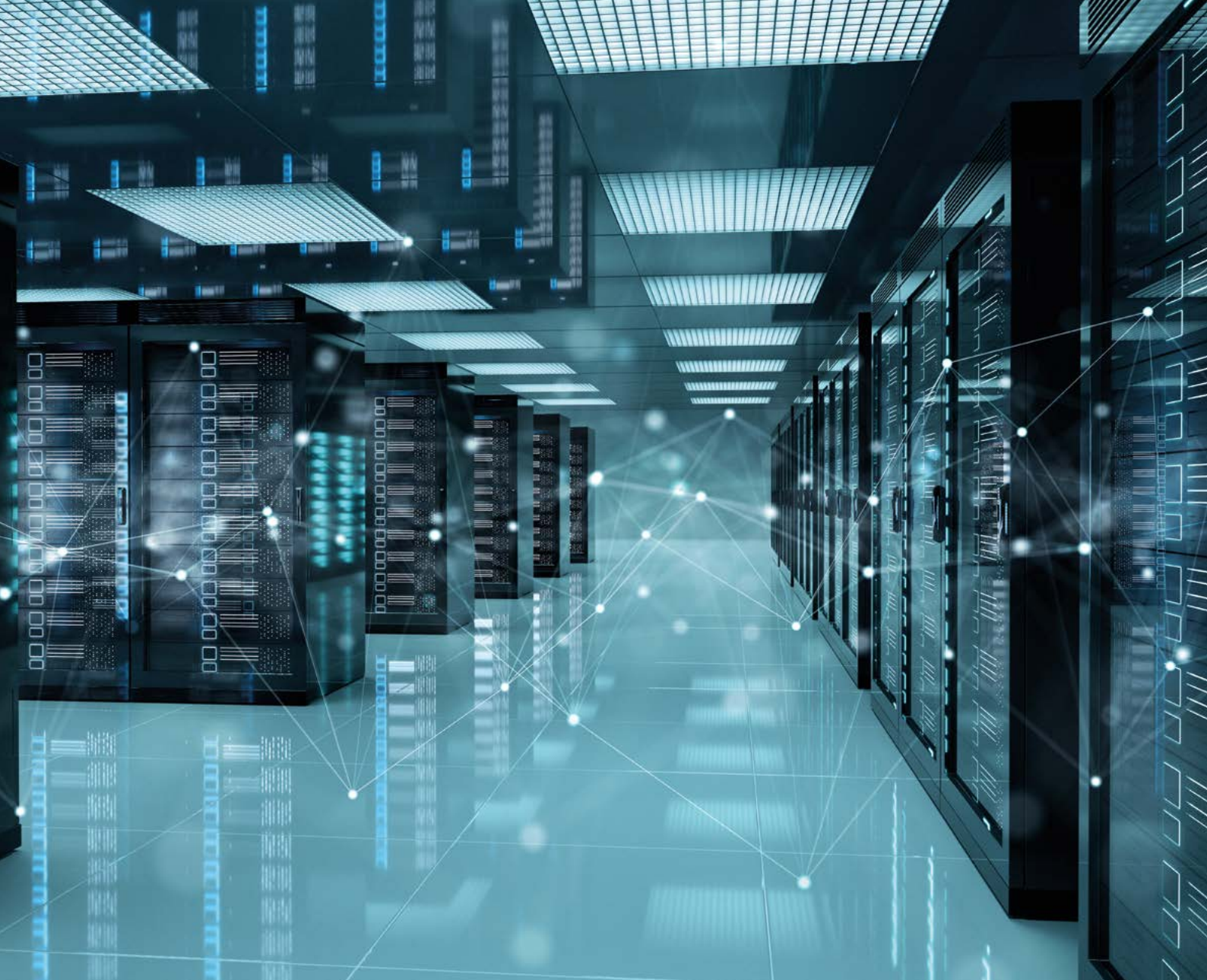


The background of the entire page is a photograph of server racks in a data center, viewed from a low angle looking up. Overlaid on this is a complex, glowing blue network diagram with numerous nodes and connecting lines, suggesting a global or interconnected infrastructure. The overall color palette is dominated by blues and greys, with some yellow-green highlights in the text.

