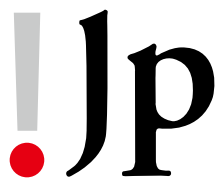


2024.1-12



JP Domain Name Registry Report



jPRS

Japan Registry Services Co.,Ltd.

Introduction

As technology advances, the Internet is being used in more broad and diverse areas of society. With the development of AI technology and the advancement of digital transformation, the Internet has become increasingly indispensable to society. As a result, the importance of the communication infrastructure that supports Internet-based services and technologies, as well as the Domain Name System (DNS) and domain names that underpin the Internet, is growing rapidly.

With this background, the total number of JP domain name registrations surpassed 1.77 million as of January 2025. Of those, 1.2 million are registered as General-use JP domain names, accounting for about 70% of total registrations. 560,000 names are Organizational Type JP domain names, the domain name space categorized by organizational type of registrants. Over 480,000 names are registered under “co.jp,” making it the most registered category in Organizational Type JP domain names; many companies are using “co.jp” domain names.

JPRS continued its efforts in 2024 to improve JP domain name services, develop systems and carry out promotional activities to facilitate the use of JP domain names and deliver greater value to users.

Incidents and crises that threaten the stable operation of the Internet, such as vulnerabilities in DNS software, continue to occur. In such circumstances, JPRS, as a company that supports the basis of the Internet society through domain names and DNS, tackles the challenges and risks and provides information in a timely manner.

JPRS also actively contributes to discussions on global issues and conveys relevant information to the community in Japan to make the Internet safe for everyone to use.

The management and administration of JP domain names requires a high level of commitment to enhancing the public interest and staying ahead of the competition. Recognizing this vital nature of its services and influence on society, JPRS carries out its tasks and publishes the annual “JP Domain Name Registry Report” on its management and administration of JP domain names.

JPRS will continue to ensure that JP domain names remain useful and contribute to the development of the Internet society.

Koki Higashida
President
Japan Registry Services Co., Ltd.

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01.1 Goal of JPRS as the JP Domain Name Registry

Our main objectives as the registry are: to continuously improve the value of JP domain names; to gain stronger support from the local and global Internet community; and to provide domain names as well as management and administration services that contribute to society in an environment where JPRS competes and collaborates with other registries of TLDs*¹ and similar service providers.

JPRS defines the following as the core concepts for its services including the management and administration of JP domain names.

Reliability: establishing services with social credibility

Stability: operating and administering stable systems

Usability: providing user-friendly services

Fee Performance: setting reasonable service fees

With the mission of supporting the Internet infrastructure, JPRS considers it important to ensure reliability and stability while pursuing a good balance with usability and fee performance.

*1 TLD: Top Level Domain

01・2 Major Topics of 2024

In 2024, JPRS continued to contribute to the development of the Internet society and worked to enhance its JP registry services and the value of JP domain names in cooperation with the JP registrars and other related organizations.

Reinforcement of Checks on Registration Information upon Accepting Domain Name Applications (from December 2023)

As part of its efforts to improve the accuracy of domain name registration data, JPRS tightened its verification of registration information upon accepting applications for General-use JP domain names and Prefecture Type JP domain names.

The goal is to strengthen the verification of the information that JPRS receives when accepting requests to create or update registrant information, and to respond more rigorously than before to any deficiencies in the information provided. JPRS also began to provide JP Registrars with a feature that allows them to perform similar checks without applying for the creation of new registrant information or changes to existing information.

Publication of “Internet White Paper 2024” with JPRS Participating in Planning and Editing (February)

“Internet White Paper” is a yearbook that summarizes the current state of the Internet from various perspectives including that of business, society and technology. Its 2024 edition, “Internet White Paper 2024 (Subtitle: Data Governance in an AI-driven Society),” was published. JPRS has been collaborating with Impress Corporation^{*1}, IAJapan^{*2} and JPNIC^{*3} in the Internet White Paper Editorial Committee in planning and steering the White Paper since 2013.



Internet White Paper 2024

● <https://jprs.co.jp/topics/2024/240213.html> (in Japanese)

Addition of “Internet White Paper 2023” to “Internet White Paper ARCHIVES” (February)

“Internet White Paper 2023” published in 2023 was added to “Internet White Paper ARCHIVES,” the website organized and operated by the Internet White Paper Editorial Committee. “Internet White Paper ARCHIVES” is a compendium of Internet White Papers, which are published annually and span from 1996 to the previous year’s edition. The archive is publicly available free of charge. Going forward, the white paper that becomes a back issue in the year following its publication will also be added to the archive.

● https://jprs.co.jp/topics/2024/240219_2.html (in Japanese)

^{*1} Impress Corporation
<https://www.impress.co.jp/> (in Japanese)

^{*2} IAJapan: Internet Association Japan
<https://www.iajapan.org/> (in Japanese)

^{*3} JPNIC: Japan Network Information Center
<https://www.nic.ad.jp/en/>

Support for the 26th Japan Junior/Senior High School Web Contest (February)

JPRS supported the “26th Japan Junior/Senior High School Web Contest^{*4},” a Web contest that was held by JAPIAS^{*5} for junior and senior high school students. Thirty-eight General-use JP domain names (ASCII and Japanese) were provided free of charge to the 19 semi-finalist teams.

JPRS also presented the “Best Domain Naming Award” to the team who had chosen the most effective domain name to increase the appeal of their work.

● <https://jprs.co.jp/press/2024/240219.html> (in Japanese)

Free Graphical Comic-style Booklet on the Internet System Sent to Junior and Senior High Schools and Technical Colleges across Japan (May–June)

As part of its Internet-related educational activities, JPRS set up channels including a special website “<https://マンガで学ぶ.jp/>” (Learn from Manga) where junior and senior high school and technical colleges could apply to receive educational materials from May 15 to June 30, 2024. Recognizing the growing importance of Internet-related education and the shortage of teaching materials in schools, JPRS has worked on this project since 2010. A total of over 370,000 copies have been distributed through this activity to date.

The material that JPRS gave out is a graphical comic-style booklet entitled “Ponta’s Great Adventure in the Network.” It contains a story with many illustrations to help readers learn easily how to reach websites and how a “domain name,” an Internet address, as well as HTTPS, a secure means of communication for exchanging information, work.

JPRS also runs a website called “Ponta’s Internet Class” which is linked to the contents of the booklet. The site explains domain names as well as DNS and suggests study guidelines that conform to the Course of Study for junior high schools.

● <https://jprs.co.jp/press/2024/240515.html> (in Japanese)

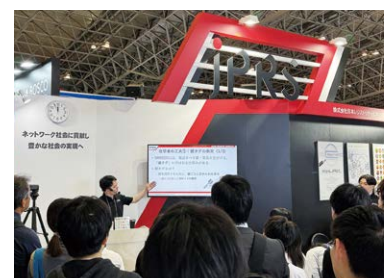


Ponta’s Great Adventure
in the Network

Participation in Interop Tokyo 2024 (June)

JPRS ran a booth at the “Interop Tokyo 2024” exhibition, an event where visitors can experience the latest ICT and related solutions.

The JPRS booth provided information on the basics of domain names, DNS and server certificates, as well as the extent of the impact of attacks on DNS and key points for improving the availability and reliability of full-service resolvers. In addition, JPRS provided information to visitors through a panel exhibition and by distributing technical documents.



JPRS booth

● <https://jprs.jp/related-info/event/2024/Interop2024-01.html> (in Japanese)

^{*4} Japan Junior/Senior High School Web Contest
<https://webcon.japias.jp/> (in Japanese)

^{*5} JAPIAS: Japan Association for Promotion of Internet Application in School Education
<https://japias.jp/> (in Japanese)

Lecture on the Internet at Rikkyo University (June)

As part of its Internet-related educational support activities, JPRS gave a lecture on the Internet to first-year students at Rikkyo University's College of Law and Politics in June 2024. The lecture began with an introduction to the Internet, covering its history and communication methods, followed by an explanation of domain names and DNS, which play an important role for the Internet, and an overview of various issues currently facing the Internet. The students listened intently to the presentation, which provided an in-depth look at the Internet—something they use in their daily lives without even thinking about it. They also asked many questions, showing their keen interest in the subject.



Lecture on the Internet

● <https://jprs.co.jp/topics/2024/240627.html> (in Japanese)

Support for “Oshigoto Hakubutsukan,” a Career Education Support Program by Asahi Shimbun (June)

Recognizing the importance of career education for the children who will lead the next generation and the benefits of understanding the Internet infrastructure at an early age, JPRS co-sponsored “Oshigoto Hakubutsukan”^{*6} (Occupations Museum), a career education support program conducted by Asahi Shimbun Company. JPRS also provided the program with educational materials regarding domain names.

Under the program, “Oshigoto Nenkan (Occupations Yearbook)” is distributed to schools free of charge, and clearly explains to students how businesses and institutions work. The yearbook complies with government guidelines on education and can be used as a teaching tool. A total of 75,000 copies of the 2024 yearbook were donated to about 20,000 elementary schools and 10,000 junior high schools across the country, and the contents are also published on the web version of “Oshigoto Hakubutsukan.”



Oshigoto Nenkan 2024

● https://jprs.co.jp/topics/2024/240620_2.html (in Japanese)

Support for Internet Week Showcase in Fukuoka (July)

Internet Week Showcase is a free event that features carefully selected programs of the previous year's Internet Week, a conference held by JPNIC in Tokyo every year around November.

JPRS supported Internet Week Showcase in Fukuoka as a sponsor, and Yasuhiro Morishita of JPRS gave a lecture entitled “Revisiting Glue Records.”

● <https://jprs.co.jp/topics/2024/240724.html> (in Japanese)

^{*6} Oshigoto Hakubutsukan
<https://oshihaku.jp/> (in Japanese)

JPRS Held the 15th “.jp DNSSEC Key Ceremony” (October)

In public-key cryptography, a key ceremony is a procedure in which a unique pair of private and public keys is generated. In JPRS, “.jp DNSSEC Key Ceremony” is a procedure for creating key- and zone-signing keys and signing the jp zone.

