1
    timestamp=1501714888 (in localtime=Wed Aug  2 16:01:28 2017)

peer2  8A0E551F-227C-48DC-9018-515A63F971E8  default
  active_bundle=ED4C6043FBF5345DBDCD3DD304636F9C
  latest_bundle=ED4C6043FBF5345DBDCD3DD304636F9C
  last_validated_bundle=ED4C6043FBF5345DBDCD3DD304636F9C
  last_bundle_validation_status=success
  restart_required_apply_bundle=0
  status=Up
```


Check Restart

Cluster Master – splunkd.log

```
INFO CMBundleMgr - apply bundle status
transitioning from='Bundle validation is
in progress.', to='Bundle dryrun reload
is in progress. Waiting for all peers to
return the status.'
```

```
INFO CMMaster - Dry Run Complete
```

```
16:58 $ splunk show cluster-bundle-status
```

```
master
```

```
cluster_status=None
active_bundle
checksum=1E704E11131BC274111CD8991E0DE621
timestamp=1501715122 (in localtime=Wed Aug 2 16:05:22 2017)
latest_bundle
checksum=1E704E11131BC274111CD8991E0DE621
timestamp=1501715122 (in localtime=Wed Aug 2 16:05:22 2017)
last_validated_bundle
checksum=815D4F439CA468F282164B7E456154E7
last_validation_succeeded=1
timestamp=1501716951 (in localtime=Wed Aug 2 16:35:51 2017)
```

```
peer2
```

```
8A0E551F-227C-48DC-9018-515A63F971E8 default
active_bundle=1E704E11131BC274111CD8991E0DE621
latest_bundle=1E704E11131BC274111CD8991E0DE621
last_validated_bundle=815D4F439CA468F282164B7E456154E7
last_bundle_validation_status=success
last_bundle_checked_for_restart=815D4F439CA468F282164B7E456154E7
last_check_restart_result=restart required
restart_required_apply_bundle=0
status=Up
```

Rollback

Cluster Master – splunkd.log

INFO CMBundleMgr - apply bundle status transitioning from='None', to='Bundle Creation is in progress.'

INFO CMMaster - Initiating rollback bundle process

INFO CMBundleMgr - Rolling back bundle on the master to previousActive bundle=ED4C6043FBF5345DBDCD3DD304636F9C previousActive bundlePath=/Users/kkolla/Work/instances/master/var/run/splunk/cluster/remote-bundle/971e64c31b6bbb0c0e7479cf500e0647-1501714888.bundle

CMMaster - Tracking bundle validation status for peers=F78272B2-24DC-43BD-A402-A101123F2B4F,8A0E551F-227C-48DC-9018-515A63F971E8

INFO CMBundleMgr - setting previousActive bundle=ED4C6043FBF5345DBDCD3DD304636F9C to active bundle=1E704E11131BC274111CD8991E0DE621

INFO CMMaster - Peers have indicated they are reload capable, issuing bundle reload.

INFO CMMaster - Starting a rolling restart of the peers.

Best Practices

1. Find a reasonable time to do your bundle push
2. Do NOT change slave configurations locally
3. When in doubt, use “—check-restart”
4. Enable phased bundle downloads for large bundles or large clusters

URLs:

<https://docs.splunk.com/Documentation/Splunk/6.6.3/Indexer/Managecommonconfigurations>

<https://docs.splunk.com/Documentation/Splunk/6.6.3/Indexer/Configurationbundleissues>

Thank You

Don't forget to **rate this session** in the
.conf2017 mobile app

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