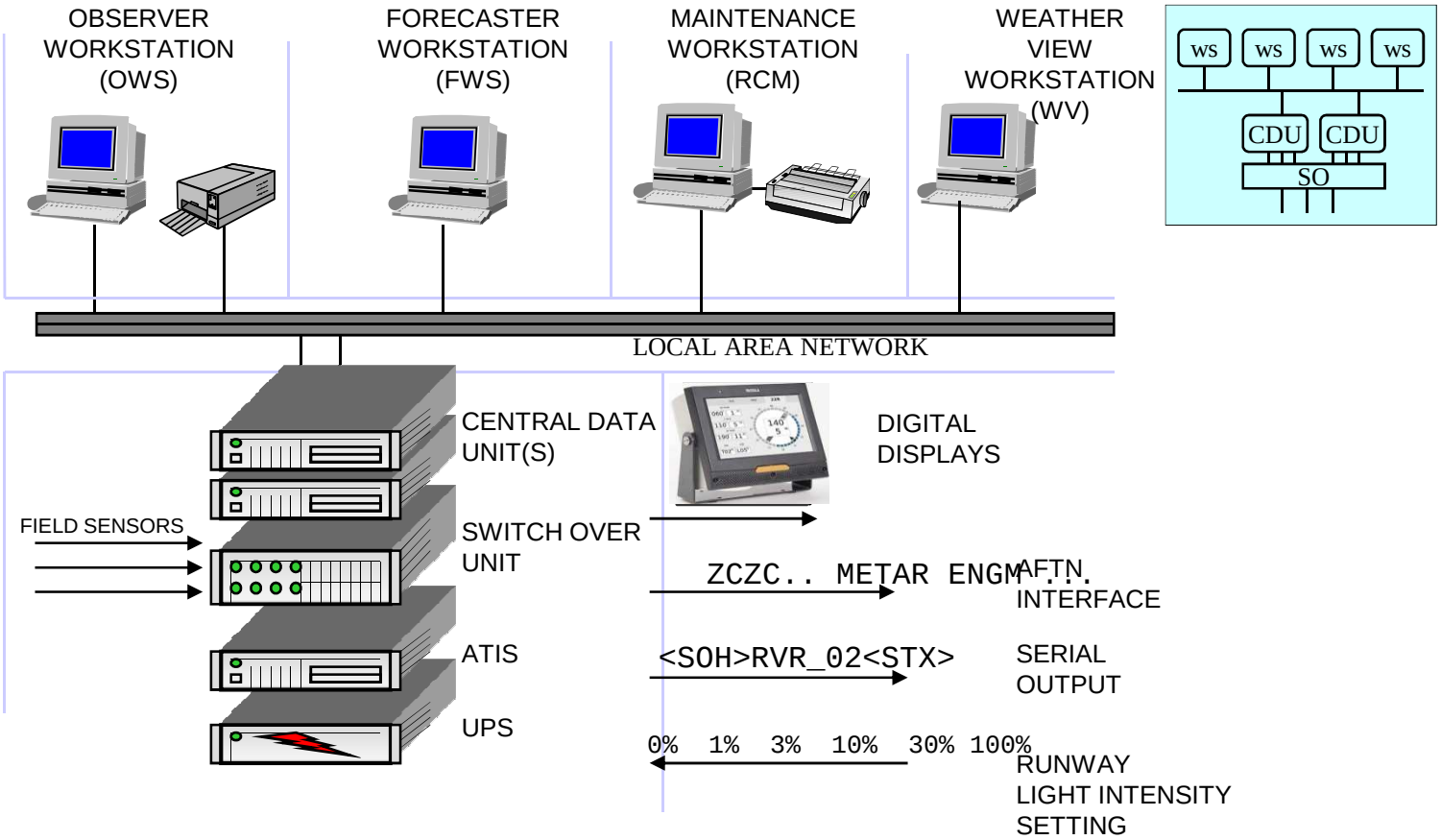
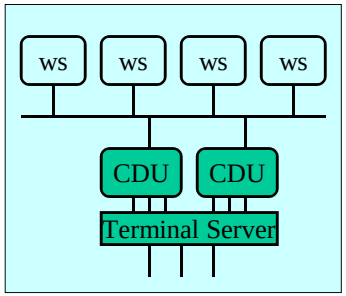
AviMet: System architecture

