HfS Blueprint Report

Telecom Operations As-a-Service
Excerpt for Accenture

May 2016

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Executive Summary
Introduction to the HfS Blueprint Report: Telecom Operations As-a-Service

The Telecom Operations As-a-Service HfS Blueprint Report is a new look at the evolving market for network, fulfilment, billing and assurance services. This Blueprint builds on the 2014 HfS Telecom Operations Services Blueprint to look in greater detail at the outsourcing of this critical business function for telecom (wireless and wireline) and cable firms and the adoption of the 8 Ideals of As-a-Service delivery in this market as well.

The HfS Blueprint now includes profiles and assessments of eight service providers of Telecom Operations As-a-Service. For the first time, CSS Corp and Aegis are included.

Unlike other quadrants and matrices, the HfS Blueprint identifies relevant differentials between service providers across a number of facets in two main categories: innovation and execution.

For this report, HfS has increased the attention paid to innovation criteria in particular and adopted the new 2016 Blueprint Grid layout to assess service providers. This Grid now recognizes up-and-coming service providers (High Potentials) that are scoring higher on innovation criteria than on execution criteria as the providers build these practices. The Grid includes a new group of established, high-execution service providers (Execution Powerhouses) that have built effective delivery operations but need to innovate capabilities and offerings further. They are in addition to the pre-existing rankings for highest overall performance (Winners Circle) and strong combined innovation and execution performance (High Performers).
### HfS Definition: The Telecom Operations Services Value Chain

<table>
<thead>
<tr>
<th>Network</th>
<th>Fulfillment</th>
<th>Assurance</th>
<th>Billing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Rollout Management</td>
<td>Order Management</td>
<td>Technical Help Desk</td>
<td>Billing Desk</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Provisioning</td>
<td>Incident &amp; Problem Management</td>
<td>Pricing Management</td>
<td></td>
</tr>
<tr>
<td>Activation</td>
<td>Field Force Management</td>
<td>Billing Management</td>
<td></td>
</tr>
<tr>
<td>Order Fallout Management</td>
<td>Service Level Management</td>
<td>Revenue Assurance</td>
<td></td>
</tr>
</tbody>
</table>

*Source: HfS Research, 2016*
Key Highlights – State of the Telecom Operations As-a-Service Market

- **An Underpenetrated Market:** Our research suggests the potential global telecom operations market (i.e., business processes under network, fulfillment, assurance, and billing) could be as large as **$10 Billion**, although the current market is perhaps **$3.3 Billion**. Tier 1 telcos have generally been early adopters of telecom operations services. Now, there is an opportunity to provide services to Tier 2 and Tier 3 telcos, too.

- **As-a-Service Solutions Will Drive Growth in Telecom Operations Services:** The market size of As-a-Service solutions in telecom operations is presently about **$300 Million** (9% of the telecom operations market) with the potential to reach **$2.5 Billion** (25% of the potential telecom operations market).

- **New Contracts Shows As-a-Service Ideals:** We see elements of As-a-Service ideals in new contracts more than in existing contracts. These new contracts are either of new greenfield operators or MVNOs. We see some existing customers moving to As-a-Service ideals when renegotiating deals with a revised scope.

- **Collaborative Engagements, Analytics, Design Thinking, Automation, Brokers of Capability on the Rise:** Compare to our analysis couple of years back, we see the rise in collaborative engagements driving business outcomes. Analytics is now embedded in most of the engagements. Service providers are launching new services incorporating design thinking. We see more examples and use cases of automation. Also, telecom operations service providers are becoming effective brokers of capability by partnering with IT, platforms, local construction companies and telecom domain experts.
Key Highlights – State of the Telecom Operations As-a-Service Market (continued)

- **New Services Will Grow Further:** Telecom Operations As-a-Service will evolve even faster in the next few years than it has so far. The deployment of IoT solutions, the widespread adoption of network rollout management and other new services leveraging design thinking will lead to significant advances in this offering in the near term.

- **Different Solution and As-a-Service Approaches by Telecom Operations Service Providers:** The eight service providers we evaluated for this Blueprint approach this market in essentially two ways. Service providers with strong IT offerings focus more on non-voice solutions whereas pure-play BPO service providers focus more on voice-based solutions. Service providers with strong IT offerings have taken the lead in platforms replacing legacy stack, plug and play business solutions, intelligent automation, holistic security, design thinking, and collaborative solutions while analytics and social is on the agenda of all telecom operations service providers.
Telecom Operations
As-a-Service
Welcome to the As-a-Service Economy

HfS uses the word “economy” to emphasize that the emerging next phase of outsourcing is a more flexible, outcome focused way of engaging and managing resources to deliver services. Operating in the As-a-Service Economy means architecting use of increasingly mature operating models, enabling technologies and talent to drive targeted business outcomes. The focus is on value to the consumer.

I. THE OPTIMUM OPERATING MODEL

Outsourcing | Shared Services
GBS | BPaas/SaaS/iaaS | Crowdsourcing

II. EMPOWERING TALENT TO MAKE IT ALL POSSIBLE

Capabilities over Skills | Defining Outcomes | Creativity | Data Science

III. A BURNING PLATFORM FOR CHANGE

Globalization of Labor | High-growth Emerging Markets | Disruptive Business Models | Consumerization

IV. TECHNOLOGY TO AUGMENT KNOWLEDGE LABOR

Digitization & Robotic Automation | Analytics | Mobility | Social Media | Cognitive Computing
Moving into the As-a-Service Economy means changing the nature and focus of engagement between enterprise buyers, service providers and advisors.

“As-a-Service” unleashes people talent to drive new value through smarter technology and automation.
# Telco Pain Points Addressed by Service Providers

Leveraging As-a-Service Solutions

- Telcos can address their biggest pain points leveraging As-a-Service Solutions.

