Hybrid Box Application

Functional Requirement
For
Net-Supermarket Service

Version 1

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Japan Cable Laboratories

Revision History

Version	Date	Remarks
1	2012.6.11	Issuance of Version 1

Contents

1. Purpose

This portion is informative.

This document describes a functional requirement for Net-Supermarket Service by cable operator using Hybrid Cable STB (Hybrid Box). Most of existing net-supermarket operated by major supermarket chain uses PC as a main terminal device in home. It is pointed out that a person who do not have enough literacy to handle PC can not receive the net-supermarket service and cumbersome start-up work of PC is required for just receiving the service.   TV screen gives an advantage for these people because of its simple operation and the owner of advanced net-supermarket has preference of using TV rather than PC.   In this document TV is described as main terminal device for net-supermarket service by cable operator.
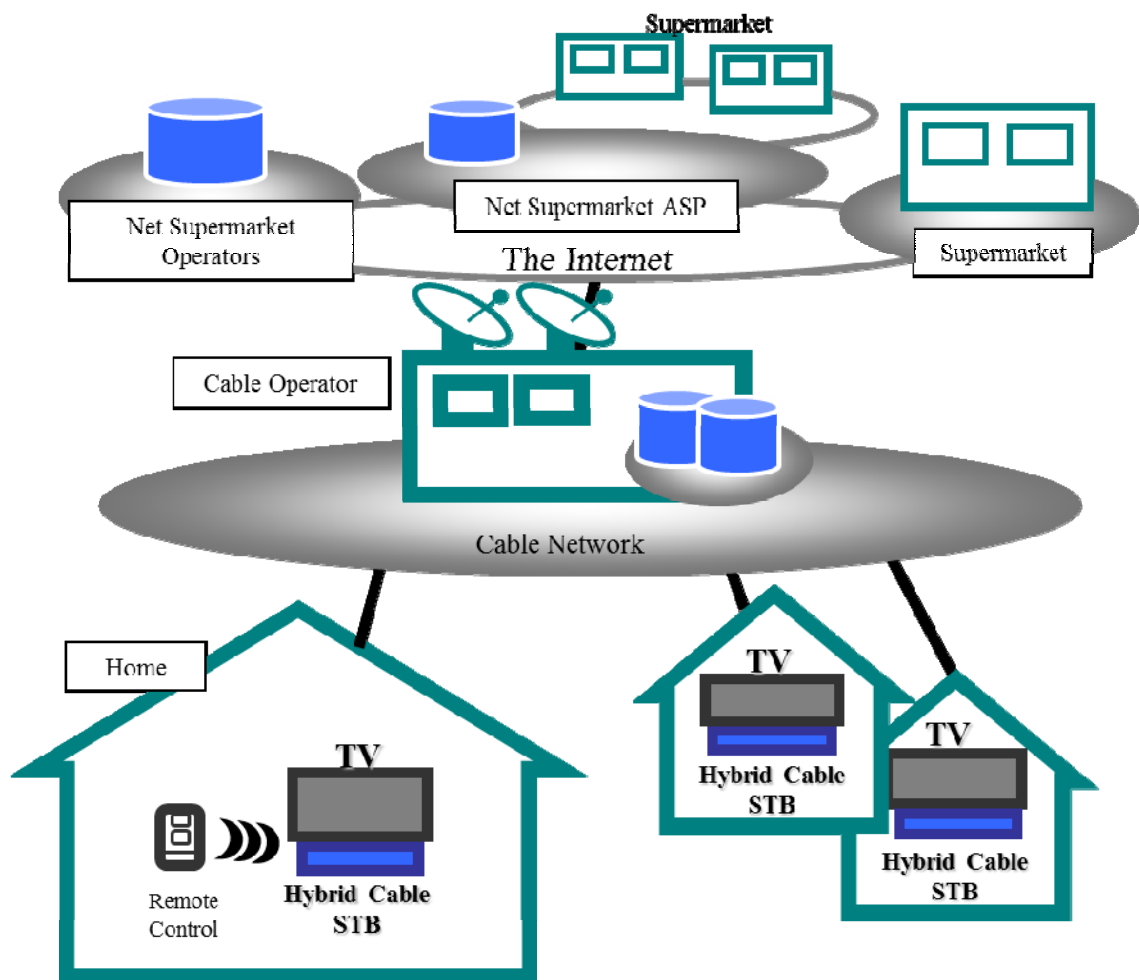

