Intel® Rack Scale Design RMM

Release Notes
Software Version 2.1.3

May 2017

Revision 003

No license (express or implied, by estoppel or otherwise) to any intellectual property rights is granted by this document.

Intel disclaims all express and implied warranties, including without limitation, the implied warranties of merchantability, fitness for a particular purpose, and noninfringement, as well as any warranty arising from course of performance, course of dealing, or usage in trade.

This document contains information on products, services, and/or processes in development. All information provided here is subject to change without notice. Contact your Intel representative to obtain the latest forecast, schedule, specifications, and roadmaps.

The products and services described may contain defects or errors known as errata which may cause deviations from published specifications. Current characterized errata are available on request.

Copies of documents that have an order number and are referenced in this document may be obtained by calling 1-800-548-4725 or by visiting *http://www.intel.com/design/literature.htm*.

Intel and the Intel logo are trademarks of Intel Corporation in the United States and other countries.

*Other names and brands may be claimed as the property of others.

Contents

Tables

Revision History

Revision	Description	Date
003	Maintenance release.	May 11, 2017
002	Maintenance release.	March 27, 2017
001	Initial release.	March 16, 2017

§

1 Introduction

These release notes are intended to accompany the RMM reference stack release 2.1.3.x of Intel® Rack Scale Design.

1.1 RMM package contents

Table 1 lists the contents of the release package.

Table 1   Software package for RMM 2.1.3

Title	Notes
Intel® Rack Scale Design RMM Release Notes	This document
Intel® Rack Scale Design Generic Asset Management Interface	JSON-RPC API specifications to communicate with the Generic Asset Management Modules
RMM REST-API Specification	RMM REST API specifications
RMM Reference Stack User guide	User Guide
rmm-src-2.1.3.38.0.tar.gz	RMM reference stack sources
License.txt	Apache License, Version 2.0

Customers should check *https://github.com/01org/intelRSD* to download the latest available onboard device drivers, system firmware, and system software. For further assistance, please contact the Intel Field Representative.

1.2 Revision numbers of RMM package components

Table 2   Revision numbers of the RMM reference stack release components

Subproject (component)	Revision
Intel* RMM	RMM_2.1.3.38.0

1.3 References

Table 3   Reference documents

Doc ID	Title	Location
335451	Intel® Rack Scale Design Generic Assets Management Interface API Specification	*Intel.com/intelrsd_resources*
335452	Intel® Rack Scale Design BIOS & BMC Technical Guide	*Intel.com/intelrsd_resources*
335501	Intel® Rack Scale Design Architecture Specification	*Intel.com/intelrsd_resources*
335454	Intel® Rack Scale Design Software Reference Kit Getting Started Guide	*Intel.com/intelrsd_resources*
335455	Intel® Rack Scale Design Pod Manager API Specification	*Intel.com/intelrsd_resources*
335456	Intel® Rack Scale Design Pod Manager Release Notes	*Intel.com/intelrsd_resources*
335457	Intel® Rack Scale Design Pod Manager User Guide	*Intel.com/intelrsd_resources*
335458	Intel® Rack Scale Design PSME REST API Specification	*Intel.com/intelrsd_resources*
335459	Intel® Rack Scale Design PSME Release Notes	*Intel.com/intelrsd_resources*
335460	Intel® Rack Scale Design PSME User Guide	*Intel.com/intelrsd_resources*
335461	Intel® Rack Scale Design Storage Services API Specification	*Intel.com/intelrsd_resources*
335462	Intel® Rack Scale Design Rack Management Module (RMM) API Specification	*Intel.com/intelrsd_resources*
335463	Intel® Rack Scale Design RMM Release Notes	*Intel.com/intelrsd_resources*
335464	Intel® Rack Scale Design Software RMM User Guide	*Intel.com/intelrsd_resources*
n/a	Scalable Platforms Management API	*http://dmtf.org/standards/redfish*

§

2 New Features

2.1 New features for v2.1.3 release

This release comes with several stability improvements. No new features were added.

2.2 Limitations

The following list describes all the limitations for this release. (Described limitations are targeted for future releases.)

1. The items listed below differ from the REST API Specification 1.0:
   - PowerConsumeWatts and PowerOutputWatts will be 0 if hardware does not support it.
   - Status of Outlet Temperature is disabled since there is no sensor for outlet temperature.
2. Remotely update CM component will always return successful even with wrong image since there is no method to check the update status for CM remotely.
3. Only PSU health status is supported. PSU supports fan alert and temperature alert for health status check.
4. Memdb snapshot may mismatch between two different versions of RMM firmware while updating; its required to remove memdb snapshot before restarting the RMM service by using the following command: sudo rm /var/memdb/* –f

§

3 Known Issues

Table 4 lists and describes possible statuses of known issues in this release:

Table 4   Status definitions

Status	Description
Under investigation	The sighting is being investigated.
Root cause identified	The root cause of the defect is identified.
Workaround available	A temporary solution to the defect is provided until the bug is fixed.
As designed	The issue reported is not a defect and the behavior will not be modified.
Closed no repro	The situation is not observed anymore and no further investigation is scheduled.
Fixed	The defect has been fixed.