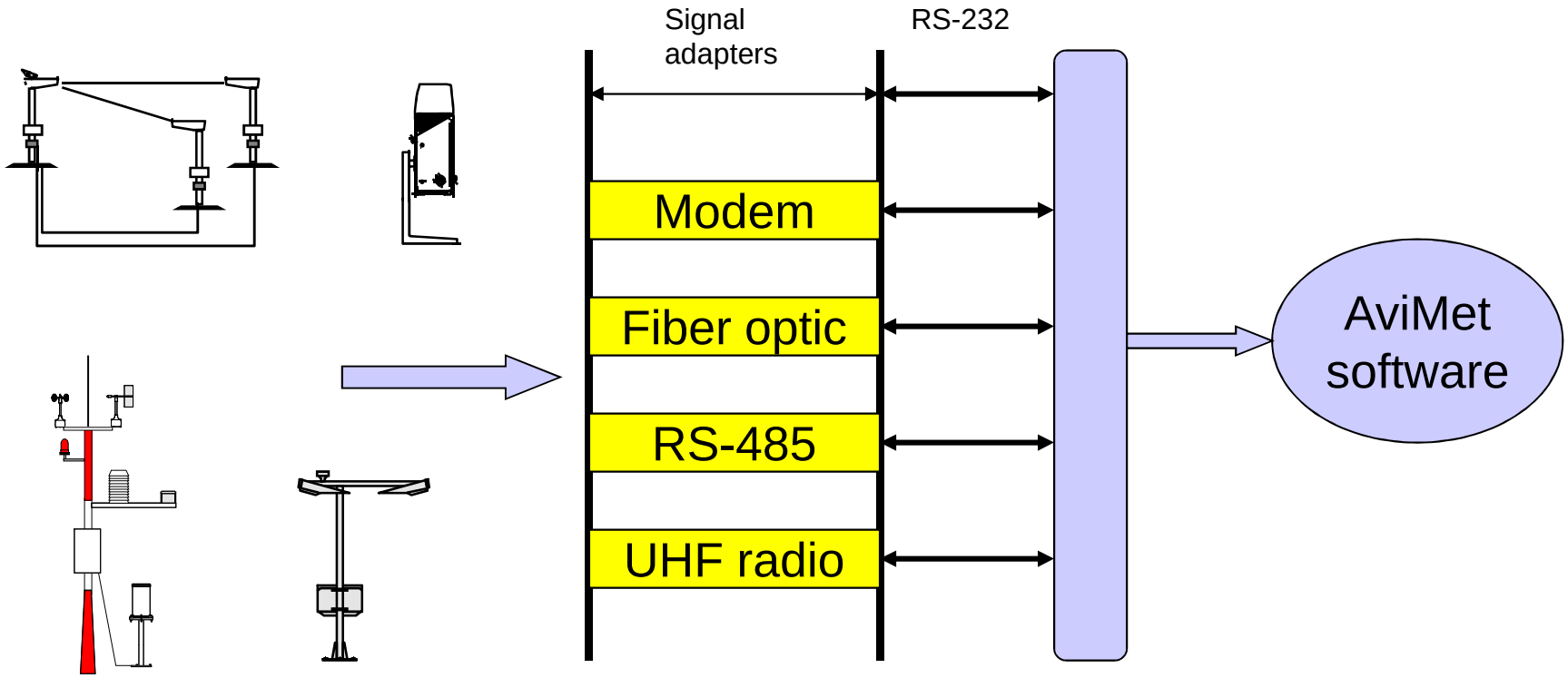


Central Data Unit (CDU)



