

Introduction of

The logo for the International Internet of Things (IIOT) Foundation. It features the acronym "IIOT" in a bold, purple, sans-serif font. A thin purple swoosh underline starts under the "I", goes under the "O", and ends under the "T", with a small red square at the end of the swoosh.

Foundation

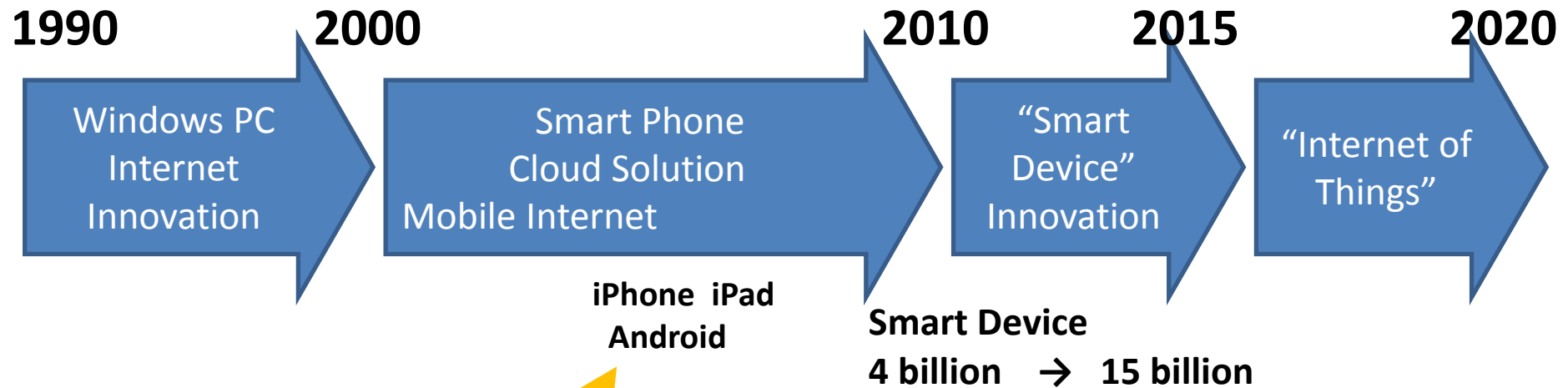
International Internet Of Things
International Interoperability Testing

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Foundation

Global Market Trend and IIOT's Challenges

Development Eco-System → Testing Eco-System



Explosion of development
volume of
mobile handset software

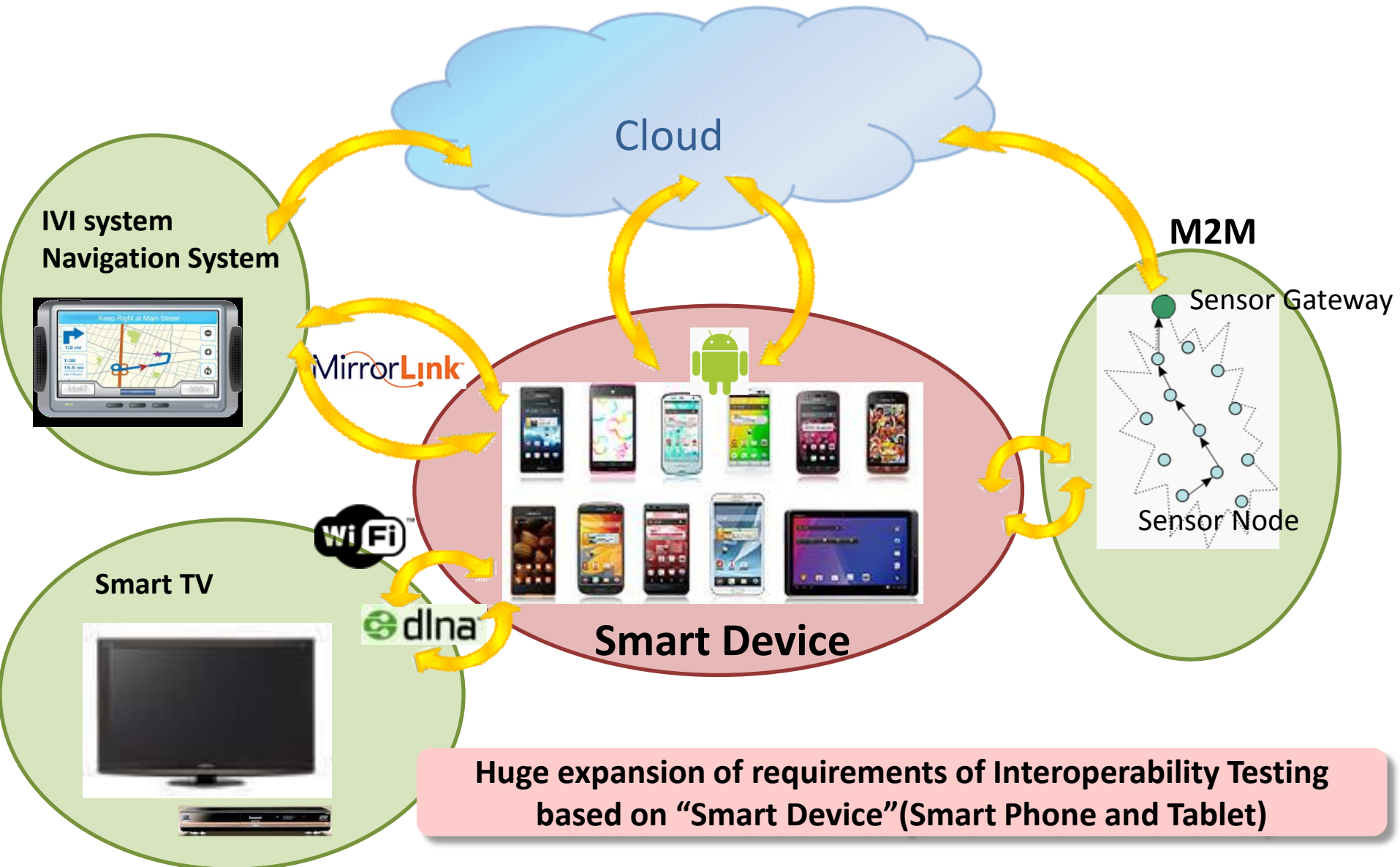
½ of software development cost
is testing cost

