

# Factors Affecting Citizens' Trust and Confidence in Government and Its Relation with Transformation of Government

*Full paper*

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## **Abstract**

During the last two decades citizens trust and confidence in their governments has continued to decline and e-government is seen as a means to reverse this trend. However, it appears that e-government alone is not enough. The literature has drawn conflicting conclusions, the consensus suggests that ICT enabled government transformation often improves citizens' trust in government. This research investigates the influence of a transformed government on citizens' trust and confidence. Based on a systematic literature review, a conceptual model was developed and then a pilot study conducted using an online survey targeting ordinary citizens of the Kingdom of Bahrain. The findings of the pilot study confirm that citizens' trust and confidence in their government is positively influenced by transformation of government mediated by government performance and citizens' satisfaction.

## **Keywords**

Trust and Confidence, E-government, Government, Transformation.

## **Introduction**

The literature points out that in the last two decades, there is a decline in citizens' trust in their government (Teo, et al., 2008; Morgeson et al. 2011; Edwards, 2015; Bean, 2015; World Employment and Social Outlook Trends, 2015). It was expected that the introduction and implementation of e-government systems as a mediator between government and citizens would reverse this decline, however this has not been the case (Teo, et al., 2008; Morgeson et al. 2011; Bannister and Connolly, 2011; Mahmood et al., 2014; Mahmood and Weerakkody, 2014). This is evidenced through the low levels of citizens' adoption and participation in e-government, despite the advanced online platforms deployed around the world (United Nations E-Government Survey, 2014). Therefore, it is posited that adoption of e-government alone would not resolve this issue. It should be noted, that few studies have investigated this topic in-depth and therefore this area is not well understood in the literature due to conflicting opinions and conclusions (Hong, 2013; Myeong et al., 2014; Teo, et al., 2008; Tolbert and Mossberger, 2006; Morgeson et al. 2011; Bannister and Connolly, 2011; Welch et al., 2005; West, 2004). It is suggested that transformation of government has the potential to reverse this decline.

The literature shows that the number of researches and studies that investigate citizens' trust and confidence in governments as dependent variable are limited and not have not been given proper attention. Considering the importance of this subject and its impact on governments and citizens, it is necessary to gain a better understanding about factors that could transform governments, leading to a better grasp of how such a transformation relates to citizens' trust and confidence, thereby reversing their decline towards governments. Keeping in mind this important gap in the literature, the purpose of this paper is to present the results of a literature review related to identifying factors affecting the transformation of governments, and the trust and confidence of citizens. It also investigates the relationship between these factors through a pilot empirical study. A conceptual model is proposed and discussed and the results of the pilot study are

presented. Three research questions are posited for this research which are: (1) what factors influence transformation of government, (2) how do these factors influence transformation, and (3) how transformation of government can be related to trust and confidence in citizens.

The rest of the paper examines a broad overview of the relevant literature, followed by presenting the conceptual model, the relationships between constructs and hypotheses along with evidences from the literature for the same. The research methodology used for the study is outlined next, followed by illustrative results of the pilot study. This paper closes with some concluding remarks.

## **Factors Affecting the Transformation of Government**

In the present time, there is an evident decline in the trust and confidence of citizens in governments. It is suggested that there are a number of factors for this, affected by the citizens' engagements with their governments. Governmental regime, political trust, citizens' satisfaction, accountability, transparency, government performance, technology and associated aids, expectation and perception, and transformation of government along the way; act as derivative factors. Even though e-government has been proposed as a way to increase citizens' communication with government (Liu and Zhou, 2010), it is noted that citizen trust is an intricate perception.

Incidentally, despite several attempts, trust in government and e-initiatives is declining over the years. For instance, authors like Morgeson et al. (2011) have investigated the relationship between the Internet and trust in Washington mediated e-government, so as to study its influencing factors. However, no apparent significant relationship with trust in government could be established. On the other hand, other researchers reached different conclusions on the influence on trust and confidence in government by e-government and government take up (Mahmood and Weerakkody, 2014; Hong, 2013; Myeong et al., 2014; Teo, et al., 2008; Tolbert and Mossberger, 2006; Bannister and Connolly, 2011; Welch et al., 2005; West, 2004).