Table 5 presents problems and issues found during testing of this release.

Table 5   Known issues

Issue	Description
HSD 106213	**RMM REST API does not provide metadata as expected according to the specification**
Note	Current implementation of RMM does not support metadata exposure over the REST API interface
Workaround	REST API can be checked with metadata delivered with RMM source code or the Conformance Test Suite tool
Disposition	Root cause identified
HSD 106215/106182	**Value of PresentTemperatureCelsius OutletTemperatureCelsius VolumetricAirflow is 0**
Note	RMM exposes the 0 value if platform does not support the following sensors: PresentTemperatureCelsius, OutletTemperatureCelsius, VolumetricAirflow. The RMM should return NULL instead of 0
Workaround	The returned value 0 should be treated as NULL
Disposition	Root cause identified
HSD 106134	**Reports incorrect location for Drawer in multi-rack system**
Note	The Tray location id depends on which USB port the CM serial cable is plugged into the NUC. The first CM should be plugged into the first USB port and should be visible in the system under the following link /dev/ttyCm1Console
Workaround	Apply the above configuration
Disposition	Root cause identified
HSD 109562	**RMM does not display some resources during longevity GET operation**
Note	The RMM does not display the following resources for a few minutes: - resource with link /redfish/v1/Managers/3-m-mbpc1 - power and thermal zones
Workaround	Retry action after a few minutes
Disposition	Root cause identified
HSD 110007	**RMM suddenly changes its service UUID**
Note	During longevtity tests, the RMM restarts with a new UUID. The PODM discovers the new rack and starts displaying two resources (racks) until it finishes the slow poll. The RMM restarts due to MemDB inconsistent information
Workaround	User should implement a mechanism for periodically rediscovering the RMM resources and update database accordingly
Disposition	Closed no repro

Issue	Description
HSD 110408	**RMM sporadically restarts**
Note	The RMM restarts due to MemDB inconsistent information
Workaround	The RMM watchdog will automatically restart service after a while
Disposition	Fixed
HSD 111076	**Patching resources with space returns 200OK but resource is not updated**
Note	Patch action always returns 200OK, but an error message is included in response body
Workaround	Check response body to verify if patch action succeeded
Disposition	Root cause identified
HSD 109681	**Creating same subscription more than 2 times responds with 201 created instead of 400 or 409 error code**
Note	RMM allows the creation of several identical subscriptions, but RMM overwrites the previous subscription with an identical url and returns 201
Workaround	Create one subscription per URL with several event types
Disposition	Workaround available
HSD 109568	**RMM enumerates the subscription ID when adding/deleting the subscription**
Note	When a user creates a new subscription or deletes an existing one, the RMM enumerates the exisitng subscription IDs. The user is not able to use a GET subscription resource by ID
Workaround	Identify the subscription resource by its URL
Disposition	Workaround available
HSD 109516	**Post method modifies existing subscription when the "Destination" parameter in post method and the existing subscription is the same**
Note	Current implementation allows having one subscription per destination URL
Workaround	N/A
Disposition	Root cause identified
HSD 111150	**RMM sporadically displays wrong PowerCapacityWatts value**
Note	N/A
Workaround	Retry read action after a few minutes
Disposition	Workaround available
HSD 109651	**Empty PowerZones and ThermalZones lists**
Note	RMM sporadically does not display the following resources (drawers, ThermalZones, PowerZones)
Workaround	Retry read action after few minutes
Disposition	Workaround available
HSD 110150	**Additional event type added during the subscription**
Note	When user creates the subscription with the following EventTypes: "PowerZoneResourceAdded", "ResourceRemoved", an additional event type "ResourceAdded" is added.
Workaround	Ignore events triggered by ResourceAdded.
Disposition	Workaround available
HSD 109800	**No odata.id on Event Subscriptions Collection**
Note	According to the RedFish specification, the RMM should return the resource identifier property ("@odata.id") in the Subscriptions collection
Workaround	N/A
Disposition	Root cause identified
HSD 111108	**No certificate after hard reset drawer action**

