national gas transmission

Efficient Enterprise Essentials [Infrastructure]

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RIIO-GT3 NGT_IJP07

Contents

Enterprise Essentials Infrastructure IT investments

1   Summary table

Name of project	Enterprise Essentials Infrastructure
Scheme reference	TBD
Primary investment driver	Deliver compliance with IT asset health policy
Project initiation year	2026
Project close out year	2031
Total installed cost estimate (£)	£48.198m.
Historic funding interactions	None
Project spend to date	£0
Current project stage gate	Not started
Reporting table ref	6.11, 11.2
Outputs	IT deliverables as detailed in the investment particulars

Spend apportionment	**T1**	**T2**	**GT3**
	£0	£0	£48.198m

2   Executive summary

This Investment Justification Paper (IJP) sets out our planned investments to sustain the IT infrastructure used for all our computing requirements. This extends from our Critical National Infrastructure data centre through to our Cloud based systems and includes all of the systems that we use to manage IT operations and development.

This IJP should be read in conjunction with the IT & Telecoms Strategy document[1] which describes the context, approach and overall portfolio for IT and Telecoms in RIIO-GT3. All investments in this paper are within our baseline plan.

The investments in this paper address the following key issues and opportunities which trigger action:

- Ensure compliance with policy, regulation and legislation:
    - Asset Health – our IT infrastructure provides and sustains the hardware upon which our business systems run. As with other IT assets, these systems and services contracts eventually reach end-of-life and investment is required. This is the primary driver of the investments in this paper.
    - Security – threats are constantly evolving, and our systems need to be kept up to date with security requirements.
- Opportunities to improve cost-effectiveness of IT:
    - Enhanced capabilities – opportunities are provided by new technology releases to improve the way in which the IT infrastructure is delivered and operated.

Investments in this paper primarily support two Ofgem key outcomes: Secure and Resilient Supplies (14 investments with Totex of ▮▮▮▮▮) and System Efficiency and Long-Term Value (1 investment with Totex of ▮▮▮▮). The investments are listed below, aligned to the primary outcome and the trigger for action. Triggers used here are described in detail in the IT & Telecoms Strategy[1] section 3.3.3 and are summarised as:

- Deliver Compliance – keeping our systems healthy, secure and compliant with regulation / legislation.
- Deliver Innovation – transformation to deliver new capabilities and benefits.

All investments except one are driven by the need to keep our systems compliant with our Asset Health Policy and up to date with cyber security regulations. Most IT lifecycles are less than five years and so our infrastructure would be expected to be refreshed in each regulatory period.

Ref	Investment Line	Trigger	Totex £m	Primary Outcome	Cost sub-category
IT 064	Device refresh	Deliver compliance	▮	Secure and resilient	IT & Telecoms
IT 065	Operating System updates	Deliver compliance	▮	Secure and resilient	IT & Telecoms
IT 066	Renewal of Digital Workplace Services Contract	Deliver compliance	▮	Secure and resilient	IT & Telecoms
IT 067	Video conferencing refresh	Deliver compliance	▮	Secure and resilient	IT & Telecoms
IT 068	Innovation and Modern Technology	Deliver innovation	▮	Efficiency and value	Digital infrastructure
IT 069	Replacement of GSTIG	Deliver compliance	▮	Secure and resilient	IT & Telecoms
IT 070	Refresh Routers, Switches & Wireless Access points	Deliver compliance	▮	Secure and resilient	IT & Telecoms
IT 071	SDWAN Upgrade	Deliver compliance	▮	Secure and resilient	IT & Telecoms
IT 072	Enterprise Network Procurement Event	Deliver compliance	▮	Secure and resilient	IT & Telecoms
IT 073	Digital Operations	Deliver compliance	▮	Secure and resilient	Digital processes
IT 077	Service Management	Deliver compliance	▮	Secure and resilient	IT & Telecoms
IT 078	Integration	Deliver compliance	▮	Secure and resilient	IT & Telecoms
IT 079	Software Development Tooling - Value Stream Management	Deliver compliance	▮	Secure and resilient	IT & Telecoms
IT 080	Cloud Fabric	Deliver compliance	▮	Secure and resilient	IT & Telecoms
IT 101	CNI Data Centre Feasibility & Analysis	Deliver compliance	▮	Secure and resilient	IT & Telecoms
	Total		▮		

Scope and volumes for each investment have undergone internal and external assurance. Costs have been developed 'bottom-up' using detailed resource plans and have been assured through benchmarking against industry comparators by Gartner, Inc.[2].

