

5G Orchestration and Service Assurance Operator Survey: Priorities and Platforms

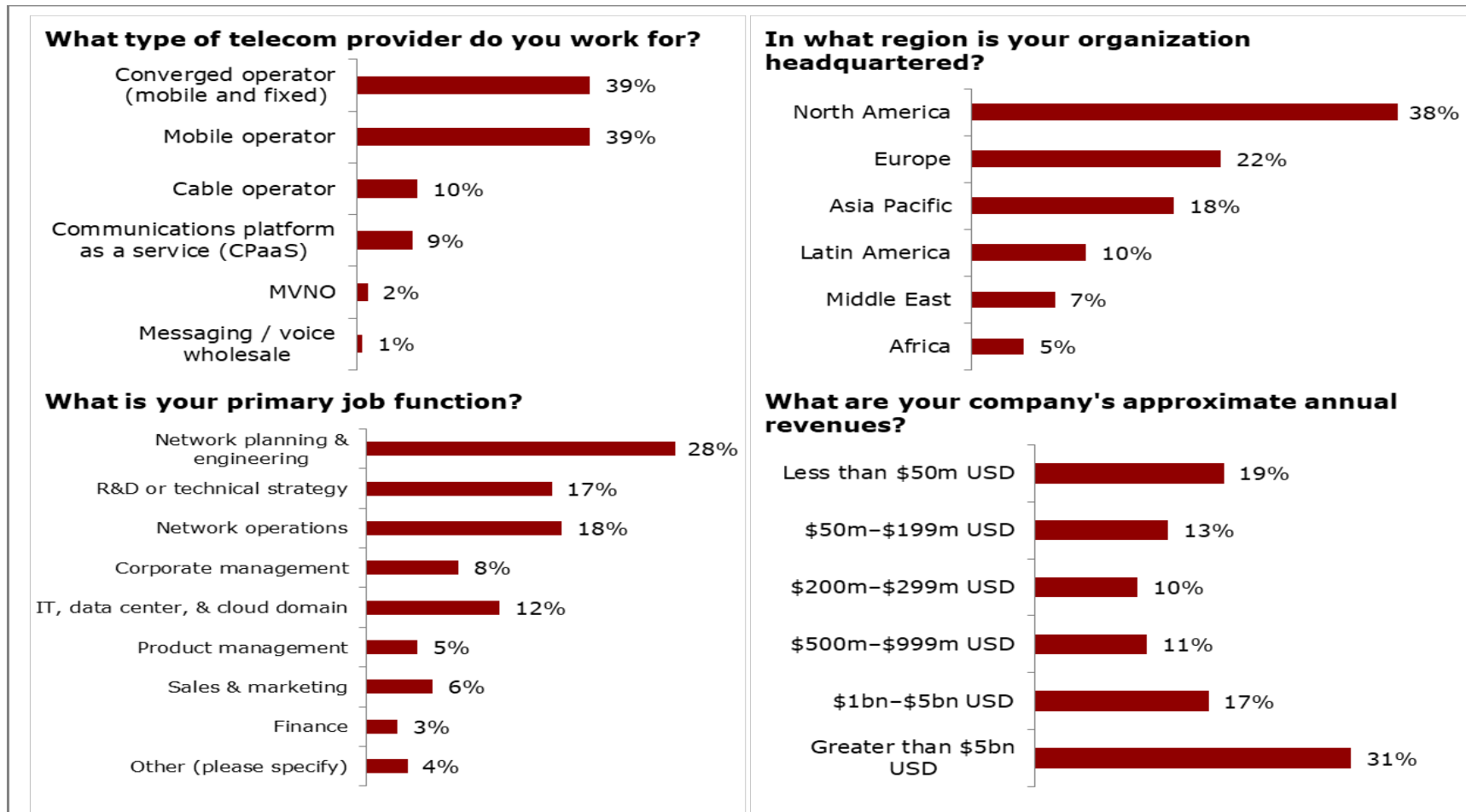
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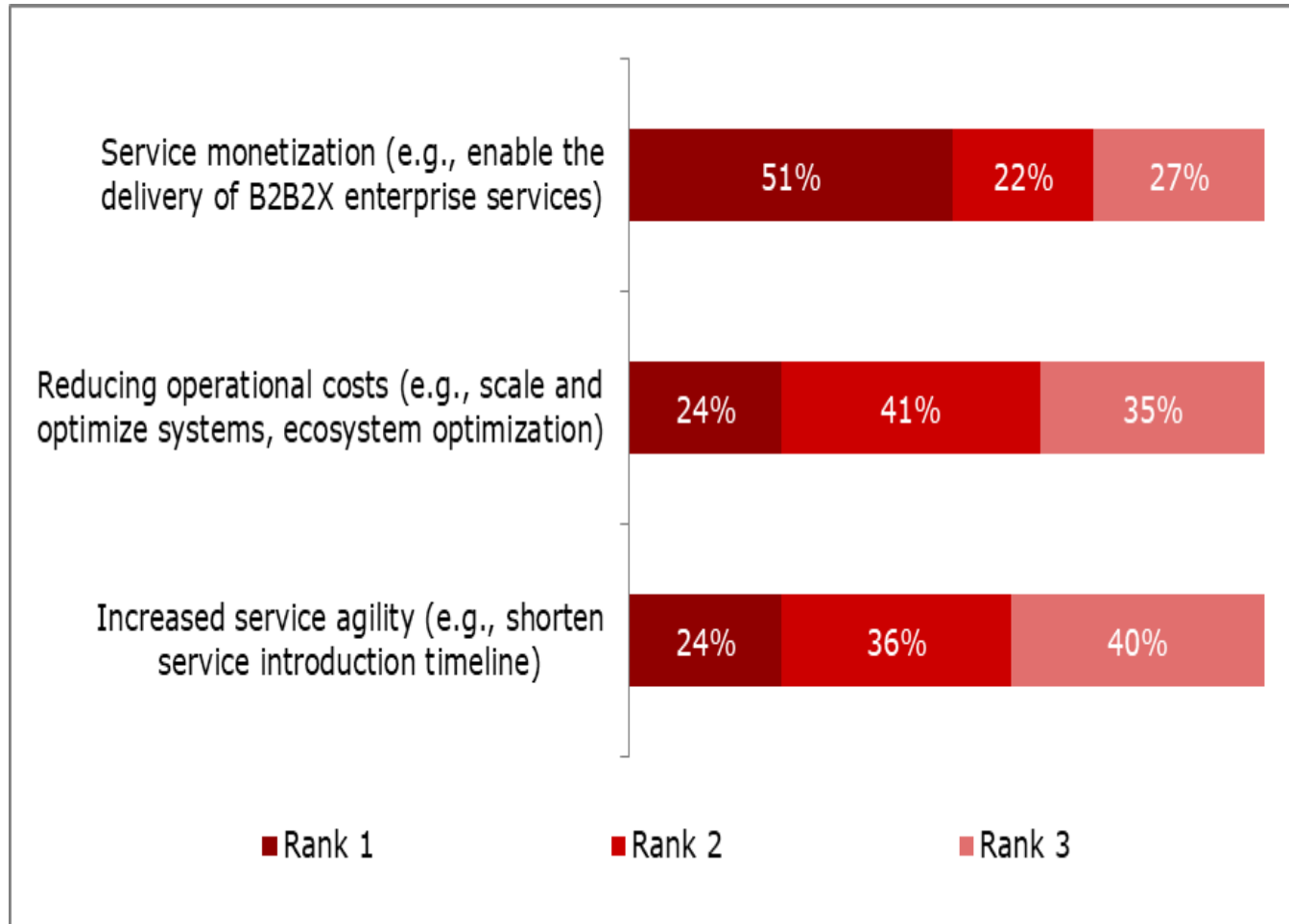
Survey Background



- Questionnaire developed by Heavy Reading with sponsors Juniper Networks and RADCOM
- 107-108 qualified respondents working at communication service providers

