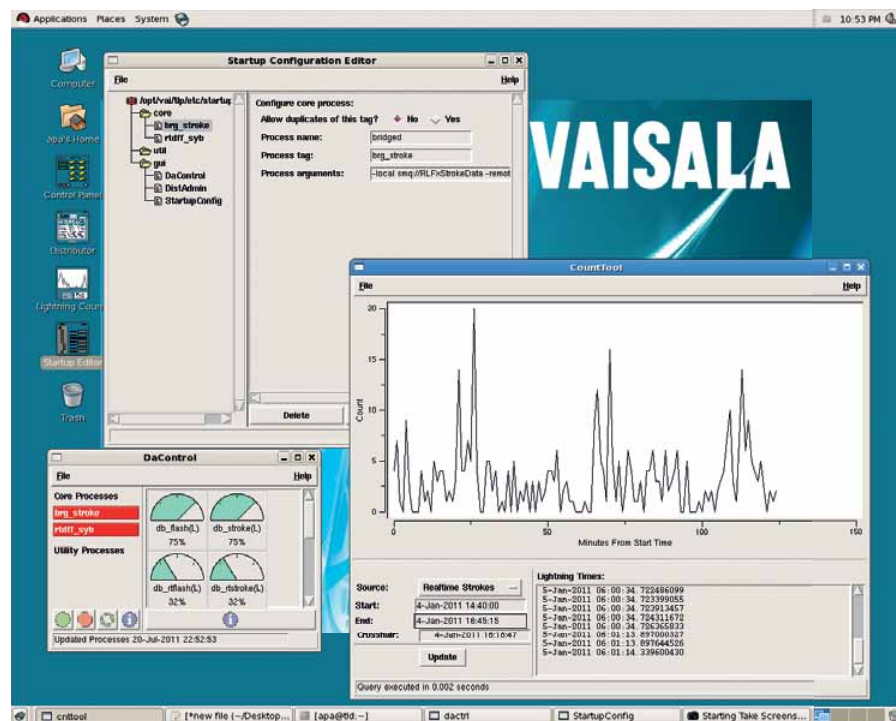


## Vaisala Fault Analysis and Lightning Location System™ FALLS® Server 5.1



### Features/Benefits

- Provides long-term storage of stroke and flash data in a relational database for post-storm and multi-year statistical analyses
- Supports multiple workstations and simultaneous queries
- Manages multiple user connections, including accounting and security control functions with the capability to add users
- Provides standard and customized lightning data format outputs that can be integrated with weather display software configured to ingest external data
- Provides a connection to Vaisala FALLS® client software decision support system to analyze and display lightning activity

*The FALLS® Server is a processing module in the Vaisala Thunderstorm Information System that specializes in archiving cloud and cloud-to-ground lightning data for forensic applications, and connecting with the FALLS® client application to display decision support information.*

### Easy, Secured Access to Real-time and Archived Lightning Information

The FALLS® Server is the lightning data management processor module that receives and stores real-time lightning data from the Vaisala Thunderstorm central processor. Vaisala Thunderstorm Information System operators use the FALLS® Server to archive their lightning data into a relational database. Users have easy and secured access to the archived data for use in their lightning display software and lightning analysis software. The FALLS® Server also provides secured access to real-time lightning data.

### Flexibility for users

Multiple users can simultaneously access lightning information for use in their Vaisala FALLS® Fault Analysis and Lightning Location System, or custom lightning application software. The standard data format allows users to import lightning data into their weather display software that is configured to accept external data.

Vaisala FALLS® Server allows flexible and efficient manipulation of lightning data through a published set of industry standard Structured Query Language (SQL) function calls and procedures.

# Technical Data

## Summary

The FALLS® Server resides on a single or multiprocessor server. It includes the Vaisala lightning database software license. The FALLS® Server utilizes a powerful, open source, object-relational database system by PostgreSQL. PostgreSQL has proven architecture that has earned a strong reputation for reliability, data integrity and correctness.

## Hardware Minimum Specifications

Internet connectivity is a must for installation (T1 speed is recommended)  
Tower or rack mount form factor  
Two (2) or more physical CPU's, x86\_64 compatible, 2 GHz or faster. Dual-core or better.  
Four (4) or more internal hard drives, each 500 GB or larger. A minimum of 3 disks configured as RAID 5 and one disk as a hot spare to the RAID set.  
64 GIG minimum RAM  
Two (2) USB 2.0 ports or more  
Two (2) NIC ethernet ports (100/1000 Mbps)  
DVD +RW burner  
Red Hat Enterprise 5.5 Operating System Software 64-bit edition  
RHEL5\*\* compatible modem

- \* Please note: Computer hardware is subject to change. In case of evolution of an item, an equivalent or better item will be provided.  
\*\* RHEL5 release at 5.3 or greater.

## Data Access/Output

Scalable number of simultaneous users  
Supports simultaneous real-time and archived data access  
Access to archived data based on date/time, latitude/longitude, and range/azimuth queries  
Base configuration supports on-line storage for one billion strokes or flashes  
Simultaneous flash or total lightning and stroke data access support

## System Compatibility

Communication Interfaces      Asynchronous RS-232  
TCP/IP (recommended)  
The FALLS® Server supports:  
Archive lightning location data to Vaisala FALLS® and Vaisala DAM analysis software  
Real-time data to other third-party software  
ASCII-based, user-defined formats  
Stored procedures and triggers  
ODBC-compliant applications

## Environmental Specifications\*\*\*

\*\*\* The environmental specifications are equal to the HW specifications by default. The following specifications are subject to change without notice based on hardware availability.

Operating temperature      +10 °C to +35 °C (50 °F to 95 °F)  
Storage temperature      -40 °C to +65 °C (-40 °F to 149 °F)  
Operating relative humidity      20 % to 80 % non-condensing  
(non-condensing twmax = +29 °C)  
Storage relative humidity      5 % to 95 % non-condensing  
(twmax = +38 °C)  
Operating altitude      -16 to 3,048 m (-50 ft to 10,000 ft)  
Storage altitude      -16 m to 10,600 m (-50 ft to 35,000 ft)

## Power Requirements

100 to 240 VAC; 47 to 63 Hz; 0.4 kVA

## Support Services

Training and after-sales support services are available for maintaining optimal network and processor performance. Contact your Vaisala Sales Representative for service agreement information.

# VAISALA

For more information, visit  
[www.vaisala.com](http://www.vaisala.com) or contact  
us at [sales@vaisala.com](mailto:sales@vaisala.com)

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