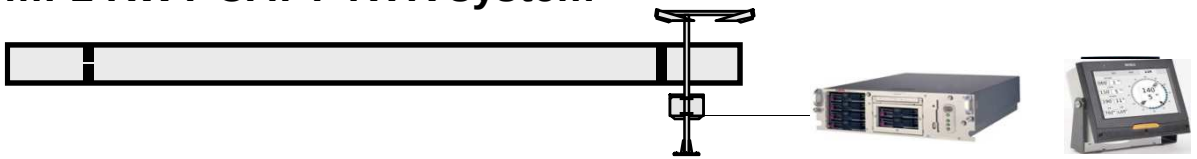
- CDU tasks
  - Sensor data acquisition and validation
  - Meteorological calculations
  - Sensor service interface
  - Alarm services
  - Single or dual configuration
  - dual hot-standby configuration with Switchover Unit provides increased reliability and uptime

Data acquisition: Field sensor connections

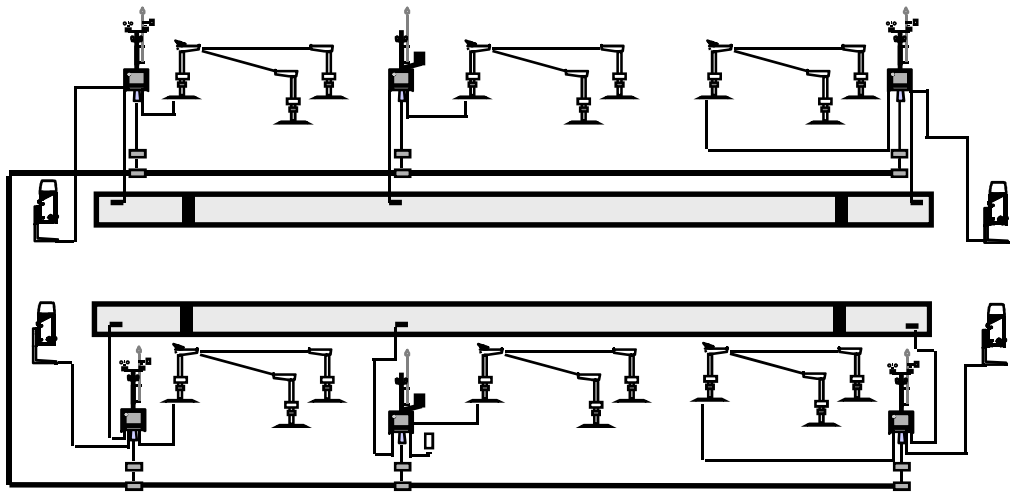


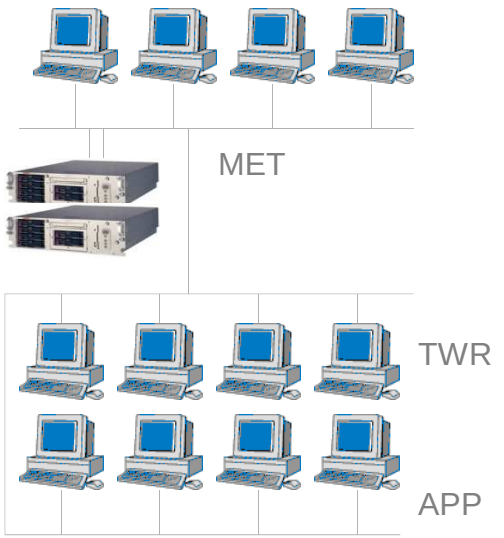
AviMet: Scalability

Small system: 1 RWY CAT I RVR system