## Pain Points

<table>
<thead>
<tr>
<th>Competitions from the over the top (OTT) players</th>
<th>Requirements for new 4G/LTE and FTTx rollouts</th>
<th>Customer expectations of superior customer experience and support</th>
<th>Requirements for the rollout of new services</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Requirement reduction for opex decrease</td>
<td>- High capex requirement</td>
<td>- High network availability requirement</td>
<td>- Faster time-to-market requirement</td>
</tr>
<tr>
<td>- Requirement for opex decrease</td>
<td>- Faster time-to-market requirement</td>
<td>- Customer churn</td>
<td>- Opex reduction while providing new services for services viability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Customized service requirements</td>
<td>- Opex reduction of new services by leveraging platforms, plug and play solutions analytics, and automation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Superior customer support requirement across all channels</td>
<td></td>
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</tr>
</tbody>
</table>

## Impact

- Revenue reduction
- High capex requirement
- Faster time-to-market requirement
- High network availability requirement
- Customer churn
- Customized service requirements
- Superior customer support requirement across all channels
- Faster time-to-market requirement
- Opex reduction while providing new services for services viability

## Solutions

- Opex reduction through leveraging platforms, plug and play solutions analytics, and automation.
- Capex efficiency and time-to-market improvement through collaborative engagement, analytics, and automation solutions.
- Planning leveraging analytics solutions. Reimagining processes leveraging design thinking.
- Developing new services and processes leveraging design thinking.
- Opex reduction of new services by leveraging platforms, plug and play solutions analytics, and automation.
How As-a-Service Is Taking Shape in Telecom Operations Services: Writing Off Legacy

Writing Off Legacy in Telecom Operations Services As-a-Service is still largely in the “Initial” phase. Though service providers have started building new solutions stacks which can replace legacy telco systems, telcos are hesitant to replace their legacy systems. So service providers are making investments in incremental solutions which are designed to work around or integrate with existing physical and technological investments. Having said that, we are beginning to see examples of some forward-looking telcos which are willing to replace their complete legacy stack. Also, another ray of hope is greenfield operators, MVNOs, and FTTx operators which don’t have legacy investments and are willing to leapfrog to new technology stacks.

Example:
- TCS has developed HOBS, a cloud-based OSS/ BSS solution. TCS partnered with a Norwegian Telecom operator for their legacy modernization and transformation initiative that entailed replacement of the entire divergent legacy systems into one single HOBS platform leading to simplification product rationalization and IT transformation. As part of the unique commercial model, TCS committed to a 36 % Opex reduction.
How As-a-Service Is Taking Shape in Telecom Operation Services: Design Thinking

Resolving problems by looking first at the process as the source of the solution  Understanding the business context to reimagine processes aligned with meeting client needs

- Leading telcos and telecom operations service providers are using Design Thinking approaches (they do not always call these methodologies design thinking) to reimagine telecom processes, systems and services so that they effectively respond to business challenges. Design thinking is actually quite “Expansive” in its penetration of Telecom Operations As-a-Service even if that isn’t formally recognized today.

Examples:

- Infosys has put design thinking at the heart of the company’s strategy for developing solutions and managing client relationships. HfS is starting to see evidence of design thinking approaches being brought to telecom engagements.

- TCS Telecom BPS uses design thinking to create solutions for the telecom industry. The approach starts with understanding the telecom consumer landscape, the CSP landscape, their pain points and their strategic imperatives and providing end-to-end solutions that resonate with these landscapes. In the last couple of years, TCS has introduced a number of new services for telecom customers such as FTTx rollouts, sales acceleration, telecom asset management, and IoT device management. TCS has been successful in identifying some of the pain points of its telecom customers and develop solution offerings around them.

- Accenture provides an example of design thinking where it reimagined the process of customer support to high-value segment and implemented a technical solution that connected customers in the high-value segment to higher-ranked agents in real-time. This resulted in increased CSAT scores.
How As-a-Service Is Taking Shape in Telecom Operations Services: Brokers of Capability

Focusing governance and operations staff on managing to the letter of the contract and the decimal points of service levels

Orienting governance to source expertise from all available sources, both internally and externally, to address capability gaps

- Brokers of capability is the ability of a service provider to source expertise from all available sources, both externally and internally to address client requirements. It helps service providers to identify current and anticipated needs to deliver business results and to manage capability effectively to deliver those outcomes. Telecom operations service providers work with the variety of players in the ecosystem – consulting firms, IT services firms, telecom experts, field partners, construction companies, etc. We see this Ideal as “Extensively” available in today’s market.

Examples:
- TCS provides clients with a wide breadth of expertise in support of the telecom operations. TCS has partnerships with local field and construction companies in different geographies and it leverages them to provide total network rollout solutions to telcos. It also brings the telecom domain expertise of telecom companies of Tata Group and offers them on demand in its engagements. Finally, TCS also uses its expertise in IT services, Network services and telecom platforms in delivering a total solution to telcos.
- Accenture has developed a structured platform-led crowdsourcing approach for tapping external and internal capabilities on demand for its engagement (Accenture Liquid Workforce). Accenture has developed a compelling vision and roadmap of how telcos can transform to become integrated digital service providers (IDSPs) to compete in the digital economy. The Operations team is working with other Accenture Growth Platforms (Strategy, Digital) in delivering on the IDSP promise.
- Other broad-based service providers such as Tech Mahindra, Wipro, Infosys also leverage capabilities in IT and BPO in telecom engagements.
How As-a-Service Is Taking Shape in Telecom Operations Services: Collaborative Engagement

The key to a sustainable outsourcing engagement is collaboration. Traditionally, business process outsourcing work has been directive from service buyers to service providers and managed strictly by procurement organizations. As telcos are facing the threat of survival in the digital world, they are leveraging telecom operations service providers more strategically. HfS is seeing a move over time to more collaboration engagement where trust and experience are in place, often through shared outcomes and results. The adoption of practices of collaborative engagement is “Expansive” in Telecom Operations today.

Examples:

- TCS employs a three-level model of collaborative engagement with strategic discussions at the senior management level, the tactical collaboration between operational managers (supported by a Customer Engagement Portal) and operational reviews at the day-to-day level. This coupled with its ValueBPS™ approach, which aligns telcos’ strategic objectives with key business metrics, TCS delivers on strategic business outcomes such as telecom revenue and margin metrics, NPS, time to market, opex and capex reduction, etc.

- Accenture contracts and manages its telecom engagements with the focus on governance, business outcomes and co-innovation. It has a three-layer approach to governance ensuring tactical, operational and strategic issues and opportunities with a near-, mid- and long-term focus are proactively managed. Clients pointed to tangible business outcomes such as capex efficiency, process efficiency, cost reduction, customer satisfaction, delivered by Accenture.
How As-a-Service Is Taking Shape in Telecom Operations
Services: Intelligent Automation

Operating fragmented processes across multiple technologies with significant manual interventions
Using of automation and cognitive computing to blend analytics, talent and technology

- Intelligent Automation leveraging RPA, autonemics, cognitive and analytics is gaining the interest of telcos. Most of the early automation case studies in telco business process delivery came from either order management or customer support. We have lately observed automation examples in other telco processes such as network design, billing audits, field force management, incident and problem management. Almost all service providers are now offering automation solutions either on their own platforms or leveraging third party solutions. The adoption of intelligent automation is “Expansive” in Telecom Operations today.