Options analysis has been carried out for each investment. This has considered various factors including cost, functionality, risk, alignment with IT architecture / strategy, business change impact, and the resulting ability to support the business and regulatory outcomes. Comparative analysis of these factors has enabled achieving these outcomes in the most cost effective way.

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[1] NGT_A11_IT_and_Telecoms Strategy

[2] NGT_C01_Gartner Review of IT Costs and Benchmarking of comparable costs

3　Introduction

3.1　Scope of this paper

This Investment Justification Paper (IJP) covers four areas of IT infrastructure:

Capability area	Focus
Digital workplace services	IT Asset health – sustain these systems and respond to technology opportunities
Network and digital operations	IT Asset health – sustain these systems and respond to technology opportunities
Cloud	IT Asset health – sustain these systems and respond to technology opportunities
CNI data centre	Strategy review and plan development for action in RIIO-GT4

This paper covers the IT infrastructure and IT operations capabilities that provide the foundation upon which our business IT solutions run. The scope of our infrastructure and operations will remain similar to our current profile and the focus of the investments in this paper is largely to sustain asset health, with opportunities to leverage new technologies taken where these can deliver clear benefits.

This paper describes 'IT for IT', in contrast with the other IT IJPs which describe how IT provides enablers for business capabilities. This paper is inevitably technical in its subject matter and we have endeavoured to minimise IT jargon to provide accessibility, but rely on a reasonable level of IT understanding by the reader.

Delivery of investments will variously range over the whole of the 5-year period, as detailed in the cost profile and project plan for each investment.

3.2　What this document contains

Each investment described in this document has been developed through an iterative process of engagement with users, solution scoping and options analysis, and benefits confirmation. We have followed our SVC standard (scope, volume and cost data confidence standard – Non-AMP (IT)) in this process, descoping any investments that fell short of this standard. For more detail on how the scope, volume and cost of investments were developed, see the IT & Telecoms Strategy, section 3.4.

Each investment has the following sections which provide context, analysis, proposed way forward and spend profile:

- **Background and scope summary** – This section summarises the context of the system, the investments proposed to address issues and the business and regulatory outcomes that will be enabled. The trigger for action is made clear and the IT deliverables described. A problem / opportunity statement is provided, detailing the problems with the current systems and the implications of not investing.
- **Optioneering** – This section contains a description of the options considered to address the problems described above. It should be noted that definition of specific products is not part of the investment scope and options for technology / supplier selection will be carried out as part of the project lifecycle. IT products evolve quickly and this enables the best solution to be selected nearer the time. Option analysis has compared various factors including cost, functionality, risk, alignment with IT architecture / strategy, business change impact, and the resulting ability to support the business and regulatory outcomes. Comparative analysis of these factors has enabled us to prioritise achievement of outcomes in the most cost-effective way.
- **Preferred option** – The preferred option is identified, with a summary of the reasoning behind its selection and benefits.
- **Cost and deliverability** – The investment spend profile tables show the Capex and Opex (if applicable) profile for each investment over the five-year RIIO-GT3 period. Note that Opex can be either early work that is not capitalisable or a net increase in run the business (RTB) cost e.g. from new software licences. Increased RTB Opex is captured here, rather than in the RTB business plan so that it is clear what is changing.

  Costs have been developed from bottom-up analysis and informed by historic costs, supplier discussions, quotations and tenders and reach the standard set out in our policy: SVC Data Confidence Standard v1 Non-AMP (IT). These tables also give a comparison benchmark range provided by Gartner, Inc. who have carried out a detailed examination of the scope and proposed cost and used global comparators to give an upper and lower range. See the IT & Telecoms Strategy, section 3.4.3 for more detail on the iterative process of alignment with benchmarks. The Gartner IT benchmarking consultant's report is provided separately.

A high level project plan is provided that shows activity timing by year.

This section references the IT and Telecoms Strategy document for details of cost drivers and for deliverability as these aspects are common to all investments.

4　Capability 1: Digital workplace services

This capability area covers investments to sustain our core infrastructure of devices and operating systems upon which our business solutions run. Each investment addresses a specific aspect of our digital workplace, ensuring that it remains up to date and in pace with technological progress. This infrastructure underpins our vision for a digitally empowered workforce and enables our compliance with Ofgem Data Best Practice (DBP) guidelines.

National Gas IT focuses on enhancing the technological experience for diverse stakeholders, including employees, contractors, partners, industry participants and the public. Our goal is to empower these stakeholders to be more engaged, adaptable, secure, and ultimately more productive through their daily technology interactions. The evolving landscape of emerging technologies is reshaping interaction patterns and expectations. These shifting expectations together with major technology trends such as cloud computing underscore the need to keep infrastructure up to date to enable the digitalised organisation and industry.

