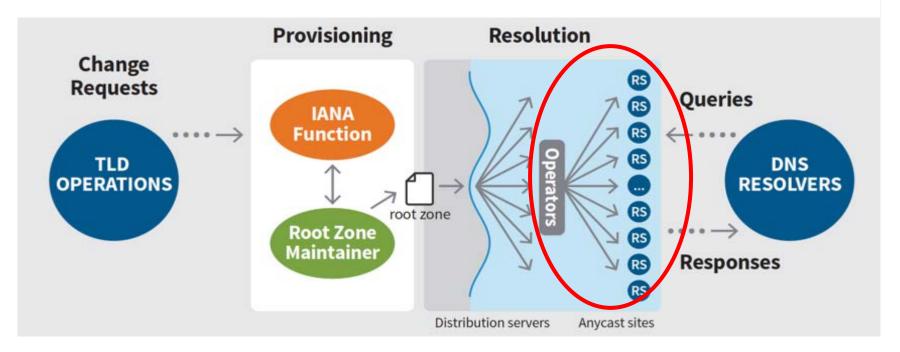


# Deployment of M-Root instances in AP region

WIDE Project, JPRS, APNIC



## What is Root DNS Server System



#### Root Server System Principles

- Globally unique public namespace (source=IANA)
- Stable, reliable, resilient system
- Operation with integrity and ethos
- Transparency in operation
- Neutrality and impartiality

...



## Operators of Root Servers

name		Operator	Organizational type
A-Root		Verisign, Inc.	Company (domain name registry)
B-Root		Univ. of Sothern California, Information Sciences Inst.	University (laboratory)
C-Root	800	Cogent Communications	Company (ISP)
D-Root	888	Univ. of Maryland	University
E-Root	000	NASA Ames Research Renter	Government (laboratory)
F-Root		Internet Systems Consortium (ISC)	Nonprofit organization (DNS soft. developer)
G-Root	000	U.S. DoD Network Information Center	Government
H-Root		U.S. Army Research laboratory	Army (laboratory)
I-Root	+	Netnod	Nonprofit organization (operator of IX)
J-Root		Verisign, Inc.	Company (domain name registry)
K-Root		RIPE NCC	European Regional Internet Registry
L-Root		ICANN	Nonprofit organization
M-Root	•	WIDE project & JPRS	Research project & Company (domain name registry)

## M-Root is the only Operator based in AP region



#### Number of Root DNS Server Instances

- The root DNS server system consists of 1,300+ instances.
- AP region has about 20% of root server instances



https://root-servers.org/

As of 02/19/2021 11:25 a.m., the root server system consists of 1370 instances operated by the 12 independent root server operators.

About 60% of the world population live in AP region



### Who Operate M-Root?

1997~	WIDE Project (Japan) started M-Root DNS operation
2005~	WIDE Project and JPRS started M-Root DNS joint operation

- WIDE Project
  - http://www.wide.ad.jp/
  - Joint Research Project based in Japan
  - Collaboration with R&E network and others including APAN and APNIC
- Japan Registry Services Co., Ltd (JPRS)
  - https://jprs.co.jp/en/
  - Manage and administer .JP(Japan) ccTLD



## M-Root DNS Server deployment

- In 2004, M-Root started anycast services
- Its clusters exist in
  - Tokyo (3), Osaka (1), Seoul (1) (n) the number of instances
  - Paris (2), San Francisco area (2)
  - Brisbane (1) ..... added in December 2020 with APNIC
- Deployment of more anycast instances under way
  - Focusing "AP region" primarily
  - In collaboration with APNIC
    - Under the MOU among WIDE Project, JPRS and APNIC
    - With funding support from APNIC Foundation/APIDT



## M-Root Deployment in AP Region

- Having Root Server(s) beside you may give you and your neighbours
  - More stability in using the Internet
  - Shorter response time in using the Internet
  - Higher proficiency in infrastructure design and operation
  - ...
- Collaboration in deployment of M-Root?
  - System-wise
    - Connection to IXP(s) and/or the largest ISP(s)
    - Cabinet/Cage
    - Server
    - Management Network
    - ...
  - Operation-wise
    - Remote hand

- ...



## interested in hosting an instance?

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