Large system: 2 RWY CAT IIIB AWOS

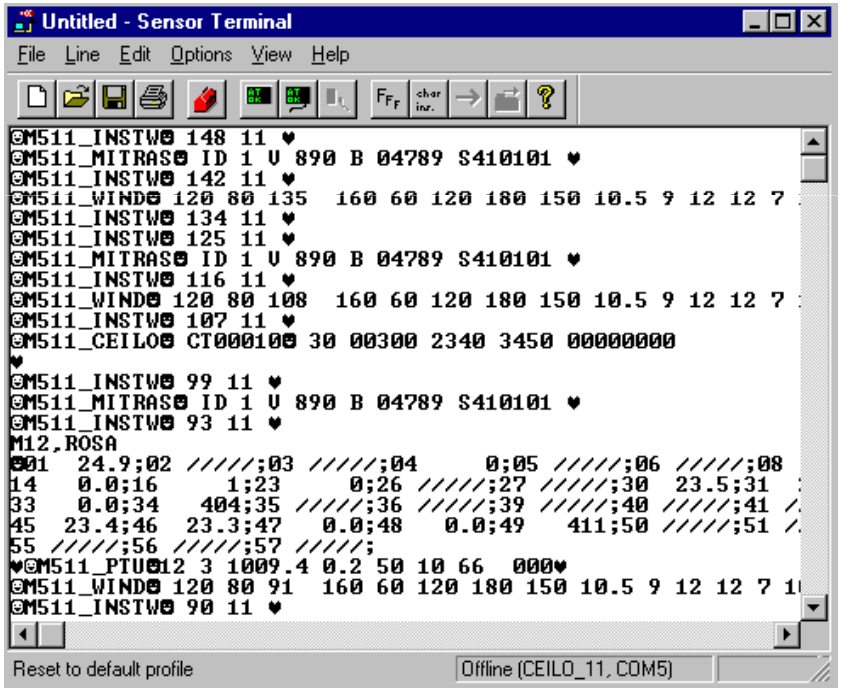




Sensor service interface

- Direct access to sensors and weather stations for configuration and diagnostics

- Available over a dial-up connection for remote maintenance

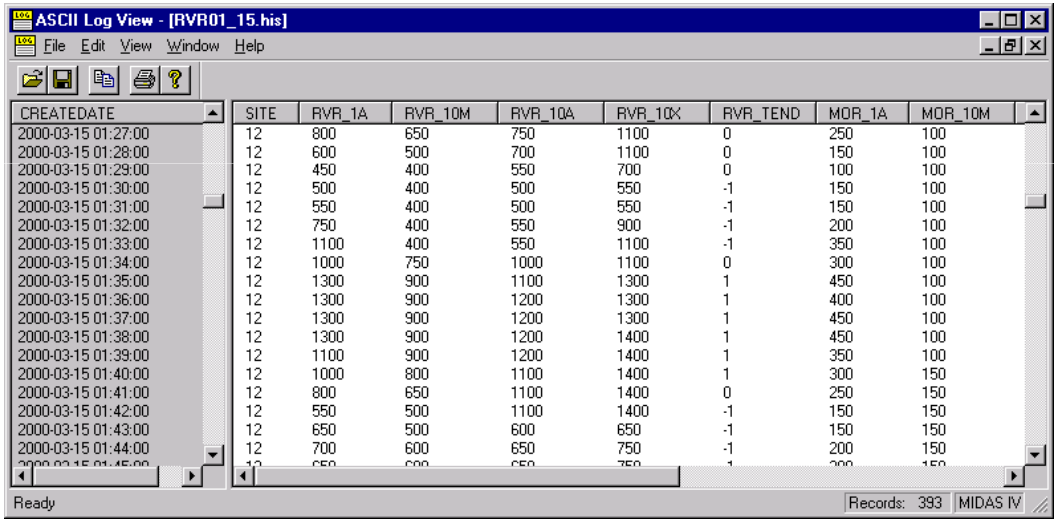


Meteorological messages and AFTN

- METAR/SPECI
- SYNOP
- TAF
- SIGMET
- AFTN interface:
  - message formats: IA-5, ITA-2
  - viewing of outgoing messages
  - message transmission via serial port, TCP/IP socket or FTP

