

Contact Center KPIs Definitions & Correlations



Learn how each of the Contact Center metrics that we benchmark is defined, why it's important, and how it correlates with other metrics. We include metrics from the following six categories:

- **Cost**
- **Productivity**
- **Service Level**
- **Quality**
- **Agent**
- **Contact Handling**

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Cost Metrics

Cost per Inbound Contact

Definition: Cost per Inbound Contact is the total annual operating expense of the Contact Center divided by the annual inbound contact volume of the Contact Center. Operating expense includes all employee salaries, overtime pay, benefits, and incentive compensation, plus all contractor, facilities, telecom, desktop computing, software licensing, training, travel, office supplies, and miscellaneous expenses. Contact volume includes inbound contacts from all sources: live voice, voicemail, email, web chat, fax, etc.

$$\text{Cost per Inbound Contact} = \frac{(\text{Total Annual Operating Expense})}{(\text{Annual Inbound Contact Volume})}$$

Why it's important: Cost per Inbound Contact is one of the most important Contact Center metrics. It is a measure of how efficiently your Contact Center conducts its business. A higher-than-average Cost per Contact is not necessarily a bad thing, particularly if accompanied by higher-than-average quality levels. Conversely, a low Cost per Contact is not necessarily good, particularly if the low cost is achieved by sacrificing Call Quality or service levels. Every Contact Center should track and trend Cost per Contact on a monthly basis.

Key correlations: Cost per Inbound Contact is strongly correlated with the following metrics:

- ✓ Agent Utilization
- ✓ Net First Contact Resolution Rate
- ✓ Inbound Contact Handle Time
- ✓ IVR Containment Rate
- ✓ Average Speed of Answer

Cost Metrics (continued)

Cost per Minute of Inbound Handle Time

Definition: Cost per Minute of Inbound Handle Time is simply the Cost per Inbound Contact divided by the average Inbound Contact Handle Time. The average Inbound Contact Handle Time includes all inbound contacts: live voice, voicemail, email, web chat, fax, etc.

$$\text{Cost per Minute of Inbound Handle Time} = \frac{(\text{Cost per Inbound Contact})}{(\text{Avg. Inbound Contact Handle Time})}$$

Why it's Important: Unlike Cost per Inbound Contact, which does not take into account the Contact Handle Time or call complexity, Cost per Minute of Inbound Handle Time measures the per-minute cost of providing customer service. It enables a more direct comparison of costs between Contact Centers because it is independent of the types of contacts that come into the Contact Center and the complexity of those contacts.

Key correlations: Cost per Minute of Inbound Handle Time is strongly correlated with the following metrics:

- ✓ Agent Utilization
- ✓ Net First Contact Resolution Rate
- ✓ IVR Containment Rate
- ✓ Average Speed of Answer

Productivity Metrics

Agent Utilization

Definition: Agent Utilization is the average time that an agent spends handling both inbound and outbound contacts per month, divided by the number of work hours in a given month. (See the more thorough definition on page 4.)

$$\text{Agent Utilization} = \frac{\text{(Total contact handling time per month)}}{\text{(Number of work hours per month)}}$$

Why it's important: Agent Utilization is the single most important indicator of agent productivity. It measures the percentage of time that the average agent is in “work mode,” and is independent of Contact Handle Time or call complexity.

Key correlations: Agent Utilization is strongly correlated with the following metrics:

- ✓ Inbound Contacts per Agent per Month
- ✓ Cost per Inbound Contact
- ✓ Cost per Minute of Inbound Handle Time
- ✓ Agent Occupancy
- ✓ Average Speed of Answer

Agent Utilization Defined

- ✓ Agent Utilization is a measure of the actual time that agents spend providing direct customer service in a month, divided by the agents' total time at work during the month.
- ✓ It takes into account both inbound and outbound contacts handled by the agents, and includes all contact types: live voice, voicemail, email, web chat, fax, etc.
- ✓ But the calculation for Agent Utilization does not make adjustments for sick days, holidays, training time, project time, or idle time.
- ✓ By calculating Agent Utilization in this way, all Contact Centers worldwide are measured in exactly the same way, and can therefore be directly compared for benchmarking purposes.

