

draft-ietf-weirds-object-inventory

IETF 88

Linlin Zhou

Unified Object Inventory

- RIR object inventory is added in the draft-ietf-weirds-object-inventory-01
- Object types

	Types	RDAP Types
DNR	Domain	Domain
	Nameserver	Nameserver
	Contact	Entity
	Registrar	
RIR	Organization	
	Contact	
	IP	IP
	ASN	ASN

Organization

RIR Object	AFRINIC	APNIC	ARIN	LACNIC	RIPE NCC
Organization name	Organisation	role	Name	owner	org-name
Organization ID	org-name	nic-hdl	Handle	owner-id	organisation
Company	NA	NA	Company	NA	NA
Name of person responsible	NA	NA	NA	responsible	NA
Type of organization	org-type	NA	NA	NA	org-type
Country	country	country	country	country	NA
Postal address	address	address	address	address	address
City	NA	NA	city	NA	NA
State	NA	NA	StateProv	NA	NA
Postal code	NA	NA	PostalCode	NA	NA
phone	phone	phone	phone	phone	phone
Fax-number	fax-no	fax-no	NA	NA	fax-no
ID of administrative contact	admin-c	admin-c	NA	owner-c	admin-c (multiple)
ID of technical contact	tech-c	tech-c	NA	tech-c	tech-c (multiple)
Reference of maintainer	mnt-ref	NA	NA	NA	mnt-ref
Reference of maintainer	mnt-by	mnt-by	NA	NA	mnt-by
Remarks	remarks	remarks	NA	NA	remarks
Date of record creation	NA	NA	RegDate	created	NA
Date of record changed	NA	changed (multiple)	Updated	changed	NA
List of resources	NA	NA	NA	list of resources	NA
Source	source	source	NA	NA	source
Reference	NA	NA	Ref	NA	NA

Contact

RIR Object	AFRINIC	APNIC	ARIN	LACNIC	RIPE NCC
Name	person	person	Name	person	person
Company	NA	NA	Company	NA	NA
Postal Address	address	address	Address	address	address
City	NA	NA	City	NA	NA
State	NA	NA	StateProv	NA	NA
Postal Code	NA	NA	PostalCode	NA	NA
Country	NA	country	Country	country	NA
Phone number	phone	phone	Phone	phone	phone
Fax-no	fax-no	fax-no	NA	NA	fax-no
email	e-mail	e-mail	Email	e-mail	NA
ID	nic-hdl	nic-hdl	Handle	nic-hdl	nic-hdl
Remarks	NA	remarks	NA	NA	remarks
Notify	NA	notify	NA	NA	NA
ID of maintainer	mnt-by	mnt-by	NA	NA	mnt-by
Registration date	NA	NA	RegDate	created	NA
Registration update	NA	changed	Updated	changed	NA
Source	source	source	NA	NA	source
Reference	NA	NA	Ref	NA	NA

IP Address

RIR Object	AFRINIC	APNIC	ARIN	LACNIC	RIPE NCC
IP address range	inetnum	inetnum	NetRange	NA	NA
IPv6 address range	inet6num / inetnum	inet6num / inetnum	CIDR	inetnum	inet6num / inetnum
Description	descr	descr	NA	NA	descr
Remarks	NA	NA	NA	NA	remarks
Origin AS	NA	origin (on route/6)	OriginAS:	OriginAS (future)	origin (on route/6)
Network name/ID	netname	netname	NetName: NetHandle	inetrev:	netname
Maintainer	mnt-by	mnt-by	NA	NA	mnt-by
Maintainer	mnt-lower	mnt-lower	NA	NA	mnt-lower
Soruce	source	source	NA	NA	source
Maintainer	NA	mnt-irt	NA	NA	NA
Maintainer	mnt-ref	NA	NA	NA	NA
Administrative contact	admin-c	admin-c	OrgId	ownerid	admin-c
Parant range	parent	NA	Parent:	NA	NA
Status	status	status	NetType	status	status
Registration Date	NA	NA	RegDate	created	NA
Registration Update	NA	changed (multi)	Updated:	changed	NA
Reference	NA	NA	Ref	NA	NA
ID organization holding the resource	org	NA	OrgId	owner	organisation
Referral Server	NA	NA	ReferralServer	NA	NA
Technical Contact	tech-c	tech-c	OrgTechHandle	tech-c	tech-c (multi)
Abuse contact	NA	NA	OrgAbuseHandle	abuse-c	abuse-mailbox
Referral Technical Contact	NA	NA	RTechHandle	NA	NA
Referral Abuse Contact	NA	NA	RAbuseHandle	NA	NA
Referral NOC Handle	NA	NA	RNOCHandle:	NA	NA
Name server	NA	NA	NA	nserver	NA

ASN

RIR Object	AFRINIC	APNIC	ARIN	LACNIC	RIPE NCC
Description	descr	descr	NA	NA	descr
Organization	organisation	NA	OrgId	owner	org
Comment	NA	NA	Comment	NA	remarks
Administrative Contact ID	admin-c	admin-c	ASHandle	owner-id	admin-c
Technical Contact ID	tech-c	tech-c	OrgTechHandle	routing-c	tech-c
Organization ID	NA	nic-hdl	NA	owner-c	organisation
Notify	NA	notify	NA	NA	NA
Abuse contact	NA	NA	OrgAbuseHandle	abuse-c	NA
Maintainer	mnt-by	mnt-by	NA	NA	mnt-by
Maintainer	mnt-lower	NA	NA	NA	mnt-lower
Maintainer	NA	NA	NA	NA	mnt-ref
Registration date	NA	NA	RegDate	created	NA
Registration Update	NA	changed (multiple)	Updated	changed	NA
Source	source	source	NA	NA	source

Survey Results

- Almost every objects are considered in the RDAP response
- Some specific RIR objects
 - Organization: list of resources (LACNIC)
 - Contact: notify (APNIC)
 - IP: RTechHandle & RAbuseHandle & RNOCHandle (ARIN)
 - mnt-by/mnt-ref/mnt-lower (all)

IRR Objects

- The following object types are routing registry specific objects:
 - Sets (as-set, filter-set, peering-set, route-set, routing-set)
 - inet-rtr
 - irt
 - route, route6
- “In this document, we are not intended to analyze all the query and response types existed in RIRs and DNRs. The most common query objects will be discussed, other objects such as RPSL data structure used by Internet Routing Registries (IRRs) will be added at a later time if the community feels it is necessary.”

Other RIR Object Types

- There are the other object types that are in the RIPE database, but are not mentioned in the WEIRDS spec (Edward Shryane RIPE NCC):
 - as-block (covering a range of aut-nums)
 - key-cert (for pgp and x509 certificates)
 - poem and poetic form

Next Step

- Both DNR and RIR have many extended types of objects
- Give a reference extension

- Thanks Arturo Servin and Edward Shryane for providing the RIR object information.