|  |  |  |  |
| --- | --- | --- | --- |
| MasterClaw Release Note for «$release.Name» «$release.Version» | | | |
| DOCUMENT ID | «$release.Name»--rn-v«$release.Summary».doc | VERSION | «$release.Summary» |
| AUTHOR | [$release.Author](mailto:$release.contact) | DATE | «$release.Date» |
| ARCHIVE | <http://utmnnfs/quest7-packages/protocols/RHINE> | | |

# Introduction

## Identification and Scope

This is the release note for the following MasterClaw deployment package:

Protocol name and PID: «$release.Name» (PID 228)

Protocol description: RTP/RTCP

Protocol version and issue: «$release.Version»

Basename:  p«$release.description»

Protocol type: F

More information about this protocol can be found at [Protocol Rhine – Home Page](http://sharepoint.eu.anritsu.com/sites/M4/Engineering/Protocol%20Packages/Forms/Protocol%20Document%20Set/docsethomepage.aspx?ID=35&FolderCTID=0x0120D5200027201A52668CF24FA82E5408132EDCC2008DF2E9B408CA684CAF58B37B9FA66C93&List=26192e80-a9c4-4bc4-8a6a-42144e185d90&RootFolder=%2Fsites%2FM4%2FEngineering%2FProtocol%20Packages%2FProtocol%20Packages%2FRHINE&RecSrc=%2Fsites%2FM4%2FEngineering%2FProtocol%20Packages%2FProtocol%20Packages%2FRHINE)

## Summary

The purpose of this release is:

* **«$purpose»**

A complete list of all changes can be found in chapter 6.3 "Change History".

## Released Items

| Item | Location |
| --- | --- |
| Component | «#foreach($i in $release.items)»«#if ($i.description.equalsIgnoreCase("Pr»«#if ($i.location.contains("utmnnfs/quest»[$i.location/$i.name](file:///C:\Users\cz040124\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\UTFFHA3V\$i.location\$i.name)«#end»«#end»«#end»  «#foreach($i in $release.items)»«#if ($i.description.equalsIgnoreCase("RP»«#if ($i.location.contains("utmnnfs/quest»[$i.location/$i.name](file:///C:\Users\cz040124\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\UTFFHA3V\$i.location\$i.name)«#end»«#end»«#end» |
| Release note | «#foreach($i in $partRelease.references)» «#if ($i.type =="RN")»[$i.uri/$i.docName](file:///C:\Users\cz040124\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\UTFFHA3V\$i.uri\$i.docName)«#end»«#*end»* |

# Current Status and State

## List of Known Precautions / Defects

«#if ($release.precautions.size() != 0)»«#foreach($precaution in $release.precaut»**Precaution: «$precaution»**

«#end»«#end»

| Type | Name | Description |
| --- | --- | --- |
| «@before-row#foreach($c in $activities)»«@before-row#foreach($a in $c.Activities)» «$a.Type»«@after-row#end»«@after-row#end»«@after-row#end» | [$a.name](file:///C:\Users\cz040124\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\UTFFHA3V\$a.name) | «$a.Description» |

## Availability

Initial availability of the release is:

«#foreach($i in $globalAvailabilities)»«#if($i.level =="GCA")»**«$i.level»** for **MC «$i.mcVersion»**

«#end»«#*end»*«#foreach($i in $globalAvailabilities)»«#if ($i.level =="FCA")»**«$i.level»** for **MC «$i.mcVersion»**

«#end»«#*end»*«#foreach($i in $globalAvailabilities)»«#if ($i.level =="TQR")»**«$i.level»** for **MC «$i.mcVersion»**

«#end»«#*end»*«#foreach($i in $globalAvailabilities)»«#if ($i.level =="SDR")»**«$i.level»** for **MC «$i.mcVersion»**

«#end»«#*end»*«#foreach($i in $globalAvailabilities)»«#if ($i.level =="SCR")»**«$i.level»** for **MC «$i.mcVersion»** «#end»«#*end»*

**Note:** The availability can be changed after this RN has been filed. The updated availability can be found at <http://intranet2.eu.anritsu.com/SBU6/RandD/Release%20Status%20Sheet/Forms/AllItems.aspx>.