Issue	Description
Note	The MMP hangs during the restart and causes the i2C* interface to be not available. The RMM uses the I2C interface to populate the certificate to PSME
Workaround	Remove and insert the drawer back
Disposition	Workaround available
HSD 111318	**RMM soft reset on drawer does not work**
Note	If drawer's OS does not support ACPI soft reset, the RMM Soft Reset will not work
Workaround	Configure the OS to support ACPI Soft Reset
Disposition	Root cause identified
HSD 111497	**Property RelatedItem in Temperature in RMM ThermalZone is invalid type**
Note	Property RelatedItem in Temperature in RMM ThermalZone is Object type instead of Array
Workaround	Update SB API interface to accept property RelatedItem as Object
Disposition	Fixed
HSD 111557	**Missing Resolution property in MessageRegistry**
Note	According the RMM metadata, every message should contain a property "Resolution". This property is missing in the MessageRegistry resource
Workaround	N/A
Disposition	Fixed
HSD 111456	**PATCHing RackPUID by value different than integer returns 400 Bad request**
Note	The RackPUID is defined in metadata as decimal type. The implementation supports an integer value greater than zero
Workaround	N/A
Disposition	Fixed
HSD 111466	**Different number of arguments in property NumberOfArgs and colection ParamTypes in RMM Rest API**
Note	Value of NumberOfArgs property and number of elements in collection ParamTypes should be the same. The value NumberofArgs has been defined in the message registry file in source code
Workaround	The NumberofArgs in the message registry file in source code should be updated manually
Disposition	Fixed
HSD 111321	**MMP hangs during the hard reset**
Note	MMP sporadically hangs when the user triggers a hard reset action using RMM
Workaround	Remove and insert the drawer back
Disposition	Workaround available
HSD 111283	**RMM MBP.Update returns incorrect response code**
Note	RMM returns Error Code "0" after the MBP update. The correct response should be "302 Redirect"
Workaround	User should accept the "0" value as correct or ignore the response
Disposition	Workaround available
HSD 111353	**Outlet Temperature Exhaust sensor does not report correct temperature**
Note	Outlet Temperature Exhaust sensor does not report correct temperature. HW issue.
Workaround	N/A
Disposition	Root cause identified
HSD 115652	**RMM accepts incorrect json during subscription creation**
Note	RMM accepts incorrect json during subscription creation
Workaround	N/A
Disposition	Fixed

Issue	Description
HSD 115658	**Interrupted connection with RMM during subscription deletion**
Note	The connection with RMM is interrupted when deleting subscription.
Workaround	Repeat the operation manually.
Disposition	Under investigation
HSD 115748	**Server returns 500 Internal Server Error after send MBP Update**
Note	MBP update fails when calling RMM REST API
Workaround	N/A
Disposition	Under investigation
HSD115933	**RMM metadata does not contain Location property in Oem in Chassis**
Note	Implementation of RMM REST API (correct) is slightly mismatched with metadata (incorrect)
Workaround	N/A
Disposition	Fixed
HSD116598	**odata.type not found in complex additional property**
Note	CTS 2.1.3 reports missing odata.type for Intel_RackScale inside Oem property.
Workaround	N/A
Disposition	Root cause identified
HSD116782	**Patch Rack Location ID with empty string request fails**
Note	When patching Rack Location ID with empty string, the request fails. According to Metadata this field can be any string.
Workaround	User should not provide empty string
Disposition	Root cause identified
HSD116785/HSD116963	**Patching with coded characters returns empty string**
Note	When patching Oem->Intel_RackScale->PODMAddress with CTS, RMM returns code 200 but PODMAddress is empty.
Workaround	N/A
Disposition	Under investigation
HSD116926	**Chassis->Rack Patch fails to write 128 bytes as documented**
Note	When patching fields that should accept 128 bytes, not all 128 bytes are saved.
Workaround	N/A
Disposition	Under investigation
HSD116942	**Exception in POD Manager log file while doing ThermalZone Fan Hotswap**
Note	When inserting and removing a Fan from the rack, Presence attribute is sometimes shown incorrectly.
Workaround	N/A
Disposition	Under investigation
HSD117089	**RMM Rest Api stops responding after a series of PATCH and GET operations**
Note	When testing with CTS 2.1.3, RMM sometimes stops responding on all other requests. Also reproduced on RMM 2.1.2.
Workaround	N/A
Disposition	Root cause identified

§

4 Addendum – Intel® RSD RMM Release Notes Software Version 2.1

4.1 Introduction

These release notes are intended to accompany the RMM reference stack release 2.1.70.x of Intel® Rack Scale Design.

4.1.1 RMM package contents

Table 6 lists the contents of the release package.

Table 6   Software package for RMM 2.1

Title	Notes
Intel® Rack Scale Design RMM Release Notes	This document
Intel® Rack Scale Design Generic Asset Management Interface	JSON-RPC API specifications to communicate with the Generic Asset Management Modules
RMM REST-API Specification	RMM REST API specifications
RMM Reference Stack User guide	User Guide
rmm-src-2.1.70.0.tar.gz	RMM reference stack sources
License.txt	Apache License, Version 2.0

Customers should check *https://github.com/01org/intelRSD* to download the latest available onboard device drivers, system firmware, and system software. For further assistance, please contact the Intel Field Representative.

