1. The e-Era

Four or five years ago the term “electronic commerce” (EC) came into fashion, and since then EC has become well established as a general term. However, it can be said that in contrast to the popularity of the term, until 1998 the EC market did not show signs of really starting to grow. However, from last year, the situation has changed drastically and today even in Japan articles about Internet-related business seem to “decorate” the front page, economic pages, and financial pages of newspapers, almost on a daily basis.

As background to this, the “net population” has increased rapidly, as evidenced by the explosive growth in use of portable telephones, especially i-mode, and the fact that PS2 (Play Station 2) broke the 1 million unit mark, shortly after its introduction. These devices provide Internet access in addition to the conventional structure of connecting via an Internet service provider using a browser running on a PC. Thanks to this growth in the net population, it has been forecasted that in the year 2003, E-commerce B-to-C transactions will reach approx. 3.16 trillion yen and B-to-B transactions will reach approx. 68.4 trillion yen (according to a March, 1999 announcement of the Ministry of International Trade and Industry.)

From the conventional Internet which mainly concerned information flows related to economic and social activities, a complete “net society” has been formed. It integrates the settlements occurring in commercial transactions (money flows) and the physical distribution (manufactured goods flow) which uses convenience stores and home delivery.

2. e-Solutions

On April 1, 2000, Oki Electronics formally converted to the “company system” of enterprise structuring. The System Solution Company which I am in charge of is comprised of three business units: “e-solutions,” “customer contact solutions,” and “solutions for society infrastructure.”

Our e-solutions business is developing businesses centered on “network application service,” the third “service bridge” of Oki Network Solutions for a Global Society is Oki’s business vision.

Our e-solutions business is comprised of the Business Solutions Division which provides e-Business service and solutions and the Enterprise Solutions Division which provides ERP/SCM/PDM solutions.

We are developing E-commerce, the theme of this special issue, mainly through this Business Solutions Division. At Oki Electric, we have provided outstanding technology and products for service delivery channels that handle
information flow and settlements (money flow) which are the core of economic and social activity in the “real society.” In relation to settlements, as the result of research and development, we have provided a “Branch Office System” and an “ATM System” which support the core of settlement business in financial institutions. Likewise, in the field of delivery channels, we now provide a multimedia KIOSK, “CP21,” and our “Ticket Reservation System” for passenger transportation.

From the dawn of the E-commerce era, recognizing that these technologies and products can be effectively applied to the “net society,” we have pursued research and development in the fields of settlements and service delivery channels as they relate to E-commerce.

As a result of this work, we developed net settlement services and solutions related to net channels. As a result, we have succeeded in developing Internet settlement services, which will become part of the social infrastructure, creating business schemes, and introducing them to service businesses.

As an example of EC which utilizes real-type delivery channels, we have developed and are delivering real settlement solutions such as MMK solutions, IC cards, etc.

In addition, we are conducting research and development related to M.R.O (Maintenance, Repair and Operation) which supports the procurement of component parts and consumables in the B-to-B field (which, in terms of scale of commercial transactions in the E-commerce arena, will greatly surpass B-to-C) and we now provide three solutions: N-to-N M.R.O solutions, Infomerce M.R.O solutions, and Web EDI solutions.

Other research and development is being pursued in the field of information security, dealing with subjects such as unauthorized access detection and digital watermarks, which we are delivering as security solutions.

### 3. The Direction of Future Research and Development

In addition to the research and development we have done thus far, which centered on settlements and channels for the “net society,” we plan to put efforts into the following three areas:

1. Research related to the merging of money flow and information flow in the net society and merchandise flow in the “real society,”
2. Research on net settlements in the B-to-B field, and
3. Application of our research results to the G-to-B and G-to-C fields.

For some time, we have been continuing to develop and improve the Number 1 IT solution in the field of settlement services involving cash. In the future, we will pursue research on solutions which merge real EC and Internet EC, with the field of settlements in the net society as the nucleus of this work.