## Risk Evaluation

Initial Risk Evaluation: **«$partRelease.FirstGlobal.risk»**

Note: The Risk Evaluation can be changed after this RN has been filed. The updated Risk Evaluation can be found at <http://intranet2.eu.anritsu.com/SBU6/RandD/Release%20Status%20Sheet/Forms/AllItems.aspx>.

## Test

The **Test Level** is **«$partRelease.testLevel»** and **STR** at:

«#foreach($i in $partRelease.references)» «#if ($i.type =="STR")»[$i.uri/$i.docName](file:///C:\Users\cz040124\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\UTFFHA3V\$i.uri\$i.docName)«#end»«#*end»*

«#foreach($i in $partRelease.references)» «#if ($i.type =="ULTR")»[$i.uri](file:///C:\Users\cz040124\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\UTFFHA3V\$i.uri)«#end»«#*end»*

**ULTR**

[ULTR-ECR 2273- new codecs from telchemy](http://intranet2.eu.anritsu.com/SBU6/Test/mc80/ULTR%20Library/PDP%20113%20-%20MC%208.0/ECR%202273-new%20codecs%20from%20telchemy/ULTR-ECR%202273-%20new%20codecs%20from%20telchemy.doc)

## Implementation Details

| Implemented Features | Implemented |
| --- | --- |
| Display | Yes |
| Message statistics | Yes |
| SIM statistics | Yes |
| Performance statistics | No |
| CSDR | Yes |
| Classic filter | Yes |
| One-step filter | Yes |
| Inverse filter | Yes |
| Quick Filter in IP, MAC and S1AP Interface | Yes |
| Protocol setup | Yes |
| 64 bit Support | Yes |

# Compatibility/Dependencies

## HW and 3rd part SW or Images

The protocol package must be used on a platform (probe and server) as described in the Technical Baselines for MasterClaw, see <http://rddoc/rddoc/quest7/syseng/tech_baseline/note/baseline/index.html>

| Component | Version Range | Tested Version | Description |
| --- | --- | --- | --- |
| platform-lx | 7.2+ | 7.2 | Platform image for MC server |
| li-probe-image | 3.6+ | 3.6 | Platform image for MC probes |

## MasterClaw SW

«#foreach($d in $dependencies)»«#if ($d.LocalDependencies.size() > 0 )»

### Master Claw: «$d.McVersion»

| Component | Version Range | Tested Version | Req. local availability | Description |
| --- | --- | --- | --- | --- |
| «@before-row#foreach($p in $d.localDepend»«$p.Component»«@after-row#end» | «$p.RequiredVersion» | «$p.TestedVersion» | «$p.required» | «$p.Description» |

«#elseif ($d.LocalDependencies.size() > 0»

«#end»«#end»

# Installation

The protocol package must be installed on the MasterClaw server by issuing the following command:

q7adm load –i «$release.Name»-.tar.gz

It is not necessary to install the protocol package on the MasterClaw probe; this is automatically done when configuring the probe using the QPM command.

Please note: In case of multiple servers, the protocol package must be installed exactly one time (on the server where QPS2 is installed).

In case of replicated CDB installations, the protocol package must be installed exactly one time in each centre (first in the Master centre and subsequently in each Slave centre).

On MC 8.0 servers, the rpm package is installed with yum from mclaw user. It can be either installed from a local path or from mc\_repo repository configured in yum.

The following command can be used to install the rpm package:

yum install «$release.Name»-«$release.Version».x86\_64.rpm

and use the following command to start the protocol :

q7adm start «$release.Name»-«$release.Version»

# Configuration Requirements

The protocol package has been configured with workable parameters, thus no manual configuration is needed after the protocol package has been installed.

However, in order to adapt to the installation environment, manual configuration of

User-Definable Subsystem Numbers (UDSSN),

Call Sequence Data Record generation (CSDR generation) and

correlation definitions in the file corr.def

might become necessary. This is described in the next chapters.