It is vital for the reliability and stability of DNSSEC that the procedure for generating and managing the key pairs is properly and securely executed. For this reason, JPRS invites External Witnesses, who are not affiliated with JPRS, to the .jp DNSSEC Key Ceremony. Two External Witnesses observed and confirmed the process in the 15th ceremony held on October 1, 2024.

● <https://jprs.co.jp/en/topics/2024/241002.html>

Visit to Elementary Schools to Conduct Classes (September, October and December)

As part of its Internet-related educational support activities, JPRS visited Teikyo University Elementary School in September 2024 and gave a class titled “Great Adventure in the World of the Internet: Finding Just One Website,” where students learned how domain names are used to access websites and were introduced to ccTLDs through the lecture, quizzes and group work.

JPRS also held similar classes at Kogai Elementary School in Minato Ward, Tokyo, in October, and at Ichinoya Elementary School in Nagareyama City, Chiba Prefecture, in December. The students commented that they learned that domains (ccTLDs) are assigned not only to countries but also to regions such as Antarctica, and that they wanted to learn more about the Internet. Overall, these outreach classes proved to be very meaningful.



Outreach class at
Ichinoya Elementary School

● <https://jprs.co.jp/topics/2024/241114.html>

● <https://jprs.co.jp/topics/2024/241216.html>

Free Distribution of “Poster to Learn about ccTLDs in a Fun Way” to Educational Institutions across Japan (October–November)

JPRS distributed a poster entitled “World Domain Travelogue: A Round-the-World Sugoroku,” which it had produced as part of its Internet education support program, free of charge to educational institutions such as junior high schools, high schools and technical colleges nationwide.

The purpose of this project was to help students understand domain names, which they handle daily but are rarely aware of, by using the poster as a learning tool.

The poster is designed to learn about countries, regions and domain names while having fun playing a game of Japanese snakes and ladders.



World Domain Travelogue: A
Round-the-World Sugoroku Poster

● <https://jprs.co.jp/press/2024/241002.html>

Lecture and Hands-On Training on DNS at Kyushu Sangyo University (October and December)

JPRS conducted a lecture and hands-on training on DNS for the Faculty of Science and Engineering at Kyushu Sangyo University to raise awareness of the company and to promote understanding of and interest in domain names and DNS.

In the October 2024 class, Imi Kumagai and Kento Gatto of JPRS lectured to nearly 200 students, far exceeding the number of students in 2023, using the book “Textbook to understand DNS well” written by JPRS engineers. The lecture provided basic explanations of domain names and DNS, and included demonstrations to help students learn how DNS works in practice.

At the hands-on session held in December, Masakazu Funato and Hikaru Yoshino of JPRS joined the instructors of the October course, and more practical lectures were given mainly to students belonging to the laboratory, including participants from Fukuoka Women’s University. In addition, students who had previously taken this hands-on course served as teaching assistants, creating greater sense of unity as the students worked together to build full-service resolvers and authoritative DNS servers, and to perform zone transfers between DNS servers.

After taking the course, many participants commented that it was a good opportunity to learn about DNS, which they rarely encounter in their daily lives, and to gain a deeper understanding of its mechanisms and importance.



Hands-on training

Joining the Internet Watch Foundation (November)

On November 1, 2024, JPRS joined the Internet Watch Foundation (IWF^{*7}), a UK-based nonprofit organization dedicated to eliminating Child Sexual Abuse Material (CSAM).

IWF provides CSAM identification and reporting services to more than 200 members, including global digital service providers, operates a hotline for reporting CSAM from around the world, and requests removal of the content identified as CSAM.

JPRS has been working in collaboration with relevant organizations to address issues such as domain names used for fraudulent activities, including phishing. With this membership in IWF, JPRS will proactively address CSAM based on notifications of location information received from IWF.

● <https://jprs.co.jp/en/press/2024/241105.html>

^{*7} IWF: Internet Watch Foundation
<https://www.iwf.org.uk/>

Support for Internet Week 2024 (November)

JPRS supported Internet Week 2024 as a sponsor and sent Kazunori Fujiwara and Kazuki Ikeda to serve on the Program Committee and contribute to the planning of DNS-related sessions.

In addition, Kazuki Ikeda, Yuri Takamatsu and Kazunori Fujiwara of JPRS introduced domain names, DNS and other related topics in the program called “DNS DAY.”

At the lunchtime seminar, Yasuhiro Morishita and Imi Kumagai of JPRS gave a presentation titled “Setting Up and Running DNS Correctly—What You Need to Know: Lunch with DNS.”



Lunchtime Seminar at
Internet Week 2024

● <https://jprs.co.jp/topics/2024/241024.html> (in Japanese)

Events and Seminars for JP Registrars

JPRS organized the events and seminars for JP Registrars in a hybrid format, with both in-person and online attendees. Video recordings and handouts were published for JP Registrars after each session.

“JP Registrar Seminar: An Introduction to Domain Name Registration and Administration” (May)

JPRS explained the basics of JP domain names and how to register and administer them to newly accredited JP Registrars and the staff of JP Registrars who recently started handling JP domain names.

“JP Registrar Seminar: DNS Basics for Domain Name Service Representatives” (June)

JPRS spoke about the basic mechanism of DNS to newly accredited JP Registrars and the staff of JP Registrars who recently started handling domain names.

“JPRS Partners’ Meeting” (October)

JPRS described the latest developments in the domain name industry, future service changes as well as information useful for day-to-day operations to those staff members who were handling domain names in JP Registrars.

01・3 International Relations

1. Participation in ICANN

ICANN*1 is a private non-profit organization established in the United States in 1998 to coordinate globally the resources underpinning the Internet, such as domain names and IP addresses.

Since its foundation, JPRS has been actively participating in the organization of ICANN and various policy discussions and supporting the facilitation of Internet resource management led by the private sector, with ICANN playing the central role. In 2002, JPRS signed a “ccTLD Sponsorship Agreement” with ICANN and has since been entrusted by ICANN to serve as the registry of Japan’s ccTLD “.jp.”



ICANN80

By participating in various organizations established within ICANN, as well as by giving presentations and information exchanges at various sessions, JPRS participates in policy development and implementation planning to cope with issues facing ICANN and registries. As the .JP registry and one of the operators of the Root DNS Server (Root Server) System, JPRS is sharing its experience with the global community via ICANN, thereby contributing to the development of the Internet as a whole.

ICANN holds three public meetings each year to enable stakeholders from every country and region of the world to participate and discuss Internet resource management and related rules. In 2024, ICANN79 was held in San Juan, Puerto Rico in March, ICANN80 in Kigali, Rwanda in June, and ICANN81 in Istanbul, Turkey in November.

With the participation of numerous parties interested in ccTLD and gTLD*2, ICANN meetings have long been an important forum for information-sharing and discussions on policies and governance concerning domain name management. The meetings provide a platform for the cross-community exchange of ideas on topics of interest to individual Supporting Organizations (SOs) and Advisory Committees (ACs), as well as subjects related to Internet resources. The year 2024 saw active discussion of the new gTLD program, which is scheduled to begin accepting applications in 2026, as well as opportunities for the ICANN Organisation’s subject matter experts to share information and exchange views with participants on regulatory developments in countries and regions around the world that affect the ICANN community.

The following reports JPRS’s activities in the SOs and ACs within ICANN.

*1 ICANN: Internet Corporation for Assigned Names and Numbers
<https://www.icann.org/>

*2 gTLD: Generic Top Level Domain

(1) ccNSO

ccNSO^{*3} is one of the Supporting Organizations set up in ICANN to assist its activities. The role of ccNSO as an alliance of ccTLD managers is to cooperate with the other Supporting Organizations in ICANN, form a consensus in the ccTLD community on global issues concerning the entire ccTLD space and to make recommendations to the ICANN Board. JPRS prepared for the establishment of the ccNSO in 2003 and has been a member since then. Atsushi Endo of JPRS is a member of the SOPC (ccNSO Strategic and Operational Planning Standing Committee)^{*4} which submits a petition regarding ICANN's "Five-Year Operating and Financial Plan" and "Annual Operating Plan and Budget." He also sits on the FIN2 WG (Second Finance Working Group)^{*5}, which is reviewing the ccNSO Financial Guideline implemented in 2013, and the PGA WG (Policy Gap Analysis Working Group)^{*6}, which is tasked with revisiting existing ccNSO and other relevant policies to reflect current circumstances. Also, Yuri Takamatsu is taking part in the MPC (ccNSO Meetings Programme Standing Committee)^{*7} which designs programs for the ccNSO-related meetings.

In 2024, there was an active exchange of views on international discussions related to Internet governance and how to engage in discussions related to ccTLDs representing countries and regions, as well as awareness-raising activities on DNS abuse by the DNS Abuse Standing Committee^{*8} which was launched in 2022.

Additionally, to help more ccNSO members understand the work of the ccNSO and to deepen mutual understanding of each other's perspectives, discussion opportunities were actively provided for them to exchange opinions with more longstanding, led by ccNSO Council members, on issues facing the ccNSO and their views on the ccNSO itself.

^{*3} ccNSO: Country Code Names Supporting Organisation
<https://ccnso.icann.org/>

^{*4} SOPC
<https://ccnso.icann.org/en/workinggroups/sopiwg.htm>

^{*5} FIN2 WG
<https://ccnso.icann.org/en/workinggroups/sfwg.htm>

^{*6} PGA WG
<https://ccnso.icann.org/en/workinggroups/pgawg.htm>

^{*7} MPC
<https://ccnso.icann.org/en/workinggroups/mpwg.htm>

^{*8} DNS Abuse Standing Committee
<https://ccnso.icann.org/en/workinggroups/dasc.htm>

(2) RSSAC

The RSSAC^{*9} is one of the Advisory Committees within ICANN that advises the ICANN community and the Board on matters relating to operation, administration, security, and integrity of the Root Server System. As one of the operators of the M-Root DNS server, JPRS has been participating in the activities of the RSSAC in collaboration with the WIDE Project^{*10}, the other operator.

