



**FRAME PERFORMANCE MEASUREMENT PLAN
DISTRIBUTING FRAMES
SUPPLEMENTAL INFORMATION—CENTRAL OFFICES**

CONTENTS	PAGE	CONTENTS	PAGE
1. GENERAL	1	2. Form EO-10342, FPMP Performance Summary (Sample Multiframe Unit, Single Month)	9
2. SCOPE	2	3. Form EO-10342, FPMP Performance Summary (Sample Multimonth Single Frame Unit)	10
A. Large Frame Units	2	4. Form EO-10342, FPMP Performance Summary (Sample Multiframe Unit, Multimonth)	11
B. Small Frame Units	3		
3. DESCRIPTION OF MEASURED COMPONENT	4		
4. INTERPRETATION AND USE OF RESULTS	4		
5. PREPARATION OF FORM EO-10341	5		
6. SUMMARY PROCEDURES	5		
7. PREPARATION OF FORM EO-10342	6		
8. REPORTING OF RESULTS	6		
9. ORDERING INFORMATION	7		
		Table	
		A. ACRONYMS IN THIS PRACTICE	12
		1. GENERAL	
		1.01 This practice describes the Frame Performance Measurement Plan (FPMP) and outlines procedures under the plan that should:	
		(a) Measure the impact of central office frame activity on customer service	
		(b) Monitor corrective action or frame improvement programs	
Figures			
1. Form EO-10341, FPMP Frame Unit Performance Report (Sample)	8		

PROPRIETARY—BELLCORE AND AUTHORIZED CLIENTS ONLY

This document contains proprietary information that shall be distributed or routed only within Bell Communications Research (Bellcore) and its authorized clients, except with written permission of Bellcore.

Copyright © 1985 Bell Communications Research, Inc.

(c) Summarize source data to identify individual and group frame performance by frame, district, area, and company

(d) Outline procedures to establish service improvement programs, when required.

1.02 This practice is being reissued to:

(a) Revise Forms EO-10341 and EO-10342

(b) Include addendum revisions

(c) Reflect the postdivestiture environment.

1.03 The title for each figure includes a number(s) in parentheses that identifies the paragraph(s) where the figure is referenced.

1.04 Suggestions for changes, additions, or deletions to this practice should be made as specified in BR 000-010-015.

1.05 The measured component of the FPMP will be Customer Trouble Reports, Disposition Code 5 Frame (Frame Code 5), that are found on and cleared at the frame and closed out to the Disposition Code 5 by the Automated Repair Service Bureau (ARSB).

1.06 Frame unit performance is related to frame activity and banded by using the ratio of Frame Code 5 reports to the number of work items documented on Network Cost Results Forms EO-4419 and EO-4420, "Changes Work Units." The items to be included in the count of work items are those in all column As, lines 1 through 6, 11 through 19, and 21 through 25 of Form EO-4419, and in all column As, lines 1, 3, 5, 6, 7, 13, and 17 of Form EO-4420. The lines of Forms EO-4419 and EO-4420 are defined and described in Parts 421 and 422 of the Network Cost Results Plan dated April, 1980.

1.07 The FPMP is structured to work with the following practices:

PRACTICE	TITLE
201-200-010	Frame Force Management Plan

PRACTICE	TITLE
201-200-013	Frame Controlled Maintenance Plan
201-200-014	Frameworker Performance Plan
201-200-015	Distributing Frame Operational Review

2. SCOPE

2.01 The Frame Performance Measurement Plan (FPMP) is structured to measure all local frame units. In order to maximize benefits from the FPMP, all frame units charged with Code 5 Frame Customer Reports should submit monthly reports requested by this plan.

2.02 Frame units (large and small), for this plan, are described in the following paragraphs of this part.

A. Large Frame Units

2.03 Large frame units are frames with a work force of at least one full-time craft person (or the equivalent in hours performed by more than one craft person). The large frame unit is defined further as all frames in one building or wire center where cross-connections are installed or removed to complete service orders and other company-generated frame work. A large frame unit normally serves one or more central office switching systems in the same building.