There are five investments in this area, as follows:

Platform	Capability	Investment	£m
Digital Workplace Services	Technology Management	IT 064 Device Refresh	■■
		IT 065 Operating System updates	■■
		IT 066 Renewal of Digital Workplace Services Contract	■■
		IT 067 Video conferencing refresh	■■
		IT 068 Innovation and Modern Technology	■■

4.1　IT 064 Device Refresh

4.1.1　Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – end-of-life equipment	Refresh	Operate safely, reliably, and flexibly – refresh infrastructure	Secure and resilient supplies	IT & Telecoms

This investment is to deliver the replacement of 2728 end user devices, such as laptops, tablets and desktop computers. The reason for the replacement is due to devices having reached 3 years old and no longer within their warranty period. At this stage the performance of devices starts to reduce, hindering user productivity and increasing support costs.　All devices will be refreshed twice during T3, once at the start and then after 4 years once their warranty expires, ensuring compliance with the National Gas asset health policy. The refresh cycle has increased from 3 to 4 years due to the warranty period offered by manufacturers, this demonstrates the technological advancements that have appeared since T2, improving reliability. By adhering to this strategy, we proactively mitigate the risk of incidents arising from device performance issues, thereby safeguarding our operational efficiency and customer satisfaction. Our policy is consistent with industry standards and best practices for device replacement.

This investment is fundamental to continued digitalisation of our processes and to safe and efficient interoperability with other industry participants as part of whole system management.

Problem / opportunity statement

End user devices have a lifespan, after which performance and reliability starts to degrade, and support costs increase. Further, cyber security risk rises and incompatibilities with software emerge. In order to reliably support our business systems and processes, these devices must be replaced periodically in line with our IT Asset Health Policy.

4.1.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. These alternatives reflect two contrasting approaches to supplying the necessary devices, option A being continuing with the current in-house approach and option B being moving to a leasing alternative. The table below sets out the options for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do not invest	N/A	• Decreased performance. • Increased downtime • Higher support costs • Need further support to run new software applications. • Compatibility Issues. • Security vulnerabilities. • Reduced employee satisfaction. • The higher long-term cost of maintaining and supporting ageing devices.
A	Device refresh every four years through purchase of new devices **Recommended**	• Enhance employee satisfaction: Provide employees with modern, reliable tools that meet their needs. • Boost employee efficiency with faster processing speeds, improved graphics, and ergonomic designs. • Reduce downtime: Minimize disruptions caused by outdated equipment and software issues. • Improve security: Protect sensitive data with the latest security features and updates.	• Frequent device refreshes can contribute to electronic waste, which may raise environmental concerns if not managed responsibly. • Purchasing new devices regularly requires a significant upfront investment.
B	Device leasing – DaaS (Device as a Service)	• Lower upfront costs: Avoid the burden of large upfront expenses. • Flexibility: Adapt to changing needs with flexible lease terms. • Reduced IT management: Minimise the administrative burden of managing and maintaining equipment. • Scalability: Ability to be able flex demand for devices as and when needed • Access to latest technology: Stay current with the latest advancements in hardware.	• Over the duration of a lease, the total cost may be higher than purchasing devices. • Dependency on service provides for device availability and service quality. • Limited ownership and control over the hardware • Risk of damage or loss: Require careful handling and protection to avoid additional costs.

4.1.3   Preferred option

Our recommended investment approach is Option A. With this strategic choice, we will buy and renew devices every four years and we can ensure that our end-user devices remain secure, compliant and perform at their peak, thereby minimising the risk of incidents arising from device performance issues. This choice will enable us to have a powerful and up-to-date digital workspace, capable of meeting the ever-changing needs of our industry, and thereby enhancing our productivity, operational efficiency, and customer satisfaction. Ultimately, this investment supports Data Best Practice and positions National Gas as a technology-forward energy company that harnesses the power of modern devices to provide excellent services.

It should be noted that we ensure environmentally responsible device refresh through increased refresh period in comparison to RIIO-T2 (4 year instead of 3 years, prolonging the life of devices). The chosen vendor will recycle, reuse or recycle old devices in accordance with UK regulatory requirements.

Option B was discounted as it is higher cost and gives us limited control over the hardware.

Consumer / stakeholder benefits

By investing in more reliable and up-to-date end user devices, we can:

- Improve customer satisfaction: Ensure users have the devices needed for interactions with stakeholders and minimise disruptions.
- Increase efficiency: Streamline processes, reduce errors, and improve overall productivity, contributing to the overall business performance.