In 2024, the RSSAC continued to discuss and review a new governance model at each ICANN meeting and during regular conference calls. In addition, discussions are under way on new guidelines for changing the IP addresses of the Root DNS servers and a document to articulate the incident reporting mechanisms.

Hirofumi Hotta of JPRS has been playing an active role in these discussions representing both two M-Root DNS server operators. The RSSAC Caucus, which reviews and drafts documents for submission to the ICANN Board and the community, has been joined by Shinta Sato, Kazunori Fujiwara, and Hirofumi Hotta of JPRS, who have been involved in the work of the Guidelines for Changing Root Server Addresses Work Party and the RSS Security Incident Reporting Work Party.

Furthermore, Hirofumi Hotta of JPRS was appointed as a liaison to the ICANN Customer Standing Committee (CSC) by the RSSAC in October 2024. The CSC is a standing committee that is responsible for ensuring the satisfactory performance of the IANA naming function performed by PTI^{*11} which is an affiliate of ICANN. Two RSSAC liaisons, one primary and one alternate, serve on the CSC. Hirofumi Hotta has been appointed as the primary liaison and will serve a two-year term beginning in October 2024.

^{*9} RSSAC: Root Server System Advisory Committee
<https://www.icann.org/groups/rssac>

^{*10} WIDE Project
https://www.wide.ad.jp/index_e.html

^{*11} PTI: Public Technical Identifiers
<https://pti.icann.org/>

(3) Discussions on the Development of a Future Governance Model for the Root Server System

The Root Server System consists of 13 sets of root DNS servers called A-M and is comprised of over 1,300 instances. These root DNS servers are operated stably by 12 Root Server Operators working together on a voluntary basis.

As the importance of the Internet continues to grow, there are increasing calls for improved stability and assured reliability for the operation of the Root Server System. Against this backdrop, the Root Server Operators took the initiative in the RSSAC, one of ICANN's Advisory Committees, to propose a more robust governance model that could underpin the foundation of the Internet into the future.

The results of the discussion were submitted to the ICANN Board as RSSAC037^{*12} in June 2018, whereupon the direction for deliberation based on RSSAC037 was approved by the ICANN Board. Subsequently, the ICANN Root Server Governance Working Group (RSS GWG) was established in January 2020 to develop a concrete governance model according to the direction for deliberation.

The RSS GWG initially consisted of ten members (two each from the ccNSO, ICANN Registry Stakeholder Group and the IAB^{*13}/IETF^{*14}; three from the Root Server Operators and one from the ICANN SSAC^{*15}) and three liaisons (one each from IANA, the ICANN Board and the Root Zone Maintainer). However, as the discussions progressed, some Root Server Operators demanded that all the operators should participate in the discussions in the RSS GWG as parties concerned. As such, all Root Server Operators have been taking part in the RSS GWG since March 2022. Hirofumi Hotta of JPRS has engaged in the RSS GWG representing the M-Root DNS server operator.

The RSS GWG continues to work on the proposed conditions for a new governance structure to be submitted to the ICANN Board and the ICANN community by the end of 2024, and Hirofumi Hotta is participating in these discussions.

^{*12} RSSAC037
<https://www.icann.org/en/system/files/files/rssac-037-15jun18-en.pdf>

^{*13} IAB: Internet Architecture Board
<https://www.iab.org/>

^{*14} IETF: Internet Engineering Task Force
<https://www.ietf.org/>

^{*15} SSAC: Security and Stability Advisory Committee
<https://www.icann.org/groups/ssac>

2. Participation in IETF

The IETF was established in 1986 by the IAB to promote standardization of Internet technologies. There are a number of working groups (WGs) in the IETF that are developing standards in various technology areas. Discussions and other activities of the IETF are handled via its mailing lists. The IETF also holds meetings three times per year, and engineers gather from every region across the world to attend these meetings.



IETF 121

In 2024, IETF 119 was held in Brisbane, Australia in March, IETF 120 in Vancouver, Canada in July, and IETF 121 in Dublin, Ireland in November.

JPRS is participating in the standardization activities in the IETF by suggesting solutions to the issues related to DNS operations and proposing standardization of the technologies employed by registries. The following reports on JPRS's activities in the IETF.

(1) dnsop WG

The name of the dnsop WG*¹ derives from DNS Operations. The working group aims to compile a guideline for DNS operation in general, including administration of DNS servers and registration data.

JPRS has actively participated in the dnsop WG with its expertise as the JP DNS operator to point out the ambiguity in the DNS protocol, present the issues caused by misconfigurations of DNS servers and discuss the operational method of DNSSEC. Besides that, JPRS engineers co-authored RFC 4074, RFC 7719, RFC 8198 and RFC 8499, and these RFCs were issued thus far.

In 2024, “draft-ietf-dnsop-rfc8499bis,” a revised version of RFC 8499 “DNS Terminology” co-authored by Paul Hoffman of ICANN and Kazunori Fujiwara of JPRS, was published as RFC 9499 on March 21.

Discussion also progressed on “draft-ietf-dnsop-avoid-fragmentation,” a proposal co-authored by Kazunori Fujiwara of JPRS and Paul Vixie to avoid IP fragmentation in DNS. The proposal was revised in February, June and September, and was approved by the IESG for publication as an Informational RFC on September 27.

In addition, in July and October, Kazunori Fujiwara of JPRS proposed a new draft entitled “draft-fujiwara-dnsop-dns-upper-limit-values” to set upper limits for parameters in the DNS protocols that do not currently have any specified limits. This draft was presented to the dnsop WG at IETF 121 in November, where it was actively discussed by the WG.

*1 dnsop WG: Domain Name System Operations Working Group
<https://datatracker.ietf.org/wg/dnsop/>

3. Participation in Registry Associations

(1) APTLD

APTLD^{*1} is an association composed of ccTLD registries mainly in the Asia Pacific (AP) region. JPRS has been a member of APTLD since 2002. As the .JP registry, JPRS proposes improvements of APTLD activities, provides information and exchanges views at presentations and discussions so that the ccTLD community in the AP region can gain experience and expertise and raise the level of service standards. In addition, Yuri Takamatsu of JPRS has been serving a key role of APTLD as a member of the APTLD Board of Directors since 2022.

In the APTLD meetings held twice a year, the groups and the organizations related to the region introduced their activities and the participants explained what they were implementing and considering, such as the service of each ccTLD registry and efforts to improve the security of domain names, which led to active discussions.

At the February 2024 meeting, Hirofumi Hotta of JPRS co-facilitated a session to exchange views on the impact of the new gTLD program, which is scheduled to begin accepting applications in 2026, on the TLD community in the AP region. He proposed a framework for the discussion and shared the thoughts of JPRS as an example. In addition, Yuri Takamatsu led small group discussions on specific initiatives during a session where members discussed APTLD's future efforts. Furthermore, at the September meeting, Hirofumi Hotta moderated a session to share information on domain name businesses using emerging technologies such as AI, thereby contributing to mutual understanding and discussion among members.

(2) CENTR

CENTR^{*2} is an association consisting of ccTLD registries mainly in Europe. As an Associate member, JPRS shares information and exchanges opinions with other CENTR members. In addition, CENTR conducts surveys and information-sharing among members, so JPRS is actively taking part in these activities to consider its future services in the light of what it learns in CENTR.

In 2024, Sumika Uchikawa, Shinta Sato and Keisuke Mii of JPRS attended workshops held by the Admin Working Group, Marketing Working Group, R&D Working Group and Tech Working Group to share information about JPRS's latest projects.

^{*1} APTLD: Asia Pacific Top Level Domain Association
<https://www.aptd.org/>

^{*2} CENTR: Council of European National Top Level Domain Registries
<https://www.centr.org/>

4. Other International Activities

(1) Participation in Initiatives Related to Internet Governance

Between 2024 and 2025, initiatives are planned to shape the future of the operation and use of the Internet, including the formulation of the Global Digital Compact (GDC^{*1}) led by the United Nations (UN) and a review of the outcomes of the World Summit on the Information Society (WSIS), including the Internet Governance Forum (IGF^{*2}). One such topic is the debate on whether to continue the IGF, an international conference under the auspices of the UN, where diverse stakeholders engage in a dialogue on Internet-related issues on an equal footing.

Since its inception, JPRS has supported the advancement of discussions related to the Internet through multi-stakeholder participation and has expressed its views to the world whenever the opportunity arose. In 2024, JPRS actively voiced its opinions together with volunteers from the technical community, mainly ccTLD registries that share the same aspirations.

JPRS is also a member of A Technical Community Coalition for Multistakeholderism (TCCM)^{*3}, which consists of members of the technical community who operate and deliver core Internet infrastructure and services on a daily basis. JPRS has participated in the GDC discussion process through the TCCM and has worked with the other members to issue statements.

As part of the activities of JPRS in the AP region, Hirofumi Hotta and Yuri Takamatsu participated as lecturers in APIGA^{*4} to provide young people with knowledge about Internet governance and to motivate them to work in this field.

^{*1} GDC: Global Digital Compact
https://www.un.org/techenvoy/sites/www.un.org.technvoy/files/general/GDC_Rev_3_silence_procedure.pdf

^{*2} IGF: Internet Governance Forum
<https://www.intgovforum.org/>

^{*3} TCCM: A Technical Community Coalition for Multistakeholderism
<https://www.tccm.global/>

^{*4} APIGA: Asia Pacific Internet Governance Academy
<https://community.icann.org/display/GSEAPAC/Asia+Pacific+Internet+Governance+Academy>

(2) Participation in the Asia-Pacific Regional Internet Governance Forum (APrIGF)

APrIGF^{*5} has been held once a year since 2010, with participants mainly from the AP region, to discuss not only AP region-specific matters, but also global issues related to Internet governance.

