# SERVICE GAP ANALYSIS OF TELECOMMUNICATION INDUSTRY IN BANGLADESH

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*Abstract:* *In recent years different telecommunication companies are coming with different Value Added Services and Customer services along with the higher quality of network coverage. This study aims to examine the satisfaction of customers of telecommunication operators based on service quality dimensions, whether these dimensions are important in delivering superior customer services. In this connection, the SERVQUAL Gap analysis was used to determine the perceived importance and satisfaction on each dimension of service quality. The finding of this study indicated that the dimensions of service quality (tangibility, reliability, responsiveness, assurance and empathy) have no strong impact on customer attitudes in terms of satisfaction and loyalty. In addition, the results showed that there was a significant gap between the perceived satisfaction and importance on all of the service quality dimensions. The study also identified the variables that customers are considering as important in receiving services. Again customers are not getting their expected services. Finally the area is suggested where improvement is to be made by the service providers and recommendation is made to arrange training for employee and equipped them with required skill.*

*Keywords: Service-Quality, SERVQUAL Model, Customer Satisfaction, Service Gap.*

## INTRODUCTION

Liberalization of telecommunication sector in 1989 has opened the door for mobile service sector in Bangladesh. Low levels of teledensity, limited performances of fixed-line operators, considerable foreign direct investment and lower prices driven by increased competition and economies of scale, have boosted the sector on the way of achieving tremendous growth. Pacific Bangladesh Telecom Limited (PBTL), under the brand name Citycell was the first to enter the market of Bangladesh in 1993. Later GrameenPhone, Aktel (now operating under the brand name Robi), Sheba (whose share has been purchased by Banglalink after a considerable amount of loss), Airtel, Teletalk (a sister concern of BTTB, the fixed line operator) came into the market after being attracted by the huge potential. This sector has proved itself as a potential emerging sector through its manyfold contributions.

The mobile sector is more likely to attract even more foreign direct investment due to quite developed communication infrastructure and the potentiality of high rate of return. According to a survey conducted by Deloitte it was found that the mobile sector of Bangladesh has added a healthy amount of US$ 812 million in

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2005 of which US$ 256m was retained by the operators. The rest was distributed among the dealers, terminal manufacturers, equipmentsuppliers, fixed operators, support services and equipment supplies. The sector is also making the national economy betteroff by creating positive impacts on several grounds. The mobile sector can be noted for its generous contribution in GDP, revenue collection and employment generation. Being in a booming phase. It has made a healthy contribution to the national economy by generating 8.66 percent of total GDP (BBS, 2011-12). The sector also makes contribution on the economy in the forms of wages, dividends, expenditure on corporate responsibility, tax and regulatory fees. The last two terms contribute 68 percent of the total according to a findings of Deloitte. Moreover, Government of Bangladesh receives revenues in various forms, such as, VAT, import duty, handset royalty, supplementary duty, income tax of employee. In a survey of Deloitte it was found that in 2005, 27 percent of the total revenue collection came from mobile sector. The sector is well reputed for creating employment opportunities as well. BBS estimated that in fiscal year 2011-12 the sector generates 12,15,211 employments.

However, Bangadesh's identity as a populous country has made this mobile phone sector very promising. With a high penetration rate the mobile cellular subcription (per 100 people) has reached 56 in 2011 (World Bank, 2012). The explosive nature of this growth ensures ever-increasing competition in the market. When all the operators compete for customers, customer satisfaction becomes a key differentiator and increasingly an important indicator of business strategy. Customer satisfaction denotes the extent of satisfaction and happiness of a customer with the goods and services he/she consumes. Now a days each and every mobile service operators are providing diverse choices of packages for people from different classes. Most of the operators disseminate educational and health information for targeted group of people and perform social responsibilities. Because of the different and distinct nature of services provided by the mobile operators, the consumption choice of the customer is becoming complex day by day. Moreover, any single interaction among customers might yield profit or losses across multiple range of services for mobile service operators. Satisfied customers are likely to share their pleasant experience with five to six people. On the other hand, dissatisfied customers are most likely to tell around ten pleple about their story of agony and misfortune. Recently, the social media like facebook and twitter are readily avialable to all the customers to promulgate their experience and advice about any particular service. In this circumstances service quality should be ensured to retain current customers and attract potential new customers as well. As all the mobile service operators are scrambling to boost customer satisfaction some of the dimensions of service quality needs attention.

