



FNT

// simplify complexity

HOW AIRPORTS CAN BETTER MANAGE THEIR **CABLE INFRASTRUCTURE**

CASE STUDIES FROM AIRPORTS WORLDWIDE

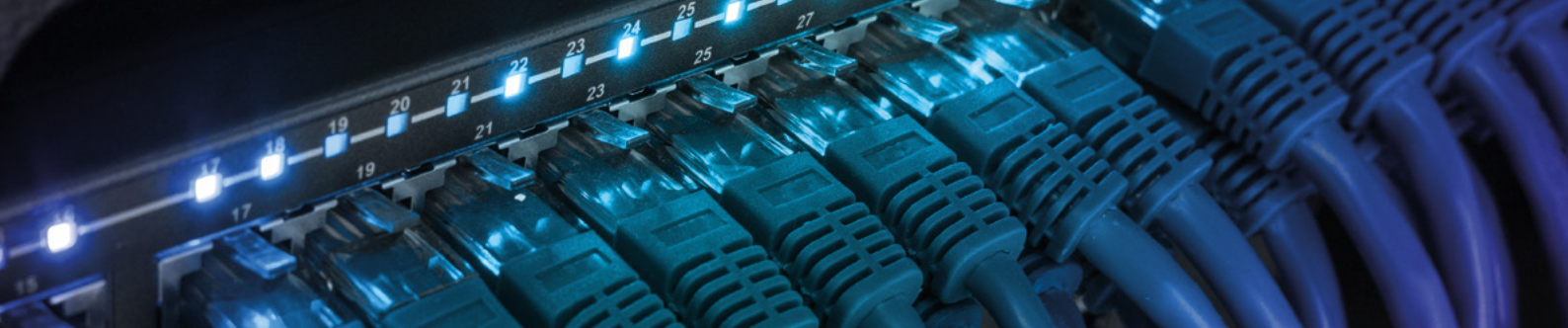


IN THIS WHITE PAPER

Digital transformation of the aviation sector is forcing aircraft manufacturers, airlines, and airports to act. The latter in particular often find themselves grappling with an IT infrastructure that fails to meet modern requirements in terms of transparency, agility, and efficiency. Cable management is crucial here: it's far more than just a functional necessity with a database of visualized assets. Efficient monitoring of critical resources is a prerequisite for resolving technical faults with minimum disruption, leveraging the full potential of IT infrastructure, and seizing business opportunities as they arise.

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The Lowest Common Denominator in IT Infrastructure

The best reference for airport digitization is Microsoft Flight Simulator 2020 – it covers all the world's 37,000 airports, right down to simulated windsocks. The data for the world maps alone would fill around 20,000 Blu-ray discs. It's no wonder that the last major release of this software was some 14 years ago. That's the kind of time it takes to construct a major airport.

Building a new airport or upgrading an existing one is a highly complex matter, and in both cases IT is one of the areas most critical to success. Today's digital passengers are a demanding bunch: they want real-time information on a range of channels covering their flight, retail and dining options, navigating the building, and booking parking in advance. Uncertainty and delay need to be reduced to an absolute minimum. End-to-end digitization of the traveler experience from the website through to boarding means that traditional airport IT systems are now critical installations. Flight systems are obviously vital, but IT resources are also increasingly important for generating revenue streams in terminals and parking garages.

CABLES – PROBLEM OR OPPORTUNITY?

It's not just new business opportunities arising from digitization of buildings, aircraft, and travelers that necessitate effective IT infrastructure management. Consider a recent storm at a London airport that resulted in failure of the display boards and check-in systems. Travelers were warned via posters on the monitors: "Do not rely on the information on these screens." Flights had to be canceled and chaos ensued. The technical problems lasted for several hours and normal service was not resumed until late at night. Outages like this are not unusual and they damage the reputation of any airport operator.