APrIGF 2024 was held in August in Taipei, Taiwan in a hybrid format with both in-person and online participants. Hirofumi Hotta and Ayaka Horie of JPRS attended the event. Overall, APrIGF 2024 featured many sessions related to AI, including discussions on ethical governance in light of the rapid advances in AI technology in recent years. Hirofumi Hotta of JPRS spoke at a session presenting the TCCM along with other ccTLDs. In addition, Ayaka Horie joined the Asia Pacific Youth IGF^{*6}, a side event of APrIGF 2024, and contributed to the drafting of a statement by youth participants.

(3) Participation in Root DNS Server Operation

JPRS and the WIDE Project collaboratively operate the M-Root DNS server, one of the root DNS servers, for the purpose of ensuring the reliability and stability of DNS operations.

The 12 root DNS server operator organizations from around the world meet in conjunction with IETF meetings which are held three times a year, and JPRS has been participating in these meetings as one of the organizations in charge of the operation of the M-Root DNS server. At these meetings, attendees share information principally on the stability of server operations and topics related to the latest technology.

The M-Root DNS server has been expanding its deployment in the AP region with the cooperation of APNIC and APNIC Foundation since 2020. In 2024, the M-Root DNS server started operating in Kathmandu (Nepal), São Paulo (Brazil), Dhaka (Bangladesh), Mumbai (India), Lahore (Pakistan), Kolkata (India) and Male (Maldives).

Making good use of its experience as the .JP registry, JPRS has been contributing to the global and the AP regional Internet communities while also building on the JP Domain Name services with the knowledge it has gained in the operation of the root DNS server.

^{*5} APrIGF: Asia Pacific Regional Internet Governance Forum
<https://www.rigf.asia/>

^{*6} Asia Pacific Youth Internet Governance Forum
<https://www.yigf.asia/index.html>

(4) Participation in DNS-OARC

DNS-OARC^{*7} is an international organization established in 2004 for the purpose of improving the stability and quality of DNS through various activities related to operation, analysis and study of DNS, the system widely used on the Internet. DNS-OARC conducts the annual DITL^{*8}, which involves collecting and evaluating server packets of DNS including the root servers once a year for 50 hours.

In 2024, DNS-OARC held workshops in February and October, in which JPRS participated.

At the OARC 44 Workshop held in October, Kazunori Fujiwara of JPRS gave a presentation entitled “CNAME in the wild” in collaboration with Akira Sato, Associate Professor at the University of Tsukuba; and Fujiwara himself spoke about “DNS Upper Limit Values,” which he is currently proposing to the dnsop WG of the IETF.

(5) Participation in W3C

W3C^{*9} is a non-profit organization founded in 1994 to develop a series of technical standards for the World Wide Web. JPRS participates in W3C and plays an active role in enhancing Web security and internationalization of identifiers.

(6) Activities in Academic Societies

JPRS continues to participate in academic societies through its study and research on DNS and other related areas of study. Takeshi Mitamura of JPRS sits on the Special Interest Group on Business Informatics within the Japanese Society of Artificial Intelligence as an expert member, while Kazunori Fujiwara serves as an expert member of the Technical Committee on Internet Architecture of EIC Communication Society.

A paper entitled “Latency analysis of JP and Root DNS servers from packet capture data” co-authored by Kazunori Fujiwara of JPRS, Assistant Professor Shuji Sannomiya, Associate Professor Akira Sato and Professor Emeritus Kenichi Yoshida of the University of Tsukuba was accepted for COMPSAC 2023. In September 2024, Fujiwara presented this paper at the Top Conference Session of the 23rd Forum on Information Technology (FIT2024).

^{*7} DNS-OARC: The DNS Operations, Analysis, and Research Center
<https://www.dns-oarc.net/>

^{*8} DITL: Day In The Life of the Internet
<https://www.dns-oarc.net/oarc/data/ditl>

^{*9} W3C: World Wide Web Consortium
<https://www.w3.org/>

01・4 Activities in Japan

(1) Participation in JANOG

JANOG^{*1} is the organization established to promote the smooth operation of networks through discussions and information-sharing among network operators to contribute to Internet users and engineers. The members discuss various issues on the mailing list and gather at JANOG Meetings held twice a year. JANOG also convenes Interim Meetings as necessary between regular JANOG meetings.

JPRS participates in discussions on the mailing list as well as at the meetings of JANOG and continues to support the meetings as a sponsor. It also runs an exhibition booth at the meeting venue to distribute technical information materials about domain names, DNS and server certificates.



JANOG53 Meeting

In 2024, both JANOG meetings took place only in person. The JANOG53 Meeting was held in Fukuoka City, Fukuoka Prefecture in January, and the JANOG54 Meeting in Nara City, Nara Prefecture in July.

At the JANOG53 Meeting, Kazunori Fujiwara of JPRS gave a presentation entitled “Future of IP Fragmentation in DNS/UDP,” which is currently being standardized by the dnsop WG in the IETF. Yasuhiro Morishita and Kento Gatto of JPRS also presented “DNS Basics and Two Key Points for Field Troubleshooting” as part of the DNS Tutorial.

^{*1} JANOG: Japan Network Operators' Group
<https://www.janog.gr.jp/en/html/>

(2) Participation in DNSOPS.JP

DNS Operators' Group, Japan (DNSOPS.JP)^{*2} was established in 2006 with the intention of contributing to the stable operation of the Internet through the administration of DNS. Yasuhiro Morishita of JPRS participated in the establishment as one of the founding members. DNSOPS.JP serves as a forum for DNS operators where they can exchange and share information and discuss related issues. Takayasu Matsuura, Kazuki Ikeda and Yuri Hirabayashi of JPRS serve as the secretariat of the Executive Committee that manages the organization of DNSOPS.JP.

DNSOPS.JP holds a BoF (Birds of a Feather) annually for technical presentations and discussions. It has also organized “DNS Summer Day,” in which participants share their efforts related to DNS and give lightning talks, every summer since 2012.

At DNS Summer Day 2024, which was held in June 2024 in a hybrid format with both in-person and online participation, Yasuhiro Morishita of JPRS presented “Technical Information Provided by JPRS (July 2023–June 2024),” showcasing technical information on DNS vulnerabilities and other topics that JPRS had shared over the past year.

In addition, Shimpei Abe of JPRS reported on the results of performance measurements conducted on multiple authoritative DNS server implementations in a presentation entitled “Performance Testing of DNS Software.”

At the DNSOPS.JP BoF held as part of Internet Week 2024 in November 2024, Kazuki Ikeda of JPRS gave a presentation entitled “Behind the Scenes of Introducing Software Diversity to JP DNS,” explaining the adoption of three types of DNS software to JP DNS that took place in August 2024.

(3) Participation in ICANN Readout Sessions

ICANN Readout Session is an event that has been organized jointly by JPNIC and IAJapan from 2001 to 2017 and by JPNIC from April 2017 onward. JPRS has been participating in the ICANN Readout Sessions and reporting to the Japanese community about the development of the ccNSO and other relevant topics.

In 2024, the ICANN Readout Sessions were held in April, July and December. Yuri Takamatsu of JPRS provided an update on the activities of the ccNSO and related initiatives, as well as APIGA 2024^{*3}. Hirofumi Hotta reported on developments concerning the Root DNS Server System from the perspective of a Root Server Operator.

^{*2} DNSOPS.JP: DNS Operators' Group, Japan
<https://dnsops.jp/> (in Japanese)

^{*3} APIGA 2024
<https://icann-community.atlassian.net/wiki/spaces/GSEAPAC/pages/114304162/APIGA+2024>

(4) Participation in ISOC-JP

ISOC-JP^{*4} was established in August 1994 and has made various efforts to promote the Internet in Japan as the Japan Chapter of the Internet Society (ISOC^{*5}).

Kazunori Fujiwara of JPRS reported on the latest developments related to DNS at the “IETF Information Exchange Meeting/Roundtable Discussion: From IETF 121” hosted by ISOC-JP and JPNIC in December 2024.

(5) Participation in ICT-ISAC

ICT-ISAC^{*6} was established in 2016 to contribute to the formation of a secure society underpinned by information and communication technology (ICT). It has been working together with businesses and organizations from a wide range of fields related to ICT to keep the distribution and communication of information stable, thereby improving security countermeasures and achieving a higher level of responses. JPRS has been participating in ICT-ISAC as a member since 2017.

ICT-ISAC undertakes activities through various working groups consisting of its members. JPRS is taking part mainly in the Cyber Attack Defense Exercise WG (CAE-WG), Rapid Response to DoS Attacks WG (DoS-WG), Special Interest Group for DNS Operators (DNS-SiG) and Society of Network Abuse Response WG (SoNAR-WG) to contribute to enhancing the security related to ICT.

(6) Participation in Internet Governance Initiatives in Japan

To promote Internet governance initiatives in Japan, a group of volunteers holds meetings about once every three weeks, invites various Internet-related stakeholders to participate, and plans events. Hirofumi Hotta and Yuri Takamatsu of JPRS have been involved in these activities. The group organized “Japan Internet Governance Forum 2024” in November 2024, and Yuri Takamatsu participated in a session on the future of Internet governance from the perspective of the technical community.

^{*4} ISOC-JP: The Internet Society Japan Chapter
<https://www.isoc.jp/>

^{*5} ISOC: Internet Society
<https://www.internetsociety.org/>

^{*6} ICT-ISAC: ICT Information Sharing And Analysis Center Japan
<https://www.ict-isac.jp/english/index.html>

(7) Participation in the Council of Anti-Phishing Japan

The Council of Anti-Phishing Japan^{*7} is a council tasked mainly with collecting and providing information on phishing and issuing alerts. Yoshihiko Matsuo of JPRS has been contributing to the overall operation of the Council as a member of its steering committee since 2024.

