## A Report for SGN

SGN
Your gas. Our network.

# RIIO 2 IT Benchmark Annex

21 November 2019

Engagement: 330054742



Gartner

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# Executive Summary

## Introduction

As part of its preparation for the next round of submissions for funding to Ofgem known as RIIO-2, SGN worked with Gartner to:

1. Benchmark its “run the business” cost base, comparing it to organisations of similar size and complexity and highlighting opportunities for improvement;

2. Review and evaluate the planned investments to determine the appropriateness, the levels of funding and gaps to emerging technologies Gartner would envisage being considered during the control period; and;

3. Provide the evidential, documented support to Ofgem in support of the submission.

## IT Operational Cost Benchmark

SGN’s IT spending proportions align broadly to the peer group, however cost-efficient delivery of BAU services reduces the proportion of spend needed for ‘Run’ and frees up funds for investment in transformational activities that may improve business productivity and create competitive advantage.

SGN has a combination of both stringent SLA targets and some cost inefficiencies. The key driver for the higher proportional spend on run can be found in the applications activity for 2018/19. Much of the spend in this space is allocated applications refresh activities that do not deliver increased levels of functionality. SGN has incurred some dual-running costs during 2018/19. These include provision of cloud services, network service and IT service desk

## IT Investment Assessment

The investment plan is split into two distinct portfolios, “Safe & Reliable” and “Stakeholder Led”, with the former making up the majority of the planned investment. The overall provision is almost centrally placed within Gartner’s lower and higher ranges. Investments will be funded from a mixture of OPEX and CAPEX as shown in the detailed tables.

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|---|---|---|---|---|---|
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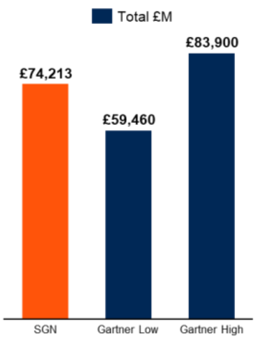
| **Total** | **25** | **74,213** | **59,460** | **83,990** | **Within range** |



SGN’s s total planned investment, compared to Gartner’s assessment

**Table 1: Investment plan summary**

While the majority of SGN’s investment plan is focused on asset maintenance or replacement initiatives, £11M is planned for innovation, centred on the Internet of Things in Utilities and AI, Machine Learning and Advanced Learning. This is higher than Gartner has seen in peer’s plans.

# Introduction

## Approach

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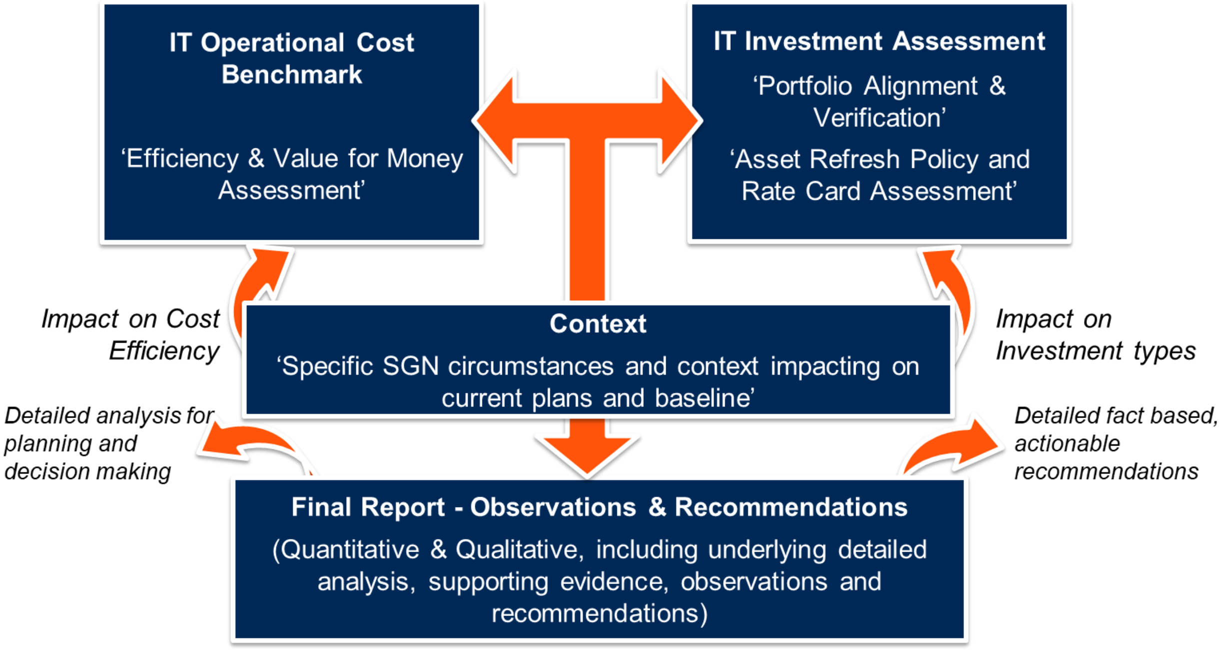