THE FUTURE OF DATA CENTER INFRASTRUCTURE MANAGEMENT

**A DATA CENTER'S GUIDE FOR MANAGING
HYBRID RESOURCES**



IN THIS WHITE PAPER

The pandemic has heightened the need for digital transformation and is accelerating its mainstream adoption to support remote workforces, increased bandwidth, IoT, and virtualization. To ensure success in the aftermath of COVID-19 and remain competitive in a digital world, businesses must also understand how infrastructure management is evolving. In this white paper, we'll discuss why today's modern data centers need hybrid digital infrastructure management for greater visibility into digital infrastructure and to support increased mobility.

CONTENTS

How to Meet Modern Data Center Needs in a Post-Pandemic World	3
Strategic Solutions for the Hybrid Digital Infrastructure	4
Best Practices for Selecting and Applying a HDIM Tool	5
1. Cable Management Evolving into Connectivity Management	5
2. Digital Twin	7
3. Single Pane of Glass for Capacity Management	8
4. Service-Driven Data Center Operations	9
HDIM and Data Centers	10
About FNT	12

How to Meet Modern Data Center Needs in a Post-Pandemic World

The coronavirus pandemic has had a tremendous impact on businesses around the globe. As lockdowns and stay-at-home orders required millions of people to work from home, the ability to support a remote workforce played a major role in a company's ability to adapt. Unfortunately, in many cases, IT management was not optimized to support mass remote access to the technologies and tools that workers needed in order to perform their jobs.

While some organizations may have been in the process of digital transformation to support virtualization, the majority were not where they needed to be when the world went into lockdown. Many enterprises lacked the agility needed to react quickly to the rapid increase in remote connections due to poor capacity management and insufficient documentation. Consequently, remote working put an enormous amount of stress on networks that did not have the bandwidth to handle such a sudden increase in data volume.

COVID-19 has highlighted just how critical it is for businesses to be able to manage infrastructure, tools, and processes remotely and how important it is for infrastructure to be virtualized and digitized.

“COVID-19 has highlighted how critical it is to be able to manage infrastructure remotely.”

To gain a better understanding of how infrastructure can support widespread remote work, let's take a closer look at how the management of data centers, cable networks, IT assets, and edge sites is evolving.

DIGITAL TRANSFORMATION INCREASES COMPLEXITY

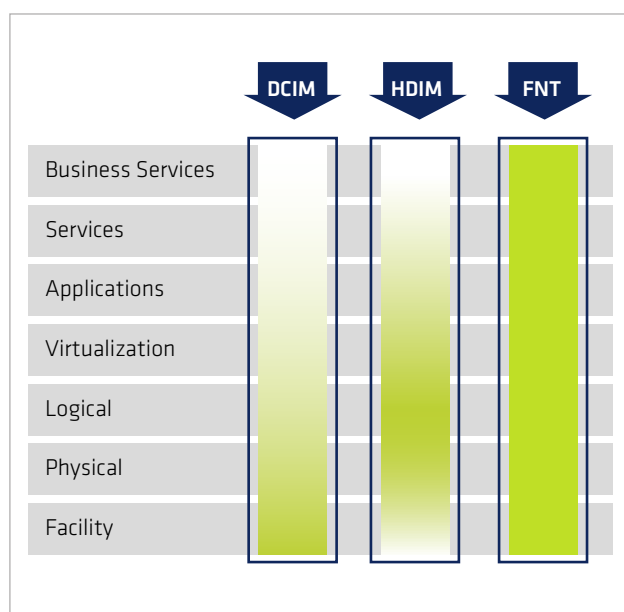
Traditionally, data center infrastructure management (DCIM) was sufficient for providing a holistic view of a data center's performance to ensure that energy, equipment, and floor space were used as efficiently as possible. However, managing modern data centers is much more complex due to digital transformation.

