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Aria Systems: digital transformation

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Company summary

Aria Systems is a provider of a natively cloud-based, multi-tenant billing platform for telcos and enterprises. Founded in 2003, Aria was one of the pioneers of cloud-based billing platform for effectively monetising recurring/subscription business models with the aim of improving customer lifetime value (CLV) for enterprises.

The Aria Crescendo billing platform offers end-to-end billing functionality that includes usage rating, invoice calculation, electronic payment collection, invoice presentation, dunning, etc. The company has over 100 deployments mostly within large enterprises across a number of verticals and geographies.

Since 2014, Aria has placed greater emphasis on addressing digital transformation projects within CSPs and has signed multiple tier-1 CSP customers in developed markets of APAC, Europe and North America. Within telcos, Aria's aim is to support new digital lines of business and provide an agility layer to augment incumbent billing systems. The company is investing in its portfolio to address telco-specific challenges such as complex multi-vendor environments and legacy silos. In addition Aria is also expanding its regional coverage by partnering with system integrators (SIs) and technology vendors in APAC and EMEA regions especially.

This profile discusses Aria's monetisation portfolio with a specific focus on its relevance within the telco vertical.

Figure 1: Aria Systems company facts

|	
Founded	2003
Offices	San Francisco, Philadelphia
Employees	200+
Regional focus	North America, Western Europe, Australia
Customers	100+ customers across multiple industries.
Selected key customers	Comcast, Telstra
Partnerships	Salesforce, Matrixx, Vlocity, Vertex, Avalara, Chase PaymenTech, Adyen, Vantiv/Worldpay, Softrax

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Strategic direction

Aria has seen increasing traction within the telecom vertical in recent years driven by a growing interest from CSPs to embrace SaaS based systems to rein in costs and enable business agility. The company's expertise in serving non-telco customers in addition to the telecom vertical is viewed as an advantage by CSPs who are considering enterprise offerings.

Communications is Aria's fastest-growing industry vertical, on target to grow from 16% of overall revenues in 2017 to 22% in 2018. While NA continues to be the biggest contributor in revenue terms, Aria is focussing specifically on expanding its business in the APAC and EMEA regions. The company is working on expanding its partner channels with both system integrators and technology vendors.
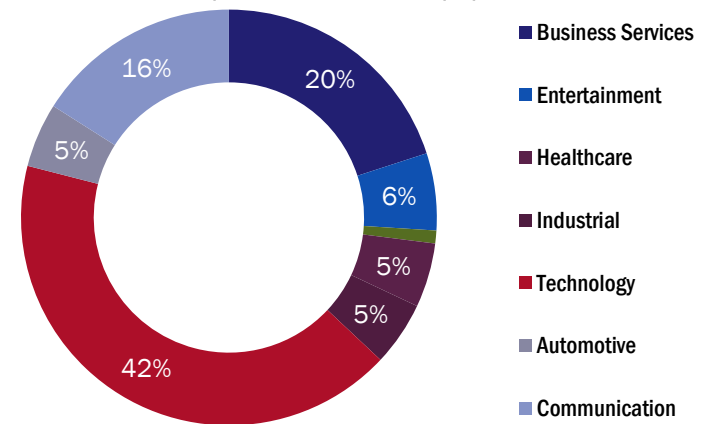
Aria does not compete directly with mainstream CSP billing vendors. Instead the company positions itself as a digital transformation accelerator that co-exists with incumbent telco billing and ERP systems. Billing systems traditionally account for a large portion of CSPs software systems spending and Aria plans to offer a cost effective means of digitising the legacy billing system by deploying an overlay billing platform.

The company continues to make significant R&D investments, mainly to ensure a broader compatibility with legacy systems which is an important requirement for multi-vendor environments that is typical in most telcos.

Figure 2: Breakdown of Aria Systems' worldwide revenues by region, 2017 [Source: Aria Systems and Analysys Mason]

- APAC
- EMEA
- NA
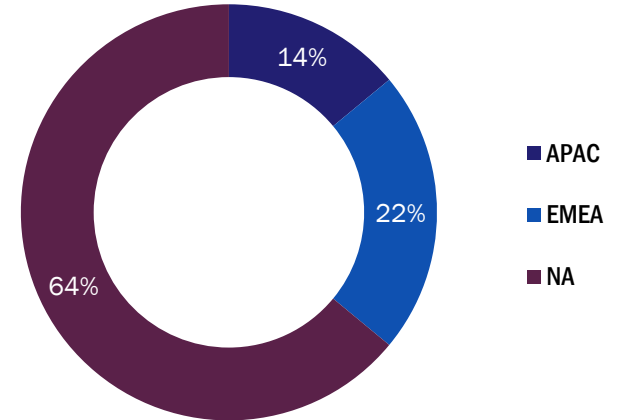
Figure 3: Breakdown of Aria Systems' worldwide revenues by industry, 2017 [Source: Aria Systems and Analysys Mason]

