ETSI GS NFV-IFA 005 V3.2.1 (2019-04)

Network Functions Virtualisation (NFV) Release 3; Management and Orchestration; Or-Vi reference point - Interface and Information Model Specification

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/d74...-485c-4079-a374-e8559b9623e1/etsi-gs-nfv-ifa-005-3.1.1-2019-04

Disclaimer

The present document has been produced and approved by the Network Functions Virtualisation (NFV) ETSI Industry Specification Group (ISG) and represents the views of those members who participated in this ISG.
It does not necessarily represent the views of the entire ETSI membership.

Reference
RGS/NFV-IFA005ed321

Keywords
configuration, information model, management, MANO, network, NFV, virtualisation

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/4013a7e4-e59b-90d3-ab4-45c-c-401b-a7e4e59b90d3/etsi-gs-nfv-ifa-005-v3.2.1-2019-04

Important notice

The present document can be downloaded from:
http://www.etsi.org/standards-search

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the prevailing version of an ETSI deliverable is the one made publicly available in PDF format at www.etsi.org/deliver.

Users of the present document should be aware that the document may be subject to revision or change of status.
Information on the current status of this and other ETSI documents is available at
https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx

If you find errors in the present document, please send your comment to one of the following services:
https://portal.etsi.org/People/CommiteeSupportStaff.aspx

Copyright Notification

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.
The content of the PDF version shall not be modified without the written authorization of ETSI.
The copyright and the foregoing restriction extend to reproduction in all media.

© ETSI 2019.
All rights reserved.

DECT™, **PLUGTESTS**™, **UMTS**™ and the ETSI logo are trademarks of ETSI registered for the benefit of its Members.
3GPP™ and **LTE**™ are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.
oneM2M™ logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners.
GSM® and the GSM logo are trademarks registered and owned by the GSM Association.

Contents

Intellectual Property Rights 19
Foreword 19
Modal verbs terminology 19
1 Scope 20
2 References 20
2.1 Normative references 20
2.2 Informative references 20
3 Definition of terms, symbols and abbreviations 21
3.1 Terms 21
3.2 Symbols 21
3.3 Abbreviations 21
4 Overview of interfaces and information elements associated to the Or-Vi reference point 21
4.1 Introduction 21
4.2 Relation to other NFV Group Specifications 22
4.3 Conventions 23
5 Reference point and interface requirements 23
5.1 Introduction 23
5.2 Or-Vi Reference point requirements 23
5.3 Interface requirements 24
5.3.1 Software Image Management interface requirements 24
5.3.2 Virtualised Resources Information Management interface requirements 25
5.3.3 Virtualised Resources Capacity Management interface requirements 25
5.3.4 Network Forwarding Path Management interface requirements 25
5.3.5 Virtualised Resources Management interface requirements 26
5.3.6 Virtualised Resources Reservation Management interface requirements 26
5.3.7 Virtualised Resource Reservation Change Notification interface requirements 27
5.3.8 Virtualised Resources Change Notification interface requirements 27
5.3.9 Virtualised Resources Performance Management interface requirements 28
5.3.10 Virtualised Resources Fault Management interface requirements 28
5.3.11 Virtualised Resources Quota Management interface requirements 29
5.3.12 Compute Host Reservation Management interface requirements 29
5.3.13 Compute Host Reservation Change Notification interface requirements 30
5.3.14 Compute Host Capacity Management interface requirements 30
5.3.15 Policy Management interface requirements 31
6 NFVO exposed interfaces facing the VIM 31
7 VIM exposed Interfaces 31
7.1 Introduction 31
7.2 Software Image Management Interface 32
7.2.1 Description 32
7.2.2 Add Image operation 32
7.2.2.1 Description 32
7.2.2.2 Input parameters 32
7.2.2.3 Output parameters 33
7.2.2.4 Operation results 33
7.2.3 Query Images operation 33
7.2.3.1 Description 33
7.2.3.2 Input parameters 33
7.2.3.3 Output parameters 33
7.2.3.4 Operation results 34
7.2.4 Query Image operation 34
7.2.4.1 Description 34
7.2.4.2 Input Parameters 34

ETSI STANDARD PREVIEW
(standards.iteh.ai)
https://standards.iteh.ai/catalog/standards/sist/d74f1ab4-485c-c9ba-a3f-85b0b62c1/etsi-gs-nfv-ifa-005-v3.2.1-2019-04