The lowest common denominator in IT infrastructure is the humble cable, whether made of copper, silicon, or polymer. It is estimated that the cables at Frankfurt Airport would stretch eight times around the world. Importantly, cables also provide the interface between the individual IT silos at an airport. They make it possible to bridge the gap between systems, enabling operators to deliver the speed and flexibility their business demands.

However, the more data you have, the more cable you need, and the more complex the system becomes. Technical advances are also rapidly evolving: software-designed networks and cloud computing, together with hybrid environments, are highlighting the shortcomings of legacy structures. The desire to implement new IT operating models is a further driver of change. Without specialist modular management applications that can be adapted to different requirements, airports will quickly reach their limits. The solution also has to be flexible, easy to integrate into the existing IT environment, stable, and scalable – ideally straight out of the box and in the cloud.

In this White Paper, we present the FNT solutions used by five airports around the world. The software meets the differing needs of each operator – although airports globally all face the same challenges when it comes to digital transformation and passenger safety.

Eight benefits of a state-of-the-art cable management solution

- ✓ **Complete transparency** into all physical and logical IT and telecoms networks and the associated services.
- ✓ **Reduced operating costs** thanks to automatic infrastructure monitoring.
- ✓ **Greater efficiency** as a result of precision integration into existing processes.
- ✓ **Maximum uptime** through faster fault recognition and repair measures.
- ✓ **Higher quality** due to detailed planning and documentation.
- ✓ **Shorter routes** automated establishment of optimal signal paths as determined by insight into infrastructure and services.
- ✓ **Peace of mind** due to a strong focus on legal obligations (corporate governance).
- ✓ **Less effort** around compliance audits and audit preparation.



1. Out of the Box – Europa

SCALABILITY IS KEY

A major international airport on the Rhine has outsourced its IT to a specialist operating company. FNT solutions fit seamlessly into the IT landscape for each use case. The software will even enable the airport to offer its own IT services in the future.

The airport's existing system was replaced by a cable management solution that offers graphical support. More importantly, the chosen solution's out-of-the-box data model (OotB) allows cable network operators to keep pace with growth across all levels, from buildings through the physical layer to virtualization and business services. The benefit is that a customer doesn't have to source a new system every time requirements change. Instead, they can leverage a use-case-oriented solution that supports modular expansion as needed.

Because the airport outsourced all its IT needs to a specialist provider who uses many proprietary applications and standard business programs, deployment of the software is relatively tightly focused, covering location, the physical layer, and the logic of IP management. The objective was not a comprehensive solution, but rather maximum transparency into the configuration of the networks and active components, high performance interfaces, and effective structures for a specific use case.

INTEGRATIVE AND FLEXIBLE

Along with ease of integration, the focus is also increasingly on another aspect: flexibility in use, in response to changes to IT service provision structures. The airport is keen to use the software to roll out IT services for dining and retail in the terminals. To achieve this, the IT service provider is acting as infrastructure enabler and manager, while the airport provides its services on the shared software platform. The platform handles the complete work-

flow management process, from the retailer's request to the airport through to the IT provider. The latter plans the service in the software and passes the request on for implementation, documenting it as it goes.

Solution wish list:

- Scalable software according to demand
- Modular, not monolithic
- Out-of-the-box data model
- Efficient integration into IT environments
- Flexible roles and tenants

This opens up a wide range of options, allowing the airport to operate a WLAN hotspot, including troubleshooting, on its own. Here again, roles and responsibilities are variable, so an additional service provider could theoretically be brought in. This is made possible by the application's multi-tenant capability, with a variety of access permissions for the system, the individual activity categories, and the managed infrastructure data. To give a concrete example, an expert can view a control cabinet and the equipment inside it via the software, but is not authorized to change the documentation.

Similarly, IT providers are also seeing new business opportunities to grow beyond infrastructure. They can now graduate from offering airports the technical underpinnings to also providing services. In addition to WLAN hotspot infrastructure, full-service management based on the FNT platform could cover operation of the hotspot, together with troubleshooting and connectivity. The airport operator writes the order in the application and billing is handled directly by the relevant business programs. All processes are thus completely digital and documented throughout.