- Business Services
- Entertainment
- Healthcare
- Industrial
- Technology
- Automotive
- Communication

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Telco strategy

Aria System's unique selling proposition is to help accelerate digital transformation by providing an agile overlay layer to augment legacy billing systems. This helps CSPs to support streaming content and third party services which may not be possible on legacy platforms.

Aria has designed its platform to coexist with incumbent legacy systems which often is a huge bottleneck for CSPs deploying adjunct or overlay systems. This is also a key differentiator for Aria as compared to SaaS billing vendors without telco expertise.

The Aria platform makes use of an extensible object model which supports complex hierarchical relationships between individuals, corporate entities, devices, and locations. The platform also offers embedded business process automation tools for codeless creation of proprietary business rules swiftly.

Another key differentiator for Aria cloud billing platform is its ability to process streaming records including non-billable ones. Because of the large volumes of records generated by CSPs, many cloud based billing systems filter out non-billable records which may hold important information regarding the customer.
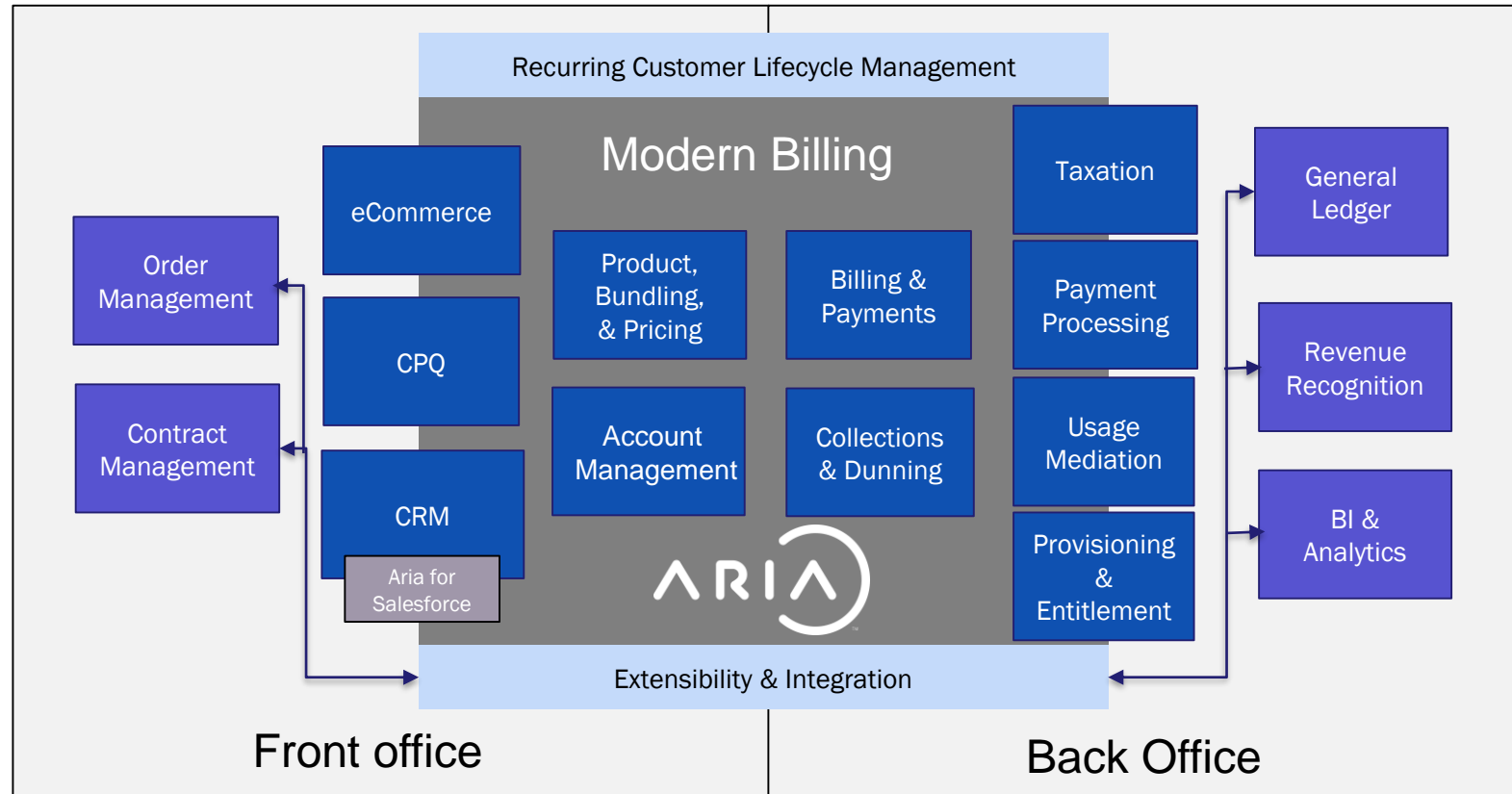
Aria has a strong focus on ensuring high levels of availability for its services to allay any concerns around reliability. In 2017, the company's uptime was 99.998%