Examples:
- Wipro has a comprehensive approach to intelligent automation in telecom operations combing automation and analytics. Wipro calls it Cognitive RPA which combines the power of analytics with robotic automation and can deliver a combined improvement of cycle times by higher than 25%, additional operational cost reduction by 35% over the traditional approach. Wipro has successfully leverage intelligent automation in several telco engagements.

- Accenture Operations is committed to bringing higher levels of automation to all of its engagements. Last year the total impact of all automation solutions was a 14 percent productivity improvement. In telecom operations, Accenture's automation initiatives cover complete value chain including network, fulfillment, assurance and billing.
Automation Examples in Telecom Operations As-a-Service

**AUTOMATION**

- **Service Desk and Web Chat Automation:** Increasing productivity of L1 support with automated tools. The use of robots to answer simple queries and repetitive questions.

- **Field Force Automation:** Enabling field technicians to work effectively by automating some of their processes and providing technical and operational expertise on demand. Using Google Glass to automate video transfer of network repair and automate ticket closure. Using automation to reduce false or ghost tickets, thus reducing the mean time to repair.

- **Network Drawing Automation:** Reducing network drawing time by automating network diagram production and analysis process.

- **Order Management and Provisioning Automation:** Performing automatic quality checks in order management and provisioning processes, thus saving activation time.

- **Billing Automation:** Automating the majority of audit checks in the billing process, thus reducing FTE effort and AHT.

- **Automated Self-Care:** Automated technical scan for subscribers, to identify issues that could impede service performance.

- **Application Automation:** Provide a unified or single screen/source of information to agents by eliminating switching from screen to screen. Provide a unified application to the workforce in the field by integrating other applications for the workforce in the field.
How As-a-Service Is Taking Shape in Telecom Operations Services: Accessible and Actionable Data

Performing ad-hoc analysis on unstructured data with little integration or business context

Applying analytics technologies, processes and resources to relevant data sets to derive insights that can help improve an enterprise

- Taking advantage of Accessible and Actionable Data is at the very heart of Telecom As-a-Service operations. Telcos were the early adopter for actionable analytics when they started leveraging analytics to reduce customer churn. Now analytics is leveraged across all telecom processes including network, fulfillment, assurance, and billing for deriving insights and that either the service provider and/or the telco can act upon to improve the business. This Ideal is “Extensive” in its application within the current Telecom Operations Services As-a-Service market.

Examples:

- Accenture has embedded analytics in 100% of telecom operations engagements. Accenture combines financial, business/operations, network and customer analytics in a holistic way. Accenture’s analytics team has developed analytics apps for telecom operations e.g. Incident Management, Ticket Triage and Intelligent Order Management. These apps are customizable per client requirement and reduce time to generate insights.

- TCS has comprehensive analytics offerings and offers analytic solutions across the telecom value chain to help telcos increase sales, decrease operational cost, reduce churn and fraud, and improve risk management. TCS also has filed two patents for telecom analytics framework recently.
Analytics in Telecom Operations As-a-Service

ANALYTICS

• **Churn Analytics**: Analyze and predict potential churn. For example: early attrition analysis, impact of field dispatches on customer churn, impact of customer interactions (frequency and mode) on customer churn, impact of subscriber demographics on customer churn, impact of usage on customer churn, suggesting NBA (next best actions), campaign analytics.

• **Real-time Interaction Analytics**: Assessment of positive and negative interaction in the first few seconds of the call, which provides the opportunity to intervene and change the course.

• **Billing Analytics**: Revenue enhancement through analytics of unbilled orders. Circuit inventory analytics. Impact of subscriber demographics on customer billing.

• **Order Analytics**: Order backlog analytics. Order fallout analytics to plug revenue leaks.

• **Network and Assurance Analytics**: Network capacity analytics for optimum usage. Predictive network analytics. Financial analytics for selecting optimum network maintenance and augmentation plans.

• **Performance Analytics**: Analytics for improving first-time-right ratio. Analyze and report performance according to service level agreements.

• **Regulatory and Fraud Analytics**: Carry out regulatory support and fraud analytics for any inflated usage charges.

• **Contract Analytics**: Conduct contract innovation based on usage and costing analytics in different geographic or product segments.
How As-a-Service Is Taking Shape in Telecom Operations Services: Holistic Security

- Holistic Security is a critical element in telecom operations as telecom operations are highways on which enterprise and customer data flows. However, it is handled by the separate specialized group which is often part of IT or network practices. From BPO service providers, we don’t hear much about holistic security. We believe security services should be part of the total solution and aligned to BPO or operations group too. In IoT world, the data will explode and telecom operations group will be the critical part of delivering holistic security solutions to telcos. We are observing that a couple of service providers are beginning to align their security practices with operations group and this trend will become extensive over time.

Example:
- Accenture has 360° approach addresses spectrum of security across people, processes, technology. Accenture’s Security practice is part of Accenture Operations. The core value proposition for combining security with operations team is collaborations. This is true both within the security team and through the locational synergy with Accenture’s existing cloud, analytics, automation, and operations staff already located in Bangalore. We’re hopeful this collaboration will result in a greater level of system awareness by all parties, and potential decrease the time to plan for or respond to cyber threats.
- CSS Corp is a niche service provider offering network and assurance services to telecom customers. Along with this, it also has enterprise security practice which is aligned with assurance or tech support practice. As they are developing tech support solution for IoT they are also aligning them with security solutions for potential threats of cyber crime in IoT.
How As-a-Service Is Taking Shape in Telecom Operations Services: Plug and Play Digital Business Services

Undertaking complex and often painful technology transitions to reach a steady state → Plugging into “ready to go” business outcome-focused, people, process and technology with security measures

- Telecom operations service providers have started partnering with clients in developing and deploying Plug and Play Digital Business Services. As telcos are hesitant to replace their legacy systems, service providers are making investments in incremental solutions which are designed to work around or integrate with existing physical and technological investments. Typically, they have taken the form of point solutions for order management, billing management, problem or incident management, contact center, social media, revenue assurance, analytics, etc. We see these solutions as being at the “Expansive” stage of development with significant progress forecasted over the next few years as telcos become more comfortable with these solutions.