5G Orchestration

Implementing End-to-End Orchestration

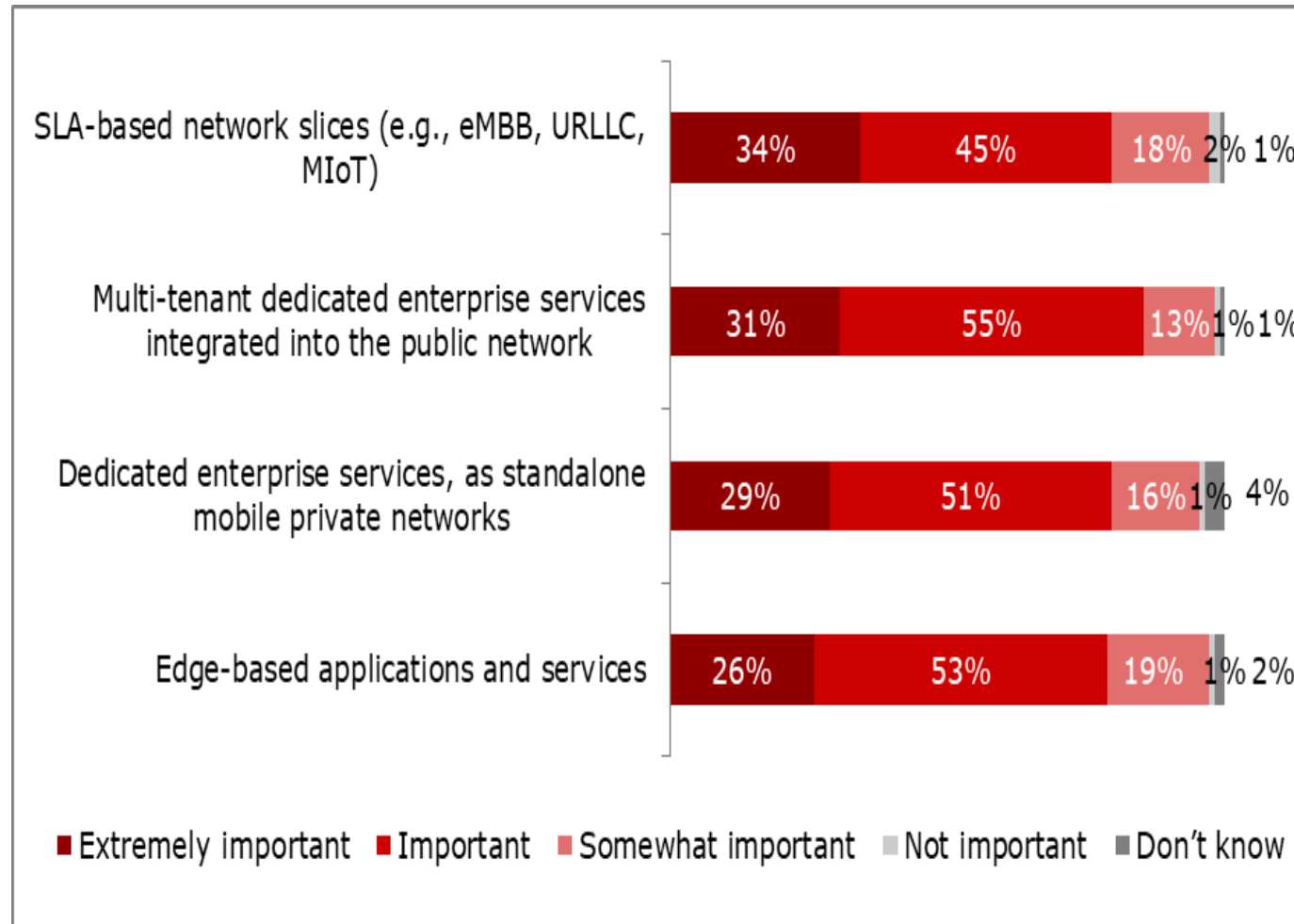


Key Findings

- The lead driver for implementing end-to-end orchestration is service monetization.

What are the primary drivers for implementing end-to-end orchestration?
(n=108)

Orchestration Service Priorities

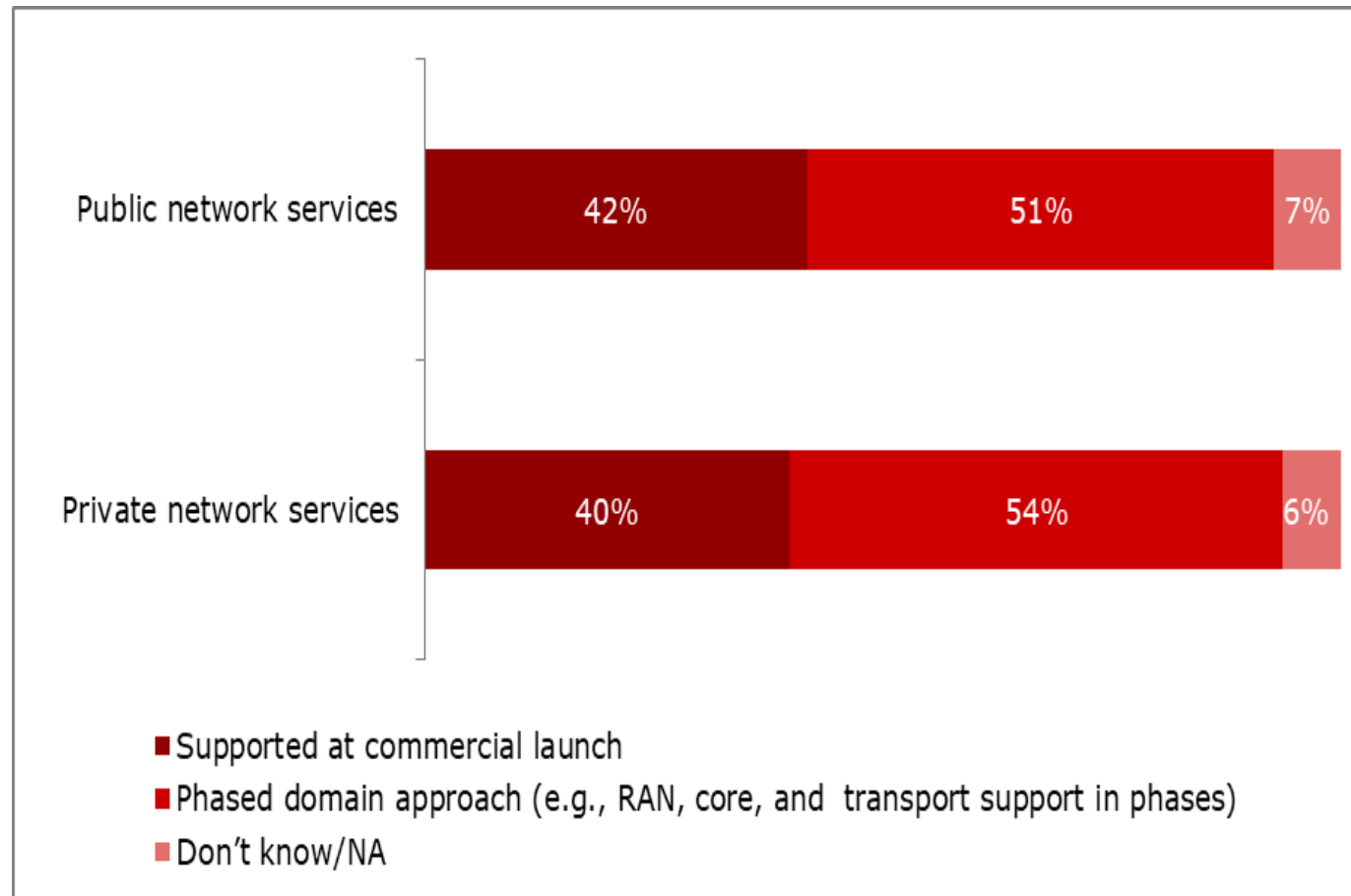


How important are selling and orchestrating the following capabilities for monetizing 5G services?
(n=108)

Key Findings

- The leading orchestration-centric services include service-level agreement (SLA)-based network slices (34%).
- Closely behind are Multi-tenant dedicated enterprise services integrated into the public network (31%), dedicated enterprise services as standalone mobile private networks (29%), and edge-based applications and services (26%).

Cloud Orchestration Strategies

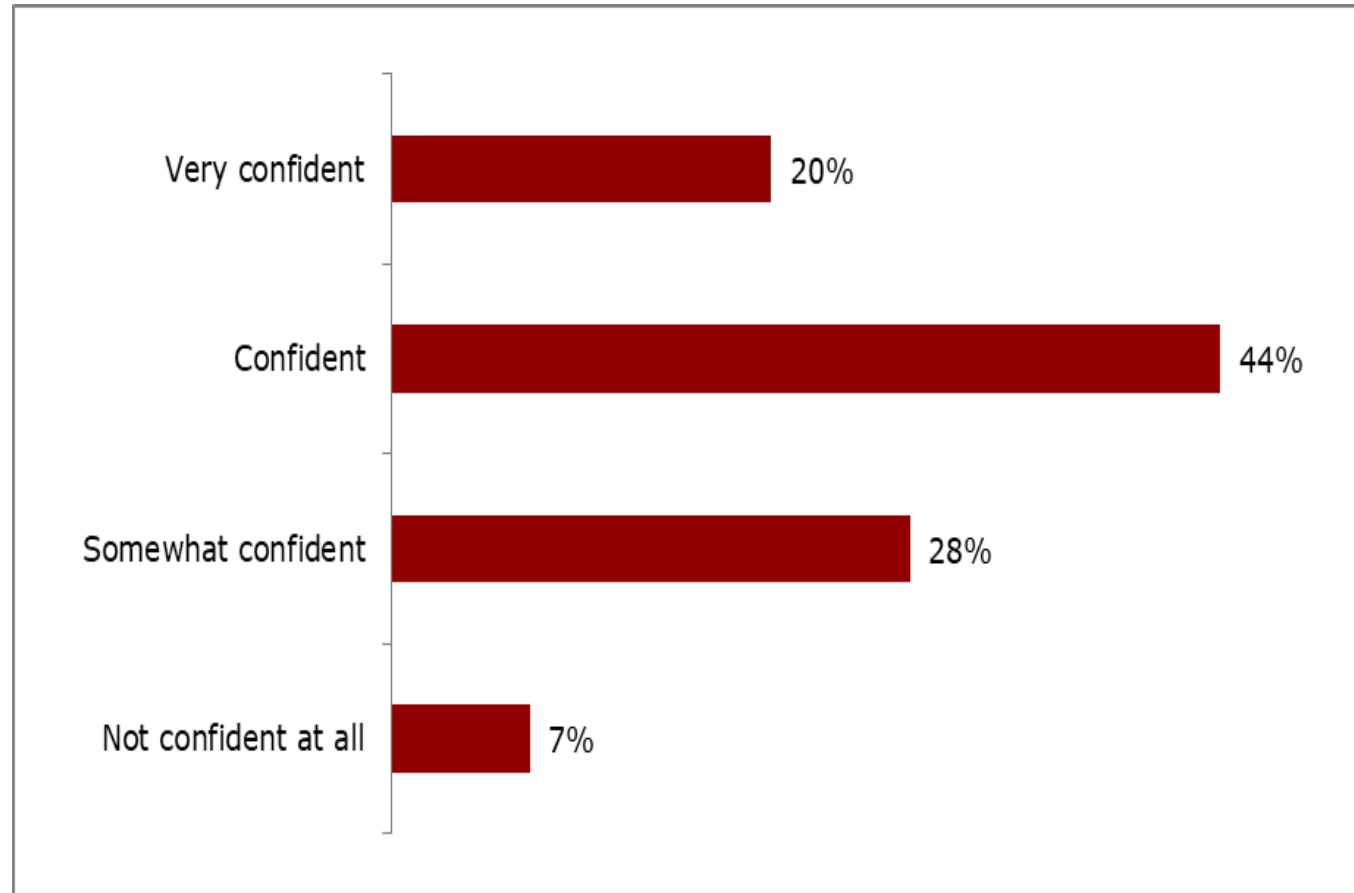


What deployment strategy will you utilize to deliver end-to-end network orchestration for public and private commercial network services?
(n=108)

