GB1059F Home Broadband Service Assurance_Questionnaire

中国移动河南公司

China Mobile Group Henan Co., Ltd.

2025/11

Home Broadband Service Assurance Evaluation Score (GB1059F):

Cognitive Activity	Weight	Service Capability	Question	Options	Final Score
Intent	10%	Service Assurance Policy & Intent Alignment	Can the service assurance system incorporate high-level service quality or reliability intents (business objectives) into its operations and decision-making for residential broadband services?	A	3.65
Awareness	20%	Real-Time Service Outage Detection	Can the service assurance system automatically detect when a broadband service is down or severely degraded in real time, without relying on the customer to report it?	A	
	20%	Proactive Performance Monitoring & Anomaly Detection	Does the service assurance system proactively monitor broadband performance (e.g. throughput and latency) and analyze the data to detect anomalies or quality degradation for the service?	A	
Analysis	15%	Service Impact, Correlation, Priority & Root Cause Identification	Can the service assurance system demarcate, locate service issues across multiple customers and layers to pinpoint the root cause or a common source of a broadband service disruption?	B	
Decision	15%	Impact-Based Incident Prioritization	Does the service assurance system automatically assess and prioritize broadband service incidents based on customer impact (such as number of users affected, customer segment/VIP status, or severity of service degradation)	A	
Execution	20%	Automated Service Restoration	Does the system autonomously execute end-to-end service incident response actions (such as remediation, ticketing, notifications) based on determined decisions and priorities, without requiring manual intervention?	A	

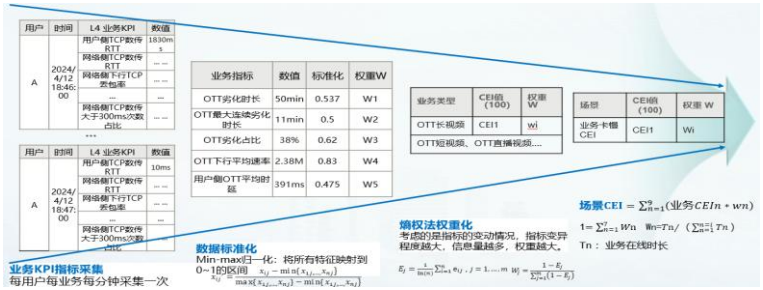
Intent

Service Capability	Weight	Question	Option A	Option B	Option C	Option D	Answer
Service Assurance Policy & Intent Alignment	10%	Can the service assurance system incorporate high-level service quality or reliability intents (business objectives) into its operations and decision-making for residential broadband services?	Service assurance operations are fully guided by declarative intent policies (defining target customer experience and performance goals), which are automatically translated into specific monitoring thresholds and closed-loop actions.	High-level objectives exist, but they must be manually interpreted and applied to assurance processes; the system doesn't directly use intent inputs for automation.	Only technical parameters (static thresholds) are configured for assurance; no mechanism exists to input or utilize business-level intent or service goals.	No formal objectives or intent are considered – assurance is entirely reactive and incident-driven, with no alignment to predefined service goals.	A

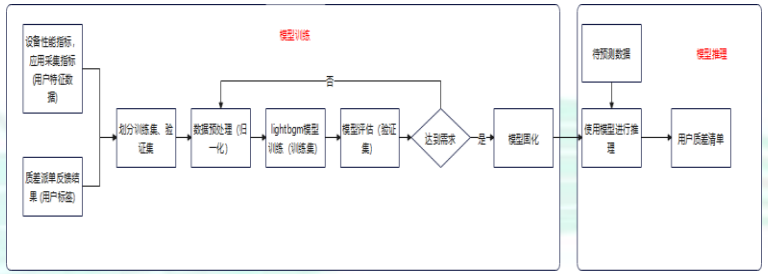
Based on the quality of users' internet experience, user experience is categorized and graded according to different applications such as video and live gaming. For users with low scores, the root causes of poor quality are identified based on network indicators