$$\text{Agent Utilization} = \frac{((\text{Average number of inbound contacts handled by an agent in a month}) \times (\text{Average inbound handle time in minutes}) + (\text{Average number of outbound contacts handled by an agent in a month}) \times (\text{Average outbound handle time in minutes}))}{(\text{Average number of days worked in a month}) \times (\text{Number of work hours in a day}) \times (60 \text{ minutes/hour})}$$

Example: Contact Center Agent Utilization

- ✓ Inbound Contacts per Agent per Month = 375
- ✓ Outbound Contacts per Agent per Month = 225
- ✓ Average Inbound Contact Handle Time = 10 minutes
- ✓ Average Outbound Contact Handle Time = 5 minutes

$$\text{Agent Utilization} = \frac{((375 \text{ inbound contacts handled per month}) \times (10 \text{ minutes}) + (225 \text{ outbound contacts per month}) \times (5 \text{ minutes}))}{(21.5 \text{ work days per month}) \times (7.5 \text{ work hours per day}) \times (60 \text{ minutes/hour})} = 50.4\% \text{ Agent Utilization}$$

Productivity Metrics (continued)

Inbound Contacts per Agent per Month

Definition: Inbound Contacts per Agent per Month is the average monthly inbound contact volume divided by the average Full Time Equivalent (FTE) agent headcount. Contact volume includes contacts from all sources: live voice, voicemail, email, web chat, fax, etc. Agent headcount is the average FTE number of employees and contractors handling customer contacts.

$$\text{Inbound Contacts per Agent per Month} = \frac{(\text{Avg. inbound contacts per month})}{(\text{Avg. FTE agent headcount})}$$

Why it's important: Inbound Contacts per Agent per Month is an important indicator of agent productivity. A low number could indicate low Agent Utilization, poor scheduling efficiency or schedule adherence, or a higher-than-average Contact Handle Time. Conversely, a high number of inbound contacts per agent may indicate high Agent Utilization, good scheduling efficiency and schedule adherence, or a lower-than-average Contact Handle Time. Every Contact Center should track and trend this metric on a monthly basis.

Key correlations: Inbound Contacts per Agent per Month is strongly correlated with the following metrics:

- ✓ Agent Utilization
- ✓ Inbound Contact Handle Time
- ✓ Cost per Inbound Contact
- ✓ Cost per Minute of Inbound Handle Time
- ✓ Agent Occupancy
- ✓ Average Speed of Answer

Productivity Metrics (continued)

Agents as a % of Total Contact Center Headcount

Definition: This metric is the average Full Time Equivalent (FTE) agent headcount divided by the average total Contact Center FTE headcount. It is expressed as a percentage, and represents the percentage of total Contact Center personnel who are engaged in direct customer service activities. Headcount includes both employees and contractors.

$$\text{Agents as a \% of Total Headcount} = \frac{(\text{Avg. FTE agent headcount})}{(\text{Avg. total Contact Center headcount})}$$

Why it's important: The agent headcount as a percentage of total Contact Center headcount is an important measure of management and overhead efficiency. Since non-agents include both management and non-management personnel (such as supervisors and team leads, QA/QC, trainers, etc.), this metric is not a pure measure of management span of control. But it is a more useful metric than management span of control because the denominator of this ratio takes into account *all* personnel that are not directly engaged in customer service activities.

Key correlations: Agents as a % of Total Contact Center Headcount is strongly correlated with the following metrics:

- ✓ Cost per Inbound Contact
- ✓ Cost per Minute of Inbound Handle Time

Service Level Metrics

Average Speed of Answer (ASA)

Definition: Average Speed of Answer (ASA) is the total wait time that callers are in queue, divided by the number of calls handled. This includes calls handled by an Interactive Voice Response (IVR) system, as well as calls handled by live agents. Most Automatic Call Distributor (ACD) systems measure this number.

$$\text{Average Speed of Answer} = \frac{\text{(Total initial wait time of all callers)}}{\text{(Number of inbound calls handled)}}$$

Why it's important: ASA is a common service-level metric in the Contact Center industry. It indicates how responsive a Contact Center is to incoming calls. Since most Contact Centers have an ASA service-level target, the ASA is tracked to ensure service-level compliance.