Figure 1: Total Aspect of Net-Supermarket

2. Conventions

This portion is normative.

In this Document:

The keywords "**is required to**" indicate a requirement which must be strictly followed and from which no deviation is permitted if conformance to this document is to be claimed. The keywords "**is recommended**" indicate a requirement which is recommended but which is not absolutely required. Thus this requirement need not be present to claim conformance. The keywords "**is prohibited from**" indicate a requirement which must be strictly followed and from which no deviation is permitted if conformance to this document is to be claimed. The keywords "**can optionally**" indicate an optional requirement which is permissible, without implying any sense of being recommended. This term is not intended to imply that the vendor's implementation must provide the option and the feature can be optionally enabled by the network operator/service provider. Rather, it means the vendor may optionally provide the feature and still claim conformance with the specification.

In the body of this document, the words *shall*, *shall not*, *should*, and *may* sometimes appear, in which case they are to be interpreted, respectively, as *is required to*, *is prohibited from*, *is recommended*, and *can optionally*. The appearance of such phrases or keywords in an appendix or in material explicitly marked as *informative* are to be interpreted as having no normative intent.

3. Net-Supermarket Business Model

This portion is normative.

Following Business models are required for the net-supermarket service.

3.1 Definition of Operator

In this document, Operators are classified into three categories as shown in Table 1.

Table 1: Categories of operators

Operator	Description
Net-Supermarket Operator	The operator who runs supermarket as well as net-supermarket (ex. Major supermarket chain)
Net-Supermarket ASP	The ASP who provides platform and mechanism for

	managing net-supermarket, without functions for supermarket and small retail shop (ex. Major transportation company)
Supermarket Operator	The operator who runs supermarket only and not doing net-supermarket business. Personal shop and personal retailer are included in this category.

3.2 Management Flow of Net-Supermarket

General management flow of net-supermarket is shown in Table 2.

Table 2: General Management Flow of Net-Supermarket

| Function of Net-Supermarket	Function of Cable Operator	Description
Browse and search	Registration and control	Browsing or searching goods on TV screen
Order	Order（Order acceptance）	Decision of purchase by ordering
N/A	Pick up and delivery provisioning	Gathering goods and provision of delivery
Delivery	Transportation and delivery	Receiving goods after transportation and delivery
Settlement	Payment	Payment for goods
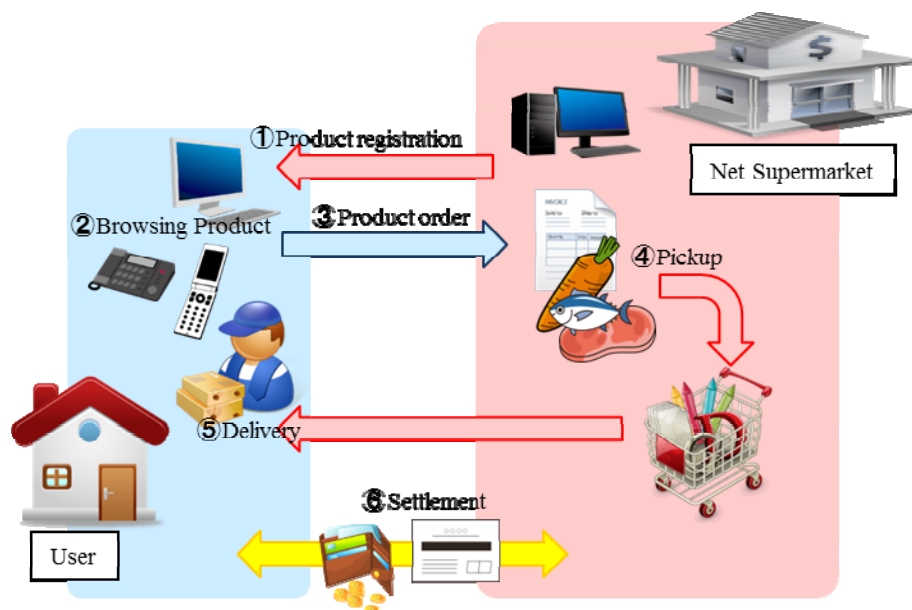
Figure 2: General Management Flow of Net-Supermarket