Support Evaluation Screenshot

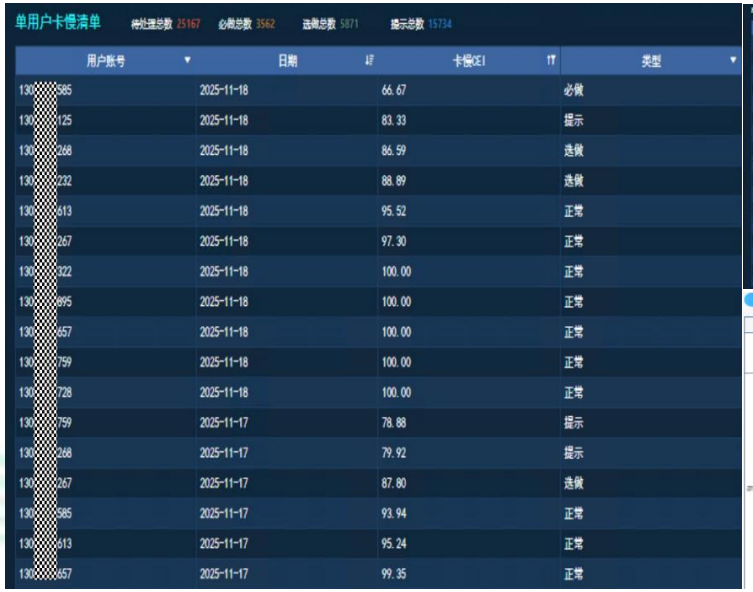
Measuring Internet access quality based on CEI to identify user intent



CEI Intent Process and Reasoning Process



Identify low-scoring CEI users based on thresholds



Categorize types of poor quality issues

Awareness

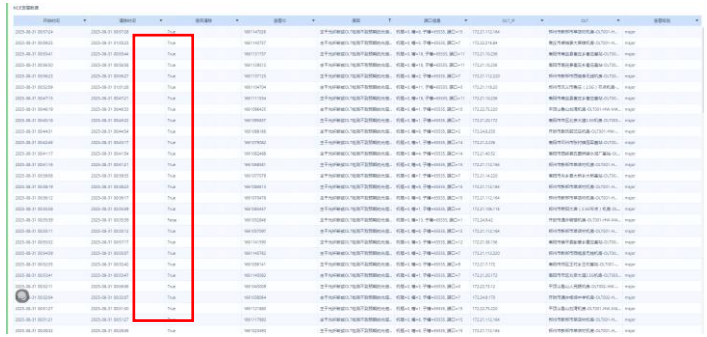
Service Capability	Weight	Question	Option A	Option B	Option C	Option D	Answer
Real-Time Service Outage Detection	20%	Can the service assurance system automatically detect when a broadband service is down or severely degraded in real time, without relying on the customer to report it?	Continuous monitoring flags any service outage or major degradation, triggering automated alarms/tickets (often before the customer is even aware of the problem).	Outages are detected via periodic checks or basic alarms, so the system finds most issues but with some delay or need for manual confirmation.	The system has limited monitoring; some service outages only become apparent after multiple customers are impacted or after customer complaints accumulate.	No automated outage detection – the company only learns of service downtime when customers report problems.	A

The system can continuously monitor the status of broadband services, identify issues before users perceive them based on alarm information and abnormal monitoring indicators, and notify installation and maintenance personnel to resolve the issues before user awareness.

Support Evaluation Screenshot

Automatic monitoring and real-time reporting of interruption-related faults such as PON port optical path interruption, ONT power failure, board communication failure, and main fiber breakage.

Real-time detection and automatic reporting details of interruption-related alarms (e.g., main fiber breakage).



Real-time detection and automatic reporting of performance degradation alarms (e.g., FEC downstream correctable code block statistics exceeding alarm threshold).