Key Findings

- Service providers are split on when to support end-to-end orchestration for public and private network services. 42% and 40% plan to support all domains at commercial launch for public and private services, respectively.
- A little more than half plan to implement a phased domain approach for these same public (51%) and private (54%) services.

End-to-End Orchestration – Platform Readiness

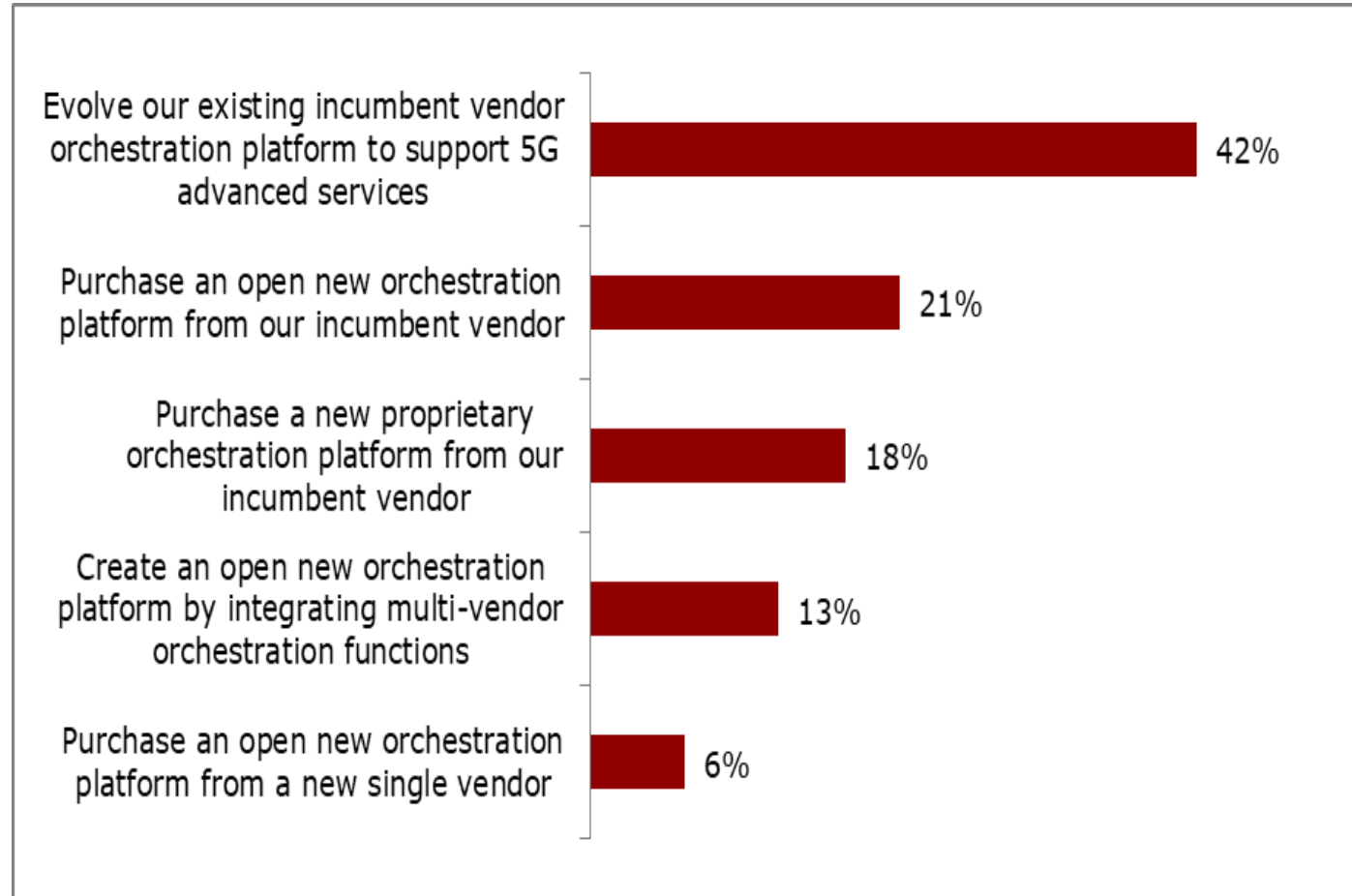


How confident are you that your current network supports the necessary end-to-end orchestration functions to monetize 5G services, including slice-based services?
(n=108)

Key Findings

- The majority of service providers (64%) are either “very confident” (20%) or “confident” (44%) that their current networks are up to the task of supporting end-to-end orchestration. That leaves more than a third of service providers (35%) that are either only “somewhat confident” (28%) or “not confident” at all (7%).

Orchestration Platform Evolution Strategies

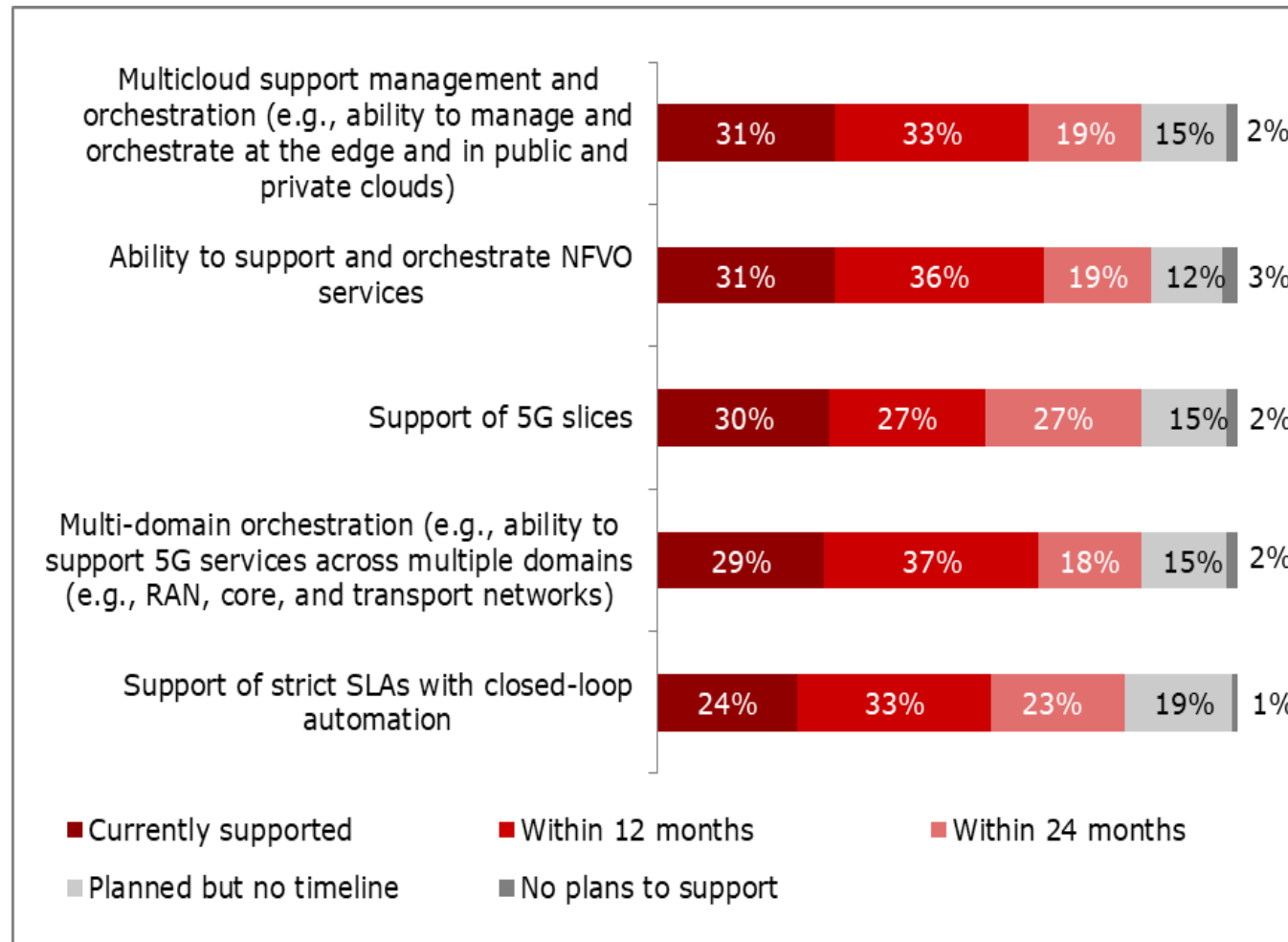


Which best describes your 5G orchestration platform strategy?
(n=108)

Key Findings

- Most service providers (58%) favor a new platform to support end-to-end orchestration.
- 42% plan to evolve existing platforms.

