Proactive RMA for Intersight Connected Devices

Contents

Introduction

This document describes the Proactive RMA system. Leveraging telemetry from connected products, Cisco is able to deliver a near effortless customer experience when products experience certain failures. With no human interaction, a Service Request (SR) and a Return Material Authorization (RMA) will be authorized proactively, significantly reducing the amount of time from failure to replacement. This document will cover information about this program, what actions customers must take, devices / issues that are covered by this program and available configurations (opt-out, contact configuration).

Requirements

- Device must be connected and claimed to either Intersight Cloud directly or via connected virtual appliance (Appliance supported since July 2021). See the Intersight Getting Started guide for connecting and claiming a device. Private Virtual Appliances are not supported.
- For Connected Virtual Appliances, Proactive RMA must be enabled, see here for more information on how to enable this.
- Device must be covered under a valid support contract (e.g. Smart Net Total Care - SNTC)
- No license is required for Intersight SaaS (no-license tier), minimum of Essentials is required on the Connected Virtual Applance (CVA)

Scope

All customers and all devices meeting the above requirements are in scope. This program operates on an opt-out basis, although to operate on connected virtual appliances the Proactive RMA feature must be enabled. Aside from the below failure types, additional hardware failure scenarios / faults are in consideration for coverage in this program.

Memory Errors

UCS Memory Failures (DIMM Inoperable Fault F0185). These represent uncorrectable errors as well as DIMMs in the same channel to DIMMs that have experienced an uncorrectable error (UECC). While DIMMs that are in the same channel will experience an F0185 fault, they are not truly bad and will not be replaced. Please see CSCvt29521 for more information about this behavior. Note: All management modes (Standalone, UMM - UCSM Managed Mode, IMM - Intersight Managed Mode) are supported for this failure type.

Caveats:

- Servers that experience more than one Degraded DIMM fault are not covered - customers should manually open cases for these issues.
- Instances of CSCvo48003(“M4 Blade - Patrol Scrubber logs DIMM address with 4k boundary”) or CSCvo48006 (“M4 Rack - Patrol Scrubber logs DIMM address with 4k boundary”) will be excluded

UCS Drive Failures

UCS Disk Failures (Most Disk Faults F1732 and F0181) are covered by this feature. Drives in a Predictive Failure or Failed state raise these faults and should be covered.

Caveats:

- IMM Managed Servers are not yet supported
- Disks with faults but in an apparent non-failed state (i.e. : foreign configuration, copyback, rebuilding, etc) will be excluded.
- Disks using a passthrough or non-RAID HBA storage controller or disks in JBOD mode may not have sufficient logging evidence in the tech support files to determine if a disk has failed and may not be replaced. A sub-set of disk failures on non-RAID HBA do create appropriate fault and have sufficient logging evidence to be included.

Hyperflex Drive Failures

Permanently failed caching and persistent disks within Hyperflex (sometimes called: Blacklisted / Failed Permanently / Retired) are covered by this feature.

Note: The cluster should auto-heal and be healthy shortly after the disk fails, in these instances a disk should still be replaced.

Caveats:

- Clusters experiencing more than one drive failure will not be operated on.
- Drives that match FN70234 will be excluded
- Drives that match the Models affected by CSCvo58565 will be excluded

- HX Clusters connected via the Intersight Connected Virtual Appliance are not yet operated on.

C-Series Fan Failures

Fan faliures within a C-Series server that is in standalone or UMM (UCSM Managed Mode) are supported. Fault codes: F0484, F0397, F0794 are in scope.

Caveats:

- IMM Managed Servers are not yet supported
- Multiple fan failures occurring at the same time are likely not fan hardware failure and are not supported at this time
- Transient fan failures should not generate a Proactive RMA Case

Fabric Interconnect Fan Failures

Fan failures within a Fabric Interconnect that is in UMM (UCSM Manged Mode) are supported. Fault codes: F0484, F0397 are in scope.