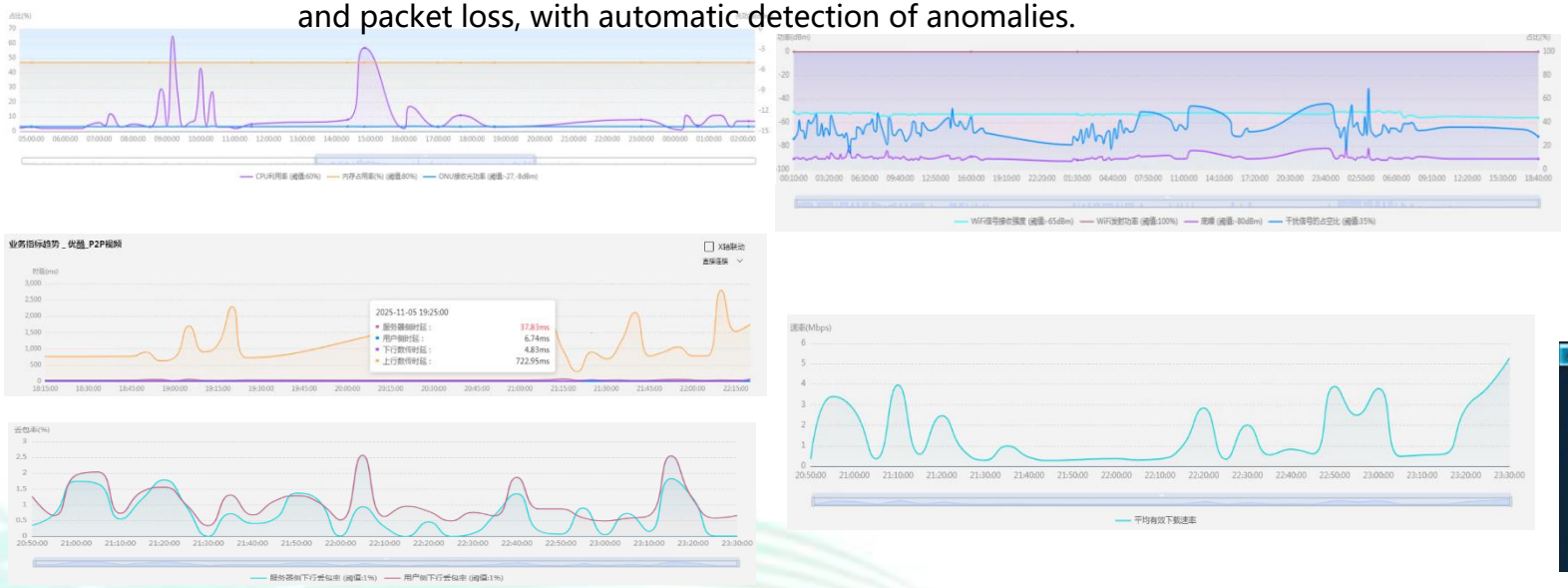
Awareness

Service Capability	Weight	Question	Option A	Option B	Option C	Option D	Answer
Proactive Performance Monitoring & Anomaly Detection	20%	Does the service assurance system proactively monitor broadband performance (e.g. throughput and latency) and analyze the data to detect anomalies or quality degradation for the service?	The system continuously tracks service performance (speed, latency, etc.) to automatically detect current performance anomalies or degradation in real time, proactively triggering alerts or adjustments.	Key performance metrics are collected and threshold alarms are in place (e.g. alert on speed dropping below a limit), but deeper pattern analysis or early anomaly detection is limited and requires manual review of data. i.e The system provides the information to allow CSRs or customers themselves to see that a particular customer service is experiencing a known outage.	The system has limited monitoring; some service outages only become apparent after multiple customers are impacted or after customer complaints accumulate.	There is no active performance monitoring – service quality problems are only addressed when reported by users, rather than detected by the system.	A

The system can continuously track and monitor the online experience details of broadband users. It performs cluster analysis based on data such as TCP, applications, and weak optical signals, and aggregates and reports home broadband network quality issues based on the system analysis results.

Support Evaluation Screenshot

Proactive monitoring of performance indicators such as rate, latency, and packet loss, with automatic detection of anomalies.



Automatically analyzes and checks performance anomalies, and reports alarms in real time.

