Enables the visualization of infrastructures and services

Supports the graphical presentation of networks

Helps discover and analyze relationships between services and technology

FNT GraphicCenter

Visualization and Analysis of Infrastructure and Service Data

STAY IN CONTROL DESPITE THE FLOOD OF DATA

In the era of digital transformation, IT and network infrastructure are evolving at an unprecedented pace, driving complexity and a flood of data. The shift to cloud services and hybrid environments amplifies these challenges, making it more important than ever for businesses to maintain control over their infrastructure assets and services.

To stay ahead, companies must adopt smarter, faster ways of processing the rising tide of information, extracting the insights that matter and turning data into strategic advantage. In today's digital landscape, understanding assets, resources, services and their interdependencies is the key to maintaining control.
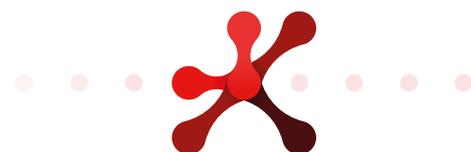
HIGH PERFORMANCE VISUALIZATION APPLICATION

Comprehensive documentation of IT and network infrastructure, along with their links and dependencies, provides the essential transparency needed for efficient management. But documentation alone isn't enough.

To unlock its full potential, targeted analysis and actionable insights are a must.

FNT GraphicCenter meets this need, enabling seamless visualization and analysis of infrastructure and service data, making it the perfect companion to FNT's other solutions. It is a high-performance visualization application, fully integrated into the FNT Command Platform and powered by yWorks, the market leader in graph and diagram visualization.

Enabling fast and efficient analysis, graphical visualizations make it possible to quickly identify patterns within data, visualize complex structures, and gain a deeper understanding of dependencies, resulting in smarter, knowledge-driven decisions that optimize infrastructure and service management.

FNT GraphicCenter in Detail

FNT GraphicCenter is built around interactive, configurable visualizations, incorporating nodes, edges, and groupings. These elements make it possible to present data from a defined data set together with its structure and relationships, forming the foundation for in-depth analysis and evaluation.

RECOGNIZE PATTERNS IN YOUR DATA

Quickly and accurately identifying similarities or key differences in data can be challenging, especially when information is buried in long lists, tables, or columns of figures. In contrast, visual representations make data far more intuitive and actionable. FNT GraphicCenter makes this possible by enabling targeted, rule-based configuration of data visualization. Users can define conditions to dynamically adjust the appearance of elements or to define the membership to a group. The results are smart visualizations which reveal patterns instantly, making evaluation and analysis faster, easier, and more impactful.

VISUALIZE THE STRUCTURE OF YOUR DATA

Having a network visualization, you can modify the view based on the network's structure and type, ensuring clarity. Thanks to the automated layout creation, you can seamlessly switch between tree, orthogonal, hierarchical, and circular modes. The grouping function allows you to categorize objects and connections by specific parameters, such as transport technology or service type, either as a grouped overview or in greater detail.

DISCOVER RELATIONSHIPS WITHIN YOUR DATA

Understanding the relationships within your data is essential for clear, actionable insights. Inside the visualization, individual objects can be explored in an overview or in detail and analyzed using zoom, pan, and centered views. A distinction is made between direct and indirect connections to show dependencies and to provide full context. With graphic-based connection tracking, users can trace entire transmission paths across multiple nodes, ensuring seamless analysis of data flow and relationships. The attribute-driven search and the filter functions make it effortless to pinpoint specific objects, even in large, complex networks.

BASED ON AUTOMATED DATA STRUCTURING

Having access to FNT Command data enables visualizations across a broad range of domains, tailored to individual user needs. Through powerful rule-based automation, duplicate identification and merging are possible, non-relevant elements are efficiently filtered out, and data relationships remain intact throughout the process. Raw data is processed quickly and efficiently, ready to be transformed into clear, actionable visualizations.

