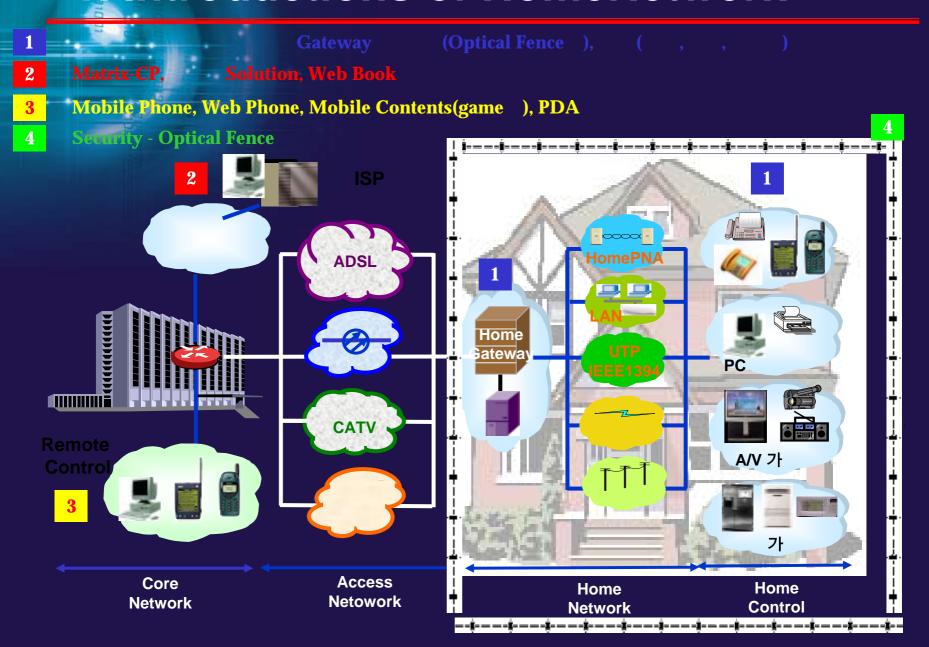


By iBridge Inc.

2003.09.20



1. Introductions of HomeNetwork



1. Introductions of HomeNetwork

1-1 Services

Service Aggregator

Service

Service

Service

Content

Content

Content

TELCO
or
CABLE
or
UTILITY
or
OTHER

DSL

or

CABLE

or

POWERLINE

or

WIRELESS

Services

- •Internet Access
- Shopping
- •Telephony
- •Audio/Video
- •Gaming
- •Home Security
- •Energy Mgmt
- Home Control
- Diagnostics
- •

Home Device

•Telephone

PHONELINE

or

POWERLINE

or

WIRELESS

- •Television
- •Utility Meter
- •Appliances
- •HVAC
- •PC/Printer
- •Net Appliance
- •Mobile Phone

1. Introductions of HomeNetwork

1-2 Issue Plug and Play Killer Application

2-1 Korea Telecom

"The Development & Test of Service Gateway for IMT-2000 Virtual Home & Office"



2-2 Samsung Electronics Corporation

"Development of Internet Appliance using LonWorks-based Power line Communication"

(Demonstrated Internet Appliance at LonWorld 2000 Exhibition)



Microwave Oven

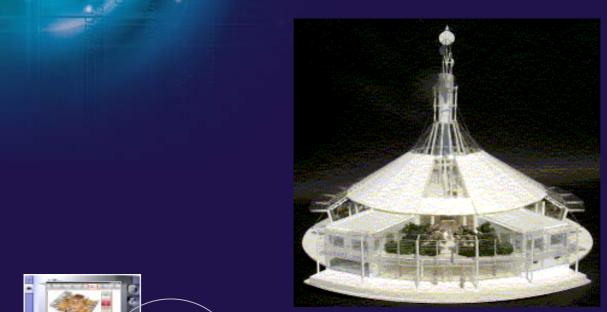


Washing Machine





2-3 The INTEGER Hong Kong Pavilion









2-4 CONNECTIONS 2001 Seminar (USA. SEATTLE)

(The International Home Networking And Gateway Showcase)



HBrain's SolyGate (RG)



2-5 Vanke E-Home Demo House (China. Shenzhen)



2-6 Samsung Electronics

"Development of Internet Appliance(Refrigerator) using LonWorks
-based Power line Communication" (2001.12)