Mining poor-quality user detail records based on CEI scores

Analysis

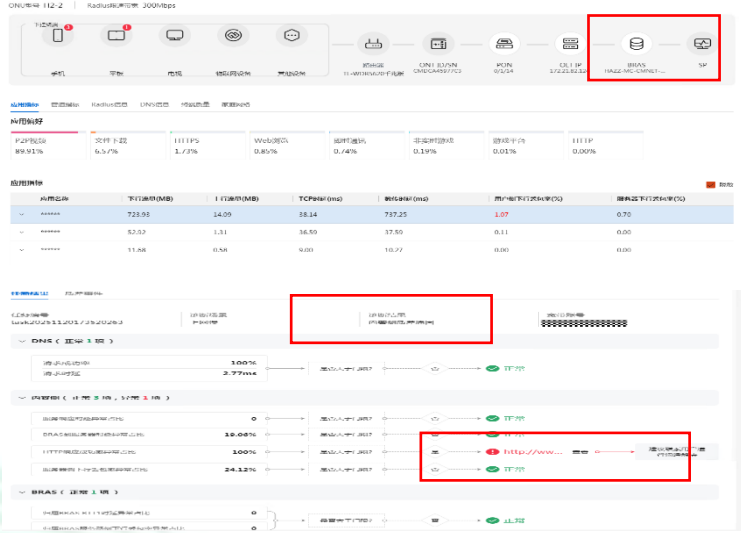
Service Capability	Weight	Question	Option A	Option B	Option C	Option D	Answer
Service Impact, Correlation, Priority & Root Cause Identification	15%	Can the service assurance system demarcate, locate service issues across multiple customers and layers to pinpoint the root cause or a common source of a broadband service disruption?	The system automatically correlates alarms and performance data across customers and network layers, isolating the root cause of service issues for individual customers (e.g. pinpointing a specific network segment or equipment failure affecting single or multiple users) in real time.	The system automatically correlates alarms and performance data across customers and network layers, isolating the root cause of service issues for multiple customers (e.g. pinpointing a specific network segment or equipment failure affecting users) in real time.	The system provides basic grouping of related service alarms (e.g. by geographic area or network node), offering hints of a common cause, but determining the true root cause still requires significant manual analysis by experts.	Some correlation is done manually – operations staff must pull data from various sources and manually recognize patterns to identify if separate service issues share a cause or location。	B

The system can perform three-segment demarcation (home side, network side, and content source side) for users' Internet service issues, automatically analyze the root causes of poor service quality, and output a list of root causes for users with poor service quality.

Support Evaluation Screenshot

Automatic Segmentation and Demarcation Analysis for Poor-Quality Users

Single user faults can be segmented for boundary definition and root cause



A single user can perform demarcation and root cause identification based on application

Decision

Service Capability	Weight	Question	Option A	Option B	Option C	Option D	Answer
Impact-Based Incident Prioritization	15%	Does the service assurance system automatically assess and prioritize broadband service incidents based on customer impact (such as number of users affected, customer segment/VIP status, or severity of service degradation)	Incidents are auto-ranked by real-time customer impact (e.g. number of subscribers or VIP customers affected and any service level commitments), ensuring the most critical issues receive top priority for resolution.	The system classifies incidents by severity or type, but prioritization of response is largely manual – operations staff must decide which issues to address first using the provided classifications.	Incidents are generally handled on a first-come, first-served basis or by simple criteria; there is no systematic impact-based ranking, aside from ad-hoc judgments by field teams or support staff.	No prioritization mechanism exists – service issues are addressed in the order they are reported or detected, without regard to the number or importance of customers affected.	A

The system can generate alarms with different priorities based on the affected network element levels and the number of users, corresponding to different priorities for rectification and handling. 。

Support Evaluation Screenshot

The CEI poor-quality list is categorized into mandatory, optional, and advisory items, and priorities are also determined based on CEI scores.