- Mitigate security risks: Modern laptops offer hardware-based security, advanced features and benefit from the latest updates helping to reducing security breaches and possible reputational damage.

4.1.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below. The spend figures reflect workforce growth in the business plan and individual user costs of ▮▮▮ on average.

IT 064 – Device Refresh							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Total	Low	High	
CAPEX	▮	▮	▮	▮	▮	▮	▮	▮	▮▮▮
OPEX	▮	▮	▮	▮	▮	▮			

The project plan for this investment is set out below and shows periodic annual preparation and deployment.

IT 064 Device Refresh	FY 27	FY 28	FY 29	FY 30	FY31
Identify devices and requirements	◆				◆
Device procurement	◆ ◆				◆ ◆
Deployment	▶				▶

4.2   IT 065 - Operating system updates to ensure security and compatibility

4.2.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – end-of-life software	Refresh	Operate safely, reliably, and flexibly – refresh infrastructure	Secure and resilient supplies	IT & Telecoms

This investment is to deliver the replacement of operating systems on our end user devices. This includes critical elements such as Microsoft OS and Windows, which form the backbone of our digital infrastructure across approximately 2,900 end user devices. This investment is critical to ensure the continuing operation of our end user devices and their security against constantly evolving cyber threats.

It is important to note that while this investment is primarily aimed at managing operating system updates for core services, National Gas remains committed to remaining open to new technologies and solutions that may enhance security and compatibility. Our approach is dynamic and adaptable, acknowledging that the evolving landscape of technology may bring forth innovative solutions that better align with our goals of operational excellence, customer satisfaction, and robust security. We will monitor the market, ensuring that our investment strategy remains aligned with emerging industry trends and best practices in the pursuit of the highest standards of performance, security and reliability.

Our policy is consistent with industry standards and best practices for device replacement. This investment continues the policy that we have applied with funding in RIIO-T2.

This investment is fundamental to continued digitalisation of our processes and to safe and efficient interoperability with other industry participants as part of whole system management.

Problem / opportunity statement

End user device operating systems have a lifespan, after which performance and reliability starts to degrade, support costs increase, cyber security risk rises, and incompatibilities with software emerge. In order to reliably support our business systems and processes, this software must be replaced periodically in line with our IT Asset Health Policy.

4.2.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. Only one alternative is presented as this is a binary choice – to update the operating systems or not. The table below sets out the options for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do not invest	• N/A	• Security vulnerabilities: Outdated system would be more susceptible to vulnerabilities which hackers could exploit leading to data breaches and reputational damage for the organisation. • Reduced service reliability: Older systems may experience decreased performance. • Compatibility issues: Applications and devices may not function properly with an outdated operating system. • Reduced productivity: Users are likely to experience performance issues with outdated systems.
A	Operating systems updates **Recommended**	• Enhanced user experience: Provide users with a modern and improved user interface. • Improved security: Protect the organisation against from cyber threats and attacks. • Enhanced performance: Improve system speed and responsiveness, leading to increased productivity. • Better compatibility: Making sure that applications and devices work seamlessly together.	• Compatibility: Potential for conflicts with existing hardware, software and applications. • User disruption: Potential for user downtime whilst the upgrade takes place, leading to a reduction in productivity to the business.

4.2.3   Preferred option

Our recommended investment approach is Option A – to ensure the reliability and security of core services. Keeping up to date with new systems and software is crucial in the fast-changing technology landscape. By investing in operating system updates, we will ensure our digital infrastructure remains up-to-date, enabling it to maintain peak performance and optimal service health.

Consumer / stakeholder benefits

The benefits gained by external parties are indirect, being continued provision of services from NGT through the support provided by the technology for essential business processes.

4.2.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below. The spend figures reflect workforce growth in the business plan and individual user costs are within the benchmark range and are a small part of the investment cost as this is for project work rather than OS costs which are largely part of existing Opex.

IT 065 – Operating Systems updates							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	■	■	■	■	■	■	■	■	▮▮▮
OPEX	■	■	■	■	■	■			

The project plan for this investment is set out below and shows a regular annual spend for the deployment of updates.

