

Japan Open Source Hub

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Introduction



Today, I'd like to introduce IPA's open source promotion activities.

Just yesterday, we released a web page titled "Japan Open Source Hub".

I will talk about the meaning behind this name and how we are promoting open source with current issues.



- 1. Overview of the IPA and the Digital Infrastructure Center(DISC)
- 2. Our main themes:
 - * Software-Defined Society
 - * Building Block Approach Development
 - * Issues of Legacy System Replacement
- 3. Value of OSS and issues in Japan
- 4. Role of IPA: "Japan Open Source Hub"

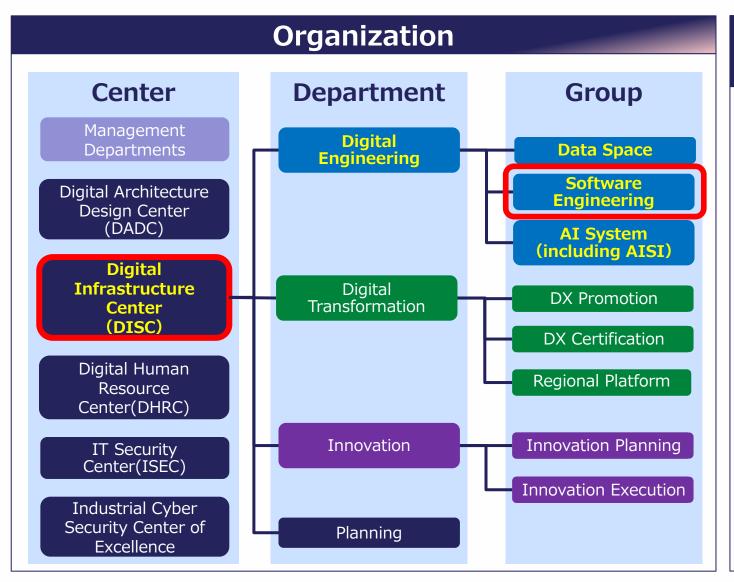


1. Overview of the IPA and the Digital Infrastructure Center(DISC)

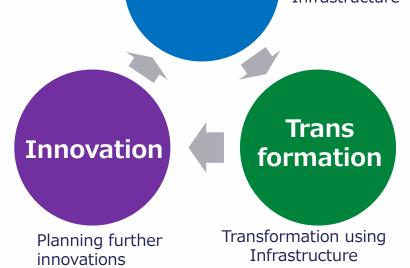
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IPA and DISC Organizations





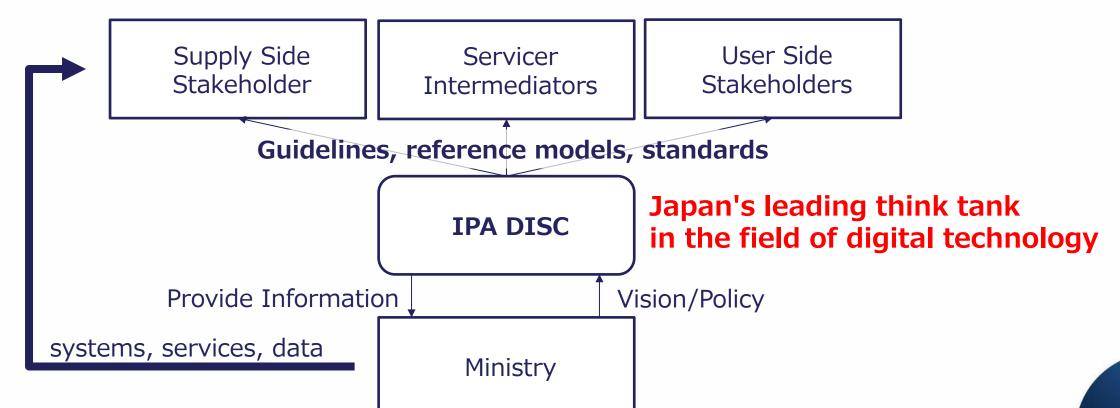
Digital Infrastructure Center (DISC) Established in July 2023 Organized with 3 factors of digital infrastructure **Engineering** Build an Infrastructure



Role of DISC



We are always stay several years ahead of the players and develop guidelines, reference models, standards, and other resources.





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Software-Defined Society



- To respond flexibly and quickly to uncertain and changing needs, "agility" is essential.
- The key to this agility is the "Software-Defined" concept.
 - This is an approach that involves continuously updating the software that controls hardware.
 - Recently, this concept has been gaining attention in various fields.
 - e.g. Software-Defined Vehicle
- The concept of "Software-Defined Society" is an extension of this concept to society as a whole.

