

SID and BID Management by IFAST

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IFAST
<http://ifast.org>

What is a SID?

- ❑ Number that identifies a geographical portion of an operator's network.
- ❑ Transmitted **S**ystem **I**dentifier for CDMA and previously also TDMA and AMPS are in the range 0..32,767.
- ❑ Enables a phone to identify the serving system and make roaming decisions.
- ❑ Also often used within call detail and billing records to identify the operator serving a call, the tax regime, revenue sharing arrangements, etc.
 - ❑ ANSI-41 systems can use 0..65,535
 - ❑ GSM systems can use 0..99,999

What about BID?

- ❑ **B**illing **I**dentifier for CIBER and TAP billing and revenue sharing records (c.f. GSMA TD.38, TD.57).
- ❑ When used with SID codes, often identifies a smaller geographical portion of an operator's network.
- ❑ Use of SID codes for billing-only purposes is grandfathered by IFAST and Cibernet to avoid network disruption.
- ❑ SID and BID codes share the same numbering range, 0-32767, but BID codes can go up to 99999.
- ❑ Therefore – the same code *cannot* be used for transmission by one operator and billing by a *different* operator.
- ❑ Each code can be assigned to only one operator, which chooses whether to use it as a transmitted or billing ID...or both.

History of SID Assignment

Date	Action
1983	FCC assigned SID codes for AMPS cellular.
1992	TIA TR-45.2 published international SID ranges in TSB-29.
1994	FCC appoints Cibernet to assign SID codes for PCS.
1995	IFAST founded to assign International Roaming MINs (IRMs)
1998	TR-45.2 transferred SID management responsibilities to IFAST
2003	FCC privatized US SID assignments
2007	IFAST becomes a US SID administrator
2008	IFAST became the sole US SID database manager
2014	Cibernet ceased any role in SID (0-32767) administration
2015	* IFAST now the sole US SID administrator * X.R0070 published (TSB-29-F in press)

Current Responsibilities

Range	Type	Administrator
0-32,767	Transmissible SID/BID	IFAST
32,768-65,535	Universal BID	Cibernet
65,536-99,999	3GPP/GSM BID	Cibernet

TIA TSB-29

- TIA TSB-29 **originally** contained a list of all known SID ranges, individual code assignments, and International Roaming MIN assignments.
- It was difficult to maintain a published standard, with long delays (months or years) between updates.
- TIA gradually transferred all SID and IRM numbering information to IFAST where a real-time database developed by IFAST made updates available bi-weekly, and now instantly.
- TSB-29-F is in press and 3GPP2 X.R0070 published to reflect the current division of SID responsibilities:
 - http://www.3gpp2.org/Public_html/specs/X%20R0070-0v1.0_20150625.pdf

SID Management

- *IFAST is the only organization to do SID management and not just assignment.*
- “Management” = Accountability via regular (e.g. annual) revalidation of the information associated with a SID to maintain database accuracy:
 - Name of assignee
 - Geographical service area
 - Contact information
 - etc.

US SID Management

- ❑ FCC defined the responsibilities of administrators and assignees in their 2003 guidelines:

fcc.gov/encyclopedia/cellular-system-identification-number-sid-administrators

- ❑ Requires that operators report SID usage to an administrator (§6.1)
- ❑ Authorizes administrator to charge fees (§5.8)
- ❑ Requires administrator to publicly report (§5.9)
- ❑ IFAST is the first administrator to start implementing all requirements.
- ❑ IFAST is currently the only FCC authorized SID administrator.

IFAST Role in SID

- ❑ Over 20 years of involvement with SID codes.
- ❑ Primary global SID administrator since 1998.
- ❑ Assignment of SID ranges to countries and other international entities (e.g. Satellite Carriers).
- ❑ Documents assignments by other admins (Cibernet, China, etc.)
- ❑ Assignment services where there is no national administrator.
- ❑ Reclamation of unused SID codes.
- ❑ Web query, display and export of SID assignments.
- ❑ Worldwide education.
- ❑ Resolution of inter-carrier SID/BID issues.
- ❑ Annual open industry forum to maintain and update guidelines:
<http://www.ifast.org/IFAST%20SID%20Guidelines%20r2.6.0.pdf>

IFAST Role in SID/BID

- Assignment of BID code ranges to Cibernet.
- Management of BID codes in the range 0–32,767.
- Documentation of BID codes above 32,767.
- Web query and display of BID information.
- Maintenance of global guidelines:

US SID Administration

- IFAST is documenting all current US SID code usage (along with other countries).
- Several US operators already have their SID codes ‘grandfathered’ and managed by IFAST
- SID information audited by IFAST is available:
 - Basic query at:
 - ifast.org/SIDtables.htm
 - Detailed information in a password-protected web page for access by IFAST members only.

Return of US SID Codes

- ❑ IFAST has prepared a large list (over 700 codes) of SID codes that are no longer needed by their assignees.
- ❑ IFAST is working with FCC and other organizations to publish this list and ensure operators have a right to claim codes they may have acquired through sales and transfers of licenses.
- ❑ Updated information about SID assignments will be included in the IFAST SID/BID database.
- ❑ IFAST policy is that unused codes are returned for re-use after a suitable period of dormancy.

Conclusions

- ❑ IFAST has a critical role in SID management.
- ❑ IFAST is the sole administrator of SID/BID codes in the range 0-32,767.
- ❑ IFAST is becoming the single source for accurate and current SID/BID information, 0-99999.
- ❑ IFAST coordinates with Cibernet
- ❑ Careful management is required to reduce the risk of conflicts, confusion, wastage and potential exhaustion.