2-7 Rinnai Korea

"Development of Internet Appliance(Gas Oven, Boiler) using LonWorks-based Power line Communication" (2002.3)





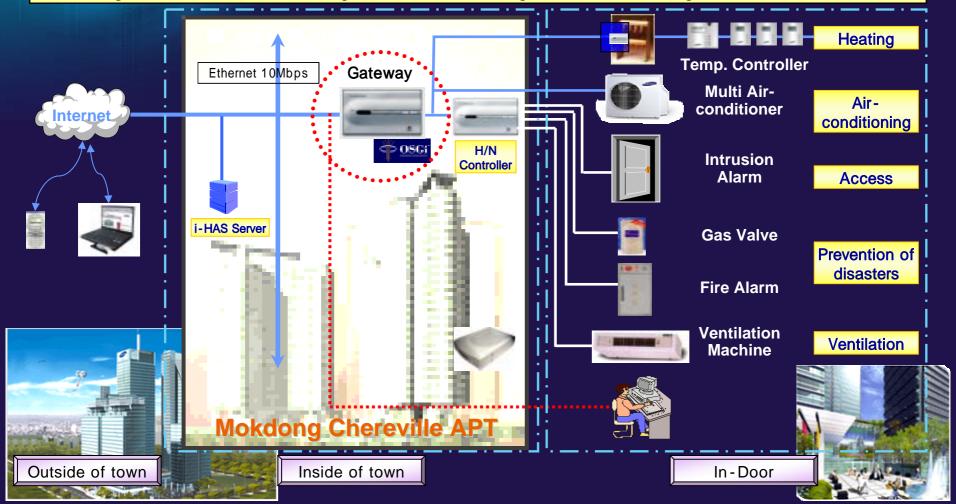


Gas Oven Range

Boiler

2-8 Samsung Heavy Industry Home Network System of Mokdong Chereville APT (2002. 3)

- Mokdong Chereville APT 1: a building with 39 stories above ground and 5 beneath ground level, 312 households.
- Mokdong Chereville APT 2: a building with 24 stories above ground and 5 beneath ground level, 170 households.

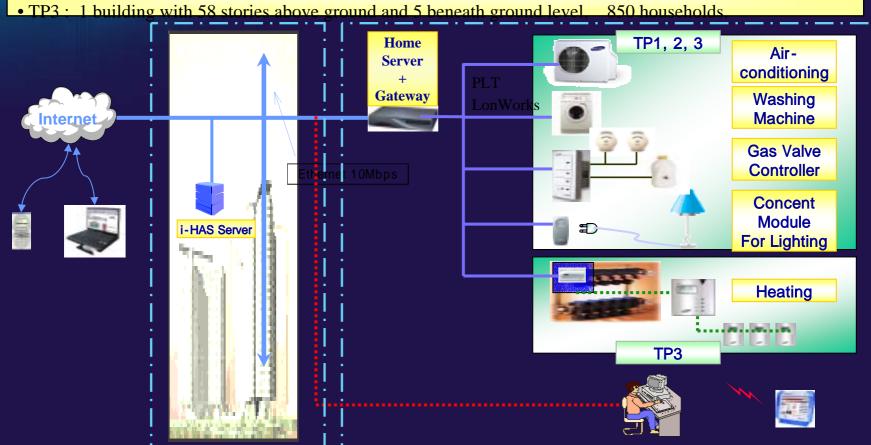


Outside of town

Inside of town

2-9 Samsung Heavy Industry Home Network System of Tower Palace APT (2003. 1)

- TP1: 4 building with 66 stories above ground and 5 beneath ground level, 1,499 households.
- TP2: 1 building with 62 stories above ground and 5 beneath ground level, 990 households.



