FNT Whitepaper

PART 2: SYSTEM ARCHITECTURE AND INTEGRATION

From Manual Documentation to Full Automation

How to Successfully Transform Infrastructure Management

Modern infrastructure landscapes are complex and contain vast amounts of data. This whitepaper shows how infrastructure data can be integrated into a central platform such as FNT Command – for consistent data flows between IT systems, automated processes, better data quality, faster decisions, and secure operations.

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In this Whitepaper

Digitalization is fundamentally changing the way infrastructures are planned, operated, and developed. Historically evolved system landscapes, isolated processes across various departments, data silos, and heterogeneous data sources often result in a fragmented overall view that is difficult to manage.

Centralized platforms offer a solution by bringing together technical, organizational, and process-related information and keeping it up to date. Such systems play a crucial role in integrating existing landscapes, maintaining data consistently, and intelligently utilizing this information during ongoing operations.

Integration, however, is not an end in itself. It serves as the foundation for a continuous data flow, which ultimately enables automation. The primary goal is to reduce manual efforts, minimize sources of error, and make processes scalable.

This whitepaper presents integration strategies that have proven effective in practice, demonstrated by FNT customers who successfully expanded FNT Command into a central platform for all infrastructure-relevant data through integration. By strategically connecting existing systems, they were able to not only achieve a holistic representation of their complex IT and network infrastructures but also lay the groundwork for extensive automation. The result: significantly enhanced transparency, improved control, and a noticeable increase in infrastructure management efficiency.

Only integrating all infrastructure data into a central management platform creates the foundation for true automation.

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Key Findings at a Glance

Central platforms create clarity: They consolidate technical, organizational, and procedural information, providing a consistent view of the infrastructure.

Data maintenance as a continuous process: Data migration is just the beginning – true value emerges only from ongoing data maintenance.

Integration automates data management: Platforms enable various methods of updating data, such as data synchronization or workflows.

Flexible integration matters: Powerful platforms adapt to existing IT environments and support diverse integration models.

Automation boosts efficiency: Integrated data and seamless workflows reduce manual tasks and accelerate processes.

Structured project kickoff: Defining clear objectives, engaging stakeholders, and planning milestones are essential factors for successful projects.

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The Role of FNT Command in Ensuring Current and Integrated Infrastructure Data

Infrastructure data forms the basis for planning, operations, incident management, and continuous system development. However, once imported into a system, the data begins to age. Technical changes are often poorly documented, information spreads across different tools, and interfaces become outdated or are not properly maintained. This creates a growing gap between documented and actual infrastructure, impacting efficiency, security, and decision-making.

The challenge is to not just collect data once but to keep it up to date and integrate it systematically into overarching processes. Successful platform strategies combine manual maintenance, automated reconciliation, and seamless workflow integration. This includes both active components and less accessible elements like passive infrastructure (e.g., cabling, ducts).

A key success factor is the ability to consolidate heterogeneous data sources, detect discrepancies early, and feed them into technical and organizational processes. Only then can a reliable and trustworthy data foundation emerge – one that goes beyond documentation and supports operational and strategic decisions.

Platforms like FNT Command provide the technical foundation to establish such data cycles – for example, through plan/actual models, automated reconciliation processes, or workflow integration.



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Data Migration: The Starting Point

Before platforms like FNT Command can deliver their integration and maintenance benefits, existing data must be imported into the system. Several methods are available, including structured imports, migration scripts, or incremental data transfers during ongoing operations (Zero Downtime Migration).

The most suitable method depends on the initial situation, quality of the source systems, and operational requirements.

WORTH NOTING



Detailed information on data migration and the implementation of a professional IT documentation solution can be found in part one in this series, **Ditch the Spreadsheets: Guide for Transitioning to Professional IT Documentation**.