3.3 Business Model

Business Model of Net-Supermarket is shown in Figure 3.

Model	Product advertisement Product introduction	Product registration Product Management	Order reception	Merchandise procurement Pickup	Pickup and delivery	Settlement
A	Cable Operator	Net Supermarket Operators				
A'	Cable Operator	Net Supermarket ASP		Supermarket	Net Supermarket ASP	
B	Cable Operator			Supermarket	Cable Operator	
B'	Cable Operator			Supermarket		Cable Operator
C	Cable Operator					

Figure 3: Business Model of Net-Supermarket

[Model A and A'] Collaboration with advanced net-supermarket operator and net-supermarket ASP

Figure 4 shows an Operation Flow of Model A. Cable operator provides cable system for advertisement and browsing of goods. Model A is the work collaboration with net-supermarket operator, while Model A' is the work with net-supermarket ASP. Flows from acceptance of order until settlement are covered by the collaborator. There are some advantages for the collaborator such as expansion of market size and usage of TV screen for advertisement or publishing time sales information, etc.
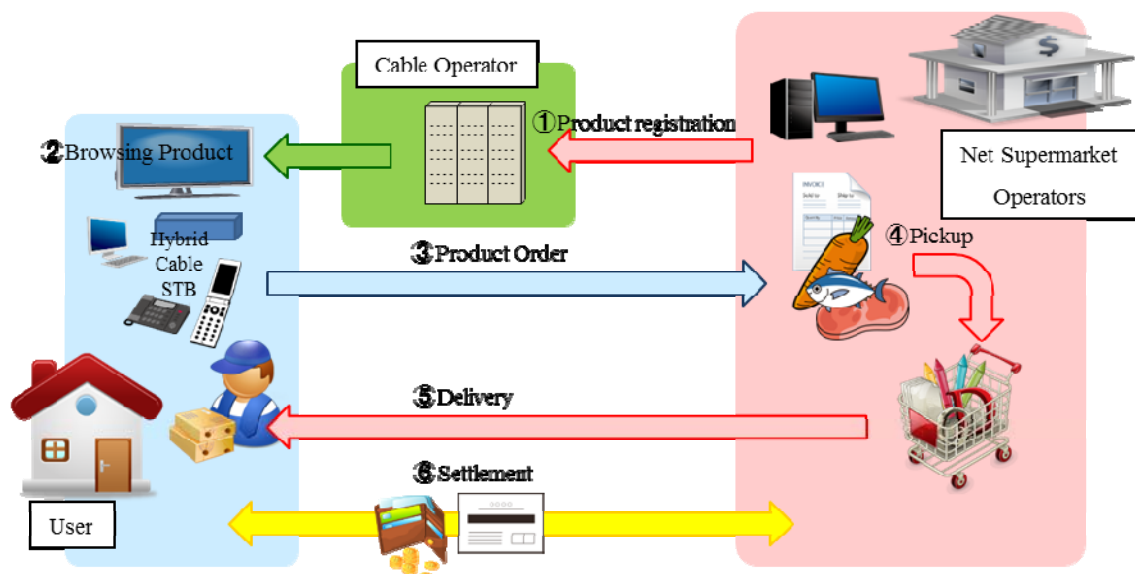
Figure 4: Operation Flow of Model A

