IXPDB Update

AfPIF 2022 - Kigali

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Euro-IX Introduction

EURO-IX MEMBERS

EURO-IX PATRONS

Membership Association of IXPs

Events

- Two Membership events per year hosted by our Members
- Workshops & hackathons
- Online/ virtual workshops

Services

- Reports
- Newsletters
- Mailing list
- Keeping the community connected – Virtual events

Tools & Community Projects

- Internet eXchange Point Database – IXPDB
- Peering Toolbox
- Fellowship & Mentor-IX
- Route Server Large BGP Communities list
- A new IXP Film

The IX-F & IXPDB

euro-IX

The Internet eXchange Federation – IX-F

The IX-F JSON Schema

- A community driven schema that allows IXPs to report their data in a standard automated fashion
- It includes data sets on:
  - The IXP participants
  - IXP locations
  - Hardware used at IXPs and it's participants
  - Route Servers
- You can find the schema and documentation here - https://github.com/euro-ix/json-schemas
- IXPs can also add their IX-F export APIs to PeeringDB - https://docs.peeringdb.com/ix-f-json-import-rules/

The IXP{DB}

- The Internet Exchange Point Database (IXPDB) is an authoritative and fully comprehensive set of data on Internet eXchange points (IXPs)
- The IXPDB imports the IX-F JSON schema **directly from IXPs**
- The data can be used in order to provide a single comprehensive and graphical view of the global internet ecosystem

IXP{DB} Key Features

- Automated data collection
  - Organisational
  - Infrastructure
    - IXPs & facility locations
    - Peering LAN prefix(es)
    - Switch hardware
  - Connected networks
    - Ports and speeds
    - MAC & IP address(es)
    - (Prefixes announced – coming soon)
  - Aggregate traffic

- Easy integration
  - Standardised JSON schema
  - Automatic export from IXP Manager / Asteroid

- Incorporates third party data sources
  - MANRS
  - PeeringDB

- Web-based GUI
  - Search interface
  - Data tables & visualisations
  - Comparison tools for IXPs & ASNs
  - User accounts for manual data entry

Home Page Stats - Live Data

IXPs by Connected ASNs

Name	City	Country	Last updated	API	Traffic	MANRS	# A
IX.br Sao Paulo, SP (SP))	São Paulo	BR	2021-09-23 8:11:49 UTC	✔	✖	✖	2
DE-CIX FRA (DE-CIX Frankfurt)	Frankfurt am Main	DE	2022-08-15 8:10:10 UTC	✔	✖	✔	1
AMS-IX	Amsterdam	NL	2022-08-15 8:10:10 UTC	✔	✖	✔	8
LINX LON1 (LINX LON1)	London	GB	2022-08-15 8:10:10 UTC	✔	✖	✔	8
EPIX (e-Poludnie Internet Exchange)	Warsaw	PL	2022-08-08 13:02:03 UTC	✔	✖	✖	5
NAPAfrica IX Johannesburg (NAPAfrica)		ZA	2022-08-15 9:02:07 UTC	✔	✔	✔	5

Latest IXP Connections

ASN	Network name	IXP	Connected on	Other IXP connectio
140167	ANL Network	EIX Delhi (Extreme Internet Exchange India)	2022-08-13 0:00:00 UTC	0
47158	HUIZE LTD	LLHOST INC. SRL	2022-08-12 0:00:00 UTC	0
60068	CDN77	NAPAfrica IX Johannesburg (NAPAfrica)	2022-08-11 0:00:00 UTC	11
135726	VSJ INTERNET SERVICES PRIVATE LIMITED	EIX Delhi (Extreme Internet Exchange India)	2022-08-11 0:00:00 UTC	1
142476	Giganet Digital Net Services	EIX Mumbai (Extreme Internet Exchange India)	2022-08-11 0:00:00 UTC	0