Operating System updates	FY 27	FY 28	FY 29	FY 30	FY31
Regular updates	➤	➤	➤	➤	➤

4.3   IT 066 - Renewal of the Digital Workplace Service contract

4.3.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – end of services contract	Evaluate and recontract	Operate safely, reliably, and flexibly – refresh infrastructure services	Secure and resilient supplies	IT & Telecoms

Digital Workplace Services encompasses all of the technology support functions with which users engage, including helpdesk, 1st level support (basic user assistance and triage) and some 2nd level support (specialist assistance). The contract also includes preparing and fixing our end user devices. This critical outsourcing contract, which forms the backbone of our digital workplace service area, is set to be renewed between 2026-2028. A new procurement event will be required to source a fresh contract, aligning with regulatory policies to enhance vendor transparency and foster fair participation.

The current contract, which started during the RIIO-T2 period, provides an option for extension, which could allow for two additional years of service provision. However, in 2028 at the latest, the need to initiate a new procurement process will inevitably arise.

The transition to a new service provider requires comprehensive programme management and legal capability to manage the complex change, ensuring a seamless transfer of services to our chosen vendor.

This investment continues the policy that we have applied with funding in RIIO-T2 and is in line with Official Journal of the European Union (OJEU) contract criteria.

This investment is fundamental to continued digitalisation of our processes and to safe and efficient interoperability with other industry participants as part of whole system management.

Problem / opportunity statement

Our current contract for digital workplace services will end in 2026-2028 and we will need to carry out procurement and implementation of a replacement services contract. Failure to address the renewal of the contract and reflect evolving needs could lead to service disruptions, impacting on our operations and our ability to meet the expectations of our customers and stakeholders.

4.3.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. The table below sets out the options considered for this capability. We have not considered an option to provide the services in-house as this would conflict with our IT policy of buying rather than building, where the market offers a capability, as this represents a more cost-effective route. Only one alternative is presented as this is a binary choice – to renew the contract through a procurement event or not.

Ref.	Option Description	Pros	Cons
DNI	Do not invest	N/A	• Continuing with the existing contract without exploring new vendors could lead to vendor stagnation, potentially limiting access to innovative solutions and cost-efficient services. • Failing to adhere to regulatory policies related to vendor transparency and fair market participation may result in non-compliance issues and reputational risks.
A	New procurement process **Recommended**	• Vendor Selection – best available service scope • Competitive Bidding – best available cost of service • Innovation • Regulatory compliance	• Complexity, managing a large-scale procurement process can be complex and resource-intensive requiring dedicated program management and legal capabilities. • Transition risk to a new provider can include service disruption and employee adjustment to new systems and processes. • Time-consuming, from vendor selection to contract negotiation and implementation.

4.3.3   Preferred option

Our recommended investment approach is Option A. This will ensure that our service continuity is seamless and that we comply with all regulatory policies. For our digital workplace service area, renewing our outsourcing contract is crucial as it provides the necessary reliability and expertise to ensure that our services are delivered without interruption. As we approach a transition period, it is evident that a new market event will be necessary to source a fresh contract that aligns with regulatory policies. In order to facilitate a smooth transfer of services, it is important that we have strong programme management and legal support. By choosing to renew our contract, we can transition to a new service provider without any disruption and continue to deliver the highest standards of service that our customers expect from us. The market event will also enable us to test alternative suppliers and ensure the most cost-effective sourcing.

The new contract is expected to be similar in duration to the existing one, i.e. 3 years with optional extension to 5 years, placing the subsequent renewal within RIIO-GT4.

Consumer / stakeholder benefits

The benefits gained by external parties are indirect, being continued provision of services from NGT through the support provided by the technology for essential business processes.

4.3.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below. These costs are based on similar procurement projects carried out recently. The cost is limited to the procurement exercise as the ongoing cost of the service is not expected to change from the current profile. Note that the cost profile shows the cost spread across all five years, in line with data tables.

IT 066 – Renewal of the Digital Workplace Service contract							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	■	■	■	■	■	■	■	■	
OPEX	■	■	■	■	■	■			

The project plan for this investment is set out below and shows contract renewal decision review in 2027 and 2028 and preparation and deployment in 2028, assuming that the latest renewal date is used.

Renewal of Digital Workplace Services Contract	FY 27	FY 28	FY 29	FY 30	FY31
Renewal Decision	◆				
Start procurement process	◆				
Open bid & vendor selection	▶				
Service transition	▶				

4.4   IT 067 - Video conferencing refresh

4.4.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – end-of-life hardware	Refresh	Operate safely, reliably, and flexibly – refresh infrastructure	Secure and resilient supplies	IT & Telecoms

Our existing video conferencing infrastructure, consisting of 24 fixed units, has reached the end of its 5-year lifecycle and needs to be replaced in line with our Asset Health Policy. These units are essential to bridge the gap between desktop video calls and in-person meetings, and are critical to our productivity. They also provide a more efficient way of collaborating in larger audiences and live events when stakeholders are geographically spread. As a nationally dispersed organisation, this system provides a critical enabler for cutting travel costs and increasing productivity.