In - Door

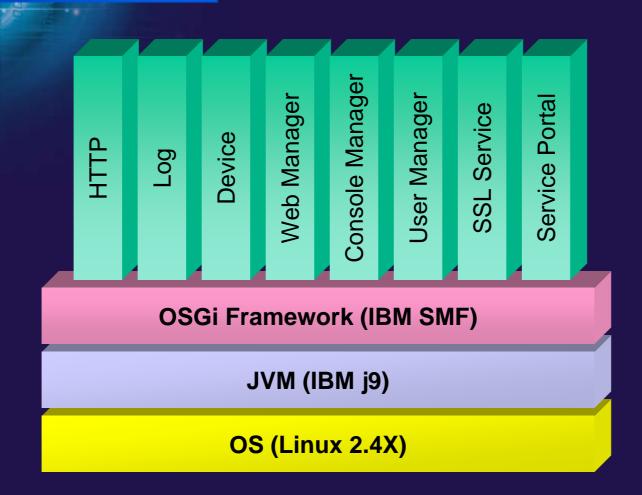
II. 3 Types of SolyGate (OSGi RG)

- 1. White SolyGate
- 2. Embedded SolyGate
- 3. Variation Type of SolyGate
- 4. Software



4. Software

4-1. Basic Structure



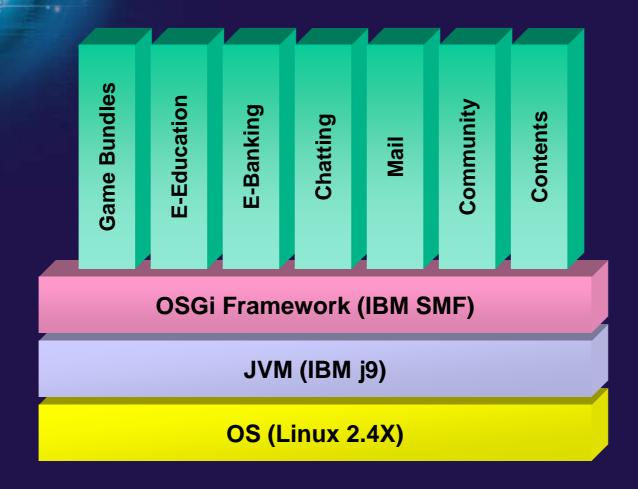
4. Software

4-2. Control Network (LonWorks)

onMark OSGI Device -eviton Lamp/Switch LonMark Functiona **Echelon LNS Base** -onMark SCP1 Access API onMark SNV formatters formatters **Profile** Hubbell Driver **OSGi Framework (IBM SMF)** JVM (IBM j9) OS (Linux 2.4X)