## LITERATURE REVIEW

### Service Quality

Providing excellent service quality is widely recognized as a critical business requirement (Voss et al., 2004; Vileaes and Coehlo, 2003; Van derWeile et al., 2002). It is 'not just a corporate weapon' (Rose et al, 2003) which is 'essential to corporate profitability and survival' (Newman and Cowling, 1996). However service quality particularly with the service sector, remains a complex concept and there is little consensus as to the drivers for effective delivery (Voss et al., 2004; Jhonston, 1995) The construct of service quality in the service marketing literature centers on perceived quality, defined as a consumer's judgment about an entity's overall excellence or superiority (Zeithmal, 1987). As virtually all organizations compete to some degree on a basis of service (Zeithmal et al., 1990), service quality then becomes significantly important to achieve a genuine and sustainable competitive advantage. Customer perceptions and expectations of service quality are increasingly used to forecast company profitability and prospects for improved market share. (Buzzell and Gale, 1987). The shift from an industrial to a customer-value paradigm places service at the center of company efforts to improve profitability (Albrecht, 1992).

Providing superior service quality requires creating a distinct relationship between what the customer wants and that which the company provides, or a relationship between customer requirements and essential business elements (Evelyn and DeCarlo, 1992). Service quality literature recognizes expectations as an instrumental influence in consumer evaluations of service quality (Groonroos, 1982; Parasuraman et al., 1985; Brown and Swartz, 1989). Meeting rising customer expectations has proved to be one of the most difficult challenges to service businesses (Drege, 1991). Quality is found to be measured most accurately through the eyes of the customer (Miller, 1992), and it is not found to improve unless it is regularly measured (Reichheld and Sasser, 1990). In practice, companies that exceed customer expectations without impairing profit margins have frequently been found to develop a solid foundation of customer loyalty, based on segmented service (Drucker, 1964; Farber and Wycoff, 1991). Determining optimum levels of customer service is understood to depend on accurately assessing customer expectations, so that companies are able to meet highly-valued customer expectations and avoid employing those services that customers do not value; regular customer feedback has been determined essential to such successful customer satisfaction strategies (Evelyn and DeCarlo, 1992; Miller, 1992). Successful customer service focus on companies measure to ascertain how well they are satisfying their customers (Evelyn and DeCarlo, 1992; Albrecht, 1992), and superior companies have been shown to be consistently excellent listeners to their customers (Albrecht, 1992).

**Customer Satisfaction**

Customer satisfaction is a personal feeling of either pleasure or disappointment that appears through the evaluation of services provided by an organization to an individual in relation to expectations (Oliver, 1980, Leisen and Vance, 2001). Kotler (2000) defined satisfaction as: "a person's feeling of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations". Hokanson (1995) focuses on different factors affecting customer satisfaction and the factors include employees' responsiveness, manner, cooperation etc. In addition to that correctness of billing, billing relevance, competitive pricing, service feature, superior value, billing transparency and fast services are also important factor. As a positive outcome of marketing activities, high customer satisfaction leads to repeat visitation to stores, repeat product purchases, and word-of-mouth promotion to friends (Martin et al., 2007)

**Relationship Between Service Quality and Customer Satisfaction**

Customer satisfaction literature discusses about satisfaction model in marketing. According to the satisfaction model customer satisfaction is influenced by service quality. When customers get expected service quality, it leads to higher satisfaction (Hutchinson et al., 2009). A negative intention is the outcome of dissatisfaction that may arise from experiences of customers regarding service quality issue (Zeithmal et al., 1996). Gerpott et al. (2001), Kim et al. (2004), Kuo et al. (2009) studied telecommunication customer satisfaction aspects in Germany, Korea, Taiwan, and Taiwan respectively and found the positive relationship between service quality and customer satisfaction. There are five specific dimensions of service quality: tangibles, reliability, responsiveness, assurance and empathy (Parasuraman et al., 1988). Kim et al. (2004) found that call quality, value added services and customer support play a significant role in building customer satisfaction for cellular service subscribers and they tend to keep using current service as the level of the customer satisfaction is high that leads to customer loyalty (Kim et al., 2004). Cronin and Taylor (1992) said that the service quality leads to customer satisfaction.