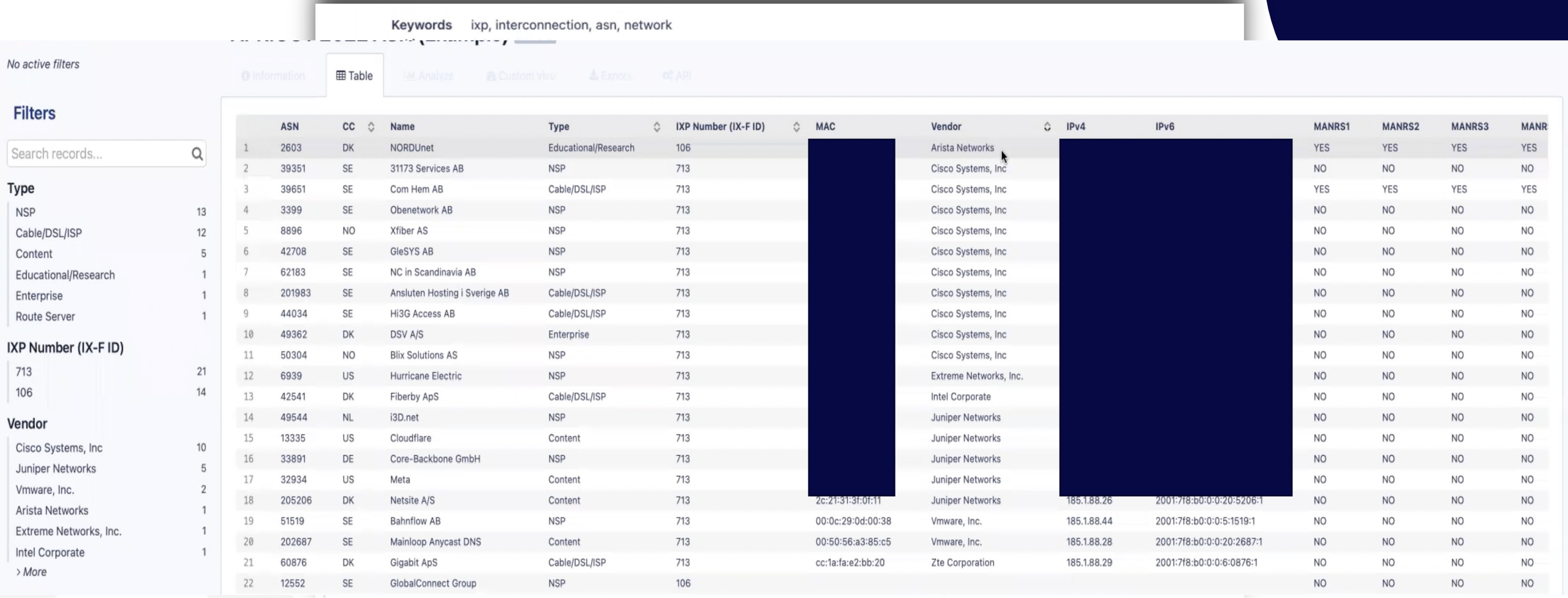
IXP Switch Hardware

Brand	% of IXPs	# of Devices
unknown	6.8	2405
Arista	5.2	476
Extreme	0.2	136
Juniper Networks	2.7	111
Huawei	1.3	101
Cisco Systems	4.0	96
Extreme Networks	1.1	82
Cisco	1.0	74
Linux	2.0	25

Networks

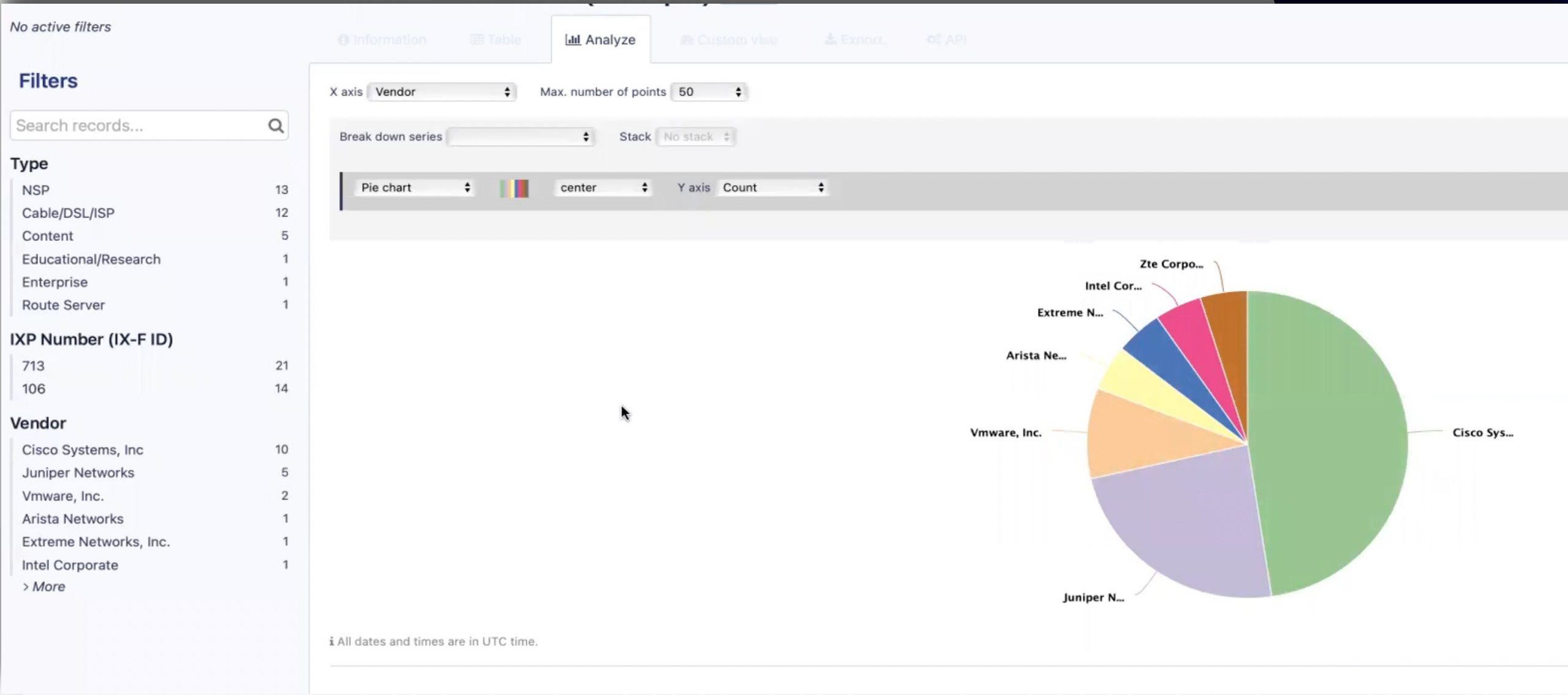
	Africa	Asia Pacific	Europe & Middle East	Latin America & Carribean	North America
ASNs in the Region	1574	5049	14894	5612	3227
Regionally Unique	489	1824	3774	2774	1278