Explosion of testing
Volume of
Interoperability of Testing (IOT)

Huge expansion of requirements of Interoperability of Testing
based on “Smart Device”(Smart Phone and Tablet)

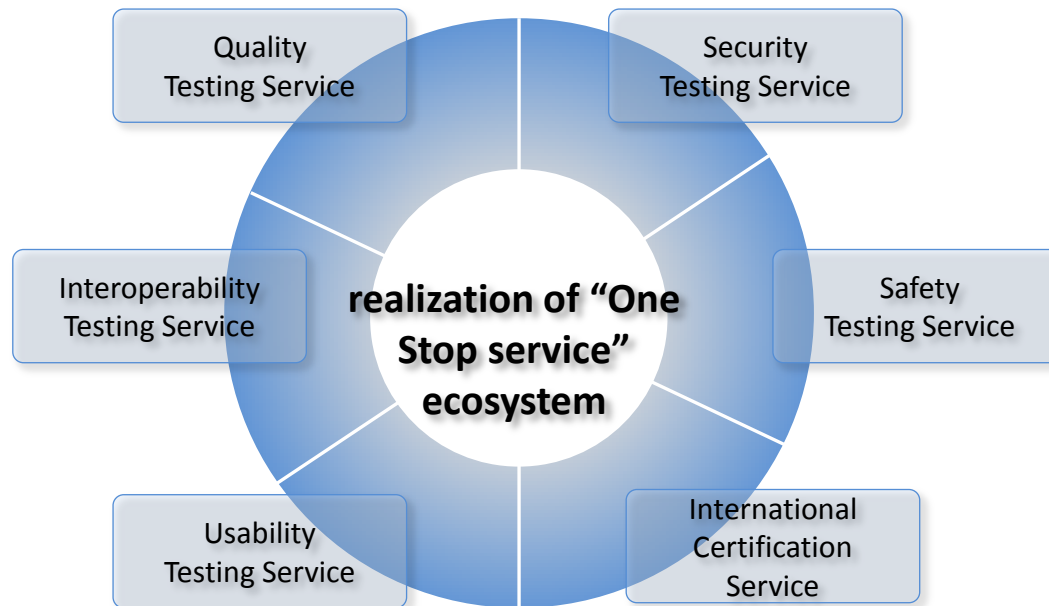
- Individual Testing → **Interoperability of Testing (IOT)**
- Development Eco-System → **Testing Eco-System**
- Simple outsourcing of Testing → **“Positive Testing based on Knowledge DB”**

Business Area of IIOT' s “Testing Eco-System”



Service Concept

**Vision: Become highly Advanced Testing/Certification Technology Provider
through establishment of “One Stop testing service” ecosystem**



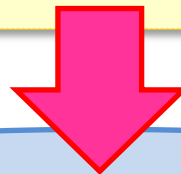
- Development of “One Stop Testing Service” ecosystem
- Enforcement of Testing Trial using Established Testing infrastructure
- Establishment Activities of International Certification business
- Collaboration with global Testing/Certification activities and Accumulation of advanced Testing/Certification Technologies

Objectives

Through promotion of “Establishment of Mobile device Testing Center Project” initiated by Okinawa Prefecture, Contribute to growth and prosperity of ICT industry in Okinawa.

Activities

- (1) Establishment of Android based devices Testing Method and Technology.
- (2) Development of Testing Tools and Knowledge Database
- (3) Development of Global Testing Tools and International Standardization Work
- (4) Training of engineering resources for Android devices Testing business
- (5) Creation of New Employment opportunities in Testing/Certification Business

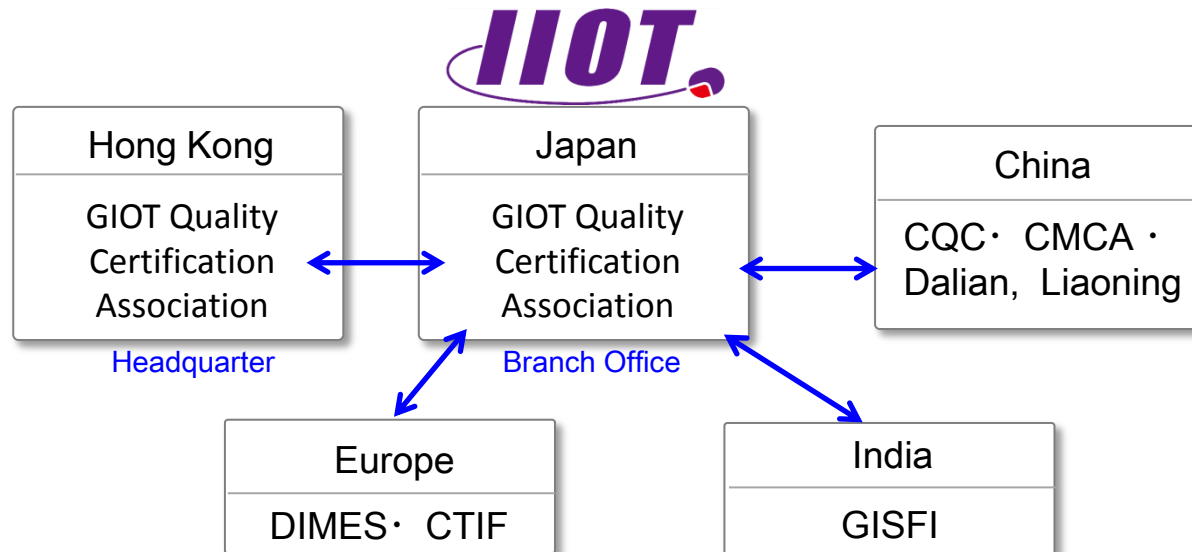


**Expansion of Business to Asian Countries
and Exchanging Human Resource**

**-> Establishment of Gateway to Asian Countries in
Testing/Certification Business**

Global Activities of IIOT

IIOT is leading the activities of IOT (Interoperability of Testing) in the global market
Objectives: Establishment of IOT and Certification Standards