4.1.2 Revision numbers of RMM package components

Table 7   Revision numbers of the RMM reference stack release components

Subproject (component)	Revision
Intel* RMM	RMM_2.1.70.0

4.1.3 References

Table 8   Reference documents

Doc ID	Title
335451	Intel® Rack Scale Design Generic Assets Management Interface API Specification
335452	Intel® Rack Scale Design BIOS & BMC Technical Guide
335501	Intel® Rack Scale Design Architecture Specification
335454	Intel® Rack Scale Design Software Reference Kit Getting Started Guide
335455	Intel® Rack Scale Design Pod Manager API Specification
335456	Intel® Rack Scale Design Pod Manager Release Notes
335457	Intel® Rack Scale Design Pod Manager User Guide
335458	Intel® Rack Scale Design PSME REST API Specification
335459	Intel® Rack Scale Design PSME Release Notes
335460	Intel® Rack Scale Design PSME User Guide
335461	Intel® Rack Scale Design Storage Services API Specification
335462	Intel® Rack Scale Design Rack Management Module (RMM) API Specification
335463	Intel® Rack Scale Design RMM Release Notes
335464	Intel® Rack Scale Design Software RMM User Guide

Doc ID	Title
n/a	Scalable Platforms Management API

4.2   New Features

4.2.1   Change logs for v2.1 release

Stability improvements and bug fixing.

4.2.2   Limitations

The following list describes all the limitations for this release. (Described limitations are targeted for future releases.)

1. The items listed below differ from the REST API Specification 1.0:
    –   PowerConsumeWatts and PowerOutputWatts will be 0 if hardware does not support it.
    –   Status of Outlet Temperature is disabled since there is no sensor for outlet temperature.
2. Remotely update CM component will always return successful even with wrong image since there is no method to check the update status for CM remotely.
3. Only PSU health status is supported. PSU supports fan alert and temperature alert for health status check.
4. Memdb snapshot may mismatch between two different versions of RMM firmware while updating; its required to remove memdb snapshot before restarting the RMM service by using the following command: sudo rm /var/memdb/* –f

4.3   Known Issues

Table 9 lists and describes possible statuses of known issues in this release:

Table 9   Status definitions

Status	Description
Under investigation	The sighting is being investigated.
Root cause identified	The root cause of the defect is identified.
Workaround available	A temporary solution to the defect is provided until the bug is fixed.
As designed	The issue reported is not a defect and the behavior will not be modified.
Closed no repro	The situation is not observed anymore and no further investigation is scheduled.
Fixed	The defect has been fixed.

Table 10 presents problems and issues found during testing of this release.

Table 10   Known issues

Issue	Description
HSD 106213	**RMM REST API does not provide metadata as expected according to the specification**
Note	Current implementation of RMM does not support metadata exposure over the REST API interface
Workaround	REST API can be checked with metadata delivered with RMM source code or the Conformance Test Suite tool
Disposition	Root cause identified
HSD 101471	**VTS reports unallowable values in MessageRegistry in RMM REST API**

