



KONICA MINOLTA

TECHNOLOGY



Dispatcher Phoenix

Enterprise



Dispatcher
Phoenix
White Paper

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Introduction

Dispatcher Phoenix, Konica Minolta's automated document workflow application, can scale easily in any environment – from home office users and small businesses with a single server to large enterprise deployments with thousands of output devices. In order to ensure that enterprise-level businesses have the maximum up-time and high availability they need to achieve continuous service, Dispatcher Phoenix provides automated enterprise features, including support for failover, load balancing, replication, and process offloading.

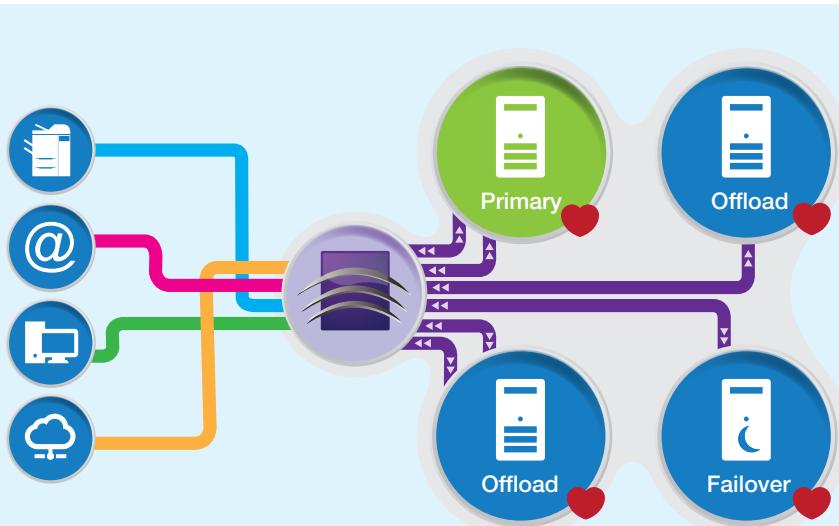
This white paper outlines Dispatcher Phoenix's enterprise-level features, including the information you need on cluster configuration, failover/offloading/load balancing scenarios and licensing examples, and frequently asked questions about deploying Dispatcher Phoenix in an enterprise environment.

Cluster Overview

Within a server cluster, multiple servers can be joined together for failover, redundancy, load balancing, and offloading. Using the Dispatcher Phoenix Web application's Manage Cluster feature, you can easily add servers together to form a cluster. Communication within the cluster is continuous, with a "heartbeat" monitoring each server's status and allowing for communication with each other.

Creating a server cluster provides your business with the following advantages:

- High Availability – A single point of failure is eliminated.
- Appears as Single System – The cluster will appear as a single system to end users.
- Scalable – More servers can be added to increase the power of your system.



Cluster Scenarios

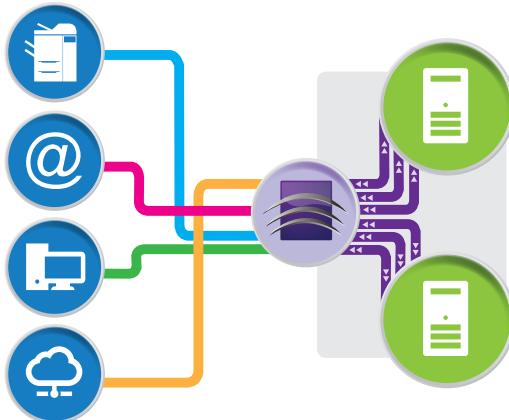
Failover Clusters

Dispatcher Phoenix Failover systems operate in Active/Passive mode where the Failover server remains in standby node until the active node fails. If the active node becomes unavailable due to failure or maintenance, the passive node immediately takes control of the cluster resources and services. This automated failover scenario is seamless and automatic so that end-users are not aware of any interruptions or changes in set up.



Load Balancing Clusters

You can also create a cluster designed to distribute the workload to several servers that form the cluster. This is also known as a server “farm.” In a load balancing cluster, jobs move from one primary server to another based on over-loading due to a combination of work queue backlog, hard drive space, memory, and/or system resources.