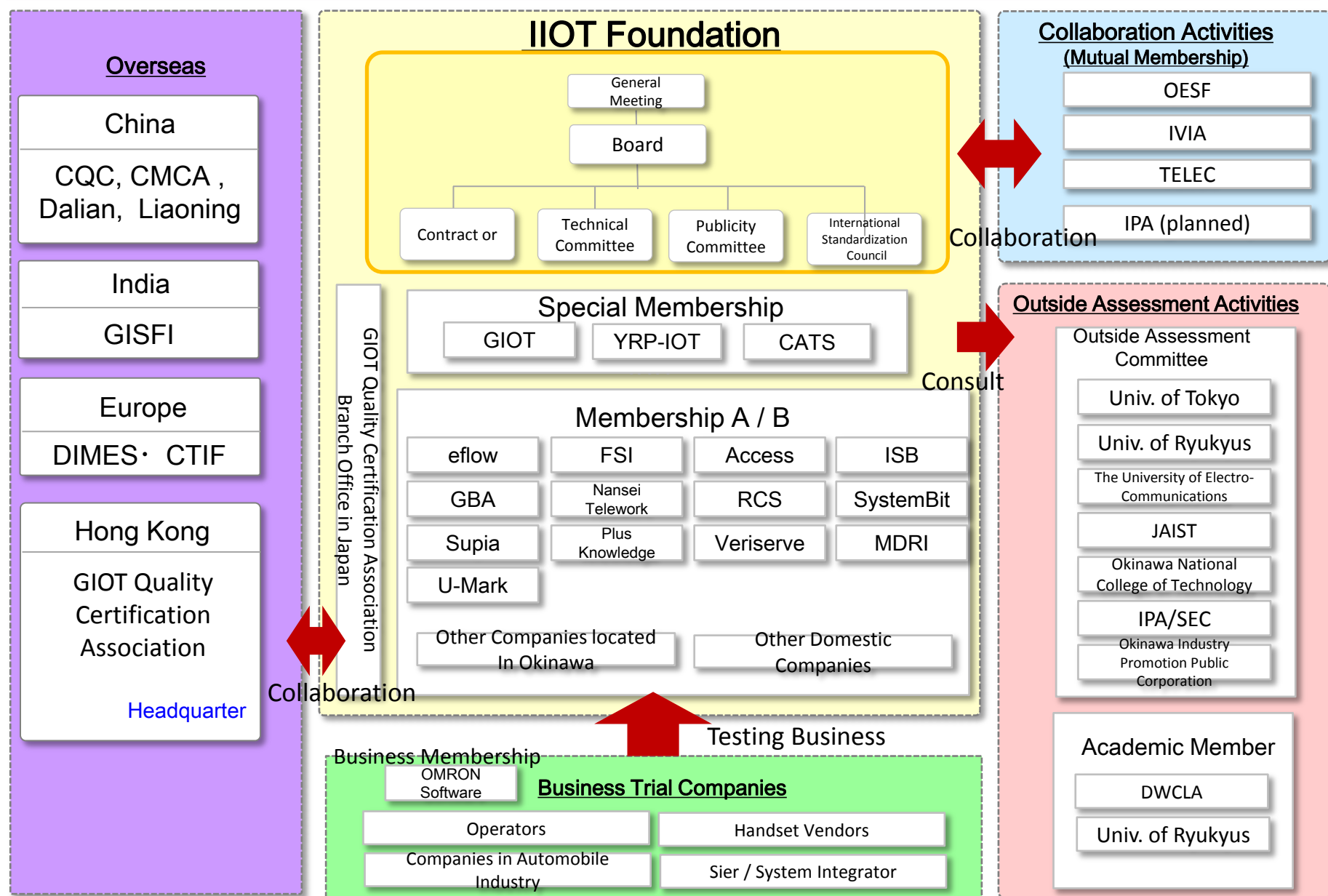


IIOT will contribute to promotion of IOT testing technologies and establishment of IOT testing global standards.

IIOT will aim at:

- (1) Enhancement of vender products interoperability capabilities in global market
- (2) Exchanging certification with global organizations
- (3) Applying Japanese ICT products in global market