2.04 In order to be measured as a separate entity, the large frame unit should post all trunk and special service order activities on an individual Form EO-4419, and all line-related activities should be documented on an individual Form EO-4420. If this count is accumulated by a central tally group or through accounting procedures, the identity of each individual frame entity should be maintained. In-and-out work item credit is authorized for all line-related equivalent C&X work activities (see note). Item counts for area transfer and cutovers should be added to the EO-4420 item count for the FPMP.

Note: Equivalent C&X activity is cross-connect work similar to central office rearrangements and

changes activity (as on Form EO-4420); however, it is charged to either Account 221 (central office "C") or Account 171 (central office "X"). (An example would be frame work for dial-to-dial replacements.)

2.05 Typical (distributing) frames that normally include large frame units are:

- (a) Main
- (b) Intermediate
- (c) Line
- (d) Protector
- (e) Tie Pair
- (f) Number Group
- (g) Translator
- (h) Block Relay
- (i) Number Network

B. Small Frame Units

2.06 Small frame units are frames with a work force of less than the equivalent of one full-time craft person. They normally complete separate Forms EO-4419 and EO-4420 monthly. This type frame is measured in the FPMP as a separate entity.

2.07 Studies show that an adjustment factor is needed for frame units with small work unit base counts. The factors compensate for the wide fluctuations that occur in performance rates when only a small change in total reports has taken place.

2.08 To compensate for the factors discussed in paragraph 2.07, the failure rate should be adjusted with the following formula for the performance rate. The formula uses the Frame Code Reports (FCR) from the Trouble Report Evaluation and Analysis Tool (TREAT).

$$\text{Perf Rate} = \left(\frac{\text{FCR}}{\text{(TREAT)}} \right) - \text{ORF}^* \div \frac{\text{Work Items}}{\text{Per 100}}$$

*The Office Report Factor (ORF) equals five multiplied by the number of wire centers in the FPMP wire center cluster (bulk loaded on EO-4420).

2.09 Customer Trouble Reports classified as Disposition Code 5 Frame are defined for this plan as:

- (a) Cross connect or hardware troubles associated with the main distributing frame (MDF), intermediate distributing frame (IDF), line distributing frame (LDF), interconnecting tie pairs, number group, translator, block relay, or number network fields providing service to customer loops, lines, numbers, and billing.
- (b) Cross-connect trouble (e.g., markers, senders, links, connectors, route relays, traffic usage register (TURs), etc.) and option strapping for gain devices are **excluded** from this measurement plan and considered Disposition Code 5 Equipment.

2.10 Frame unit performance results are summarized in progressively larger entities until they are complete for an Area. Area results of each company should be input to the Centralized Results System (CRS). Each Bell Operating Company (BOC) should publish results, using the CRS output. Area and company results may be drawn from CRS for a month, quarter, or year.

2.11 The FPMP does not have index points in its rating system but employs a results banding technique where performance levels are grouped into the following four bands:

- (a) Band H - Higher than objective level
- (b) Band O - Objective level
- (c) Band L - Lower than objective level

(d) Band U - Unsatisfactory level necessitating immediate action.

2.12 The summary report also provides for the entry of trend data for Band U results in a single frame unit or the number and percentage of frame units within the echelon that have experienced Band U performance.

2.13 The service month to be used for this plan should be from the twenty-third of the month preceding the report month through the twenty-second of the report month (e.g., the June report month begins May 23 and ends June 22). The work item counts in the Network Cost Results Plan are accumulated on a calendar month basis. The work item count for the calendar month that corresponds to the report month should be used.

3. DESCRIPTION OF MEASURED COMPONENT

3.01 Frame Code 5 Customer Reports per 100 work items should be the only measured component of the Frame Performance Measurement Plan (FPMP). This component includes only customer reported troubles later found and cleared on a distributing frame as outlined in BR 660-100-013, Customer Trouble Report Analysis Plan.

3.02 Frame Code 5 troubles include all troubles cleared on the various types of frames listed in paragraph 2.09. Frame troubles usually involve cross-connection faults (loose, cut, broken, etc.), terminal faults (solder splashes, wire clippings, etc.), head coils (missing, defective, operate, etc.), carbons (missing, grounded, etc.), and order errors (wrong, incomplete, etc.).