7.2.4.3 Output Parameters 34
7.2.4.4 Operation results 34
7.2.5 Update Image operation 34
7.2.5.1 Description 34
7.2.5.2 Input parameters 35
7.2.5.3 Output parameters 35
7.2.5.4 Operation results 35
7.2.6 Delete Image operation 35
7.2.6.1 Description 35
7.2.6.2 Input parameters 35
7.2.6.3 Output parameters 36
7.2.6.4 Operation results 36
7.3 Virtualised Compute Interfaces 36
7.3.1 Virtualised Compute Resources Management Interface 36
7.3.1.1 Description 36
7.3.1.2 Allocate Virtualised Compute Resource operation 36
7.3.1.2.1 Description 36
7.3.1.2.2 Input parameters 36
7.3.1.2.3 Output parameters 37
7.3.1.2.4 Operation results 37
7.3.1.3 Query Virtualised Compute Resource operation 38
7.3.1.3.1 Description 38
7.3.1.3.2 Input parameters 38
7.3.1.3.3 Output parameters 38
7.3.1.3.4 Operation results 38
7.3.1.4 Update Virtualised Compute Resource operation 38
7.3.1.4.1 Description 38
7.3.1.4.2 Input parameters 39
7.3.1.4.3 Output parameters 39
7.3.1.4.4 Operation results 39
7.3.1.5 Terminate Virtualised Compute Resource operation 40
7.3.1.5.1 Description 40
7.3.1.5.2 Input parameters 40
7.3.1.5.3 Output parameters 40
7.3.1.5.4 Operation results 40
7.3.1.6 Operate Virtualised Compute Resource operation 40
7.3.1.6.1 Description 40
7.3.1.6.2 Input parameters 41
7.3.1.6.3 Output parameters 41
7.3.1.6.4 Operation results 41
7.3.1.7 Scale Virtualised Compute Resource operation 41
7.3.1.7.1 Description 41
7.3.1.7.2 Input parameters 42
7.3.1.7.3 Output parameters 42
7.3.1.7.4 Operation results 42
7.3.1.8 Migrate Virtualised Compute Resource operation 42
7.3.1.8.1 Description 42
7.3.1.8.2 Input parameters 42
7.3.1.8.3 Output parameters 43
7.3.1.8.4 Operation results 43
7.3.1.9 Create Virtualised Compute Resource Affinity Or AntiAffinity Constraints Group operation 43
7.3.1.9.1 Description 43
7.3.1.9.2 Input parameters 44
7.3.1.9.3 Output parameters 44
7.3.1.9.4 Operation results 44
7.3.1.10 Attach Virtualised Storage Resource operation 44
7.3.1.10.1 Description 44
7.3.1.10.2 Input parameters 44
7.3.1.10.3 Output parameters 45
7.3.1.10.4 Operation results 45
7.3.1.11 Detach Virtualised Storage Resource operation 45
7.3.1.11.1 Description 45

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/d74f1ab4-485c-4079-a374-e8590b9623e1/etsi-gs-nfv-ifa-005-v3.2.1-2019-04