SEAMLESS INTEGRATION WITH FNT COMMAND

Directly access and visualize objects from FNT Command in FNT GraphicCenter through standardized yet flexible network representations. With template definitions and configurations, users can define tailored styles and settings, resulting in highly customized, meaningful visualizations suited to their operational needs. By leveraging predefined queries for special use cases and dynamic data queries, templates ensure you get real-time, technology-agnostic insights. This provides a context-rich, interactive view of the object's relationships, dependencies, and impact within the broader infrastructure, empowering faster decision-making and improved operational efficiency.

Use Cases in Telecoms, Data Centers, and Enterprise IT

FNT's solutions address a variety of market sectors in the fields of telecoms, data centers, and enterprise IT.
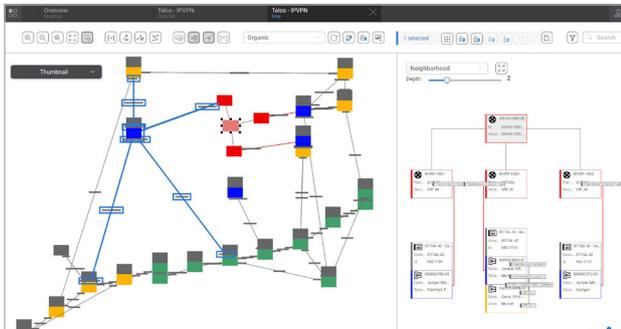
Typical use cases for FNT GraphicCenter in these sectors and contexts include:

- Telco network and service topology
- Telco service routing and configuration
- Outside plant management
- Inside plant management
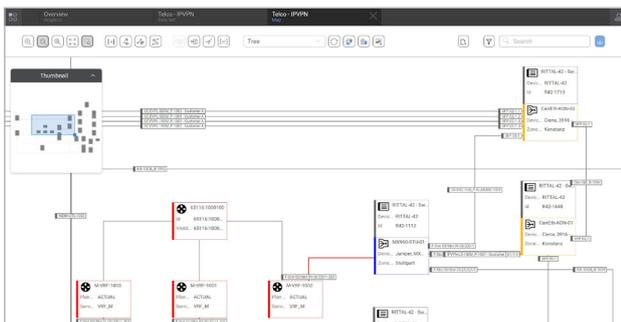- IT application infrastructure
- IT network infrastructure

FNT GraphicCenter comes by default with a range of out of-the-box configurations for visualizations. Users can use these as is, as a basis to create their own configurations, or build new ones from scratch for specific tasks.

Example configurations:

TELCO NETWORK AND SERVICE TOPOLOGY

Topological representation of a multi technology network segment (DWDM, MPLS, Carrier Ethernet) with configured IP-VPN service

More detail at a higher zoom level: view of multipoint IP-VPN and point-to-point EVPL services and their endpoints

Challenge
Network complexity increases exponentially with the number of nodes. Typically, these networks also consist of a variety of technologies, hierarchically connected to one another in different layers. Maintaining an overview of the relationships and dependencies is essential for efficient network operation, planning of network expansions and redesigns, and for creating new connections through these networks.
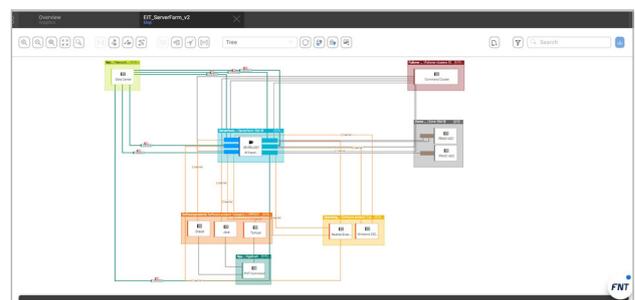
Solution
Visualization of network nodes and the different connections between them according to the individual network technology, together with all the important associated parameters. Flexible filter options and categorizations allow visual depiction of these complex dependencies and provide the user with targeted analysis options for different use cases.

