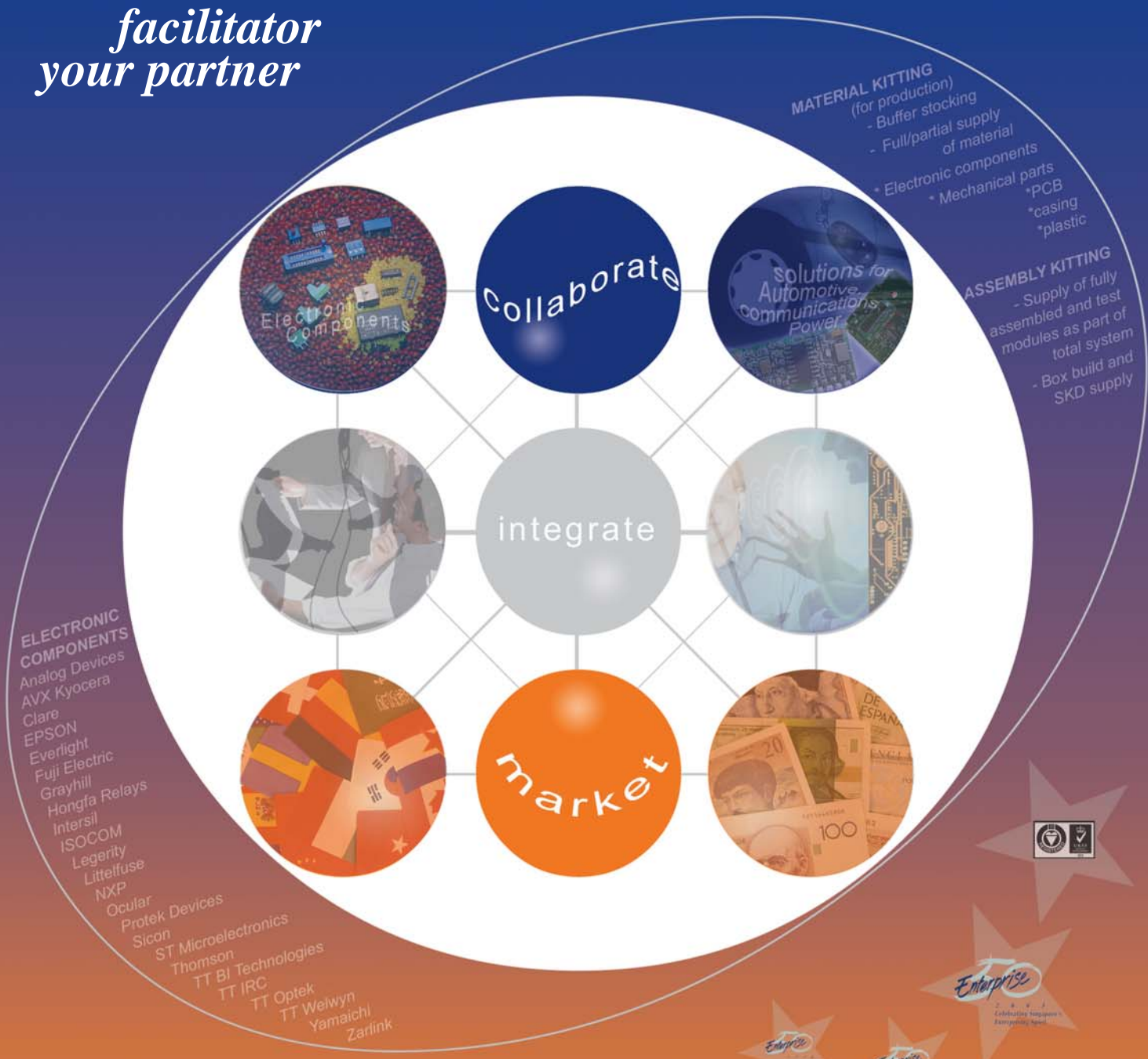




B.B.S. Electronics

*a distributor
facilitator
your partner*





.....as a distributor

represents over 20 brands of electronic components, communications and industrial devices, including wireless local loop equipment.

Since 1984, BBSE now operates 13 centres across 8 countries to reach researchers, designers and manufacturers of hi-tech equipment.

.....as a facilitator

streamlines buying processes with kitting services best suited to any business or manufacturing environment. Customer care teams from all 13 centres exercise different strategies suited to different customer portfolio. No material procurement list is too small or too big, too fragmented or too complicated, including one-to-one electronic data interchange (EDI) on stocking programmes such as VMI, JIT, SOI and more.

