

# FETURES OF TOMBI



**TOMBI**

**Total Medical & Biochemical Information System**

- » *No need Internet to run on-site*
- » *Manage everything in E.H.*
- » *Designed user friendly interface.*
- » *Multi-langauge conaptible.*
- » *Progressing day by day, but need support.*

## TOMBI does **not** require an Internet connection.

### Risks and Challenges of Internet Use (Cloud Server Use)

- In the event of a major earthquake/wide-area disaster, both fiber-optic lines and cell phone networks will lose Internet access due to line breaks, power disruptions to relay bases, etc. Even if the Internet is connected, responses will be slow due to line congestion, etc.
- Even if the Internet can be connected, response will be slow due to congestion on the lines.
- During rescue operations overseas, local authorities refuse to connect to overseas servers due to concerns about patient information leaking out of the country.



### TOMBI runs on-site without Internet.

- TOMBI runs on a small local server that is brought to the relief site, so there is no need to connect to a cloud server.
- All programs and data are located in the on-site TOMBI server, and each terminal is only accessed and handled within its LAN.
- Response time is fast, and there is zero fear of cyber-attacks or hacking when using the Internet.

## TOMBI manages drug inventory as well as medical records.

### The drug master of TOMBI is the key to fast and safe drug orders.

- TOMBI has 878 pre-registered drug masters for JRCS, IEHK, TESK, ESSENTIAL, NCDK, WHO-EML. Drug masters can be added/edited at any time.
- In addition to the generic name, content, unit and efficacy of the drug, the drug master has data on contraindications for pregnant women, nursing pregnant women, and children, standard dosage, and dosage relative to body weight for automatic calculation of dosage if there are weight restrictions, which can be referenced when prescribing or dispensing drugs or to indicate warnings.

### TOMBI has a drug ordering system that manages inventory counts in real time.

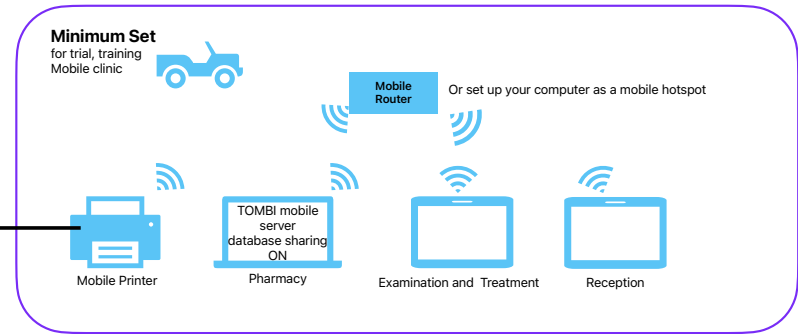
- The warehousing procedure of drugs has a quick-warehousing function that allows, for example, the batch warehousing of sets of IEHK's SUPPLEMENTRY.
- The pharmaceutical inventory management encompasses an ordering system, so that when a physician orders a drug, the order is instantly displayed in the pharmacy, and the pharmacist dispenses the appropriate drug from an incoming list of the same drug. The results of the dispensing process are reflected in the drug inventory count.
- Pharmacists can check the number of drugs in stock at any time, and can check the daily consumption of drugs and the total number of drugs in stock at any time.

**TOMBI Server on-site contains everything**  
 Program  
 Master data  
 Medical records  
 order data  
 translations data  
 etc...