Caveats:

- IMM Managed Servers are not yet supported
- Multiple fan failures occurring at the same time are likely not fan hardware failure and are not supported at this time

What to Expect

When a covered fault event occurs, an SR and an RMA are generated. Points of interest:

1. Emails will be from sherholm@cisco.com, customers may wish to specifically allow this address.
2. Case will be created with either the configured email (See the advanced configuration section below) or the last entitled user that logged into Intersight.
3. The other users in the Intersight account who are entitled under the contract are copied on the email. If users are explicitly configured (via tagging, see below), only configured users will receive the email.
4. Any entitled user can take ownership of the RMA and fill out the required details.
5. Cisco's RMA tool will send reminders to fill out the draft RMA to the user with whom the case was opened.

Following service request creation, customers will receive an e-mail similar to the example below:

```
From: sherholm@cisco.com
To: bob@example.com
Subject: [Action Required] SR: 600000000 - Proactive Replacement of Memory Module [Connected via
Intersight]

Hello Bob,

I am writing to let you know that Cisco has received a fault message from your Cisco UCS server
```

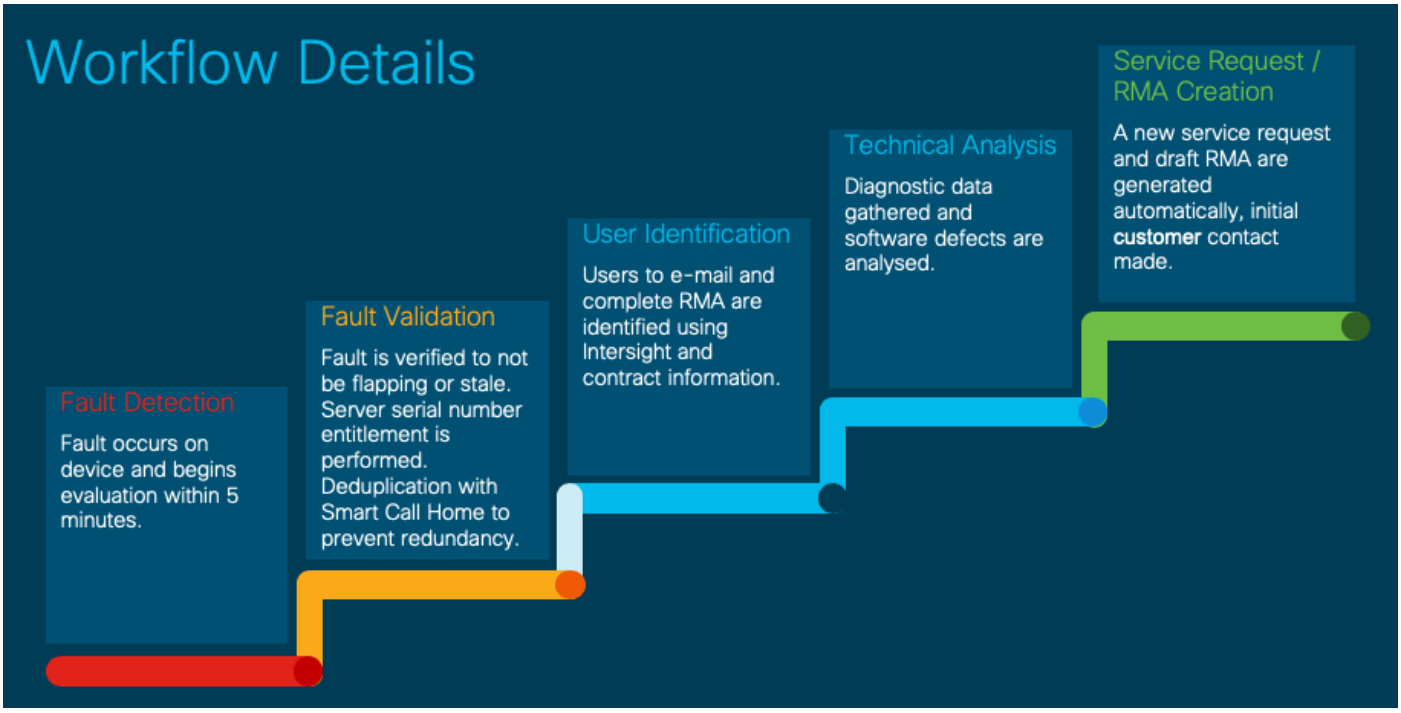
connected by Cisco Intersight.
The fault indicates that a memory DIMM module has failed and needs replacing. I have automatically created a TAC Case for
you (SR 600000000) and have created the RMA to ship you the replacement DIMM. I just need you to click the RMA link and
verify your shipping address so the replacement part can be shipped out to you: https://ibpm.cisco.com/rma/home/?RMANumber=800000000 Note: If you have difficulty loading the link above, please contact LSC at one of the following manners: https://www.cisco.com/c/en/us/buy/logistics-support-center.html Here is some more information about the failed DIMM and the server it's installed in: Domain Name: ucs-domain Domain IP Address: 192.0.2.1 Server Serial Number: SERIAL Fault Description: DIMM DIMM_H1 on server 1/1 operability: inoperable Link to server in Intersight: https://intersight.com/an/compute/physical-summaries/moid/server/ Link to Fault in Intersight: https://intersight.com/an/cond/alarms/?Moid=moid Please let me know if you have further questions, Sincerely, Sherlock Technical Consulting Engineer.Customer Delivery Cisco Customer Experience