Even though, it is countered that e-government can lead to better relationships between citizens and government, while providing credibility to policies, through widespread public access (Tolbert and Mossberger 2006), yet it is noted that traditional government setup needs to alter, as the demand is to raise governmental transparency. It is learned that owing to a number of conflicting factors, e-government, technology and expectation need to be linked together in a holistic perspective in order to improve performance (Bannister and Connolly, 2011). Transformation is deemed as an independent variable that is expected to increase citizen's perception of government, through evident trust and confidence (Morgeson et al., 2011). Primarily research has highlighted government performance and satisfaction of citizens, as the main derivatives for this endeavor's success. The literature review suggests that e-government, as a tool, citizens expectations, transparency, accountability, transformation of government, performance of government and citizens' satisfaction, are key factors that have an influence on citizens trust and confidence in government. The sections below are expanding on these factors.

According to West (2004), e-government refers to the delivery of government-related information and services online through the Internet or other digital means. The influence of adopting e-government regimes around the globe has changed the way governments provide their services to citizens. E-government was viewed as a means to reverse the decline in citizens' trust in their governments (Teo, et al., 2008; Tolbert and Mossberger, 2006; Morgeson et al., 2011). Additionally, it is seen as a way to reflect transparency and accountability and is deployed as a means for providing to society's needs and expectations through public services and facilitating an effective communicative channel with governments (Liu and Zhou, 2010).

Technology refers to information technology and its impact on performing business management (Al Rub, 2006). It is the information technology platform, systems and technologies used by government departments that will enable them to provide e-government services as well as be part of the transformed government. As a result of adopting information technologies within their operations, governments are able to fulfill their responsibility towards their citizens in a more effective and transparent manner (Hiller and Belanger, 2001).

Chen et al. (2003) define transparency as the ability of outsiders to assess the true position of a company. In the context of this paper, it is considered as an important factor in the transformation and enhancement of the performance of a government (Bannister and Connolly, 2011). Song and Lee (2013) counters that government transparency can be achieved through positive information propagations and release of entreated details by the government. It is no surprise that technology has improved the communication between citizen and government, thus facilitating a transformational effect. It is noted that citizens' e-satisfaction results from various factors; and greater transparency can foster institutional-based and process-based trust and confidence in government (Welch et al., 2005). While it is understood that the proclamation of information by government is subjective, and whilst there is no way of knowing whether the information provided by the government website is correct and complete yet people are more likely to trust a service and a government if they are aware of its activities.

Accountability has been generally defined as the accountability of management to the stakeholders (Chen et al., 2003). In the context of this paper, it means the accountability of the government departments to citizens. E-government uses technology to bring forth the efficiency, effectiveness, transparency and accountability of informational and transactional exchanges, within the government. Thus, a level of transformation is evident in the interaction between government and citizens (Yigitcanalar, 2003). Primarily e-government is about participation and is associated with citizen-centric approach. It is focused on building service access, delivery and accountability.

As for expectation, Parasuraman et al. (1988) defined it as to what the customers think a service should offer rather than what might be on offer. Nam (2012), points out that public expectation and perception gap are the most determining factors that facilitate decline in the public's trust of government. As a result, there is a need to overcome this information gap between the public and the government, so as to raise public trust in government. At the present time, most governments are realizing that they need to be forward-thinking, so as to properly manage the administering services, and effectively engage and empower citizens. The use of technology is thus directed to increase productivity, but also to support citizen expectation. These changing trends have made governments invest in the said expectations. Innovative governments are creating ways to reach out to citizens and make their voices heard, while giving them the ability to provide input in the government (Hanna, 2009).

The aforementioned factors play an important role in the transformation of government from traditional to digital. This in turn has the potential to influence performance of governments, citizens' satisfaction levels and finally trust and confidence in government. Here, three factors are suggested to be linked with the transformation of government, being performance of the government, citizens' satisfaction and finally trust and confidence in government. Transformation refers to changes in process, structure, lines of authority, locus, power, and so on (Bannister and Connolly, 2011). Hameed and Al-Shawabkha (2013) describe performance as the organization's ability to use existing resources in an effective and efficient manner so as to reach the highest levels of success and progress in the future while Morgeson et al. (2011) define satisfaction to be the sum total of a citizen's sense of fulfilment with his or her experience. The dependent variable is trust and confidence in government. Trust refers to "the level of confidence citizens have in their government to 'do the right thing', to act appropriately and honestly on behalf of the public" (Barnes & Gill, 2000, p. 4) whereas confidence refers to the specific agency experienced and the citizen's confidence that that agency will do a good job delivering services in the future (Morgeson et al. 2011). The literature suggests that better performance of the government leads to satisfied citizens, which in turn has the potential to restore citizens' trust and confidence in government (Van de Walle and Bouckaert, 2003). Morgeson et al. (2011), also validate the e-government's ability to transform public-sector service performance, democratic responsiveness and citizen trust and confidence in governments.