4. Software

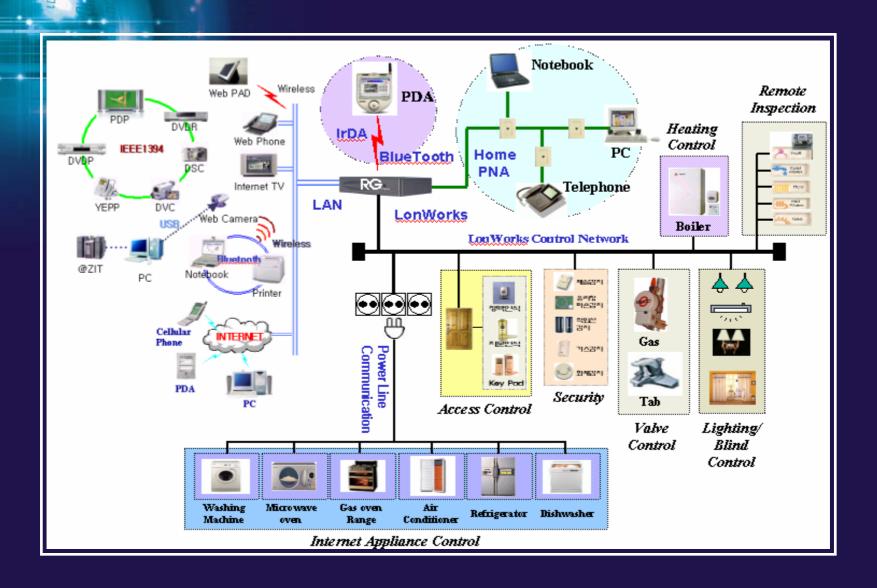
4-3. Cooperation of Contents Companies



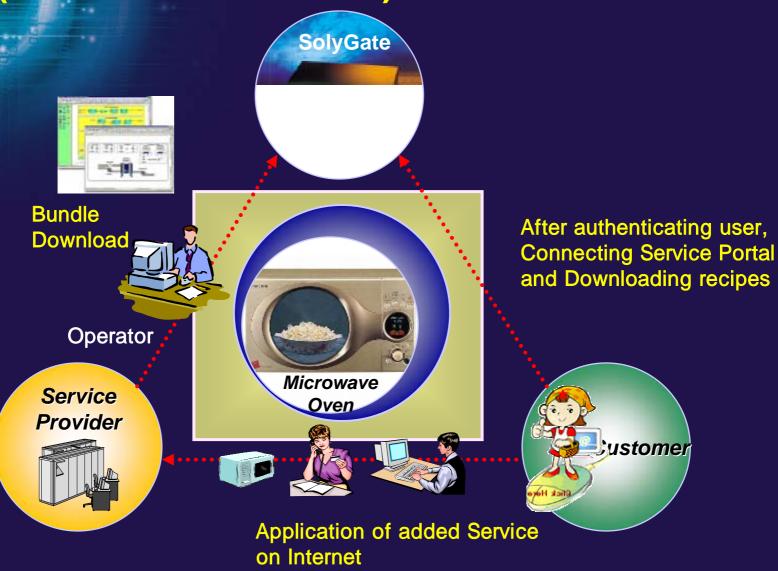
III. Services of OSGi Gateway

- 1. System Configuration
- 2. Device Installation
- 3. Example of Possible Services
- 4. Contents Provide
- 5. RMS (Remote Management System)

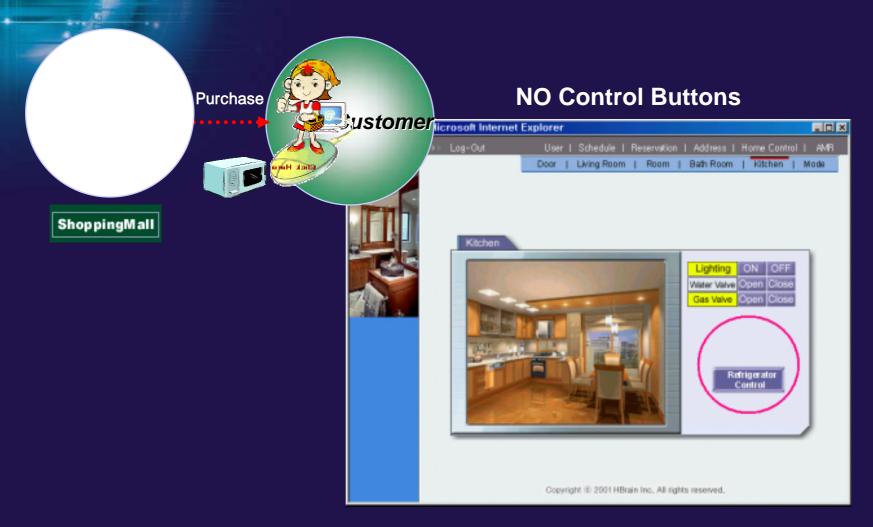
1. System Configuration



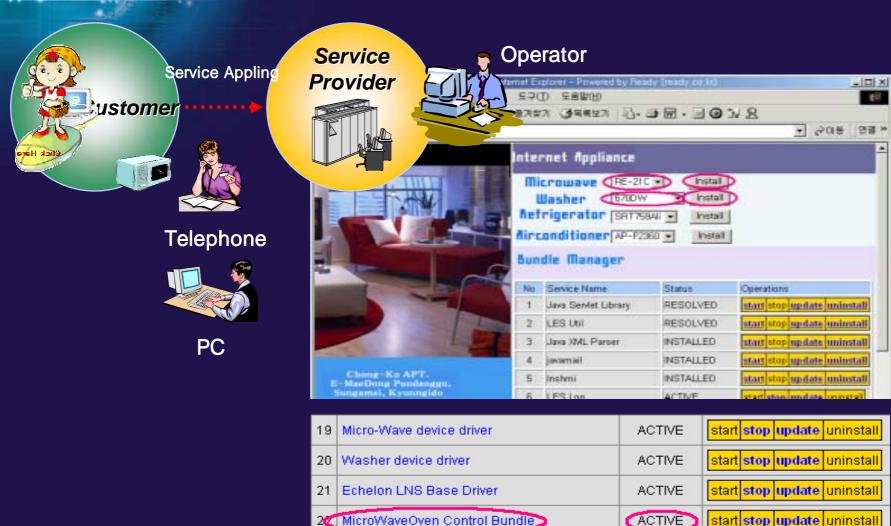
(Ex : Microwave Oven)