Key correlations: Average Speed of Answer is strongly correlated with the following metrics:

- ✓ Call Abandonment Rate
- ✓ % of Calls Answered in 30 Seconds
- ✓ Agent Utilization

Service Level Metrics (continued)

% of Calls Answered in 30 Seconds

Definition: This metric is fairly self-explanatory. It is the percentage of all inbound calls that are answered by a live agent within 30 seconds. For Contact Centers that don't track this exact metric, but track a similar metric such as % of Calls Answered in 60 Seconds, MetricNet uses a conversion formula to calculate the equivalent percentage of calls answered within 30 seconds.

$$\% \text{ of Calls Answered in 30 Seconds} = \frac{\text{(Inbound calls answered in 30 seconds)}}{\text{(Total inbound calls)}}$$

Why it's important: % of Calls Answered in 30 Seconds is a common service-level metric in the Contact Center industry. It indicates how responsive a Contact Center is to incoming calls. Many Contact Centers have a service-level target for % of Calls Answered in 30 Seconds, so the metric is tracked to ensure service-level compliance.

Key correlations: % of Calls Answered in 30 Seconds is strongly correlated with the following metrics:

- ✓ Average Speed of Answer
- ✓ Call Abandonment Rate
- ✓ Agent Utilization

Service Level Metrics (continued)

Call Abandonment Rate

Definition: Call Abandonment Rate is the percentage of calls that were connected to the ACD, but were disconnected by the caller before reaching an agent or before completing a process within the IVR.

$$\text{Call Abandonment Rate} = \frac{(\text{Calls abandoned by caller})}{(\text{Total inbound calls})}$$

Why it's important: Call Abandonment Rate is a common service-level metric in the Contact Center industry. An abandoned call indicates that a caller gave up and hung up the phone before receiving service from a live agent or from the IVR. Since most Contact Centers have an abandonment-rate service-level target, the Call Abandonment Rate is tracked to ensure service-level compliance.

Key correlations: Call Abandonment Rate is strongly correlated with the following metrics:

- ✓ Average Speed of Answer
- ✓ % of Calls Answered in 30 Seconds
- ✓ Agent Utilization

Quality Metrics

Customer Satisfaction

Definition: Customer Satisfaction is the percentage of customers who are either satisfied or very satisfied with their Contact Center experience. This metric can be captured in a numbers of ways, including automatic after-call IVR surveys, follow-up outbound (live-agent) calls, email surveys, postal surveys, etc.

$$\text{Customer Satisfaction} = \frac{\text{(Number of satisfied or very satisfied customers)}}{\text{(Number of customers surveyed)}}$$

Why it's important: Customer Satisfaction is the single most important measure of Contact Center quality. Any successful Contact Center will have consistently high Customer Satisfaction ratings. Some Contact Center managers are under the impression that a low Cost per Inbound Contact may justify a lower level of Customer Satisfaction. But this is not true. MetricNet's research shows that even Contact Centers with a very low Cost per Inbound Contact can achieve consistently high Customer Satisfaction ratings.

Key correlations: Customer Satisfaction is strongly correlated with the following metrics:

- ✓ First Contact Resolution Rate
- ✓ Call Quality

Quality Metrics (continued)

Net First Contact Resolution Rate

Definition: Net First Contact Resolution (FCR) applies only to live (telephone) contacts. It is a percentage, equal to the number of inbound calls that are resolved on the first interaction with the customer, divided by all calls that are potentially resolvable on first contact. Calls that involve a customer callback, or are otherwise unresolved on the first contact for any reason, do not qualify for Net First Contact Resolution. Calls that *cannot* be resolved on first contact, such as a product break/fix, are not included in the denominator of Net First Contact Resolution Rate. Some Contact Centers include email in their FCR Rate by considering an email resolved on first contact if the customer receives a resolution within a certain time of submitting the email.

$$\text{Net First Contact Resolution Rate} = \frac{\text{(Calls actually resolved on first contact)}}{\text{(Calls resolvable on first contact)}}$$

Why it's important: Net First Contact Resolution is the single biggest driver of Customer Satisfaction. A high Net FCR Rate is almost always associated with high levels of Customer Satisfaction. Contact Centers that emphasize training (i.e., high training hours for new and veteran agents) generally enjoy a higher-than-average Net FCR Rate.