7.3.1.11.2 Input parameters 45
7.3.1.11.3 Output parameters 45
7.3.1.11.4 Operation results....45
7.3.2 Virtualised Compute Resources Change Notification Interface 46
7.3.2.1 Introduction....46
7.3.2.2 Subscribe operation....46
7.3.2.2.1 Description 46
7.3.2.2.2 Input parameters 46
7.3.2.2.3 Output parameters 46
7.3.2.2.4 Operation results....46
7.3.2.3 Notify operation 46
7.3.2.3.1 Description 46
7.3.3 Virtualised Compute Resources Information Management Interface 47
7.3.3.1 Description....47
7.3.3.2 Subscribe operation....47
7.3.3.2.1 Description 47
7.3.3.2.2 Input parameters 47
7.3.3.2.3 Output parameters 48
7.3.3.2.4 Operation results....48
7.3.3.3 Notify operation 48
7.3.3.3.1 Description 48
7.3.3.4 Query Virtualised Compute Resource Information operation....48
7.3.3.4.1 Description 48
7.3.3.4.2 Input Parameters....48
7.3.3.4.3 Output Parameters 49
7.3.3.4.4 Operation results....49
7.3.4 Virtualised Compute Resources Capacity Management Interface....49
7.3.4.1 Introduction....49
7.3.4.2 Query Compute Capacity operation....49
7.3.4.2.1 Description 49
7.3.4.2.2 Input parameters 50
7.3.4.2.3 Output parameters 51
7.3.4.2.4 Operation results....51
7.3.4.3 Subscribe operation....51
7.3.4.3.1 Description 51
7.3.4.3.2 Input parameters 51
7.3.4.3.3 Output parameters 52
7.3.4.3.4 Operation results....52
7.3.4.4 Notify operation 52
7.3.4.4.1 Description 52
7.3.4.5 Query Compute Resource Zone operation 53
7.3.4.5.1 Description 53
7.3.4.5.2 Input Parameters....53
7.3.4.5.3 Output Parameters 53
7.3.4.5.4 Operation Results 53
7.3.4.6 Query NFVI-PoP Compute Information operation 54
7.3.4.6.1 Description 54
7.3.4.6.2 Input Parameters....54
7.3.4.6.3 Output Parameters 54
7.3.4.6.4 Operation Results 54
7.3.5 Virtualised Compute Flavour Management Interface....54
7.3.5.1 Introduction....54
7.3.5.2 Create Compute Flavour operation 54
7.3.5.2.1 Description 54
7.3.5.2.2 Input parameters 55
7.3.5.2.3 Output parameters 55
7.3.5.2.4 Operation results....55
7.3.5.3 Query Compute Flavour operation....55
7.3.5.3.1 Description 55
7.3.5.3.2 Input parameters 55
7.3.5.3.3 Output parameters 56
7.3.5.3.4 Operation results....56

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/674f1ab4-485c-4079-a374-e8559b9623e1/etsi-gs-nfv-ifa-005-v3.2.1-2019-04

7.3.5.4 Delete Compute Flavour operation 56
7.3.5.4.1 Description 56
7.3.5.4.2 Input parameters 56
7.3.5.4.3 Output parameters 56
7.3.5.4.4 Operation results 57
7.4 Virtualised Network Interfaces 57
7.4.1 Virtualised Network Resources Management Interface 57
7.4.1.1 Description 57
7.4.1.2 Allocate Virtualised Network Resource operation 57
7.4.1.2.1 Description 57
7.4.1.2.2 Input parameters 57
7.4.1.2.3 Output parameters 58
7.4.1.2.4 Operation results 58
7.4.1.3 Query Virtualised Network Resource operation 59
7.4.1.3.1 Description 59
7.4.1.3.2 Input parameters 59
7.4.1.3.3 Output parameters 59
7.4.1.3.4 Operation results 59
7.4.1.4 Update Virtualised Network Resource operation 59
7.4.1.4.1 Description 59
7.4.1.4.2 Input parameters 60
7.4.1.4.3 Output parameters 60
7.4.1.4.4 Operation results 61
7.4.1.5 Terminate Virtualised Network Resource operation 61
7.4.1.5.1 Description 61
7.4.1.5.2 Input parameters 61
7.4.1.5.3 Output parameters 61
7.4.1.5.4 Operation results 61
7.4.1.6 Create Virtualised Network Resource Affinity Or AntiAffinity Constraints Group operation 62
7.4.1.6.1 Description 62
7.4.1.6.2 Input parameters 62
7.4.1.6.3 Output parameters 62
7.4.1.6.4 Operation results 62
7.4.2 Virtualised Network Resources Change Notification Interface 62
7.4.2.1 Introduction 62
7.4.2.2 Subscribe operation 63
7.4.2.2.1 Description 63
7.4.2.2.2 Input parameters 63
7.4.2.2.3 Output parameters 63
7.4.2.2.4 Operation results 63
7.4.2.3 Notify operation 63
7.4.2.3.1 Description 63
7.4.3 Virtualised Network Resources Information Management Interface 64
7.4.3.1 Description 64
7.4.3.2 Subscribe operation 64
7.4.3.2.1 Description 64
7.4.3.2.2 Input parameters 64
7.4.3.2.3 Output parameters 64
7.4.3.2.4 Operation results 65
7.4.3.3 Notify operation 65
7.4.3.3.1 Description 65
7.4.3.4 Query Virtualised Network Resource Information operation 65
7.4.3.4.1 Description 65
7.4.3.4.2 Input parameters 65
7.4.3.4.3 Output parameters 66
7.4.3.4.4 Operation results 66
7.4.4 Virtualised Network Resources Capacity Management Interface 66
7.4.4.1 Introduction 66
7.4.4.2 Query Network Capacity operation 66
7.4.4.2.1 Description 66
7.4.4.2.2 Input parameters 66
7.4.4.2.3 Output parameters 67