Issue	Description
Note	According the RMM Metadata file, the following values should not be exposed by RMM Rest API in MessgeRegistries: MSGDrawerStatusChange, MSGTZoneResourceRemoved, MSGPSUResourceUpdated, MSGTZoneResourceUpdated, MSGFanStatusChange, MSGDrawerResourceUpdated, MSGMBPResourceUpdated, MSGMBPResourceRemoved, MSGMBPStatusChange, MSGResourceAdded MSGRackStatusChange, MSGResourceRemoved, MSGFanResourceRemoved, MSGPZoneResourceAdded, MSGMBPResourceAdded, MSGDrawerAlert, MSGPSUResourceAdded, MSGPZoneResourceRemoved, MSGPZoneResourceUpdated, MSGRackResourceUpdated, MSGAlert, MSGPSUStatusChange, MSGPSUResourceRemoved, MSGTZoneResourceAdded, MSGStatusChange, MSGResourceUpdated, MSGDrawerResourceAdded, MSGDrawerResourceRemoved MSGFanResourceAdded. Root caused: Invalid RMM metadata file
Workaround	N/A
Disposition	Fixed
HSD 101475	**VTS reports wrong status code in PATCH test**
Note	RMM should return status code 200/405/501 when user is patching the following properties *Model, SerialNumber, PartNumber, Id, Name, ChassisType, Manufacturer*, in /redfish/v1/Chassis/Rack
Workaround	Ignore the error code when patching the above properties
Disposition	Fixed
HSD 101526	**RMM API mismatch with metadata file**
Note	AssetTag, RackPUID, GeoTag in metadata files have a read-only attribute, but these fields are patchable using RMM API. Without this annotation info, VTS will not run patch tests against these properties
Workaround	The metadata files should be updated
Disposition	Fixed
HSD 102177	**Memory leak observed when RMM is running**
Note	Memory leak has been discovered and fixed in two functions: notify_psu_power_out_change() & restart Assetd binary
Workaround	Restart periodically the RMM
Disposition	Fixed
HSD 106215/106182	**Value of PresentTemperatureCelsius OutletTemperatureCelsius VolumetricAirflow is 0**
Note	RMM exposes the 0 value if platform does not support the following sensors: PresentTemperatureCelsius, OutletTemperatureCelsius, VolumetricAirflow. The RMM should return NULL instead of 0
Workaround	The returned value 0 should be treated as NULL
Disposition	Root cause identified
HSD 106134	**Reports incorrect location for Drawer in multi-rack system**
Note	The Tray location id depends on which USB port the CM serial cable is plugged into the NUC. The first CM should be plugged into the first USB port and should be visible in the system under the following link /dev/ttyCm1Console
Workaround	Apply the above configuration
Disposition	Root cause identified
HSD 109562	**RMM does not display some resources during longevity GET operation**
Note	The RMM does not display the following resources for a few minutes: - resource with link /redfish/v1/Managers/3-m-mbpc1 - power and thermal zones
Workaround	Retry action after a few minutes
Disposition	Under investigation
HSD 110007	**RMM suddenly changes its service UUID**
Note	During longevtity tests, the RMM restarts with a new UUID. The PODM discovers the new rack and starts displaying two resources (racks) until it finishes the slow poll. The RMM restarts due to MemDB inconsistent information

Intel® Rack Scale Design RMM
May 2017   Release Notes
Document Number: 335463-003   13

Issue	Description
Workaround	User should implement a mechanism for periodically rediscovering the RMM resources and update database accordingly
Disposition	Under investigation
HSD 110408	**RMM sporadically restarts**
Note	The RMM restarts due to MemDB inconsistent information
Workaround	The RMM watchdog will automatically restart service after a while
Disposition	Under investigation
HSD 109256	**RMM sporadically refuses new subscription request**
Note	During longevity tests, the RMM SW refuses subscription requests for a long time without providing an HTTP Redfish response with status code
Workaround	Retry action or restart RMM service
Disposition	Fixed
HSD 111076	**Patching resources with space returns 200OK but resource is not updated**
Note	Patch action always returns 200OK, but an error message is included in response body
Workaround	Check response body to verify if patch action succeeded
Disposition	Root cause identified
HSD 109681	**Creating same subscription more than 2 times responds with 201 created instead of 400 or 409 error code**
Note	RMM allows the creation of several identical subscriptions, but RMM overwrites the previous subscription with an identical url and returns 201
Workaround	Create one subscription per URL with several event types
Disposition	Root cause identified
HSD 109568	**RMM enumerates the subscription ID when adding/deleting the subscription**
Note	When a user creates a new subscription or deletes an existing one, the RMM enumerates the exisitng subscription IDs. The user is not able to use a GET subscription resource by ID
Workaround	Identify the subscription resource by its URL
Disposition	Root cause identified
HSD 109516	**Post method modifies existing subscription when the "Destination" parameter in post method and the existing subscription is the same**
Note	Current implementation allows having one subscription per destination URL
Workaround	N/A
Disposition	Under investigation
HSD 111150	**RMM sporadically displays wrong PowerCapacityWatts value**
Note	N/A
Workaround	Retry read action after a few minutes
Disposition	Under investigation
HSD 109890	**Adding a new subscription results in incorrect request**
Note	RMM sporadically returns error code 400 (BadRequest) and does not create the subscription list
Workaround	Retry subcription action
Disposition	Fixed
HSD 109651	**Empty PowerZones and ThermalZones lists**
Note	RMM sporadically does not display the following resources (drawers, ThermalZones, PowerZones)

