



- Monitoring & alerts
- Historization
- Reports & trend analysis
- Accumulated usage values
- Criticality and event allocation
- Live status display



## // FNT Monitoring

A Powerful Tool for Monitoring and Evaluating

Physical Components in a Data Center

Efficiency and agility are now key concerns in the field of data center management. IT services are among the most important resources used by many types of business process. It is therefore increasingly important that these services are delivered reliably – by ensuring fault-free operation in the data center. Already faced with limited resources and increasing cost pressure, data center operators thus also have to contend with elevated performance requirements. Combined with the predictive management of large-scale environments, this presents management personnel with increasingly complex day-to-day tasks.

Just as end-to-end management and optimization software has become essential within the data center, there is growing demand for a high-end monitoring system that enables managers to address ever-increasing performance expectations, deploy resources more efficiently, and plan ahead with greater accuracy. FNT Monitoring improves the reliability of data center operations by enabling centrally controllable monitoring and

analysis of infrastructure components. As a powerful software tool, it offers real-time threshold checks as well as integrated alert and notification functions that keep relevant personnel fully informed based on predefined criticality levels. Using FNT Monitoring, it is possible to identify and resolve capacity bottlenecks and critical system states quickly and efficiently, thus reducing the risk of failure and downtime.

All key information on the current state of monitored components is clearly presented in a dashboard display. With its detailed performance and utilization indicators, the dashboard enables extensive analysis of the current infrastructure. Since there are no limits on the quantity of data that can be retained for analysis, it is also possible to identify recurring fault patterns. Standard integration with FNT Command enables easy access to information on individual objects and rapid resolution in the event of a fault.

FNT Monitoring is a scalable solution that can be adapted to any size of environment and a wide range of demands. The web-based interface allows location-independent monitoring of infrastructure components – from individual rooms through to large-scale data centers. As well as improving data center operations, FNT Monitoring uses accumulated data on monitored devices to support strategic management tasks, e.g., validation of planning scenarios and creation of accurate forecasts.

Management and Configuration

The configuration interface in FNT Monitoring enables on-demand creation and customization of device monitoring configurations across multiple data centers. All basic data, parameters, specifications, and details can be created and configured centrally and in detail via the clearly designed user interface. Monitoring configuration files are easy to create thanks to built-in configuration templates and convenient access to object data through standard integration with FNT Command.

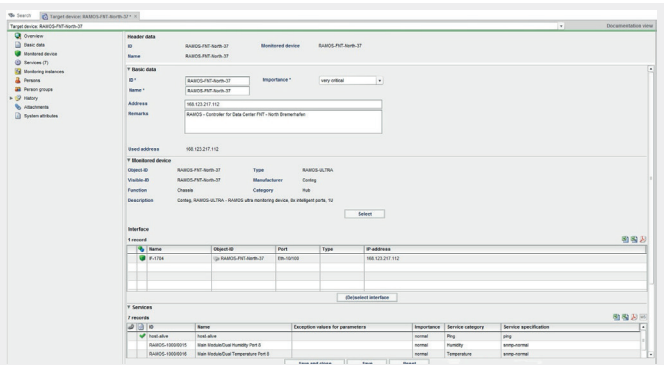


Fig. 1: Controllable monitoring of infrastructure components thanks to detailed editing of monitoring configuration files

Monitoring of devices can be precisely controlled based on differences in criticality when predefined limits are exceeded. The ability to assign individuals and groups to specific escalation levels ensures that the appropriate contact person(s) are automatically informed in the event of a fault. Using a wizard function, it is possible to store and reuse identical configurations for series of devices in a data center or server farm. The configuration files can be modified with custom characteristics and precise time controls.

Monitoring

The web-based interface provides a graphical display of the most important information required by the user. This enables better management and control of even the largest system networks. Users in a range of roles can access data from any location, e.g., on site in a data center or from a central control desk. Values for all the DCPI and ITC components that are being monitored in real time in a data center can also be grouped and structured as required.

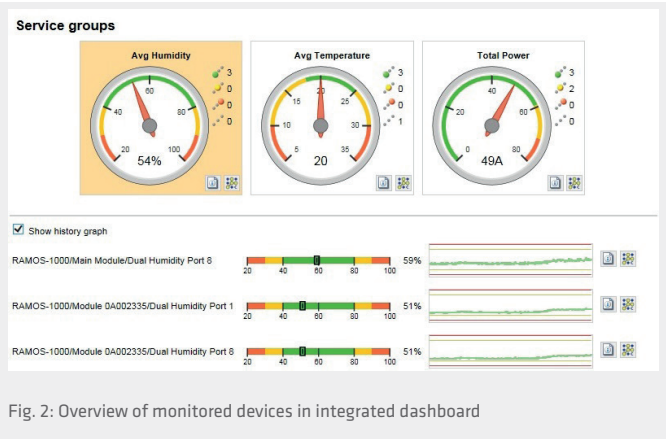


Fig. 2: Overview of monitored devices in integrated dashboard

As an alternative to the graphical display, information can be presented in table form. Users can query and filter the data directly to create detailed reports with speed and ease.

Alerts and Event Assignment

When a predefined threshold value is exceeded, an alert is generated and an event assigned to one or more contact persons as specified in the corresponding monitoring configuration file. In the event of a fault, the user has a range of options for viewing events and identifying the possible causes. In addition, the user can switch directly from a displayed event to the respective object data in FNT Command to obtain detailed information about the displayed CI.