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/d741ab04-485c-4079-a374-e855b0b62f1/etsi-gs-nfv-ifa-005-v3.2.1-2019-04

7.4.4.2.4 Operation results 67
7.4.4.3 Subscribe operation 68
7.4.4.3.1 Description 68
7.4.4.3.2 Input parameters 68
7.4.4.3.3 Output parameters 69
7.4.4.3.4 Operation results 69
7.4.4.4 Notify operation 69
7.4.4.4.1 Description 69
7.4.4.5 Query NFVI-PoP Network Information operation 69
7.4.4.5.1 Description 69
7.4.4.5.2 Input Parameters 70
7.4.4.5.3 Output Parameters 70
7.4.4.5.4 Operation Results 70
7.4.5 Network Forwarding Path Management Interface 70
7.4.5.1 Description 70
7.4.5.2 Create NFP operation 70
7.4.5.2.1 Description 70
7.4.5.2.2 Input parameters 71
7.4.5.2.3 Output parameters 71
7.4.5.2.4 Operation results 71
7.4.5.3 Query NFP operation 71
7.4.5.3.1 Description 71
7.4.5.3.2 Input parameters 72
7.4.5.3.3 Output parameters 72
7.4.5.3.4 Operation results 72
7.4.5.4 Delete NFP operation 72
7.4.5.4.1 Description 72
7.4.5.4.2 Input parameters 72
7.4.5.4.3 Output parameters 73
7.4.5.4.4 Operation results 73
7.4.5.5 Change NFP State operation 73
7.4.5.5.1 Description 73
7.4.5.5.2 Input parameters 73
7.4.5.5.3 Output parameters 73
7.4.5.5.4 Operation Results 73
7.4.5.6 Update NFP operation 74
7.4.5.6.1 Description 74
7.4.5.6.2 Input parameters 74
7.4.5.6.3 Output parameters 74
7.4.5.6.4 Operation results 74
7.5 Virtualised Storage Interfaces 74
7.5.1 Virtualised Storage Resources Management Interface 74
7.5.1.1 Description 74
7.5.1.2 Allocate Virtualised Storage Resource operation 75
7.5.1.2.1 Description 75
7.5.1.2.2 Input parameters 75
7.5.1.2.3 Output parameters 75
7.5.1.2.4 Operation results 76
7.5.1.3 Query Virtualised Storage Resource operation 76
7.5.1.3.1 Description 76
7.5.1.3.2 Input parameters 76
7.5.1.3.3 Output parameters 76
7.5.1.3.4 Operation results 76
7.5.1.4 Update Virtualised Storage Resource operation 77
7.5.1.4.1 Description 77
7.5.1.4.2 Input parameters 77
7.5.1.4.3 Output parameters 77
7.5.1.4.4 Operation results 77
7.5.1.5 Terminate Virtualised Storage Resource operation 77
7.5.1.5.1 Description 77
7.5.1.5.2 Input parameters 78
7.5.1.5.3 Output parameters 78

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/d74f1ab4-485c-4079-a374-e855b0b623e1/etsi-gs-nfv-ifa-005-v3.2.1-2019-04