Metadata and dynamically filtered tables



	ASN	CC	Name	Type	IXP Number (IX-F ID)	MAC	Vendor	IPv4	IPv6	MANRS1	MANRS2	MANRS3	MANR
1	2603	DK	NORDUnet	Educational/Research	106	[redacted]	Arista Networks	[redacted]	[redacted]	YES	YES	YES	YES
2	39351	SE	31173 Services AB	NSP	713		Cisco Systems, Inc			NO	NO	NO	NO
3	39651	SE	Com Hem AB	Cable/DSL/ISP	713		Cisco Systems, Inc			YES	YES	YES	YES
4	3399	SE	Obenetwork AB	NSP	713		Cisco Systems, Inc			NO	NO	NO	NO
5	8896	NO	Xfiber AS	NSP	713		Cisco Systems, Inc			NO	NO	NO	NO
6	42708	SE	GleSYS AB	NSP	713		Cisco Systems, Inc			NO	NO	NO	NO
7	62183	SE	NC in Scandinavia AB	NSP	713		Cisco Systems, Inc			NO	NO	NO	NO
8	201983	SE	Ansluten Hosting i Sverige AB	Cable/DSL/ISP	713		Cisco Systems, Inc			NO	NO	NO	NO
9	44034	SE	Hi3G Access AB	Cable/DSL/ISP	713		Cisco Systems, Inc			NO	NO	NO	NO
10	49362	DK	DSV A/S	Enterprise	713		Cisco Systems, Inc			NO	NO	NO	NO
11	50304	NO	Blix Solutions AS	NSP	713		Cisco Systems, Inc			NO	NO	NO	NO
12	6939	US	Hurricane Electric	NSP	713		Extreme Networks, Inc.			NO	NO	NO	NO
13	42541	DK	Fiberby ApS	Cable/DSL/ISP	713		Intel Corporate			NO	NO	NO	NO
14	49544	NL	i3D.net	NSP	713		Juniper Networks			NO	NO	NO	NO
15	13335	US	Cloudflare	Content	713		Juniper Networks			NO	NO	NO	NO
16	33891	DE	Core-Backbone GmbH	NSP	713		Juniper Networks			NO	NO	NO	NO
17	32934	US	Meta	Content	713		Juniper Networks			NO	NO	NO	NO
18	205206	DK	Netsite A/S	Content	713	2c:21:31:3f:0f:11	Juniper Networks	185.1.88.26	2001:7f8:b0:0:0:20:5206:1	NO	NO	NO	NO
19	51519	SE	Bahnflow AB	NSP	713	00:0c:29:0d:00:38	Vmware, Inc.	185.1.88.44	2001:7f8:b0:0:0:5:1519:1	NO	NO	NO	NO
20	202687	SE	Mainloop Anycast DNS	Content	713	00:50:56:a3:85:c5	Vmware, Inc.	185.1.88.28	2001:7f8:b0:0:0:20:2687:1	NO	NO	NO	NO
21	60876	DK	Gigabit ApS	Cable/DSL/ISP	713	cc:1a:fa:e2:bb:20	Zte Corporation	185.1.88.29	2001:7f8:b0:0:0:6:0876:1	NO	NO	NO	NO
22	12552	SE	GlobalConnect Group	NSP	106					NO	NO	NO	NO

Dynamic charting



Interactive maps

Other Information

- Mailing list for users - https://lists.euro-ix.net/mailman/listinfo/ixpdb
- GitHub JSON Member List Schema – https://github.com/euro-ix/json-schemas
- API – https://api.ixpdb.net
- Website - https://ixpdb.euro-ix.net/en/
- IXPDB admin team - ixpdb-admin@euro-ix.net

displayed.

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