This investment continues the policy that we have applied with funding in RIIO-T2.

This investment is fundamental to continued digitalisation of our processes and to safe and efficient interoperability with other industry participants as part of whole system management.

Problem / opportunity statement

Without investment, the current platform capability would degrade and eventually become unusable through incompatibility with our other systems. Interaction and collaboration across the company and with external groups would be severely impacted by any degradation and lead to relationship and reputational damage.

4.4.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. Only one alternative is presented as this is a binary choice – to refresh the technology or not. The table below sets out the options for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do nothing	N/A	• Obsolescence risk • Decreased service quality • Increased operational cost • Potential communication disruptions • Reduced innovation • Missed ownership opportunity
A	Replace the video conferencing infrastructure **Recommended**	• Enhanced service reliability • Improved employee experience • Ownership and control	• Technology transition, employees may require training and adaptation time to become proficient with the new equipment.

4.4.3   Preferred option

Our recommended investment is Option A. This will play a vital role in modernising our communication infrastructure. Video conferencing is a crucial tool for collaboration and information exchange, especially in our rapidly evolving industry. This approach will guarantee that our communication capabilities remain reliable and perform optimally. By replacing the outdated units, we will be equipped with the latest technology, ensuring seamless and high-quality interactions. This, in turn, will foster innovation, boost operational efficiency, and help sustain external relationships.

Consumer / stakeholder benefits

The benefits gained by external parties are partially indirect, being continued provision of services from NGT through the support provided by the technology for essential business processes. Direct benefits will be gained when the equipment is used for internal and external engagements (such as in virtual or hybrid meetings, stakeholder webinars, and other events gathering audiences spread across different locations).

4.4.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below. This investment is for 36 video conferencing units.

IT 067 – Video Conferencing Refresh							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	▮	▮	▮	▮	▮	▮	▮	▮	
OPEX	▮	▮	▮	▮	▮	▮			

The delivery plan for this investment is set out below and shows the five-yearly replacement of equipment, in line with our IT Asset Health Policy.

Video Conferencing Refresh	FY 27	FY 28	FY 29	FY 30	FY31
Define requirement	◆	◆	◆	◆	◆

Procure service/hardware		◆	◆	◆	◆	◆
Deployment		◆	◆	◆	◆	◆

4.5   IT 068 – Innovation and modern technology

4.5.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Technology opportunities	Enhance	Operate safely, reliably, and flexibly – refresh infrastructure	Secure and resilient supplies	Digital infrastructure

This investment underpins our digitalisation vision by ensuring our teams have access to the latest and best tools available in the market. The productivity and effectiveness of our employees rely on modern resources, empowering them to thrive in a dynamic and challenging industry landscape. This investment represents our resolve to continually evolve, adapt, and lead in the digital workplace, ultimately serving our customers with greater efficiency and innovation.

This investment covers our core platforms, ensuring our user base have access to the right capabilities that emerge from the technology market. This includes investing in the additional licensing needed to access Artificial Intelligence features. The core platforms which we have selected and use now are:

- ServiceNow – workflow software that we use for Helpdesk issues tracking and resolution processes.
- ADO – Azure DevOps services, to support systems development processes.
- Mulesoft – integration software for connecting applications, data and devices.
- GCP – Google Cloud Platform – provides hosting capability for National Gas applications.
- Azure – Microsoft's cloud platform – provides core IT operational and management capability.
- Microsoft 365 (including Co-Pilot) – our end user computing toolset (e.g. Outlook, Word, Excel).

AI (in its various forms) is already becoming commonplace in consumer technologies and in vendor business solutions. We agree with the Ofgem statement "We think that the use of AI within the energy sector can help improve planning, management and real-time operation of the energy system"[3]. This investment will enable us to properly understand and, where appropriate, purchase additional licensing to deploy these advances in the technology management processes. The AI capabilities within the platforms listed currently have three target use cases in the IT domain, listed below. Other AI use cases are detailed in IT IJPs for other business domains.

- IT Engineering / Development – teams can accelerate innovation on the platform through AI code generation and the ability to build faster through use of natural language.
- Self-service – reduce down-time for users as they can independently solve issues without dependency on support teams. Support team members operate with greater efficiency by automating tedious task (e.g. case summarisation, resolution notes).
- Productivity – users can increase productivity by reducing time spent on those tasks that can be simplified or automated. AI can summarise, recap and ask questions for meetings they may not have been able to attend. Time spent reviewing emails can be reduced through summarisation. With a simple command, key information from across the productivity suite can be collated to distil the essence of projects to provide progress, key decisions, challenges and trends, all this saving valuable time.