7.5.1.5.4 Operation results 78
7.5.1.6 Operate Virtualised Storage Resource operation 78
7.5.1.6.1 Description 78
7.5.1.6.2 Input parameters 79
7.5.1.6.3 Output parameters 79
7.5.1.6.4 Operation results 79
7.5.1.7 Scale Virtualised Storage Resource operation 79
7.5.1.7.1 Description 79
7.5.1.7.2 Input parameters 79
7.5.1.7.3 Output parameters 80
7.5.1.7.4 Operation results 80
7.5.1.8 Migrate Virtualised Storage Resource operation 80
7.5.1.8.1 Description 80
7.5.1.8.2 Input parameters 80
7.5.1.8.3 Output parameters 81
7.5.1.8.4 Operation results 81
7.5.1.9 Create Virtualised Storage Resource Affinity Or AntiAffinity Constraints Group operation 81
7.5.1.9.1 Description 81
7.5.1.9.2 Input parameters 81
7.5.1.9.3 Output parameters 82
7.5.1.9.4 Operation results 82
7.5.2 Virtualised Storage Resources Change Notification Interface 82
7.5.2.1 Introduction 82
7.5.2.2 Subscribe operation 82
7.5.2.2.1 Description 82
7.5.2.2.2 Input parameters 82
7.5.2.2.3 Output parameters 83
7.5.2.2.4 Operation results 83
7.5.2.3 Notify operation 83
7.5.2.3.1 Description 83
7.5.3 Virtualised Storage Resources Information Management Interface 83
7.5.3.1 Description 83
7.5.3.2 Subscribe operation 84
7.5.3.2.1 Description 84
7.5.3.2.2 Input parameters 84
7.5.3.2.3 Output parameters 84
7.5.3.2.4 Operation results 84
7.5.3.3 Notify operation 84
7.5.3.3.1 Description 84
7.5.3.4 Query Virtualised Storage Resource Information operation 85
7.5.3.4.1 Description 85
7.5.3.4.2 Input parameters 85
7.5.3.4.3 Output parameters 85
7.5.3.4.4 Operation results 85
7.5.4 Virtualised Storage Resources Capacity Management Interface 86
7.5.4.1 Introduction 86
7.5.4.2 Query Storage Capacity operation 86
7.5.4.2.1 Description 86
7.5.4.2.2 Input parameters 86
7.5.4.2.3 Output parameters 87
7.5.4.2.4 Operation results 87
7.5.4.3 Subscribe operation 87
7.5.4.3.1 Description 87
7.5.4.3.2 Input parameters 88
7.5.4.3.3 Output parameters 89
7.5.4.3.4 Operation results 89
7.5.4.4 Notify operation 89
7.5.4.4.1 Description 89
7.5.4.5 Query NFVI-PoP Storage Information operation 89
7.5.4.5.1 Description 89
7.5.4.5.2 Input Parameters 89
7.5.4.5.3 Output Parameters 90

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/d74f1ab4-485c-4079-a374-e8559b0622e1/etsi-gs-nfv-ifa-005-v3.2.1-2019-04

7.5.4.5.4 Operation Results 90
7.5.4.6 Query Storage Resource Zone operation 90
7.5.4.6.1 Description 90
7.5.4.6.2 Input Parameters 90
7.5.4.6.3 Output Parameters 90
7.5.4.6.4 Operation Results 91
7.6 Virtualised Resource Fault Management Interface 91
7.6.1 Description 91
7.6.2 Subscribe operation 91
7.6.2.1 Description 91
7.6.2.2 Input parameters 91
7.6.2.3 Output parameters 91
7.6.2.4 Operation results 92
7.6.3 Notify operation 92
7.6.3.1 Description 92
7.6.4 Get Alarm List operation 92
7.6.4.1 Description 92
7.6.4.2 Input parameters 92
7.6.4.3 Output parameters 93
7.6.4.4 Operation results 93
7.7 Virtualised Resources Performance Management Interface 93
7.7.1 Description 93
7.7.2 Create PM Job operation 93
7.7.2.1 Description 93
7.7.2.2 Input parameters 94
7.7.2.3 Output parameters 94
7.7.2.4 Operation results 95
7.7.3 Query PM Job operation 95
7.7.3.1 Description 95
7.7.3.2 Input parameters 95
7.7.3.3 Output parameters 95
7.7.3.4 Operation results 95
7.7.4 Delete PM Jobs operation 95
7.7.4.1 Description 95
7.7.4.2 Input parameters 96
7.7.4.3 Output parameters 96
7.7.4.4 Operation results 96
7.7.5 Subscribe operation 96
7.7.5.1 Description 96
7.7.5.2 Input Parameters 96
7.7.5.3 Output Parameters 97
7.7.5.4 Operation results 97
7.7.6 Notify operation 97
7.7.6.1 Description 97
7.7.7 Create Threshold operation 97
7.7.7.1 Description 97
7.7.7.2 Input parameters 98
7.7.7.3 Output parameters 98
7.7.7.4 Operation results 98
7.7.8 Query Threshold operation 98
7.7.8.1 Description 98
7.7.8.2 Input parameters 98
7.7.8.3 Output parameters 99
7.7.8.4 Operation results 99
7.7.9 Delete Thresholds operation 99
7.7.9.1 Description 99
7.7.9.2 Input parameters 99
7.7.9.3 Output parameters 99
7.7.9.4 Operation results 100
7.8 Virtualised Resource Reservation Interfaces 100
7.8.1 Virtualised Compute Resources Reservation Management Interface 100
7.8.1.1 Description 100

