Release Notes for Cisco MURAL Software Version 4.1

Software version 4.1

September 6, 2017

The information contained in this document applies to Cisco MURAL.

This software release is identified as Cisco MURAL software version 4.1

Contents

This document contains the following sections:

Introduction

Mobility Unified Reporting and Analytics (MURAL) provides reporting and analytics for deep packet inspection (DPI) data emerging from your network, including scheduled offline reports. The MURAL user interface provides visualization of network traffic analysis, content distribution analysis, device traffic distribution and reporting for BulkStats and key performance indicators (KPIs).

The Cisco MURAL application is centrally deployed on a redundant pair of UCS 5108 Blade Server Chassis. Each chassis includes nodes called Collector (collects data streams), Compute (analyzes and aggregates data), Insta (stores and manages processed data) and UI/Caching (responds to requests from the user interface). An ASR 5000 or ASR 5500 platform feeds network data to the MURAL Collector node. External storage of both raw and computed data is hosted on EMC storage devices.

Release 4.1 supports bulkstats 21.2 version. The release is generically applicable for all MURAL deployments.

This release additionally provides central deployment of Cisco MURAL on UCS-C rack servers with internal storage for smaller deployments.

System Requirements

Cisco MURAL can be hosted on UCS 5108 Blade Server chassis specifically allocated to and configured for MURAL. An EMC VNX external storage system is also specifically allocated to and configured for MURAL. For smaller deployments, Cisco MURAL can also be hosted on UCS-C 240M3 and C460 rack servers. Refer to the Bill of Materials for a complete list of hardware components required.

Enhancements in This Release

This section lists new features that have been implemented in this software release.

1. Neural Network Model

To improve tethering detection of flows including the spoofed TTL cases, NNM model is introduced. Unlike OS-DB, the NNM output (as a database) will contain {TAC,OS-signature}-list which Cisco ASRs can lookup against the value received in incoming flows and if an entry is found, the flow can be marked as 'Tethered'.

2. TetheringUA manual DB

- To improve UA-based tethering detection, Mural will publish UA-DB on every 30 days based on the processed UA output provided from deployment, the format of UA-DB will be same as existing UA-DB only. The advantage of providing tuned UA-DB are as follows:
  - o   Expected to catch more tethering traffic.
  - o   Expected to have lesser false positives.

3. Performance improvement

Mural main data processing job performance has been improved by 15-20% with all csv reports enabled.

4. p2p IB update based on ADC

P2P added in Cisco ADC plugin have been included in Mural IB and Mural introduces "**Travel**" Traffic type category for better categorization of data.

5. UI Enhancement

Following UI enhancements are included in this release.
  1. DPI Netwrok Analytics quick links changed to date format for better data availability understanding.
  2. Mural UI supports slow calls.

Release Contents

For ease of understanding, installation instructions have been provided in the following guides based on the deployment scenario:

- For complete fresh installation instructions, please refer to the *Cisco MURAL Installation Guide*.

- For fresh installation on Rack server, please refer to the *Cisco MURAL Software Installation Guide for Rack Servers*.

- For Upgrade installation, please refer to the *Cisco MURAL Upgrade Installation Guide*.

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Media	File name	MD5SUM
Release ISO	mfgcd-atlas4.1.rc1.iso	b3753743b06299910dfe5f8295f5f961
Release IMG (Only for Upgrade)	image-atlas4.1.rc1.img	6715aba79e6749c3beccb2d051444b48
Monitoring interface package	pkg_dashboard.tgz	79b6f9a1b81eeaa8ba49e7c8c3edb28b
MIBs	mibs/	67 files
VM images	datafs.vmdk.gz	2bfe9d8a883861c8bb76e7766b62c483
VM images	rootfs.vmdk.gz	9beb5ee8b8793ad7249d3da20d7b2d14
VM images	vmTemplate.zip	4355a8faabd4d8485793dddef7abbcb0

Manual Operation Procedure

Not applicable.

Resolved Issues

Issue ID	Description
MUR-2309	MURAL4.0 CoreJob is creating excessive logging cause data hole of 18 days
MUR-703	v6-os-db does not get transferred through offline_datatransfer_tethering job when it needs to transfer by changing its name..
MUR-2239	rubix logs shows data serve from insta, however ui expect it is a fast call according to cachepoints
MUR-2257	[AlertRule-UI]Incorrect Behaviour of Warnings while creating an alert rule.

MUR-2373	Model-D Job: HA support should be present for the job
MUR-2418	File httpd.conf used in reverse proxy brings GMS -server and httpd process down.
MUR-2337	[UI] Summary bar not updated for any selection on Content-> Traffic type in case user select some mobile app on Content -> Mobile app page and go to Network page and return to content again
MUR-2362	Model-D Job: Tetheringmodel .zip file is not updated on every iteration.

Known Issues

Issue ID	Description
MUR-2475	Uncategorized tls-sni not coming in uncategorized report
MUR-2471	Upgrade - CleanupOutput job fails after upgrade from 4.0 to 4.1
MUR-2464	Quick time range selector value is not readable for yesterday
MUR-2441	ModelD - There should be some way of cleaning previously learned tac,os signature in db
MUR-1668	Data beyond 3 months giving error on UI as slow call not implemented
MUR-2153	GMS Lite is setting GMS VIP as PXE boot server, should be local IP of Master GMS only.
MUR-2310	VFE - MURAL 4.0 UI - Workflow show SubscriberID masked but Report shows full numbers
MUR-2426	Error scenario ModelD - Proper logging message in case of no data and just _DONE file in input
MUR-2413	Enhancement: Model-D Job doesnt support deployment in distributed mode

Related Documentation

In addition to this document, the MURAL documentation set includes the following:

- MURAL User Guide
- MURAL Software Installation Guide
- MURAL Upgrade Guide
- MURAL Software Installation Guide for Rack Servers
- MURAL Software Installation Guide for VMWare Environment
- MURAL Operations and Troubleshooting Guide