[Model B and B'] Enablement of regional supermarket, small shop and shopping arcade to net-supermarket

Figure 5 shows an Operation Flow of Model B. Cable operator constructs net-supermarket platform and let regional shops or shop arcade to use the platform. The difference between Model B and B' is whether cable operator deals with pick-up and delivery services or not. This will contribute to activation of regional economy and promotion of special products in a rural district, these are most expected roles for cable operators. Cable operator has all the function except for pick up and provisioning of delivery.
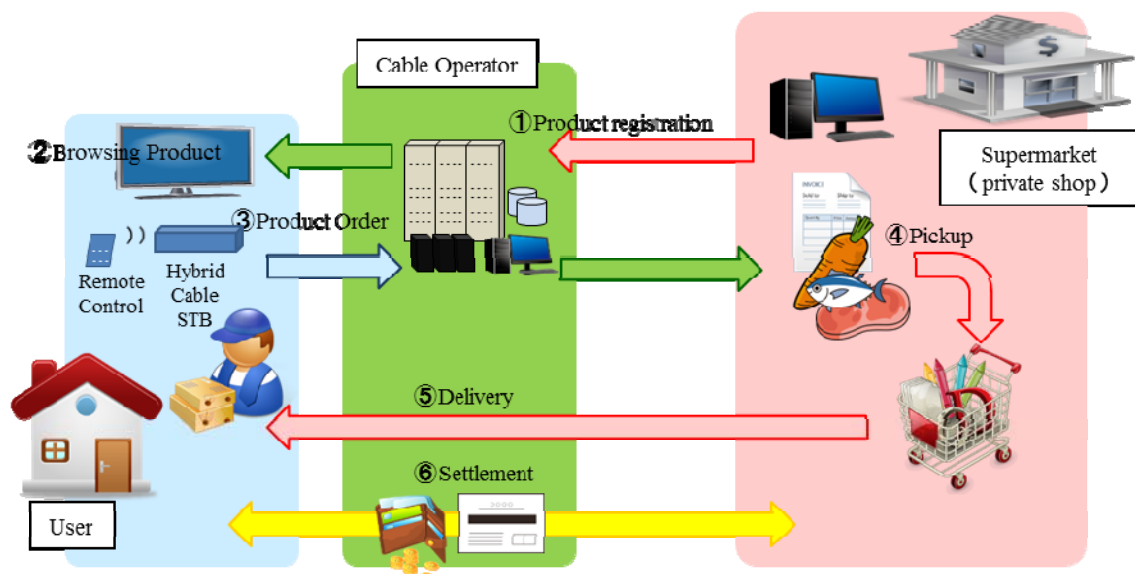
Figure 5: Operation Flow of Model B