3.03 The monthly performance results of each frame unit are determined by completing Form EO-10341, Frame Unit Performance Report. (See Fig. 1).

3.04 Frame Code 5 monthly totals may be obtained from the Automated Repair Service Bureau (ARSB) and normally should be furnished on a mechanized printout from Trouble Report Evaluation and Analysis Tool (TREAT) or Customer Trouble Report Analysis Plan (CTRAP).

4. INTERPRETATION AND USE OF RESULTS

4.01 This plan is designed to measure customer service interruptions relative to activity at the local frame unit. Data to determine Band performance are based on results submitted by individual frame units. Since activity at the frame is used as the base in performance computations, realistic performance comparisons between frames of all sizes and types can be made by management, provided variations in complexity and configuration are taken into consideration.

4.02 The use of this measurement plan is not an adequate substitute for intelligent management. Continuous diagnostic analysis should be employed to assure problem correction before service deterioration.

4.03 Management should give particular attention to the trend of frame unit results in the measured component. When poor performance of a frame is detected, the cause(s) should be determined and immediate corrective action taken. Worsening results show the urgent need for a revised course of corrective action.

4.04 Information necessary for the analysis of results is not included in this Plan. Analysis of Frame Code 5 reports to determine the cause and program corrective action should be based on the information provided on the Frame Control Record, Form EO-5497, and information provided by the Trouble Report Evaluation and Analysis Tool (TREAT) report 02, Central Office Results.

4.05 The following corrective action should be taken when frame unit performance is low (L) or unsatisfactory (U), as measured by this plan.

FRAME UNIT PERFORMANCE LEVEL	LEVEL OF RESPONSIBILITY	REQUIRED CORRECTIVE ACTION PROCEDURES
1 Month in Bands L or U	First and Second	See BR 201-200-013, Parts 3 and 5.
4 of 6 Consecutive Months in Bands L or U	Area Staff	Initiate Operational Review (see BR 201-200-015). Perform within 30 days of qualifying date.
3 Consecutive Months of Band U	Area Staff	Initiate Operational Review (see BR 201-200-015). Perform within 30 days of qualifying date.

(a) **Column B, Line 1:** Enter the total month trouble reports in this column. This total is that reported by Trouble Report Evaluation and Analysis Tool (TREAT) or Customer Trouble Report Analysis Plan (CTRAP).

(b) **Column C, Line 1:** Enter the total activity items in hundreds, rounded to one decimal place. The sources for these data are Forms EO-4419 and EO-4420 combined.

(c) **Column D, Line 1:** Divide column B by column C. Enter the results here, rounded off to two decimal places.

(d) **Column E, Line 1:** Using the figure in column D, refer to the following listing and determine the appropriate band.

4.06 The frame supervisor should maintain coordination with all departments that do work at the frame. If Frame Performance Measurement Plan (FPMP) performance deteriorates at a frame because of the quality of work done by forces of other departments, the frame Supervisor should coordinate the establishment of the appropriate corrective action.

4.07 All operational review results should be retained for a minimum of 1 year.

5. PREPARATION OF FORM EO-10341

5.01 The Frame Unit Performance Report, Form EO-10341, should be completed monthly by each frame unit. For large active frames, this would be a wire center. For small, less active frames (Community Dial Offices [CDOs]), this would be a group of frames designated as a unit for reporting purposes. (Source data for this form comes from the Automated Repair Service Bureau [ARSB] [or equivalent] and the Network Cost Results Plan, Forms EO-4419 and EO-4420.)

5.02 Instructions completing column and line entries of Form EO-10341 (Fig. 1) are as follows:

FROM	TO	BAND
0	0.55	H
0.56	1.44	O
1.45	4.42	L
4.43	UP	U

5.03 Fill in the identifying information needed in the upper part of Form EO-10341.

6. SUMMARY PROCEDURES

6.01 A summary of all frame unit results should be prepared monthly and quarterly by each level of management, (i.e., Manager, District, Division, Area, and Company). Form EO-10342, Frame Performance Measurement Plan Performance Summary, should be used when a summary is required (see Fig. 2).