Experience gained and knowledge exchanged from being a facilitator between suppliers and customers, is channelled back to the manufacturers - components to equipment, as technical support and solutions - acting as their advisor for the maintenance, management, design and operation of the next generation devices.

Field application teams in China, India, the Middle East and Singapore network to keep a continuous exchange of application information from these emerging markets. Manufacturers leveraging on this available intelligence benefit from the tried and tested strategies.

.....as your partner

connects you across diversity and addresses differences across markets and people.

BBSE headquartered in global ready Singapore, is the platform for any supplier or customer looking for greater collaboration beyond short-term goals, but a reliable and trusted partner.

B.B.S. Holdings

is an investment holding company, now owns **BBS Electronics** and **BBS Access**, a wireless local loop systems and solutions developer of *DECLoop* and *DECSim*.

distributor
facilitator
your partner

SINGAPORE

Head Office
BBS Electronics Pte Ltd
12 Genting Road. Singapore 349474
Tel (65) 6559 8400 . Fax (65) 6748 8466

AUSTRALIA

BBS Electronics (Australia) Pty Ltd
Melbourne
Tel (61 3) 9542 1900 . Fax 9543 8291

CHINA

Singapore BBS Electronics Pte Ltd
Shanghai
Tel (86 21) 6249 0868 . Fax 6248 7425

INDIA

BBS Electronics International Pvt Ltd
Bangalore
Tel (91 80) 2530 6611/2 . Fax 2530 6610
Hyderabad
Tel (91 40) 6633 5402 . Fax 6633 5403
Mumbai
Tel (91 22) 2824 2374/5/6 . Fax 2825 8746
Pune
Tel (91 20) 2745 1681/2 . Fax 2745 1682
New Delhi
Tel (91 11) 2639 1185/6 . Fax 2632 4504

MIDDLE EAST

BBS Electronics Pte Ltd
Tel (987 11) 235 5501 . Fax 235 9559
Tel (98 21) 8855 2022~9 . Fax 8870 1866

MALAYSIA

BBS Electronics (M) Sdn Bhd
Penang
Tel (60 4) 658 5433 . Fax 658 7433

PHILIPPINES

BBS Electronics Pte Ltd
Manila
Tel (63 2) 772 1832/3 . Fax 772 1831

THAILAND

BBS Electronics Pte Ltd
Bangkok
Tel (66 2) 693 2896/7/8 . Fax 693 2899

Fact Sheet

12 Genting Road, Singapore 349474

Telephone: (65) 6559 8400 Telefax: (65) 6748 8466

E-mail: bbselectronics@bbsgroup.com.sg URL: www.bbs.com.sg

Company Registration Number:
198403403M

Year Established:
1984

Company Ownership:
Private Limited

Key Personnels:
Dr Behrouz Gholamrezaey
Chairman

Mr Sunny Arora
Chief Executive Officer

Mr Yee Yen Han
Chief Finance Officer

Core Business Description:
Distribution, JIT material and assembly kitting, concept-proof pilot production for R&D or field trial

Products/Services:
Electronic components

Brands:
Electronic Components
Analog Devices, AVX Kyocera, Clare, Epson, Everlight, Fuji Electric, Grayhill, HongFa, Intersil, Isocom, Legerity, Littelfuse, NXP, Ocular, Protek Devices, Sicon, STM, Thomson, TT BI Technologies, TT IRC, TT Optek, TT Welwyn, Yamaichi, Zarlink

Major Clients:
Original equipment manufacturers, Original design manufacturers, contract manufacturers, design houses, users of electronic components

Export Markets:
Asia Pacific
Confederation of Independent States
Europe
Middle East
US

Awards & Qualifications Received:

2003 - Enterprise 50, No. 2
2002 - Enterprise 50, No. 6
2001 - Enterprise 50, No. 9
2000 - Enterprise 50, No 44

2003 - ISO 9001:2000

Other Locations:

BBS Electronics (Australia) Pty Ltd
Australia - Melbourne

BBS Electronics Pte Ltd
China - Shanghai

BBS Electronics International Pvt Ltd
India - Bangalore, Hyderabad, Mumbai, New Delhi, Pune

BBS Electronics Pte Ltd
Middle East

BBS Electronics (M) Sdn Bhd
Malaysia - Penang

BBS Electronics Pte Ltd
Philippines - Manila

BBS Electronics Pte Ltd
Thailand - Bangkok

B.B.S. Electronics



ANALOG DEVICES

www.analog.com

- Amplifiers and Comparators
- Analog Microcontrollers
- Analog to Digital Converters
- Digital to Analog Converters
- Embedded Processing & DSP
- MEMS and Sensors