Today's organizations have a hybrid digital infrastructure consisting of both physical and virtual assets and functions, with physical and logical resources, connections, and dependencies. While a part of the infrastructure is on premise, a part is also in the cloud. Though some assets and resources reside within the data center, more and more are extended to telco and IT. Conversely, many resources not typically part of the data center have migrated there. Telco resources are a good example of this. As they become virtualized and no longer part of the physical communications network, they by default are moved into the data center. Either way you look at it, managing today's hybrid digital infrastructure cannot be done with traditional DCIM. Modern data centers need hybrid digital infrastructure management (HDIM).

“It's important to note that this is not simply the “next generation” of DCIM. They are entirely different. Where DCIM is focusing on space, power, and cooling, HDIM needs to include everything digital and the network.”

For example, when you think of the IT stack, or the “layers” from location and physical assets to logical and virtual that make up the technology environment for your organization, there is a clear delineation between what DCIM typically addresses as compared to what HDIM focuses on. DCIM typically starts at the bottom, or the physical layer, and loses functionality as you work your way up. HDIM, on the other hand, starts in the middle of the stack with “virtual” or “digital” as the main focus and extends out in both directions.

Businesses need solutions that encompass all layers to manage their hybrid digital infrastructure most effectively.



DCIM vs. HDIM



Strategic Solutions for the Hybrid Digital Infrastructure

Although HDIM is relatively a new buzzword gaining traction today, solutions that support hybrid network infrastructures have been around for many years. These solutions enable organizations to record, document, and manage complex and heterogeneous IT, telecommunications, and data center infrastructures from the physical level all the way to business services.

In order to remotely monitor geographically distributed IT resources, IT departments need to evaluate, manage, and optimize the entire infrastructure from the central data center to individual edge locations. This includes the exact location of all edge locations and their connection to the main data center, including the building infrastructure (power, cooling, floor space), the IT infrastructure (networks, servers, storage), connectivity (physical cabling in-

frastructure and logical circuits/bandwidth), and services (software, applications). It's also crucial to have a detailed overview of the current situation in order to understand the effects of planned changes before making them.