Customer satisfaction is considered as the key to success of service organization. The core value that the telecommunications company provides is better network coverage. But customers are always looking not only for better coverage but also for after sale service i.e. services received from customer care center. Different scholars have found the importance of measuring service quality of customer satisfaction. Khan and Afseen have found positive and significant relationship between customer satisfaction with customer service, price, sales promotion, coverage etc. (Khan and Afsheen, 2012). Another study demonstrated the service quality and fair price have indirect influence on customer satisfaction of mobile phone operators through perceived value (Uddin and Akhter, 2012). A study on Parcel service delivery found that tangibility, reliability and assurance each has

an impact on customer satisfaction (Yee and Daud, 2011). Nimako has conducted a study on Ghana's Mobile industry and found that network quality and image quality aspects of service quality positively affect customer satisfaction (Nimako, 2012). Again a study on telecommunication industry in Malaysia indicated that reliability; responsiveness, assurance and empathy significantly positively influenced customer attitudes in terms of satisfaction and loyalty (Loke et. Al., 2011). A study on factors affecting customer satisfaction showed that both price fairness and customer service significantly contributed to explain customer satisfaction, where price fairness had larger impact on customer satisfaction (Hanif et al., 2010). The regulators and policy makers of NCA in Ghana identified service quality as a key to customer satisfaction (Nimako et.al, 2010). Again Dachyar and Noviannei shows in their study that customer satisfaction positively are perceived quality and customer expectation has indirect influence to customer satisfaction (Dachyar and Noviannei, 2012).

## Service Gap Model

Conceptual model of services quality was first introduced in 1985 by Parasuraman, Zeithmal and Berry. They defined services quality as the distance/gap between customers' expectations from their services and their understandings from the qualities received. Gap analysis model is the cooperation between the activities and the satisfactory level of the quality offered from the standpoint of the customers (Zeithmal, 1985).

### Figure 1: Service-Quality Gap Model
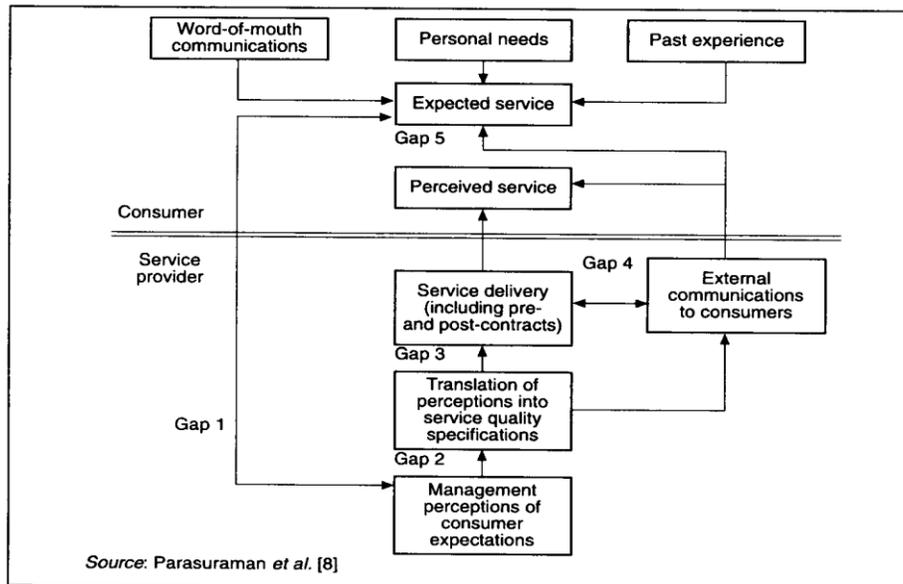


Source: V. A. Zeithmal, L. L. Berry and A. Parasuraman (1988)