Our vision of "Software-Defined Society"



Software Digital technology

Creating superior products and services for social issues

Proactive participation and dialogue

Technology for agility

Value

Proactive action (not a passive attitude)

Rapid and accurate hypothesis verification using AI and data

Conducting Dialogue Repeat hypothesis verification

Software-Defined Society

Solving social issues



Economic growth through global expansion

Sustainable economy and society realizing prosperity and happiness for all

Check it out for more!

Promotion of Software

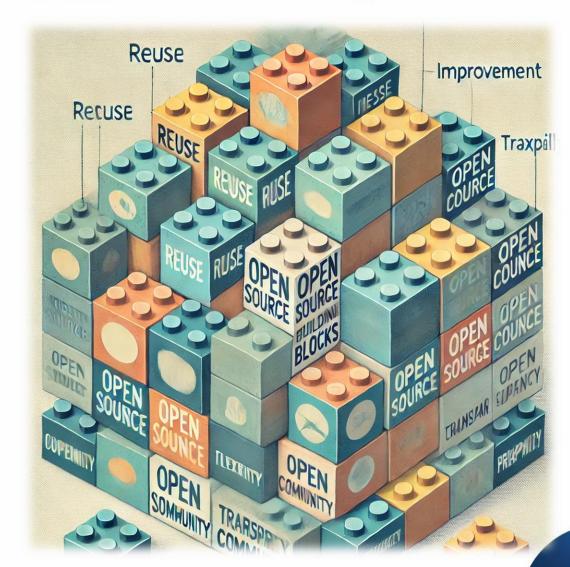
Modernization | IPA

Building Block Approach Development



- Designing functions and services as components (modules)
- Rapid system construction through quick combination
- Change-resilient and reusable structure
- Structure with excellent scalability and interoperability

And many building blocks are developed and shared as open source software.



Supply chain risks posed by legacy systems



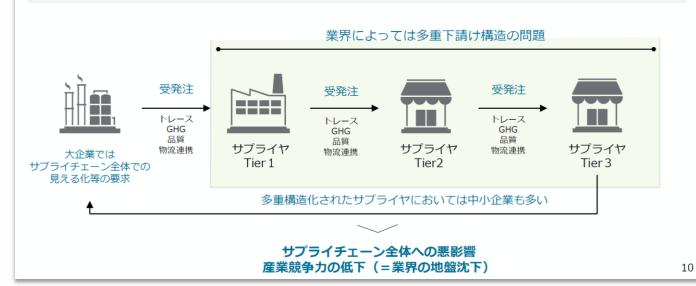
Problems if existing legacy systems cannot be replaced

- Expanding impact on corporate economic activities
- Difficulty in integrating with the latest technologies (such as generative AI)
- Incompatibility with modern tools and services
- Insufficient adaptability to change

Report released by METI on May 28, 2025.

DXやレガシーシステムのサプライチェーンへの影響

- ・ 中小企業は、投資体力の他、経営としてのITリテラシーや人材リソースの問題が顕著。
- 大企業は、中小顧客やサプライヤ、および顧客企業自体のDXやレガシーシステム脱却の遅れに足を引っ張られ、 自社のみならず、ゆくゆくはDXの先行企業、ひいてはサプライチェーン全体にビジネス上の悪影響が及ぶ可能性がある。



Source:

Ministry of Economy, Trade and Industry. Where we are now in DX and how to break out of legacy systems

Legacy System Modernization Committee Summary Report. https://www.ipa.go.jp/disc/committee/begoj90000002xuk-att/legacy-system-modernization-committee-20250528-report.pdf(referenced 2025-06-11)



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Value of Open Source Software (OSS)



- Rapid adoption of standard technologies
- Avoidance of vendor lock-in
- Global collaboration
- Corporate technology branding
- Recruitment of talented personnel

All of these are reasonable from the perspectives of economy, sustainability, and strategy.

Issues of OSS in Japan



2024 Software Development Trends Survey

We conducted a large-scale survey on software development trends in Japan.

We received responses from about 800 companies in various industries.