The Council has published the “Anti-Phishing Guidelines” for service providers and consumers. It also has a working group (Technology and Legal System WG) to consider refining the guidelines every year, taking into consideration the current threats. Atsushi Endo and Yoshihiko Matsuo of JPRS took part in the working group as members for drawing up the 2024 edition of the guidelines^{*8} and engaged in the awareness campaign and educational activities about domain name abuse.

In addition, Kazumitsu Shiraiwa of JPRS has been on the working group charged with sharing information about phishing scams and discussing collaboration between organizations (Hazard Info WG). Moreover, Kenji Nakada of JPRS participated in the working group for promoting knowledge about server certificates (Certificate Promotion WG).

(8) Participation in Telecom Services Association

Telecom Services Association^{*9} was founded for the purpose of promoting the sound evolution of information and telecommunication businesses in the competitive market, thereby contributing to the development of the industry as a whole and enhancing the benefits to citizens as well as public welfare.

The Service Ethics Committee within the Telecom Services Association is tasked with addressing ethics and other related issues in network services. It works on improving the Internet use environment by exchanging opinions and information on the laws and regulations related to network services and the challenges facing providers. In 2024, Takaharu Ui of JPRS participated as a member of the committee in various discussions, including those on the Information Distribution Platform Act (formerly the Provider Liability Limitation Act).

^{*7} Council of Anti-Phishing Japan
<https://www.antiphishing.jp/> (in Japanese)

^{*8} Anti-Phishing Guidelines (released in June 2024, in Japanese)
https://www.antiphishing.jp/report/antiphishing_guideline_2024.pdf

^{*9} Telecom Services Association
<https://www.telesa.or.jp/en>

(9) Participation in KEIDANREN (Japan Business Federation)

The Committee on Digital Economy of KEIDANREN (Japan Business Federation)*¹⁰ is the body tasked with deliberating and making policy proposals about issues such as promoting the use of personal data and measures to ensure the free flow of data across national borders. In 2024, Hirofumi Hotta and Takaharu Ui of JPRS participated in various discussions held by this committee.

(10) Participation in the Telecommunication Technology Committee

The Telecommunication Technology Committee (TTC*¹¹) is one of the Standards Development Organizations (SDOs) that handles standardization of information and communications networks in Japan. The purpose of the TTC is to contribute to standardization in the field of information and communications by developing standards related to information and communications networks, and to promote the widespread use of these standards. In addition, the TTC annually recognizes individuals who have made significant contributions by undertaking projects consistent with the objectives of the TTC.

JPRS contributes to information and communications standardization by participating in Internet standardization activities at the IETF, W3C and CA/Browser Forum, and has participated in the TTC since March 2024.

In May 2024, Kazunori Fujiwara of JPRS was recognized for his “achievements in the standardization of the Internet Domain Name System” and received the 2024 Information and Communication Technology Award TTC Chairman’s Commendation.

*10 KEIDANREN (Japan Business Federation)
<https://www.keidanren.or.jp/en/>

*11 Telecommunication Technology Committee
<https://www.ttc.or.jp/e>

01.5

Overview of this Term's Activities and Challenges for the Future

JPRS has constantly worked to strike a proper balance among reliability, stability, usability and fee performance, which constitute the basis of JP domain name registry services and JP DNS operation, while also improving each of the four values.

In 2024, as part of its efforts to improve the reliability and usability of the JP domain name services, JPRS tightened its checks on registration information when accepting domain name applications. JPRS also joined the Internet Watch Foundation, a UK-based nonprofit organization dedicated to eliminating child sexual abuse material from the Internet, to better address domain names used for fraudulent activity. In addition, JPRS worked to diversify JP DNS software as one of its initiatives to further improve the stability and reliability of JP DNS and thereby ensure service continuity.

JPRS also continued to tap into its expertise as the .JP registry to disseminate information related to domain names and DNS and to promote understanding of industry trends at domestic and international events and meetings. Additionally, JPRS made progress in expanding the M-Root DNS server deployment through the partnership with the WIDE Project and APNIC, increasing the number of instances by seven from the end of 2023 to 27. Through the installation of these M-Root DNS server instances and other efforts, JPRS continued to build global cooperative relationships.

The year 2024 continued to witness many challenges threatening the stable operation of the Internet, such as vulnerabilities in DNS software. JPRS has responded to these problems through its information provision activities, including security alerts and educational programs.

As part of its Internet-related educational support activities, JPRS continued to distribute a free booklet on how the Internet works to educational institutions across Japan. It also visited elementary schools to give classes using its website created for supporting Internet education and distributed a free poster to educational institutions nationwide to help students enjoy learning about ccTLDs. JPRS continued to offer free domain names in the web production contest for junior high and high school students. In addition, it conducted a lecture on the Internet and hands-on training to promote understanding and interest in domain names and DNS at several universities.

With the ongoing digital transformation of society, JPRS will strive to create an environment in which people can use the Internet with more confidence. Toward that end, it will continue to work with relevant organizations and the JP Registrars to disseminate technical information, including vulnerability notices, and issue security alerts, while addressing vulnerabilities in the entire DNS and responding to new threats.

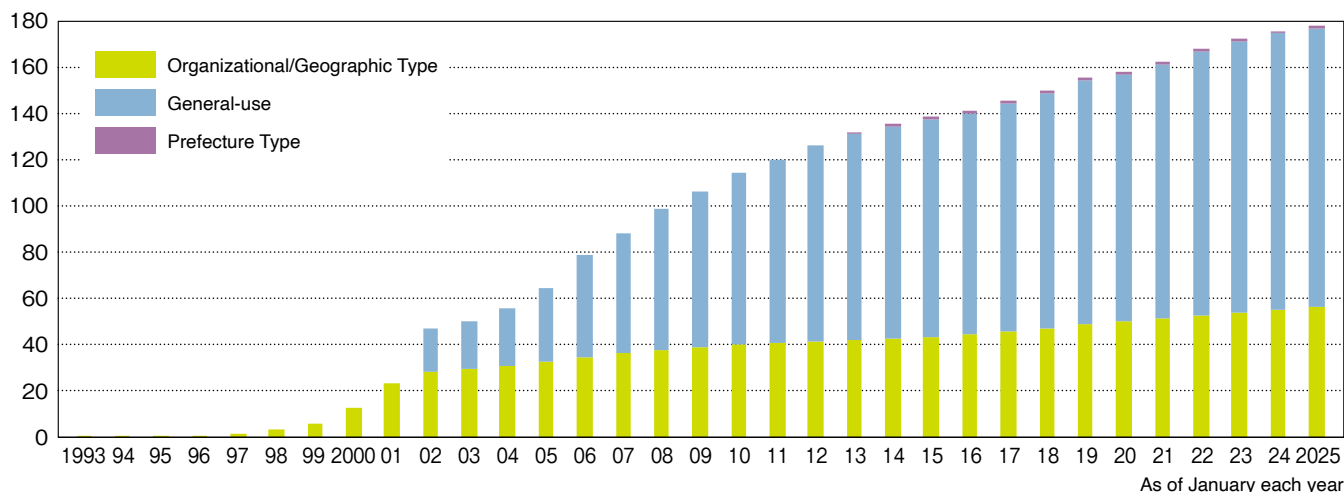
The expanding use of the Internet and changes in corporate and social activities have led to ever-increasing societal demands for the stability of communications infrastructure. Recognizing this, JPRS is committed to ensuring service continuity and enhancing the stability and reliability of its own DNS and registry system. It will therefore actively upgrade its equipment and organizational structure for greater monitoring, security, fault tolerance and anti-attack capabilities. Furthermore, JPRS will promote system redundancy in multiple locations, conduct system switchover exercises to expedite service restoration, and improve emergency response capabilities.

As the .JP registry, JPRS will continue its efforts to provide better and stable services.

02・1

Change in the Number of Registered JP Domain Names

As of January 1, 2025, the number of registered JP domain names reached 1,778,823, an increase of 22,716 in one year.



(Number of names)