A screenshot of the 'Alarms' section in the FNT Monitoring interface. It displays a table with the following columns: 'Target device', 'Service', 'Importance', 'Duration', and 'Message'. The table contains several rows of alerts, including 'ACRPOUL-1000 generated-normal', 'ACRPOUL-1000 generated-mis', 'ACRPOUL-1000 generated-power', 'ACRPOUL-1000 http-80', 'ACRPOUL-1000 webserver', 'RAMOS-PIT-Archiv-37 Module 0A020335/Dual Humidity Port 1', 'RAMOS-PIT-Archiv-37 Module 0A020335/Dual Temperature Port 1', and 'RAMOS-PIT-Archiv-37 Main Module/Dual Humidity Port 8'. The messages include details about generated events, criticality, and response times. At the bottom right, there are checkboxes for 'Unknown', 'Acknowledged', and 'Pending'.

Fig. 3: Rapid identification of affected devices via clear and prioritized alerts

Fault Criticality

Individual warning and error messages can be displayed in accordance with their criticality, i.e., the most important messages appear at the top of the list and are highlighted as priority issues. The value of a critical system state is based on the importance of the target device and the associated service.

Notification of Contact Persons

The notification preferences in the event of a fault can be precisely controlled and are based on the escalation level. The relevant contact person is notified in a timely fashion via the preferred method (SMS, e-mail, phone).

Escalation and Alert Processing

Alerts are initially displayed and processed in the FNT Monitoring interface. Each alert is presented in a clearly designed dashboard, from where it is possible to trace the fault. Thanks to standard integration with FNT Command, the user can open and edit each monitored object directly from the UI.

### Historization of Measured Data

It is often possible to avoid system failures by observing changes in measured data over a specific time period and identifying critical system states. Integrated historization of measured values in a dedicated database enables complete long-term evaluation of all monitored devices and provides the basis for more informed planning decisions. Data for any time period can be stored in the form of graphical reports or tables. The database is designed to handle extremely large quantities of data and provide fast and reliable access for analysis. To ensure maximum availability, the database can be implemented as a redundant and/or distributed installation.

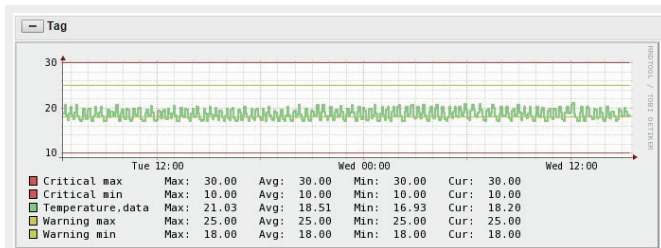


Fig. 4: Graphical evaluation of historized measurement data

### Reports and Trend Analysis

FNT Monitoring includes integrated reports that query individual hosts or services over specified time periods. It is also possible to view alert statistics for each CI. Historized data can be used to create trend analysis reports to assist with evaluation and planning.

The module also offers graphical reports that enable users to view historized data in diagrammatic form, making it easier to evaluate systems. The log contains a historized record of all past events, enabling easier identification of recurring fault patterns.

### Scalable System Architecture

FNT Monitoring features a system architecture that can be adapted to any size of environment. While the monitoring configuration files are edited centrally, it is also possible to set up intelligent and decentralized agents at one or more locations worldwide. This enables targeted control of network loads. In addition, redundant operation at individual locations increases system reliability.

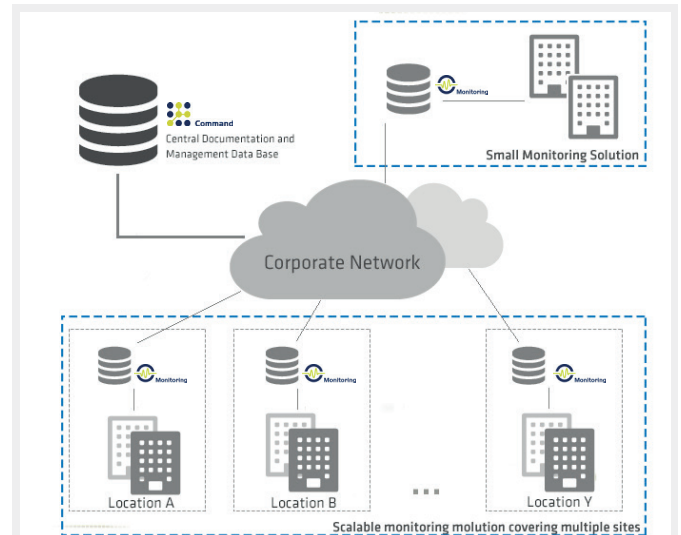


Fig. 5: The system architecture scales to match the monitored infrastructure

## Key Facts

FNT Monitoring supports fault-free operation of data centers, enabling operators to improve resource efficiency over the longer term. As part of FNT's data center infrastructure management (DCIM) solution, FNT Monitoring offers the following benefits:

- Faster detection of capacity bottlenecks through automated threshold checks
- Criticality-based notifications and escalation routines with precision control
- Easy identification of recurring fault patterns through long-term data analysis
- Scalable and powerful system for centralized management and control of multiple locations
- Transparency into relationships between resources and capacities thanks to standard integration with FNT Command
- Greater planning certainty through use of measured values to validate change concepts
- Integrated, easy-to-use dashboard and extensive reporting options

For additional information: [www.fntsoftware.com/monitoring](http://www.fntsoftware.com/monitoring)