Issue	Description
Workaround	Retry read action after few minutes
Disposition	Under investigation
HSD 110150	**Additional event type added during the subscription**
Note	When user creates the subscription with the following EventTypes: "PowerZoneResourceAdded", "ResourceRemoved", an additional event type "ResourceAdded" is added.
Workaround	Ignore events triggered by ResourceAdded.
Disposition	Root cause identified
HSD 109800	**No odata.id on Event Subscriptions Collection**
Note	According to the RedFish specification, the RMM should return the resource identifier property ("@odata.id") in the Subscriptions collection
Workaround	N/A
Disposition	Root cause identified
HSD 111350	**Power Supplies are labeled Firmware Version S5 not S4**
Note	RMM exposes the value provided by PSU Firmware. The PSU Firmware returns the S4 value
Workaround	N/A
Disposition	As designed
HSD 111108	**No certificate after hard reset drawer action**
Note	The MMP hangs during the restart and causes the i2C* interface to be not available. The RMM uses the I2C interface to populate the certificate to PSME
Workaround	Remove and insert the drawer back
Disposition	Root cause identified
HSD 111108	**RMM soft reset on drawer does not work**
Note	If drawer's OS does not support ACPI soft reset, the RMM Soft Reset will not work
Workaround	Configure the OS to support ACPI Soft Reset
Disposition	Root cause identified
HSD 111497	**Property RelatedItem in Temperature in RMM ThermalZone is invalid type**
Note	Property RelatedItem in Temperature in RMM ThermalZone is Object type instead of Array
Workaround	Update SB API interface to accept property RelatedItem as Object
Disposition	Root cause identified
HSD 111557	**Missing Resolution property in MessageRegistry**
Note	According the RMM metadata, every message should contain a property "Resolution". This property is missing in the MessageRegistry resource
Workaround	N/A
Disposition	Root cause identified
HSD 111458	**Field AssetTag in MBPs is not patchable**
Note	According to the RMM metadata file, the AssetTag in MBPs should be patchable, however the RMM implementation does not support this action
Workaround	N/A
Disposition	Root cause identified
HSD 111456	**PATCHing RackPUID by value different than integer returns 400 Bad request**
Note	The RackPUID is defined in metadata as decimal type. The implementation supports an integer value greater than zero
Workaround	Use integer number greater than zero to patch the RackPUID

Issue	Description
Disposition	Root cause identified
HSD 111466	**Different number of arguments in property NumberOfArgs and colection ParamTypes in RMM Rest API**
Note	Value of NumberOfArgs property and number of elements in collection ParamTypes should be the same. The value NumberofArgs has been defined in the message registry file in source code
Workaround	The NumberofArgs in the message registry file in source code should be updated manually
Disposition	Root cause identified
HSD 111321	**MMP hangs during the hard reset**
Note	MMP sporadically hangs when the user triggers a hard reset action using RMM
Workaround	Remove and insert the drawer back
Disposition	Root cause identified
HSD 111320	**Attribute Location ID missing in Chassis Rack Patch Operation**
Note	RMM REST API specifies the attribute Location ID for Chassis Rack Patch Operation, but the implementation does not support this attribute
Workaround	N/A
Disposition	Root caused identified
HSD 111320	**RMM MBP.Update returns incorrect response code**
Note	RMM returns Error Code "0" after the MBP update. The correct response should be "302 Redirect"
Workaround	User should accept the "0" value as correct or ignore the response
Disposition	Root caused identified

§

5 Addendum – Intel® RSD RMM Release Notes Software Version 2.1.2

5.1 Introduction

These release notes are intended to accompany the RMM reference stack release 2.1.2.x of Intel® Rack Scale Design.

5.1.1 RMM package contents

Table 11 lists the contents of the release package.

Table 11   Software package for RMM 2.1.2

Title	Notes
Intel® Rack Scale Design RMM Release Notes	This document
Intel® Rack Scale Design Generic Asset Management Interface	JSON-RPC API specifications to communicate with the Generic Asset Management Modules
RMM REST-API Specification	RMM REST API specifications
RMM Reference Stack User guide	User Guide
rmm-src-2.1.2.7.0.tar.gz	RMM reference stack sources
License.txt	Apache License, Version 2.0

Customers should check *https://github.com/01org/intelRSD* to download the latest available onboard device drivers, system firmware, and system software. For further assistance, please contact the Intel Field Representative.

5.1.2 Revision numbers of RMM package components

Table 12   Revision numbers of the RMM reference stack release components

Subproject (component)	Revision
Intel* RMM	RMM_2.1.2.7.0

5.1.3 References

Table 13   Reference documents

Doc ID	Title
335451	Intel® Rack Scale Design Generic Assets Management Interface API Specification
335452	Intel® Rack Scale Design BIOS & BMC Technical Guide
335501	Intel® Rack Scale Design Architecture Specification
335454	Intel® Rack Scale Design Software Reference Kit Getting Started Guide
335455	Intel® Rack Scale Design Pod Manager API Specification
335456	Intel® Rack Scale Design Pod Manager Release Notes
335457	Intel® Rack Scale Design Pod Manager User Guide
335458	Intel® Rack Scale Design PSME REST API Specification
335459	Intel® Rack Scale Design PSME Release Notes
335460	Intel® Rack Scale Design PSME User Guide
335461	Intel® Rack Scale Design Storage Services API Specification
335462	Intel® Rack Scale Design Rack Management Module (RMM) API Specification
335463	Intel® Rack Scale Design RMM Release Notes
335464	Intel® Rack Scale Design Software RMM User Guide

Doc ID	Title
n/a	Scalable Platforms Management API

5.2 New Features

5.2.1 New features for v2.1.2 release

Besides stability improvements, the Intel RSD v2.1.2(RMM_2.1.2.7.0) release introduces the following:

- User is able to provide rack identifier as string via new Location.Id API property. Please check RMM API specification for more details.