[Model C] Development of net-supermarket business in rural district

Figure 6 shows an Operation Flow of Model C. Cable operator deals with net-supermarket business in a small population area for the aid of shopping support for the residents with cooperation of municipal office or rural government. Gaining profit seems to be a hard task of this business model.
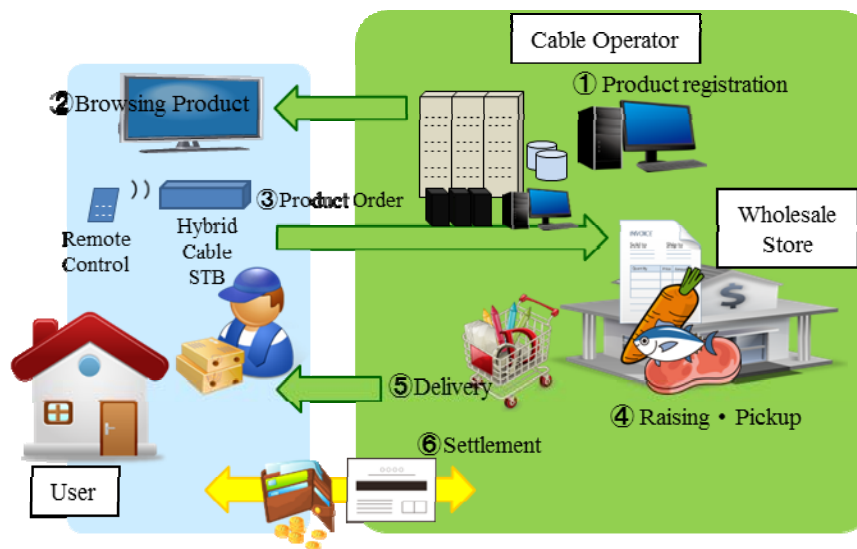
Figure 6: Operation Flow of Model C

4. **Main Business Model**

This portion is normative.

Models A, A' and B are the main business models of this document. Model C shall be the subject to be followed as a future model of net-supermarket by cable operator.

5. **Functional Requirement**

This portion is normative.

Functional requirement for net-supermarket is described in sub-clauses 5.1 to 5.3.

5.1 **Requirement for Registration, Control, Ordering and Settlement**

Requirement for registration, control, ordering and settlement are shown in Table 3.

Table 3: Requirement for registration, control, ordering and settlement

No	Category	Function name	Function Content	Request level
1	Authentication Function	Password authentication function	ID of the user who Registration administrator/Password Login	MUST
2		Registration administrator	Be able to Registration more than one administrator	MUST
3	Top page	Simple display summary information	TOP page displayed the current sales and the number of members	MUST
4	Basic information setup	SHOP master	Setting and editing of company information required for the operation site	MUST
5		Consumption tax calculation method set	Sets whether to calculate any of the truncation / rounding / truncation in what fraction digit sales tax	MUST
6		Free delivery fee on condition setting	Setting Conditions for delivery fee will be free from the total purchase price,etc	MUST
7		Act on Specified Commercial Transactions	Entry and editing requirements, etc. prescribed in the Act on Specified Commercial Transactions	MUST
8		Time setting / charge / delivery company	Set delivery time and delivery fee of each delivery companies,delivery company	MUST
9		Setup handing fee / payment methods	Set payment method and a handing fee of each payment method	MUST
10		Terms and Conditions set payment methods	Setting of upper and lower limits of the purchase price, limit use of the method of payment	MUST
11		Terms and Conditions set	Entry and editing of a convention to check available at the time of registration	MUST
12		Registration e-mail templates.	Mail to set up and register contents of a letter (Auto-answer inquiries, purchase auto-answer)	MUST
13		SEO management	Embed the keyword in the meta tag	MUST
14		Setting site management	Whether to use the feature set	MUST
15		Setting regular holiday	A setup of regular holiday of the calendar	MUST
16	Product Management	Products search/List	Search for products, and view the list	MUST
17		The CSV output of Products information	The CSV output of Product data	MUST
18		Products information CSV registration	The CSV Product data in the batch registration	MUST
19		Products registration/Editing function	Product basic data registration of a Product name, a price, a comment, a SHOP remarks column, etc.	MUST
20		Products image registration	Upload of a product image and registration	MUST
21		Products video registration	Upload of a product video and registration	Should
22		Stock information registration	Registration of stock figures	MUST
23		Sales restrictions	The number of goods which can be purchased simultaneously by one-time order can be restricted	MUST
24		Manual registration Related products/Edit	Manual registration of the related product recommended to the person who purchased products can be performed.	MUST
25		Standard Registration	The standard of Product can be registered	MUST
26		Category registration/Edit	Display style selection of functional product, registration/edit of a class ◎ CSV output	MUST
27		Sort by products	A display order displayed on each category product list can be changed	MUST
28		Products review management	Review management of goods can be performed	MUST
29		Multi-category	Product can be registered into two or more categories, and can be managed	MUST
30		Registration keyword search items	The item of the keyword of product can be registered	MUST
31		Trackback management	Information, including the blog etc. which are carrying out trackback, can be known	Should
32	Customer Management	Search customer information/List	Search of customer data and a list display	MUST
33		The CSV output of Customer information	The CSV output of customer data	MUST
34		Editing customer information	Edit of customer data	MUST
35	Order Management	Search order information/List	Search of ordering information, list display ◎ CSV output	MUST
36		Information input new orders	Registration of the ordering information which occurred by a telephone or FAX	MUST
37		Edit order information	Edit of ordering information	MUST
38		Configuration support status	The status under unsettledness, product arrangements, and delivery etc. can be set up.	MUST
39		Various send mail	"Shipped products Mail " etc. is transmitted to arbitrary timing to the visitor of an order .	Should
40		The PDF output of statement of delivery	The PDF output of statement of delivery. It is also possible to carry out a batch output.	MUST
41		Batch change support status	Batch change about two or more ordering status	MUST