Data storage

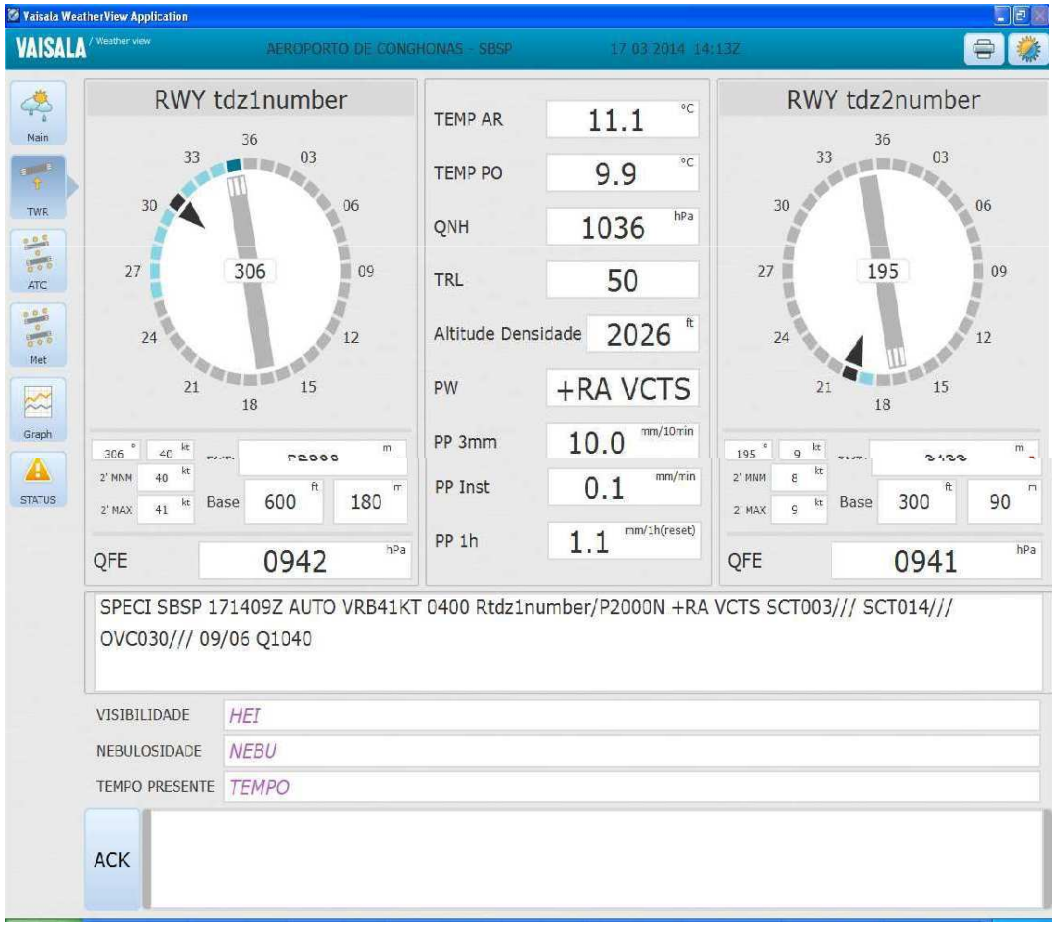
- Data storage for...
  - measured and calculated variables
  - meteorological messages
  - alarms
- Up to one year storage time
- Human-readable file format
- Viewer application for easy access to data