Concept called services quality gap in terms of 'gap organizations' activities and the link between these among these links, the gaps are investigated, i.e., the existence of gaps and their progress prevents reaching satisfactory level of services quality. This research uses gap No. 5 of gap analysis model in order to investigate statistical assumptions based on customers' opinions the gray part of which is considered in order to perform the research. Before customers buy a service, they have expectations about services quality based on personal needs, previous expectations, suggestions heard and the advertisements of the service providing institute. After buying and consuming services, customers compare the quality expected with what they have really received. If offering the services is in the tolerance range, they would feel that the service is suitable, but if the real quality is lower than proper services level being different from customers' expectations, there would be a difference/gap between the performance of the service provider and customer's expectations (Lavlak, 2003). Decreasing the distance with the customer via presenting quality services is a complicated task necessitating different organizational jobs and various staff's skills (Zeithmal, 2008). On decision-making level, managers tend to provide a frame with the help of which the presented services quality to the customers can be investigated accordingly (Carrie, 2003). For a long time, the managers of servicing organizations have been confused in the field often countering with how to cope with organized performance of this issue. Parasuraman, Zeithmal and Berry (PZB) made a trend to consider presenting services quality in a comprehensive/organized way, i.e., "distances model" of services quality. Distances model located key concepts, procedures and decisions in presenting rich contexts that begin with the customer basing organizational tasks around what is necessary for decreasing the distance between customers' expectations and their understanding from the services received.

## OBJECTIVES

The main objective of this study is to analyze the service gap of telecommunication industry in Bangladesh. Beside the main objective the study has also the following specific objectives:

1. To identify the mean gap between the expectation of customers and the performance of telecom operator in Bangladesh.

2. To identify the factors influencing service quality in telecommunication industry in Bangladesh.

## HYPOTHESIS DEVELOPMENT

The study forms the following five hypotheses:

1. $H_0$: there is no significant service gap in tangible factors.

   $H_1$: there is significant service gap in tangible factors.

2. $H_0$: there is no significant service gap in reliability factors.

$H_1$: there is significant service gap in reliability factors.

3. $H_0$: there is no significant service gap in responsiveness factors.

   $H_1$: there is significant service gap in responsiveness factor.

4. $H_0$: there is no significant service gap in assurance factors.

   $H_1$: there is significant service gap in assurance factors.

5. $H_0$: there is no significant service gap in empathy factors.

   $H_1$: there is significant service gap in empathy factors.

## METHODOLOGY

This study is descriptive in nature. Here the authors try to identify and describe the gap in services by operators in providing services to its customer.

The study was carried out in City Corporation Area of Barisal District. So the general people of this area are treated as population. The customer of a mobile service provider company was selected as respondent. Due to the privacy policy of the study, the name of the company has not been disclosed. The respondents were selected randomly and of those customers who visited to the service center of this studied company for getting customer services. The sample size of this study is 100.

In this study author has used SERVQUAL model to examine the significant differences in the five service quality dimensions (tangibility/physical aspects, reliability, responsiveness, assurance and empathy) by evaluating customers' expectations and their actual perceptions of overall Service Quality (SQ) = Customer's Perception (P) – Customer's Expectations (E) and examined the impact of the five service quality dimensions on customer perceptions of service delivered by the firm.

In this study primary data was collected by using self-administered questionnaires which were distributed to respondents and they were briefed on the purpose of the study. The structure of the questionnaire is clear, easy to understand, and straightforward. In order to test the hypothesis the questionnaire was designed to find out as to what are the factors that determine the quality of services and to get the mean difference between the expectation and performance of customers' perception (if any).

The hypotheses were tested by asking pre-determined hypothesis and results were processed using SPSS software, by frequency distribution tables and cross tabulation, t-test was also conducted to test the hypothesis.

## FINDINGS AND ANALYSIS

At the very outset reliability analysis was conducted on the independent variables in order to determine the reliability of the instrument used and the Cronbach Alpha values ranged from 0.703 to 0.833 in this study. In order to achieve the

objectives of this study, descriptive analysis, factor analysis, and reliability analysis were performed. The results are presented as follows. First, respondents' demographic characteristics are provided. Next, the results of descriptive analysis of guests' perceptions are presented. Third, the results of factor and reliability analyses are interpreted. As mentioned earlier the 100 respondents were selected randomly of which 88% were found male and rest are female. The age of these respondents ranged from 15 to 54 years. In terms of their occupation students are the main service receivers (45%) where their age lies to 15-24 years.