No	Category	Function name	Function Content	Request level
42	Sales totalization	Totalization by period	The arbitrary sales total results of a period can be displayed by the graph and list ◎CSV output	MUST
43		Totalization by product	The sales total result according to products can be displayed by the graph and list ◎CSV output	MUST
44		Totalization by age	A buyer's results of total sales according to age can be displayed by the graph and list ◎CSV output	Should
45		Totalization by occupation	A buyer's results of total sales according to occupation can be displayed by the graph and list ◎CSV output	Should
46		Totalization by membership	A buyer's results of total sales according to membership can be displayed by the graph and list ◎CSV output	MUST
47	Email Newsletter Distribution	Distribution reservation / Search Email Newsletter distribution	Email newsletter distribution place narrows down and they are search and a distribution reservation setup	Should
48		Create a TEXT / HTML template	Email newsletter template of a TEXT/HTML base can be created	Should
49		Recent	The check of the distribution history of an email newsletter, the contents of distribution, and distribution conditions	Should
50	Contents Management	New information management	Registration/edit of the What's New displayed on front TOP etc.	Should
51		Recommended management	Registration of the recommendation products displayed on front TOP etc. (a maximum of eight pieces)	Should
52		Campaign management	A setup of campaign, the Page creation	Should
53		File management	Upload and download of a file	MUST
54		Movie management	Upload and download of a movie	Should
55		CSV output item setting	A setup of the contents indicated when outputting by CSV	MUST
56	Design Management	Layout editing	The layout of TOP, a goods list, and a goods detailed page is changed	MUST
57		Block editing	The block displayed by TOP page layout edit is registered	MUST
58		Edit headers and footers	Edit of the header footer which used common to all the pages	MUST
59		CSS editing	Edit of CSS from a management screen	MUST
60		Template Settings	applies with the exclusive template and one button which were prepared beforehand	MUST
61	System Setting	Member Management	Management of the member who can log in to a management screen	MUST
62		Update management	Version management	MUST
63		Backup management	Backup of the present registration product etc. and customer data is saved.	MUST

5.2   Requirement for Browsing, Search, Order and Payment

Requirement for browsing, search, order and payment are shown in Table 4.