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/d74f1ab4-485c-4079-a374-e8559b0622e1/etsi-gs-nfv-ifa-005-v3.2.1-2019-04

7.8.1.2 Create Compute Resource Reservation operation 100
7.8.1.2.1 Description 100
7.8.1.2.2 Input parameters 100
7.8.1.2.3 Output parameters 101
7.8.1.2.4 Operation results 102
7.8.1.3 Query Compute Resource Reservation operation 102
7.8.1.3.1 Description 102
7.8.1.3.2 Input parameters 102
7.8.1.3.3 Output parameters 102
7.8.1.3.4 Operation results 102
7.8.1.4 Update Compute Resource Reservation operation 103
7.8.1.4.1 Description 103
7.8.1.4.2 Input parameters 103
7.8.1.4.3 Output parameters 103
7.8.1.4.4 Operation results 104
7.8.1.5 Terminate Compute Resource Reservation operation 104
7.8.1.5.1 Description 104
7.8.1.5.2 Input parameters 104
7.8.1.5.3 Output parameters 104
7.8.1.5.4 Operation results 104
7.8.2 Virtualised Network Resources Reservation Management Interface 105
7.8.2.1 Description 105
7.8.2.2 Create Network Resource Reservation operation 105
7.8.2.2.1 Description 105
7.8.2.2.2 Input parameters 105
7.8.2.2.3 Output parameters 106
7.8.2.2.4 Operation results 106
7.8.2.3 Query Network Resource Reservation operation 106
7.8.2.3.1 Description 106
7.8.2.3.2 Input parameters 106
7.8.2.3.3 Output parameters 106
7.8.2.3.4 Operation results 107
7.8.2.4 Update Network Resource Reservation operation 107
7.8.2.4.1 Description 107
7.8.2.4.2 Input parameters 107
7.8.2.4.3 Output parameters 107
7.8.2.4.4 Operation results 108
7.8.2.5 Terminate Network Resource Reservation operation 108
7.8.2.5.1 Description 108
7.8.2.5.2 Input parameters 108
7.8.2.5.3 Output parameters 108
7.8.2.5.4 Operation results 108
7.8.3 Virtualised Storage Resources Reservation Management Interface 109
7.8.3.1 Description 109
7.8.3.2 Create Storage Resource Reservation operation 109
7.8.3.2.1 Description 109
7.8.3.2.2 Input parameters 109
7.8.3.2.3 Output parameters 110
7.8.3.2.4 Operation results 110
7.8.3.3 Query Storage Resource Reservation operation 110
7.8.3.3.1 Description 110
7.8.3.3.2 Input parameters 110
7.8.3.3.3 Output parameters 110
7.8.3.3.4 Operation results 111
7.8.3.4 Update Storage Resource Reservation operation 111
7.8.3.4.1 Description 111
7.8.3.4.2 Input parameters 111
7.8.3.4.3 Output parameters 111
7.8.3.4.4 Operation results 112
7.8.3.5 Terminate Storage Resource Reservation operation 112
7.8.3.5.1 Description 112
7.8.3.5.2 Input parameters 112

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/d74f1ab4-485c-4079-a374-e8559b9623e1/etsi-gs-nfv-ifa-005-v3.2.1-2019-04