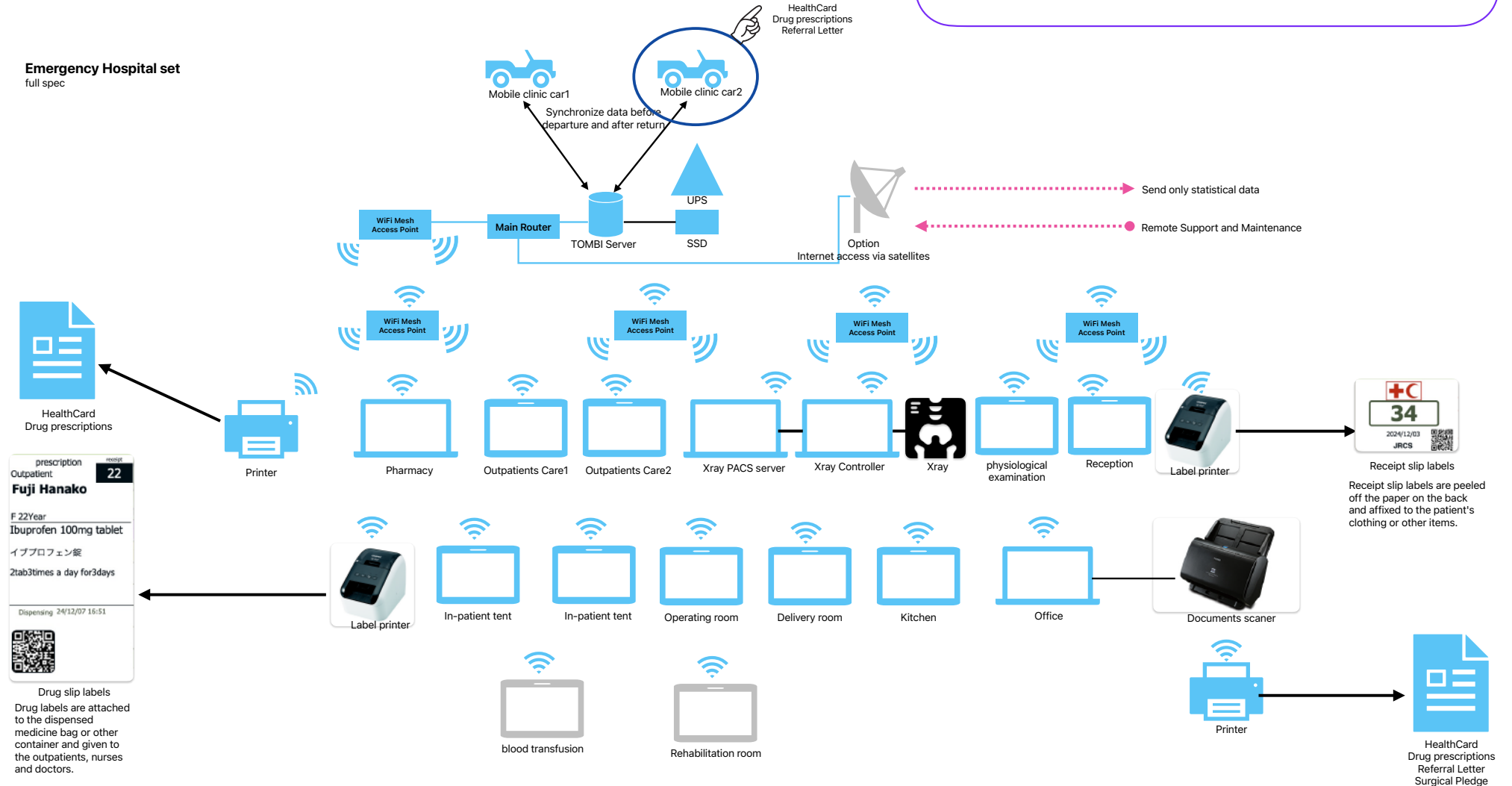
MID	GNID	Efficacy	GenericName	Unit	Formulation	In	Out	Stock	Adjustment	Narcot Cold ic Stareg
6	5	Cardiovascular	A	Acetylsalicylic acid	100mg tablet	200		200	tab	+ ☰
36	17	Cardiovascular	A	Amlodipine	5mg tablet	800		800	tab	+ ☰
45	19	Antibacterial	A	Amoxicillin	250mg tablet	60		60	tab	+ ☰
75	30	Nervous System	A	Atropine sulfate	0.5mg/mL 0.5mg ampoule	200		200	amp	+ ☰
84	32	Antibacterial	A	Azithromycin	250mg tablet	300		300	tab	+ ☰
127	52	Other Therapeutics	C	Calcium gluconate	100mg/mL 1g ampoule	2,000		2,000	amp	+ ☰
359	154	Diuretic	F	Furosemide	40mg tablet	200		200	tab	+ ☰
465	205	Hormone	L	Levothyroxine	50mcg tablet	200		200	tab	+ ☰
528	232	Antiemetic	M	Metoclopramide	5mg tablet	2,000		2,000	tab	+ ☰
580	254	Antibacterial	O	Ofloxacin	0.3% eye drops bottle	80		80	btl	+ ☰
611	265	Analgesic	P	Paracetamol	500mg tablet	800	0	800	tab	+ ☰
664	288	Corticosteroid	P	Prednisolone	5mg tablet	200		200	tab	+ ☰
672	293	Anesthetic	P	Propofol	10mg/mL 200mg ampoule	200	1	199	amp	+ ☰
792	352	Tetanus	T	Tetanus toxoid	0.5mL vial	200	1	199	vial	+ ☰