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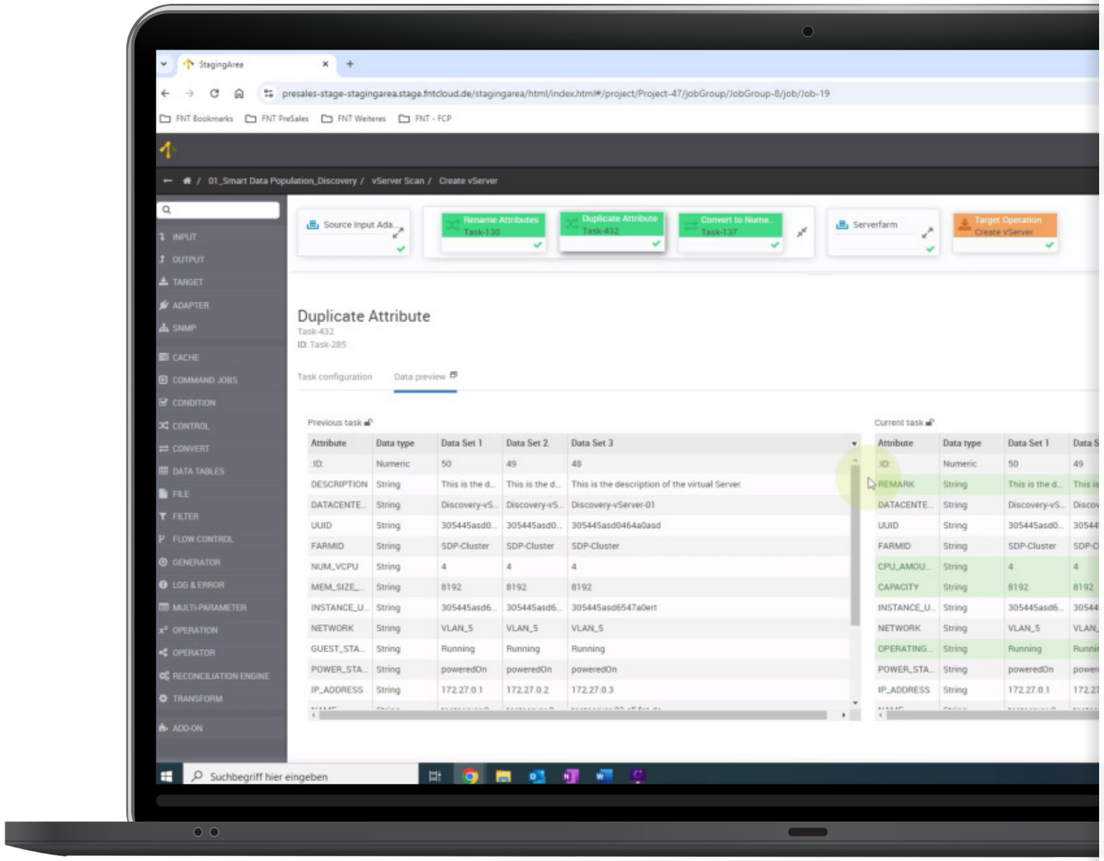
Existing data can be transferred to the system using various methods.

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Integrating FNT Command into Existing System Landscapes

The specific way FNT Command is integrated into existing system landscapes depends heavily on the IT and operational environment. The platform features an open architecture that supports multiple integration paths – both technically via APIs, connectors, and standardized interfaces, and organizationally through established processes and role models.



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Basically, integration is based on three dimensions:

1 Technical Integration

FNT Command communicates via REST interfaces with nearly any third-party system – from CMDBs and network management tools to ERP and CRM systems. FNT IntegrationCenter serves as middleware and orchestrator.

2 Process Integration

Many companies integrate Command directly into their workflows – e.g., via ITSM systems like ServiceNow or BMC Helix, or OSS service order management. FNT ProcessCenter workflows define when and how data is read or written, reducing media discontinuities and increasing data currency.

3 Data Responsibility and Governance

Often underestimated, a clear assignment of responsibilities for data maintenance and reconciliation is essential. FNT Command projects typically introduce roles such as Data Owner, Quality Reviewer, or Automation Manager to ensure continuous data cycles.

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Common integration patterns in practice:



Replacement: An existing system is replaced by FNT Command.



Parallel Operation: FNT Command runs alongside an existing system, acting as a central data sink or evaluation layer



Synchronization: Bidirectional data exchange between FNT Command and third-party systems (e.g., ServiceNow, BMC Helix, StableNet).

Powerful platforms adapt flexibly to individual requirements.

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Practical applications:

In **enterprise environments**, the focus is often on coordination with Active Directory, SCCM, vCenter, Baramundi, or monitoring tools. FNT Command acts both as a recipient and structured data source for processes like moves, changes, or lifecycle management.

In **data center environments**, the focus is on infrastructure components like racks, power supplies, and climate sensors. FNT Command provides the central platform for documentation and management of infrastructure – a single source of truth for physical and logical assets. The tool can be seamlessly integrated into DCIM or building management systems, creating the basis for transparency and efficiency in operations.

In **telco architectures** based on the TM Forum ODA model, FNT Command typically sits between network controllers/ discovery systems (resource domain) and orchestrators or BSS systems (service domain).