7.8.3.5.3 Output parameters 112
7.8.3.5.4 Operation results....113
7.8.4 Virtualised Resources Reservation Change Notification Interface....113
7.8.4.1 Introduction....113
7.8.4.2 Subscribe operation....113
7.8.4.2.1 Description 113
7.8.4.2.2 Input parameters 113
7.8.4.2.3 Output parameters 113
7.8.4.2.4 Operation results....114
7.8.4.3 Notify operation 114
7.8.4.3.1 Description 114
7.9 Virtualised Resource Quota Interfaces....114
7.9.1 Virtualised Compute Resources Quota Management Interface 114
7.9.1.1 Description....114
7.9.1.2 Create Compute Resource Quota operation 114
7.9.1.2.1 Description 114
7.9.1.2.2 Input parameters 114
7.9.1.2.3 Output parameters 115
7.9.1.2.4 Operation results....115
7.9.1.3 Query Compute Resource Quota operation....115
7.9.1.3.1 Description 115
7.9.1.3.2 Input parameters 115
7.9.1.3.3 Output parameters 116
7.9.1.3.4 Operation results....116
7.9.1.4 Update Compute Resource Quota operation 116
7.9.1.4.1 Description 116
7.9.1.4.2 Input parameters 116
7.9.1.4.3 Output parameters 116
7.9.1.4.4 Operation results....117
7.9.1.5 Terminate Compute Resource Quota operation 117
7.9.1.5.1 Description 117
7.9.1.5.2 Input parameters 117
7.9.1.5.3 Output parameters 117
7.9.1.5.4 Operation results....117
7.9.2 Virtualised Network Resources Quota Management Interface....118
7.9.2.1 Description....118
7.9.2.2 Create Network Resource Quota operation....118
7.9.2.2.1 Description 118
7.9.2.2.2 Input parameters 118
7.9.2.2.3 Output parameters 118
7.9.2.2.4 Operation results....118
7.9.2.3 Query Network Resource Quota operation 119
7.9.2.3.1 Description 119
7.9.2.3.2 Input parameters 119
7.9.2.3.3 Output parameters 119
7.9.2.3.4 Operation results....119
7.9.2.4 Update Network Resource Quota operation....119
7.9.2.4.1 Description 119
7.9.2.4.2 Input parameters 120
7.9.2.4.3 Output parameters 120
7.9.2.4.4 Operation results....120
7.9.2.5 Terminate Network Resource Quota operation....120
7.9.2.5.1 Description 120
7.9.2.5.2 Input parameters 121
7.9.2.5.3 Output parameters 121
7.9.2.5.4 Operation results....121
7.9.3 Virtualised Storage Resources Quota Management Interface....121
7.9.3.1 Description....121
7.9.3.2 Create Storage Resource Quota operation....121
7.9.3.2.1 Description 121
7.9.3.2.2 Input parameters 122
7.9.3.2.3 Output parameters 122

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/d74f1ab4-485c-4079-a374-8559b0623e1/etsi-gs-nfv-ifa-005-v3.2.1-2019-04

7.9.3.2.4 Operation results ... 122
7.9.3.3 Query Storage Resource Quota operation ... 122
7.9.3.3.1 Description ... 122
7.9.3.3.2 Input parameters ... 123
7.9.3.3.3 Output parameters ... 123
7.9.3.3.4 Operation results ... 123
7.9.3.4 Update Storage Resource Quota operation ... 123
7.9.3.4.1 Description ... 123
7.9.3.4.2 Input parameters ... 123
7.9.3.4.3 Output parameters ... 124
7.9.3.4.4 Operation results ... 124
7.9.3.5 Terminate Storage Resource Quota operation ... 124
7.9.3.5.1 Description ... 124
7.9.3.5.2 Input parameters ... 124
7.9.3.5.3 Output parameters ... 124
7.9.3.5.4 Operation results ... 125
7.9.4 Virtualised Resources Quota Change Notification Interface ... 125
7.9.4.1 Introduction ... 125
7.9.4.2 Subscribe operation ... 125
7.9.4.2.1 Description ... 125
7.9.4.2.2 Input parameters ... 125
7.9.4.2.3 Output parameters ... 125
7.9.4.2.4 Operation results ... 126
7.9.4.3 Notify operation ... 126
7.9.4.3.1 Description ... 126
7.10 Compute Host Reservation Management Interface ... 126
7.10.1 Description ... 126
7.10.2 Create Compute Host Reservation operation ... 126
7.10.2.1 Description ... 126
7.10.2.2 Input parameters ... 127
7.10.2.3 Output parameters ... 127
7.10.2.4 Operation results ... 127
7.10.3 Query Compute Host Reservation operation ... 127
7.10.3.1 Description ... 127
7.10.3.2 Input parameters ... 128
7.10.3.3 Output parameters ... 128
7.10.3.4 Operation results ... 128
7.10.4 Update Compute Host Reservation operation ... 128
7.10.4.1 Description ... 128
7.10.4.2 Input parameters ... 128
7.10.4.3 Output parameters ... 129
7.10.4.4 Operation results ... 129
7.10.5 Terminate Compute Host Reservation operation ... 129
7.10.5.1 Description ... 129
7.10.5.2 Input parameters ... 129
7.10.5.3 Output parameters ... 130
7.10.5.4 Operation results ... 130
7.11 NFVI Capacity Management Interfaces ... 130
7.11.1 Compute Host Capacity Management Interface ... 130
7.11.1.1 Introduction ... 130
7.11.1.2 Query Compute Host Capacity operation ... 130
7.11.1.2.1 Description ... 130
7.11.1.2.2 Input parameters ... 131
7.11.1.2.3 Output parameters ... 131
7.11.1.2.4 Operation results ... 131
7.11.1.3 Subscribe operation ... 131
7.11.1.3.1 Description ... 131
7.11.1.3.2 Input parameters ... 131
7.11.1.3.3 Output parameters ... 132
7.11.1.3.4 Operation results ... 132
7.11.1.4 Notify operation ... 132
7.11.1.4.1 Description ... 132