## **The Conceptual Model**

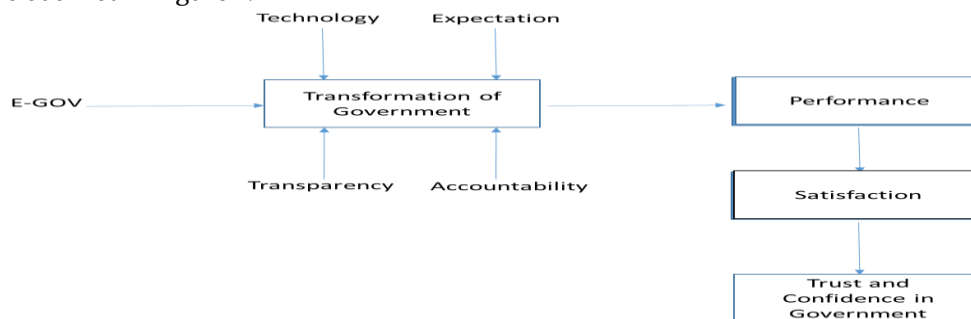
The literature review shows that there is lack of knowledge on how transformation of government can reverse the decline in citizens' trust and confidence in their governments. Additionally, eight factors have been identified as influencing citizens' trust and confidence. While researchers are still investigating the possible relationship between e-government and declining trust in government, models that can provide a solution to governments to stop the decline in trust in them are still in their early stages of development.

For instance, Morgeson et al. (2011) investigated the relationship between the Internet and trust in Washington mediated by e-government and influenced by other factors. However, the authors could not establish a significant relationship with trust in government. Similar results were arrived at by another research conducted by Teo et al. (2008) which investigated the relationship between trust in government and e-government, on the one hand, and user satisfaction and intention to use e-government, on the other hand, using trust in government as the independent variable rather than dependent.

When investigating the above in arguments, it can be concluded that satisfaction and trust are affecting citizens' engagement with government. Satisfaction is influenced by performance and performance is affected by a number of aspects, including, technology that is used in government, the use of e-government as a tool and citizens expectations of the government. When these three aspects are involved, traditional government setup will not be the same and change has to be brought in, with transparency becoming another important factor that is needed in the government. Therefore, e-government, technology and expectation need to be linked to transformation. However, transformation without transparency and accountability is unlikely to improve performance (Bannister and Connolly 2011). Therefore, transformation must be influenced by transparency and accountability. As such, it is proposed that e-government as a tool, technology, expectation, transparency and accountability are considered as moderating variables of transformation. Transformation is considered as an independent variable that is expected to increase citizens' engagement with their governments, which is the dependent variable. Government take up is represented in terms of trust and confidence in government. However, the relationship between independent and dependent variables has been shown to be affected by mediating variables (Morgeson et al., 2011). Two such variables that have been identified by previous researchers include government performance and satisfaction of citizens.

Based on the above, this research argues that lack of knowledge on how transformation of government can influence decline in engagement of citizens with the government is an important gap in the literature, affecting both, citizens and governments. If this relationship is understood better, then the knowledge gained through understanding it better could be used to enhance citizens' trust and confidence in government and hence can, to some extent, help in stopping the decline of citizens' engagement with government.

