

New and Changed Information

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The following table provides an overview of the significant changes to this guide for this current release. The table does not provide an exhaustive list of all changes made to the guide or of the new features in this release.

The following tables provide information about the new and changed features in Cisco NDFC.

Table 1: New and Enhanced features for all personas in NDFC Release 12.1.2e

Product Impact	Features	Description	Where documented
Ease of Use	Disable Promiscuous mode for virtual Nexus Dashboard (vND) deployments	From Release 12.1.2e, you can disable promiscuous mode on port groups associated with the vND management and data interface vNICs. All features that use persistent IP will continue to work even for Layer-2 adjacent vND deployments.	ESXi Networking for Promiscuous Mode
	Elasticsearch to Open Search database	From Release 12.1.2e, NDFC uses an OpenSearch database for storing time series data. As part of the upgrade process from prior NDFC releases, data is seamlessly migrated from Elasticsearch to OpenSearch.	NA
	Inline Backup Restore	This feature enables you to perform a config-only restore on an existing NDFC system using a prior backup. The backup itself may be a full backup or a config-only backup. In prior releases, a restore from a backup file, could only be performed on a freshly installed NDFC, with no persona enabled. Now you can also restore the backup on an In-Service system where some persona has already been enabled.	Restore

Product Impact	Features	Description	Where documented
Interoperability	NDFC with Nexus Dashboard QCOW2 deployments on KVM hypervisor on RHEL Release 8.6	NDFC can be installed on a virtual Nexus Dashboard cluster running on top of KVM hypervisor running on top of CentOS and RHEL operating systems. All 3 personas namely, Fabric Controller, Fabric Discovery, and SAN Controller are supported.	Cisco Nexus Dashboard Deployment Guide
Performance and Scalability	Resource Utilization for MinIO and CockroachDB	NDFC Release 12.1.2e uses CockroachDB which is a distributed SQL database primarily for configuration data. It uses MinIO as an object store for storing blob files like switch images, patches, and so on. Both CockroachDB and MinIO export statistics that are collected and made available on Nexus Dashboard **Web UI** > **Infrastructure** > **Resource Utilization**, dashboards namely, **CockroachDB** and **Minio Overview**.	NA
Licensing	NDFC Licensing for 3rd Party Devices	NDFC licenses for 3rd party devices will be supported in the DCN 3rd Party Essentials License tier. Customers can now purchase the DCN 3rd Party Essentials for Arista devices onboarded into NDFC.	Smart Licensing

Table 2: New and Enhanced features in LAN Fabrics in Cisco NDFC Release 12.1.2e

Product Impact	Feature	Description	Where documented
Ease of Use	Configuring IP Prefix list	IP Prefix lists allow route filtering and/or redistribution of routes that are exchanged between routing domains. A prefix list contains one or more IPv4 or IPv6 network prefixes, the associated prefix length values, and various matching parameters. NDFC now allows users to create and manage IP prefix lists natively using pre-packaged best-practices prefix list templates.	LAN Fabrics
	Configuring Native VLAN for ethernet interfaces without using freeform configuration	This feature allows you to configure native VLAN for trunk interfaces. A Native VLAN field has been added to the **int_trunk_host** template to allow users to set the field directly.	Adding Interfaces
	Interface Group Support with Policy Inheritance	NDFC 12.1.2e allows you to now optionally associate a shared interface policy with an Interface Group. The same shared policy is automatically inherited by all the interfaces that are members of a given interface group. This functionality is currently supported for Ethernet trunk interfaces.	Interface Groups
	Interface group support for Layer-2 ToRs	The Interface Group functionality has been extended to allow ToR switch trunk interfaces along with the leaf trunk interfaces, as members. This allows for easy deployment of overlay networks across any kind of leaf-ToR VXLAN EVPN deployments.	Interface Groups
	Secure POAP	NDFC now allows touchless Day-0 bring-up of Nexus 9000 devices via secure POAP using HTTPs. To support interoperability scenarios, NDFC can simultaneously support POAP with some switches using the traditional HTTP transport option versus POAP for other switches using the secure HTTPS transport option.	Secure POAP
	Support for additional DHCP relay servers for overlay networks	NDFC 12.1.2e supports a maximum of 16 DHCP relay servers for overlay networks in Data Center VXLAN EVPN fabrics.	LAN Fabrics
	Support to specify and honor pre-provisioned links		LAN Fabrics

Product Impact	Feature	Description	Where documented
		Additional parameters such as MTU, speed, and so on. are introduced with the existing pre-provisioned link template that provisions planned fabric links in Data Center VXLAN EVPN fabrics. These parameters are preserved during subsequent Recalculate & Deploy after the device has completed bootstrap.	
Interoperability	Hybrid Cloud Connectivity	NDFC now provides hybrid cloud connectivity of VXLAN EVPN on-premises fabrics to the public cloud (AWS or Azure). NDFC also provisions the IPSec IPN devices (ASR 1000, Catalyst 8000V and so on) on the on-premises side. The public cloud connectivity is managed via the Cloud Network Controller. Nexus Dashboard Orchestrator is used to orchestrate connectivity between on-premises and cloud sites via the NDFC and CNC respectively. VXLAN over an optional IPSec tunnel is used as the data plane while BGP EVPN is used as the control plane.	Hybrid Cloud Connectivity Deployment for Cisco NX-OS
Performance and Scalability	Scale Enhancements	The following enhancements are introduced with Release 12.1.2e: • Support for 500 switches in Easy Fabrics (Data Center VXLAN EVPN and BGP Fabrics) and 1000 switches in External Fabrics (Flexible Network fabrics, Classic LAN fabrics, External Connectivity Network fabrics, and Multi-Site Interconnect Network fabrics) • Supports 200 switches per fabric. • Enhanced VNI Scale (2500 Layer-2 only Networks or 500 VRFs and 2000 Layer-3 Networks), 4K Networks (VNIs) on a single switch.	Cisco NDFC Verified Scalability Guide

Table 3: New and Enhanced features in IPFM Fabrics in Cisco NDFC Release 12.1.2e

Product Impact	Feature	Description	Where documented
Performance and Scalability	PTP monitoring in scaled deployments	This feature provides flexibility to enable or disable notifications when the system encounters high volume of correction events. By default, high correction notification is disabled. You can also configure the frequency for generating notifications.	PTP (Monitoring)
Ease of Use	Dynamic allocation of host port IPs using defined switch level pool	NDFC allows you to export the selected interfaces with different types of policies. However, you can import many interfaces with the same policy, at one go.	Interface Groups
Performance and Scalability	RTP flow monitoring enhancement	From Release 12.1.2e, a new hyperlink is introduced to switches in **RTP/EDI Flow Monitor** > **Active Flows** to view end-to-end flow topology for each fabric. If there are multiple receivers, you can choose a receiver from the **Select Receiver** drop-down list to view the topology for that receiver.	Active Flows
Performance and Scalability	NBM mode support changes in default and user-defined VRFs	Release 12.1.2e allows configuring and monitoring of both NBM active and passive VRFs in IPFM fabrics.	IPFM VRF

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