Table 4: Requirement for browsing, search, order and payment

No	Category	Function name	Function Content	Request level
1	Product Introduction	Product list page	The registration product are displayed by list for every category.	MUST
2		Product thumbnail display	A thumbnail display of the product is given by list Page.	Should
3		List sorting function	Product can be sorted in order of the order of a price, and new arrival.	Should
4		Product detailed page	View description, product image display, display to basket button.	MUST
5		Product detailed page (movie)	Product are introduced by an animation.	MUST
6		Product status	Recommendations, and it can remain and can display few of which status (manual operation).	Should
7		Stock termination status	When stock goes out, a stockout is displayed automatically.	Should
8		User review	Product reviews on the product detail page can be displayed and registered .	Should
9		product favorite registration	Product can be registered into a favorite.	Should
10	Product Order	Shopping cart function	Such as selecting multiple product do, is the fundamental shopping cart function.	MUST
12		Another receiver's address input function	One user can hold multiple receiver's addresses. (a maximum of 20 pieces)	Should
13		Delivery time specification	The delivery time registered on the administrator screen can be specified.	Should
14		Select settlement method	The method of payment registered on the administrator screen can be chosen.	Should
15		Point purchase function	Product can be purchased using the point accumulated by Product purchase.	Should
16		Estimates display before purchase	After calculating a delivery fee and a handing fee automatically, the check page of order contents is displayed.	MUST
18		Order processing	Thanks mail is transmitted automatically simultaneously with order registration, and order receptionist mail is transmitted also to an administrator. Or it corresponds by Thanks call.	MUST
19	Visitor Page (MY Page)	Membership function	Member registration can be performed.	MUST
22		List Order History	The past order is indicated by list.	MUST
23		Check function order details	The present order contents are displayed.	MUST
24		Another receiver's address edit function	It can be made to perform registration, edit, and deletion of multiple addresses for delivery.	Should
25		Favorite product list	The product registered into a favorite are indicated by list.	Should
27		Email Newsletter release / change	Release and change of email newsletter subscription registration can be performed.	Should
29		Recommendation product display	The recommendation product set as the recommendation frame of a top page are displayed.	Should
30		What's New display	What's New can be displayed.	Should
31		Product category search	It can search based on a goods category.	Should
32		Product search by keyword	It can search by keyword search (a part of brand name and product name ,etc.).	Should
33		Inquiry form	It can mail an inquiry for an administrator from inquiry form.	Should
34		Campaign application	Product purchase and member registration are carried out from the campaign page created from the management screen.	Should
36	Multilingualization	Multilingualization	It corresponds to a multilingual site by adoption of UTF-8.	Should

5.3   Requirement for Pick-up and Delivery

Requirement for pick-up and delivery is shown in Table 5.

Table 5: Requirement for pick-up and delivery

| No	Category	Function name	Function Content	Request level
1	Pick-up management	Pick-up member's store list display	The member's store which collects cargo is indicated by list.	MUST
2		Pick-up information display	Pick-up information is displayed	MUST
3		Pick-up information printing	Pick-up information is printed	MUST
4		Renewal of status	Pick-up status is updated (finishing [un-collecting cargo and collection of cargo] etc.).	MUST
5	Delivery management	Delivery information list display	Delivery information is displayed. Moreover, rearrangement of the address for delivery is enabled.	MUST
6		Delivery information detailed display (every user)	The delivery information for every user is indicated by detailed.	MUST
7		Delivery information printing (every user)	The delivery information for every user is printed.	MUST
8		Renewal of status	Delivery status is updated (finishing [un-delivering and delivery] etc.).	MUST
9	History display	Delivery information history list display	The delivery information history is indicated by list.	MUST
10		History list CSV output	The CSV output of the delivery information history is carried out.	MUST

Appendix A User Interface

This portion is informative.

The user interface for browsing and ordering are shown below as graphic examples.