6.02 Form EO-10342 is designed to provide the following three summaries of results information:

- (a) The number and percentage of frame units, by bands, in the measured component
- (b) The trend of frame units with Band U performance in the measured component

(c) a listing of frame units or months with Band U performance in a particular report period. (This portion of Form EO-10342 should be optional above the District level.)

6.03 The summary forms serves three purposes. Examples to follow are provided in this practice when preparing Form EO-10342 for each of these purposes. These purposes are:

- (a) Multiframe Unit, Single Month (see Fig. 2)
- (b) Multimonth, Single Frame Unit (see Fig. 3)
- (c) Multiframe Unit, Multimonth (see Fig. 4).

7. PREPARATION OF FORM EO-10342

7.01 Form EO-10342 is a one-page summary report. It should provide all management echelons with a summary of the frame unit performance within their areas of responsibility.

7.02 Instructions for completing column and line entries of Form EO-10342 are as follows (see Fig. 2, Fig. 3, and Fig. 4):

- (a) **Column B:** Enter the number of frame units measured for this summary.
- (b) **Column C:** Enter the number of frame unit months covered by this report. For one month, this would be one times the number of frame units shown in column B. For a quarterly report, this would be three times the number of frame units shown in column B.
- (c) **Columns D through G:** Enter the number of frame unit months and percentage of frame unit months in the appropriate band column. The source for this data is Form EO-10341, column S, line 5.
- (d) **Column K:** Enter the number and percentage of frame units that experienced Band U performance in any of the 12 preceding report periods. (These data are obtained from previous Form EO-10342 reports.) A dash (—) or no entry should be made in the Band U trends section if no frame units exhibited Band U performance during the applicable report period.

(e) **Columns L and N:** Enter the frame unit name for frame units that experienced Band U performance in the measured component. If the report is a multimonth report, make no entries.

(f) **Columns M and P:** Enter the number of times in the 12 previous periods where the listed frame unit experienced Band U performance. If the report is a multimonth report, make no entries.

7.03 For summaries above the District level, the **BAND U FRAME UNITS THIS PERIOD** section (columns L through P) may be left blank, at the option of local management. This section also may be left blank on multimonth summary reports.

7.04 Fill in the identifying information requested in the upper part of Form EO-10342.

8. REPORTING OF RESULTS

8.01 Area results should be entered into the Centralized Results System (CRS). Because of differences in CRS procedures, results should be entered according to the instructions of each respective company CRS coordinator.

8.02 Monthly reports should be input to the CRS at the earliest possible date but no later than the last working day of the month following the report month (e.g., December reports are due January 31).

8.03 Each month, companies should input area level Form EO-10342 summary results into Bell Operating Company (BOC) CRS as directed by the company CRS coordinator. Procedures for summarization and forwarding of reports should be prescribed locally. BOC-CRS should prepare company and system reports monthly, quarterly, and annually. Data are retrieved from CRS in tabular or graphic form, as required.

8.04 For companies that operate with entity level Operating Telephone Company (OTC) CRS reporting, a CRS report should be entered monthly into OTC-CRS for each frame unit.

8.05 Monthly reports on a company basis should be published by the BOCs in the Network Results Book, using CRS output.

8.06 Detailed data and summary reports should be retained at least 1 year for audit purposes.

8.07 Distribution of monthly or quarterly results to frame units or other echelons of management should be handled in a way determined by local policy.

9. ORDERING INFORMATION

9.01 Forms may be ordered by local Bell Operating Company (BOC) procedures.

(Insert Your Company Logo)

Performance Summary

EO 10342
E 10342
11 85

Frame Performance Measurement Plan

Frame Unit	Area	NORTHERN
Manager	Company	SOME CO.
District	Month	FEB.
Division	Year	1985

Measured Components

Measured Component	Total No. Frame Units	Total Frame Unit Month Reports	No. And Percent Of Frame Unit Months By Band			
			H	O	L	U
1 Frame Code	10	10	2	6	1	1
2 S-100 Items	Percent Of Total		20.0	60.0	10.0	10.0