AVX/KYOCERA

www.avxcorp.com

- Capacitors
- Circuit Protection
- Connectors
- Couplers
- Filters
- Inductors
- Integrated Passive Components
- Military Products
- Module Devices
- Piezoelectric Acoustic Generators
- Resistive Products
- Timing Devices

BI technologies

www.bitechnologies.com

- Microcircuits and Modules
- Passive Networks & Discrete Components
- Precision Potentiometers
- Screened Substrates
- Sensors
- Switches
- Turns Counting Dials



CLARE

www.clare.com

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- Data Access Arrangement Modules
- High-speed Line Interface Products
- Line Cards Access Switch Products
- MOSFETs
- Multifunction Products
- Optically Isolated Solid State Relays
- Optocouplers
- Phone Line Supervision
- Power Products
- Power Solid State Relays
- Silicon DAA, Phone Line Interface
- Solar Cell Products
- Tone Signaling Products



www.everlight.com

- Communication Product Group
- Infrared Product Group
- Intergrate Circuit Application
- Visible Product Group

EPSON

www.epson.com.sg

- 4/8/32 Bit Microcomputer
- Application Guide
- ARM core 32-bit Microcomputers
- Clock ICs
- Gate/Embedded Arrays
- High Performance 4-bit Microcomputers
- Interface ICs
- LCD Controllers/Drivers
- MCU Tools and Technical Information
- Standard Cells
- Other Drivers
- Peripherals
- Power Supply ICs
- Static RAMs



www.fujielectric.com

- Bipolar Transistors (discretes and modules)
- Diodes, Fast Recovery, Schottky, and high-voltage diodes
- IGBT (discretes and modules)
- IPM (intelligent power module)
- MOSFET and Smart MOSFET
- Power Management ICs, Sensor ICs and Driver ICs (CMOS)
- Surge Absorbers



www.grayhill.com

- Controls Products
- Front Panels
- Switches
- Wireless Products



www.hongfa.com

- Relays



www.intersil.com

- Amplifier/Buffers
- Communications
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- Digital
- Display Products
- Interface ICs
- Military/Space
- Optical Storage
- Power Management
- Special Analog
- Switch/MUXes/Crosspoints
- Timing Circuits
- Video
- Voltage Reference



www.ircctt.com

- General Purpose
- High Voltage
- Networks
- Power Wirewound
- Special Purpose Components
- Surface Mount



www.isocom.com

- Optocouplers
- Optoisolators
- Optoswitches
- Optosensors
- Mosfet Relays



www.legerity.com

- Line Drivers
- Voice Interface Products



www.littelfuse.com

- Fuses
- Resettable PTCs
- Overvoltage Products



www.nxp.com

- Analog and mixed-signal device
- Audio/Video
- Bus devices
- Clocks & Watches
- Data Communications
- Discretes
- Display drivers
- Identification & Security
- Logic
- Microcontrollers
- Peripherals
- Power & Power management
- Wired communication
- Wireless communication

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- LED & CCFL Backlight



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- Fiber optics
- Magnetic sensors
- Optoelectronics
- Visible LEDs



www.protekdevices.com

- EMI Filter TVS Arrays
- Flip Chips TVS Arrays
- Low/ Standard Capacitance TVS Arrays
- Modules & Components
- Steering Diode Arrays
- Steering Diode TVS Arrays
- Thyristors



www.siconsemi.com

- High Performance Analog to Digital Converters
- 8 Bits Single Channel
- 8 Bits Three Channels
- 10 Bits Single Channel
- 10 Bits Three Channels



www.st.com

- Discretes
- Linear
- Logic
- Microcontrollers
- Smart Card Products
- Voltage Regulators