Orchestration Timeline

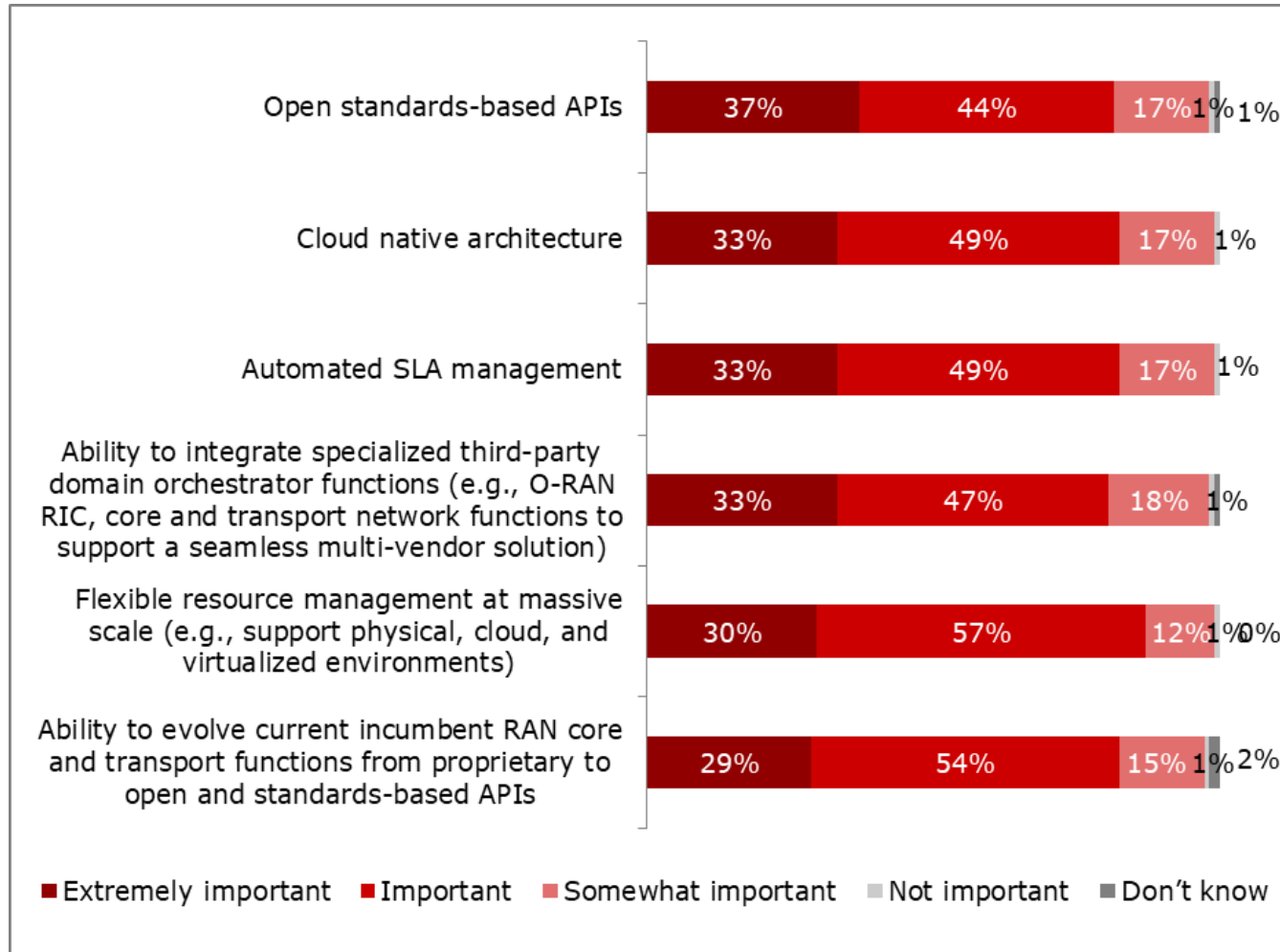


Key Findings

- Less than a third of the respondents (24–31%) indicated their systems can currently manage end-to-end orchestration for certain 5G services.

To what extent can your current network orchestration system support the following capabilities on an end-to-end basis (e.g., in the core, RAN, and transport networks)?
(n=108)

Platform Purchase Attributes

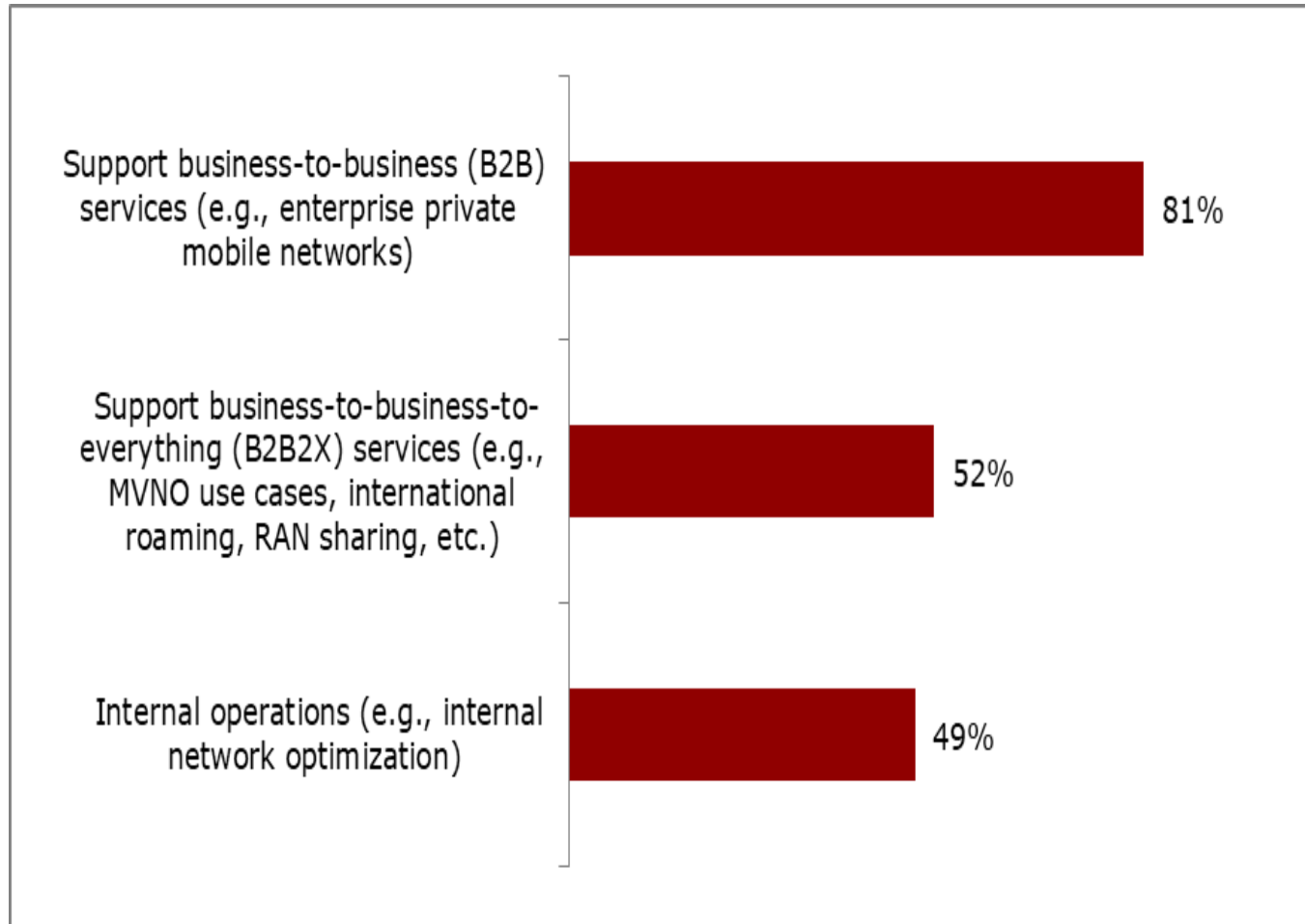


How important are the following design attributes when purchasing a new orchestration platform?
(n=108)

Key Findings

- Based on “extremely important” input, 37% of respondents selected open standards-based APIs as the lead design attribute.
- Close behind were other open attributes, such as the ability to integrate specialized third-party domain orchestrators (33%) and the ability to evolve even existing current RAN, core, and transport functions to open and standards-based APIs (29%).
- Flexible resource management (30%), cloud native architecture (33%), and automated SLA management (33%) are also important.

