Environmental Considerations in Transportation

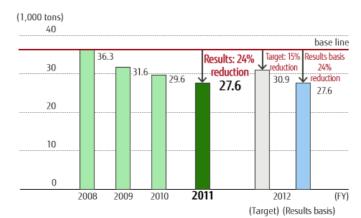
We are promoting the rationalization and streamlining of transportation while keeping the whole global supply chain in mind. We are also working to reduce the CO2 emissions associated with transportation.

Promoting Global Green Logistics Activity

We are working on Green Logistics Activities which strive to reduce CO2 emissions associated with transportation by coordination between the distribution divisions of all Group companies and cooperation between manufacturing and sales divisions. Furthermore, we take advantage of collaborations with our business partners and strive to reduce the environmental burden associated with distribution across the whole supply chain.

Our goal was to reduce CO2 emissions in domestic distribution by 15% compared to FY 2008 by the end of FY 2012 as proposed in the Fujitsu Group Environmental Protection Program (Stage VI). However, by expanding modal shifts and reducing the number of trucks, we were able to achieve a 24% reduction (this includes fluctuations in amounts distributed and the effects of the March 2011 earthquake) compared to FY 2008 in FY 2011. Our CO2 reduction efforts will continue in FY 2012, with sights set on a 24% reduction relative to FY 2008 based on the latest distribution volume data.

We have also started to measure the CO2 emissions in international transportation and the transportation CO2 emissions at overseas sites, and thus are promoting green distribution activities globally.



Trends in CO₂ Emissions from Domestic Transportation in Japan (Fujitsu Group)

Expanding Modal Shifts

The Fujitsu Group is working to reduce CO2 emissions through an ongoing modal shift. This entails effectively utilizing rail transport and switching from air to surface transport in everything from procurement of parts and materials to product distribution.

Fujitsu acquired Eco Rail Mark certification in March 2011, and we will continue to vigorously promote the use of rail transport in FY 2012.



In FY 2011, we further promoted expanded use of rail transport by switching from truck to rail for shipments to KDDI Corp., in addition to shipments for NTT DOCOMO, INC.

Reducing Truck Numbers

In November 2011 we began revising our domestic transport network for personal computers for individual customers and consolidated routes with Tokyo as the hub. This has allowed us to transport computers for individuals together with personal computers for corporate customers on main transport lines from our factories to Tokyo, increasing truck load rates and reducing truck numbers.

Innovations in Maintenance Logistics Service Infrastructure

Fujitsu is working to improve customer service and promote environmentally sensitive green logistics through innovations in maintenance parts and service infrastructure. As part of these efforts, we are relocating parts centers that manage maintenance parts nationwide. Moving parts centers closer to customers and field customer engineers (CEs) has enabled us to shorten the time required to deliver parts to customers.

In addition, we are also promoting an approach in which field CEs go to parts centers and carry back maintenance parts with them, which also serves to reduce the delivery time from parts center to customer while cutting CO2 emissions.

International Transport Initiatives

The Fujitsu Group began measuring CO2 emissions from international transport in FY 2008, and is now actively working to reduce emission levels.

Our activities include modal shifts (shifting from air to ocean transport), shortening transport distances, raising container packing rates, and reducing air transport frequency.

Fujitsu Ten Ltd. uses a loading method that effectively utilizes container space by standardizing previously irregular sizes of outer packaging for international transport between Group companies and for procured materials. This initiative was then extended to shipments originating with overseas suppliers, which has served to further reduce the number of containers used.



Loading a container

Initiatives at Group Companies

At major Group companies in Europe, North America and APAC, we have begun measuring CO2 emissions from international and regional transport.

Fujitsu Technology Solutions (FTS) is promoting green logistics activities by measuring CO2 emissions related to the transport and taking steps to reduce them.

Shorter Product Transport Distances

FTS is reducing transportation distances by evaluating and conducting direct shipments wherever and whenever possible. For computer displays, typical examples of reduced distances are China to the Middle East, China to Turkey and China to South Africa. For PRIMERGY servers, we were able to route shipments directly from Japan to the APAC region instead of routing them from Japan to Germany and then to APAC. In Germany, we established direct shipments from the factory in Augsburg to the customer without passing through any distribution centers.

Promoting Modal Shifts

We are shifting transport volumes from air freight to sea or rail transportation. Specifically, we were able to increase the sea freight share from Asia to Europe (shift from air to sea) for components used in our FTS factory. In addition, we increased the transport by rail of computer systems from Germany to Mongolia (shift from air to rail).

Packaging and Container Loading Improvements

Efforts to optimize transport volumes by improving package shapes and packing methods are resulting in a higher degree of capacity utilization. Examples for products and routes are mobile base units shipped by sea freight from China to Germany, and a reduction in CTO LIFEBOOK packaging for air freight from Japan to Germany.

Consolidating Shipments for More Efficient Transport

Consolidation of several smaller consignments into one bundled shipment, either by aligning order volume or collecting smaller shipments from different suppliers, results in fullcontainer loads. This approach was used for the sea freight route from China to Germany, with the bundling of several small component consignments into one container load.

Reducing the Use of Cardboard and other Packaging Materials

To reduce the whole environmental burden of the distribution process, we are promoting $3R^{*}_{1}$ efforts for packaging products and parts.

Reducing the Use of Cardboard and other Packaging Materials

The Fujitsu Group has been replacing cardboard and other materials used to package products with reusable alternatives. This has reduced the use of cardboard and other cushioning packaging materials.

*1 3R:

Reduce, Reuse, and Recycle

*2 GreenEcoBelt:

Jointly developed by DHL Supply Chain Ltd. and EcoBiz Co., Ltd.



GreenEcoBelt*2