www.thomson.net

- Digital STB NIMs for Satellite, Cable and Terrestrial
- Remote controls



www.welwyn-tt.co.uk

- Microelectronic Solutions
- Resistors



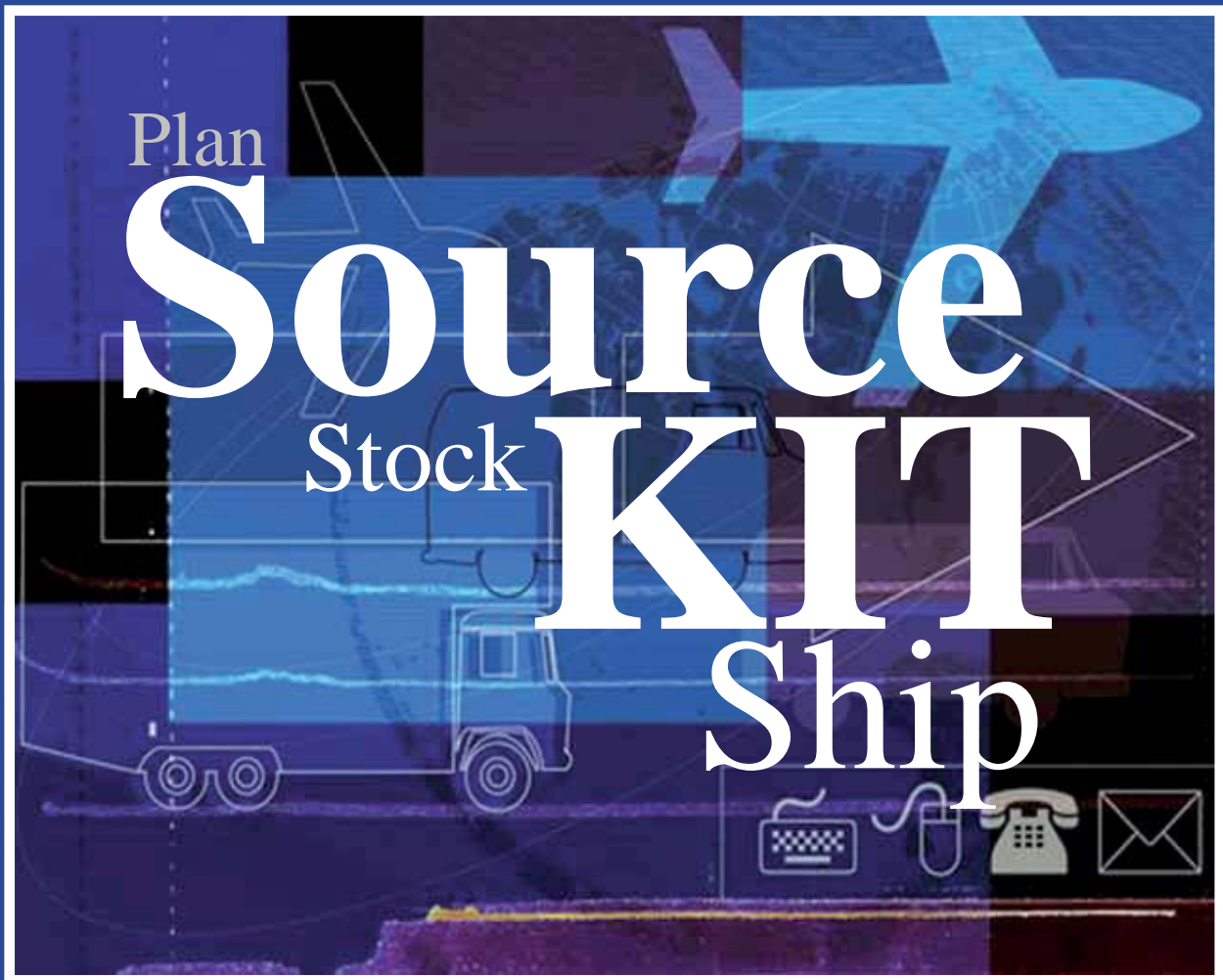
www.yamaichi.com

- Cables and FPC
- Connectors
- Production Sockets
- Test & Burn-in
- Y-Con Industrial Series



www.zarlink.com

- Analog
- Receivers for Digital TV
- Voice and Data
- Wireless

A large graphic with a dark blue background. It features a white wireframe of a truck on the left and a white wireframe of an airplane on the right. The text 'Plan' is in the top left, 'Stock' is in the middle left, and 'Ship' is in the bottom right. The word 'Source' is in a large, white, serif font across the top, and 'KIT' is in a very large, white, serif font across the middle. At the bottom right, there are four small white icons: a keyboard, a mouse, a telephone, and an envelope.

Plan
Source
Stock **KIT**
Ship

MATERIAL KITTING

Just-in-time Material Kitting

(for production)

- buffer stocking
- full/partial supply of material
 - *electronic components
 - *mechanical parts
 - *PCB
 - *casing
 - *plastic

Assembly Kitting

- supply of fully assembled and test modules as part of total system
 - box build and SKD supply

Turn-key Manufacturing

- concept-proof pilot production for R&D or field trial
- outsource production for customers Finance Director

Who benefit from BBS Electronics' material kitting service?