Slicing and Services

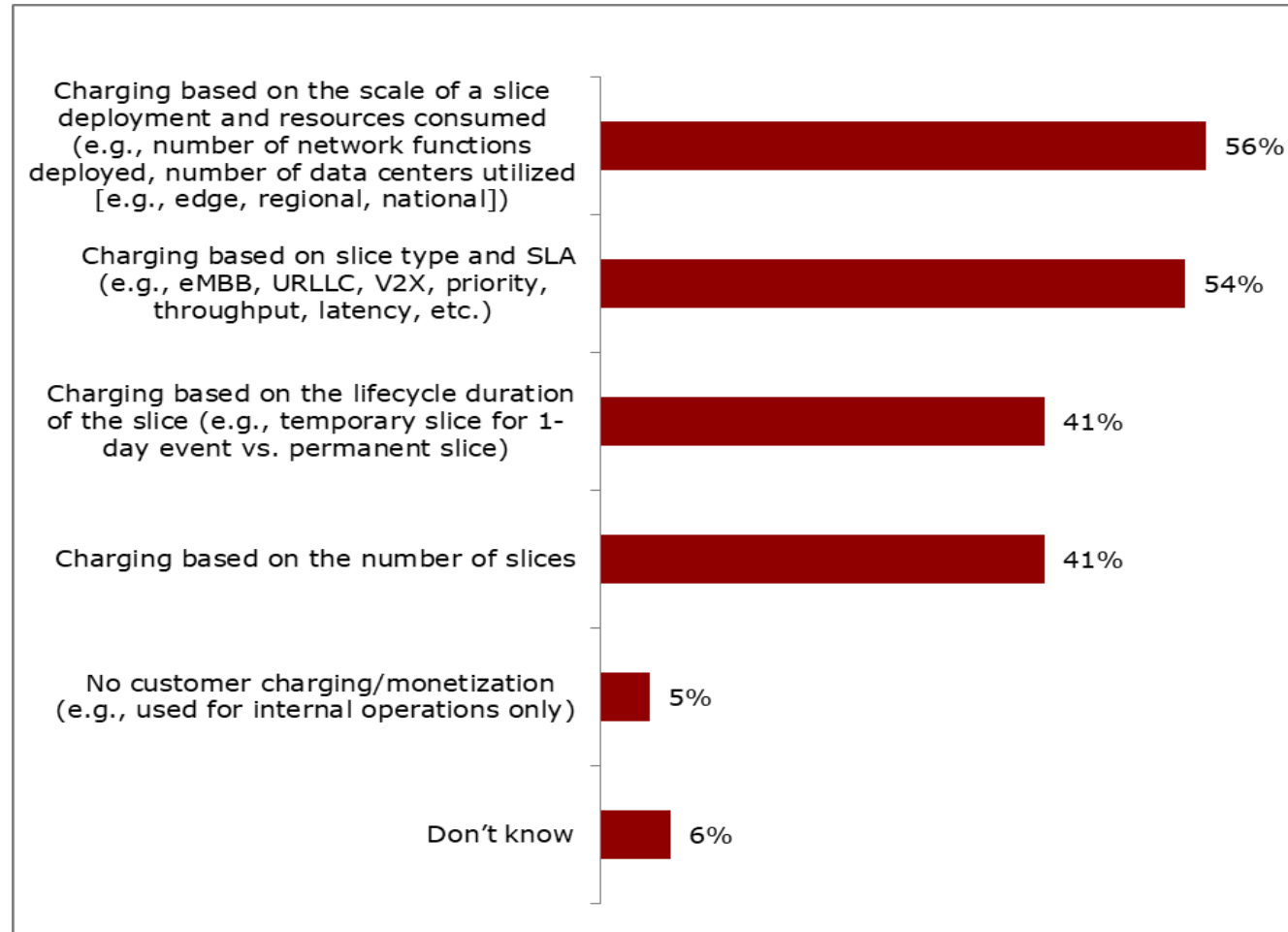


How do you intend to use network slicing? (Select all that apply)
(n=108)

Key Findings

- The top use case is to utilize slicing to support business-to-business (B2B) services that encompass private network services (81%), followed by support of business-to-business-to-everything (B2B2X) services (52%) and then internal network operations (49%).

Monetizing slices



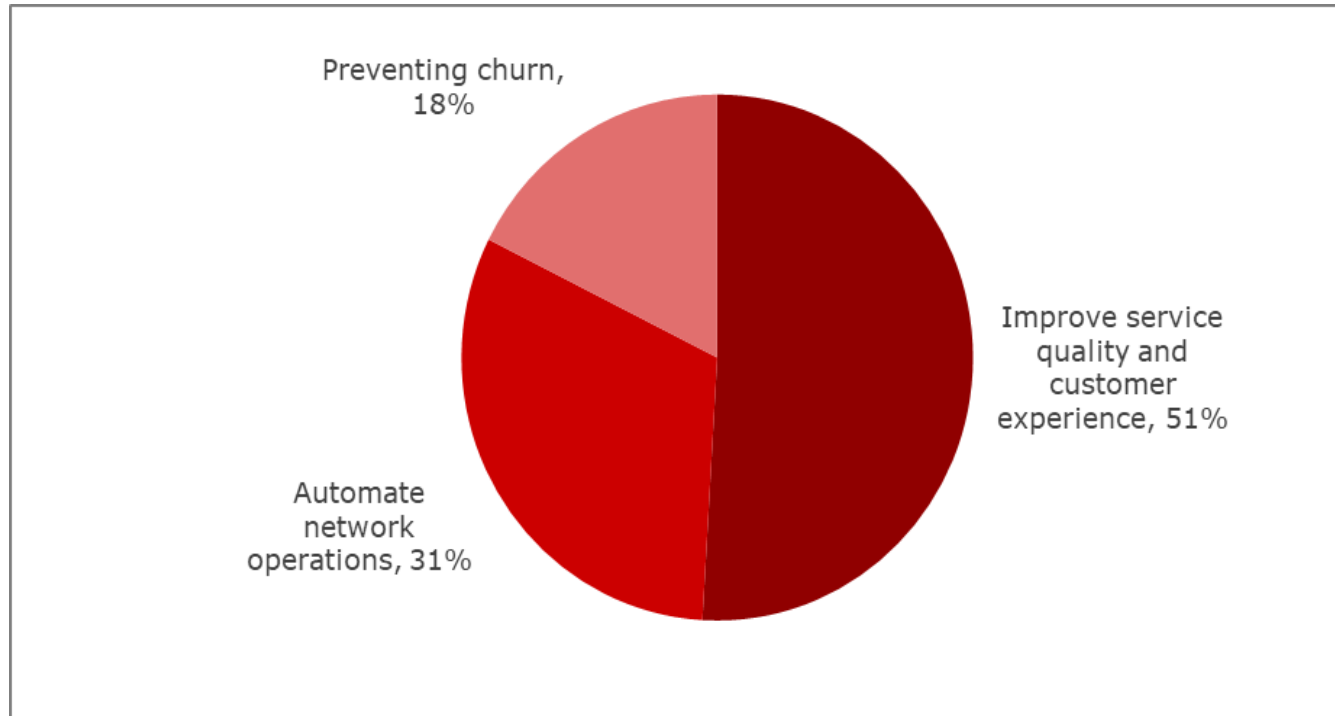
Which approach will you utilize to charge/monetize network slices? (Select all that apply)
(n=108)

Key Findings

- Slicing monetization and charging will rely on several flexible options. The preferred approach by a narrow margin is to charge based on the scale of a slice and the resources consumed (e.g., the number of network functions and data centers utilized) (56%).
- This was followed by the others in a very tight grouping: slice type and SLA (54%) and then lifecycle duration and number of slices (both 41%).

5G Service Assurance

Assurance Team 5G Business Priorities

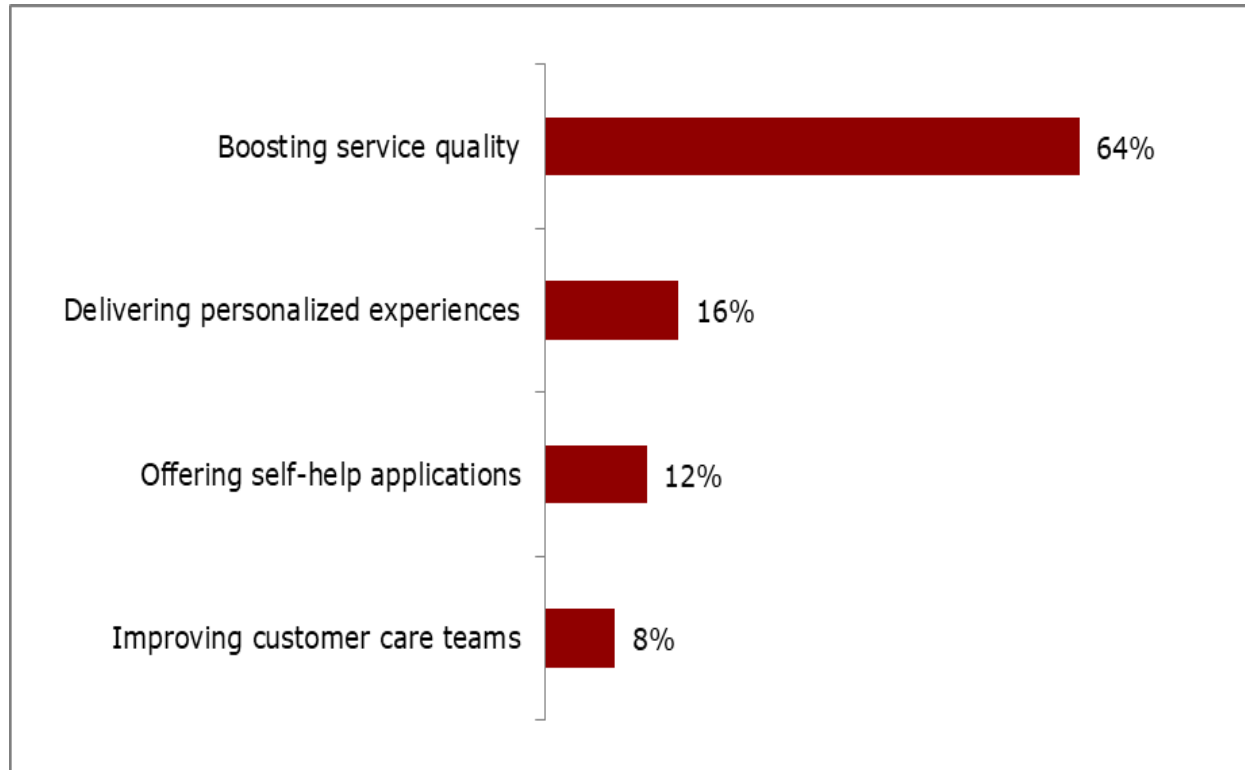


What is the top business priority for your 5G network assurance team?
(n=108)

Key Findings

- The 5G assurance team's business priority is to improve service quality and customer experience (51%).
- In second and third place, respectively, were automation of network operations (31%) and preventing churn (18%).