Business Relationship



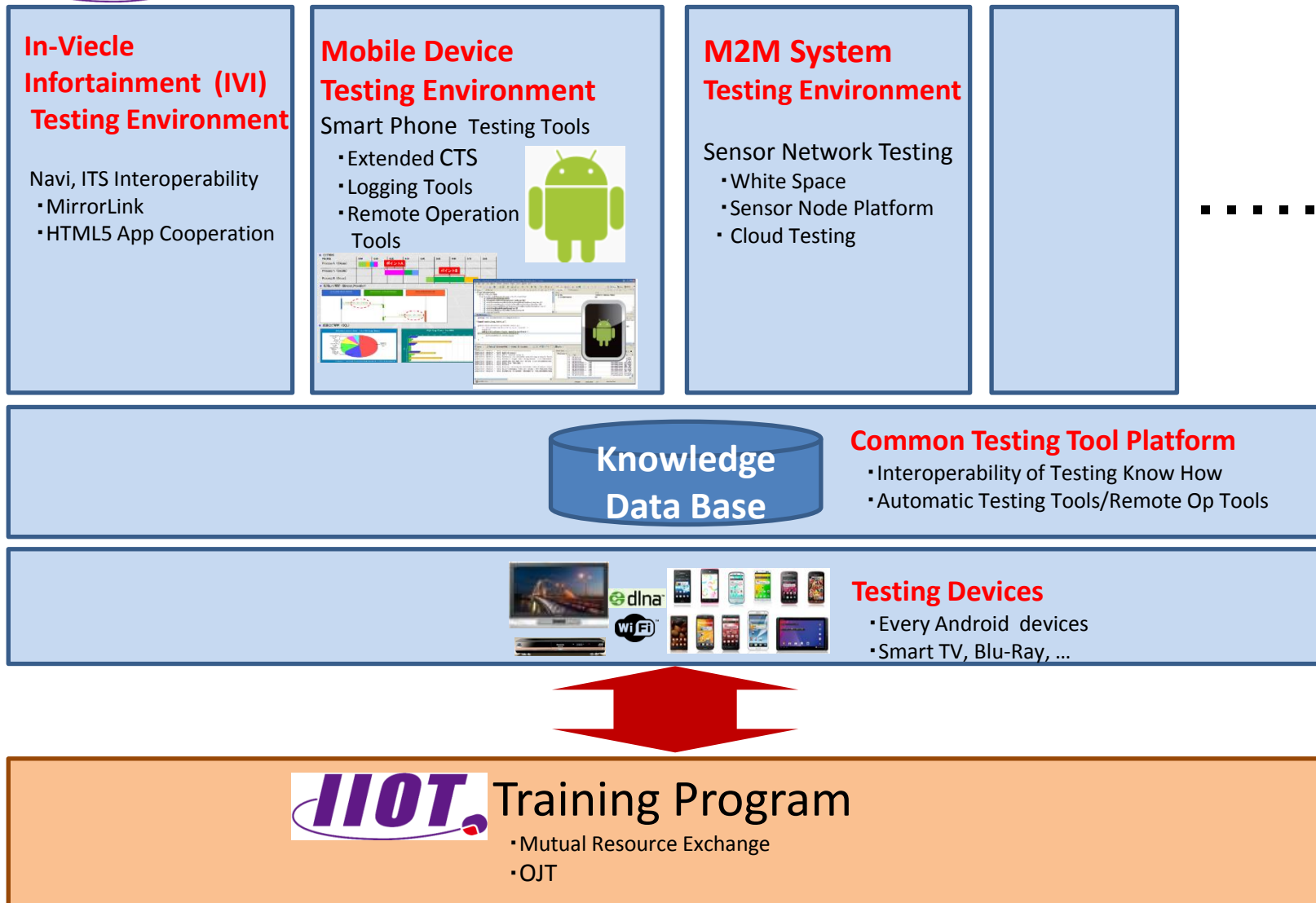
Activities of IIOT

“IIOT. Testing Eco-System” Infrastructure



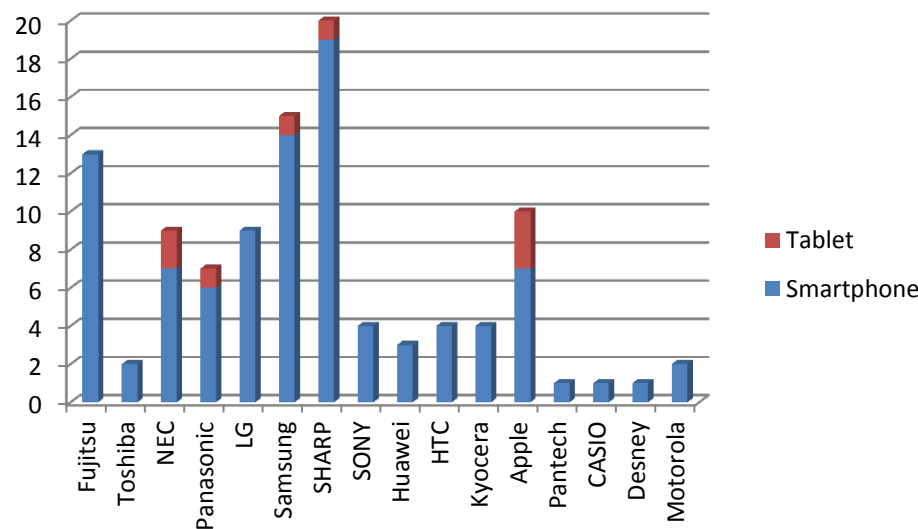
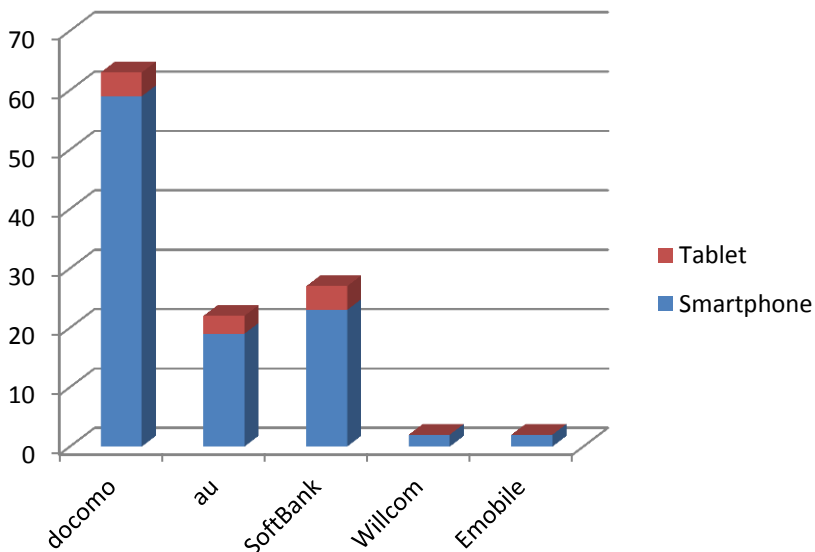
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“IIOT. Testing Eco-System”



- Every Android devices sold in Japanese Market from 2012 Summer (129models, 358 sets)
- 189 Networks for Test