- Manufacturers with a continuous production run, or with low to medium production needs
- Sub-contractors with a broad spectrum or fragmented material procurement list.
- Manufacturers with other operational focus such as R&D and marketing instead of production, warehousing and logistic.

What are the benefits?

- Cost reduction in your procurement process.
- Timely delivery of stable electronic component supply for production cost reduction in inventories.
- Assist to migrate obsolete, short supply or expensive electronic components to reduce material cost.
- Stable supply to feed production lines.

How reliable is this service?

- BBSE is headquartered in Singapore, a country of sound economic and financial fundamentals, conducive regulatory and business environment, strategic location, skilled and educated workforce, excellent telecommunications and infrastructure.
- BBSE is equipped with ready infrastructure:
 - electronic resource planning system
 - 13,000 square feet warehouse
 - 23,000 types of electronic components
- BBSE is experienced in EDI with customers on stocking programmes such as VMI, JIT, SOI, etc
- BBSE is ready to support your requirements with customer service teams across Australia, China, India, the Middle East, Malaysia, Philippines, Singapore and Thailand
- BBSE is accredited as one of Singapore's top 50 most enterprising companies for 4 consecutive years since 2000.

supplies
**electronic components
for
Industries and Solutions**



Automotive

- Tyre Pressure Monitoring System (TPMS)
- RF Remote Control



Communications

- **Wireless**
WLL • VSAT • GSM
- **Wired**
- DLC • ADSL
- SDH
- Switches



Power

- Energy Meter



SUPPORT and SOLUTIONS

Automotive

- RF Remote Control Tyre
- Pressure Monitoring System (TPMS)

Telecommunication

- Wireless
 - *WLL
 - *VSAT
 - *GSM

Power

- Energy meter

What kind technical support and solutions does BBS Electronics provide?

- Core application concept demonstrations
- Component level functionality verifications
- Long-term silicon technology roadmap advice
- Construction of reference circuits or software development tools
- Turnkey design (on selective basis)
- General technical assistance and problem-solving in application of component

Who benefit from BBS Electronics' technical support and solutions services?

- OEM customers
- R&D centres
- Design consultants

What are the benefits?

- Shortening of R&D cycle
- Earlier time-to-market for your product
- Astute investment on R&D tools
- Systems against obsolescence of component technologies
- Choosing the right key components with long-term roadmap to avoid costly re-designs
- Repeated learning curves and opportunity costs
- Commercial advantage to your product by deploying the latest, leading edge performance components embedded in our design at a competitive cost level



B.B.S. at a Glance

WHO ARE WE?		
B.B.S. Access incorporated in 1999 Manufacturer <ul style="list-style-type: none"> • Telecommunication infrastructure systems based on Wireless Local Loop technology • PABX • Energy meter 	B.B.S. Electronics incorporated in 1984 Distributor Electronic components	B.B.S. Telecommunications incorporated in 1993 Research and Development <ul style="list-style-type: none"> • Communication systems • Digital Electronic meters
WHOM DO WE SERVE?		
Telecommunication companies Internet service providers Private operators of voice and data	Original equipment manufacturers Contract equipment manufacturers Users of electronic components Design houses	Homes and SOHOs Small- and medium-sized offices Enterprises Utility companies (private and public)
WHERE ARE WE LOCATED?		
Singapore (Head Office) Middle East	Singapore (Head Office) Australia China India Middle East Malaysia Philippines Thailand	Singapore (Head Office)
WHAT DO WE PROVIDE?		
Wireless telecommunication infrastructure systems and solutions <i>DECLoop DECSim</i> <i>IPMax</i> PABX <i>IPS, micro-Plexus, macro-Plexus</i> AMR Solution and Energy Meter <i>Metator Metator Solo Metator Tango</i>	Electronic Components <i>Analog Devices AVX Kyocera Clare Epson Everlight Fuji Electric Grayhill HongFa Intersil Isocom Legerity Littelfuse NXP Ocular Protek Devices Sicon STM Thomson TT BI Technologies TT IRC TT Optek TT Welwyn Yamaichi Zarlink</i>	AMR Solution Energy Meter PABX (TDM, IP, Hybrid)
WHAT FACILITATING SERVICES DO WE PROVIDE?		
Network planning for DECT based WLL equipment	Component/Material kitting Field, project & application design-in support/consultation	ODM/OEM services on industry standard and /customised solutions in small to medium telecom applications, switches, last-mile delivery, end-end smart power metering
WHAT BACKEND INFRASTRUCTURE DO WE HAVE?		
Production labs Warehouse	Online information network system Warehouse	Research & development labs