

Metin UZAR

Entries (RSS) Comments (RSS)

Base Station Controller(BSC)

Posted by: admin on: September 19, 2009

In: GSM 2 Comments

i

6 Votes

The BSC controls multiple BTSs. It handles allocation of radio channels, frequency administration, power and signal measurements from the MS, and handovers from one BTS to another (if both BTSs are controlled by the same BSC). A BSC also functions as a “funneler”. It reduces the number of connections to the Mobile Switching Center (MSC) and allows for higher capacity connections to the MSC.

The base station controller (BSC) provides, classically, the intelligence behind the BTSs. Typically a BSC has tens or even hundreds of BTSs under its control. The BSC handles allocation of radio channels, receives measurements from the mobile phones, controls handovers from BTS to BTS (except in the case of an inter-BSC handover in which case control is in part the responsibility of the anchor MSC). A key function of the BSC is to act as a concentrator where many different low capacity connections to BTSs (with relatively low utilisation) become reduced to a smaller number of connections towards the mobile switching center (MSC) (with a high level of utilisation). Overall, this means that networks are often structured to have many BSCs distributed into regions near their BTSs which are then connected to large centralised MSC sites.

The BSC is undoubtedly the most robust element in the BSS as it is not only a BTS controller but, for some vendors, a full switching center, as well as an SS7 node with connections to the MSC and serving GPRS support node (SGSN) (when using GPRS). It also provides all the required data to the operation support subsystem (OSS) as well as to the performance measuring centers.

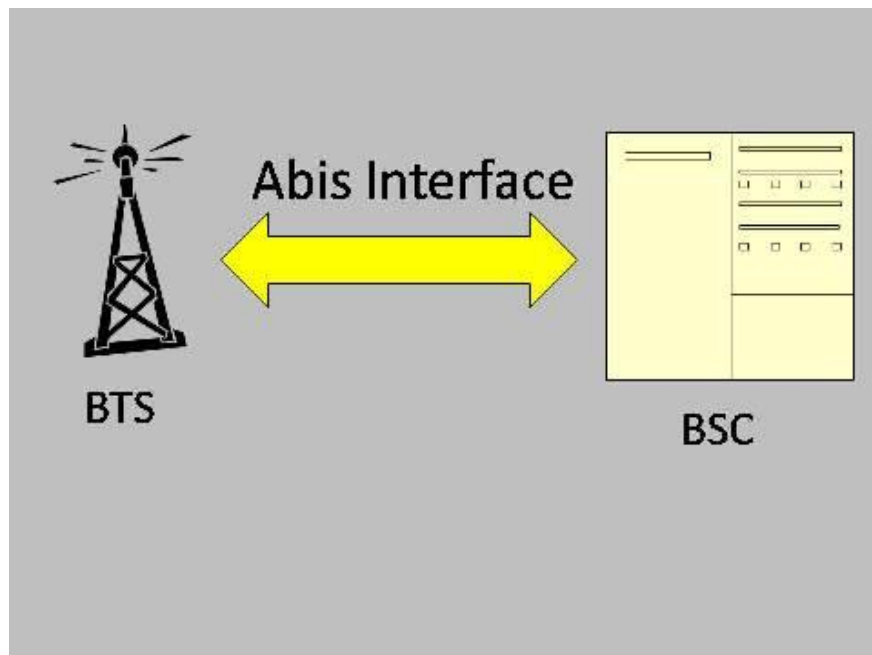
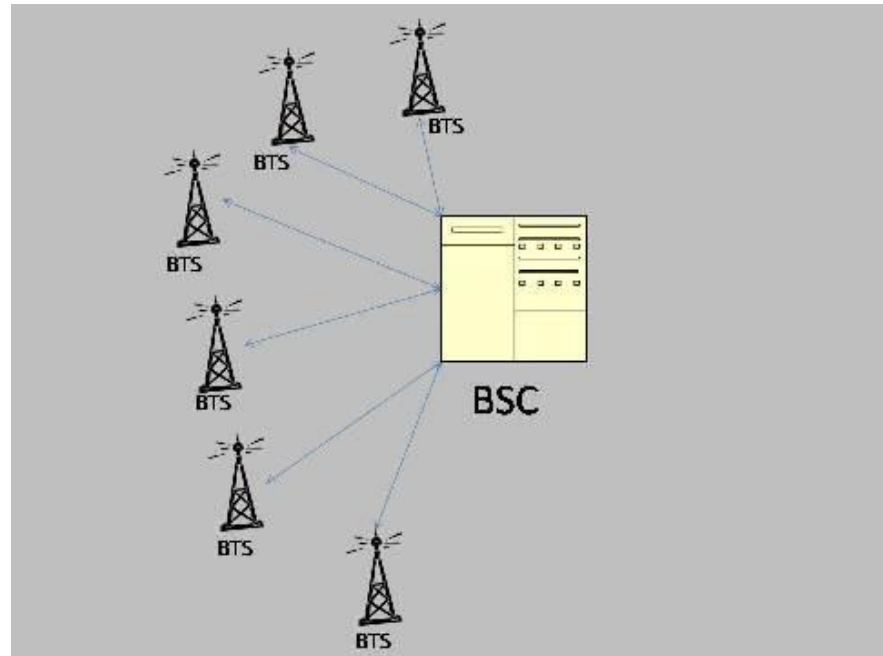
A BSC is often based on a distributed computing architecture, with redundancy applied to critical functional units to ensure availability in the event of fault conditions. Redundancy often extends beyond the BSC equipment itself and is commonly used in the power supplies and in the transmission equipment providing the A-ter interface to PCU.