**Figure 1: Overall approach**

This report summarises the pertinent findings from Gartner’s final report, in a form suitable for inclusion in the Annex of SGN’s business plan submission to Ofgem.

# IT Operational Cost Benchmark

## Introduction

The operational cost benchmark was based on the UK IT (Opex and Capex) budget for the 2018/19 financial year.

The standard Gartner process for Cost Benchmarking is to select two separate and distinct types of peers to fully analyse the efficiency and effectiveness of the IT service. At the enterprise level Gartner select based on comparability within industry; at the technical level peers are selected primarily on supported technology workloads.

## Summary

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SGN has a combination of both stringent SLA targets and some cost inefficiencies. The key driver for the higher proportional spend on run can be found in the applications activity for 2018/19. Much of the spend in this space is allocated applications refresh activities that do not deliver increased levels of functionality.

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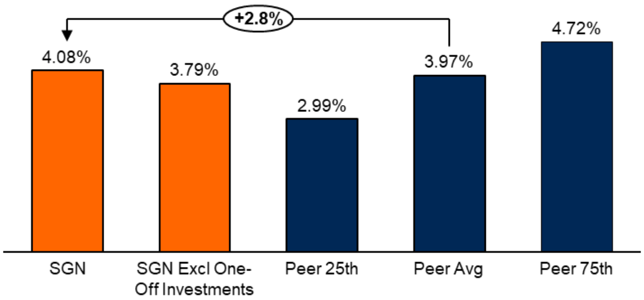
## IT Spend as a Percentage of Revenue (%)




| SGN Revenue & IT Spend | Peer Average Revenue & IT Spend | Delta |
|---|---|---|
| Revenue: £1.2bn<br>IT Spend: £47.2m | Revenue: £1.3bn<br>IT Spend: £46.6m | +2.8% |

**Figure 1: IT Spend as a Percentage of Revenue (%)**

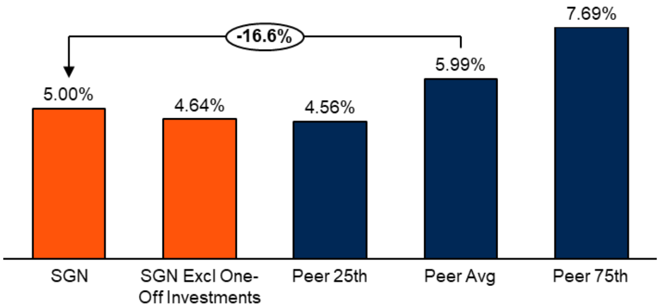
IT spend as a percentage of revenue is a common measure of IT's role in the business and a measure to assess the comparative level of spending with industry peers.
SGN's aggregate IT spending as a percentage of revenue is higher than the industry peer average during this study period.