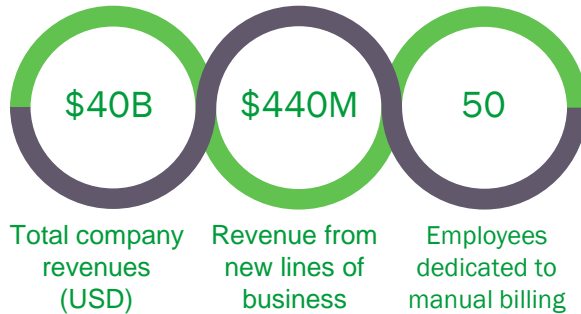Figure 4: Aria Sample Telco Ecosystem [Source: Aria Systems, 2018]

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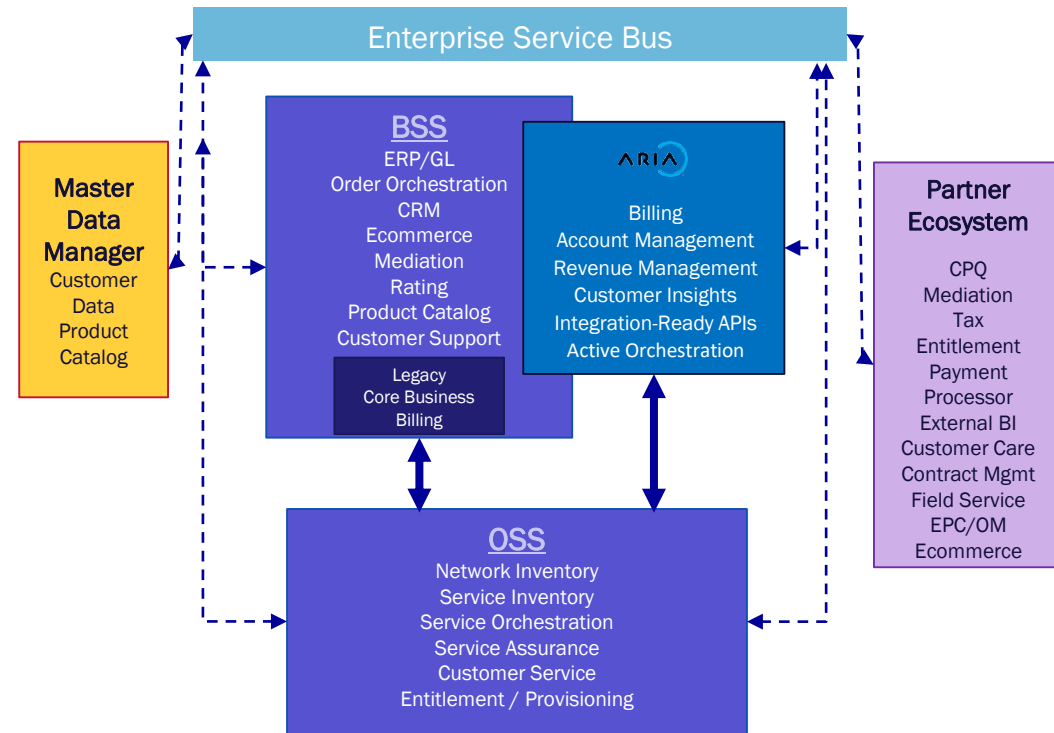
Architecture overview