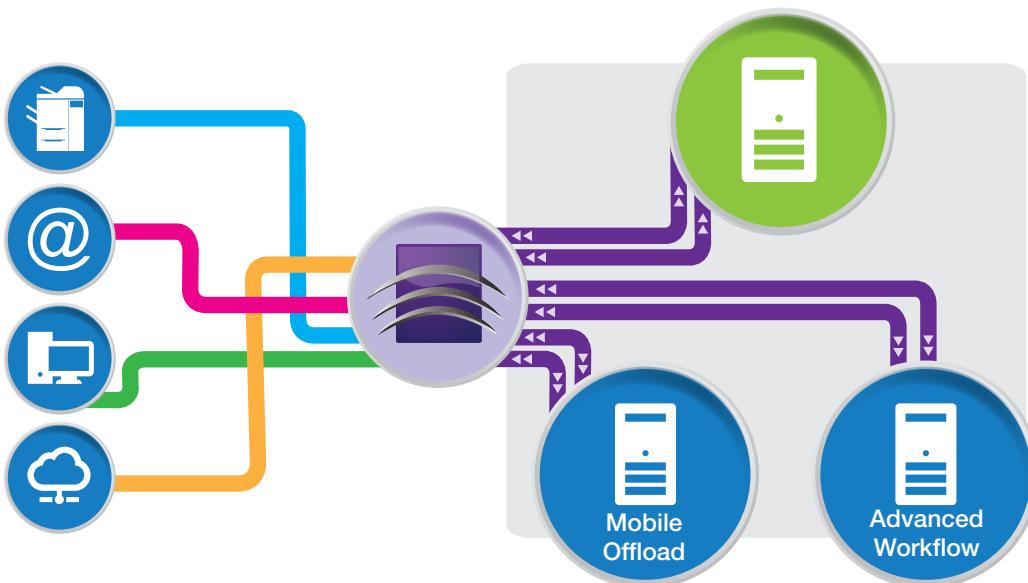


Offloading Clusters

To increase the efficiency of servers and improve application performance, you can set up a cluster for offloading in which workflows, processes, and other jobs are run on other servers. Dispatcher Phoenix offers the following types of offload connectivity:

- MFP: Traffic from the MFP is sent to a different server.
- Mobile: Traffic from the Dispatcher Phoenix Mobile app is sent to a different server.
- Web: Traffic from the Dispatcher Phoenix Web application is sent to a different server.
- Workflow Processing: Workflow processing is sent to a different server. There are two different options:
 - Basic - This server can be set up to run all workflows/processes (except for the processes included as part of the Advanced Workflow Offload license).
 - Advanced. This server can be set up to offload processing jobs (Convert to PDF, Convert to Office, Advanced OCR, Redaction/Highlight/Strikeout, Barcodes (Standard and 2D), Asian Fonts, etc.)

Note: An Offload server requires at least one primary in the cluster to be running. Offload servers can never run as the primary server.

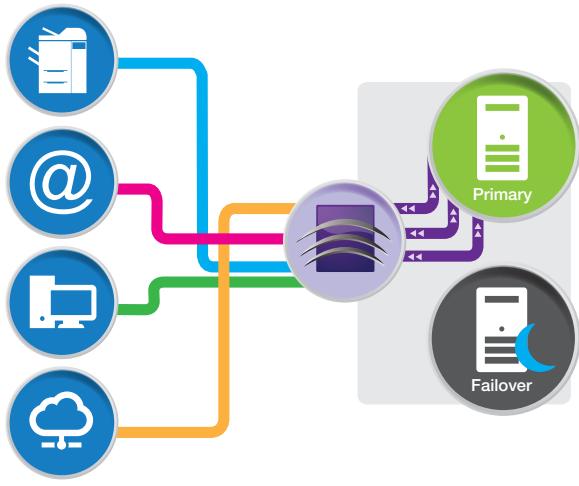


Licensing

Licensing for Failover

The failover server must have the same add-ins, active inputs, and licenses as the primary. If the primary is updated with other add-in modules features in the future, failover items for those new add-in modules must be purchased as well.

For example:



Primary Server

- Dispatcher Phoenix Professional
- 3 Year Maintenance for Dispatcher Phoenix Professional
- Convert to PDF
- 3 Year Maintenance Convert to PDF
- 10 Active Inputs
- 3 Year Maintenance for 10 Active Inputs

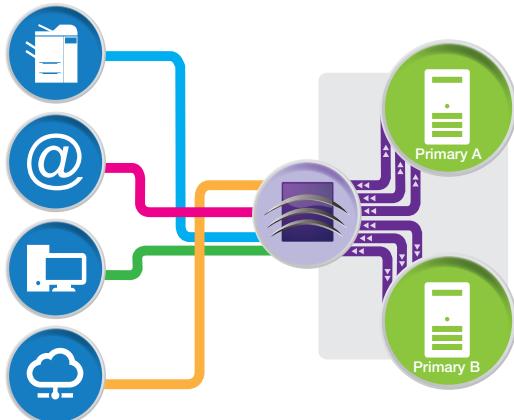
Failover Server

- Dispatcher Phoenix Professional (Failover)
- 3 Year Maintenance for Dispatcher Phoenix Professional
- Dispatcher Phoenix Convert to PDF (Failover)
- 3 Year Maintenance Convert to PDF
- 10 Active Inputs (Failover)
- 3 Year Maintenance for 10 Active Inputs

Licensing for Load Balancing

Primaries must match all primaries in cluster. For example, the main license, options, active inputs, and maintenance of one primary must match the other primary servers in the cluster.