This investment supports the continued digitalisation of our processes and provides tools to increase productivity and quality of services provided in line with AI strategy of the organisation.

Problem / opportunity statement

We have gained significant advances in efficiency and effectiveness, and even environmental performance, from employing new technologies. Examples include video conferencing, cloud services, collaborative desktop tools and business intelligence built on our Data & Insights platform. Identifying and harnessing relevant new technologies is fundamental to continuous improvement in digitalisation.

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3 Ofgem publication *Use of AI within the energy sector call for input*, https://www.ofgem.gov.uk/call-for-input/use-ai-within-energy-sector-call-input#

Without this investment, we will fall behind industry and consumer expectations of the capabilities that technology enables. We will be limiting our ability to respond to changes in requirements, adapt to a changing industry or drive better performance.

4.5.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. Only one alternative is presented as this is a binary choice – to invest in technology opportunities as they arise, or not. The table below sets out the options for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do nothing	• N/A	• Missed technological advancements: By not harnessing modern technology the organisation risks losing its ability to be competitive in the market. • Productivity limitations: The organisation is not able to capitalise on the productivity gains that are available through modern technology. • Reduced innovation: Without the introduction of new products, IT is restricted in its ability to add value to the organisation.
A	Exploration and deployment of new technologies **Recommended**	• Enhanced productivity - The use of platform AI capabilities can boost productivity such as automated email management, document creation and. data visualisations. • Innovation Leadership: Focussing on the modernisation of platforms demonstrates a culture of creativity, experimentation and continuous learning. • Employee satisfaction: Users are able to focus on more challenging and rewarding work and gain a more personalised experience from the platforms they use. • Competitive edge: By staying up-to-date with modern technology the organisation will be able to innovate, reduce costs and manage risks more effectively.	• Technology adoption challenges that will need to be solved with new training and change management efforts. • Implementing new tools and technologies may encounter unforeseen challenges or disruption, requiring careful planning and execution. • Learning curve to adapt to technology and additional training may be necessary to ensure effective utilisation.

4.5.3   Preferred option

Our recommended investment is Option A. Exploration and deployment of new technologies and emerging innovations is not just a prudent approach but a strategic imperative for National Gas. It responds to stakeholder expectations and advances digitalisation in line with Data Best Practice. It positions the company as a forward-thinking leader, aligns with our values of innovation and customer-centricity, and ensures long-term relevance and competitiveness in the rapidly changing energy sector.

Consumer / stakeholder benefits

The benefits gained by external parties are indirect, being enhanced provision of services from NGT through the support provided by the technology for essential business processes.

4.5.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below. Note that the Opex profile is lower than shown in the data tables as an error was identified late in the process, after the data tables were frozen. The number here is correct and is similarly reflected in the Gartner cost benchmark report and the IT & Telecoms Strategy document.

IT 068 – Emerging and modern technology							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	■	■	■	■	■	■	■	■	
OPEX	■	■	■	■	■	■			

The project plan for this investment is set out below and shows a process of continuous improvement across the period.

Innovation and Modern Technology	FY 27	FY 28	FY 29	FY 30	FY31
Evaluate technology options	➤	➤	➤	➤	➤
Set up a pilot	➤	➤	➤	➤	➤
Deploy new service	◆	◆	◆	◆	◆

5   Capability 2: Network and digital operations

This capability section outlines our strategy for Networks and Digital Operations. It covers three groups:

- The replacement and upgrade of the essential network equipment we need to ensure stability and security to all our internal and external stakeholders. This follows on from the substantial activities to lay the foundational network infrastructure during RIIO-T2 and separation from National Grid.
- The extension or replacement of our Enterprise Network service provider contract, required to ensure the smooth running of all our digital operations.
- The development of a digital operations capability with an aim to increase performance and uptime across the IT estate.

There are five investments in this area, as follows:

Platform	Capability	Investment	£m
Networks and digital operations	Technology management	IT 069 Replacement of GSTIG	■
		IT 070 Refresh Routers, Switches & Wireless Access Points	■
		IT 071 SDWAN upgrade	■
		IT 072 Enterprise Network Procurement Event	■
		IT 073 Digital Operations	■

5.1   IT 069 – Replacement of GSTIG

5.1.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – end of contract	Refresh	Operate safely, reliably, and flexibly – refresh infrastructure	Secure and resilient supplies	IT & Telecoms

This investment is seeking to replace the GSTIG (Gas Secure Transco Internet Gateway) as part of the modernisation of the IT estate. The scope of this investment is to replace the Verizon hosted on-premise GSTIG and migrate to a new platform.