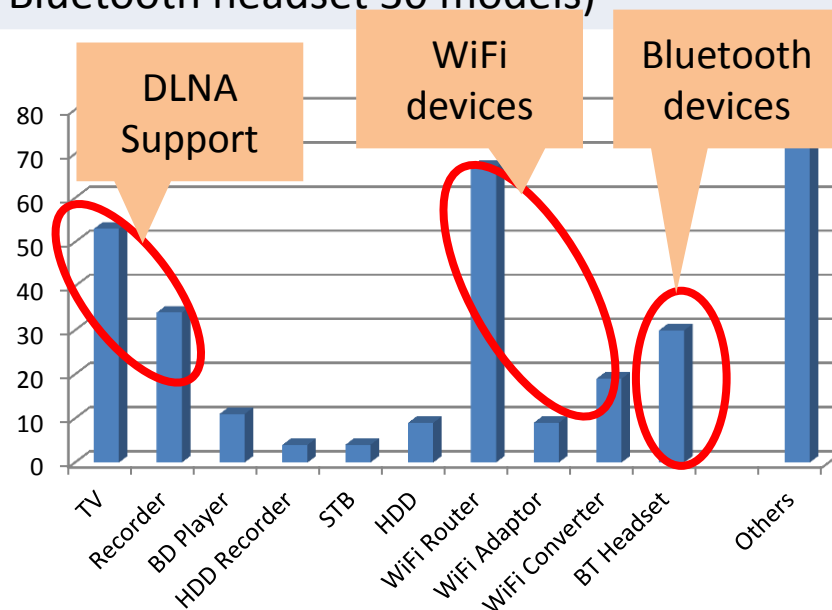
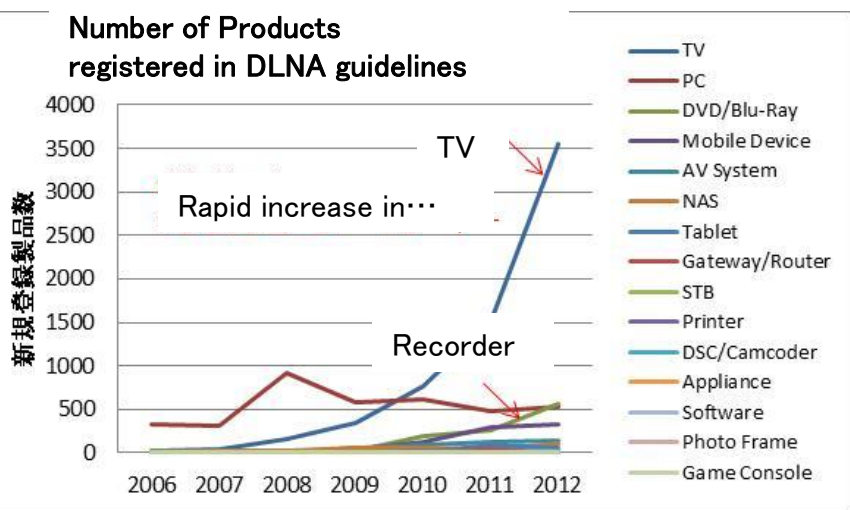
	Mobile Devices
Android devices	<ul style="list-style-type: none"> ▪ Every Android devices sold in Japanese Market from 2012 Summer (Smart Phone 105 models, Tablet 24 models) ▪ 3 sets per each model
Mobile Networks	docomo(65)、au(64)、SoftBank(48)、Wilcom(6)、Emobile(6)



Smart TV, Blu-ray, WiFi router, Bluetooth devices...

- Smart TVs, Blu-ray Recorder,.. Supporting DLNA feature
- Focused in WiFi / Bluetooth devices because of many troubles in IOT viewpoint

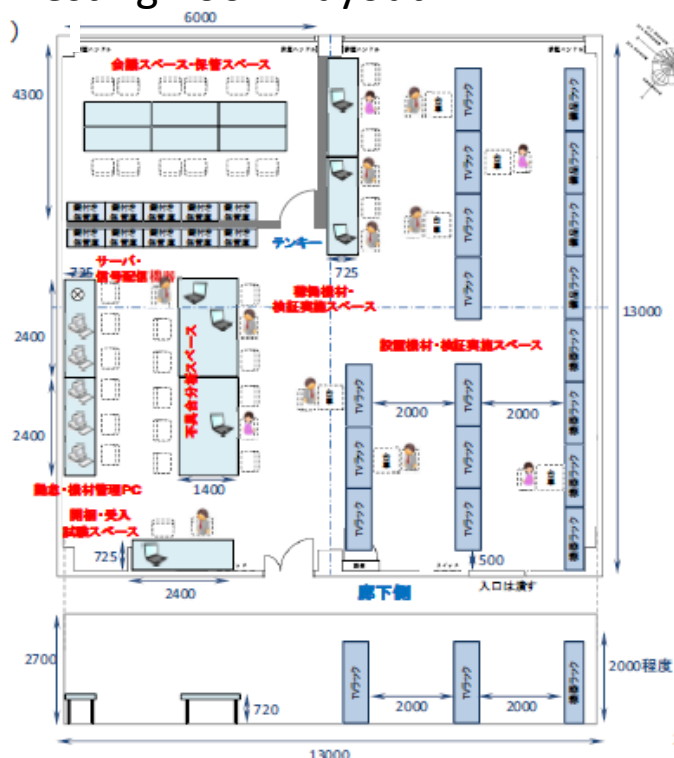
	Smart TV, Blu-Ray, WiFi Router, Bluetooth devices,.....
Smart TV, Blu-Ray, etc.	• Smart TVs, Blu-ray Recorder,.. Supporting DLNA feature (TV 55 models, Recorder 34 models, BD Player 11 models)
WiFi、Bluetooth devices	Focused in WiFi / Bluetooth devices because of many troubles in IOT viewpoint (WiFi router 67 models, Bluetooth headset 30 models)



“IIOT. Testing Eco-System” Testing Center Facility

- Testing Center Facility in “Okinawa IT Shinryo Park” (177m²) → **1,300m² (Sep. 2013)**
- All of Android Handset in Japanese Market, SmartTV, Blu-ray, Testing Tools,...