In order to achieve the objectives of this study the following test has been conducted. First the result of gap analysis test is measured.

**Table 1: GAP Analysis Result (n=100)**

|  | Expectation | | Performance | | GAP (P-E) | |
|---|---|---|---|---|---|---|
|  | Mean | SD | Mean | SD | Mean | SD |
| Tangibles | 4.44 | 0.94 | 4.07 | 1.02 | -0.36 | 0.08 |
| Reliability | 4.03 | 1.39 | 3.91 | 1.46 | -0.11 | 0.06 |
| Responsiveness | 4.39 | 1.08 | 4.19 | 1.21 | -0.19 | 0.14 |
| Assurance | 4.20 | 1.19 | 4.12 | 1.20 | -0.08 | 0.01 |
| Empathy | 3.86 | 1.50 | 3.81 | 1.43 | -0.05 | -0.07 |

As shown in Table 1, the largest mean difference between expectations and perceptions of service were noted from the tangibles perspective (mean difference = -0.36) followed by staff responsiveness perspective (-0.19) and the Reliability perspective (mean difference = -0.11). On the other hand, the smallest mean difference between expectations and perceptions of the services were identified from the Empathy perspective (mean difference = -0.05). Table-3 presents that the mean differences between performance and expectation are negative which implies that customers are not receiving the services as they are expecting so far from the center.

Again for achieving the second objective the associated factors were analyzed. The result of factor analysis is provided in the following table with the relevant explanation of this study.

**Table 2: KMO and Bartlett's Test result**

| KMO and Bartlett's Test | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | | .559 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 478.511 |
|  | d.f | 211 |
|  | Sig. | .000 |

Here we conduct the KMO and Bartlett's test where the hypotheses were found significant (less than .05). Hence the factor analysis has been conducted to put some more light on the findings. Table-3 explained the total variances among the variables. In this table total variances is explained where the extraction method was principle of component analysis.

**Table 3: Total Variance Explained**

| Component | Initial Eigen Values | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.509 | 15.951 | 15.951 | 3.509 | 15.951 | 15.951 |
| 2 | 1.990 | 9.044 | 24.995 | 1.990 | 9.044 | 24.995 |
| 3 | 1.749 | 7.949 | 32.944 | 1.749 | 7.949 | 32.944 |
| 4 | 1.596 | 7.254 | 40.198 | 1.596 | 7.254 | 40.198 |
| 5 | 1.440 | 6.544 | 46.742 | 1.440 | 6.544 | 46.742 |
| 6 | 1.377 | 6.261 | 53.003 | 1.377 | 6.261 | 53.003 |
| 7 | 1.238 | 5.628 | 58.631 | 1.238 | 5.628 | 58.631 |
| 8 | 1.149 | 5.225 | 63.856 | 1.149 | 5.225 | 63.856 |
| 9 | .957 | 4.349 | 68.206 | | | |
| 10 | .924 | 4.200 | 72.406 | | | |
| 11 | .858 | 3.899 | 76.305 | | | |
| 12 | .752 | 3.419 | 79.724 | | | |
| 13 | .672 | 3.052 | 82.776 | | | |
| 14 | .631 | 2.870 | 85.645 | | | |
| 15 | .604 | 2.745 | 88.391 | | | |
| 16 | .531 | 2.416 | 90.806 | | | |
| 17 | .441 | 2.002 | 92.809 | | | |
| 18 | .405 | 1.843 | 94.652 | | | |
| 19 | .398 | 1.807 | 96.459 | | | |
| 20 | .294 | 1.338 | 97.797 | | | |
| 21 | .274 | 1.244 | 99.040 | | | |
| 22 | .211 | .960 | 100.000 | | | |

This table showed that the first eight components carried approximately 64% variability of the data. This table also implies that the variables under these eight components carry significant result for this study, and factor analysis of these eight components is necessary for further analysis. In the next table component

matrix is given. The principal component analysis was used for extracting the components. Here only those eight components were extracted that describe the 64% variability of the data set. For further analysis the following component matrix table is explained below:

