

INDEX OF NETWORK DESIGN-RELATED
DMS-100/200 DOCUMENTATION

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PROPRIETARY

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Network DesignDMS-100/200 Documentation Review - GENERALI. DOCUMENTATION-GENERALA) SWBT-GHQ

| <u>Letter File Subject No.</u> | <u>Letter Signed by</u> | <u>Letter Addressed to:</u> | <u>Contents Summary</u> |
|------------------------------------|--------------------------------------|---|--|
| 219.02 (8-1-86) | AVP-NCOE | State 5th levels Ntwk.-Sw. Svcs., Planning, Staff Opr. Svcs. and NCOO | Explains SWBT arrangement with NTI to send DMS-10 and 100/200 docum. issues to two special mailing lists. Attachments contain GHQ/State/Section department heads and division levels list and Engrg. Ref. library or equiv. list. Has ordering instr. and NTI docum. catalog also. |
| 225.1002 (6-17-85) | Div. Staff Mgr.-Network Design | State Div. levels Ntwk.- Sw. Svcs., Engrg. | Comparison of DMS-100F and 5ESS real time processor utilization using sample office data. |

B) NTI

| | | | |
|---|--|--|--|
| Documentation Catalog (DMS 10&100 Family) | | March, 1986 & update dated July, 1986 | Listing of NTI Mktg. Bulletins, Practices, Planning Letters, etc. with issue nos. Explains the types of letters, also. |
| Mktg. Bulletin D100-8627, iss #1 | | 7-8-86 | Listing of all currently available General Feature Descriptions (GFDs) |

| <u>Letter File Subject No.</u> | <u>Letter Signed by</u> | <u>Letter Addressed to:</u> | <u>Contents Summary</u> |
|---|-----------------------------|---------------------------------|---|
| C) <u>BELLCORE</u> Numerical Index- Division 241 General Trade Swg. System | | 2/86 Issue 4 | Listing of Bellcore Practices for DMS-10 (241-100 series) and DMS-100/200 (241-200 series) |

DMS-100
NETWORK DESIGN-RELATED
NORTHERN TELECOM PRACTICES/SPECS.

| | |
|------------------|---|
| NTP 297-1001-001 | Master Index of Practices |
| NTP 297-1001-100 | System Description |
| NTP 297-1001-101 | Central Control Complex |
| NTP 297-1001-103 | Peripheral Modules |
| NTP 297-1001-104 | Message System Description |
| NTP 297-1001-106 | Call Processing System |
| NTP 297-1001-107 | Maintenance & Administration Tools |
| NTP 297-1001-108 | Software System |
| NTP 297-1001-114 | Operational Measurements |
| NTP 297-1001-114 | Supplement to OM's Practice |
| NTP 297-1001-320 | Operational Measurements Reference Manual |
| NTP 297-1001-321 | Traffic Separation Measurement System Ref. Manual |
| NTP 297-1001-450 | Provisioning |
| NTP 297-1001-455 | Office Parameters Reference Manual |
| NTP 297-2001-100 | IBN System Description |
| NTP 297-2001-103 | IBN Feature description |
| NTP 27-2001-450 | IBN Data Engineering Guide |
| NTP 27-2271-450 | TOPS Traffic Provisioning |
| NTP 297-2271-100 | TOPS System General Description |
| GS0X01 | Index of General Specifications |

DMS-100 BELLCORE PRACTICES

- | | | |
|----------------|-------|---|
| BR 241-100-010 | 12-84 | DMS-100 Swg. Systems Operations Plan |
| | | - Describes overall DMS-100 switch, network engineering & administration responsibilities; does same for maintenance, billing, ntwk. mgmt. Also contains listing of other 1984 BELLCORE letters on many DMS-100 issues. |
| BR 241-220-080 | 9-85 | Capacity Analysis-Network Administration DMS-100/200 |
| | | - Explains capacity determination and loading plan responsibilities of administration and design; has worksheets for number, network, LCM, svc. ckt., announcement capacity determination. |
| BR 241-220-011 | 4-85 | Line and Number Assignment Overview - Network Administration |
| | | - Outlines line and number considerations for balance, etc. Good for Ntwk. Design, too. |

SWBT DMS-100 Practices

SW 235-060-900
(issue A, September, 1984)

Network Design
Order Preparation
DMS-100/200

SW 241-060-900
(May, 1987)

Same practice as
above, but updated
and number changed
to include it in
Gen. Trade Swg.
System BSP's.