Figure 5 : Architecture overview of Aria Systems cloud-billing platform [Source: Aria Systems 2018]
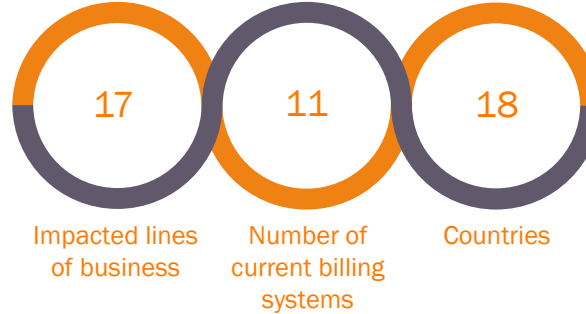
Tier 1 US based cable provider transforms enterprise billing by deploying Aria's cloud-based billing platform
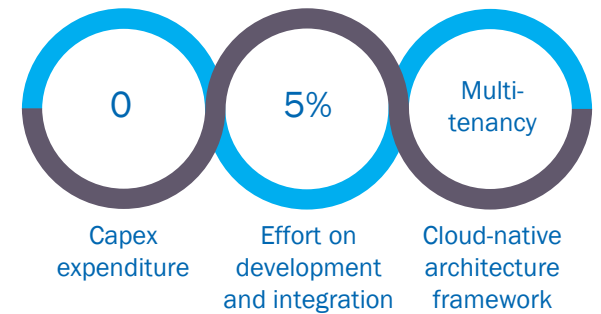
STATE OF THE BUSINESS[1]

$40B	$440M	50
Total company revenues (USD)	Revenue from new lines of business	Employees dedicated to manual billing

BUSINESS DRIVERS

- Focus on augmenting traditional lines of business with new "digital first" initiatives. Achieving end-to-end automation and eliminating manual processes is required.

- Many new lines of business are the result of acquisition, with disparate technology stacks associated with each one.

- Legacy on-premise billing systems not designed for non-traditional telco offerings. Flexibility often requires time consuming and expensive customization.

FOCUS OF THIS EFFORT

17	11	18
Impacted lines of business	Number of current billing systems	Countries

STRATEGY

- Launch 17 new LOBs on a new converged billing platform in 18 months.

- Focus on shifting from price competition to service innovation, quality and value-added bundles.

- Adopt an opex-based, cloud-first strategy that achieves adherence to proprietary business practices via configuration rather than custom coding.

PROJECT APPROACH

0	5%	Multi-tenancy
Capex expenditure	Effort on development and integration	Cloud-native architecture framework

ANALYSIS

- Aria's native cloud billing platform was selected as the underlying billing platform for the initiative. First 12 of 17 LOBs launched successfully in first year of the project.

- The project has provided significant cost benefits to the operator in terms of lower capex, reduced development efforts and faster time to market for new offerings.

- Moving to a cloud-based configurable platform has improved overall operational agility.

👍 BENEFITS 👍

Rapid launch of new services	Significant cost savings	17 new LOBs launched in 18 months on single platform

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Significant customers

Figure 8a: Aria System's key customers and scope of deployment across all industry verticals

Industry segment	Business challenge	Customer and solution scope
Telco	Aggregation of multiple B2B non-core-telco services from multiple legacy systems onto single cloud based platform	**Telstra** – Ability to bill for any measurable unit of any service. Full support for individually contracted rates. Multi-level hierarchical billing. Tight integrations with multiple best-of-breed cloud systems and incumbent legacy systems.
Telco	Eliminate manual processes. Required scalable single system to replace collection of legacy systems and radically improve time to market.	**Comcast** – Embedded business process automation (Aria Workflow). Support for complex hierarchical billing. Out-of-the-box customer care user interface. Support for combinations of subscription and usage-based billing models.
Publishing	Movement from "shrink-wrapped" software delivery model to SaaS/subscription model.	**Adobe** - Rapid implementation and time to market. Tight integration to external customer master system (SAP).
Infrastructure	Multi-layered channel distribution model with billing needs at all levels.	**Vmware** – N-level hierarchical account billing
Automotive	Rollout of first-ever recurring digital business under Starlink branded connected vehicle services.	**Subaru** – Fully PCI compliant integration with mobile application and web-based self service portal. Multi-currency support.
Home Automation	Bundling of new IoT-based remote monitoring service with existent physical goods.	**Generac** – Integration with external product catalogue (SAP), service provisioning with cellular carrier (Verizon), and third party service providers (dealer network).
Home Security	Bundling of new IoT-based remote monitoring and storage services with existent physical goods (home security cameras).	**Netgear (Arlo)** – Support for complex product bundling. PCI Level 1 compliance.
Entertainment	Massive product catalogue, constantly changing mixtures of free and paid content, high volume service activation/de-activation, significant holiday activity spikes.	**Roku** – Fully automated proration. Tight integration with bespoke user interface (proprietary set-top box) and service entitlement platform.