Testing Room Layout



Testing Center

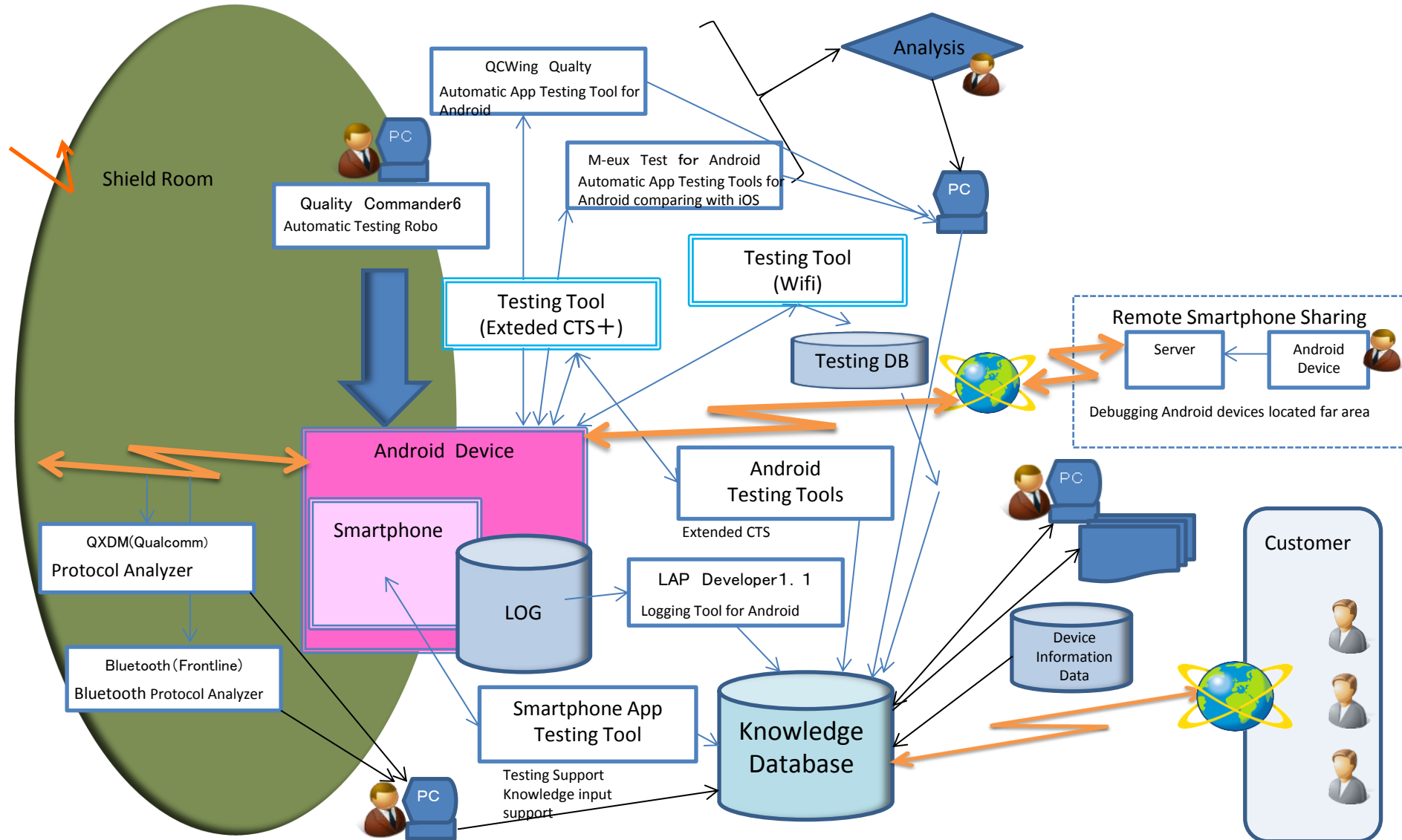


Automatic Operation Testing Tool



Rack mounted SmartTVs for Interoperability Testing

“IIOT. Testing Eco-System” Tool Architecture



Actual business cases

- Successfully completed business deals with Mobile carrier, Automobile navigation Co., Sler and Home electronics Co. in last fiscal-year

Outline	Test
Android device credit payment system test	<ul style="list-style-type: none"> ▪ Tested and analyzed 7 types of Android devices ▪ Operation test with printer by Bluetooth connection ▪ Total system usability test
Automobile navigation system test	<ul style="list-style-type: none"> ▪ Japan specification verification test on foreign vehicles ▪ Response test ▪ Domestic map delivery test ▪ Audio related device test
Smart TV dongle test	<ul style="list-style-type: none"> ▪ TV connection (4 makers, 8 models), Android device (7 makers, 19 models) ▪ WiFi connection test (4 makers, 5 models), Bluetooth pairing test ▪ Remote controller application test ▪ HDMI connection test (29 models)
eMail application test	<ul style="list-style-type: none"> ▪ Development of test specification and execution of the test ▪ Development of usability test specification

Best Practice



※画面はイメージです。

New Smart TV service appeared in The Nikkei paper was tested at IIOT Testing Center Facility

スマートTV 本格離陸

スマホ向け動画も大画面

専用機器 1万円前後

NTTドコモ、KDDI、ソフトバンクの3社、相次ぎサービス

KDDIは1月、スマートフォン向けコンテンツを配信する「スマートテレビ」を開始。NTTドコモは2月、ソフトバンクは3月にサービスを開始。3社とも、スマートテレビ専用機器をテレビに接続するだけで、スマホ（スマートフォン）の画面を大画面のテレビで視聴できる。コンテンツの範囲が広がる。

通信会社	月額料金	主な配信サービス
NTTドコモ (3月以降)	8,000円	・動画見放題 (月500円) ・アニメ見放題 (月400円) ・音楽聴き放題 (月315円)
KDDI (2月21日から)	8,800円	・動画見放題 (月500円) ・音楽聴き放題 (月315円)
ソフトバンク (2月中にも)	7,400円	・動画見放題 (月500円) ・TSUTAYA TV (1本100円から)

テレビを相対的に高価にしている。また、スマートテレビは20万円前後と高価。これに、スマートテレビ専用機器の購入が必要。スマートテレビ専用機器は、テレビの裏面に接続する。スマートテレビ専用機器は、テレビの裏面に接続する。スマートテレビ専用機器は、テレビの裏面に接続する。

Feb 20, 2013, The Nikkei

Availabilities of IIOT membership

Special Member and Membership-A companies can use all of IIOT's Testing Eco-System.