Key correlations: Net First Contact Resolution Rate is strongly correlated with the following metrics:

- ✓ Customer Satisfaction
- ✓ New Agent Training Hours
- ✓ Annual Agent Training Hours
- ✓ Inbound Contact Handle Time
- ✓ Inbound Contacts per Agent per Month

Quality Metrics (continued)

Call Quality

Definition: Although there is no consistent methodology for measuring Call Quality in the Contact Center industry, most Contact Centers have developed their own scoring system for grading the quality of a call. Most will measure call quality on a scale of zero to 100%, and evaluate such things as agent courtesy, professionalism, empathy, timeliness of resolution, quality of resolution, adherence to the script, etc.

Call Quality = A score based on the agent's helpfulness, efficiency, courtesy, etc.

Why it's important: Call Quality is the foundation of Customer Satisfaction. Good Call Quality takes into account agent knowledge and expertise, call efficiency (i.e., Call Handle Time), and agent courtesy and professionalism. Unless Call Quality is consistently high, it is difficult to achieve consistently high levels of Customer Satisfaction. When measured properly, Call Quality and Customer Satisfaction should track fairly closely.

Key correlations: Call Quality is strongly correlated with the following metrics:

- ✓ Customer Satisfaction
- ✓ Net First Contact Resolution Rate
- ✓ New Agent Training Hours
- ✓ Annual Agent Training Hours

Agent Metrics

Annual Agent Turnover

Definition: Annual Agent Turnover is the average percentage of agents that leave the Contact Center, for any reason (voluntarily or involuntarily), in a year.

$$\text{Annual Agent Turnover} = \frac{(\text{Avg. number of agents that leave per year})}{(\text{Avg. total agent headcount})}$$

Why it's important: Agent turnover is costly. Each time an agent leaves the Contact Center, a new agent needs to be hired to replace the outgoing agent. This results in costly recruiting, hiring, and training expenses. Additionally, it is typically several weeks or even months before an agent is fully productive, so there is lost productivity associated with agent turnover as well. High agent turnover is generally associated with low agent morale in a Contact Center.

Key correlations: Annual Agent Turnover is strongly correlated with the following metrics:

- ✓ Daily Agent Absenteeism
- ✓ Annual Agent Training Hours
- ✓ Customer Satisfaction
- ✓ Net First Contact Resolution Rate
- ✓ Cost per Inbound Contact
- ✓ Agent Job Satisfaction

Agent Metrics (continued)

Daily Agent Absenteeism

Definition: Daily Agent Absenteeism is the average percentage of agents with an unexcused absence on any given day. It is calculated by dividing the average number of unexcused absent agents per day by the average total number of agents per day that are scheduled to be at work.

$$\text{Daily Agent Absenteeism} = \frac{(\text{Avg. number of unexcused absent agents per day})}{(\text{Avg. number of agents scheduled to work per day})}$$

Why it's important: High Agent Absenteeism is problematic because it makes it difficult for a Contact Center to schedule resources efficiently. High absenteeism can severely harm a Contact Center's operating performance and increase the likelihood that service-level targets will be missed. A Contact Center's Average Speed of Answer and Call Abandonment Rate typically suffer when absenteeism is high. Also, chronically high absenteeism is often a sign of low agent morale.

Key correlations: Daily Agent Absenteeism is strongly correlated with the following metrics:

- ✓ Annual Agent Turnover
- ✓ Agent Job Satisfaction
- ✓ Agent Utilization
- ✓ Cost per Inbound Contact
- ✓ Inbound Contacts per Agent per Month

Agent Metrics (continued)

Agent Occupancy

Definition: Agent Occupancy is a percentage, equal to the amount of time that an agent is in his or her seat and connected to the ACD and either engaged in a call or ready to answer a call, divided by the agent’s total number of hours at work (excluding break time and lunch time).

$$\text{Agent Occupancy} = \frac{\text{(Hours that agents are ready to answer or actually on calls)}}{\text{(Total agent work hours)}}$$

Why it’s important: Agent Occupancy is an indirect measure of agent productivity and Agent Schedule Adherence. High levels of Agent Occupancy indicate an orderly, disciplined work environment. Conversely, low levels of Agent Occupancy are often accompanied by a chaotic, undisciplined work environment. Agent Occupancy and Agent Utilization are sometimes confused. Although Agent Occupancy and Agent Utilization are correlated, they are very different metrics. It is possible to have a high occupancy (when agents are logged into the ACD a large percentage of the time) but a low Agent Utilization (when few calls are coming in).