## UDSSN

No default UDSSN.

## CSDR Setup

### CSDR Setup String

The following CSDR setup string is used by the protocol:   
1 1000 0 60 40 0 0 0 1 0 1 0 1 1 0 0 0 0 0 0

| No. | String | CSDR format name (csdr\_id.h / info.inf) | FID | IID |
| --- | --- | --- | --- | --- |
| 1 | 1 1000 0 60 40 0 0 0 1 0 1 0 | RTCP\_CSDR\_FID\_516 / RTCP\_CSDR\_FID\_516 | FID516 | IID109 |
| 2 | 1 | RTP\_STAT\_CSDR\_FID\_343 / RTP\_STAT\_CSDR\_FID\_343 | FID343 | IID188 |
| 3 | 1 | RTP\_STAT\_CSDR\_FID\_395 / RTP\_STAT\_CSDR\_FID\_395 | FID395 | IID188 |
| 4 | 0 | RTP\_STAT\_CSDR\_FID\_514 / RTP\_STAT\_CSDR\_FID\_514 | FID514 | IID188 |
| 5 | 0 | RTP\_STAT\_CSDR\_FID\_522 / RTP\_STAT\_CSDR\_FID\_522 | FID522 | IID188 |
| 6 | 0 | RTP\_STAT\_CSDR\_FID\_523 / RTP\_STAT\_CSDR\_FID\_523 | FID523 | IID188 |
| 7 | 0 | RTP\_STAT\_CSDR\_FID545 / RTP\_STAT\_CSDR\_FID545 | FID545 | IID188 |
| 8 | 0 | RTP\_RTCP\_STAT\_CSDR\_FID\_578 /  RTP\_RTCP\_STAT\_CSDR\_FID\_578 | FID578 | IID188 |
| 9 | 0 | RTP\_RTCP\_STAT\_CSDR\_FID\_613 /  RTP\_RTCP\_STAT\_CSDR\_FID\_613 | FID613 | IID188 |
| 10 | N/A [Passive dialog] | RTCP\_CSDR\_FID\_338 / RTCP\_CSDR\_FID\_338 | FID338 | IID109 |

Note: Default generated CSDR setup string is as follows:

1 1000 0 60 40 0 0 0 1 0 1 0 1 1 0 1 0 0 0

But this section describes both in details to make release document more informative

### Setup Parameters for RTCP\_CSDR\_FID\_516

| Parameter | Explanation |
| --- | --- |
| 1 | CSDR enabled / disabled |
| 1000 | Number of simultaneous dialogues |
| 0 | Half sequences enabled / disabled |
| 60 | User timeout value |
| 40 | Max value of PDU’s in one sequence |
| 0 | RTP restart timer enabled / disabled |
| 0 | Waiting for Second GoodBye Message |
| 0 | Unification by source ID |
| 1 | Unification by IP addresses |
| 0 | Unification by VLAN-ID |
| 1 | Use dynamic concurrent calls |
| 0 | VLAN-ID position |