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/d74f1ab4-485c-4079-a374-e8559b9623e1/etsi-gs-nfv-ifa-005-v3.2.1-2019-04

7.12 Policy Management interface 132
7.12.1 Description 132
7.12.2 Transfer Policy operation 133
7.12.2.1 Description 133
7.12.2.2 Input parameters 133
7.12.2.3 Output parameters 133
7.12.2.4 Operation results 133
7.12.3 Delete Policy operation 134
7.12.3.1 Description 134
7.12.3.2 Input parameters 134
7.12.3.3 Output parameters 134
7.12.3.4 Operation results 134
7.12.4 Query Policy operation 134
7.12.4.1 Description 134
7.12.4.2 Input parameters 135
7.12.4.3 Output parameters 135
7.12.4.4 Operation results 135
7.12.5 Activate Policy operation 135
7.12.5.1 Description 135
7.12.5.2 Input parameters 135
7.12.5.3 Output parameters 136
7.12.5.4 Operation results 136
7.12.6 Deactivate Policy operation 136
7.12.6.1 Description 136
7.12.6.2 Input parameters 136
7.12.6.3 Output parameters 136
7.12.6.4 Operation results 137
7.12.7 Subscribe operation 137
7.12.7.1 Description 137
7.12.7.2 Input parameters 137
7.12.7.3 Output parameters 137
7.12.7.4 Operation results 137
7.12.8 Notify operation 138
7.12.8.1 Description 138
7.12.9 Terminate Subscription operation 138
7.12.9.1 Description 138
7.12.9.2 Input parameters 138
7.12.9.3 Output parameters 138
7.12.9.4 Operation results 138
7.12.10 Query Subscription Info operation 139
7.12.10.1 Description 139
7.12.10.2 Input parameters 139
7.12.10.3 Output parameters 139
7.12.10.4 Operation results 139

8 Information elements exchanged 139
8.1 Introduction 139
8.2 Information elements related to software images 140
8.2.1 Introduction 140
8.2.2 SoftwareImageInformation information element 140
8.2.2.1 Description 140
8.2.2.2 Attributes 140
8.3 Information elements and notifications related to Consumable Virtualised Resources Information 140
8.3.1 Introduction 140
8.3.2 InformationChangeNotification 140
8.3.2.1 Description 140
8.3.2.2 Trigger conditions 140
8.3.2.3 Attributes 141
8.3.3 Information elements related to Virtual Compute Resource Information 141
8.3.3.1 Introduction 141
8.3.3.2 VirtualComputeResourceInformation information element 141
8.3.3.2.1 Description 141

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
https://standards.iteh.ai/catalog/standards/sist/d74f1ab4-485c-4079-a374-e8559b9623e1/etsi-gs-nfv-ifa-005-v3.2.1-2019-04