Base Transceiver Station (BTS) monitoring

[](https://www.hw-group.com/files/styles/large/public/solution/8417-base-transceiver-station-bts-monitoring/solutions-basetransceiverstationbtsmonitoring.png)

Infrastructure of mobile networks needs reliable monitoring of background technology of cooling, heating and building/site conditions. This solution describes some varieties of monitoring and alerting.

A mobile carrier operates a country-wide system of Base Transceiver Stations (BTS). The BTS system is the part of a GSM network that is responsible for the reception and transmission of radio signals from mobile phones. A Base Transceiver Station is a general description of equipment consisting of the telecommunication technology and the air interface of the mobile network (GSM, UMTS etc.).

Horizontal menu

* [Solutions](https://www.hw-group.com/solution/base-transceiver-station-bts-monitoring#undefined)
* [Devices](https://www.hw-group.com/solution/base-transceiver-station-bts-monitoring#undefined)
* [Sensors](https://www.hw-group.com/solution/base-transceiver-station-bts-monitoring#undefined)

**Issue description:**

To achieve high reliability, the operating temperature must be kept stable. This is achieved with an air-conditioning (A/C) unit, usually located in the top part of the technology cabinet. However, AC units are expensive and there is still a risk of malfunction.

In addition, a back-up power supply must be ready to overcome any power failures. The customer also wants to be alerted if there is someone near the BTS.

|  |  |  |
| --- | --- | --- |

| **Solutions** | **Benefits** | **Solution image** |
| --- | --- | --- |
| Ares 10/12 is a suitable product for monitoring the temperature inside the cabinet and signaling an alarm if the temperature starts to rise. The product can detect A/C failures, or temperature changes as small as one degree. | * Multiple alarm types – text message (SMS), e-mail, dialing a number, activating a relay * Logging of temperature and humidity, many other functions * One-off purchase only, no hidden fees/recurring costs * Standard 3-year warranty and full technical support | [https://www.hw-group.com/files/styles/hwg_distrib_product_medium/public/solution-images/websolution-bts-21.png](https://www.hw-group.com/files/solution-images/websolution-bts-21.png) |
| Besides the Ares device for temperature monitoring, a complete solution can be deployed, including **power back-up**. It is necessary to purchase a UPS with sufficient capacity. BTS also frequently contain batteries. Therefore, a device capable of monitoring the UPS voltage and battery capacity is needed. The *UPS 12 and 5V* product provides a suitable solution. It can power smaller sensors if needed.  The Ares device can be complemented with a wide range of sensors, such as motion detectors. For example, the PIR JS-20 motion detector and door contacts. | * Multiple alarm types – text message (SMS), e-mail, dialing a number, activating a relay * Logging of temperature and humidity, many other functions * Motion detectors, door contacts * Battery status monitoring, back-up power supply activation * One-off purchase only, no hidden fees/recurring costs * Standard 3-year warranty and full technical support | [https://www.hw-group.com/files/styles/hwg_distrib_product_medium/public/solution-images/websolution-bts-22.png](https://www.hw-group.com/files/solution-images/websolution-bts-22.png) |