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Membership Level		Membership Fee (1 year)	Availability	Recommendation
Special Member		Over \$100k USD	<ul style="list-style-type: none"> • Participation of Board Meeting (voting rights, opportunity of contract development) • Participation of Executive Committee • Participation of Technical Committee / Working Group 	Testing Business Leading Company
Official Member	Member -ship A	Over \$10k USD	<ul style="list-style-type: none"> • the rights to use of Testing facilities, Equipment (according to the agreement to use) • Participation of Working Group • Prioritized participation to development of Testing base development and Testing Business 	Handset Vendor, Independent Software Vendor, Testing Tool Vendor, Testing Technologies Provider, etc.
	Member -ship B	Over \$3k USD	<ul style="list-style-type: none"> • Participation of Working Group • Prioritized participation to development of Testing base development and Testing Business 	Testing Tool Vendor, Testing Technologies Provider, etc.
	Business Member	Over \$5k USD	<ul style="list-style-type: none"> • Individual Business operation by using Testing business scheme operated by IIOT • Operation of New Research and Business activities by the collaboration with IIOT 	System Solution Vendor, etc.
Associate Member		\$500 USD	<ul style="list-style-type: none"> • Sharing information with IIOT about activities 	Companies who would like to share most advanced Testing activities
Academic Member		Free	<ul style="list-style-type: none"> - Eligible to participate Technical Committee, Outside Assessment Committee, Standardization Committee etc. 	Opinion Leader of Testing Technologies, Business, Global Trends, etc.

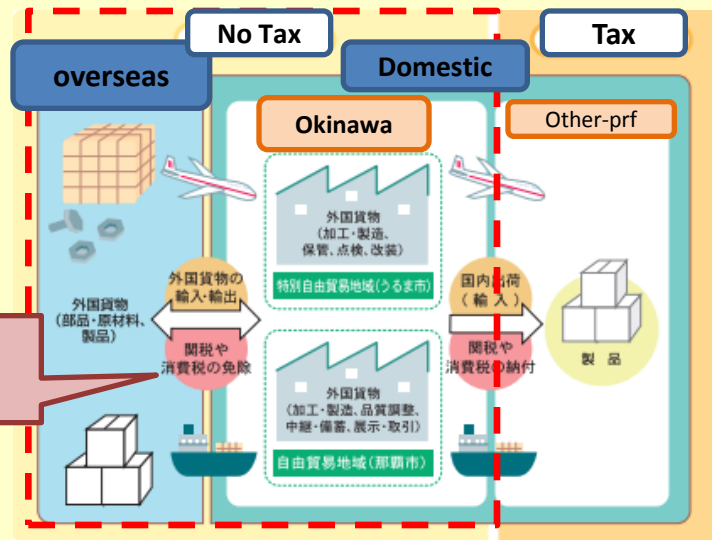
Notes : All Membership without Academic Member should pay the membership fee.

Concept of “Global Testing Center” based on Okinawa’s competence

Why is it Okinawa?

- ① Domestic only special economic zone (special international physical distribution area Okinawa)
- ② The merit as "Okinawa hub" which connects Asia and domestic each city
- ③ Business support which a country and a prefecture

① Domestic only special economic zone



② The merit as "Okinawa hub" which connects Asia and domestic each city

Speed Delivery System by Okinawa hub



③ Business support which a Country and a Prefecture

Based Okinawa promotion Special measures Law
Investment to IT Shinryo-Park under resort&IT strategy

- IT Industrial test bed
- Hi level Software development
- Hi level test engineer
- Asia IT bridge



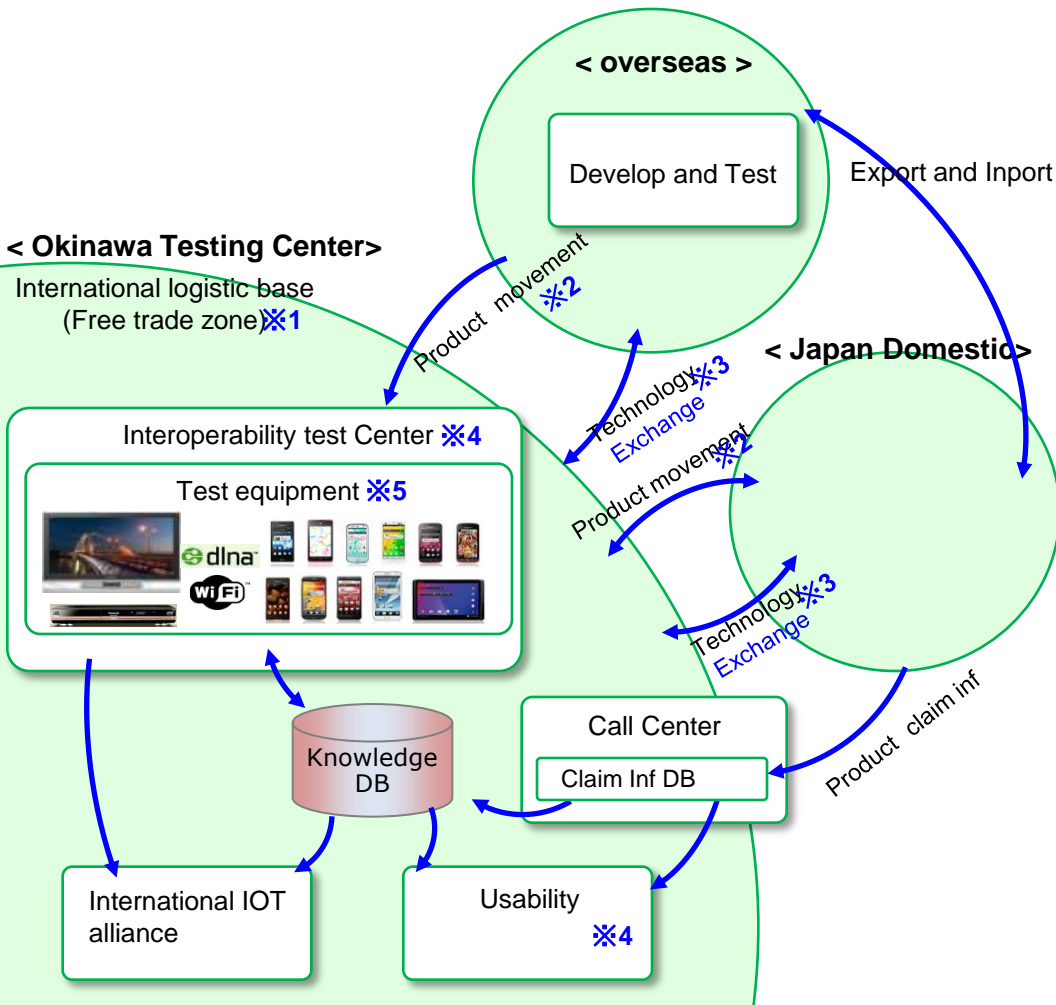
IT Shinryo-Park in Okinawa

Investment for IT 2013 2,840 million Yen
→ 1,190million Yen(verification base formation
promotion enterprises, such as mobile computing devices)