In this context, this research attempts to expand the work of Morgeson et al. (2011) to investigate further the concept of trust in government through transformed government. As such, the proposed initial conceptual model for evaluating the influence of transformation of government on citizens' trust and confidence is outlined in figure 1:



**Figure 1 - A Conceptual Model for evaluating the influence of transformation of government on citizens' trust and confidence**

Based on the arguments presented and the conceptual model above, following hypotheses are suggested:

- H1a: E-government positively influences transformation of government services,
- H1b: Technology positively influences transformation of government services,
- H1c: Expectation positively influences transformation of government services,
- H1d: Transparency positively influences transformation of government services,
- H1e: Accountability positively influences transformation of government services,

- H2: Transformation of Government positively influences performance of government,  
 H3: Performance of Government positively influences citizens' satisfaction in government,  
 H4: (a) Satisfaction positively influences the engagement of citizens with the government.  
 (b) Satisfaction negatively influences decline in the engagement of citizens with government

The model illustrated, the hypotheses stated above, the research instruments and the supporting evidence from the literature are shown in detail in the below table:

Construct	Relationship Affected	Supporting authors for the Relationship	Supporting Theories
<b>EGOV</b>	EGOV → TRANSF	Bannister and Connolly, (2011); Bellamy and Taylor (1998); Kraemer and King (2006); Coursey and Norris (2008); Baum and Di Maio (2000); Layne and Lee (2001); Bonham et al. (2001); Andersen and Henriksen (2006).	Rationality theory (Zouridis and Thaens, 2003); Public administration theory (Zouridis and Thaens, 2003); User adoption theories (example Technology Acceptance Model, TAM; Theory of Reasoned Action, TRA; Diffusion of Innovation, DOI; and Service Quality) (see Gilbert and Balestrini, 2004); Theories of system change (Bekkers and Meijer, 2012).
<b>TRANSPY</b>	TRANSPY → TRANSF	Fountain (2001); Brown (1999); Northrup and Thorson (2003).	Public administration theory (Zouridis and Thaens, 2003); User adoption theories (example Technology Acceptance Model, TAM; Theory of Reasoned Action, TRA; Diffusion of Innovation, DOI; and Service Quality) (see Gilbert and Balestrini, 2004); Agent-principal theory, Smith and Bertozzi (1998); Institutional theory (DiMaggio and Powell, 1983; Scott, 2001).
<b>ACOUNT</b>	ACOUNT → TRANSF	Bannister and Connolly, (2011); Norquist (2007); Kim et al. (2009); Kauvar, 1998; Demchak et al., 2000; Bingham (2010).	Agent-principal theory, Smith and Bertozzi (1998); Institutional theory (DiMaggio and Powell, 1983; Scott, 2001).
<b>TECH</b>	TECH → TRANSF	Bannister and Connolly, (2011); Weerakkody et al. (2009); Bonham et al. (2001); Kim et al. (2009); Bingham (2010); Seifert and Petersen, Hazlett & Hill (2003).	User adoption theories (example Technology Acceptance Model, TAM; Theory of Reasoned Action, TRA; Diffusion of Innovation, DOI; and Service Quality) (see Gilbert and Balestrini, 2004); Institutional theory (DiMaggio & Powell, 1983; Scott, 2001); Structuration Theory (Orlikowski 1992; Orlikowski et al. 1995; Orlikowski, 2000); Rationality theory (Zouridis and Thaens, 2003) Public administration theory (Zouridis and Thaens, 2003)
<b>TRANSF</b>	TRANSF → PERFO	Kim et al. (2009); Florini (2000); Chatfield (2009); Fang (2002).	Institutional theory (Scott, 2001); Principal agent (Smith and Bertozzi, 1998); Organization Theory (Christensen et al., 2007); Public Administration Theory (Fang, 2002).
<b>PERFO</b>	PERFO → SATISF	Van de Walle and Bouckaert (2003); Bouckaert, Van de Walle and Kampen, 2005; Van de Walle, Van Roosbroek and Bouckaert (2008); Kampen, Van De Walle and Bouckaert, (2006); Heintzman and Marson (2005); Tolbert and Mossberger (2006); Osman, I. H., Anouze, A., Irani, Z., Lee, H., Balci, A., Medeni, T., and Weerakkody, V. (2011).	Micro-Performance Theory (Van de Walle and Bouckaert, 2003); Communication Theory (Van de Walle and Bouckaert, 2003); Institutional theory (Scott, 2001); Principal agent (Smith and Bertozzi, 1998).
<b>SATISF</b>	SATISF → TRUST & CONFIDENCE	Bannister and Connolly, (2011); Van de Walle and Bouckaert (2003); Bouckaert, Van de Walle and Kampen, (2005); Van de Walle, Van Roosbroek and Bouckaert (2008); Welch et al. (2005); Kampen, Van De Walle and Bouckaert, (2006); Heintzman and Marson (2005); Tolbert and Mossberger (2006); Osman, I. H., Anouze, A., Irani, Z., Lee, H., Balci, A., Medeni, T., & Weerakkody, V. (2011).	Micro-Performance Theory (Van de Walle and Bouckaert, 2003); Communication Theory (Van de Walle and Bouckaert, 2003); Institutional theory (Scott, 2001); Principal agent (Smith and Bertozzi, 1998).
<b>TRUST &amp; CONFIDENCE</b>	---	---	Attribution Theory (Kelley, 1973; Jones and Nisbett, 1971); Principal agent theory (Welch et al., 2005; Smith and Bertozzi, 1998).