II. Capacity/Design Documentation

A) SWBT-GHQ Letters/Practices

| <u>File Subject</u> | <u>Addressed To:</u> | <u>Signed By:</u> | <u>Letter Date</u> | <u>Contents Summary</u> |
|---------------------|---|------------------------------|--------------------|---|
| 225.1001 | State 5th lines-Ntwk. Engrg., Admin., Mtce. | AVP- NCOE AVP- NCOO | 5-87 | Recommends use of ACTIVITY and ANALYSIS reports and urges interdepartmental cooperation in securing these reports for Network Design use. Contains detailed description of the reports. |
| 225.1001 | State 5th lines-Ntwk. Engrg./Sw. Svcs. | AVP- NCOE AVP-NP | 12-16-86 | Urged Ntwk. Des. to study impact of 800 SSP, TICS, LEAS, etc. on machine capacity. Lists current docum. on same. |
| 225.1001 | State 5th lines-Ntwk. Engrg./Sw. Svcs. | AVP- NCOE | 9-18-86 | Recommended CPOCC loading guidelines and sample office CPOCC analysis. Transmits NTI SEB 86-06-001 on CPU capacity. |
| 225.1001 | State 5th lines-Ntwk. Engrg./Sw. Svcs. | AVP- NCOE | 4-17-86 | Transmitted updated process call timing values from NTI. Second letter with same date Second letter with emphasized CPU load recommended max for TOPS office and warned that Bellcore IL 86-030-019 on same subject was unofficial. |
| 225.1001 | State 5th lines-Ntwk. Engrg/Sw. Svcs. | AVP- NCOE | 3-27-86 | Announced meeting for state district levels w/GHQ to discuss real time capacity problems 4-23-86. Recommended max. loading of processor of 65% for non-TOPS office. |

| <u>File Subject</u> | <u>Addressed To:</u> | <u>Signed By:</u> | <u>Letter Date</u> | <u>Contents Summary</u> |
|---------------------|--|----------------------|--------------------|--|
| 225.1001 | State Div. levels-Ntwk. | Div. Staff | 2-26-86 | Transmitted NTI PL's 84-03-001 and 85-08-002 on real time copy. Prediction and Line Peripheral copy. Also, Bellcore's LG CALC100 and NETCALC100 capacity prediction programs. Since NTI's RTCALC program became available, BellCore has discontinued its programs. |
| 225.1002 | Engrg./Sw. Svcs. | Mgr-Ntwk., Design | | |
| 225.1001 | State 5th lines-Ntwk. Engrg./Sw. Svcs. | AVP-NCOE | 2-27-86 | Announced schedule for real time review by NTI and SWBT-GHQ reps. of states' copy. limiting machines. Real time input forms attached. |

B) NTI - Letters/Practices

| <u>Letter</u> | <u>Date</u> | <u>Title & Contents Summary</u> |
|--|-------------|---|
| SEB 86-06-001 (#1) (Swg. Engrg. Bulletin) | 6-30-86 | <u>CPU Capacity Guidelines & Issues.</u> Detailed Account CPU real time functions in call processing and in overhead. |
| MB-D100-8615 (#1) (Mktg. Bulletin) | 6-20-86 | <u>DMS-100 Central CPU Capacity.</u> Highlights capacity enhancements of 40-MHz clock, UTR, and deferred AMA formatting; and ECORE for 2nd half '88. |
| SEB86-05-003 (#1) | 5-7-86 | <u>Data Gathering Method for CPU Real Time Verification.</u> Method of procedure for accessing the switch to get OM's, TSMS, ACTIVITY, & ANALYSIS data. |