【 Predominancy of Okinawa 】

Practical use of Testing Center in Okinawa

- ① For Asian Company(Samsung・HTC・ASUS・etc)
- ② Japanese company of expand to over seas
- ③ Near shore testing companies



[Realization of the One stop services of Testing]
Attestation, Physical distribution

❖1. Formation of International distribution Center

- ① Mobile test bed in Testing Park (Offer of the test place and equipment for Interoperability test)
- ② International IOT QAC Japan branch(promotion of Quality Standard)
- ③ Tax Free trade and logistic

※2. Quick distribute by ANA between Asian major cities

- ① Super speed transport by YAMATO and ANA team
- ② Shortest distribution between Asia major cities to Japan
- ③ Cost cut of Tranceport (Use subsidy)

※3. Support of talented people(engineer)exchange

- ① Asia IT people to people exchange
- ② Near shore base products
- ③ Construction of the Asia IT Testing Center (Apr,2013.)
- ④ Visa needlessness during three years by a special visa area

※4. Developing of Top runner mobile products test

- ① Newest Embedded products test(TIDA)
- ② Base of Mobile products test(IIOT)
- ③ Construction new mobile products test center (Aug.2013)

※5. Substantial test bet (provide)

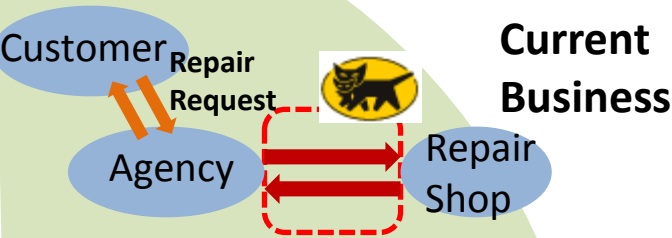
- ① Provide Japanese products based Android OS and smart Home electronics
- ② An overseas Android products arranged in the future

Business Trial using IIOT Testing Eco-System in Okinawa

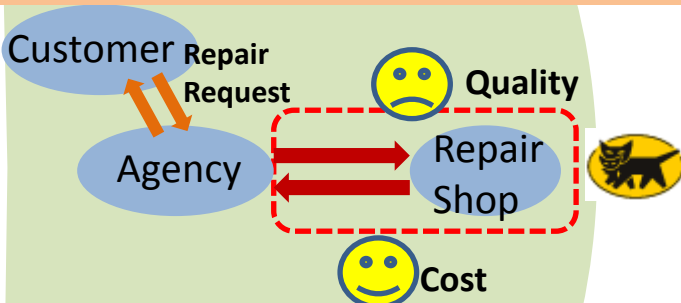


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(1) Distribution in Overseas



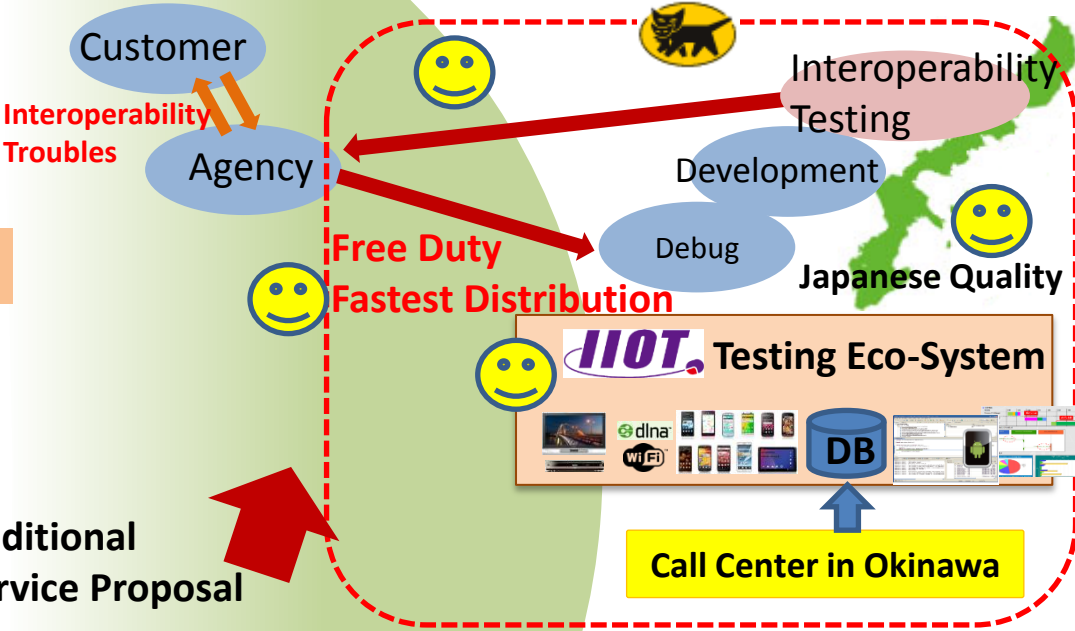
(2) Distribution in Overseas PLUS repair shop



(3) Distribution in Overseas PLUS repair shop in Japan



One Stop Supporting from simple testing to complicated Interoperability of Testing



Additional Service Proposal

Distribution in Overseas PLUS repair shop in Japan





International Internet Of Things
International Interoperability Testing

Thank You !

Wifi/Bluetooth connection to HTML5 application