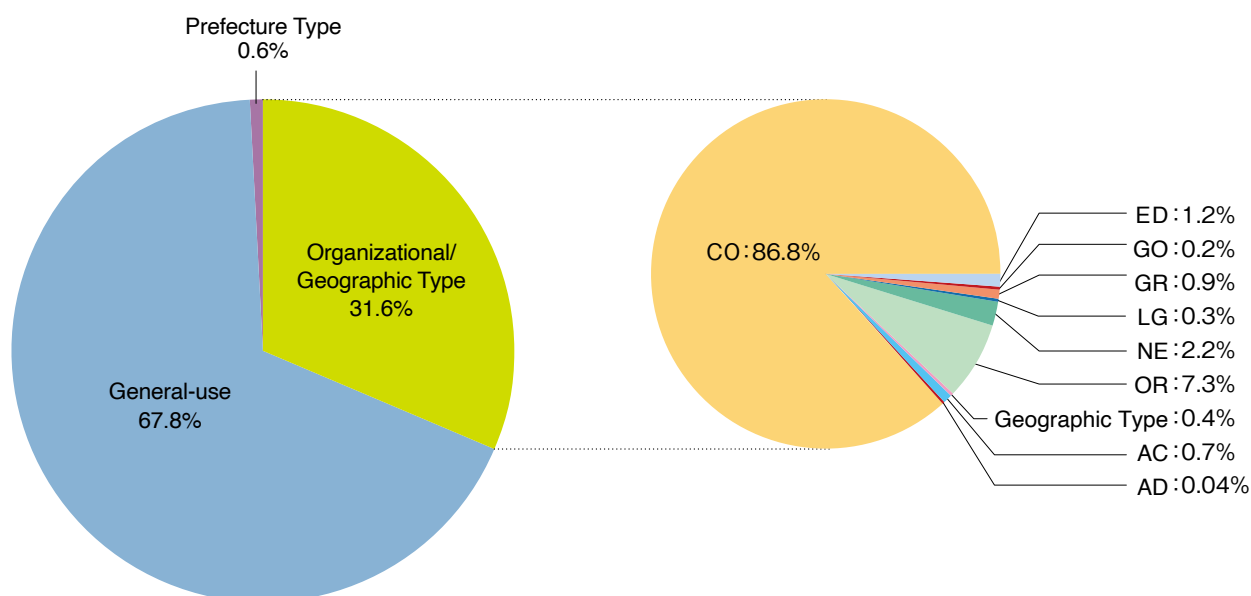
Month/Year	Organizational/ Geographic Type	General-use (Japanese domain name)	Prefecture Type (Japanese domain name)	Total
1993/1	953	—	—	953
1994/1	1,341	—	—	1,341
1995/1	2,206	—	—	2,206
1996/1	4,781	—	—	4,781
1997/1	15,477	—	—	15,477
1998/1	33,739	—	—	33,739
1999/1	58,549	—	—	58,549
2000/1	124,573	—	—	124,573
2001/1	234,294	—	—	234,294
2002/1	283,340	183,499 (61,507)	—	466,839
2003/1	297,413	205,493 (51,544)	—	502,906
2004/1	309,193	245,100 (45,402)	—	554,293
2005/1	327,742	317,455 (63,324)	—	645,197
2006/1	346,340	439,784 (116,602)	—	786,124
2007/1	363,768	518,557 (124,153)	—	882,325
2008/1	378,903	609,983 (141,858)	—	988,886
2009/1	389,598	674,133 (134,921)	—	1,063,731
2010/1	399,339	740,820 (133,754)	—	1,140,159
2011/1	406,856	791,249 (123,711)	—	1,198,105
2012/1	413,332	845,054 (119,337)	—	1,258,386
2013/1	421,606	888,657 (122,394)	8,452 (1,915)	1,318,715
2014/1	428,467	915,854 (126,182)	11,781 (2,948)	1,356,102
2015/1	435,390	940,427 (120,801)	11,684 (3,117)	1,387,501
2016/1	446,004	953,041 (113,521)	11,202 (2,612)	1,410,247
2017/1	458,947	984,270 (114,130)	11,419 (2,524)	1,454,636
2018/1	472,906	1,010,615 (107,363)	11,956 (2,524)	1,495,477
2019/1	486,956	1,052,832 (99,869)	11,569 (1,953)	1,551,357
2020/1	499,366	1,065,561 (95,123)	11,480 (1,829)	1,576,407
2021/1	513,038	1,095,928 (90,494)	11,237 (1,612)	1,620,203
2022/1	529,032	1,139,718 (87,921)	11,923 (1,733)	1,680,673
2023/1	541,212	1,169,261 (85,536)	10,664 (1,400)	1,721,137
2024/1	551,058	1,194,633 (83,335)	10,416 (1,327)	1,756,107
2025/1	561,452	1,206,764 (81,304)	10,607 (1,343)	1,778,823

*Please refer to "Statistics" (<https://jprs.co.jp/en/stat/>) for the latest information.

02・2

Breakdown of JP Domain Name Registrations by Name Space

*As of January 1, 2025



(Number of names)

JP Domain Name Types		1 Jan 2025 Number of Registrations	1 Jan 2024 Number of Registrations	Difference
Organizational/ Geographic Type	AC: Higher education institution	3,858	3,837	+21
	AD: JPNIC Member	255	251	+4
	CO: Company	487,196	477,259	+9,937
	ED: Primary school, junior and senior high school	6,448	6,457	-9
	GO: Japanese government	837	805	+32
	GR: Group	5,235	5,327	-92
	LG: Japanese local authority	1,920	1,908	+12
	NE: Network service	12,574	12,731	-157
	OR: Corporation other than company	41,095	40,423	+672
	Geographic Type	2,034	2,060	-26
General-use (Japanese domain name)		1,206,764 (81,304)	1,194,633 (83,335)	+12,131 (-2,031)
Prefecture Type (Japanese domain name)		10,607 (1,343)	10,416 (1,327)	+191 (+16)
Total JP Domain Name Registration		1,778,823	1,756,107	+22,716

*Please refer to "Statistics" (<https://jprs.co.jp/en/stat/>) for the latest information.

02・3

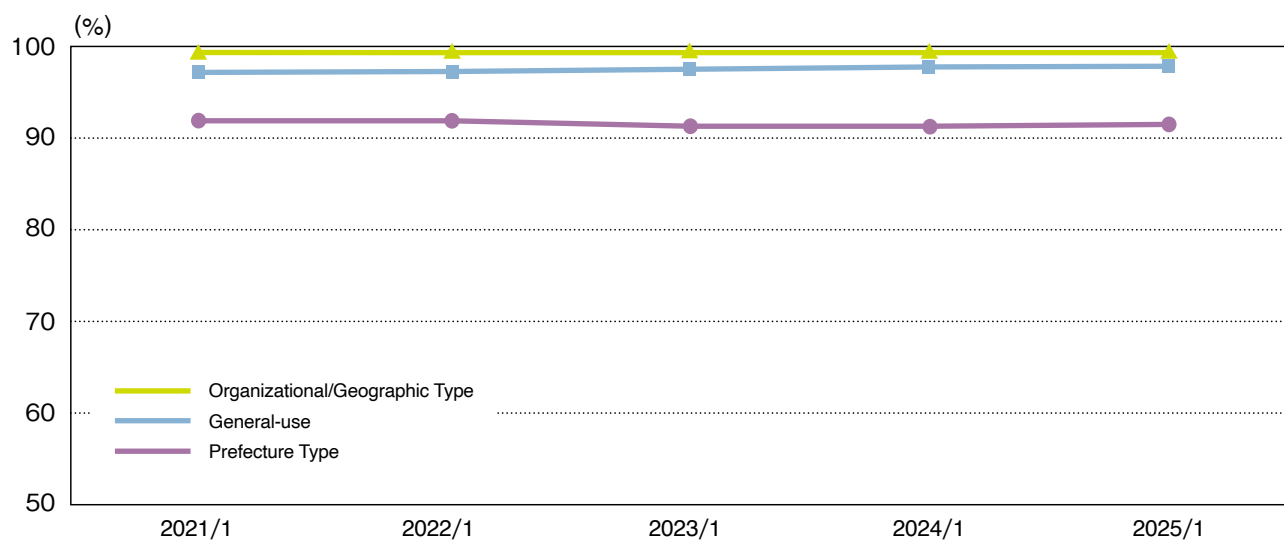
Number of JP Domain Name Registrations
by Prefecture

*As of January 1, 2025

Prefecture	Organizational/ Geographic Type	General-use	Prefecture Type
Hokkaido	2.8%	2.1%	2.4%
Aomori	0.5%	0.3%	0.6%
Iwate	0.4%	0.3%	0.6%
Miyagi	1.3%	0.8%	0.7%
Akita	0.4%	0.3%	0.6%
Yamagata	0.6%	0.3%	0.4%
Fukushima	0.9%	0.5%	0.5%
Ibaraki	1.4%	1.1%	0.7%
Tochigi	1.0%	0.6%	2.1%
Gunma	1.1%	0.8%	2.2%
Saitama	4.4%	2.8%	2.5%
Chiba	3.3%	2.4%	2.4%
Tokyo	32.4%	41.5%	35.2%
Kanagawa	6.5%	4.9%	3.1%
Niigata	1.1%	0.7%	0.8%
Toyama	0.6%	0.4%	0.6%
Ishikawa	0.7%	0.6%	0.5%
Fukui	0.5%	0.4%	0.4%
Yamanashi	0.5%	0.4%	0.4%
Nagano	1.3%	0.9%	1.3%
Gifu	1.1%	0.8%	1.1%
Shizuoka	2.1%	1.6%	3.2%
Aichi	5.4%	3.8%	2.6%
Mie	0.8%	0.5%	1.2%
Shiga	0.7%	0.5%	1.2%
Kyoto	2.0%	2.4%	6.3%
Osaka	9.4%	15.4%	8.8%
Hyogo	3.1%	2.3%	1.6%
Nara	0.6%	0.6%	1.5%
Wakayama	0.4%	0.3%	0.5%
Tottori	0.2%	0.2%	0.4%
Shimane	0.3%	0.3%	0.3%
Okayama	1.1%	0.8%	1.0%
Hiroshima	1.6%	1.1%	1.2%
Yamaguchi	0.6%	0.4%	0.2%
Tokushima	0.3%	0.2%	0.3%
Kagawa	0.5%	0.3%	0.5%
Ehime	0.6%	0.4%	0.7%
Kochi	0.3%	0.2%	0.5%
Fukuoka	3.3%	2.9%	3.3%
Saga	0.3%	0.2%	0.5%
Nagasaki	0.5%	0.3%	0.9%
Kumamoto	0.8%	0.6%	0.9%
Oita	0.5%	0.4%	0.8%
Miyazaki	0.4%	0.3%	0.5%
Kagoshima	0.6%	0.4%	0.7%
Okinawa	0.7%	0.7%	1.6%

02.4 Transition of DNS Configuration Rate

*As of January 1, 2025



Month/Year	Organizational/Geographic Type	General-use	Prefecture Type
2021/1	99.4%	97.2%	91.9%
2022/1	99.5%	97.3%	91.9%
2023/1	99.5%	97.5%	91.1%
2024/1	99.5%	97.6%	91.1%
2025/1	99.5%	97.7%	91.4%