2. Cable Management at Frankfurt Airport

GREATER CONTROL, GREATER VALUE

Frankfurt Airport (Fraport), the third largest travel hub in Europe, has been using FNT solutions for more than 20 years. From the original nucleus of cable management, functionality has grown continuously over time. Today, it encompasses not only infrastructure, but also the airport's value-adding activity.



"In 1999, Fraport commissioned us to replace an existing alphanumeric system," recalls **Wolfgang Schaupp**, now **Senior Key Account Manager at FNT and an airport expert**. That initial client-server system has evolved into a web-based solution that is so critical it counts as one of the airport's 30 most important systems.

It offers an overview of the location's entire IT infrastructure via the cable paths, from navigation lighting systems to the individual workstations inside the building. Furthermore, it also covers the two data centers on the campus itself and their simple power supply systems. Using an interface to a geo-web system, the airport can manage the routing of trays and nodes, accessible cable ducts, and shafts.

The solution extends far beyond simple visual depiction of the cables. The airport has described the purpose of every cable, enabling it to answer all the key questions

immediately: What happens if that cable breaks? Who can't make telephone calls, or use the point of sale, who loses their IT services and Internet access? For example, "There's a huge application that supports the baggage conveyors," says Schaupp, speaking from experience. "If there's a cable fault affecting this area, the baggage reclaim stops – and that would make headline news." Rapid fault-finding and rectification is essential; the field service team must be dispatched to the right location within the airport site, which spans more than 20 square kilometers. "Our system helps here by mapping dependencies and showing the interaction between active components and cables, with the relationships being captured on several levels." This ranges from buildings through the physical and logical layers to applications and services.

DIGITAL COMFORT FOR PASSENGERS

The digital passenger is one driver behind these developments, the aim being to provide them with the best possible services and high levels of digital comfort. "It's all about immersing the passenger in relevant information tailored to his or her specific needs and interests, as it pertains to their journey," says Schaupp. And it goes without saying that it's also about their data, which otherwise would go only to the airlines. To achieve this, all the information must be supported in the infrastructure; the database is mission-critical. "If you don't store the dependencies, you can't provide high-quality services.



Failures would be especially critical here,” notes Schaupp, who points to the management of clocks and the flight information systems (departures and arrivals) by way of example. Here, a cable under the floor can have a far-reaching and highly visible impact.

DIGITAL FOUNDATIONS

The underpinnings required for digital transformation are huge: FNT Command is used to manage 50,000 telephone lines, for example, and is deployed by several departments and many workgroups. Patch management, mobile card management, the base network, order teams for retail, and field service all have their own view of the data. Nonetheless, introducing a solution like this is not a massive undertaking, says Schaupp: “Our out-of-the-box data model makes it possible to implement the basic platform in two hours.” The system then grows to the desired breadth and depth and can extend if required from enterprise IT with its LANs and workstations through data centers to telecommunications networks.

Schaupp also reports that the solution is making an indirect contribution to the airport’s revenues. “IT orders from boutiques, restaurants, and travel bureaus in the terminals are fed directly into the system from the order portal.” All stages are documented, from order status through cable patching to billing. “We act as a digitization assembly line and are ultimately the enablers for provision of these services.” If Fraport were to decide to enhance its services, the infrastructure would be critical, argues Schaupp. The equation is simple: “To provide a higher quality service, you need better quality foundations.”

What are the benefits of an integrated solution?

- **Complete transparency** from physical and logical IT/telecoms networks to business services.
- **Higher quality** due to detailed documentation of the existing situation.
- **Shorter time-to-market** with planning functions spanning different task categories.
- **Reduced operating costs** thanks to integrated processes and automated workflows.
- **Rapid access** to all infrastructure and services data.
- **Comprehensive interfaces** to all application areas, from CAD to SAP.
- **Shorter downtime** due to rapid identification and repair of faults.
- **Optimized provision** of business services for customers.
- **Effective support** for compliance tasks and audits.
- **Future-proofing** via private, public, and hybrid cloud operating models.