Key correlations: Agent Occupancy is strongly correlated with the following metrics:

- ✓ Agent Utilization
- ✓ Agent Schedule Adherence
- ✓ Inbound Contacts per Agent per Month
- ✓ Cost per Inbound Contact

Agent Metrics (continued)

Agent Schedule Adherence

Definition: Agent Schedule Adherence measures whether agents are in their seats ready to accept calls as scheduled. That is, it measures how well a Contact Center’s agents are “adhering” to the schedule. Agent Schedule Adherence is equal to the actual time that an agent is logged in to the system ready to accept calls, divided by the total time the agent is scheduled to be available to accept calls.

$$\text{Agent Schedule Adherence} = \frac{\text{(Hours that agents are available for or on calls)}}{\text{(Hours that agents are scheduled to be available)}}$$

Why it’s important: Effective agent scheduling is critical to achieving a Contact Center’s service-level goals and maximizing Agent Utilization. But a work schedule, no matter how well constructed, is only as good as the adherence to the schedule. It is therefore important for agents to adhere to the schedule as closely as possible to ensure that these productivity and service-level goals are met.

Key correlations: Agent Schedule Adherence is strongly correlated with the following metrics:

- ✓ Agent Utilization
- ✓ Inbound Contacts per Agent per Month
- ✓ Agent Occupancy
- ✓ Average Speed of Answer

Agent Metrics (continued)

New Agent Training Hours

Definition: The name of this metric is somewhat self-explanatory. New Agent Training Hours is the number of training hours (including classroom, computer-based training, self-study, shadowing, being coached, and on-the-job training) that a new agent receives before he or she is allowed to handle customer contacts independently.

New Agent Training Hours = Number of training hours required before a new agent may handle contacts independently

Why it's important: New Agent Training Hours are strongly correlated with Call Quality and Net First Contact Resolution Rate, especially during an agent's first few months on the job. The more training that new agents receive, the higher that Call Quality and Net FCR will typically be. This, in turn, has a positive effect on many other performance metrics including Customer Satisfaction. Perhaps most importantly, training levels strongly impact agent morale –agents who receive more training typically have higher levels of job satisfaction.

Key correlations: New Agent Training Hours are strongly correlated with the following metrics:

- ✓ Call Quality
- ✓ Net First Contact Resolution Rate
- ✓ Customer Satisfaction
- ✓ Inbound Contact Handle Time
- ✓ Agent Job Satisfaction

Agent Metrics (continued)

Annual Agent Training Hours

Definition: Annual Agent Training Hours is the average number of training hours (including classroom, computer-based training, self-study, shadowing, etc.) that an agent receives on an annual basis. This number includes any training hours that an agent receives that are not part of the agent's initial (new-agent) training. But it does not include routine team meetings, shift handoffs, or other activities that do not involve formal training.

Annual Agent Training Hours = Average number of formal training hours per agent per year (excluding new-hire training).

Why it's important: Annual Agent Training Hours are strongly correlated with Call Quality, Net First Contact Resolution Rate, and Customer Satisfaction. Perhaps most importantly, training levels strongly impact agent morale—agents who receive more training typically have higher levels of job satisfaction.

Key correlations: Annual Agent Training Hours are strongly correlated with the following metrics:

- ✓ Call Quality
- ✓ Net First Contact Resolution Rate
- ✓ Customer Satisfaction
- ✓ Inbound Contact Handle Time
- ✓ Agent Job Satisfaction

Agent Metrics (continued)

Agent Tenure

Definition: Agent Tenure is the average number of months that each agent has worked in a particular Contact Center.

Agent Tenure = Average number of months that each agent has worked in your Contact Center

Why it's important: Agent Tenure is a measure of agent experience. Almost every metric related to Contact Center cost and quality is impacted by the level of experience the agents have.