1) Installation in Home, After Purchasing Microwave Oven



2) When the customer applies for Microwave Service, the ISP's Operator downloads bundles for Microwave to SolyGate



4) Using Internet Microwave





3-1. Home Device Control



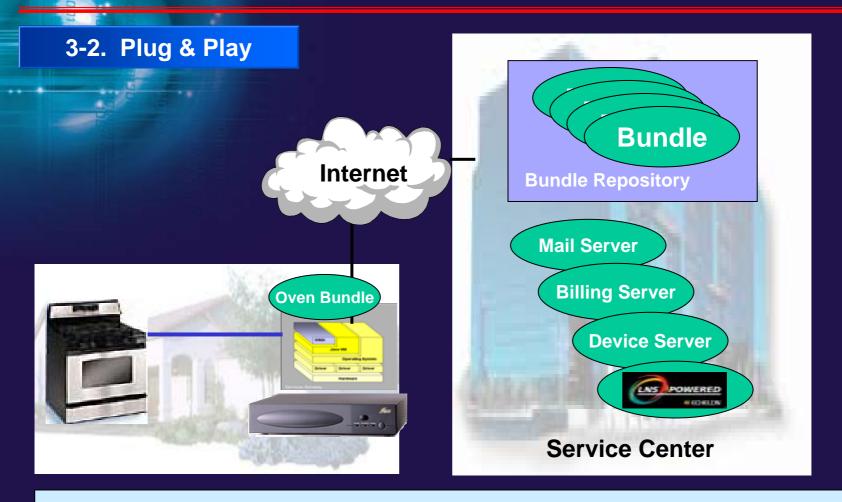


Web PAD



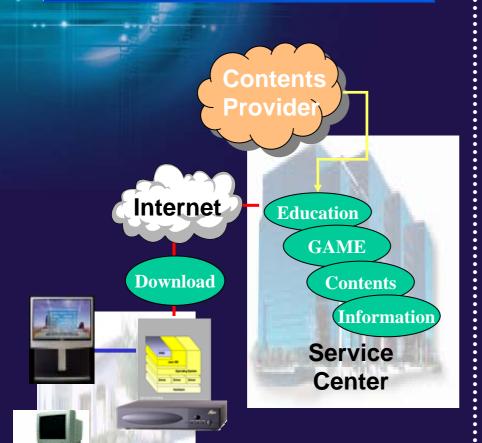
PDA





• If new devices are added within home, SolyGate automatically downloads new service bundle after finding the appropriate device bundle from service center.