### Setup Parameters for RTP\_STAT\_CSDR\_FID\_343

| Parameter | Explanation |
| --- | --- |
| 1 | CSDR enabled / disabled |

### Setup Parameters for RTP\_STAT\_CSDR\_FID\_395

| Parameter | Explanation |
| --- | --- |
| 1 | CSDR enabled / disabled |

### Setup Parameters for RTP\_STAT\_CSDR\_FID\_514

| Parameter | Explanation |
| --- | --- |
| 1 | CSDR enabled / disabled |

### Setup Parameters for RTP\_STAT\_CSDR\_FID\_522

| Parameter | Explanation |
| --- | --- |
| 1 | CSDR enabled / disabled |

### Setup Parameters for RTP\_STAT\_CSDR\_FID\_523

| Parameter | Explanation |
| --- | --- |
| 1 | CSDR enabled / disabled |

### Setup Parameters for RTP\_STAT\_CSDR\_FID\_545

| Parameter | Explanation |
| --- | --- |
| 1 | CSDR enabled / disabled |

### Setup Parameters for RTP\_RTCP\_STAT\_CSDR\_FID\_578

| Parameter | Explanation |
| --- | --- |
| 1 | CSDR enabled / disabled |

### Setup Parameters for RTP\_RTCP\_STAT\_CSDR\_FID\_613

| Parameter | Explanation |
| --- | --- |
| 1 | CSDR enabled / disabled |

## Correlation Definitions

### Correlation Definition for RTCP\_CSDR\_FID\_516

graph RTCP-Dialogue

{

RTCP

}

dialogue RTCP

{

RTCP\_CSDR\_FID\_516;

}

### Correlation Definition for RTP\_STAT\_CSDR\_FID\_343

graph RTP\_STATISTIC-Dialogue

{

RTP\_STATISTIC

}

dialogue RTP\_STATISTIC

{

RTP\_STAT\_CSDR\_FID\_343;

}

### Correlation Definition for RTP\_STAT\_CSDR\_FID\_395

graph RTP\_STATISTIC-Dialogue

{

RTP\_STATISTIC

}

dialogue RTP\_STATISTIC

{

RTP\_STAT\_CSDR\_FID\_395;

}

### Correlation Definition for RTP\_STAT\_CSDR\_FID\_514

graph RTP\_STATISTIC-Dialogue

{

RTP\_STATISTIC

}

dialogue RTP\_STATISTIC

{

RTP\_STAT\_CSDR\_FID\_514;

}

### Correlation Definition for RTCP\_CSDR\_FID\_338

graph RTP\_STATISTIC-Dialogue

{

RTCP

}

dialogue RTP\_STATISTIC

{

RTCP\_CSDR\_FID\_338;

}

### Correlation Definition for RTP\_STAT\_CSDR\_FID\_522

graph RTP\_STATISTIC-Dialogue

{

RTP\_STATISTIC

}

dialogue RTP\_STATISTIC

{

RTP\_STAT\_CSDR\_FID\_522;

}

### Correlation Definition for RTP\_STAT\_CSDR\_FID\_523

graph RTP\_STATISTIC-Dialogue

{

RTP\_STATISTIC

}

dialogue RTP\_STATISTIC

{

RTP\_STAT\_CSDR\_FID\_523;

}

### Correlation Definition for RTP\_STAT\_CSDR\_FID\_545

graph RTP\_STATISTIC-Dialogue

{

RTP\_STATISTIC

}

dialogue RTP\_STATISTIC

{

RTP\_STAT\_CSDR\_FID\_545;

}

### Correlation Definition for RTP\_RTCP\_STAT\_CSDR\_FID\_578

graph RTP\_STATISTIC-Dialogue

{

RTP\_STATISTIC

}

dialogue RTP\_STATISTIC

{

RTP\_RTCP\_STAT\_CSDR\_FID\_578;

}

### 5.3.11 Correlation Definition for RTP\_RTCP\_STAT\_CSDR\_FID\_613

graph RTP\_STATISTIC-Dialogue

{

RTP\_STATISTIC

}

dialogue RTP\_STATISTIC

{

RTP\_RTCP\_STAT\_CSDR\_FID\_613;

}

## Ansible configuration

This chapter describes the syntax that needs to be respected in the inventory file in order for the protocols config role to be fully functional.

protocol\_list: - the list of protocols to be present on the desired machines will be listed here. Its a list of strings separated by commas.