Example:
- Tech Mahindra has developed an in-house Carexa platform which consists of in-house tools such as OrderVu, OrderFix, Socio, Tecnico, and Uno and also third party tools. Tech Mahindra offers business process as a service (BPaaS) to the telcos on Carexa platforms. OrderFix is a cloud-based order orchestration platform, OrderVu helps plug revenue leakage, Socio helps in social media support, Tecnico helps in remote technical support, and Uno is automation.
- The TCS platform components are built with a modular design instead of monolithic applications. Taking systems based approach platform solutions cater to entire processes rather than just point applications. This enables customers to “pick-and-choose” services and applications from platform portfolio. TCS has integrated its different point solutions with its flagship OSS/BSS solution HOBS.
Plug & Play Business Solutions in Telecom Operations
As-a-Service

PLUG & PLAY PLATFORMS

- **Service Assurance**: A cloud-based platform for incident management that drives significant savings and shortens time to repair by ensuring tickets are solved at the first instance.

- **Provisioning Services**: A cloud-based provisioning and porting platform that provides automated port-in number porting between different carriers.

- **Order Management**: A cloud-based platform for orchestrating and optimizing the order to activation process. It provides visibility into the complete order management process.

- **Social Media Command Center**: A cloud-based platform for providing social media support and data-based customer engagement.

- **Order Fallout Management**: A cloud-based platform for predicting potential order fallouts and proactively fixing them.

- **Revenue Assurance**: A cloud-based platform for detecting, probing and correcting revenue leakage.

- **Remote Technical Support**: A cloud-based platform for providing billable remote technical support to customers.

- **OSS/BSS Solution**: A cloud-based platform with pre-built eTOM aligned telecom processes.
Research Methodology
Blueprint Research Methodology

Data Summary

- Data was collected in Q1 2016 and Q2 2016, covering buyers, providers and advisors/influencers of Telecom Operations Services.
- More than 500 data points were collected, covering 8 major service providers.

Participating Service Providers

This Report Is Based On:

- **Tales from the Trenches**: Interviews were conducted with buyers who have evaluated service providers and experienced the services. Some were supplied by service providers, but many interviews were conducted by HfS Executive Council members and participants in our extensive market research.

- **Sell-Side Executive Briefings**: Structured discussions with service providers were intended to collect data necessary to evaluate innovation, execution and market share, and deal counts.

- **Publicly Available Information**: Financial data, website information, presentations given by senior executives and other marketing collateral were evaluated.
# HfS Telecom Operations As-a-Service Blueprint Scoring Percentage Breakdown

## EXECUTION

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Score</th>
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<tbody>
<tr>
<td>1</td>
<td>Quality of Customer Relationships</td>
<td>14.00%</td>
</tr>
<tr>
<td>2</td>
<td>Quality of Customers</td>
<td>10.00%</td>
</tr>
<tr>
<td>3</td>
<td>Solution &amp; Delivery Capabilities</td>
<td>30.00%</td>
</tr>
<tr>
<td>4</td>
<td>Geographic Spread &amp; Scale</td>
<td>16.00%</td>
</tr>
<tr>
<td>5</td>
<td>Pricing &amp; Commercial Models</td>
<td>20.00%</td>
</tr>
<tr>
<td>6</td>
<td>Applicability to Different Segments</td>
<td>10.00%</td>
</tr>
</tbody>
</table>

## INNOVATION

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Score</th>
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<tbody>
<tr>
<td>1</td>
<td>Strategy, Innovation &amp; Investments</td>
<td>20.00%</td>
</tr>
<tr>
<td>2</td>
<td>Technology, Tools</td>
<td>12.00%</td>
</tr>
<tr>
<td>3</td>
<td>Business Outcomes Measurement</td>
<td>12.00%</td>
</tr>
<tr>
<td>4</td>
<td>Continuous Improvement</td>
<td>10.00%</td>
</tr>
<tr>
<td>5</td>
<td>Plans for As-a-Service</td>
<td>16.00%</td>
</tr>
<tr>
<td>6</td>
<td>Business from emerging areas (SMAC, Automation, IoT)</td>
<td>28.00%</td>
</tr>
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## TOTAL

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<thead>
<tr>
<th></th>
<th></th>
<th>Score</th>
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<tbody>
<tr>
<td></td>
<td>Total Executive Score</td>
<td>100.00%</td>
</tr>
<tr>
<td></td>
<td>Total Innovation Score</td>
<td>100.00%</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td>200.00%</td>
</tr>
</tbody>
</table>
## Execution Criteria Definitions

<table>
<thead>
<tr>
<th>EXECUTION</th>
<th>How well does the service provider execute on its contractual agreement and how well does the provider manage the client/provider relationship?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality Of Service Provider’s Customer Relationship</strong></td>
<td>How engaged is the executive and management team in defining and managing the delivery of business services? What is the scale and duration of customer engagements?</td>
</tr>
<tr>
<td><strong>Quality Of Customers</strong></td>
<td>How is the quality of service providers customers? How many of the top 50 telcos are convinced of service providers capabilities?</td>
</tr>
<tr>
<td><strong>Delivering Actual Services</strong></td>
<td>What are the clients’ and market’s overall impression of the quality of service across the value chain from this service provider? How deep is the telecom domain expertise (talent and solutions) in understanding and then addressing issues? Is the delivery capability widespread across different delivery channels?</td>
</tr>
<tr>
<td><strong>Geographic Footprint And Scale</strong></td>
<td>How does this service provider use a global delivery footprint to meet clients’ needs? Does service provider have scale to make investments in the delivery?</td>
</tr>
<tr>
<td><strong>Pricing And Commercial Models</strong></td>
<td>How flexible are providers when determining pricing of contracts? How does their pricing mix compares with the industry? Is there an active effort on the part of the service provider to create value year on year beyond the contract commitments?</td>
</tr>
<tr>
<td><strong>Applicability To Different Segments</strong></td>
<td>How deep is the expertise in delivering solutions across different segments – wireless, wireline and cable? How does their customer mix compares with the industry?</td>
</tr>
</tbody>
</table>
# Innovation Criteria Definitions