- New package versioning scheme (2.1.X -> 2.1.2.X).

5.2.2 Limitations

The following list describes all the limitations for this release. (Described limitations are targeted for future releases.)

1. The items listed below differ from the REST API Specification 1.0:
   - PowerConsumeWatts and PowerOutputWatts will be 0 if hardware does not support it.
   - Status of Outlet Temperature is disabled since there is no sensor for outlet temperature.
2. Remotely update CM component will always return successful even with wrong image since there is no method to check the update status for CM remotely.
3. Only PSU health status is supported. PSU supports fan alert and temperature alert for health status check.
4. Memdb snapshot may mismatch between two different versions of RMM firmware while updating; its required to remove memdb snapshot before restarting the RMM service by using the following command: sudo rm /var/memdb/* –f
5. Due to the new package versioning scheme when installing 2.1.2 RMM packages over existing 2.1 packages, the package manager (dpkg) will display a warning saying that it is downgrading to older version. User can safely ignore that warning.

5.3 Known Issues

Table 14 lists and describes possible statuses of known issues in this release:

Table 14   Status definitions

Status	Description
Under investigation	The sighting is being investigated.
Root cause identified	The root cause of the defect is identified.
Workaround available	A temporary solution to the defect is provided until the bug is fixed.
As designed	The issue reported is not a defect and the behavior will not be modified.
Closed no repro	The situation is not observed anymore and no further investigation is scheduled.
Fixed	The defect has been fixed.

Table 15 presents problems and issues found during testing of this release.

Table 15   Known issues

Issue	Description
HSD 106213	**RMM REST API does not provide metadata as expected according to the specification**
Note	Current implementation of RMM does not support metadata exposure over the REST API interface

Issue	Description
Workaround	REST API can be checked with metadata delivered with RMM source code or the Conformance Test Suite tool
Disposition	Root cause identified
HSD 106215/106182	**Value of PresentTemperatureCelsius OutletTemperatureCelsius VolumetricAirflow is 0**
Note	RMM exposes the 0 value if platform does not support the following sensors: PresentTemperatureCelsius, OutletTemperatureCelsius, VolumetricAirflow. The RMM should return NULL instead of 0
Workaround	The returned value 0 should be treated as NULL
Disposition	Root cause identified
HSD 106134	**Reports incorrect location for Drawer in multi-rack system**
Note	The Tray location id depends on which USB port the CM serial cable is plugged into the NUC. The first CM should be plugged into the first USB port and should be visible in the system under the following link /dev/ttyCm1Console
Workaround	Apply the above configuration
Disposition	Root cause identified
HSD 109562	**RMM does not display some resources during longevity GET operation**
Note	The RMM does not display the following resources for a few minutes: - resource with link /redfish/v1/Managers/3-m-mbpc1 - power and thermal zones
Workaround	Retry action after a few minutes
Disposition	Root cause identified
HSD 110007	**RMM suddenly changes its service UUID**
Note	During longevtity tests, the RMM restarts with a new UUID. The PODM discovers the new rack and starts displaying two resources (racks) until it finishes the slow poll. The RMM restarts due to MemDB inconsistent information
Workaround	User should implement a mechanism for periodically rediscovering the RMM resources and update database accordingly
Disposition	Under investigation
HSD 110408	**RMM sporadically restarts**
Note	The RMM restarts due to MemDB inconsistent information
Workaround	The RMM watchdog will automatically restart service after a while
Disposition	Under investigation
HSD 111076	**Patching resources with space returns 200OK but resource is not updated**
Note	Patch action always returns 200OK, but an error message is included in response body
Workaround	Check response body to verify if patch action succeeded
Disposition	Root cause identified
HSD 109681	**Creating same subscription more than 2 times responds with 201 created instead of 400 or 409 error code**
Note	RMM allows the creation of several identical subscriptions, but RMM overwrites the previous subscription with an identical url and returns 201
Workaround	Create one subscription per URL with several event types
Disposition	Workaround available
HSD 109568	**RMM enumerates the subscription ID when adding/deleting the subscription**
Note	When a user creates a new subscription or deletes an existing one, the RMM enumerates the exisitng subscription IDs. The user is not able to use a GET subscription resource by ID
Workaround	Identify the subscription resource by its URL