Service quality warnings are based on network elements and impact levels

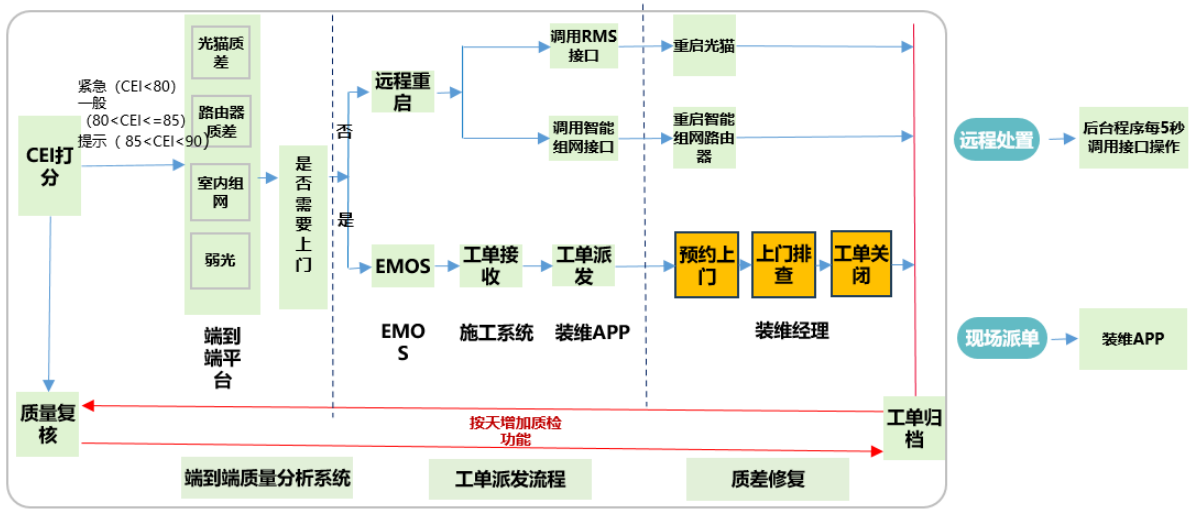
Execution

Service Capability	Weight	Question	Option A	Option B	Option C	Option D	Answer
Automated Service Restoration	20%	Does the system autonomously execute end-to-end service incident response actions (such as remediation, ticketing, notifications) based on determined decisions and priorities, without requiring manual intervention?	The system automatically executes the entire incident response process at the service level based on generated decision logic. This includes remediation, service ticket updates, alerts, and validations with no manual initiation required.	The system supports semi-automated execution at the service level through scripts or orchestrated workflows that require manual triggering or human confirmation for execution steps.	The system does not support any form of automated execution. All execution tasks are performed manually by operations teams, based on incident data and decisions.		A

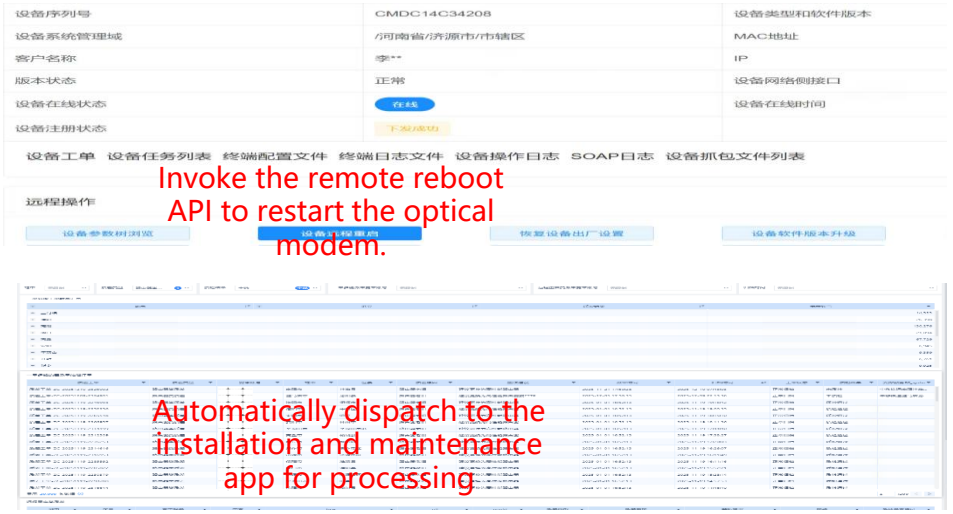
Tickets are assigned based on user home issues and dispatched according to predefined optimization strategies, enabling automatic remote optimization. For work orders requiring on-site service, intelligent dispatching can automatically generate service tickets. The system can track and verify the status of services, automatically updating alarm statuses and service ticket statuses without manual intervention.

Support Evaluation Screenshot

Automatic Work Order Dispatch Process for Poor User Quality



case handling



Thank you