Band U Trends

Measured Component	No. Of Frame Unit	Preceding Periods											
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
3 Frame Code					1								
4 S-100 Items	Percentage Of Total				10.0								

Band U Frame Units

L	M	N	P
Frame Unit Or Month	No. Of Times Band U In 12 Previous Periods	Frame Unit Or Month	No. Of Times Band U In 12 Previous Periods
WEST END	2	5	10
		6	11
		7	12
		8	13
		9	14

Remarks

Fig. 2 - FPMP Performance Summary (Form EO-10342)
(Sample - Multiframe Unit, Single Month) (6.01, 6.03, 7.02)

PROPRIETARY—BELLCORE AND AUTHORIZED CLIENTS ONLY

See proprietary restrictions on title page.

(Insert Your Company Logo)
Performance Summary
EO 10342
E 10342
85

Frame Performance Measurement Plan

Frame Unit: RIVER DALE	Area: NORTHERN
Manager: R. PETTY	Company: SOME Co.
District: WARREN	Month: 2 QUARTER
Division: NORTHEAST	Year: 1985

Measured Components

A Measured Component	B Total No. Frame Units	C Total Frame Unit Month Reports	D No. And Percent Of Frame Unit Months By Band			
			H	O	L	U
1 Frame Code	1	3		1	1	1
2 5-100 Items	Percent Of Total		33.4	33.3	33.3	2

Band U Trends

H Measured Component	J No. Of Frame Unit	K Preceding Periods													
			1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	
3 Frame Code	1	10													
4 5-100 Items	Percentage Of Total		33.3												

Band U Frame Units

L Frame Unit Or Month	M No. Of Times Band U In 12 Previous Periods	N		P No. Of Times Band U In 12 Previous Periods
		Frame Unit Or Month		
5 APRIL	1	5	10	
6 MAY	=	6	11	
7 JUNE	=	7	12	
8		8	13	
9		9	14	

Remarks

**Fig. 3 - FPMP Performance Summary (Form EO-10342)
 (Sample - Single Frame Unit, Multi-Month) (6.03, 7.02)**

(Insert Your Company Logo)

Performance Summary

EO-10342
(E-10342)
(1985)

Frame Performance Measurement Plan

Frame Unit	Area
Manager	Company
District	Month
Division	Year

Area: NORTHERN
Company: SOME CO.
Month: 2 QUARTER
Year: 1985

Measured Components

Measured Component	Total No. Frame Units	Total Frame Unit Month Reports	No. And Percent Of Frame Unit Months By Band			
			H	O	L	U
1 Frame Code	10	30	5	15	7	3
2 5/100 Items	Percent Of Total		16.7	50.0	23.3	10.0

Band U Trends

Measured Component	No. Of Frame Unit	Preceding Periods												
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	
3 Frame Code	No. Of Frame Unit	2												
4 5/100 Items	Percentage Of Total	6.7												

Band U Frame Units

Frame Unit Or Month	No. Of Times Band U In 12 Previous Periods			N		P	
				Frame Unit Or Month	No. Of Times Band U In 12 Previous Periods	Frame Unit Or Month	No. Of Times Band U In 12 Previous Periods
5		5	10				10
6		6	11				11
7		7	12				12
8		8	13				13
9		9	14				14

Remarks

Remarks section with multiple horizontal lines for text entry.

201-200-005 Iss 3

Fig. 4 - FPMF Performance Summary (Form EO-10342)
(Sample - Multiframe Unit, Multi-Month) (6.03, 7.02)

TABLE A
ACRONYMS IN THIS PRACTICE

ACRONYM	MEANING
ARSB	Automated Repair Service Bureau
BOC	Bell Operating Company
CDO	Community Dial Office
CRS	Centralized Results System
CTRAP	Customer Trouble Report and Analysis Plan
FCR	Frame Code Reports
FPMP	Frame Performance Measurement Plan
IDF	Intermediate Distributing Frame
LDF	Line Distributing Frame
MDF	Main Distributing Frame
ORF	Office Report Factor
OTC	Operating Telephone Company
TREAT	Trouble Report Evaluation Analysis Tool
TUR	Traffic Usage Register