TEN MILLION DATA POINTS AGAINST ONE BACKHOE

Klaus Schultz-Fademrecht is Frankfurt Airport's expert for cable management and IT infrastructure.



In the following interview, he explains why it's all about speed, how he keeps on top of increasing complexity, and what an integrated solution can do for automation.

Mr. Schultz-Fademrecht, in your experience, what is the worst-case scenario for the cable networks at Frankfurt Airport?

- » **Schultz-Fademrecht:** That's easy: backhoe damage. We always have a lot of construction work going on, both in and around the terminals. So occasionally a cable does get damaged. When that happens, we have to identify, contain, and work around the impact. The key aim is rapid restoration of operational capabilities.

When it comes to cable management and IT infrastructure, do airports have an IT advantage over conventional companies because failsafe operation is essential for them?

- » **Schultz-Fademrecht:** I think the mentality really is a bit different at an airport. Demands are high and there are barely any breaks. For example, the baggage storage facilities are full at night, because passengers can drop their bags off and check in at any time of the day or night. We therefore run our networks with an availability of 99.999 percent across the entire network. We've maintained these high availability levels for several years now. To guarantee high quality, we have a huge laboratory where all the network components we use are thoroughly tested and changes can be simulated. In the event of a failure, our suppliers use it too, because they don't generally have all the components with our specific configuration available at a single location – we're quicker.

What other measures do you take to achieve high availability?

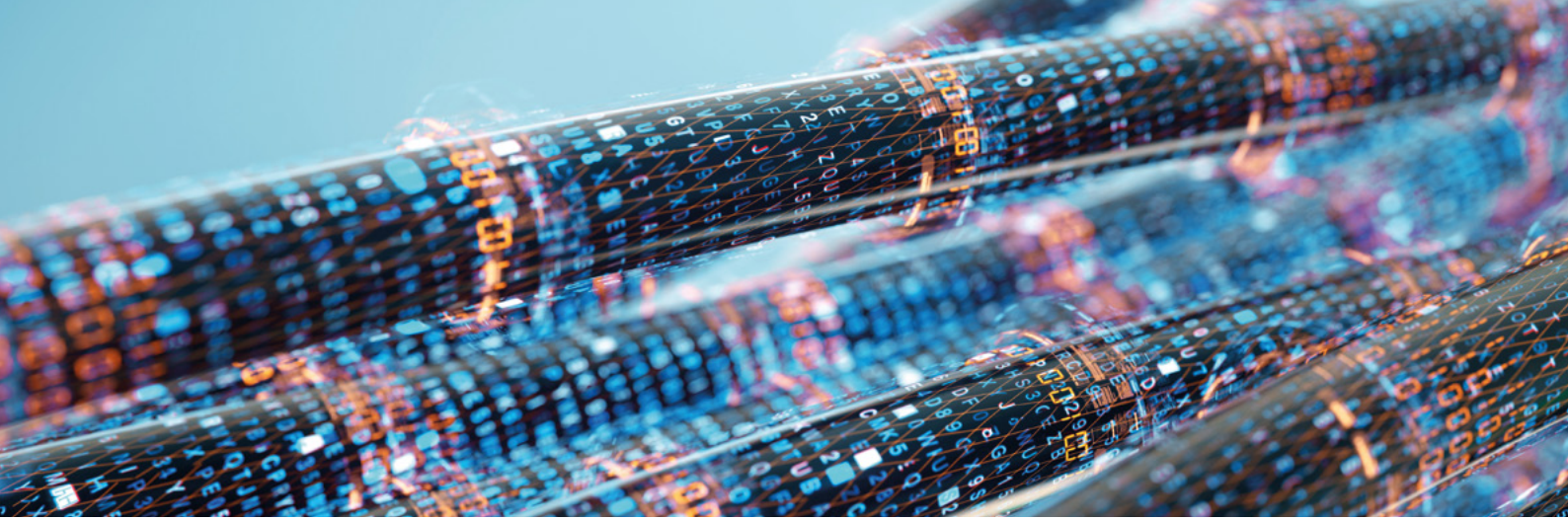
- » **Schultz-Fademrecht:** We use around 3,500 network components at Frankfurt Airport. The system also includes our two data centers. Naturally, we're glad to have a monopoly on the campus – we are the only people permitted to lay cables. That enables us to guarantee high levels of security and availability. Extensive cable and route redundancy also helps, with almost all active components being duplicated. Alternate check-in desks are connected to different switches, for example. If one fails, the next desk still works.