II. Capacity/Design Documentation (cont'd)

B) NTI - Letters/Practices (cont'd)

| <u>Letter</u> | <u>Date</u> | <u>Title & Contents</u> <u>Summary</u> |
|---|--------------------|---|
| SAL 86-04-001 (#1) (System Application Letters) | 4-14-86 | <u>REAL::TIME Capacity Information.</u> Initially for NTI engineers use to validate/calculate figures for input to REAL::TIME capacity program. Explains basic traffic theory and guides you through the input worksheets with definitions, etc. |
| MB-D100-8608 & F1489 NTX291AA01 (Feature Description) | 2-21-86 5-15-85 | <u>ACTIVITY Enhanced Real Time Indicator</u> Describes ACTIVITY tool and commands needed to activate it. |
| MB D100-8608 (#1) | 2-21-86 | <u>Deferred Bellcore AMA Formatting.</u> Explains this real time saving feature. |
| SEB 86-11-002 (#1) | 2-6-87 | <u>System Performance and Analysis.</u> Discusses Maintenance Operational Measurements (OM) and logs, the "Lazy H" concept and how OM's fit into it, service criteria, and ACTIVITY Reports. Good OM reference. |
| SPL 84-03-001 (#2) (System Planning Letter) | 11-5-85 | <u>DMS-100 Family Real Time Capacity Prediction.</u> Worksheets, instructions, and call timings for manual CPU occupancy predictions. Earlier issue #1, dated 6-11-84 is basically the same with more call type description details. |
| SEA 86-09-002 (#1) (System Engrg. Alert) | 9-23-86 | <u>Activity, Ntwk., Mgt. & MACHACT Measurement</u> |

B) NTI - Letters/Practices (cont'd)

| | | |
|--|----------|---|
| SEA 86-08-001 (#1) | 8-21-86 | <u>ACT100 LOG OUTPUT</u> |
| 3212-RT-850901 | 10-85 | <u>REAL::TIME</u> . The grey binder with instructions and diskettes for this CPU real time capacity program. Runs on LOTUS 1-2-3 and PC. |
| PL 85-05-002 (Planning Letters) | 7-10-85 | <u>DMS-100 Family Distributed Processing Peripheral</u> . Explains DPP module operation and software/hardware required. Real time capacity savings mentioned generally. |
| <u>Peripheral Capacity Letters</u> | | |
| SEB 86-05-001 (#1) | 5-5-86 | <u>BCS-19 New Peripheral Capacity Guidelines</u> . Written for NTI engineers, but can be used by telco to calculate peripheral controller capacity based on per call timings. |
| SEB 86-05-002 (LCM Capacity Guidelines) | 5-6-86 | |
| PL85-08-002 (#1) | 8-30-85 | <u>New Line Peripheral-Feature Call Attempt Capacity</u> . Engineering guidelines for BCS-17 LCM & LGC capacity determination and balancing. Particular emphasis on IBN-MADN line calculations and maximums per LGC and LCM. Worksheets included. |
| SWBT-GHQ 280.0610 and 225.1001 (Sgd. by Div. Stf. Mgr.- Swg. & Div. Stf. Mgr.- Ntwk. Design) | 11-18-86 | Sent to state division level engineering, Mtce. and Admin. Transmits assignment rules for MADN lines to LCM and LGC. These match the rules set forth in PL85-08-002. |
| SEA 86-08-002 (#1) (System Engrg. Alert) | 8-21-86 | <u>Digital Trunk Controller/Call Attempt Capacity</u> |
| SEA 86-10-002 | 10-20-86 | LGC & Remote Cluster Controller (RCC) Call Processing Capacity |

Peripheral Capacity Letters (cont'd)

SAL 85-10-001 (#1) 10-21-85 DMS-100F LGC Capacity Enhancement Overview and Guidelines. Intended for NTI engineers, Identifies existing design capacities of the LGC and projects LGC capacity increases associated with BCS-18 thru 20. Contains good explanation of the LGC processor real time model and worksheets for LGC capacity determination.

SEB 86-10-002 (#1) 2-13-87 LGC Capacity Study. Specific analysis of Southern Bell Miami Airport projected LGC capacity.