Customer Experience Objectives

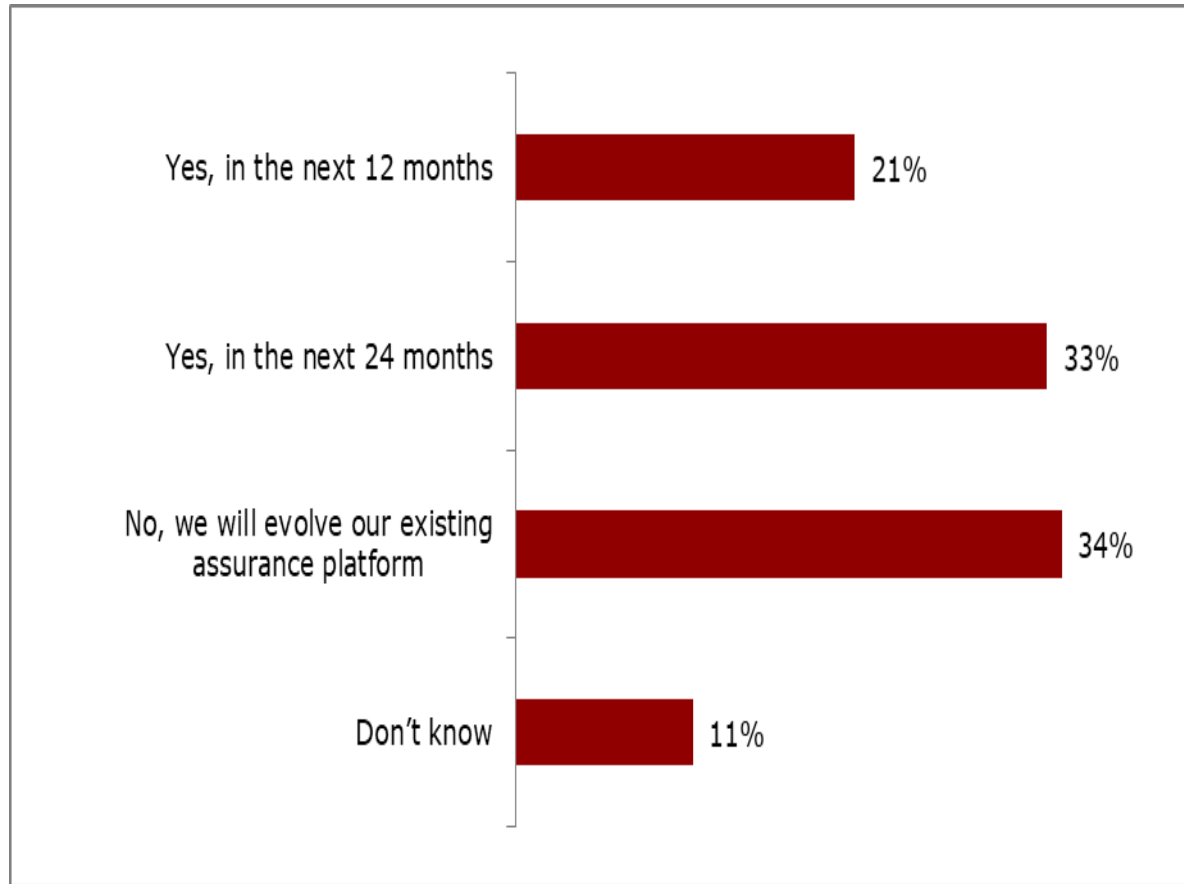


What 5G customer experience objective is your organization's top priority?
(n=107)

Key Findings

- Service providers' top priority in improving customer experience is focused on a basic need—to boost service quality (64%).
- Other objectives garnered lower levels of support, including delivering personal experiences (16%), offering self-help applications (12%), and improving customer care teams (8%).

5G Service Assurance Platform Strategies

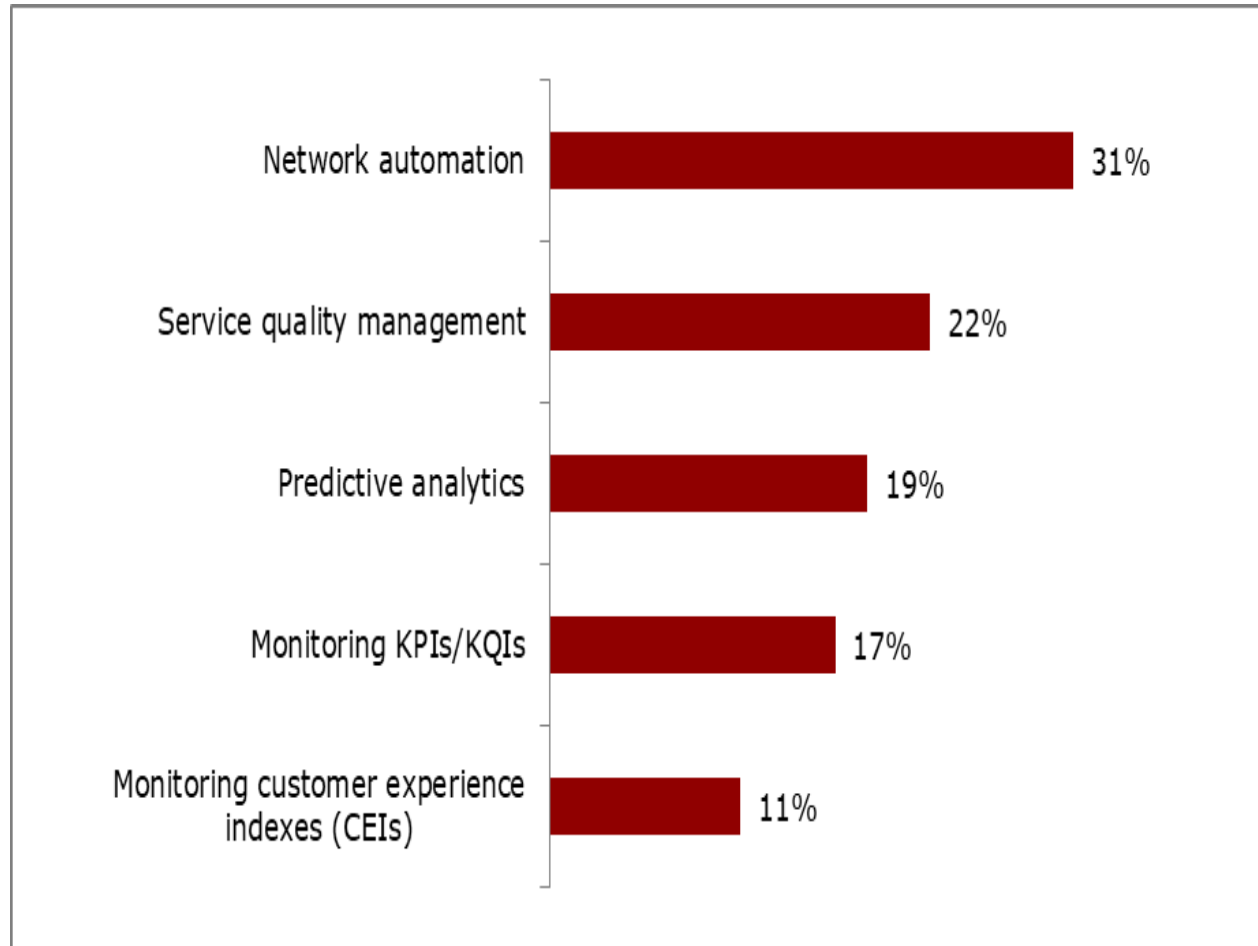


Are you planning on replacing your service assurance solution to support 5G services?
(n=108)

Key Findings

- More than half of service providers (54%) support replacing existing assurance platforms to support 5G services. 21% plan to replace within 12 months, and 33% plan the same within 24 months.
- 34% plan to evolve their existing assurance platform and 11% who do not know what approach their company plans to adopt.