**Table 1 Research Instruments and Evidences from the Literature**

## Methodology

The conducted Systematic Literature Review (SLR) resulted in the development of a conceptual model along with hypotheses for this research. The conceptual model was tested for the purposes of (a) ensuring that it is valid and reliable, and (b) to test the hypotheses made (Wood & Welch, 2010). Since the target for this research is ordinary citizens of the Kingdom of Bahrain, quantitative research method was used to test the conceptual model to ensure that it truly represents the population in line with the methods adopted by others involved in similar research (e.g. Teo, et al., (2008); Tolbert and Mossberger, (2006); Morgeson et

al. (2011)). Given that digital government in Bahrain is in advanced stages and majority of citizens use it to conduct their transactions with the government, an online survey and random sampling of ordinary citizens was used as a sampling technique. This was so as to capture a large number of people from different backgrounds. This sampling technique is in line with similar studies in the field (Nam, T., & Sayogo, D. S., (2011); Weerakkody et al., (2013); Dashti et al., (2009)). Given that the subject of the research related to citizens' trust and confidence in government, a politically sensitive issue at present in Bahrain, the online survey was developed based on a 7 points Likert scale type, to increase the number of choices and avoid, as much as possible, respondents selecting "neutral" choices. The content of the survey was reviewed by two academics in terms of the language and the actual questions to be asked. Following the review, the resulting survey consisted of 55 questions, adopted from previous researches and studies. The survey was posted on a web portal and a URL was sent out to ordinary citizens using social networking applications (i.e. WhatsApp and Facebook), SMS, LinkedIn and email. The pilot study was conducted during September 2015 and the analysis was completed early October 2015. The table below provides details of the research instruments as well as evidence from the literature.

Construct	Measuring Items	Adopted From
EGOV	Q1-Q10	Abhichandani et al. (2005)
TRANSPY	Q11-Q15	Park & Blenkinsopp, (2011)
ACOUNT	Q16-Q20	Said et al. (2015)
TECH	Q21-Q23	Hameed and Al-Shawabkah, (2013)
EXPEC	Q24-Q36	Parasuraman et al., (1988)
TRANSF	Q37-Q41	Patterson et al., (2005)
PERFO	Q42-Q45	Zhang, (2013)
SATISF	Q46-Q50	Zhang, (2013)
TRUST & CONFIDENCE	Q51-Q55	McKnight et al. (2002); Morgeson et al. (2010)

**Table 2. Research Questions and Evidences from the Literature**

## Validity and Reliability Testing

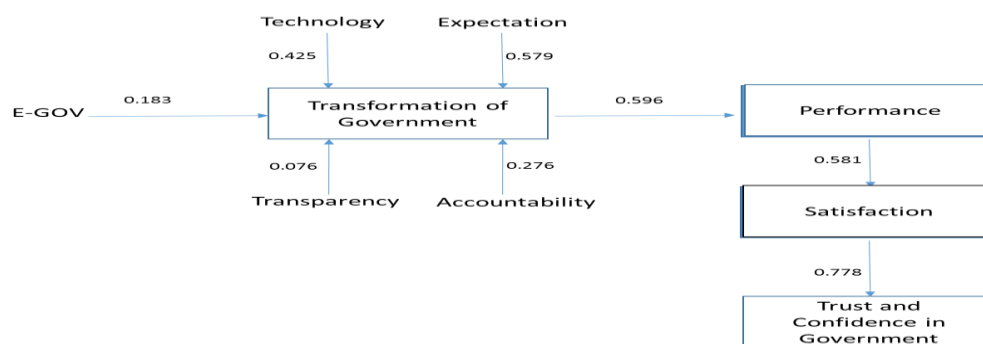
SPSS version 20.0 was used to conduct validity and reliability testing of the conceptual model. The total number of responses received to the pilot study were 71, out of which 48 were considered as completed, representing a 68% completion rate. It is believed that due to the length of the survey, 55 questions, 32% of the respondents did not complete the survey. However, as a 68% completion rate is an acceptable rate, it did fulfill the requirements of the pilot study. Since the focus of this paper is to present the results of the pilot study, validity and reliability testing of the conceptual model, hypothesis testing and results, as well as demographic details analysis, are covered briefly.