SEB 87-02-005 (#1) 2-27-87 BCS21 New Peripheral Processor Occupancy and Per Call Timing Tables.

SEB 86-10-004 (#1) 3-13-87 New Peripheral Real Time-PRTCALC1 Users Guide Explanation of peripheral real time program and instructions for inputs, etc.

C) BELLCORE Capacity Letters

IL-86/04-072 4-30-86 Digital Swg. Notes-Articles on DMS-100F peripheral and LGC load testing and copy. prediction.

DMS 100 Family
Subject - Related Documents
for Network Design Reference

Meridian Digital Centrex

(IBN) - MADN

| | | |
|--|----------|---|
| NTI PL84-02-002 (#1) | 2-21-84 | <u>IBN overall system Description</u> |
| NTI MB-85-12-01 (#1) (Mktg. Bulletin) | 12-9-85 | <u>IBN Business Set Application Guide.</u> Section 3 explains MADN feature and its operation. |
| NTI PPL83-12-002 | 12-19-83 | <u>IBN Business Set-Description</u> |
| SWBT Letter 280.0610/225.1001 (Sgd. by Div. Stf. Mgr.- Swg. & Div. Stf. Mgr.- Ntwk. Design) (to state Ntwk. type Div. levels) | 11-18-86 | Transmits MADN assignment guidelines emphasizing impact of MADN on LGC capacity and importance of balancing MADN groups and members. |
| NTI SAE 86-09-001 (#1) (System Engrg. Alert) | 9-10-86 | IBN-MADN (Multiple Access Directory Number) Provisioning |
| PL 84-02-001 (#1) | 2-8-84 | <u>DATAPATH Feature Release Program.</u> Explains how this digital data transport system works, hardware, and software requirements |
| PL 86-05-005 (#1) | 11-21-86 | <u>Large Business Remote</u> Explains this new remote for Meridian Digital Centrex (formerly IBN), SS#7, Fiber, and ISDN services for single or multi-tenant arrangements. Provisioning, hardware and software requirements included. |
| Bellcore IL-84/07-041 | 7-20-84 | Comparison of DMS-100 IBN and 1AESS Centrex station features. |
| NTI PL 84-02-003 (#1) | 2-27-84 | <u>IBN Operational Measurements</u> Explains IBN registers and data, when each is pegged, etc. |
| NTI PL 86-07-002 (#1) | 11-7-86 | <u>Automatic Call Distribution (ACD).</u> A feature of Meridian Digital centrex which offers centrex customers with large volumes of incoming calls the ability to have a cluster of individuals answer those calls as an ACD group. Functional description document. |
| NTI SEA 87-03-002 (#1) | 3-3-87 | <u>DMS100F Real Time Impact of Hunt Groups.</u> BCS21 improvement in CPU real time from 5.5 ms additive in BCS20 and lower to 2.5 ms additive in 21. |

DMS 100 Family
Subject - Related Documents
for Network Design Reference

TOPS (Traffic Operator Position System)

| | | |
|---|---|--|
| NTI SPL 84-01-001 (#1) (1-26-84) | DMS-200 operator Services Planning Letter | Contains specific description of TOPS and how it works with DMS-200. Engineering and provisioning info. included. |
| NTI 83-10-003 (#2) (11-4-83) | DMS-200 TOPS Operator Centralization (OC) | Contains description of OC remote arrangement with DMS-200. Engineering and provisioning info. included. |
| NTI MB-D100-8541 (#2) (7-3-86) | TOPS Multipurpose Position | Announces MP position and the different issues and avail- ability dates of those issues. General description only. |
| NTI PPL 84-06-002 (#1) (7-27-84) | Verification in TOPS Host and Remote OC offices | Explains how verification process works in TOPS environment. |
| NTI PPL 84-04-001 (#1) (5-21-84) | Mechanized Calling Card Service | Explains this feature in TOPS environment. Fairly detailed. |
| Bellcore IL 85/12-049 | Comparison of TOPS Features with OSSGR | Feature-by-feature code indication as to whether feature is defined in OSSGR, planned by NTI, etc. |
| Bellcore AR-TSY-000263 (5/86, issue 1) | TOPS & BCS19 Technical Analysis Report | Results of feature Testing. Restricted. |
| Bellcore IL-86/06-032 | Field Testing of TOPS & BCS18 | Results of feature testing. Restricted. |
| Bellcore IL-86/03-019 | DMS-200 TOPS Real Time Capacity Guidelines | Recommends loading less than or equal to 58% of total CPU capacity (70% of CP capacity) for initial TOPS office. Recommends use of ACTIVITY data to verify actuals. |
| NTI SEA87-03-001 (#1) dated 3-3-87 | TOPS Multipurpose Position. | NTI System Engineering Alert which maintains no real time impact over current TOPS IV positions. |

