



SYSTIMAX® Solutions

“The ability to manage our data centers efficiently is as important to us as high performance. We need a means to ensure connection changes are completed as quickly as possible without errors. And we must know instantly if there are any unplanned changes to network connections. The iPatch Solution gives us all these things and it can be easily linked in with the software we use for overall management of our data centers.”

Claude Fiori

T-Systems' Head of Global Delivery Unit
Infrastructure and Availability Services -
Americas and Africa Region

CommScope Solutions Delivers on the Regional Standard for T-Systems Data Centers in North America

SYSTIMAX® GigaSPEED® X10D, InstaPATCH®, LazrSPEED®, TeraSPEED® and iPatch® Solutions chosen for Houston center that is the model for installations worldwide

Global system supplier optimizes installation, performance and management of data center infrastructures. Global supply and support from CommScope ensures a consistent standard of excellence for T-Systems' corporate and government customers in all parts of the world.

T-Systems generated revenues of around EUR 8.8 billion in 2009, providing integrated solutions for the networked future of business and society. Using its own global infrastructure of data centers and networks, the company operates information and communications technology systems for multinational corporations and public sector institutions worldwide.

By winning outsourcing deals from major corporations, T-Systems has taken on the operation of many customer data centers using a variety of network infrastructures. In a move to establish uniform standards for connectivity at all new and upgraded data centers, the company turned to CommScope.

The model for the new generation of T-Systems data centers was constructed at the company's site in Houston, Texas. Specifications, design and build processes for this installation, once proven, will be replicated in future data centers wherever they are built. CommScope will assist in developing and implementing efficient data center solutions that ensure a consistent experience, regardless of geography. It will also help standardize operations, apply global standards and serve as project managers, leveraging its worldwide resources, industry-leading solutions and local experience.

At the time of planning the Houston center, T-Systems was already familiar with the quality and reliability of the SYSTIMAX portfolio through its legacy data centers as well as installations at data centers it had taken over from customers. But, before choosing these solutions for this important project, it had to be convinced that CommScope and its partners could provide truly global supply, support and installation services.

"It is a major business advantage for us to be able to build data centers to the same specifications and standards anywhere in the world," said Claude Fiori, T-Systems' Head of Global Delivery Unit Infrastructure and Availability Services - Americas and Africa Region. "It lets us guarantee the same performance and reliability to customers wherever they are located - and we can also make important cost savings.

"When all our data centers are similar, we can have common training programs for engineers and operators everywhere - and have the flexibility to move staff easily from one location to another. To achieve this, our infrastructure suppliers must have the same global technical standards and capability - with CommScope, we are confident that they do."

CommScope has a dedicated Global Customer Solutions team that coordinates an international organization with 11,500 people working in 50 different languages across more than 130 countries. Its manufacturing facilities are located in Australasia, Europe and the USA, and the world renowned CommScope labs have technical resources on every continent. The company also has a global network of 1,500 BusinessPartners certified to install and support its solutions to the same high standard worldwide. These BusinessPartners are backed by distribution centers and distribution partners on five continents.

Before it could become a T-Systems' preferred supplier, CommScope first had to meet all the technical and schedule requirements of the Houston project. This 500m² data center had to combine copper with fiber connections that fully conform to international connectivity standards for data transmission at 10, 40 and 100 Gb/s. The requirement also included an intelligent infrastructure management solution that could be integrated with T-Systems' data center management software.

The 10G copper requirement was met with the SYSTIMAX GigaSPEED X10D Solution. This exceeds the full specifications of the Category 6A/Class E_A cabling standards, delivering 10Gb/s data transmission from end to end over a 100m, four-connector link, even under adverse conditions. To satisfy the data center's fiber requirements, CommScope provided the SYSTIMAX TeraSPEED single mode and LazrSPEED multimode fiber solutions

The TeraSPEED Solution conforms to the ITU-T G.652.C standard. It operates over the entire wavelength range from 1280 nm to 1625 nm without the high attenuation around 1400 nm that is found in other single mode fibers. This increases its usable wavelength range by more than 50%.

LazrSPEED laser optimised multimode fiber also delivers industry leading performance, comfortably exceeding the OM3 fiber standard. This enables support for 10G connections over distances up to 300 metres without need for expensive electronics.

To minimise data center management costs and ensure network security, T-Systems used the SYSTIMAX iPatch intelligent infrastructure solution. This monitors copper and fiber connections in real-time, giving managers a clear, up-to-the-second view of the network physical layer. It also alerts them immediately of any changes being made at this level.

"The ability to manage our data centers efficiently is as important to us as high performance," said Claude Fiori. "We need a means to ensure connection changes are completed as quickly as possible without errors. And we must know instantly if there are any unplanned changes to network connections. The iPatch Solution gives us all these things and it can be easily linked in with the software we use for overall management of our data centers."

Delivery schedules for the Houston center were challenging. The time allowed from design to finished installation of the network cabling infrastructure was just three weeks. The final specification and bill of material was delivered on 21 May, 2010, orders were placed on 26 May and installation was fully completed on the 15 June.

To achieve this, CommScope Services worked closely with T-Systems to optimize network design. Then, at the installation stage, CommScope's Houston-based business partner, Electralink, had a team that reached as many as 20 engineers and technicians on-site 24/7.

In total, the team installed 1,656 duplex LazrSPEED fibers in 138 trunk connections together with 360 Duplex TeraSPEED single mode fibers in 30 trunk connections. More than 3,200 GigaSPEED X10D copper connections were installed in 270 trunks supporting 4,000 ports in 85 cabinets.

Management of this physical layer infrastructure using the iPatch solutions will provide time savings whenever connections are changed. As well as maintaining an up-to-the-minute connectivity map, it allows managers to raise change orders and deliver them to site technicians electronically. Displays at the patch panels also show step-by-step instructions on the required connection changes.

A big bonus of using the iPatch Solution is the ability to produce connectivity audits very quickly and at low cost. Audits for external customers, proving how many servers and services are connected, can easily cost \$100,000 when completed by conventional means. The iPatch Solution can reduce this by more than 95 percent.

Commenting on the project, Markus Recker of CommScope Global Customer Solutions said: "International systems and services companies need advanced infrastructure solutions such as the iPatch Solution - and they need suppliers that can be relied on to install and support these worldwide. We can meet this requirement with worldwide capabilities that match those of our international customers. CommScope's global presence and world-leading technology gives a major advantage in an increasingly globalized systems and services sector. We have high level technical resources and skills on the ground in every region around the globe. Also our people have the specific knowledge needed to ensure that global solutions meet local as well as international needs.

"The Houston project is the first step in creating what could become a global standard for T-Systems' data centers. The aim is to deliver benefits both to T-Systems, when it builds and operates the centers, and its customers when they use the data center services."



www.commscope.com

Visit our Web site or contact your local CommScope representative for more information.

© 2011 CommScope, Inc. All rights reserved.
All trademarks identified by ® or ™ are registered trademarks or trademarks, respectively, of CommScope, Inc.
This document is for planning purposes only and is not intended to modify or supplement any specifications or warranties relating to CommScope products or services.

CA-D66 04/11