<table>
<thead>
<tr>
<th><strong>Innovation</strong></th>
<th>How well does the service provider innovate its offering(s) in response to market demand, client requirements and its own vision for how the telecom operations market will evolve?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vision, Innovation And Investments</strong></td>
<td>What is the service provider’s vision for the evolution of telecom operations services? Is there a clear strategy for delivering telecom operations and are there identifiable investments in place to realize this strategy today? Do customers rate them as innovative? Are there examples of innovation in engagements shared by customers and service providers? Is the service provider able to leverage acquisition and partnerships in meeting clients’ specific and varied talent and technology requirements over time?</td>
</tr>
<tr>
<td><strong>Application And Platform Strategy For Supply Chain Management Services</strong></td>
<td>What is the role of applications and platforms in the service provider’s offering strategy? Are the selected platforms developed in-house, or are they provided by third parties? Is there a demonstrable intent to maintain and enhance the in-house platforms?</td>
</tr>
<tr>
<td><strong>Business Outcomes Measurement</strong></td>
<td>Clear understanding of what business outcomes exist for telecom customers and how the service provider will deliver these business outcomes using collaborative engagements.</td>
</tr>
<tr>
<td><strong>Continuous Improvement</strong></td>
<td>How well does the provider execute on improving business process and capabilities of their solutions? How has the service provider taken feedback and incorporated it into the solution and delivery?</td>
</tr>
<tr>
<td><strong>Plans For As-a-Service</strong></td>
<td>Does the provider have a vision for how the As-a-Service Economy is developing and how they need to respond as a service provider to these changes both in terms of specific capabilities and in their commercial and operating approach?</td>
</tr>
<tr>
<td><strong>Business from Emerging Areas – Digital &amp; IoT</strong></td>
<td>How are service providers looking at emerging areas. Do they have plans to leverage these emerging areas and integrate them into their solutions. Examples include: Digital and IoT.</td>
</tr>
</tbody>
</table>
Key Market Dynamics
# The Telecom Operations Services Value Chain

<table>
<thead>
<tr>
<th>Network</th>
<th>Fulfillment</th>
<th>Assurance</th>
<th>Billing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Rollout Management</td>
<td>Order Management</td>
<td>Technical Help Desk</td>
<td>Billing Desk</td>
</tr>
<tr>
<td></td>
<td>Provisioning</td>
<td>Incident &amp; Problem Management</td>
<td>Pricing Management</td>
</tr>
<tr>
<td></td>
<td>Activation</td>
<td>Field Force Management</td>
<td>Billing Management</td>
</tr>
<tr>
<td></td>
<td>Order Fallout Management</td>
<td>Service Level Management</td>
<td>Revenue Assurance</td>
</tr>
</tbody>
</table>

*Source: HfS Research 2016*
### Description of Telecom Operations Processes & Sub processes

<table>
<thead>
<tr>
<th>Process</th>
<th>Sub-processes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Network:</strong> The Network process is responsible for building and maintaining physical network across coverage area for providing telecom and cable services.</td>
<td><strong>Network Rollout Management:</strong> This involves design and project management of green field or brown field telecom network rollouts. The telecom networks can be wireless, broadband, or cable.</td>
</tr>
<tr>
<td><strong>Fulfillment:</strong> The Fulfillment process is responsible for providing customers with their requested telecom products and services in a timely and correct manner. This process informs the customers of the status of their purchase order, ensures completion on time, as well as ensuring a delighted customer.</td>
<td><strong>Order Management:</strong> This sub-process is responsible for accepting and issuing customer orders including checks on credit worthiness, order inquiries, order status and tracking. It also involves complex order orchestration with multiple dependencies. <strong>Activation:</strong> The sub-process for service activation for customers to ensure first time right and that customers receive stable and noiseless service. <strong>Provisioning:</strong> Provisioning is a sub-process of preparing and equipping a network to allow it to provide new services to its customers. It involves designing and assigning service configurations and network components. <strong>Order Fallout Management:</strong> Order fallout occurs when an order fails during processing. Order fallout is often called order failure. Fallout management is the process to resolve fallout and allow an order to continue processing. It also involves the use of analytics in reporting and reducing order failure rate.</td>
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## Description of Telecom Operations Processes & Sub-processes

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<tr>
<td><strong>Assurance</strong></td>
<td>Technical Helpdesk: Integrated Help Desk or Service Desk (L1) with the technically skilled workforce which are able to close tickets.</td>
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<td>Incident Management: The sub-process to ensure tickets are solved at right instance. It also includes triage and analytics to reduce cost and mean time to repair.</td>
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<td>Problem Management: The sub-process to perform root-cause analytics and manage the lifecycle of problems with the objective of prevention, eliminating recurring incidents, and minimizing the impact of incidents that can’t be prevented.</td>
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<td>Field Force Management: The sub-process to support Field Force manage their tasks efficiently, effectively and with customers satisfaction by providing them expertise and insight on technical and operational issues. It involves capacity planning, forecasting, scheduling, optimization, dispatch and spare parts management, etc.</td>
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<td><strong>Billing</strong></td>
<td>Billing Helpdesk: It handles customer inquiries about bills, provides billing inquiry status and is responsible for resolving billing problems to the customer’s satisfaction in a timely manner.</td>
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<td>Billing Management: A sub-process for producing timely and accurate bills by performing all checks. It also involves validation of invoices from the supplier and/or partners to ensure they have the correct billing and invoicing details, and identify any disputes.</td>
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<td></td>
<td>Pricing Management: Manage the costing database and quotes. Support with pricing data and analytics in enterprise pre-sales and carrier contract negotiations.</td>
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<td>Revenue Assurance: Carry out regulatory support and fraud analytics. Maintain the data format in line with regulatory guidelines. Analytics to prevent fraud for any pumped usage charges with partners or any loss due to under-billing or under-reporting of circuit inventory.</td>
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## Telecom Operations Is Beginning to Incorporate the Ideals of the As-a-Service Economy

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Multi-Dimension Analysis* of Telecom Operations Services

- Customers
- Geography
- Pricing
- Customer Relationships
- Training
- Customer Quality
- Onshore vs. Offshore
- Service Offerings

*Based on participating service provider's data
Assurance is the leading service accounting for about half of the revenue followed by fulfilment and billing. Network services are at an early stage of evolution and service providers are developing capabilities.

Source: HfS Research, 2016
Current Customer Segmentation in Telecom Operations Services

Wireless is the leading customer segment followed by wireline and cable companies.

According to service providers, market growth is coming from different emerging areas in all segments.

- Wireless: MVNO, Greenfield operators, LTE/4G rollouts
- Wireless: Broadband/Fiber rollouts
- Cable: Content Digitization

Source: HfS Research, 2016
Current Delivery Channel Spread in Telecom Operations Services

TELECOM OPERATIONS SERVICES REVENUE BREAKUP BY DELIVERY CHANNELS

Source: HfS Research, 2016

Voice
Data
Analytics

Voice 60%
Data 35%
Analytics 5%

Voice is the dominant channel segment followed by data and analytics.

According to service providers, share of voice is coming down and share of data and analytics is growing.