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Significant customers (continued)

Figure 8b: Aria System's key customers and scope of deployment across all industry verticals

Industry segment	Business challenge	Customer and solution scope
Healthcare	New usage-based "pay per scan" model for avoidance of capex expenditure for large medical equipment at smaller medical facilities	**Philips Medical** – Rating of complex usage records. Tight integration with SAP. Hierarchical B2B billing.
Municipal Services	Massive product catalogue (200K+ SKUs). Unsupported and inflexible bespoke legacy platform.	**Falck** – Hierarchical product catalogue eliminated SKU proliferation. Business user configuration to create/sunset products without engineering support.
Publishing	Legacy system designed for print media, not digital subscriptions.	**DePersgroep** – Support for hybrid physical/digital product bundles. Tight integration with external customer care platform and entitlement/delivery platform.
Business Services	Develop new lines of business based on subscription replacing physical service delivery. No native support within incumbent systems.	**Pitney Bowes** – Rapid implementation within 2 months. Support for all geographies and currencies. Integration with external product catalogue and SAP general ledger.
Publishing	Legacy system designed for print media, not digital subscriptions.	**DePersgroep** – Support for hybrid physical/digital product bundles. Tight integration with external customer care platform and entitlement/delivery platform.

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Analysis: strengths, weaknesses, opportunities and threats

STRENGTHS

- Aria Systems is the leading cloud-based provider of billing solutions for telcos. Aria has multiple tier-1 telco customers and continues to attract interest from CSPs across all regions.
- The company's cross industry expertise is viewed as an advantage especially as telcos are increasingly considering opportunities in serving enterprise customers.
- Aria's focus on developing and pre-integrating a large number of legacy integration points is a key advantage in working with telcos with multiple legacy systems.

OPPORTUNITIES

- Aria Systems is well placed to address the emerging opportunity driven by the increasing emphasis by telcos to move their infrastructure to a cloud based architecture framework.
- The high cost of supporting and maintaining legacy billing systems are driving telcos to experiment with cloud-based solutions for emerging digital economy use cases.

WEAKNESSES

- Aria Systems portfolio is limited to billing which makes them reliant on technology partners in order to sell to operators who are keen on broader solution suites.
- Aria Systems ability to expand to new regions and successfully deliver multiple large scale projects will be dependent on partnerships with SIs and other local service providers.

THREATS

- Large, well entrenched telco product vendors are slowly waking up to address the SaaS billing opportunity which will lead to higher competition in this segment.
- Selling to telcos usually involves long sales cycles that could be 2-3 times as long as selling to enterprises. This can be challenging for small and mid sized vendors.

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About the author

John Abraham (Principal Analyst) is a member of Analysys Mason's Telecoms Software and Networks Research team. He leads our *Monetisation Platforms* programme and our research into digital experience for monetisation platforms, as part of the *Digital Experience* programme. John also contributes to our research into cloud-native architecture models, which is covered as part of the *Digital Infrastructure Strategies* programme. John has been part of the telecoms industry since 2006, and joined Analysys Mason in early 2012. He has worked on a range of telco projects for operators in Africa, Europe, India and the Middle East. Before joining Analysys Mason, he worked for several years for a BSS vendor and before that for Dell Inc in India. John holds a bachelor's degree in computer science from Anna University (India) and an MBA from Bradford University School of Management (UK).