The elements will have the following format: <name>-<version> ex: GANGES-12.6.0

- full example: protocol\_list=["GANGES-12.5.3.003", "GANGES-12.6.0"]

nin configurations:

* In order to avoid conflicts between tools, the variables that will set the values of the nin setup for each feature need to respect the following format: protocol\_<name>\_<version>\_<feature\_name>=<value>
* The <version> will also be written with "\_" instead of "." example: protocol\_GANGES\_12\_6\_0\_eNodeBIdBitLength=30

* If the <version> tag is not specified the value will be applied to all protocols that share the same name.

example: for the protocol\_list defined earlier and a nin setup: protocol\_GANGES\_eNodeBIdBitLength=45 the expected result is

*[p233070]*

*eNodeBIdBitLength = 45*

*[p233071]*

*eNodeBIdBitLength = 45*

* In case there is a global nin feature set ( <version> missing ) and another nin feature with <version> present, the individual feature has higher priority and the value will be taken from this setup.

example: for the protocol\_list defined earlier and the following nin setups

protocol\_GANGES\_eNodeBIdBitLength=45

protocol\_GANGES\_12\_6\_0\_eNodeBIdBitLength=30

the expected result is:

*[p233070]*

*eNodeBIdBitLength = 45*

*[p233071]*

*eNodeBIdBitLength = 30*

**SPECIAL Precautions**

* In case the UserSSN nin configuration is edited **WITHOUT USING** configtool the UserSSNEnabled feature from qps2.nin (protocol-servers) needs to be set to 0 for the change to be persistent. Otherwise the default UserSSN will be pulled from the CDB with every protocol-servers restart.

The list of available feature from ALL protocols is:

UserSSN, eNodeBIdBitLength, SIP\_NOT\_SCRAMBLE, ViewCompleteNumber, ViewUSSDContent, ViewPDUs, SpecifyCompleteNumber, ViewSMSContent, ErrorLevel, ShowDecodeError, , UsingRelaxValidation, SMSScrambling, USSDScrambling, ViewEndpointDetails, ViewCredentials, ProtocolReleaseUsed, \_HEXDUMP, \_MBEDUMP, Ciphering, InProgressCSDR, ALWAYS\_RELEASE\_SEQUENCE\_AFTER\_RESPONSE, CopyCsdrFields, FillPassertedIdentityTelFromSipUri, ViewURLContent, TcapOpcodeSwitcherSsn, TcapOpcodes, DecodeNSNAttributes, TreatSI0x0EasTAXUP, SIP\_MMRBT\_RESPONSE\_CODE

# Appendix

## Abbreviations and Definitions

| Abbreviation / Definition | Explanation |
| --- | --- |
| IP | Internet Protocol |
| MAC | Medium Access Control |
| MDL | Message Description Language |
| PDU | Protocol Data Unit |
| PID | Protocol ID |
| RTCP | RTP Control Protocol |
| RTP | Real-Time Protocol |
| SRS | System Requirement Specification |
| SSRC | Synchronization Source Identifier |
| UDP | User Datagram Protocol |
| URD | User Requirement Document |