Airlines, retail, and restaurants in the terminals, not to mention passengers, all demand full digital coverage. What's your strategy for delivering that?

- » **Schultz-Fademrecht:** Our customers need reliable networks in order to generate revenue. The terminals are open 24 hours a day, there's always someone wanting to eat and/or shop. On top of that, the level of automation is increasing in all areas. We recently opened up the WLAN to its maximum bandwidth, so you can surf to your heart's content in a shared medium. In addition to expanding the infrastructure, we also rely on fast IT services. That includes repair targets of under four hours, day or night, and a 24-hour on-call service. The user helpdesk operates around the clock, we'll never hold you in a queue, and it goes without saying that we also track how long it takes to resolve each incident.

How do you ensure that continuing growth and increasing requirements don't result in overwhelming network complexity?

- » **Schultz-Fademrecht:** Network management simply has to be automated. That means being able to handle the many interfaces via which data is transmitted. Future viability depends on this capability because digitization is accelerating all the time. For example, we're trialing self-driving dollies on the apron, auto-



nomous shuttle buses, and automated passenger boarding bridges that position themselves right up against the aircraft. Last but not least, we're considering the use of drones to fly donated organs to hospitals. That would be much faster than battling through Frankfurt's gridlocked streets.

How can cable management help?

» **Schultz-Fademrecht:** To start with, the key factor for us is rapid fault rectification. In the event of a broken cable, the FNT system automatically seeks the next shortest alternative route. I would never want to go back to sending technicians out to spend time looking for alternative routes to rectify the problem. The airport is a big place and we have special ceilings in the terminals, so we need to call in expert contractors, cordon off the area, and have them open the ceiling. Today, we can identify the impact of the problem, establish the affected services, and then switch them to another cable. The cable management system also tells me which doors I need to staff if a fire alarm is not working, which cameras are offline, and who is unable to use their phone.

You're deploying a pretty comprehensive solution from FNT Software. Why?

» **Schultz-Fademrecht:** We've been working on our system for more than 20 years now, accumulating around ten million data points in the database: every patch cable, two entire data centers, all the switches, and 160,000 data sockets, shafts, and routes, together with several hundred thousand kilometers of copper cores and fiber-optic cables are documented, including the services that run on them, such as telephony and VPN. All that effort only makes sense with a coherent system that uses the same nomenclature throughout and is fully integrated. It also means that the current assets making up the IT network can always be determined almost at the touch of a button, since all IT assets are also recorded with their commercial information. Taking an inventory is effortless, because the delivery notes, storage facility contents (incoming goods, interim storage, scrappage), together with documentation covering proper disposal, are all logged in

the FNT system. It shows our entire lifecycle management system. Billing for our external service providers is also based on the data in the FNT system. A fragmented solution just doesn't deliver, especially if the aim is a high level of automation.

What does the future hold for the airport's networks?

» **Schultz-Fademrecht:** I don't think we can avoid having a dedicated 5G network for our operational processes. The market is moving in that direction and it would make us independent of the major providers, whose networks we currently use. If I can handle network changes myself and as a public client don't have to put every new contract out to tender at regular intervals, that's far more efficient. Also, more and more data processes and applications are running wirelessly. Our campus WLAN has more than 1,600 access points, many of them on the apron, and depending on the proprietary application we use either WLAN or cellular communication. That means we always have a fallback option outside. All the baggage handlers on the apron get their instructions this way – we no longer have people driving around with pieces of paper.