Though share of voice is coming down the quality, talent requirements are going up. Also AHT is going up as now subscribers have self serving option for many problems and they call mostly for complex problems.
Current Geographical Spread in Telecom Operations Services

Telecom Operations Services Revenue Breakup by Geography

Asia-Pacific & ROW 55%
Europe 24%
North America 21%

Source: HfS Research, 2016

Asia Pacific & ROW is the largest market for leading service providers. According to service providers Europe, Asia-Pacific & ROW have more growth potential than North America.
Current Pricing Models Deployed in Telecom Operations Services

TELECOM OPERATIONS SERVICES REVENUE BREAKUP BY PRICING MODELS

- **Time & Material**: 40%
- **Fixed Price**: 30%
- **Transaction Based**: 25%
- **Gain Share**: 5%

**Pricing for Telecom Operations Services**

- The pricing in telecom operations services is predominantly time and material (T&M) and fixed prices.
- HfS’ discussions with both buyers and service providers have indicated a growing demand for more transaction based and gain-share based pricing models.

Source: HfS Research, 2016
Current Onshore/ Nearshore/ Offshore Split in Telecom Operations Services

TELECOM OPERATIONS SERVICES HEADCOUNT BREAKUP

- Offshore 56%
- Onshore 38%
- Nearshore 6%

GEOGRAPHIC SPLIT IN TELECOM OPERATIONS SERVICES

- More than 90% of the telecom operations service headcount is either offshore or onshore.
- According to service providers the onshore headcount is growing faster.

Source: HfS Research, 2016
Investment in Training Hours/ FTE

WORKING HOURS/FTE BREAKUP

- **Training Hours**: 4%
- **Other**: 94%

**TRAINING HOURS/FTE**

- Telecom operations service providers spend about 80 hours/ FTE/ year on telecom specific training on average. Assuming average 2000 hours/ year this will be about 4% of the working hours.
- There is a large variation among service providers in training hours from 25 hour/FTE/year to 300 hours/ FTE/year.

Source: HfS Research, 2016
Customer Relationships: Percentage of Customers With $5M+ ACV

TELECOM OPERATIONS SERVICES CUSTOMERS BREAKUP BY ACV

- Telecom operations service providers have on average 40% of their customers accounts with $5 million+ ACV.
- There is a large variation among service providers in $5 million+ ACV accounts from 25% to 75% in percentage.

Source: HfS Research, 2016
Customer Relationships: Percentage of Customers With 5 Years+ Relationship

TELECOM OPERATIONS SERVICES CUSTOMERS BREAKUP BY RELATIONSHIP YEARS

- Telecom operations service providers have on average 46% of their customers accounts with 5 years+ relationship.
- The variation among service providers in 5 years+ accounts is from 33% to 53% in percentage.

Source: HfS Research, 2016
Customer Quality: Percentage of Customers In Top 50 Telcos

TELECOM OPERATIONS SERVICES CUSTOMERS BREAKUP BY TOP 50 TELCOS

- Telecom operations service providers have on average 43% of their customers accounts among top 50 telcos.
- There is a large variation among service providers for top 50 telcos as customers. It varies from 12% to 75% in percentage.

Source: HfS Research 2016
Service Provider Grid
## Guide to the Blueprint Grid

To distinguish service providers that show competitive differentiation in a particular line of delivery with progress in realizing the “As-a-Service Economy” of business outcome-oriented, on-demand, talent + technology services, HfS awards these providers the “As-a-Service Winners Circle” designation.

<table>
<thead>
<tr>
<th>As-a-Service Winners Circle</th>
<th>EXECUTION</th>
<th>Articulate vision and a “new way of thinking,” have recognizable investments in future capabilities and strong client feedback and are driving new insights and models.</th>
</tr>
</thead>
<tbody>
<tr>
<td>show excellence recognized by clients in the 8 Ideals in execution and innovation</td>
<td>Collaborative relationships with clients, services executed with a combination of talent and technology as appropriate, and flexible arrangements.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High Performers</th>
<th>EXECUTION</th>
<th>INNOVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>demonstrate strong capabilities yet lack an innovative vision or momentum in executing the vision</td>
<td>Execute some of the following areas with excellence: worthwhile relationships with clients, services executed with “green lights” and flexibility when meeting clients’ needs.</td>
<td>Typically, describe a vision and plans to invest in future capabilities and partnerships for As-a-Service, and illustrate an ability to leverage digital technologies and/or develop new insights with clients.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High Potentials</th>
<th>EXECUTION</th>
<th>INNOVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>demonstrate vision and strategy but have yet to gain momentum in executing them</td>
<td>Early results and proof points from examples in new service areas or innovative service models, yet lack scale, broad impact and momentum in the capability under review.</td>
<td>Well-plotted strategy and thought leadership, showcased use of newer technologies and/or roadmap and talent development plans.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Execution Powerhouses</th>
<th>EXECUTION</th>
<th>INNOVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>demonstrate solid, reliable execution, but have yet to show significant innovation or vision</td>
<td>Evidence of operational excellence; however, still more of a directive engagement between service provider and its clients.</td>
<td>Lack of evident vision and investment in future-oriented capability, such as skills development, “intelligent operations” or digital technologies.</td>
</tr>
</tbody>
</table>
HfS Blueprint Grid: Telecom Operations As-a-Service

Investing in Innovation to Change

Excellent at Innovation and Execution

Building All Capabilities

EXECUTION

Execution Is Ahead of Innovation

HIGH POTENTIALS

HIGH PERFORMERS

AS-A-SERVICE WINNER’S CIRCLE

Accenture

TCS

Wipro

Tech Mahindra

Infosys

CSS Corp

Aegis

Firstsource

EXECUTION POWERHOUSES
## Major Service Provider Dynamics: Highlights

### EXECUTION

- **Infosys Delivers and Manages Attrition:** Reference clients were particularly happy and praise Infosys’ delivery and attrition management in the engagements. In one particular engagement, Infosys has retained key delivery personnel for the last ten years and helped them grow and provide value to the client without disruption.

- **Tech Mahindra Has Extensive Geographic Footprint in Emerging Markets:** Tech Mahindra started its African operations in 2011 and now has a delivery footprint in five African countries with about 2,000. This local presence gives confidence to local and regional telcos to outsource.

- **Aegis Has Competitive Pricing:** Customer references were very satisfied with Aegis’ pricing, which they say is very competitive in comparison to other service providers partially as Aegis delivers from Tier 2 and Tier 3 cities in India.