TOPS Interlata Carrier Svc. (TICS)

- 1) PL 86-09-003
dated 10-24-86
NTI's Planning Letter detailing the TICS feature, memory requirements, and Real Time impact.
- 2) SEA 86-11-001
dated 11-10-86
NTI's System Engineering Alert on call timings for TICS-by call type.
- 3) GFX 714AA01
dated 9-26-86
Release 01.01 DRAFT
NTI's General Feature description draft explaining the TICS feature in detail. Includes routing scenarios, etc.

EADAS

| | | |
|-------------------------------------|--|--|
| NTI MB-D100-8653 (#1) (11-7-86) | Interface to EADAS/ DC and EADAS/NM In- Service Announcement | References EADAS interface working in Springfield, Illinois and general availability with BCS 20. |
| NTI PL 86-06-003 (#1) (11-19-86) | EADAS-NM & DMS-100 | Explains how the two will interface and the software/ hardware requirements. |
| NTI PL 85-05-002 (#1) | EADAS-DC & DMS-100 | Explains how the two will interface and the software/ hardware requirements. |

ISDN

NTI PL 86-01-001 (#1)
(1-27-86)

DMS-100 ISDN
Architecture PL

Describes ISDN and how it will
work in DMS-100. Provisioning
info. included.

NTI PL 86-01-001 (#2)
(3-6-87)

DMS-100 ISDN
Implementation

An update of issue #1.

800-SSP

- 1) PL 86-01-004
dated 2-3-87
NTI's Planning Letter on 800 Service. Includes call timing, software, and hardware information.
- 2) SEA 86-08-003
dated 8-21-86
NTI's System Engineering alert on 800 Service call timings.
- 3) SEA 87-01-002, issue #1
dated 1-13-87
NTI's System Engineering alert on using RTCALC program for determining impact of 800 service calls on processor real time.
- 4) PL 86-10-001, issue #1
dated 2-3-87
NTI's Planning Letter on SS7 Trunk Signaling. Includes software and hardware provisioning information.

Lata Equal Access Sys. (LEAS)

- 1) MB D100-8604
dated 7-1-86
NTI's Marketing Bulletin
announcing the LEAS feature package.
- 2)
NTI Letter, signed by LEAS processor call timings.
John Mayton, District Sales No planning letters issued yet
Mgr. (dated 8-8-86) and to confirm these call timings.
included in joint AVP-Ntwk.
Plng./AVP-Ntwk. COE letter,
file subject 220.26, date
11-20-86.
- 3)
GFX710AA01, Release 01.01 NTI's General Feature Descrip-
dated 8-4-86 (draft only) tion, distributed at 8-14-86
and other draft feature NTI presentation in St. Louis
descriptions, product specs. on LEAS. Does not contain
Also included in joint AVP specifics on Real Time (call
letter referenced in item 2. timings) but does have some memory
requirements listed.

Enhanced Core (ECORE)

PL 86-09-002
dated 10-31-86

NTI's Planning Letter
describing Ecore, including
provisioning information.

Line Information Database (LIDB)
and Exchange/Exchange Access Alternate
Billing Service (ABS)

Only preliminary documents - GFD drafts and copies of visual slides - provided by NTI at the October 14, 1986 NTI Presentation on these items in St. Louis. The TICS feature is required for these items, but no planning or engineering specific information is yet available from NTI on the Real Time or memory impact of these items.