About Klaus Schultz-Fademrecht

Klaus Schultz-Fademrecht is Vice President of IT Communication at Fraport and responsible for the airport's IT networks. He joined the airport at the end of the 1990s from an international consulting firm. Initially responsible for cable management, he introduced an FNT solution. Klaus Schultz-Fademrecht then worked as a senior project manager, including handling migration from an ATM to an MPLS network. As Vice President, he is now responsible for the active network (LAN Carrier Ethernet), the passive network, security, and both data centers, plus the airport's telephony systems, including radio (wireless LAN, flight, operational and mobile communications, BOS, LoRaWAN, beacons), i.e., the entire IT infrastructure except for servers and terminal devices.



3. IT meets Architecture - Asien

A DIAMOND IN THE DESERT

An impressive terminal is emerging on the Persian Gulf, with FNT working on the cabling since the planning phase of this new build. This early involvement boosts the quality of the documentation and the operator will receive a comprehensive plan of the infrastructure.

Business drivers

- Higher quality through early documentation
- Installation serves as a blueprint for the operator's other airports
- Smooth operation improves efficiency
- Easy integration with other network tools

There are few regions in the world where competition between airports is as fierce as in the Gulf. In addition, there is a strong focus on security and prestige – the second-best solution is just not good enough. This is what swayed a major international airport in the United Arab Emirates to build a new terminal that outshines all the existing buildings. The aim is to give visitors to the region's events and tourist highlights a truly exceptional welcome.

But those behind the project were not just architectural visionaries; unlike in many similar cases, a new tender was issued for IT systems at the same time. Instead of the cable management software already in use at the airport, a new solution was chosen to provide documentation of the civil network cabling in the new terminal at an early stage. The tool has been deployed since the plan-

ning phase and also during implementation and delivery of the building. The main benefit is improved quality: the operator will be provided with both printed and electronic documentation when the terminal is handed over, containing all the necessary information on the cables, plus measuring protocols.

SECURITY AND COMPLIANCE

Documentation is particularly valuable to the client in terms of compliance and security since it bridges the gap between the planned and as-built status. In contrast, automatic documentation procedures often fall short, because they fail to take proper account of the cabling plan. As an additional benefit, the customary reverse documentation is no longer needed. Since operation usually begins before the documentation is updated, many changes will typically have been made in the meantime, creating further problems.

Overall, the airport's IT management team looks after around 150,000 copper and 65,000 fiber connections, a data center, two central comms rooms, around 170 distributor rooms, and 1,000 racks within the terminal. The software is used in conjunction with an intelligent patch management system from CommScope to support optimization of patch management in the field. The client enforces strict monitoring to enable immediate intervention in the event of a problem. Medium-term plans include a link to the installations outside the building, such as the large parking lot. Once the terminal is open and the system is running smoothly, the installation will be rolled out as a blueprint for the operator's other terminals and airports. Here again, the aim is to minimize any disruption of operations.



4. Managing Digital Change – USA

MORE CONTROL, FEWER SURPRISES

Airports need attractive and innovative retailers, service providers and caterers to increase their appeal. This can only work with an optimised digital infrastructure.

Steve MacDiarmid, General Manager at FNT in the USA, reports on his findings from Silicon Valley.



Steve, one of your clients is an airport in California near the epicenter of digitalization, Silicon

Valley. What can you learn from the region about transformation?

» **Steve MacDiarmid:** In my opinion one of the primary reasons the Valley, the most technologically advanced area in the United States, is successful is because of an underlying spirit of cooperation between its business leaders. Personal loyalties are important, especially now with escalating disruption in the marketplace. In principle, this collaboration can be applied at airports. Working with major airports around the world, FNT has seen first-hand those that adapt a framework that enables its stakeholders - airlines, retailers, service providers, restaurants - to excel by working closely with each other realize the greatest returns. When you look behind the scenes of what it takes to operate an airport, all are an integral part of the digital passenger journey and are therefore inextricably connected. It makes sense to consider them when planning for any change at an airport campus. Today's digital-savvy customers demand that they do.