## Table 4: Component Matrix

| Component | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Modern-looking equipment | .403 | .318 | .064 | .088 | .035 | -.338 | -.378 | -.196 |
| Visually appealing Center | .407 | .181 | -.545 | -.202 | .385 | -.014 | .025 | -.135 |
| Employees appear neat | .402 | -.445 | .141 | .086 | .287 | -.015 | -.439 | -.132 |
| Materials are visually appealing | .593 | .123 | -.200 | .111 | .019 | -.172 | .340 | -.450 |
| On time as promised | .285 | -.347 | .279 | -.182 | -.082 | .199 | .435 | -.035 |
| Showing sincere interest | .345 | .397 | .042 | .237 | -.453 | -.222 | -.066 | .184 |
| Service right the first time | .421 | -.256 | .018 | .255 | -.066 | -.227 | -.005 | .576 |
| On time service as promised | .474 | -.141 | -.403 | .256 | .233 | .242 | -.223 | .263 |
| Error free service | .101 | -.254 | .061 | .668 | -.342 | .045 | .274 | -.215 |
| Grow confidence onto customer | .570 | .397 | -.111 | .066 | -.136 | .039 | .037 | .258 |
| Feel safe in transacting | .436 | -.101 | -.030 | -.580 | .040 | -.272 | .233 | .218 |
| Courteous service provider | .094 | .240 | -.192 | .165 | .548 | .152 | .490 | .216 |
| Knowledgeable service provider | .466 | -.209 | .567 | .002 | .202 | .209 | -.120 | .088 |
| Keeps customer informed | .301 | -.172 | -.389 | .305 | -.117 | .467 | -.175 | .004 |
| Prompt service | .482 | -.467 | .195 | .078 | -.003 | -.369 | .242 | .020 |
| Willing to help | .163 | .114 | .450 | -.107 | .013 | .607 | .058 | .079 |
| Not show busyness | .225 | .491 | .389 | .007 | .277 | -.009 | -.078 | .069 |
| Individual attention | .465 | .276 | -.082 | -.187 | -.318 | .391 | .063 | -.245 |
| Personal attention | .535 | .334 | .145 | -.211 | -.330 | .017 | -.060 | .063 |
| Best interest at heart | .567 | -.327 | -.131 | -.104 | -.005 | -.020 | -.033 | -.218 |
| Understanding specific needs | .211 | .238 | .418 | .294 | .372 | -.101 | -.014 | -.301 |
| Convenient hours | .215 | -.304 | -.092 | -.454 | -.140 | .063 | -.224 | -.094 |

According to this table these eight components include ten variables that shows high variability (In this study ≥.5) Among these eight components the first component maintained potential correlation with materials associated with the service (such as brochures or statement) that are visually appealing at studied service center (.593); the behavior of employees in studied service center which inspires confidence among the customers (.570); the employees of studied service center who give the customers personal attention (.535); and overall service that create a positive image at the heart of the customer (.567). This study observed that customer have interest on visually appealing equipment and accessories (-.545); the knowledge of the employees at studied service center (.567); the customer wants answer of different problems from the service provider particularly from the customer care executives. This table also described that customers are looking for error free services (.668); they want to feel safe in transactions with studied service center (-.580); The following components of this table showed customers' importance on courteous behavior of employees with customers (.548); willingness of service provider to help the customer (.607); and finally the performance of the service right on the first time that make the customer satisfied toward the center (.576).

## RECOMMENDATIONS

The importance of reliability, assurance and empathy in influencing satisfaction suggested that customer relationship management strategy should focus on improving in understanding the customers' needs and other factors. The training and performance measurement of customer service agents needs to include relational elements allowing them to realize and articulate client needs. It can also be concluded that the findings of this study provide additional insight into customers' perceived satisfaction. Additional training programs should be arranged equip staff with necessary skills to better serve the customers to remain in the market and compete with the challenging environment. Moreover the service provider must concentrate on those factors that customers' are considering as significant in receiving services from a customer center. As the present research examined service quality factors in a single firm, additional studies need to be undertaken to examine customer satisfaction patterns in other regions and with larger samples.

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