SGN has incurred some dual-running costs during 2018/19. This level of spending is reflective of a period of increased change and the mitigation of accumulated technical debt within SGN and includes provision of cloud services, network service and IT service desk.

This metric can be susceptible to fluctuations due to capital investment cycles however, and therefore it is relevant to note that the 2018-19 study period reflects a period of increased IT investment for SGN as a number of application upgrades have been completed, the cloud programme comes to fruition, network and service desk provision has transitioned to new suppliers and the end user device estate has undergone a significant refresh.

This result is also impacted by SGN's high level of spending in the applications space, both the development projects associated with refresh and replacement and ongoing applications support activities which may warrant further investigation.

## IT Spend as a Percentage of Opex (%)




| SGN Opex & IT Spend | Peer Average Revenue & IT Spend | Delta |
|---|---|---|
| Opex: £944.3m<br>IT Spend: £47.2m | Opex £884.5m<br>IT Spend: £46.6m | -16.6% |

**Figure 2: IT Spend as a Percentage of Revenue (%)**

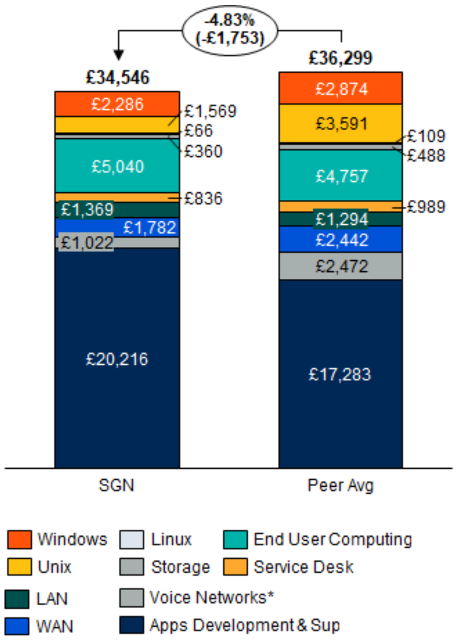
IT spending as a percentage of operational expenses (including REPEX) provides a view of the role IT plays in the spending patterns of the business. The greater the amount of the operating expense that is dedicated to IT, the greater amount of visibility the business will require.

Typically, organisations with a lower level of IT investment relative to operating expense, such as those observed within the SGN's data, view IT as a service provider whose costs are to be scrutinised rather than as a strategic enabler, and this can ultimately be detrimental to business performance and productivity levels. Like most regulated organisations, the focus on driving greater efficiencies within SGN comes from the regulator.

The top-down metrics in conjunction with the baseline benchmark results are reflective of low historic IT spending levels and current low-cost service delivery, despite continued efforts to mitigate historic under-investment through comprehensive refresh and replacement activities and the migration to cloud.

# IT Spend by Environment

At an overall level based on the workload and proportional spend view SGN is spending 4.8% lower than the peer average, the key driver of which is significantly lower spend on data centre and network technologies. Application spend however, is significantly higher than peers.



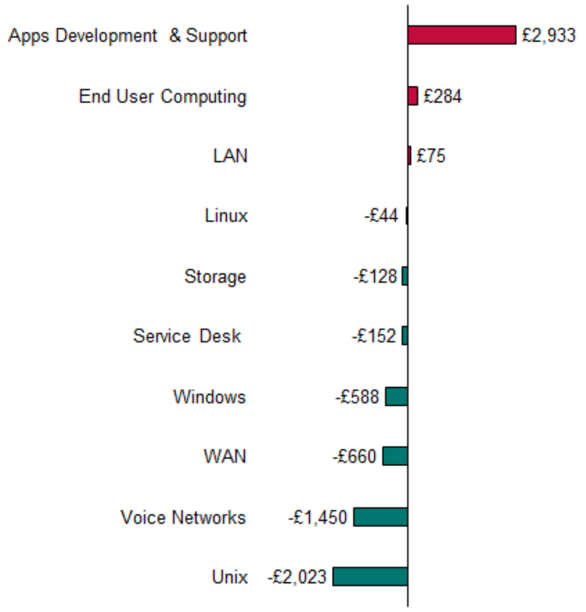




**Figure 3: IT Spend by Environment**

**Figure 4: SGN vs. Peer Average (£000's)**

Key observations per tower:

- **Windows:** this server area shows a best in class cost position driven primarily by highly depreciated hardware. As cloud migration continues expectation would be for higher unit costs, but a reduced risk profile and greater organisational agility leading ultimately to cost avoidance**.**

- **Linux:** this server area shows a best in class cost position driven primarily by highly depreciated hardware. As cloud migration continues expectation would be for higher unit costs, but a reduced risk profile and greater organisational agility should ultimately lead to cost avoidance.

- **Unix:** this server area's costs are at a level that suggests a possible risk to continued service. SGN should prioritise overcoming the technical challenges associated with the migration of the legacy Unix systems to commodity cloud platforms to mitigate risk and avoid future costs.

- **Storage:** unit costs are at a level that suggests a possible risk to continued service. As the cloud transition continues SGN should expect unit costs to increase and should carefully review data policies to ensure the right type of technology is employed to contain costs.

- **End User Computing:** recent device refreshes combined with high levels of insourced and outsourced support and stringent service delivery drive high unit costs in the End User Computing environment.
- **Service Desk:** following transition to the Fujitsu provided, near-shore, level 1 service desk, SGN's cost per contact lies in a best-in-class position. SGN should ensure that contracted service levels and charging mechanisms are constructed to drive appropriate supplier and costs going forwards.
- **Local Area Network (LAN):** cost per active port in the LAN environment lies in a cost inefficient position compared with peers driven primarily by outsourced service costs from SSE ET.
- **Wide Area Network (WAN):** as SGN transitions to the new WAN supplier, it should take steps to ensure that service levels are aligned to business need and supported by contractual mechanisms. Pricing for the new service should be reviewed to ensure that SGN secures the best deal based on its WAN strategy.
- **Voice Networks Support:** aging IP telephony, (out of scope) mobile telephony and incremental moves towards unified communication technologies which sit within other technology environments mean that SGN's spend on voice networks is lower than peers that still rely on more traditional voice technologies.
- **Application Development & Support:** aS SGN focusses on the refresh and replacement of a number of key applications within the portfolio, overall applications development and support spending consumes a significantly higher proportion of the IT budget than peers.

## Service Levels

Gartner reviewed SGN's service levels across all towers. Service levels are generally either aligned to, or more stringent than peers, reflecting the criticality of the services provided by SGN as a whole, as this example for Windows, Linux and Unix Servers illustrates where recovery point and recovery time objectives are more stringent. Higher service levels usually attract higher costs.