## References and Applicable Documents

| Document | Explanation |
| --- | --- |
| SRS | System Requirement Specification (SRS) for Protocol Package RHINE, V3.0, by Adrian Bujor  <http://sharepoint.eu.anritsu.com/sites/M4/Engineering/Protocol%20Packages/Protocol%20Packages/RHINE/SRS_PID228.doc> |
| RTCP D-notes | CSDR Design Note (D-note) for Protocol Layer “RTCP” (FID 516), V3.0, by Adrian Bujor  <http://sharepoint.eu.anritsu.com/sites/M4/Engineering/Protocol%20Packages/Layers%20and%20FIDs/CSDR_RTCP_FID516.doc> |
| RTP\_STAT D-notes | CSDR Design Note (D-note) for Protocol Layer “RTP\_STAT” (FID 343), V3.0, by Adrian Bujor  [CSDR\_RTP\_STAT\_FID343](http://sharepoint.eu.anritsu.com/sites/M4/Engineering/Protocol%20Packages/Layers%20and%20FIDs/CSDR_RTP_STAT_FID343.doc) |
| RTP\_STAT D-notes | CSDR Design Note (D-note) for Protocol Layer “RTP\_STAT” (FID 395), V3.0, by Adrian Bujor  [CSDR\_RTP\_STAT\_FID395](http://sharepoint.eu.anritsu.com/sites/M4/Engineering/Protocol%20Packages/Layers%20and%20FIDs/CSDR_RTP_STAT_FID395.doc) |
| RTP\_STAT D-notes | CSDR Design Note (D-note) for Protocol Layer “RTP\_STAT” (FID 514), V3.0, by Adrian Bujor  [CSDR\_RTP\_STAT\_FID514](http://sharepoint.eu.anritsu.com/sites/M4/Engineering/Protocol%20Packages/Layers%20and%20FIDs/CSDR_RTP_STAT_FID514.doc) |
| RTP\_STAT D-notes | CSDR Design Note (D-note) for Protocol Layer “RTP\_STAT” (FID 522), V3.0, by Adrian Bujor  [CSDR\_RTP\_STAT\_FID522](http://sharepoint.eu.anritsu.com/sites/M4/Engineering/Protocol%20Packages/Layers%20and%20FIDs/CSDR_RTP_STAT_FID522.doc) |
| RTP\_STAT D-notes | CSDR Design Note (D-note) for Protocol Layer “RTP\_STAT” (FID 523), V3.0, by Adrian Bujor  [CSDR\_RTP\_STAT\_FID523](http://sharepoint.eu.anritsu.com/sites/M4/Engineering/Protocol%20Packages/Layers%20and%20FIDs/CSDR_RTP_STAT_FID523.doc) |
| RTP\_STAT D-notes | CSDR Design Note (D-note) for Protocol Layer “RTP\_STAT” (FID 545), V5.0, by Adrian Bujor  [CSDR\_RTP\_STAT\_FID545](http://sharepoint.eu.anritsu.com/sites/M4/Engineering/Protocol%20Packages/Layers%20and%20FIDs/CSDR_RTP_STAT_FID545.doc) |
| RTP\_RTCP\_STAT D-note | CSDR Design Note (D-note) for Protocol Layer “RTP\_STAT” (FID 578), V8.0, by Adrian Bujor  [CSDR\_RTP\_RTCP\_STAT\_FID578](http://sharepoint.eu.anritsu.com/sites/M4/Engineering/Protocol%20Packages/Layers%20and%20FIDs/CSDR_RTP_RTCP_STAT_FID578.doc) |
| RTP\_RTCP\_STAT D-note | CSDR Design Note (D-note) for Protocol Layer “RTP\_STAT” (FID 613), V3.0, by Adrian Bujor  [CSDR\_RTP\_RTCP\_STAT\_FID613](http://sharepoint.eu.anritsu.com/sites/M4/Engineering/Protocol%20Packages/Layers%20and%20FIDs/CSDR_RTP_RTCP_STAT_FID613.doc) |

## Change History

| Type | Name | Description |
| --- | --- | --- |
| «@before-row#foreach($c in $activities)» *Version «$c.ReleaseVersion»* | | |
| «@before-row#foreach($a in $c.Activities)»«$a.Type»«@after-row#end» | [$a.name](file:///C:\Users\cz040124\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\UTFFHA3V\$a.uri)«#end» | «#end» |
| «@after-row#end»«@after-row#end» |  |  |

For older history see release notes for «$release.Name»-V10.5.0

## EPR Generation

When filing an EPR against the protocol package, the following information must be attached:

| Kind of problem | Information to be provided |
| --- | --- |
| all | output dump of q7adm list or q7adm dump |
| installation failure | server log file $QUEST7\_ROOT/log/install-protocol.log |
| server crash | server log files  $QUEST7\_ROOT/log/qps2/qps2.log,  $QUEST7\_ROOT/log/qpas2/qpas2.log |
| probe crash | probe log files:  /var/log/nettest/p«$release.description»\_0.log, /var/log/nettest/p«$release.description»\_f.log, and  /var/log/nettest/qmpa5.log  SIM Files  configuration file qmpa2.msu |
| Traffic | Traffic with which the problem could be reproduced |
| Screenshots | Screen shots or AVI files of the issues are nice if supplied.  For decoding error issues, please provide the \*.OUT or \*.TXT files with "All fields with HEX" mode |
| CSDR Issues | If the setup string is changed from Default, then the changed CSDR setup string must be supplied. |