Benefits

1. Significantly reduced effort to receiving a replacement part.
2. Auto creation of SR - faster reaction time to event.
3. Pre-authorization of RMA.
4. Ability to fill out RMA details right after contact.
5. Automatic collection of targeted diagnostic data.
6. Software defect screening - software failures masquerading as hardware failures will not generate unnecessary RMAs.

Additional Details

Workflow Details



Advanced Configuration (optional)

Two advanced configuration options are supported at this time. Configuration options are set using tags within Intersight.

The tags discussed below can be configured at any of the following levels:

1. Account (via GUI)
2. Organization (via API)
3. Target / Registered Device (via API)

For customers using the Connected Virtual Appliance, tagging can be done either on the appliance itself or on Intersight Cloud.

For more information on settings tags, please see the Setting Tags in Intersight document.

Explicitly Configuring a Contact

Customers can explicitly configure the email address(es) they wish to be associated with both the SR and the RMA. The tag name/key is "AutoRMAEmail" and the value is a CSV list of emails that you wish to notify and entitle the case with. Proactive RMA will use a first match basis and analyze emails in a left-to-right manner. For example if you use "user@example.com,user2@example.com" user@example.com will be attempted first, however all emails will be copied.

Warning: For a case to be opened at least one email in the CSV list must correlate to a valid CCO Account that is associated to the contract that the device serial number is covered under.

Please note that Intersight has a character limit for tags of 255 characters. Because of this, Proactive RMA supports any tag that starts with AutoRMAEmail (eg: AutoRMAEmail1, AutoRMAEmail2) and will concatenate all of the values together.

If using the API to configure tags, the tag needs to look similar to:

```
{"Key":"AutoRMAEmail","Value":"email1@example.com,email2@example.com"}
```

See above for link to document discussing details on tagging.

Opting out of Proactive RMAs

To opt out,

If using the API the tag must be as shown below.

```
{"Key":"AutoRMA","Value":"False"}
```

To opt back into Proactive RMAs (if opted out), users can either change the tag to:

```
{"Key":"AutoRMA","Value":"True"}
```

Or they can remove the tag alltogether. Please note - Users do NOT need to opt-in via tags if they have not opted out, they are automatically enabled unless they have opted out.

FAQ

Q: What information will Cisco collect for these faults?

A: Fault Details (Time/Device/Etc.), Inventory information (Model / Serial / Firmware), applicable diagnostic data (eg: CIMC/UCSM/HX Tech Supports).

Q: What is the reaction time?

A: Cases are typically opened, and the RMA created, within one hour after fault occurs. This includes all time needed to generate and process the appropriate diagnostic data.

Q: Who can submit the RMA?

A: Any entitled user on the contract the device is covered by can submit the RMA, it does not need to be the same individual who is the contact on the TAC service request. The RMA is initially associated with one specific CCO account. Users who wish to fill out the RMA can click the "Actions" button in the top right hand corner on the RMA and select "Transfer Assignment". In the subsequent screen, leave your CCO populated in the input box and click "Submit".

Q: I am seeing an error when loading the RMA, how can I submit this RMA?

A: Occasionally stale cookies / browser cache can cause issues when loading the RMA, please first try loading the RMA in a private browsing window or a different browser. If the issue persists please email us back asking for help.