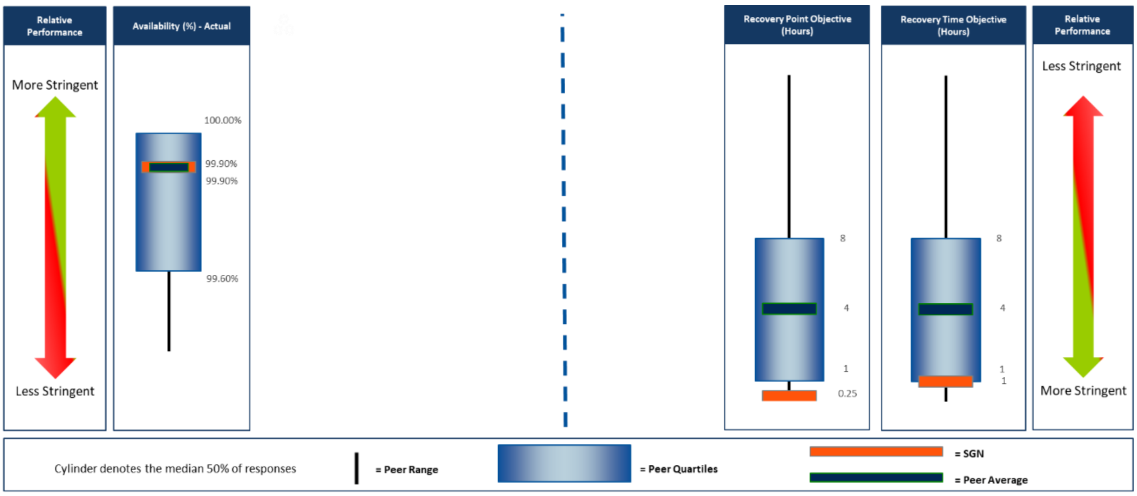



**Figure 5: Example SLA target vs. actuals for Windows, Linux and Unix Servers**

# IT Investment Assessment

## Benefits Classification

For RIIO-2, Ofgem has defined three output categories, as illustrated below.

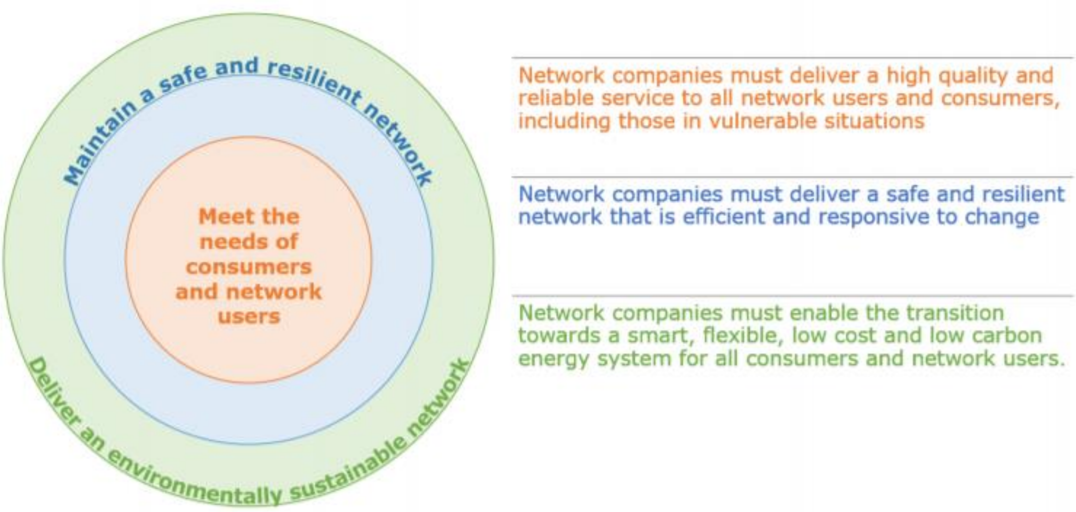



**Figure 6: Ofgem RIIO-2 Output Categories**

To assess the distribution of investments, Gartner classified each initiative to the primary output category, with safe and resilient being summarised as "SR", environmentally sustainable as "ES" and meets the needs of consumers and networks users as "CU". No investments were identified specifically for consumers and network users. See the detailed tables in next two pages for further details.

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## Summary

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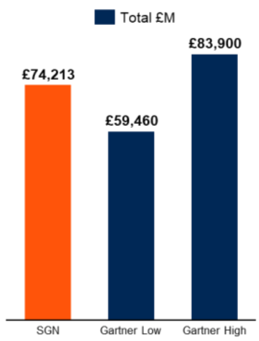


SGN's s total planned investment, compared to Gartner's assessment

**Table 2: Investment plan summary**

## Safe and Reliable

This portfolio is in the upper half of Gartner's range.