- **TCS Grows Fast:** TCS has one the highest growth rates in the last two years among service providers evaluated for this study. As a consequence, TCS has one of the largest number of telecom customers among its peer group. This shows the strength of value proposition of TCS to both new and existing customers.

- **Accenture Leverages its Quality Of Customers:** Accenture has one the highest number of clients in the ranks of the top 50 telcos.

### INNOVATION

- **Accenture Has Compelling Vision of Digital Telco in As-a-Service Economy:** Accenture has developed a compelling vision and roadmap of how telcos can transform to become integrated digital service providers (IDSP) to compete in the digital economy. The Operations team is working with other Accenture Growth Platforms to deliver on the IDSP promise. The As-a-Service Ideals are integral to its strategy and offerings.

- **TCS Has Introduce New Offerings For As-a-Service Economy:** In the last couple of years TCS has introduced a number of new services for telecom customers such as FTTx rollouts, sales acceleration, telecom asset management, and IoT device management. TCS has been successful in identifying some of the pain points of its telecom customers and develop solution offerings around them echoing the Ideals of the As-a-Service economy.

- **TCS Thrives On Technology Business Integration:** TCS has successfully integrated technology in its engagements with HOBS, the cloud-based OSS/BSS solution and leveraged it to provide business process as a service (BPaaS) to telcos.

- **Wipro Automates Business Processes:** Wipro has successfully deployed automation in various telco engagements and delivered business benefits of reduced cycle time, process visibility, and cost reduction.

- **CSS Corp Invests in IoT:** CSS Corp has started developing its capabilities and value proposition for its solutions in IoT value chain. Its thinking and execution is ahead of many of its peers.
## Service Provider Profile

<table>
<thead>
<tr>
<th>Presence of Offerings in majority sub categories</th>
<th>$ &gt; 10 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong Capabilities/Mature Offering</td>
<td>Presence of Offerings in majority sub categories, &gt; $10 million</td>
</tr>
<tr>
<td>Developing Capabilities</td>
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</tr>
<tr>
<td>Yet to Develop or Minimal &lt; $1 million</td>
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## Accenture

### Blueprint Leading Highlights

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision of Digital Telco in As-a-Service Economy: Accenture has developed a compelling vision and roadmap of how telcos can transform to become integrated digital service providers (DSPs) to compete in the digital economy. The Operations team is working with other Accenture Growth Platforms (Strategy, Digital) in delivering on the DSP promise. Accenture has been investing in and developing tools and technology for telecom digital operations. It aims to gradually transform telcos’ business toward digital operations, where an increasing proportion of the business processes can be delivered as BPaaS. The As-a-Service ideals are integral to its strategy and offerings.</td>
<td>Moving Beyond Tier 1 Telcos: Accenture’s strategy is to work with the G2000. Out of its 30+ telco customers, 23 are among top 50 telcos. While the quality of clients is Accenture’s strength, there is an opportunity for Accenture to engage with Tier 2 and Tier 3 telcos with the right value proposition.</td>
</tr>
<tr>
<td>Delivery of Services for All Processes: Accenture has a depth of client experiences and capabilities across all telecom operations sub-processes of network, fulfillment, assurance, and billing. Clients pointed to examples of transformational solutions in all areas and to a deep bench of skilled delivery resources. Customer references have confirmed that they also benefited from automation and analytics capabilities of Accenture in the last couple of years.</td>
<td>Getting Best Out of Accenture: Reference clients have pointed out that Accenture’s BPO delivery is sometimes constrained due to IT issues. If IT is not managed by Accenture, the BPO team may have to do temporary work arounds which can impact the delivery of business outcomes. In the opinion of several clients, it will be beneficial for both clients and Accenture if both IT and BPO are managed by Accenture. The Accenture team can be more proactive in conveying the value proposition of single source IT and BPO to stakeholders. This will also help Accenture to accelerate the deployment of intelligent automation into customer engagements as well as accelerate their As-a-Service strategy.</td>
</tr>
<tr>
<td>Analytics and Experience of Delivering Business Outcomes: Accenture has demonstrated its strong analytics credentials with a large number of case studies. Clients pointed to Accenture’s focus on tangible business outcomes such as capex efficiency, process efficiency, cost reduction, customer satisfaction, and compliance in the engagements.</td>
<td></td>
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<td>Quality Of Customers: Accenture has one the highest number of clients in the ranks of the top 50 telcos.</td>
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### Key Clients

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<th>Top 50 Telcos as Clients: 23</th>
</tr>
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**Clients:** 30+ telecom BPO clients including:
- Dutch Telco
- Australian Telco
- European Telco
- US Telco
- Brazilian Telco
- Danish Telco

### Relevant Acquisitions/Partnerships

**Acquisitions:**
- Acquity Group (2013)
- Fujitsu (2013)
- i4C (2014)
- FusionX (2015)

**Partnerships:**
- Alcatel-Lucent/ Nokia, Cisco, Huawei, Oracle, SAP, ServiceNow, Vlocity

### Global Operations Centers

- **Telecom BPO Headcount (In-Scope):** 5,000 - 6,000 estimated by HfS
- **Locations:** 15+ telecom BPO delivery center locations including:
  - North America: US
  - Europe: Czech Republic, Poland, Slovakia,
  - APAC: Australia, India, Philippines
  - ROW: Argentina, Brazil

### Proprietary Technologies / Platforms

- **Accenture Operations Global Productivity Hub (GPH):** In-house application for productivity monitoring and control
- **Accenture Operations App Exchange:** In-house repository for automation
- **Accenture Operations App Explorer:** In-house tools for analytics
- **Accenture Liquid Workforce:** A crowdsourcing-inspired platform and initiative
- **Accenture Intelligent Order Management (IDM):** Tool for order management analytics
Market Wrap-Up and Recommendations
Where to Next for Telecom Operations As-a-Service

We see the following as the major trends that will foster the future evolution of Telecom Operations As-a-Service over the next 2–3 years:

- Analytics offerings will evolve from operational analytics to business analytics. Some service providers already embed analytics in their all engagements. We believe analytics will become all pervasive for all Tier 1 service providers.

- Intelligent automation and, in particular, robotic process automation (RPA) will become deeply integrated into telecom business processes reducing the size of current labor arbitrage–centric contracts.

- Digital telecom which is under 10% of service provider’s revenue will have high growth and may become 15-20% of service provider’s revenue in next 2-3 years. Service providers will figure out their value proposition in IoT value chain and support telcos in capitalizing on the IoT opportunity.

- With automation, omni-channel and self-service initiatives the share of voice channel will decrease. Subscribers will use voice for complex issues. So while the share of voice channel will decrease, the average handling time (AHT) will increase and service providers will require higher quality talent to support it.