Minimum and maximum values fixed for this research at the pilot survey level were based on literature related to e-government and methodology. As such, reliability was measured for the set of items under each construct using Cronbach's alpha. As per Sekaran (2000), alpha values at 0.7 were considered as acceptable, exceeding 0.7 were good, while those below 0.7 were considered as poor. Validity was measured adopting an internal consistency measure using inter item correlation and item to total correlation of items under each construct. Minimum correlation value was set as acceptable at 0.3 and the maximum was set at 0.8 for inter item correlation measure, whereas minimum correlation value was set as acceptable at 0.5 for item to total correlation measure (Robinson et al. (1991a)). Where an item or items were found to cause concern depending on how close the statistical value of the measure was to the acceptable value, and how many items would be left, if the item or items were to be deleted, to measure the construct, the criterion to decide on whether to retain or delete the item or items used to measure a construct.

Reliability testing for all items was within the acceptable limits stated above except for Construct 3 which was 0.68, and was considered as poor. Within the same item, Inter item and item to total correlation ranged from poor to good, with Q17 being the main contributor to the problem. As such, this item was deleted from the main survey questionnaire as it contributed to a significant error to the reliability inter item correlation and item to total correlation and was unlikely to change, even if the sample size was increased. Additionally, there were two issues related to validity testing relating to Questions 1 and 5. For Q1, inter item and item to total correlation were found to range from poor to good, with Q7 contributing to concerns with respect to the correlation. This item was retained in the main survey so as to establish whether it would still contribute to the concerns once the sample size increases. As for item 5, inter item and item to total

correlation values were found to range from poor to good, with items Q29 and Q33 contributing to some concerns with respect to the correlation. These Questions were deleted from the main survey questionnaire as they contributed a significant error to the inter item correlation and item to total correlation and are unlikely to change even if the sample size is increased. Following on the deletion of Q17, Q29 and Q30, reliability and validity testing was conducted again which resulted in good values for all items and as such, the conceptual model was considered solid and ready to be used. Additionally, the main survey, which now consists of 52 questions, can be launched.

Going quickly through the preliminary findings of the pilot study using linear regression with the support of SPSS, seven hypotheses were supported by the collected data as illustrated in the Figure 2 below. In summary, transformation is positively influenced by the four factors and the most important factor affecting it is citizens' expectations. Transparency was not supported by the results; however, with a large sampling size, this value may change. On the other hand, transformation is influencing positively government performance. Government performance is influencing positively citizens' satisfaction and citizens' satisfaction is influencing positively as well trust and confidence in government.



**Figure 2. Preliminary Findings of the Pilot Study**

## Conclusions

The findings of this pilot study confirm that citizens' trust and confidence in their governments is influenced by transformation of government. The key factors affecting this transformation are implementation of e-government systems, use of the latest and innovative technologies, managing citizens' expectations, adopting transparency in government operations and finally full government accountability for the services they provide.

It is suggested that this transformation may result in better performing governments, more satisfied citizens and ultimately restore citizens' trust in governments. To investigate this, a conceptual model was developed along with hypotheses. A pilot study was conducted that resulted in verifying and validating the model as well presenting briefly the key findings. This research synthesised the literature related to citizens' trust and confidence in government and the potential influence of a transformed government on this trust and confidence.

This paper presented the results of a pilot study and covers results of the reliability and validity testing resulting from validating the proposed conceptual model and as such has some limitations. The next stage that will involve conducting the main survey will result in achieving the substantive aim of the study. Answering the questions posited in the research as well as validating and confirming the hypotheses proposed.

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