02・5 Number of Accredited JP Registrars

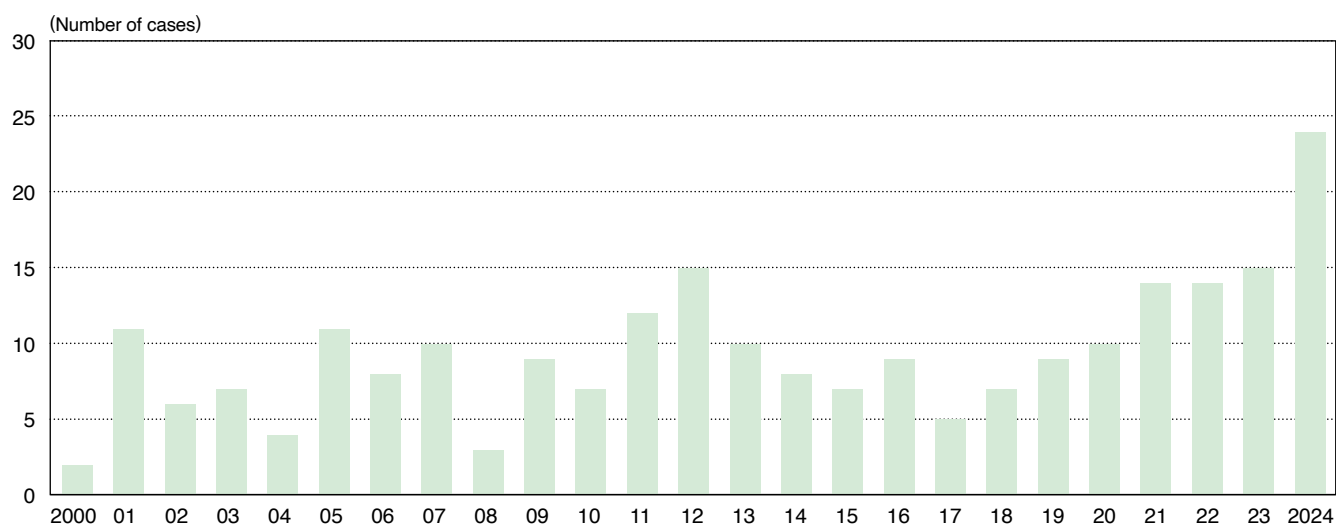


Month/Year	Organizational/ Geographic Type	General-use	Prefecture Type	Cumulative Total
2001/4	—	443	—	443
2002/1	—	490	—	490
2003/1	560	546	—	1,106
2004/1	557	559	—	1,116
2005/1	553	564	—	1,117
2006/1	562	576	—	1,138
2007/1	559	572	—	1,131
2008/1	557	573	—	1,130
2009/1	558	577	—	1,135
2010/1	555	577	—	1,132
2011/1	563	582	—	1,145
2012/1	571	590	—	1,161
2013/1	566	586	197	1,349
2014/1	564	582	227	1,373
2015/1	560	577	241	1,378
2016/1	560	576	252	1,388
2017/1	554	569	252	1,375
2018/1	559	574	255	1,388
2019/1	556	571	254	1,381
2020/1	544	559	257	1,360
2021/1	542	559	256	1,357
2022/1	522	538	254	1,314
2023/1	526	541	257	1,324
2024/1	522	534	250	1,306
2025/1	517	527	254	1,298

*The number of JP Registrars for the Organizational/Geographic Type JP domain names is the figure after April 2002 when management and administration was transferred from JPNIC to JPRS.

02・6

Number of Complaints Based on JP Domain Name Dispute Resolution Policy (JP-DRP)



(Number of cases)

Year	Number
2000	2
2001	11
2002	6
2003	7
2004	4
2005	11
2006	8
2007	10
2008	3
2009	9
2010	7
2011	12
2012	15
2013	10
2014	8
2015	7
2016	9
2017	5
2018	7
2019	9
2020	10
2021	14
2022	14
2023	15
2024	24

*For details of domain name disputes, please refer to the "Domain Name Dispute Resolution Policy (DRP)" posted by Japan Network Information Center (<https://www.nic.ad.jp/en/drp/>).

03・1 History

2000	Dec.	JPRS was established.
2001	Feb.	General-use JP Domain Priority Registration Application started.
	Apr.	General-use JP Domain Concurrent Registration Application started.
	May.	General-use JP Domain First-Come First-Served Registration Application started.
2002	Feb.	ccTLD Sponsorship Agreement was concluded with ICANN.
	Apr.	Management and administration of .JP TLD was transferred from JPNIC to JPRS.
	Oct.	LG.JP was established.
2003	Jan.	The number of registered JP domain names surpassed 500,000.
	Jun.	JPRS received the approval from ICANN to start IDN service.
	Jul.	RFC-based Japanese JP Domain Name registration service started.
2004	Feb.	IP Anycast technology was introduced in JP DNS service ([a.dns.jp] [d.dns.jp]).
	Jul.	JP domain name started full support for IPv6, for the first time in the world as a TLD.
2005	Dec.	“Eki Machi Guide” (https://駅街ガイド.jp/), which provides information on areas around stations using Japanese JP domain names consisting of station names throughout Japan, started.
		JPRS started operation of the M-Root DNS server in cooperation with the WIDE Project.
2006	Jan.	JPRS started deleting improper DNS server registrations.
	Apr.	JPRS shortened the processing time for JP DNS update.
	Nov.	The number of registered General-use JP domain names surpassed 500,000.
	Dec.	JPRS published guidelines for making URLs consisting of Japanese domain names clickable in email text.
2007	Mar.	“Procedure for recovering deleted domain name registration” was introduced for General-use JP Domain Name.
	Dec.	IP Anycast technology was introduced to the JP DNS service ([e.dns.jp]).
2008	Mar.	The number of registered JP domain names surpassed 1 million.
	Jun.	JPRS started the real-time application process service for CO.JP Domain Name.
	Oct.	The JP DNS server configuration was changed (c.dns.jp and g.dns.jp added).
2009	Apr.	JPRS announced its participation in the “BIND 10” development project.
	Nov.	JPRS extended the coverage of the real-time application process service.
2010	May.	JPRS started distributing a graphical comic-style booklet “How the Internet Works” free of charge to junior and senior high schools across Japan.
2011	Jan.	JPRS deployed DNSSEC to the JP domain name service.
	Feb.	JPRS started providing “gTLD Registration Services.”
	May.	JPRS published “DNS Practices,” a book on DNS, written by JPRS engineers.
2012	Jul.	Priority Registration Application of the Prefecture Type JP Domain Name started.
	Sep.	Concurrent Registration Application of the Prefecture Type JP Domain Name started.
	Nov.	General Registration Application of the Prefecture Type JP Domain Name started.
2013	Nov.	The TTL value of the DS RR for JP DNS servers was changed.
2014	Nov.	JPRS introduced Japanese characters into the Prefecture Labels of the Prefecture Type JP Domain Name.
2015	Jun.	JPRS signed an MoU with ICANN and JPNIC on Japanese translation of ICANN materials.
2016	Apr.	JPRS Started Digital Certificates Issuance Services.
	Jun.	JPRS submitted a notification of its telecommunications business in response to the enactment of the partial amendment to the Telecommunications Business Law.
2017	Sep.	The number of registered General-use JP domain names surpassed 1 million.
	Oct.	JPRS started accepting Concurrent Registration Applications for Japanese JP domain names representing school names.
		JPRS published the report of joint research with 8 ISPs of the electric power corporation group on continued use of the Internet in case of a large-scale disaster.
2018	Feb.	The number of registered JP domain names surpassed 1.5 million.
	Nov.	“Textbook to understand DNS well,” a practical guide to DNS authored by JPRS engineers, was published.
2019	Sep.	JPRS acquired ISO 27001 certification (for the domain registry business).
2020	Jan.	JPRS attained full compliance with the WebTrust criteria that ensure the reliability of Certificate Authorities.
	Aug.	JPRS, the WIDE Project and APNIC agreed to establish a new cooperative relationship for the deployment of M-Root instances.
2021	Jul.	JPRS, HOTnet and QTnet commenced operation of the local nodes for the JP DNS servers.
2022	Jun.	The number of registered JP domain names surpassed 1.7 million.
2023	Nov.	JPRS completed introducing AuthCode (code for the JP Registrar change process) to JP Domain Name services.
2024	Nov.	JPRS joined the Internet Watch Foundation.

03 • 2 JP Domain Name Advisory Committee

The JP Domain Name Advisory Committee was established in 2002 to maintain fairness and neutrality of the .JP registry operations. The committee members from outside of JPRS with various viewpoints consider policies for JP domain name services.

JP Domain Name Advisory Committee meetings are open to the public, and the minutes and documents are publicly accessible on the JPRS website.

(1) Advisory Committee Meeting

Mar. 12 75th JP Domain Name Advisory Committee

JPRS provided information on the topics below, which was followed by a question and answer session and an exchange of views:

- Overview of JP domain names and recent activities of JPRS
- Measures to improve security of domain name transfer and registrar change procedures for JP domain names

Dec. 4 76th JP Domain Name Advisory Committee

The meeting began with a report on the replacement of members of the 12th JP Domain Name Advisory Committee. The JPRS Board of Directors submitted an inquiry entitled "Method for Appointing the Members of the 13th JP Domain Name Advisory Committee" (JPRS-ADV-2024001). Each committee member expressed their opinion on the contents of the inquiry, and the committee then agreed on the method.

JPRS provided information on developments at the United Nations regarding Internet governance and the domain name industry's involvement, followed by a question and answer session and exchange of views.

The meeting concluded with JPRS informing the committee that it had joined the Internet Watch Foundation.