CREATEDATE	SITE	RVR_1A	RVR_10M	RVR_10A	RVR_10X	RVR_TEND	MOR_1A	MOR_10M
2000-03-15 01:27:00	12	800	650	750	1100	0	250	100
2000-03-15 01:28:00	12	600	500	700	1100	0	150	100
2000-03-15 01:29:00	12	450	400	550	700	0	100	100
2000-03-15 01:30:00	12	500	400	500	550	-1	150	100
2000-03-15 01:31:00	12	550	400	500	550	-1	150	100
2000-03-15 01:32:00	12	750	400	550	900	-1	200	100
2000-03-15 01:33:00	12	1100	400	550	1100	-1	350	100
2000-03-15 01:34:00	12	1000	750	1000	1100	0	300	100
2000-03-15 01:35:00	12	1300	900	1100	1300	1	450	100
2000-03-15 01:36:00	12	1300	900	1200	1300	1	400	100
2000-03-15 01:37:00	12	1300	900	1200	1300	1	450	100
2000-03-15 01:38:00	12	1300	900	1200	1400	1	450	100
2000-03-15 01:39:00	12	1100	900	1200	1400	1	350	100
2000-03-15 01:40:00	12	1000	800	1100	1400	1	300	150
2000-03-15 01:41:00	12	800	650	1100	1400	0	250	150
2000-03-15 01:42:00	12	550	500	1100	1400	-1	150	150
2000-03-15 01:43:00	12	650	500	600	650	-1	150	150
2000-03-15 01:44:00	12	700	600	650	750	-1	200	150

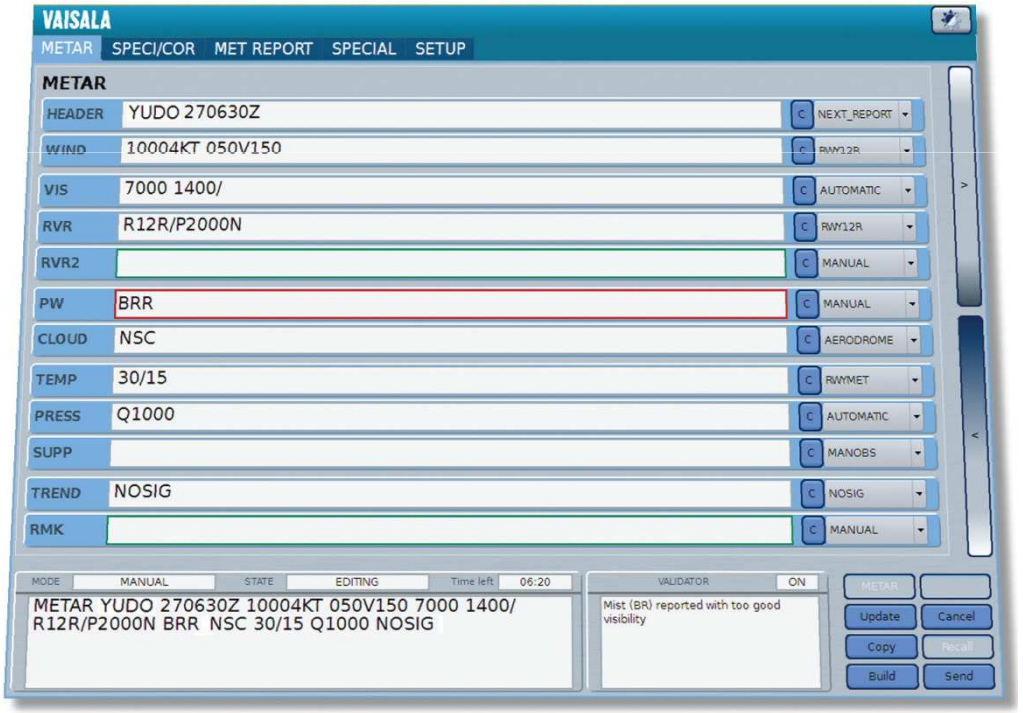
Applications: Weather View

- Any measured or calculated data can be displayed
- Up to 6 pages for different configurations
- Read-only access



Applications: METAR Template

- edit, validate and send METAR and SPECI
- opens automatically on schedule with data from sensors
- adjustable editing time
- parameter cross-checking
- automated METAR optional
- corrected and delayed messages



Digital Display

- Vaisala WID511 Digital Display for Wind data.
- Vaisala WID511TU Digital Display for Wind, Temperature and Humidity data.