The databases for all the sites, including information such as carrier frequencies, frequency hopping lists, power reduction levels, receiving levels for cell border calculation, are stored in the BSC. This data is obtained directly from radio planning engineering which involves modelling of the signal propagation as well as traffic projections



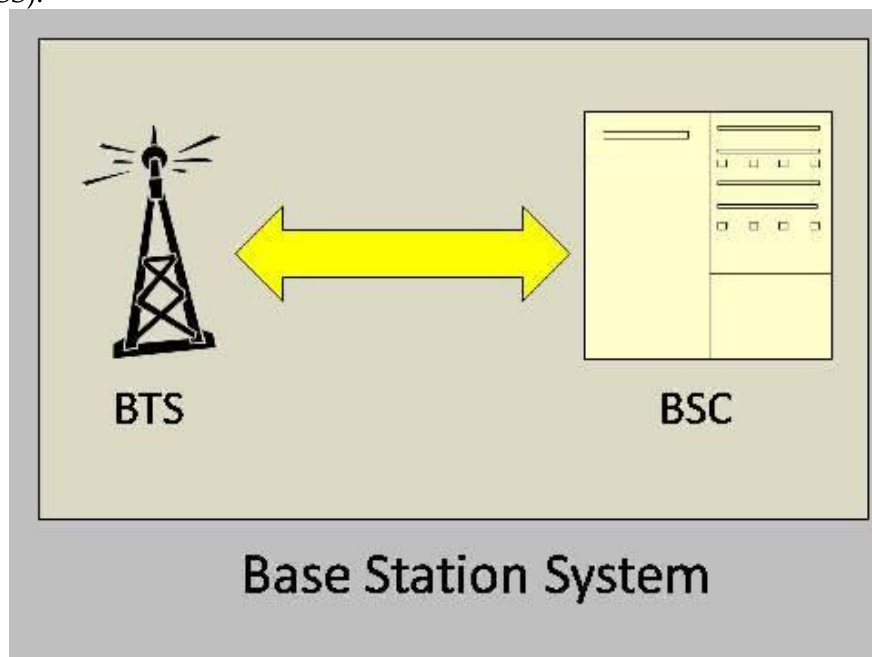
A BSC may be collocated with a BTS or it may be geographically separate. It may even be collocated with the Mobile Switching Center (MSC)

The interface between the BTS and the BSC is known as the Abis Interface





The Base Transceiver Station (BTS) and the Base Station Controller (BSC) together make up the Base Station System (BSS).





Sponsored Content

It's No Big Secret Why We Don't See Liv Tyler Anymore. Street Insider | Sponsored

At 86, This Is Where Jack Nicholson Lives Street Insider | Sponsored

The Most Inappropriate Dress on The Golden Globes Red Carpet ItsTheVibe | Sponsored

[Photos] Kristy McNichol & Her Wife - Still Together At 59 Culture | Sponsored

[Pics] Greta Thurnberg Has A Collection Of Cars, And This Is The Only One She Drives Street Insider | Sponsored

If You Still Have This Sewing Machine, You're Rich Investing Magazine | Sponsored

New York: Unsold Alaska Cruise Cabins Are Almost Being Given Away All-Inclusive Cruise Deals | Search Ads | Sponsored

1/2 Cup Of This (Before Bed) Can Melt Your Belly Fat Like Never Before! getfittoday.online | Sponsored

New Acura's Finally On Sale All Things Auto | Sponsored

Tags: Base, Base Station Controller, BSC, BST, controller, GSM, MSC, Station, Telecom

2 Responses to "Base Station Controller(BSC)"

1 | **Terry Naipu**

December 5, 2009 at 4:09 pm

I saw the information very updated and I greatly applaud your hard work to publish to us is unforgettable...

Good Lord Bless You.

1

0

i

Rate This

Reply

razunitem

December 6, 2009 at 11:19 pm

Thanks for your very nice comment

0

1

i

Rate This

Reply

<https://razunitem.wordpress.com/2009/09/19/base-station-controllerbsc/>

Advertisements



SPEEDPRESS 2' X 4' RHINO
CUTTING MAT (WITH GRID)
(ITEM#04CCRHINOCM24)

\$72.95

FORMAX CUT-TRUE 13M
MANUAL STACK PAPER CUTTER
(ITEM#04FXCT13M)

\$656.25

FUJIPLA HLA-2301 ALM 12.6"
AUTOMATIC LAMINATOR
(ITEM#04DLHLA2301)

\$17,995

REPORT THIS AD

[Blog at WordPress.com.](https://razunitem.wordpress.com/2009/09/19/base-station-controllerbsc/)