Could you please explain this in detail?

» **MacDiarmid:** There are airports today that do not make a direct connection between infrastructure and revenues. This will only change when they themselves embark on the path of transformation and realize that their outdated networks can no longer support modern day requirements. For example, most airports have buried many cables that do not allow new services. This is an issue that rises all the way up to management.

What should you do differently?

» **MacDiarmid:** It can be a leap to connect issues like efficiency and customer satisfaction to cables on the property. One of our clients, an up-and-coming airport on the West Coast, knows that regaining control of the infrastructure is essential to support digital transformation and meet the increased demands of passengers. The changes they are making will enable them to be plugged in to the entire journey, starting when a ticket is purchased, to parking, when and where the shuttle bus will enter the terminal, how the new biometric system will work at check-in, and whether they can get through security without having to undress. Covid-19 adds a new and unexpected layer to the journey and will further reshape how we travel, as preflight health checks and touchless check-in must be integrated into processes.

“It can be a leap to connect issues like efficiency and customer satisfaction to cables on the property.”



Why is the infrastructure so important for this?

- » **MacDiarmid:** Modern airports need to be able to bring together a large volume of diverse infrastructure information to support innovative services. The biggest lever at their disposal is the ability to break down barriers and make things happen. If an airline wants biometric check-in, this must be set up quickly and securely as a service provided by the airport. After all, the airport wants to stimulate consumption to earn money with airlines, parking and retail. Some airports concentrate on restaurants and some focus on retail. The point is, the airport has to become part of the journey, not be just a transit building.“

ports concentrate on restaurants and some focus on retail. The point is, the airport has to become part of the journey, not be just a transit building.

What can a data platform do for infrastructure?

- » **MacDiarmid:** When it comes to change, traditional airport managers first think of physical transformation and impressive buildings. Networks for voice and data are secondary, after everything else is in place. Smart airports think differently about infrastructure. They are not only looking for good architects, but also for experts in networks and IT. Today's customer experience takes place via mobile phone and Internet of Things. When designing building upgrades, it's important to consider the customer experience. That's when the infrastructure comes into play as it is the basis for digital transformation, innovation, as well as risk control.

How can airports support the renewal of their infrastructure?

- » **MacDiarmid:** The technological basis for many innovations has already been developed, but they are not easy to implement without a platform like FNT's. Traditionally, companies put people in charge of finding and solving problems, but that is neither efficient nor fast. With our solutions you can automate processes from planning through execution, culminating in skilled workers receiving a detailed work order that includes a precise set of actions to execute. Also important, the network inventory documentation is automatically updated when planned changes are completed. This is critical to ensure future changes are made on accurate data.

What are the main advantages?

- » **MacDiarmid:** Our customers have a documented overview of their IT infrastructure, a clear picture of their objectives and a precise set of actions to take. This, along with the control routines, reduces human error and an expedited time to market. Operators increase their operational efficiency by minimizing risks and their impact.

“Operators increase their operational efficiency by minimizing risks and their impact. After all, every change entails risks.“

After all, every change entails risks, and our solutions enable operators to manage both. Traditional change means: Do it first, then react to the consequences. But if change is understood as a planned activity, the consequences can be identified in advance. This gives you control over the process and reduces unexpected surprises.



5. SaaS – the New Paradigm – Europe

GREATER EFFICIENCY AND TRANSPARENCY FROM THE CLOUD

A major international airport in a German-speaking country has transformed its IT operating model to enable it to react more flexibly, increase the efficiency of its IT specialists, and improve IT resource management. These steps are supported by a cloud-based cable management solution and Software-as-a-Service (SaaS).