3-3. Download / upload Service

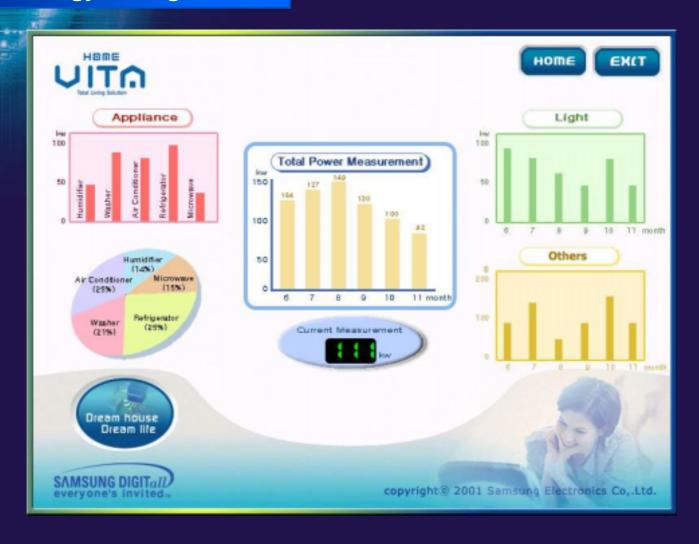


Download Service



Upload Service

3-4. Energy Management



3-5. AMR Service

Home







- Electric
- Gas
- Water

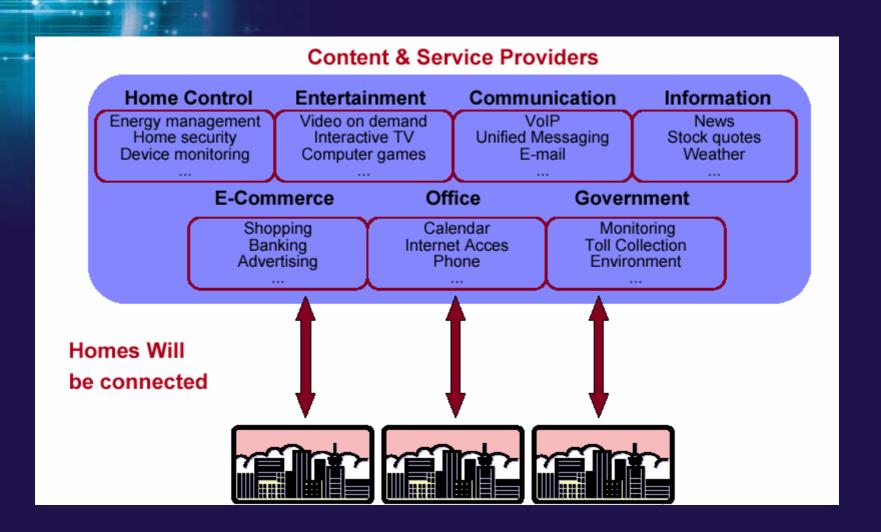
3-6. Addition Service

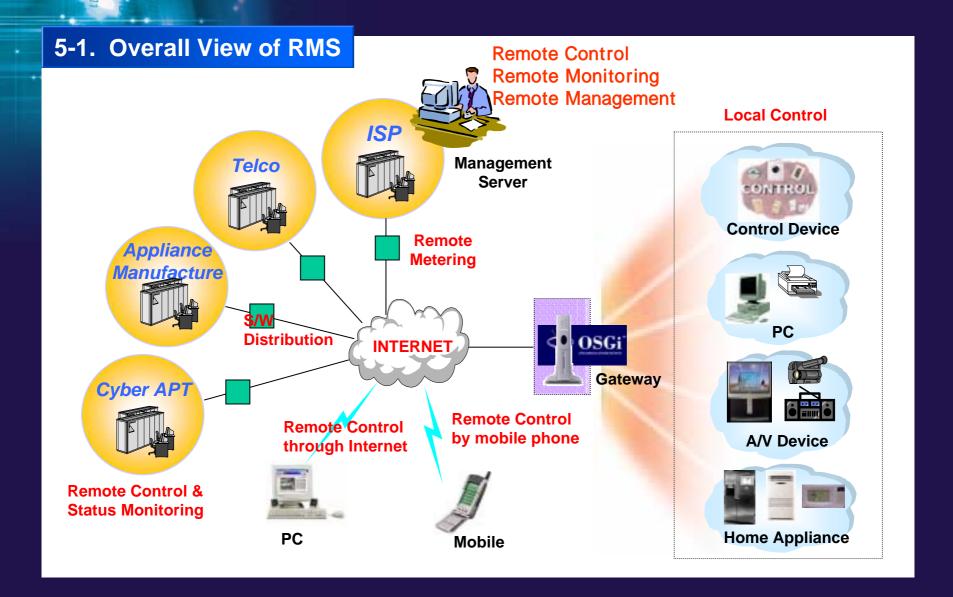
(ADSL, VOD, Network Game, AMR)





4. Contents Provider





5-2. Remote Management Solution

Function

Auto Installation

H/W Device & Appliance

Bundle Program

S/W Download

Remote metering

Plug & Play

Status Monitoring

Self Diagnosis

Remote Control

Remote Diagnosis

History Management

Version Management

Security Management

Performance Management

New S/W Service

Management

5-3. RMS of Integer House

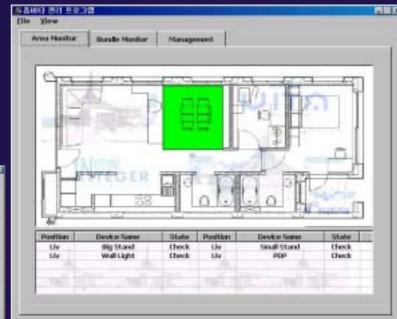


Integer House (Hong Kong)





Remote Management Through Internet









1) Zone Monitoring

- Device current status report by zone
- Error report and treatment description

2) Bundle status monitoring & control history and error Log

- Bundle status report : Resolved / Active
- control history and error log

3) Management Display

- Reboot control
- download new bundle
- update existing bundle



4) Error Reporting



error report by period (day/week/month/year)

5) Web Camera control

Web camera is controlled as well



ELECTRONICS