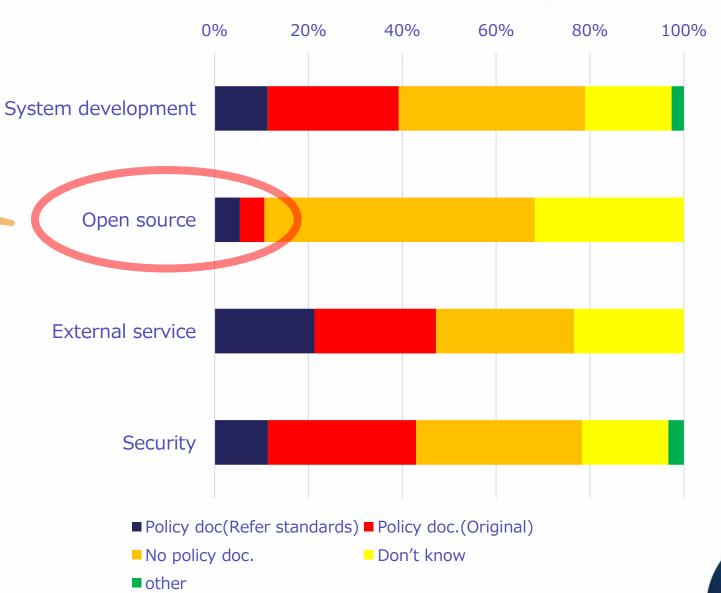
Issues identified from questions about OSS

- Failure to break out of the "just using" of OSS
- Lack of policies and governance systems for OSS
- Lack of progress in developing a Building Block Approach
- Lack of education and human resource systems

Existence of policies, rules, and guidelines

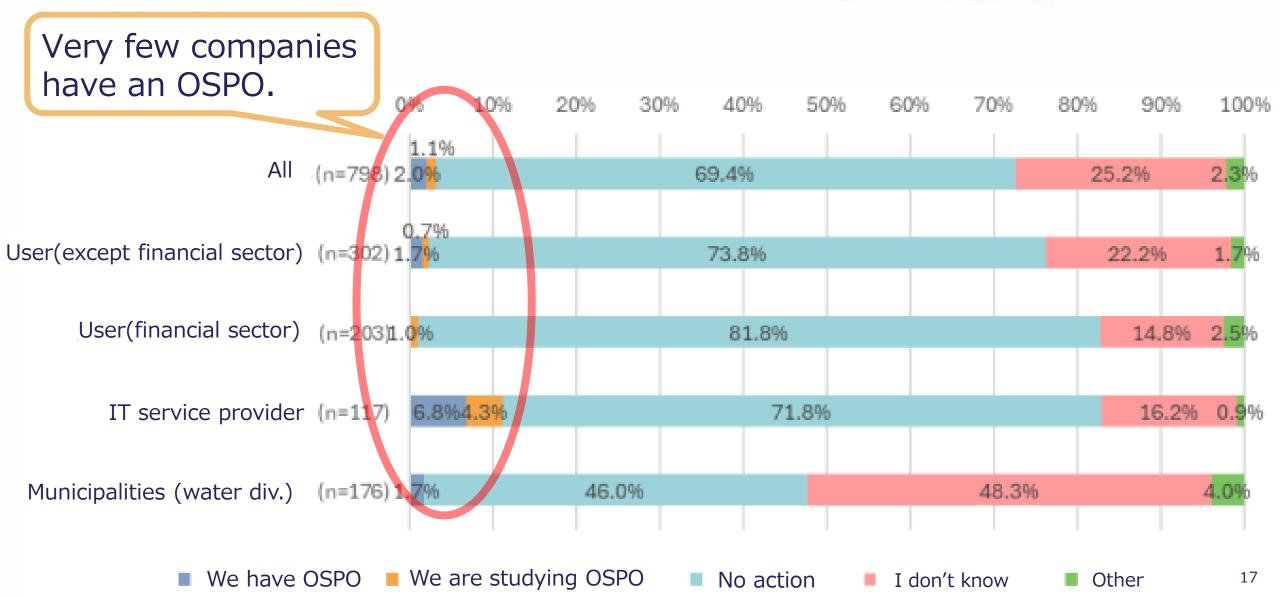


Few companies have policies for OSS usage.