Improving 5G Service Quality

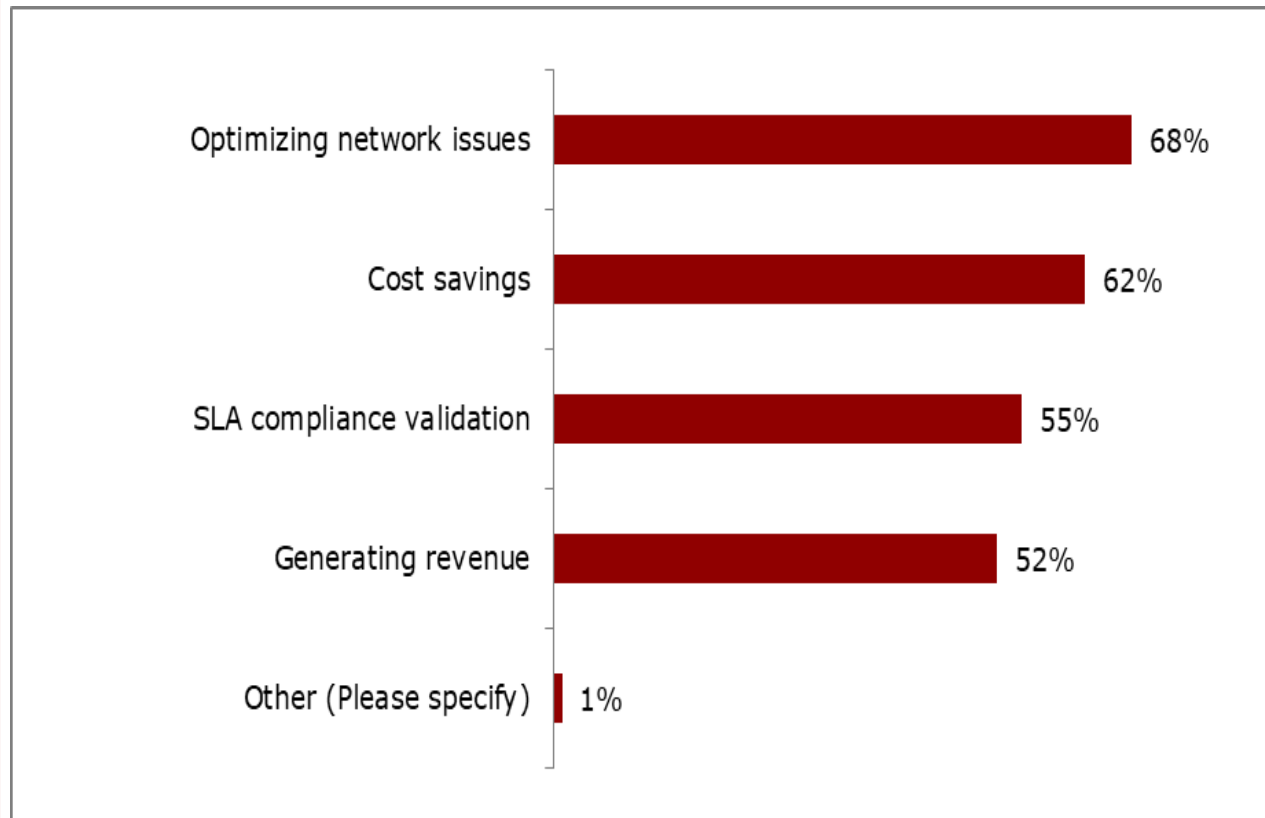


Which capability will improve 5G service quality the most?
(n=107)

Key Findings

- Automation of network operations and service quality are not mutually exclusive.
- Survey respondents believe that network automation is a complementary capability that will improve 5G service quality the most (31%), ahead of service quality management (22%), predictive analytics (19%), and monitoring key performance/quality indicators (KPIs/KQIs) (17%).

Automated Assurance Benefits

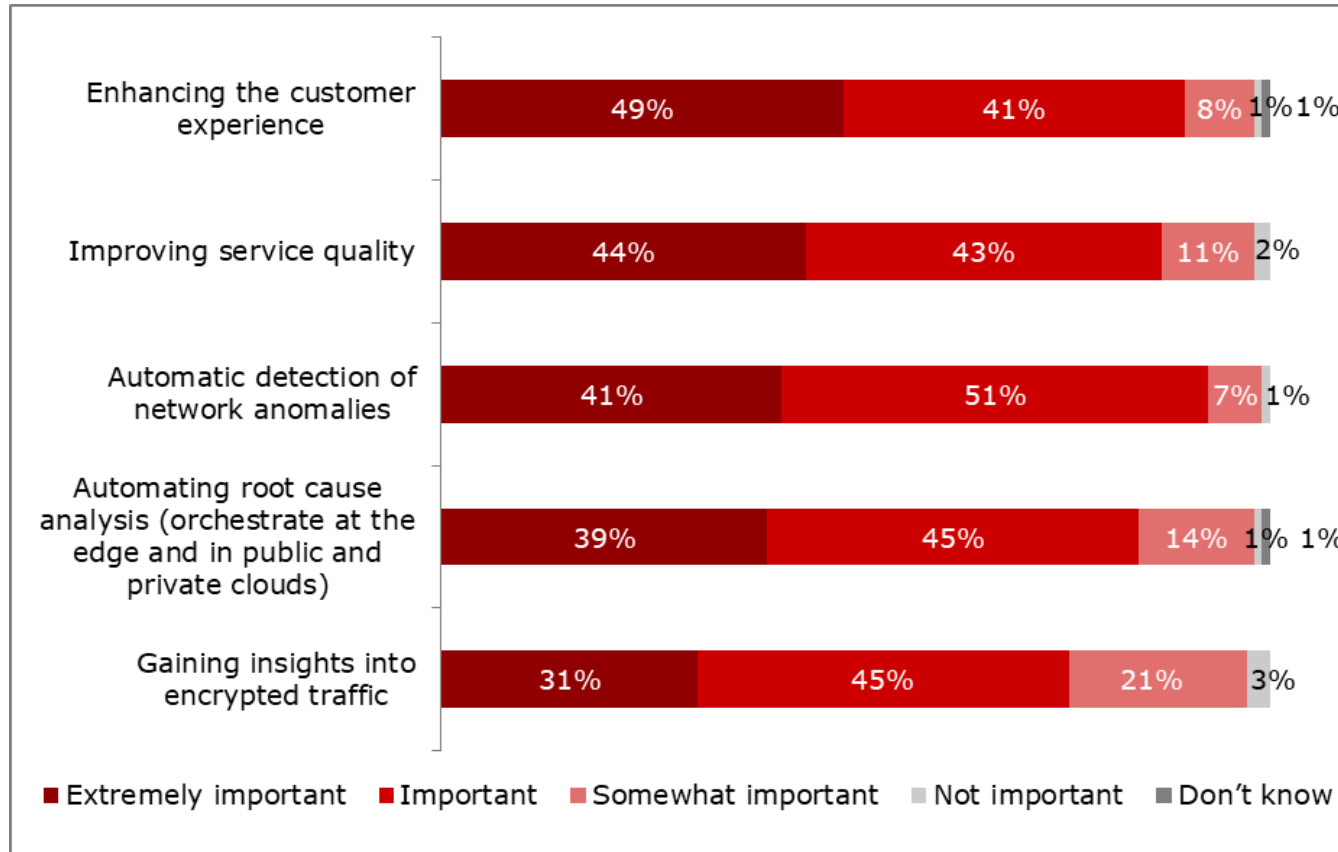


What benefits do you expect from the introduction of 5G automated assurance? (Select all that apply)
(n=108)

Key Findings

- 5G service providers anticipate that automated assurance will deliver a broad range of benefits.
- These range from optimizing network issues (68%), cost savings (62%), and SLA compliance validation (55%) to revenue generation (52%).

AI and 5G Use Cases

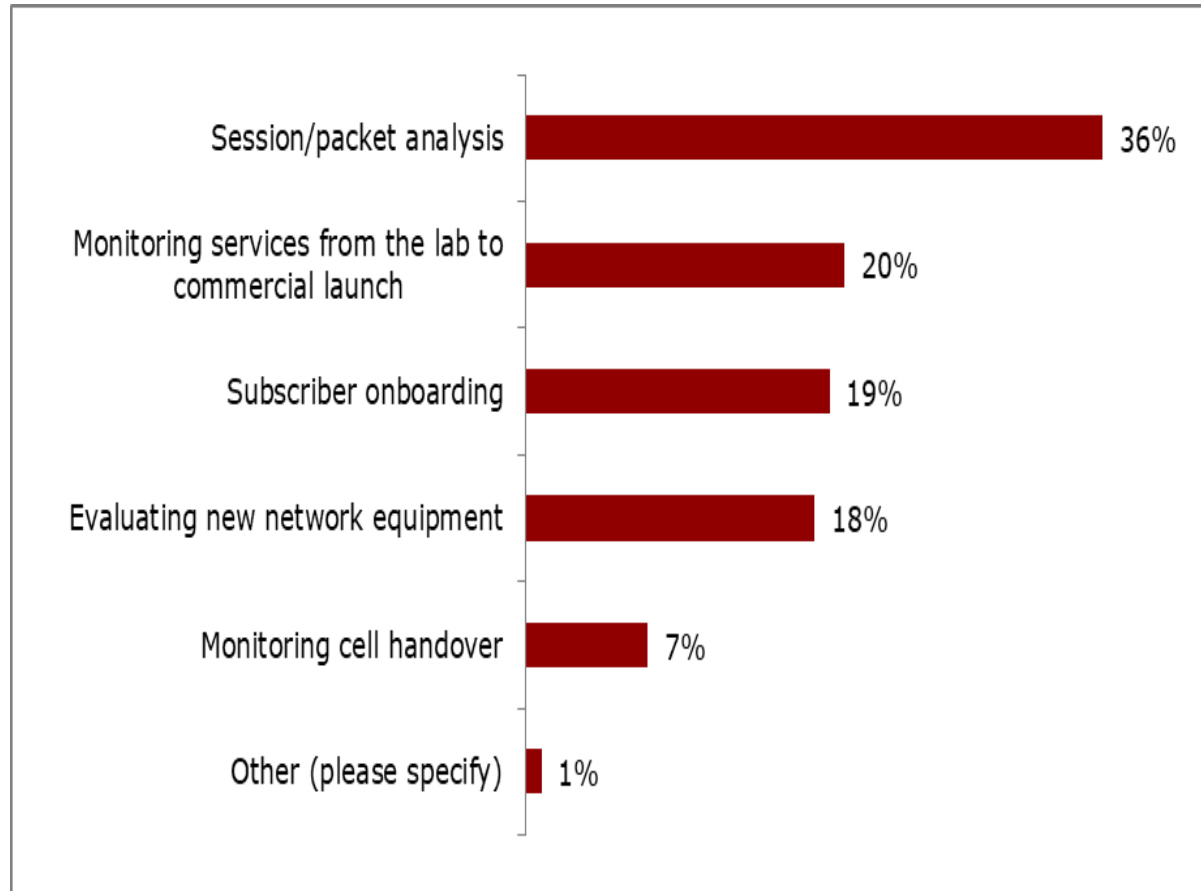


How important is it to utilize AI for the following 5G use cases?
(n=107)