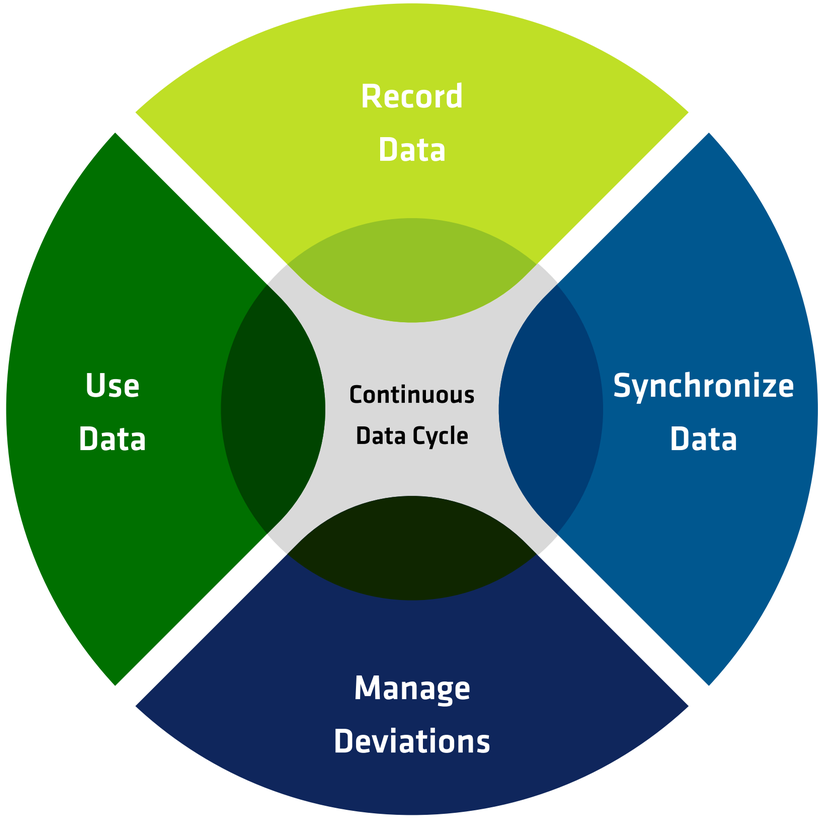
The strength of FNT Command lies in supporting hybrid realities and adapting to customer-specific requirements – from quick connection of individual data sources to orchestrated integration into complex IT and operational environments

A methodical approach is one of the key factors in achieving this: In a so-called “big picture workshop”, the existing system landscape is analyzed together with all relevant stakeholders, a target picture is developed, and a step-by-step plan is defined. This often results in combinations of different integration patterns – for example, a technical replacement of the old system combined with the synchronization of certain data fields from third-party systems. Early quick wins ensure measurable progress and sustainably increase acceptance within the company.

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Data Maintenance as a Continuous Process



Up-to-date data cannot be taken for granted. It is not created once during migration, but through permanent maintenance during ongoing operations. This is precisely where successful projects differ from failed initiatives. Without clear responsibilities, structured processes and suitable tools, documentation quickly becomes outdated and loses its usefulness.

FNT Command offers various approaches to counter this risk. The simplest is the planned/actual model: every technical change is first recorded as a planned status and then transferred to the actual status after implementation. This method ensures traceability and is particularly effective where manual input is necessary, for example when maintaining passive infrastructure.

Where possible, data maintenance can be automated. The ReconEngine compares actual data from discovery or network management systems with planning data in FNT Command. Deviations are detected, documented and can be processed automatically. This creates a continuous reconciliation that ensures both overview and quality.

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Another option is integration into processes. With FNT Process-Center, workflows can be established in which data maintenance is an integral part of the process. For example, an order from the CRM can automatically trigger technical documentation updates in FNT Command. This method is efficient and error-resistant, especially for standardized processes such as expansions or changes.

Interfaces also play a decisive role. Systems such as Active Directory, vCenter, Baramundi or ServiceNow can deliver data to FNT Command or obtain data from it. Whether Command is the data source or data consumer depends on the use case.



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Three Stages of Integration

The implementation of FNT Command can be structured in three stages:

1

Data Migration: The initial transfer of existing data into the system. This forms the foundation but is not covered in detail in this whitepaper (see **Ditch the Spreadsheets: Guide for Transitioning to Professional IT Documentation**)

2

Data Updating: Ongoing maintenance through plan/actual comparisons, automated synchronization, or process-integrated workflows. This is where the operational value of FNT Command lies: only current data enables valid planning, effective troubleshooting, and accurate reporting.

3

Data Utilization: Consistent use of maintained data in other systems. Whether for root cause analyses, service processes, license management, or regulatory reporting – data from FNT Command becomes the basis for decision-making and a driver of automation and quality assurance. Companies can analyze issues more quickly, make services more transparent, or meet regulatory requirements more efficiently. Integration with connected tools creates continuous data flows and opens new opportunities for optimization and automation.

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Conclusion and Recommendations

Organizations face the growing challenge of efficiently and securely operating complex infrastructures – despite distributed systems, heterogeneous data sources, and insufficient data timeliness. These conditions complicate decision-making, hinder digital transformation, increase manual workloads, and heighten the potential for errors in infrastructure management.

The key to addressing these issues lies in systematic integration and automation

Therefore, integrating infrastructure data from diverse systems and multiple organizational units via interfaces is much more than just a technical project. It provides the essential foundation for comprehensive process automation in infrastructure management and serves as a strategic lever to enhance efficiency, ensure quality, and achieve scalability. For instance, when automatically detecting, configuring, and documenting new network components to seamlessly integrate them into ongoing operations.

Centralized platforms like FNT Command provide the necessary foundation by consolidating heterogeneous infrastructure information from surrounding systems, keeping it current, and enabling cross-functional use.

Crucially, it's not only about the technical capabilities of such a system, but also about integrating it into established workflows, clearly defining roles and responsibilities, and adopting a methodical approach during implementation.

This whitepaper has highlighted practical approaches proven effective in achieving these objectives – providing guidance for enhanced transparency, efficiency, and operational agility in dynamic infrastructure environments.

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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, Singapore and Timisoara and has an international partner system with market-leading IT service providers and system integrators.



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