Key correlations: Agent Tenure is strongly correlated with the following metrics:

- ✓ Cost per Inbound Contact
- ✓ Call Quality
- ✓ Customer Satisfaction
- ✓ Annual Agent Turnover
- ✓ Agent Training Hours
- ✓ Agent Coaching Hours
- ✓ Inbound Contact Handle Time
- ✓ Net First Contact Resolution Rate
- ✓ Agent Job Satisfaction

Agent Metrics (continued)

Agent Job Satisfaction

Definition: Agent Job Satisfaction is the percentage of agents in a Contact Center who are either satisfied or very satisfied with their jobs.

$$\text{Agent Job Satisfaction} = \frac{\text{(Number of satisfied or very satisfied agents)}}{\text{(Total number of agents)}}$$

Why it's important: Agent Job Satisfaction is a proxy for agent morale. And morale, while difficult to measure, affects performance on almost every metric in the Contact Center. High-performance Contact Centers almost always have high levels of Agent Job Satisfaction. A Contact Center can control and improve its performance on this metric through training, coaching, and career pathing.

Key correlations: Agent Job Satisfaction is strongly correlated with the following metrics:

- ✓ Annual Agent Turnover
- ✓ Daily Agent Absenteeism
- ✓ Agent Training Hours
- ✓ Agent Coaching Hours
- ✓ Customer Satisfaction
- ✓ Net First Contact Resolution Rate
- ✓ Inbound Contact Handle Time
- ✓ Cost per Inbound Contact

Contact Handling Metrics

Inbound Contact Handle Time

Definition: Inbound Contact Handle Time for live (telephone) contacts is the average time (in minutes) that an agent spends on each contact, including talk time, wrap time, and after-call work time. For non-live contacts, such as email, voicemail, and faxes, the Inbound Contact Handle Time is the average time that an agent initially spends on each inbound contact.

$$\text{Inbound Contact Handle Time} = \frac{(\text{Total minutes spent on inbound contacts})}{(\text{Total inbound contacts})}$$

Why it's important: A contact is the basic unit of work in a Contact Center. Contact Handle Time, therefore, represents the amount of labor required to complete one unit of work.

Key correlations: Inbound Contact Handle Time is strongly correlated with the following metrics:

- ✓ Cost per Inbound Contact
- ✓ Inbound Contacts per Agent per Month
- ✓ Net First Contact Resolution Rate

Contact Handling Metrics (continued)

IVR Containment Rate

Definition: The IVR Containment Rate is the percentage of inbound contacts that are contained within the IVR and resolved by the customer without assistance from a live agent. A user who opts out of the IVR to speak with a live agent does not count toward the IVR Containment Rate because the user did not resolve the issue before speaking with a live agent.

$$IVR\ Containment\ Rate = \frac{(Number\ of\ IVR\text{-}resolved\ contacts)}{(Total\ number\ of\ inbound\ contacts)}$$

Why it's important: The Cost per Inbound Contact for IVR-contained contacts is significantly lower than it is for agent-assisted calls. By increasing the number of contacts resolved through the IVR, the Cost per Inbound Contact can be reduced significantly. Many Contact Centers, recognizing the potential to reduce their costs, constantly strive to increase their IVR Containment Rates.

Key correlations: IVR Containment Rate is strongly correlated with the following metrics:

- ✓ Cost per Inbound Contact
- ✓ Inbound Contact Handle Time

About MetricNet

[MetricNet, LLC](#) is the leading source of benchmarks, scorecards, and performance metrics for Information Technology and Contact Center Professionals worldwide. Our mission is to provide you with the benchmarks you need to run your business more effectively.

MetricNet has pioneered a number of innovative techniques to ensure that you receive fast, accurate benchmarks, with a minimum of time and effort:

- ✔ [The One Year Path to World-Class Performance](#), a continuous Contact Center improvement program.
- ✔ Downloadable [industry benchmarks](#) that walk you through the process of benchmarking your performance against Contact Centers in your geographic region.
- ✔ [Benchmarking data files](#) for those who wish to conduct their own benchmarking analysis.
- ✔ Comprehensive [peer group benchmarks](#) that compare your performance to others in your vertical market.

Free Resources

Every month, MetricNet presents a live training webcast. Thousands of professionals attend each year and many of our clients have their entire teams attend. These events are a great way to boost Annual Agent Training Hours! Topics include Service Desk Best Practices and KPIs, Desktop Support Best Practices and KPIs, Contact Center Best Practices and KPIs, and more. Sign up for our [Free Webcasts](#).

We also have developed an extensive resource library filled with free training materials for Information Technology and Contact Center professionals. Each resource is available to download in PDF format. Browse our [resource library](#).

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