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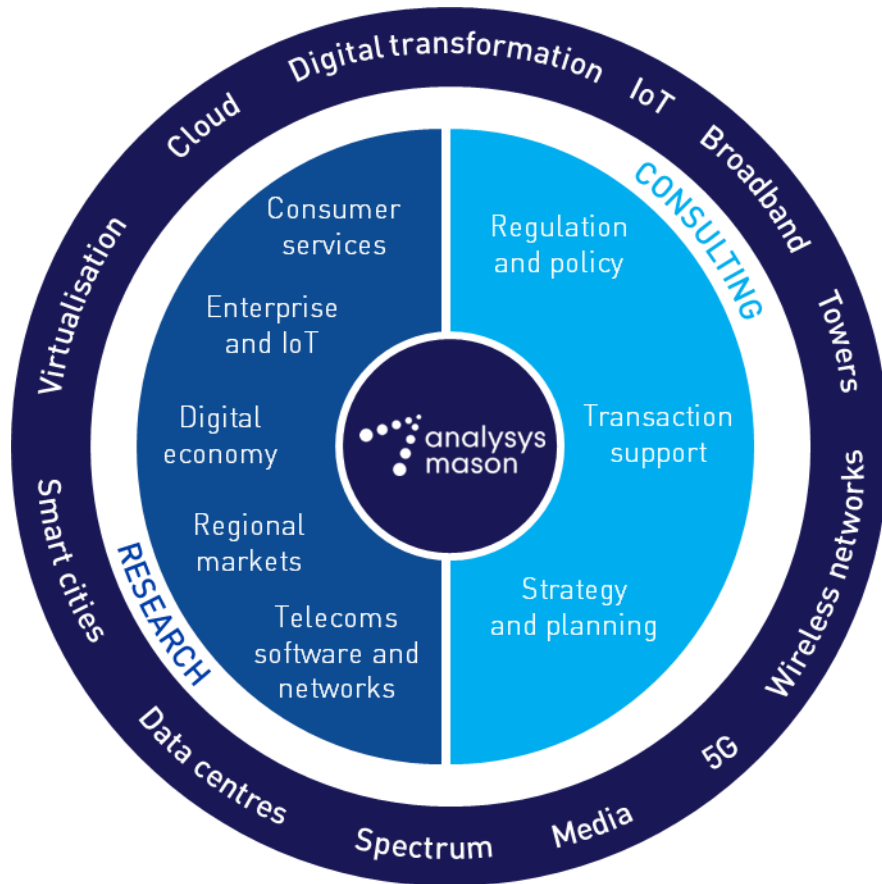
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Spectrum

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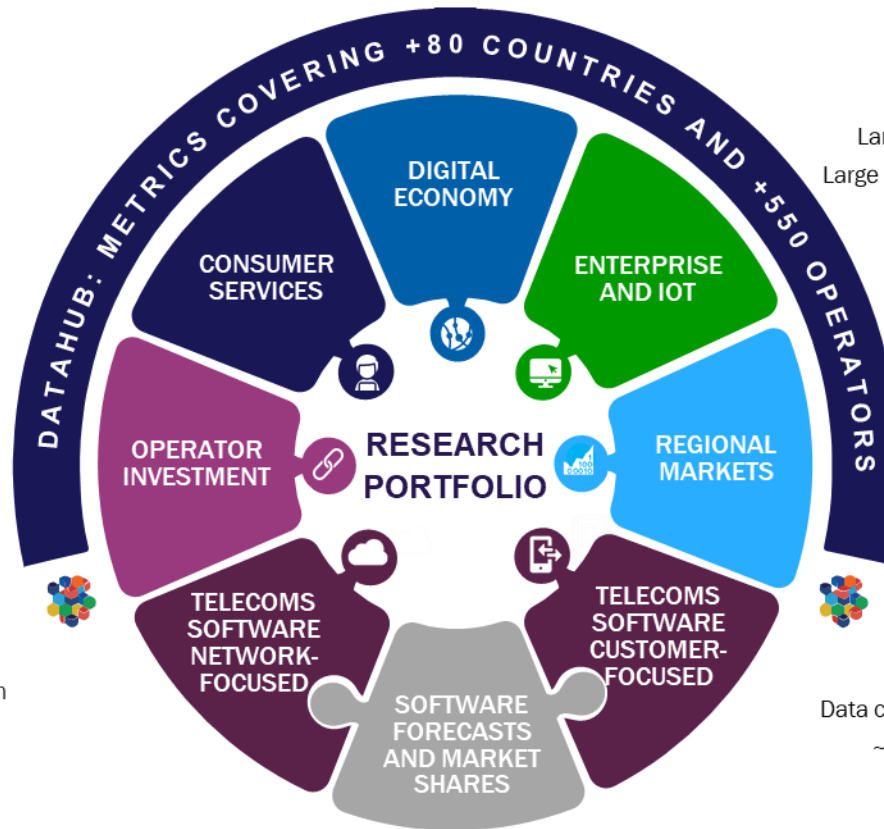
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Digital Economy Strategies
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