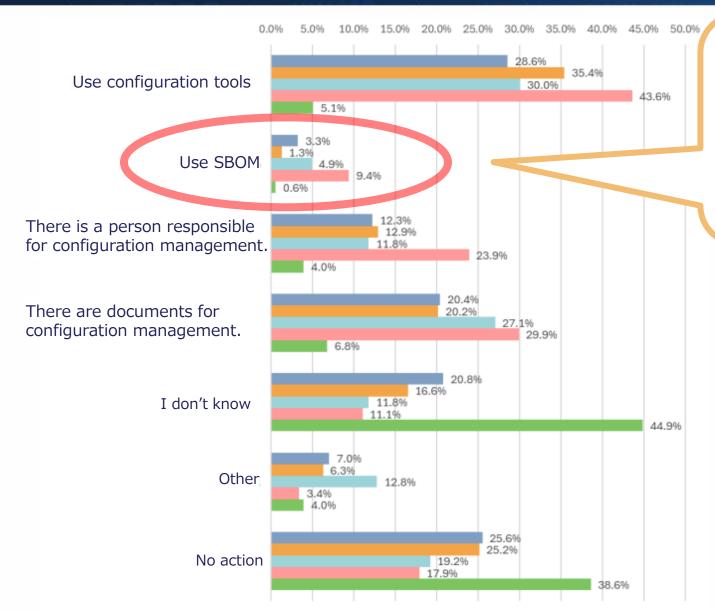
OSPO(Open Source Program Office)





Configuration management





About 30% of companies use configuration management tools.

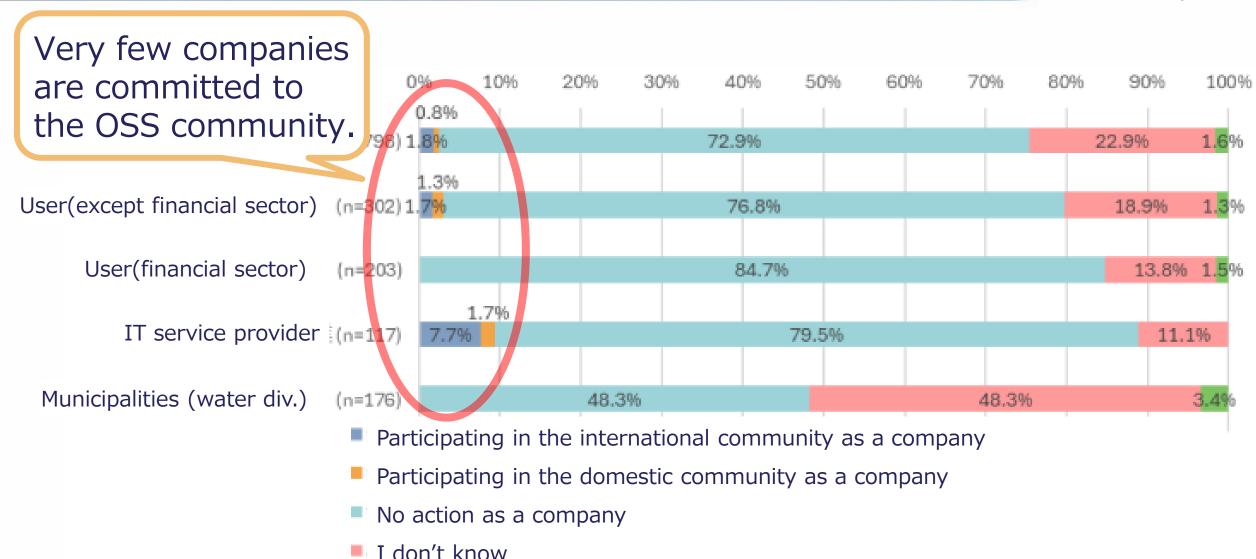
However, very few companies use SBOM.

- All(n=798)
- User(financial sector)(n=203)
- ■自治体 Municipalities (water div.)(n=176)
- ■ユーザー企業User(except financial sector)(n=302)
- ■IT service provider(n=117)

Participation to the OSS community

Others





Psychological and cultural bias



"Low security" ()



"Quality cannot be guaranteed"

"Responsibility is unclear"



"OSS is free and not profitable"

"I don't get paid for my involvement"



"Too much English, too difficult to understand"



"I don't know where to start"





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Role of IPA: Supporter for participating in OSS



We play a central role in promoting utilization of OSS and encouraging participation to the OSS community in Japanese society.

- 1. Establish an environment that enables continuous use and improvement of OSS as a digital public goods
- 2. Expand the "power to participate in OSS"
- 3. Connect the public and private sectors, and bridge the gap between the policy and practice

Activities we focus on in 2025



- Promotion of Building Block Approach Development
- Provision of information to dispel misunderstandings about OSS
- Provision of guides serving as an "OSS initiative starter kit" for organizations whose OSS initiatives are not yet mature
- Development of human resources and educational systems related to OSS literacy and practical skills
- Conduct field research with the aim of revitalizing
 Japan's OSS ecosystem over the medium to long term

Japan Open Source Hub



Japan Open Source Hub is a gateway of opening value, connecting, growing the OSS.



Search for "IPA OSS"!



Welcome your cooperation and contributions!