- Network rollout management offering by service providers will become extensive. Also, we will see introduction and maturity of new telecom operations services offerings.
## Telecom Operations Will More Extensively Incorporate the Ideals of the As-a-Service Economy

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2016-17 Recommendations: Buyers

- **Increase the Trust Collaboration:** Push your service provider(s) to be more collaborative, more visionary, more inclusive and share with you. In turn, provide that same approach to the service provider(s). Realizing the business outcomes is easier in a close partnership than in a closed-off zero-sum mindset relationship. So, work with your service provider(s) in a manner that facilitates long-term success as well and ask for it in return.

- **Rethink Your Legacy Stack:** OTT players are already eating your lunch. Don’t let legacy technology hold you back in your transformation for the digital era. Service providers are capable of delivering on new technology stack, but it is the perception of buyers about the robustness of new technologies and about the capability of service providers which is holding them back. Ask service providers about case studies of early adopters, develop the business case and get service providers skin in the game while leveraging new technologies to remain relevant in the digital era.

- **Test Digital and IoT Implications:** Building further on the above recommendation, ask your service provider(s) for insight into how Digital, the IoT and other innovations are likely to impact the telecom business processes you have in place today whether the service provider delivers them or not. Use quarterly business reviews (QBRs) and other interactions with your service provider(s) to review their vision for the evolution of telecom operations.

- **Rethink About Captive and Local Outsourcing:** Our research shows that only about one-third of potential telecom operations market is outsourced to large and mid-size service providers. The rest of the potential market is served by in-house operations, captives or small local service providers. In-house centers and small local service providers might not have scale and expertise to invest in analytics, automation and other As-a-Service initiatives. While, most large and mid-size service providers are either investing or have plans to invest in these initiatives. By leveraging large and mid-size service providers, buyers can get best out of their operations.
2016-17 Recommendations: Buyers (continued)

- **Move Faster and Deeper to As-a-Service Offerings from Service Providers:** Keep pushing your service provider(s) to move to an As-a-Service model that goes beyond labor arbitrage to include and offer you a broader set of choices for what solutions you adopt and how they interact with your own retained organization. Don’t settle for a long-term fixed model of solution delivery for telecom operations services, but push your service provider(s) to be flexible and agile so that future services offerings better align to your own potential future needs.

- **Adopt Design Thinking:** Don’t dismiss design thinking as something that is a fad with little benefit for your own operations. The opportunities to sit down with your service provider(s) to better understand the business context in which your current processes operate and what can be done to realign or reimagine these processes to achieve different and/or better results is always an exercise worth undertaking.

- **Greenfield Service Providers and MVNOs can Leapfrog into As-a-Service:** Greenfield service providers and MVNOs which doesn’t have any legacy constraint and get best out of telecom service providers and use them to reimagine process, reduce time to market, and make themselves foolproof in As-a-Service Economy.
2016-17 Recommendations: Service Providers

- **Scale-up Innovation:** Overall, buyers ratings of service providers were lowest on getting value from service provider led innovation initiatives. Most buyers feel that service providers can do better at innovation. Few buyers complain that service providers are becoming complacent and either not reimagining the support processes with design thinking, technology, analytics, automation or not doing fast enough.

- **Move Further to As-a-Service Offering Design and Execution:** At HfS, we are strong believers in the rapid move of BPO away from legacy “lift and shift” models toward an As-a-Service solution design and delivery world. This is especially true for telecom operations, which has always had some embodiment of the 8 Ideals of As-a-Service in how service providers have sold and delivered the offering. That said, there is still significant opportunity to move this further forward and bring a more modular yet end-to-end solution stack.

- **Prepare for the Rise of the IoT and Digital:** They might not be mainstream technologies, but Digital and the IoT are becoming that way. Research labs, consulting teams and SI units inside each major service provider are working with clients around these technologies today. However, the lessons learned may not yet have made their way over to the telecom operations group running day-to-day operations. Put aside investment funds this year to encourage that collaboration so that as a service provider you can share these same insights with clients.

- **Develop New Service Offerings:** Telcos are facing serious threat from OTTs and need all the help they can get in making themselves relevant in the digital era. Service providers can understand their pain-points and use design thinking to develop new service offerings which will make telcos competitive and relevant to their subscribers.

- **Move Beyond Tier 1 and English-Speaking Telcos:** Most of the telco customers are either tier-one (top 50 telcos) or are from English speaking countries. There are good opportunities with Tier 2 and Tier 3 telcos and beyond English speaking countries which service providers should also target.
About the Author
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Overview
• More than 10 years’ business experience in buy side, advisory, and delivery in the global outsourcing industry across the US, Europe, and Asia.
• Coverage areas in HfS are telecom business operations, engineering services, and outsourcing deals.
• Author of the book Who Is That Lady?
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Previous Experience
• Business Planning Manager (Asia Pacific), Emerson Network Power
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Education
• MBA, Indian Institute Of Management (IIM), Bangalore, India
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About HfS Research

HfS Research is The Services Research Company™—the leading analyst authority and global community for business operations and IT services. The firm helps enterprises validate their global operating models with world-class research and peer networking.

HfS Research coined the term The As-a-Service Economy to illustrate the challenges and opportunities facing enterprises needing to re-architect their operations to thrive in an age of digital disruption, while grappling with an increasingly complex global business environment. HfS created the Eight Ideals of Being As-a-Service as a guiding framework to help service buyers and providers address these challenges and seize the initiative.

With specific focus on the digitization of business processes, intelligent automation and outsourcing, HfS has deep industry expertise in healthcare, life sciences, retail, manufacturing, energy, utilities, telecommunications and financial services. HfS uses its groundbreaking Blueprint Methodology™ to evaluate the ability of service and technology providers to innovate and execute the Eight Ideals.

HfS facilitates a thriving and dynamic global community of more than 100,000 active subscribers, which adds richness to its research. In addition, HfS holds several Service Leaders Summits every year, bringing together senior service buyers, providers and technology suppliers in an intimate forum to develop collective recommendations for the industry and add depth to the firm’s research publications and analyst offerings.

Now in its tenth year of publication, HfS Research’s acclaimed blog Horses for Sources is the most widely read and trusted destination for unfettered collective insight, research and open debate about sourcing industry issues and developments. Horses for Sources and the HfS network of sites receive more than a million web visits a year.

HfS was named Analyst Firm of the Year for 2016, alongside Gartner and Forrester, by leading analyst observer InfluencerRelations.