Located just north of the Alps, the airport manages its data cable network, data centers, and network distribution cabinets via FNT Command. There are a number of reasons for this choice. The IT team utilizes the solution to analyze cable network problems quickly and to manage repair measures effectively. The program is also used to initiate and manage IT services for the tenants on the campus, e.g., a new Internet connection or an additional WLAN hotspot for a restaurant. The software documents all cable and wiring routes and provides a database of the infrastructure to enable fast and efficient provision of high-quality IT services in the terminals. The mantra is: “No cable, no IT services.”

Extensive automation of IT services is just one aspect. The application is also part of the airport’s critical infrastructure because it maps the entire reporting and secu-

Benefits for the airport

- Transparent network utilization
- Rapid provision of IT services for all IT customers
- Short response times in the event of a fault
- Efficient cable management
- Faster IT services for tenants
- New data-based business models
- Optimization of IT sourcing and IT operations
- Plannable costs and technology upgrades
- Database and middleware agnostic
- 100% cloud, 100% investment protection





urity systems. Signals from cameras, fire alarms, and the floor lighting system all run through cables that are documented in the software. Given the critical nature of the installations, the operator is also on the safe side in terms of accountability – they can provide evidence that working practices conform to audit requirements, technical regulations have been followed, and documentation has been compiled and automatically updated. Furthermore, the program supports the airport’s long-term growth strategy and ensures cost-effective implementation. Having an overview of IT infrastructure utilization means there is less need for horizontal scaling and pulling new cables. Without that information, complexity increases and the system becomes harder and harder to manage. Accurate knowledge of the available resources is a vital prerequisite for efficient use by IT staff.

MORE IT OUTSOURCING BENEFITS

Growth itself is another significant challenge for IT operations. In metropolitan areas in particular, experts are in demand; their cost and expectations have skyrocketed in recent years. This has direct consequences for airport operating models: instead of hiring staff for the various tasks as before, they are gradually moving away from in-house management of IT. Other sectors have already taken this step, relying increasingly on standardized IT services from external providers. Even state-controlled airports need to prepare for generational changes, with the shortage of network experts and limitations of public-sector salary structures making a shift inevitable. Added to this are medium-term increases in passenger numbers and operators’ desire to capture and evaluate passenger data in order to develop new business models. This requires the breaking down of old silos.

The new operating model implemented by the airport in question also helps. The software resides in a private cloud in the airport’s data center. The Docker system forms the basis for managing autonomous and technically defined microservices, along with their architectures. This means that developers can roll out new deliverables more quickly. The airport’s aim is to deconstruct specialist solutions and adopt “standard software” in the medium term, with automatic updates at the touch of a button. This sees the commercial model changing to Software-as-a-Service (SaaS).

BENEFITS OF THE CLOUD PARADIGM

Alongside measurable speed benefits, the switch to SaaS represents a major step into the cloud for the airport. This makes it easier for IT management to transform IT sourcing and operational models to suit changing needs. The scenario is not just limited to an unmanaged private cloud. Even a public cloud with a range of additional services would be technically feasible. Standards, agility, and transparency of costs and technologies are all positive consequences. If conditions and demands change, a switch to a managed private cloud or the public cloud would be a strategic option at any time. This applies in particular to regional airports, which tend to be wary of the high costs involved in setting up and running a failsafe data center. It’s thus no surprise that other airports are likewise evaluating or already making concrete plans for the cloud paradigm.



About FNT

FNT GmbH, headquartered in Ellwangen (Jagst), Germany, simplifies the management of highly complex digital infrastructures in companies and public authorities with its FNT Command Platform. With the cloud-enabled “software made in Germany”, IT, telecommunications and data center infrastructures can be efficiently recorded as digital twins and documented across all levels from buildings to digital services. The software also offers open interfaces and numerous functions for planning,

implementing and automating transformations and changes in an integrated manner. FNT’s customers include more than 500 companies and government agencies worldwide, including more than half of the DAX-40 listed corporations. FNT operates offices in several locations in Germany as well as in New York, London, Singapore and Timisoara and has an international partner system with market-leading IT service providers and system integrators.

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