## TOMBI covers the smallest set for a mobile clinic up to a full-spec field hospital

- Because of TOMBI's advantage of having the server on the local network, TOMBI can handle small groups up to large environments, EH where users can operate the system in the same way as in a regular large hospital.
- If you would like to connect to the Internet for sending a statistical data to the headquarter, or for online support or maintenance, TOMBI is able to do so by connecting WAN port of the main router to the satellite Internet, for example.

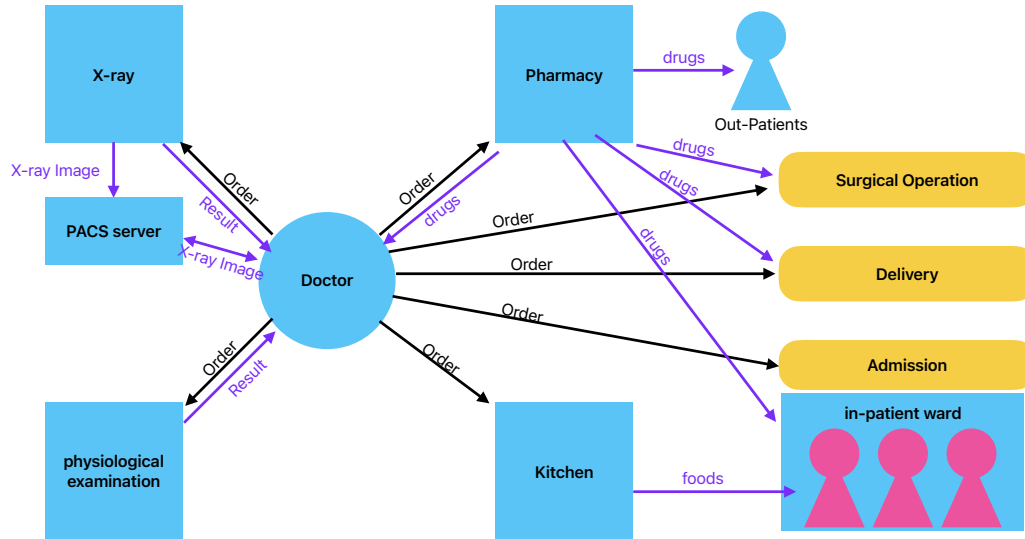


### Emergency Hospital set full spec



## TOMBI begins with an order from a doctor for each section and then responds to it.

- Because TOMBI shares data with staff in each section of the hospital through a local network, orders from doctors are the starting point, and results and drugs are returned in response to those orders.
- TOMBI is also linked to a PACS server that can share DICOM images; in the JRCS environment, TOMBI works with Fujifilm x-ray equipment to send order numbers, patient IDs, and imaging instructions to the x-ray equipment, and after imaging, the DICOM images are sent to a PACS server.