(2) Consultations and Advisories

Consultation/Advisory	Consultation Date Document No.	Advisory Date Document No.
Method for appointing members of the 13th JP Domain Name Advisory Committee	Dec. 4, 2024 JPRS-ADV-2024001	Dec. 13, 2024 JPRS-ADVRPT-2024001

03 · 3 Proposals and Presentations

Date	Title	At	Hosted by
Jan. 17	DNS Basics and Two Key Points for Field Troubleshooting	JANOG53 DNS Tutorial	JANOG
Jan. 18	Future of IP Fragmentation in DNS/UDP	JANOG 53	JANOG
Feb. 27	Tour de Table	50th CENTR Tech Workshop	CENTR
Mar. 6	KeyTrap (CVE-2023-50387)	WIDE Project 2024 Spring Camp Meeting	WIDE Project
Mar. 7	Tour de Table	Joint CENTR Admin & Marketing Workshop	CENTR
Apr. 16	Update of ccNSO at ICANN79	69th ICANN Readout Session	JPNIC
Jun.12-14	Impact of DNS-targeted Attacks and Key Points for Improving Availability and Reliability of Full Resolvers: KeyTrap Vulnerability Case Study	Interop Tokyo 2024	Interop Tokyo 2024 Steering Committee
Jun.12-14	Basics of Server Certificates: Is that Website Safe?	Interop Tokyo 2024	Interop Tokyo 2024 Steering Committee
Jun.12-14	"Names" Are Important on the Internet, Too: Basics of Domain Names and DNS	Interop Tokyo 2024	Interop Tokyo 2024 Steering Committee
Jun. 17	Responding to a Request to Speak to College Students about the Internet	Rikkyo University	Rikkyo University
Jun. 21	Technical Information Provided by JPRS (July 2023–June 2024)	DNS Summer Day 2024	DNSOPS.JP
Jun. 21	Performance Testing of DNS Software	DNS Summer Day 2024	DNSOPS.JP
Jul. 8	Community collaboration and coordination in developing RZ-LGR	APIGA	ICANN, KISA
Jul. 9	RSSAC and more	APIGA	ICANN, KISA
Jul. 23	Safeguarding Top Level Domain with Prediction of Future Registration	APAC DNS Forum 2024	ICANN, PANDI
Jul. 24	Facilitating Users' DNS Environment as a ccTLD Registry	APAC DNS Forum 2024	ICANN, PANDI
Jul. 25	Update of ccNSO at ICANN80	70th ICANN Readout Session	JPNIC
Jul. 26	Revisiting Glue Records: DNS at Lunch	Internet Week Showcase in Fukuoka	JPNIC
Sep. 19	Tour de Table	40th CENTR Marketing Workshop	CENTR
Oct. 8	Tour de Table	Joint CENTR 25th R&D and 51st Tech meeting	CENTR
Oct. 26	CNAME in the wild	OARC 43	DNS-OARC
Oct. 27	Upper limit values for DNS	OARC 43	DNS-OARC
Nov. 7	Upper limit values for DNS	IETF 121 dnsop WG	IETF
Nov. 20	Concept for Countering Cyber Attacks Targeting DNS and Recent Incidents	Infoblox Exchange 2024 Tokyo	Infoblox
Nov. 25	Domain Names and JUNET: Commemorating the 40th Anniversary of JUNET	JUNET 40th Anniversary Symposium	JUNET40 Secretariat
Nov. 26	Setting Up and Running DNS Correctly—What You Need to Know: Lunch with DNS	Internet Week 2024 Lunchtime Seminar	JPNIC
Nov. 26	DNS Update: Domain Name Overview	Internet Week 2024 DNS DAY	JPNIC
Nov. 26	IETF/RFC Update	Internet Week 2024 DNS DAY	JPNIC
Nov. 27	JP DNS Update	Internet Week 2024 DNSDAY	JPNIC
Nov. 27	Behind the Scenes of Introducing Software Diversity to JP DNS	Internet Week 2024 DNSOPS.JP BoF	DNSOPS.JP

Date	Title	At	Hosted by
Dec. 6	JICA Training ~Domain Name Management~	JICA Country Training Program for Ethiopia	JICA
Dec. 9	Latest Developments on DNS at IETF 121	IETF Information Exchange Meeting/Roundtable Discussion: From IETF 121	ISOC-JP, JPNIC

03 · 4 Press Releases

Date	Title
Feb. 19	JPRS Supports “26th Japan Junior/Senior High School Web Contest” to Provide Experience of Using JP Domain Names (in Japanese)
Feb. 28	Yuri Takamatsu of JPRS Reappointed to APTLD Board of Directors
Mar. 27	JPRS Publishes “JP Domain Name Registry Report 2023” (in Japanese)
May. 15	JPRS Distributes Free Graphic Comic-style Booklet on Domain Names and DNS to Educational Institutions across Japan (in Japanese)
Oct. 2	JPRS Starts Distributing Free World Map Poster That Helps Students Have Fun Learning Internet ccTLDs to Educational Institutions across Japan (in Japanese)
Nov. 5	JPRS Joins Internet Watch Foundation

*Please refer to “Press Release” (<https://jprs.co.jp/en/press/>) for the latest releases in English.

03・5

Provision of Technical Information Related to DNS

As the company supporting the basis of the Internet society through DNS and striving to ensure stable operation of the Internet, JPRS publishes technical information related to DNS such as warnings on the detection of DNS software vulnerabilities and other relevant alerts.

*Original materials are written in Japanese.

Date	Title
Feb. 14	(Urgent) Vulnerability of BIND 9.x (Inducing Excessive CPU Overhead) (CVE-2023-50868): Upgrading Is Highly Recommended
Feb. 14	(Urgent) Vulnerability of BIND 9.x (Inducing Excessive CPU Overhead) (CVE-2023-50387): Upgrading Is Highly Recommended
Feb. 14	(Urgent) Vulnerability of BIND 9.x (Causing Memory Shortage) (CVE-2023-6516): Upgrading Is Highly Recommended
Feb. 14	(Urgent) Vulnerability of BIND 9.x (DNS Service Outage) (CVE-2023-5679): Only Applies If Both serve-stale and DNS64 Are Enabled, Upgrading Is Highly Recommended
Feb. 14	(Urgent) Vulnerability of BIND 9.x (DNS Service Outage) (CVE-2023-5517): Only Applies If nxdomain-redirect Is Enabled, Upgrading Is Highly Recommended
Feb. 14	(Urgent) Vulnerability of BIND 9.x (Inducing Excessive CPU Overhead) (CVE-2023-4408): Affecting Both Full-Service Resolvers (Cache DNS Servers) and Authoritative Servers, Upgrading Is Highly Recommended
Feb. 16	Vulnerability Information on Windows DNS Posted (CVE-2023-50387, CVE-2024-21342, CVE-2024-21377)
Feb. 16	Vulnerability Information on Unbound Posted (CVE-2023-50387, CVE-2023-50868)
Feb. 16	Vulnerability Information on PowerDNS Recursor Posted (CVE-2023-50387, CVE-2023-50868)
Feb. 16	Vulnerability Information on Knot Resolver Posted (CVE-2023-50387, CVE-2023-50868)
Mar. 12	Vulnerability Information on Unbound Posted (CVE-2024-1931)
Apr. 12	Vulnerability Information on Windows DNS Server Posted (7 CVE Records including CVE-2024-26221)
Apr. 30	Vulnerability Information on PowerDNS Recursor Posted (CVE-2024-25583)
May. 13	Vulnerability Information on Unbound Posted (CVE-2024-33655)
Jul. 24	(Urgent) Vulnerability of BIND 9.x (DNS Service Outage) (CVE-2024-4076): Only Applies If serve-stale Is Enabled, Upgrading Is Highly Recommended
Jul. 24	(Urgent) Vulnerability of BIND 9.x (Inducing Excessive CPU Overhead) (CVE-2024-1975) : Upgrading Is Highly Recommended
Jul. 24	(Urgent) Vulnerability of BIND 9.x (Degraded Performance) (CVE-2024-1737) : Upgrading Is Highly Recommended
Jul. 24	(Urgent) Vulnerability of BIND 9.x (Named Becomes Unstable) (CVE-2024-0760): Affecting Both Full-Service Resolvers (Cache DNS Servers) and Authoritative Servers, Upgrading Is Highly Recommended
Aug. 16	Vulnerability Information on Windows DNS Posted (CVE-2024-37968)
Oct. 7	Vulnerability Information on PowerDNS Recursor Posted (CVE-2024-25590)

Date	Title
Oct. 7	Vulnerability Information on Unbound Posted (CVE-2024-8508)
Nov. 15	Vulnerability Information on Windows DNS Posted (CVE-2024-43450)
Dec. 24	BIND 9.20.x Defect in QPzone Implementation: Affecting Authoritative Servers Hosting Zones That Have Been DNSSEC-Signed Using NSEC3

*For the latest information, please refer to the “Technical Information Related to DNS” (<https://jprs.jp/tech/>) (in Japanese)

About JPRS

JPRS provides domain name services such as domain name management, administration and distribution, and also performs domain name system (DNS) operations. In addition, JPRS is engaged in research and development of various Internet technologies.

● Domain Name Management and Administration

JPRS manages and administers domain names. In particular, JPRS plays an important role as the registry of JP Domain Name, or domain names of Japan. You may have seen addresses for websites and emails such as “https://〇〇〇.jp” and “△△△@〇〇〇.jp.” JPRS manages and administers a part of these addresses, namely, strings in the form of “〇〇〇.jp.” Domain names are the key to accessing the Internet. JPRS is constantly improving its services so that JP domain names will continue to assist the activities of all kinds of Internet users, including companies, organizations, and individuals.

● DNS Operation

DNS (domain name system) is a system for identifying computers connected to the Internet using domain names, so it is sometimes referred to as the “phone book for the Internet.”

If DNS were to fail, people would not be able to access websites or exchange emails using domain names. To prevent such a catastrophe, JPRS has established a 24/7 system to ensure stable operation of the “JP DNS” for managing JP domain names.

● R&D of Internet Technologies and International Activities to Support the Internet

JPRS takes an active part in the research and development of advanced technologies to promptly respond to changes in the Internet environment and social needs. Specifically, JPRS engages in internationalization of the identifiers used in protocols, devises methods for resolving issues concerning DNS operations and submits proposals to standardize registry technologies. JPRS actively publishes the results of these activities and shares information at IETF and other meetings to contribute to the network society.

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