| Initiative | SGN GD2 Provision | Gartner "Lower" | Gartner "Higher" | Benefit Type |
|---|---|---|---|---|
| Integration including refresh and replacement | £1,100 | £850 | £1,200 | SR |
| Data Governance and Quality | £500 | £380 | £1,300 | SR |
| Financial Planning & Reporting Tools | £500 | £310 | £780 | SR |
| Application Refresh (CAPEX) | £1,250 | £1,100 | £1,600 | SR |
| Application Refresh (OPEX) | £1,250 | £430 | £550 | SR |
| Back Office Replacement & Redesign (CAPEX – Safe & reliable) | £4,000 | £3,500 | £4,700 | SR |
| Integration including refresh and replacement | £6,000 | £7,400 | £8,900 | SR |
| Data Governance and Quality | £6,000 | £5,100 | £6,100 | SR |
| Financial Planning & Reporting Tools | £6,000 | £8,300 | £11,400 | SR |
| Application Refresh (CAPEX) | £6,105 | £2,600 | £4,100 | SR |
| Application Refresh (OPEX) | £7,583 | £6,300 | £8,100 | SR |
| Back Office Replacement & Redesign (CAPEX – Safe & reliable) | £11,375 | £9,400 | £12,100 | SR |
| Integration including refresh and replacement | £2,000 | £2,000 | £2,000 | SR |
| Data Governance and Quality | £5,000 | £3,100 | £7,400 | SR |
| IT Trends - Internet of Things, OT/IT, remote comms (80%) CAPEX | £6,000 | £1,000 | £3,700 | SR |
| IT Trends - Internet of Things, OT/IT, remote comms (20%) OPEX | £1,500 | £1,500 | £1,500 | SR |
| Customer Experience/Stakeholder (50%) CAPEX – Safe & Reliable | £1,250 | £2,800 | £3,900 | MN |
| Customer Experience/Stakeholder (50%) OPEX – Safe & Reliable | £1,250 | Included in the above | | MN |
| **Total** | **£68,663** | **£56,030** | **£78,550** | **N/A** |

**Table 3: Investment Assessment – Safe and Reliable**

# Stakeholder Led Requirements

This portfolio is very slightly above Gartner's higher range.

| Initiative | SGN GD2 Provision | Gartner "Lower" | Gartner "Higher" | Benefit Type |
|---|---|---|---|---|
| Customer Outage Management CAPEX | £500 | £480 | £1,100 | MN |
| Customer Outage Management OPEX | £800 | £80 | £160 | MN |
| Multi Occupancy Buildings management (data and system changes) | £250 | £120 | £480 | MN |
| Whole systems thinking - systems / data and analytics support | £2,500 | £2,500 | £2,500 | MN |
| Service Excellence - Investment in Open data sharing CAPEX | £625 | £170 | £790 | MN |
| Service Excellence - Investment in Open data sharing OPEX | £625 | £50 | £240 | MN |
| Data Sharing for Vulnerable Customers (50%) CAPEX | £250 | £30 | £170 | MN |
| **Total** | **£5,550** | **£3,430** | **£5,440** | **N/A** |

**Table 4: Investment Assessment – Stakeholder Led Requirements**

# Observations

Beyond maintaining or enhancing existing technology, SGN's investment plan includes specific provision in two areas:


**Figure 7: Innovation areas within the investment plan.**

SGN has identified this need, through its own internal "Imagineering" and by leveraging a wide range of relevant external research from sources including Gartner, McKinsey, Capgemini, KPMG and Accenture.

SGN intends to invest in the same technologies as other utilities, by leveraging its data to improve operational efficiency, optimising asset performance and to enrich the customer experience. However, its focus is narrower than some peers, who also plan to introduce technologies such as **Lidar** and **Drones** to enhance field surveying as an example.

At £11M for the Capex investment only (£1.5m is identified as Opex for IoT), this investment, which transcends both "grow" and "transform" represents 15% of total planned capital investment. This is higher than Gartner has seen in utilities elsewhere, though it could be taken as indication of SGN's ambition for GD2. The Gartner value relates solely to IT investments, whereas SGN's GD2 investments include OT items which fall outside of the scope of the benchmark.

# Contacts

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