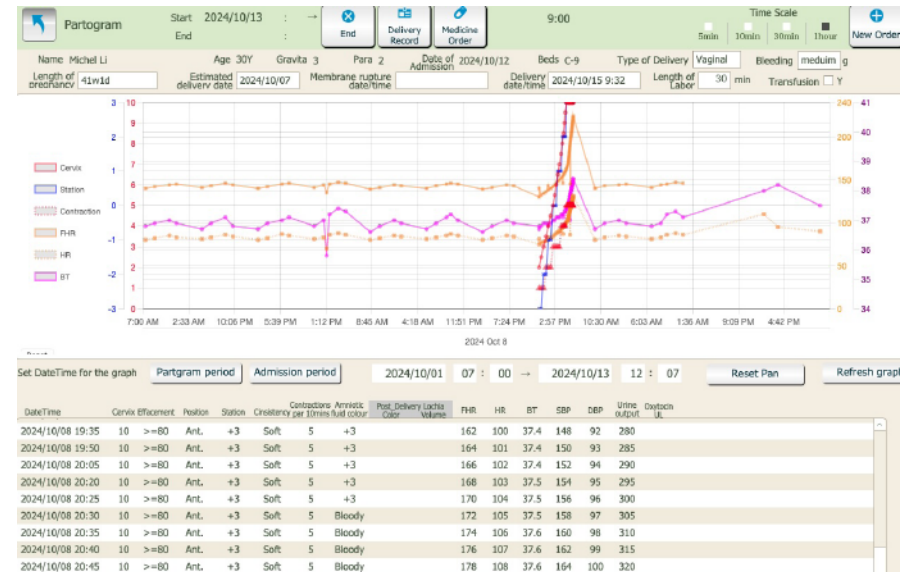
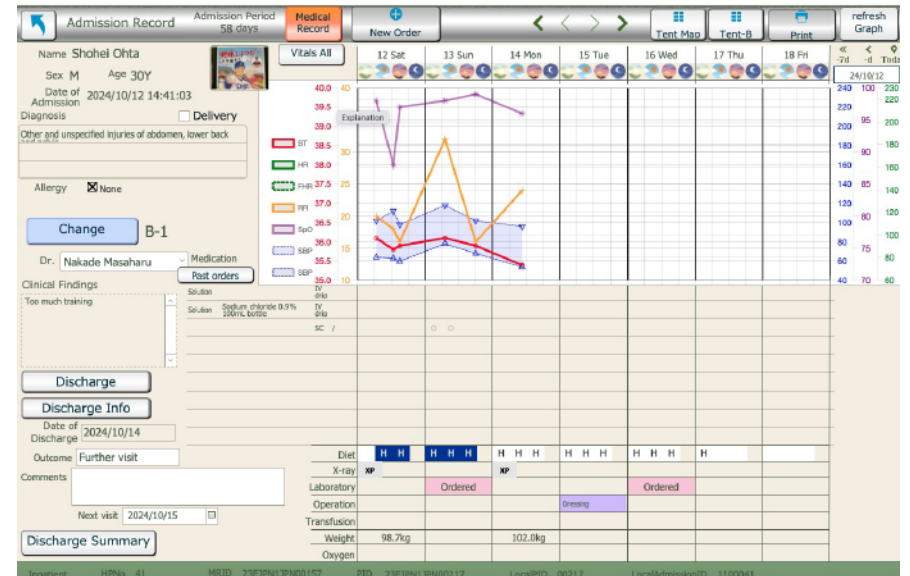


PACS server X-ray List view

Admission No.	Order No.	Order Date	Order Time	Order Status	Order Type	Order Description	Order Location	Order Status	Order Time	Order Status		
0002818626	02746202004008	98/78 y	02746202004008	Unnamed	CT	6.Thorax(A40)Auto	CT	3	2004/04/09 10:25	15	2	2023/09/19 18:19
23EKE...00123	23EKENJPN17			L-Thighap	CR	18	CR	1,001	2023/12/20 16:59	1	1	2023/12/20 16:40
23EKE...00123	23EKENJPN17			Headap	CR	17	CR	1,001	2023/12/20 16:08	1	1	2023/12/20 16:06

## TOMBI displays various data graphically.

- The hospitalization record displays daily vital data on a graph, as well as medication instructions and execution, and scheduled tests and surgeries for each patient, with details displayed by tapping on the item.
- In delivery, partograms are displayed based on measured data.