A-1 Top page
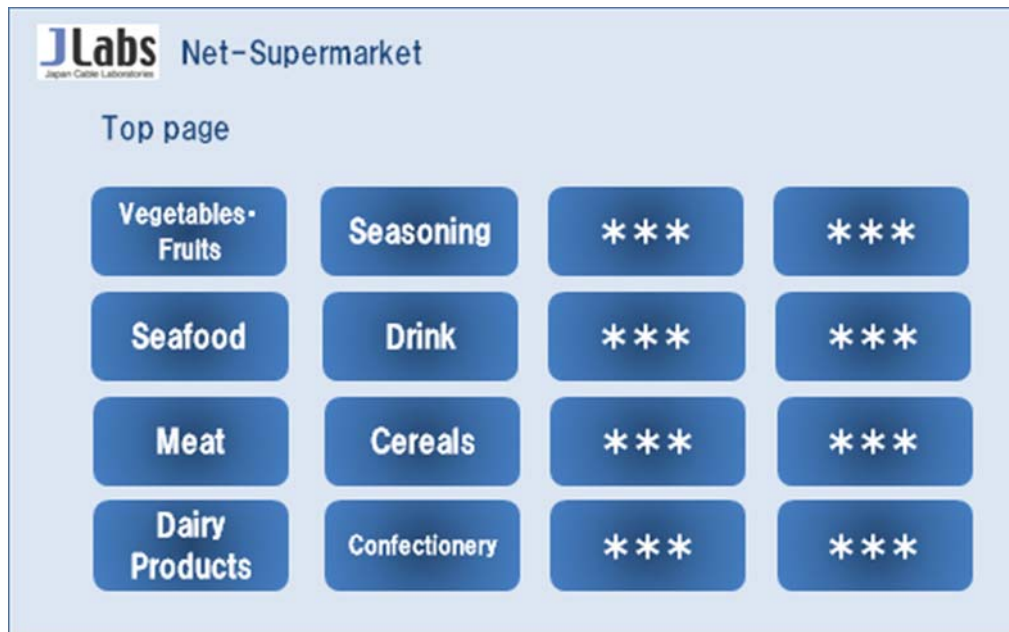
A-2 Browsing screen
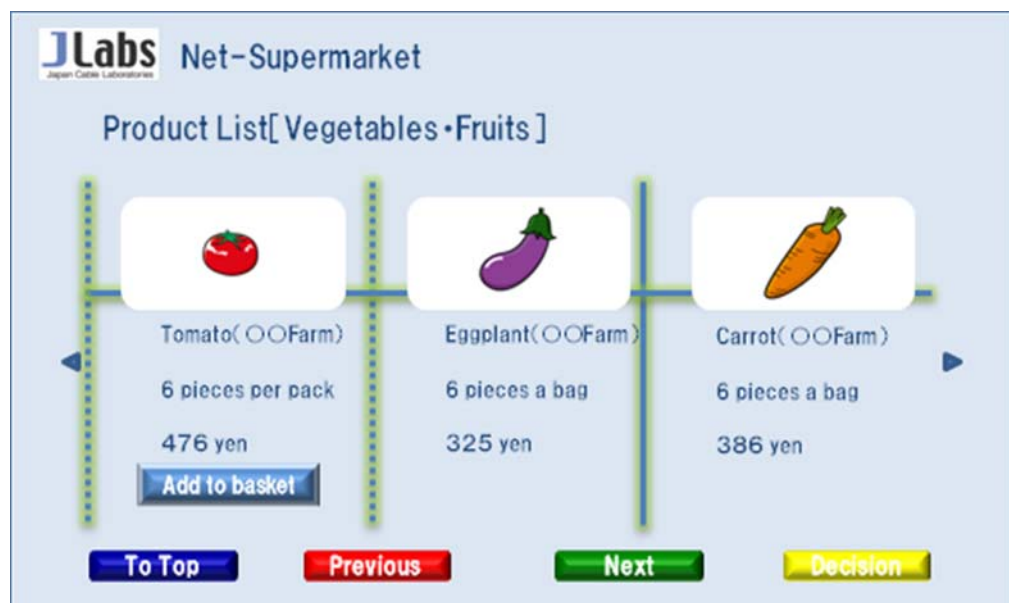
A-3 Confirmation of selected goods

A-4 List of purchase

A-5 Confirmation of purchase