For example:



Primary A

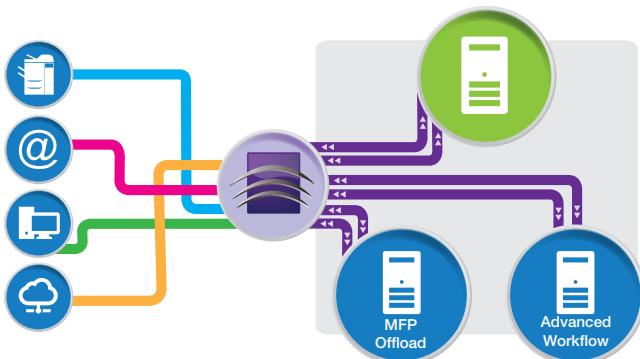
- Dispatcher Phoenix Office
- 100 Active Inputs
- 1 Year Maintenance for 100 Active Inputs

Primary B

- Dispatcher Phoenix Office
- 100 Active Inputs
- 1 Year Maintenance for 100 Active Inputs

Licensing for Offloading

Separate licenses are available for offloading servers.



Primary A

- Dispatcher Phoenix Office
- 100 Active Inputs
- 1 Year Maintenance for 100 Active Inputs

OFFLOAD B

- Offload MFP Connectivity license

OFFLOAD C

- Offload Workflow Processing (Advanced) License



Frequently Asked Questions

Q. How Many MFPs Are Supported by One Server?

A. There is no fixed limit since it depends on the type of workflow, the type of documents being processed (page count and complexity), the number of documents being processed, hardware, and network environment. However, our recommendation is as follows:

- For workflows with no document processing, we recommend up to 300 devices for one Dispatcher Phoenix server.
- For workflows with heavy processing (i.e., OCR), we recommend 100-150 devices for one Dispatcher Phoenix server.

Q. When setting up the Cluster, will my Add-in Module License (i.e., OnBase Connector) be Shared Across all of the Dispatcher Phoenix Installs or will each Server need a License for that Add-In Module?

A. An add-in module license is required per server, not cluster.

Q. Why can't I join a private server to the cluster?

A. All members of the cluster must be able to communicate with one another. By default, Dispatcher Phoenix servers are set up as "private." You must use the Workflow Services Manager to enable your servers to be public so that they are accessible for cluster set up.

Q. How long will my Failover server function once the primary fails?

A. A failover system will run as the primary server for 30 days, at which time the failover which is acting as a primary server will stop functioning (if a licensed primary system is still unavailable). If a failover server needs to become a permanent primary server, the user will need to manually transfer the license or stand up a new server.



Terminology

Enterprises employ several mechanisms to optimize the performance of their networks in order to ensure high availability. Clustering for failover (Active /Passive mode), load-balancing (Active/Active mode), and offloading is a commonly adopted technique that supports redundancy, session or database replication, and requests across the servers in the cluster.

See the list below for key terms used when discussing Dispatcher Phoenix in the Enterprise:

CLUSTER

A group of two or more replicated servers (also known as “nodes”) that are deployed to increase the availability, reliability, and/or performance of the group over that provided by a single server. Once joined together in a cluster, the nodes remain in constant communication.

FAILOVER

The process of moving resources from one node to another in the case of failure.

HEARTBEAT

A network “packet” sent between nodes in the cluster to confirm that they are still online.

LOAD BALANCING

Distributes the processing and traffic evenly across all servers in a cluster.

NODE

A server that is part of a cluster. Types of nodes include:

- Active Node - The cluster server that currently owns cluster group resources and responds to network requests made to those services.
- Passive Node - The cluster server that does not currently own cluster group resources but is available if the active node fails over.

OFFLOAD

For process and traffic-intensive operations, it may be necessary to perform the processing on a separate server(s) for high throughput. Offloading distributes processing tasks to another server in the cluster to maximize the usage of available server resources.

PRIMARY

A member of the cluster.

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