Issue	Description
Disposition	Workaround available
HSD 109516	**Post method modifies existing subscription when the "Destination" parameter in post method and the existing subscription is the same**
Note	Current implementation allows having one subscription per destination URL
Workaround	N/A
Disposition	Root cause identified
HSD 111150	**RMM sporadically displays wrong PowerCapacityWatts value**
Note	N/A
Workaround	Retry read action after a few minutes
Disposition	Workaround available
HSD 109651	**Empty PowerZones and ThermalZones lists**
Note	RMM sporadically does not display the following resources (drawers, ThermalZones, PowerZones)
Workaround	Retry read action after few minutes
Disposition	Workaround available
HSD 110150	**Additional event type added during the subscription**
Note	When user creates the subscription with the following EventTypes: "PowerZoneResourceAdded", "ResourceRemoved", an additional event type "ResourceAdded" is added.
Workaround	Ignore events triggered by ResourceAdded.
Disposition	Workaround available
HSD 109800	**No odata.id on Event Subscriptions Collection**
Note	According to the RedFish specification, the RMM should return the resource identifier property ("@odata.id") in the Subscriptions collection
Workaround	N/A
Disposition	Root cause identified
HSD 111108	**No certificate after hard reset drawer action**
Note	The MMP hangs during the restart and causes the i2C* interface to be not available. The RMM uses the I2C interface to populate the certificate to PSME
Workaround	Remove and insert the drawer back
Disposition	Workaround available
HSD 111318	**RMM soft reset on drawer does not work**
Note	If drawer's OS does not support ACPI soft reset, the RMM Soft Reset will not work
Workaround	Configure the OS to support ACPI Soft Reset
Disposition	Root cause identified
HSD 111497	**Property RelatedItem in Temperature in RMM ThermalZone is invalid type**
Note	Property RelatedItem in Temperature in RMM ThermalZone is Object type instead of Array
Workaround	Update SB API interface to accept property RelatedItem as Object
Disposition	Root cause identified
HSD 111557	**Missing Resolution property in MessageRegistry**
Note	According the RMM metadata, every message should contain a property "Resolution". This property is missing in the MessageRegistry resource
Workaround	N/A
Disposition	Root cause identified

Issue	Description
HSD 111456	**PATCHing RackPUID by value different than integer returns 400 Bad request**
Note	The RackPUID is defined in metadata as decimal type. The implementation supports an integer value greater than zero
Workaround	N/A
Disposition	Root cause identified
HSD 111466	**Different number of arguments in property NumberOfArgs and colection ParamTypes in RMM Rest API**
Note	Value of NumberOfArgs property and number of elements in collection ParamTypes should be the same. The value NumberofArgs has been defined in the message registry file in source code
Workaround	The NumberofArgs in the message registry file in source code should be updated manually
Disposition	Root cause identified
HSD 111321	**MMP hangs during the hard reset**
Note	MMP sporadically hangs when the user triggers a hard reset action using RMM
Workaround	Remove and insert the drawer back
Disposition	Workaround available
HSD 111320	**Attribute Location ID missing in Chassis Rack Patch Operation**
Note	RMM REST API specifies the attribute Location ID for Chassis Rack Patch Operation, but the implementation does not support this attribute
Workaround	N/A
Disposition	Fixed
HSD 111283	**RMM MBP.Update returns incorrect response code**
Note	RMM returns Error Code "0" after the MBP update. The correct response should be "302 Redirect"
Workaround	User should accept the "0" value as correct or ignore the response
Disposition	Workaround available
HSD 111353	**Outlet Temperature Exhaust sensor does not report correct temperature**
Note	Outlet Temperature Exhaust sensor does not report correct temperature. HW issue.
Workaround	N/A
Disposition	Root cause identified
HSD 115508	**Rack Location Id Change – Rack does not have links to Drawers**
Note	After setting same Location ID on two racks, links to Drawers are missing.
Workaround	N/A
Disposition	Fixed
HSD 115652	**RMM accepts incorrect json during subscription creation**
Note	RMM accepts incorrect json during subscription creation
Workaround	N/A
Disposition	Under investigation
HSD 115658	**Interrupted connection with RMM during subscription deletion**
Note	The connection with RMM is interrupted when deleting subscription.
Workaround	Repeat the operation manually.
Disposition	Under investigation
HSD 115748	**Server returns 500 Internal Server Error after send MBP Update**
Note	MBP update fails when calling RMM REST API

Issue	Description
Workaround	N/A
Disposition	Under investigation
HSD115933	**RMM metadata does not contain Location property in Oem in Chassis**
Note	Implementation of RMM REST API (correct) is slightly mismatched with metadata (incorrect)
Workaround	N/A
Disposition	Root cause identified

§