## TOMBI was designed to minimize field staff input.

- TOMBI uses an input method of selecting choices, with as little typing as possible, in consideration of entering data conveniently, quickly, accurately, and sufficiently at the disaster site.

## TOMBI is multi-language compatible.

- TOMBI is multi-language compatible, allowing users to select their own language for each terminal.
- TOMBI does not use Internet translation, but uses internal processing to support multiple languages.
- TOMBI currently supports English, French, Spanish, German, Danish, Russian, Ukrainian, Arabic and Japanese.
- TOMBI manages each option with a numerical INDEX. Thus, WHO and other aggregations can be done quickly and accurately.
- If TOMBI is connected to the Internet, such as before deploying on a mission, automatic translation by AI is also available.

## TOMBI can aggregate data and output the data to PDF, csv, Excel, etc.

- TOMBI is capable of various tabulations on a daily, weekly, and monthly basis and is already WHO EMT-MDS compliant.

## Weekly drug consumption

Weekly Total	Starting Date	2024/10/12	Show All	Show only									
Y/D	Generic Name/Content/Form	10/6	10/13	10/20	10/27	11/3	11/10	11/17	11/24	12/1	12/8	12/15	12/22
607	Paracetamol 330mg/ml, 500mg vial	2	94										
54	Amoxicillin 1000mg vial	3											
246	Dextrose 50% 20ml ampoule	4	4										
749	Sodium chloride 0.9% 100ml, bottle	37	19										
316	Fentanyl 0.1mg/2ml ampoule	1											
608	Paracetamol 120mg/5ml, 500ml, oral	1											
170	Chlorpheniramine 8mg tablet		12										
41	Amoxicillin 100mg/g powder		30										
44	Amoxicillin 250mg capsule		34										
147	Cefazolin 1000mg vial		6										
363	Geriatricin 10mg/ml, 20mg vial		1										
350	Furosemide 20mg/5ml, oral solution		1										
747	Sodium chloride 0.9% 1000ml, bottle		1	7		2							
750	Sodium chloride 0.9% 250ml, bottle		3										
404	Dibazepam 100mg tablet		18										
157	Chlorpheniramine 10mg/ml, 10mg		1										
137	Cefazolin 1000mg vial		2	2									
360	Gabapentin 400mg, 4% solution for		12										
752	Tetanus toxoid 0.5ml, vial		1										
804	Tizanidine 50mg/ml, 100mg ampoule		1	1									
611	Paracetamol 500mg tablet		27										

## Why has TOMBI used FileMaker as its development base?

- When TOMBI was first developed, there were no fixed specifications or blueprints, and we started with an extremely low budget and Dr. Nakade of Osaka Red Cross Hospital. Since then, we have repeatedly scrapped and built for the past 12 years.
- The only way to develop a platform under such development conditions was with FileMaker, which can be developed in low code.
- Since FileMaker's core security and its updates are guaranteed by Claris, a wholly owned Apple company, we can concentrate only on the development of the program, which greatly reduces the development cost and the time and cost of the security part after development.
- While TOMBI is still improving and advancing day by day, the cost of coding this from the language level would be enormous.
- We have yet to find another conceivable way to develop software such as this, for which demand is very limited.



TOMBI URL: <https://tombi.info/>  
 LunaPacket: <https://lunapacket.com/>  
 mail: [taniken@lunapacket.com](mailto:taniken@lunapacket.com)

TOMBI developed by Kenichiro Tani of LunaPacket and Dr.Masaharu Nakade since 2012.

**Now TOMBI needs someone's financial support for further progress and improvement.**