Key Findings

- Artificial intelligence (AI) will play a vital role in several 5G assurance use cases.
- Based on “extremely important” inputs, the top three use cases are enhancing the customer experience (49%), improving service quality (44%), and automatic detection of network anomalies (41%).
- Automating root cause analysis to support edge and public and private cloud orchestration (39%) was not far behind.

The Role of Assurance Data

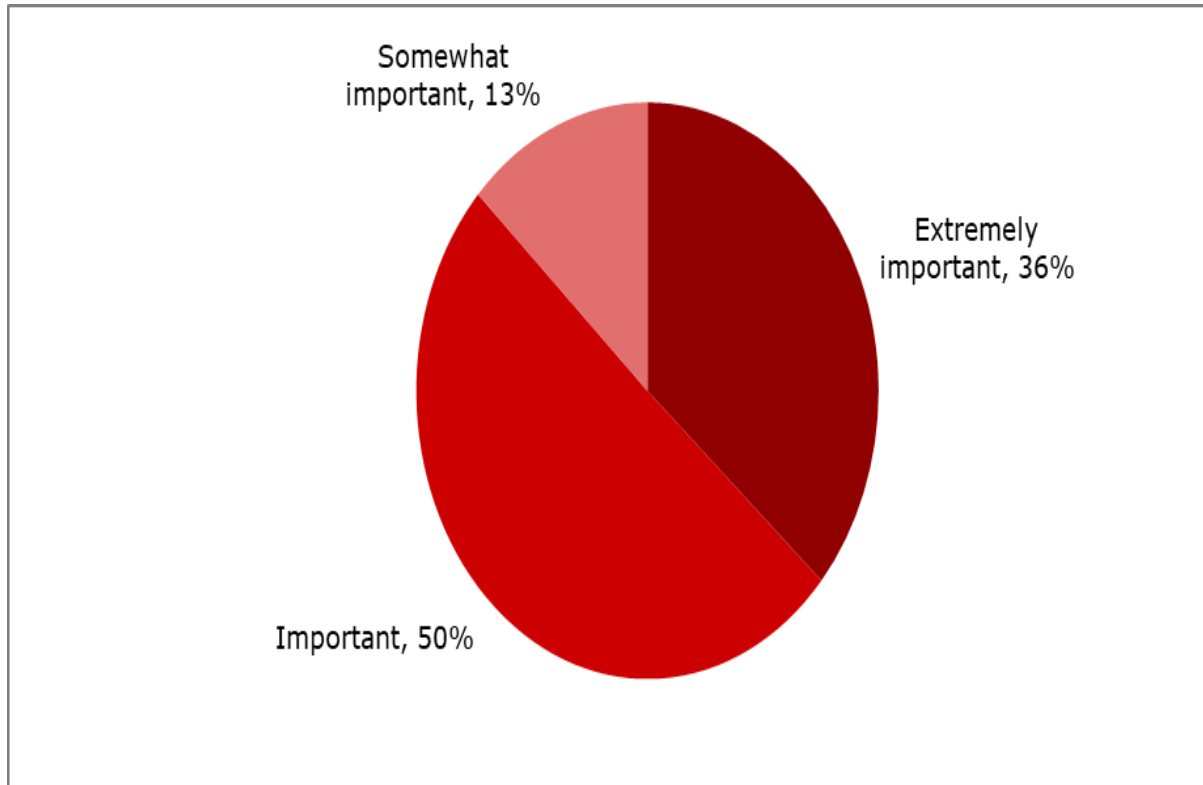


Which assurance usage data is the most important for supporting 5G service and networks?
(n=107)

Key Findings

- Service providers will rely on various types of assurance usage data to support their 5G service and networks.
- The top priority by a considerable margin was session/packet analysis (36%).
- Followed by three tightly coupled datasets: monitoring services from the lab to commercial launch (20%), subscriber onboarding (19%), and evaluating new network equipment (18%).

Real-time data

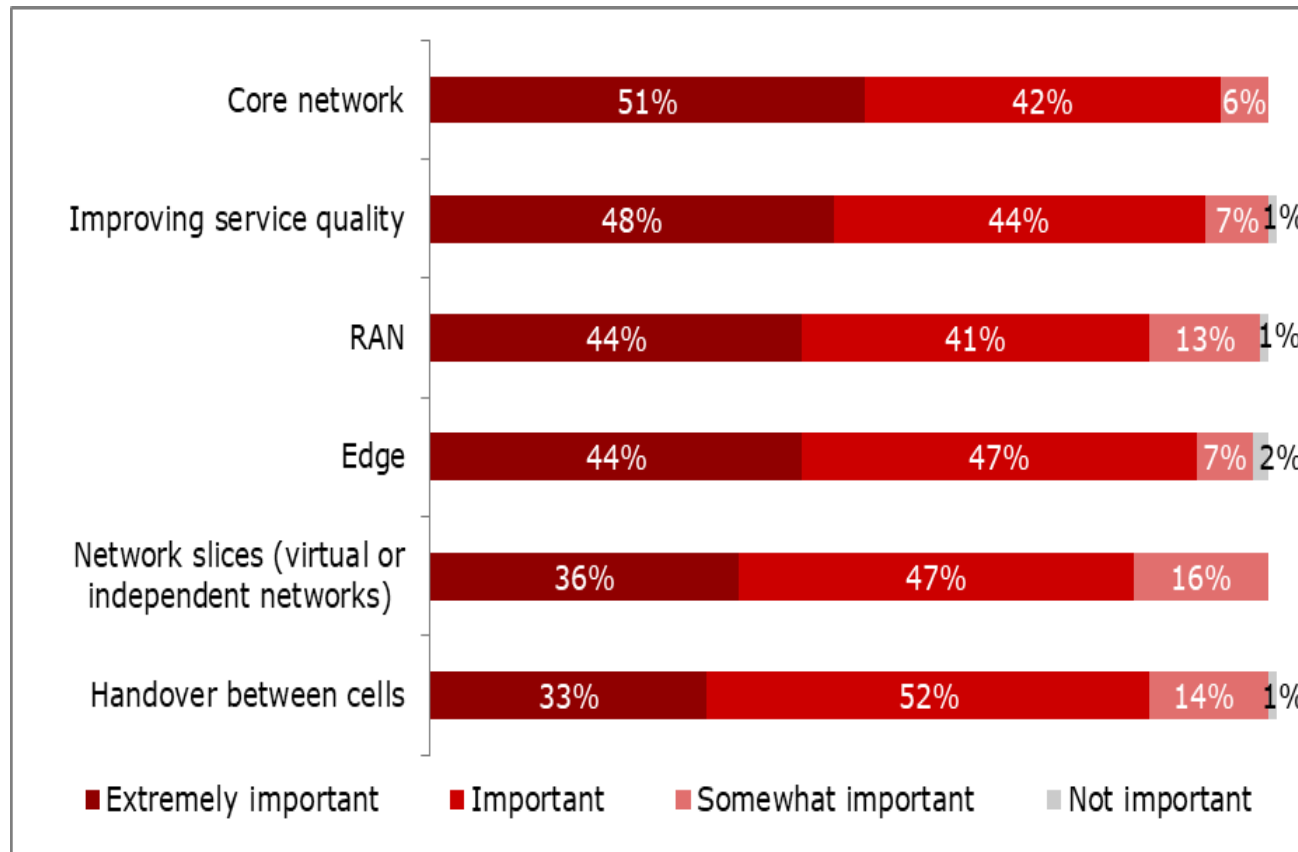


How important are real-time data insights for 5G assurance?
(n=107)

Key Findings

- More than 8 out of 10 (86%) of survey respondents ranked real-time data insight as either “extremely important” (36%) or “important” (50%) for 5G assurance.

5G Network Monitoring Requirements



How important is it to monitor the following 5G network areas/ capabilities?
(n=107)

Key Findings

- Focus on 5G real-time data and services also has monitoring implications.
- Based on “extremely important” input, the top areas of focus include monitoring the core network (51%), improving service quality (48%), and monitoring the RAN and edge (both 44%).
- Other secondary but still important monitoring areas encompass monitoring network slices (36%) and handover between cells (33%).