FNT GraphicCenter makes it possible to display all the relevant elements of a network, from physical network nodes and logical connections to the service level. Visualization helps to:

- provide a good overview
- identify dependencies and relationships quickly in the event of a fault and draw conclusions about possible causes
- immediately identify the various segments or technological layers of a network thanks to the different colors allocated to objects and their connections
- provide a rapid overview of the characteristics of services, such as bandwidth, using specific colors
- facilitate tasks, such as identifying possible redundancy options to boost network resilience to ensure the best possible quality and availability of services

IT APPLICATION INFRASTRUCTURE

Visualization of all assets required for operation of an application, with different types of assets grouped by color

Challenge
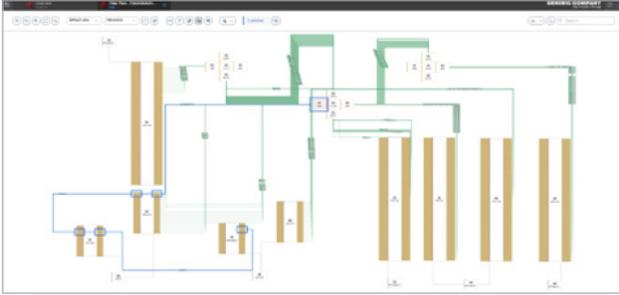Understanding which assets are linked to operation of an application.

Solution
Visualization from the application through virtual servers to physical servers, together with all the assets associated with that application, e.g., application servers, middleware, OS, and databases.
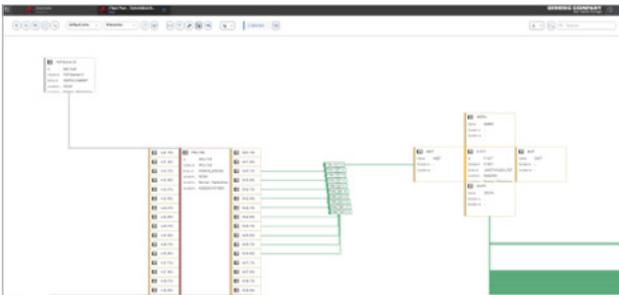
FNT GraphicCenter can display all the assets linked to an application, with visualization making it easy to identify:

- which assets are used for operation of a specific application
- when is the best time to plan maintenance work on assets, such as servers, to ensure compliance with the SLA
- where a specific operating system is used, so as to be able to estimate the effort and the applications affected when the manufacturer announces an update
- which applications are running on a specific server, making it possible to estimate whether it could support additional applications
- the services that include a specific application, if additional data has been collected as part of service asset management.

OUTSIDE PLANT MANAGEMENT: FIBER PLAN

Visualization of a Fiber Plan, with a signal trace highlighted

Zoomed in view, focus on the details

Challenge

Providing schematic views for a high number of objects – such as cables, fibers, devices and services – with all their relevant information.

Solution

Holistic representation of the network infrastructure at the fiber level.

FNT GraphicCenter offers powerful signal trace visualization, enabling users to track connections from devices or zones of interest, including the intermediate devices, in a single, unified view:

- provides a good overview for various scenarios in the fiber optics management

- contains details of interest for active or passive devices and for the fibers, such as entity type, location, cable id or cable line number

- creates complete visibility by displaying all the signal traces in one visualization

- highlights on demand different signal traces for easy identification, from the start device until the end device, for fast, effortless identification

- offers support beyond fiber optics as copper connections can be visualized as well, ensuring a broader perspective

KEY BENEFITS OF FNT GraphicCenter

- Makes it possible to use data from constantly growing complex structures and/or business-critical data relationships for planning and monitoring purposes.

- Facilitates cause and effect analysis by allowing efficient visualization and analysis of technical issues.

- Faster, data-based decision-making and fault resolution thanks to visualization of relationships.

- Infrastructure and service data visualization and analysis in the form of diagrams or networks (node and edge relationships).

- Individually configurable elements and layout selection enable flexible visualization of data, tailored to special use cases.

- Data records can be flexibly configured for each use case through dynamic queries or can be easily accessed for special use cases through predefined queries.