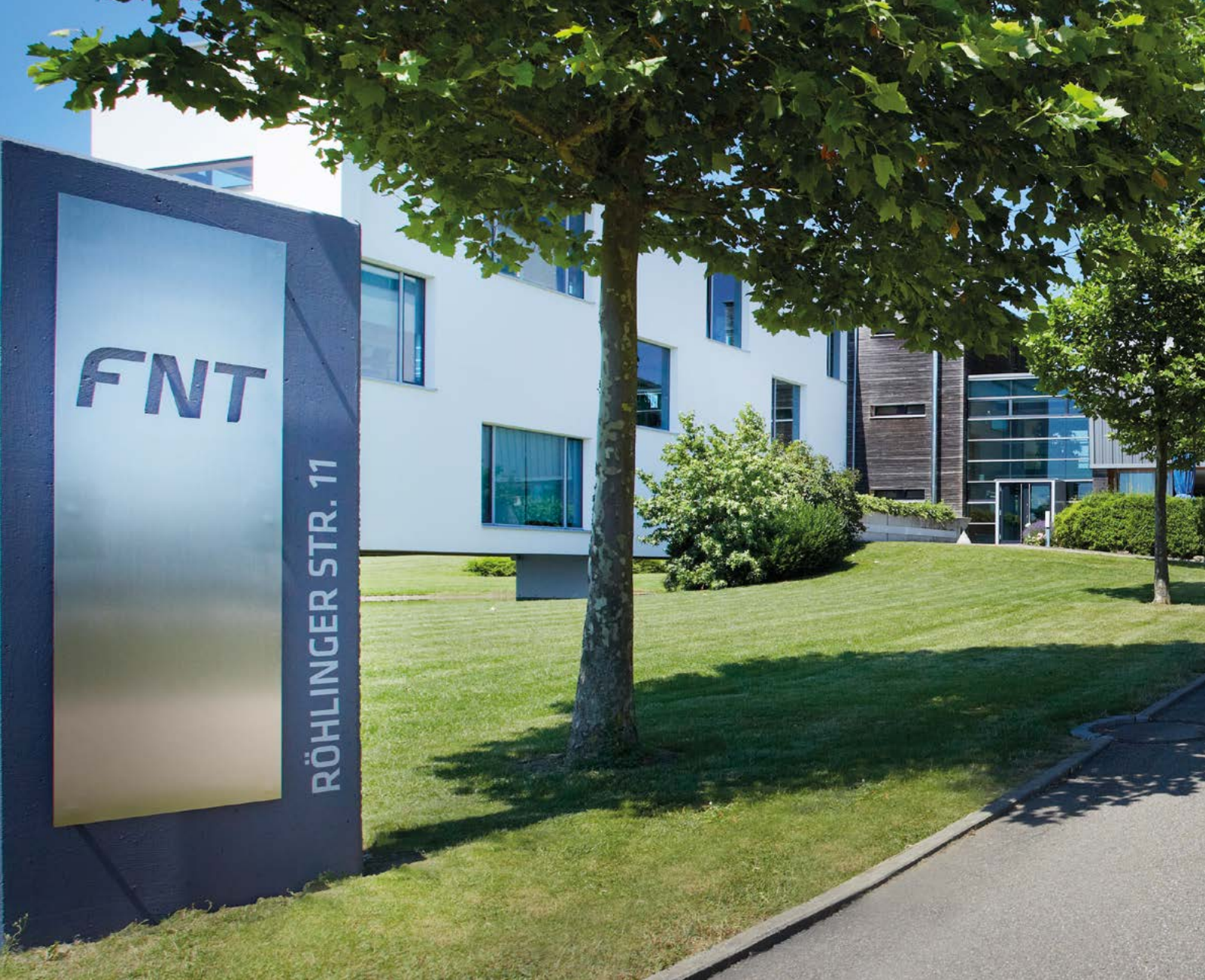
Insight into all physical and virtual assets and their dependencies, manufacturer-independent and neutral, can only be achieved through unified resource management with a uniform data model. HDIM starts with an integrated inventory of all physical and virtual assets, and logical connections and dependencies, contained within a single repository that is accessible to all users throughout the organization. This data is the foundation for managing the hybrid infrastructure core.

Learn more about the Future of Data Center Infrastructure Management

If you would like to learn more about the Future of Data Center Infrastructure Management visit our website and download the full version of the white paper.

**Download
the full version**

Now



About FNT

FNT is a leading provider of software solutions for the integrated management of telecommunications, IT and data center infrastructure. FNT's solutions are cloud ready and can be used worldwide as an OSS/IT management application for communications service providers, enterprises, and government organizations. Over 500 companies and public authorities rely on FNT to plan, document and manage their passive and active physical, logical and virtual IT, telecommunications, and data center infrastructures, from the physical level to business services. FNT's unified resource management capabilities store this information in a vendor-agnostic uniform data model that builds a central system of record of a hybrid

infrastructure. Whatever mixture of traditional on-premise IT and private, managed and public clouds an organization uses, the single source of information about all network assets that FNT provides is the key to gaining a clear understanding of overall utilization, capacities and asset status for more efficient planning, service assurance and fulfillment processes.

FNT is headquartered in Germany and has offices in several locations in Germany as well as in New York, London, Singapore, and Timisoara. FNT offers its software in numerous countries through partnerships with market-leading IT service providers and system integrators.

© Copyright (C) FNT GmbH, 2023. All rights reserved. The content of this document is subject to copyright law. Changes, abridgments, and additions require the prior written consent of FNT GmbH, Ellwangen, Germany. Reproduction is only permitted provided that this copyright notice is retained on the reproduced document. Any publication or translation requires the prior written consent of FNT GmbH, Ellwangen, Germany.