The GSTIG is provided to the industry by National Gas and is the gateway to communications between external industry players (Xoserve and the Distribution Networks). It is business critical for all parties to ensure this service is both secure and reliable. This investment is key to meeting our responsibility to maintaining this service.

The GSTIG is being delivered by a separation project before the RIIO-GT3 regulatory period. This approach is a practical, short-term solution for achieving separation but does not align with the National Gas 'cloud-first' architecture policy. This investment will replace the current third-party, on-premise GSTIG with a Cloud Fabric SaaS based solution, which will be better aligned to our IT architecture policy.

The benefits of a cloud architecture are described in section 6.4: IT 080 Cloud fabric.

Problem / opportunity statement

The GSTIG contract comes to an end within RIIO-GT3 and we will need to renew or replace it. In line with our procurement policy, we will carry out a market evaluation to decide on the best way forward. The current solution is no longer fit for purpose and ties us to one vendor which inhibits flexibility in a changing industry environment.

5.1.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. These alternatives reflect two contrasting approaches to a new contract, option A being continuing with the current in-house approach and option B being a procurement event for a cloud based alternative.

The table below sets out the options considered for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do not invest	• Minimal effort required during RIIO-GT3 investment period.	• No new industry / regulatory change requirements would be made. • GSTIG does not align with National Gas Cloud-first architecture policy.
A	Maintain and develop the Verizon on-premise GSTIG without a market event.	• The platform would be maintained and developed as per industry requirements.	• Lost opportunity to test for lower cost options. • Cannot assess and take advantage of other technologies. • The GSTIG would not conform to the National Gas Cloud-first architecture policy.
B	New procurement process and implementation of Cloud Fabric SaaS replacement Verizon GSTIG solution. **Recommended**	• Align GSTIG to the National Gas Cloud-first architecture policy. • Vendor Selection with Competitive Bidding to maximise benefit. • Access to latest technology is more available in cloud offerings. • Innovation and flexibility through access to wider cloud based functionality. • Higher reliability and security of cloud architecture. • Regulatory compliance for security.	• Complexity, managing a large-scale procurement process can be complex and resource-intensive requiring dedicated program management and legal capabilities. • Transition to new environment and potential disruption to other industry players • Time- consuming, from vendor selection to contract negotiation and implementation.

5.1.3   Preferred option

Our recommended investment approach is Option B - a procurement activity followed by a project to implement a Cloud Fabric SaaS replacement for the 3rd party on-premise GSTIG. Undertaking a procurement process and moving to a Cloud Fabric SaaS solution will align with the National Gas architecture roadmap, enable innovation through access to wider cloud offerings and reduce our reliance on a single vendor.

Consumer / stakeholder benefits

The following benefits will be gained by external parties:

- Safety and security: Modern technologies and SaaS will drive security benefits. Using a cloud based solution enables National Gas to benefit from the scale of these providers and the significant investments they put into securing their products.
- Flexibility: the new architecture and moving away from a single vendor will improve agility to changing requirements.

5.1.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below. The first 2 years cost reflects the project resource cost. OPEX is for 5 years, as this is incremental license cost for whole regulatory period.

IT 069 Replacement of GSTIG							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	▬	▬	▬	▬	▬	▬	▬	▬	▮▮▮
OPEX	▬	▬	▬	▬	▬	▬			

IT 069 Replacement of GSTIG	FY 27	FY 28	FY 29	FY 30	FY31
Procurement event	➤				
Replace GSTIG	➤	➤			

5.2   IT 070 – Refresh routers, switches and wireless access points

5.2.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – end-of-life hardware and end of support contract	Refresh	Operate safely, reliably, and flexibly – refresh infrastructure	Secure and resilient supplies	IT & Telecoms

This investment is seeking to replace all the National Gas routers, switches and Wireless Access Points (WAP). All these devices are being replaced during RIIO-T2 and will reach end of life during RIIO-GT3. The device volumes are those managed within the Configuration Management Database (CMDB) which holds the inventory of IT assets. Investment volumes are based on:

Hardware	Volume
Access Point	■
Router	■
Switch	■

National Gas must have up-to-date routers, switches and Wi-Fi WAP devices to enable us to continue to run our business efficiently and securely. This equipment has a five year lifespan (at which point the warranty expires) before it needs to be replaced or upgraded and all of these devices will reach end-of-life during the RIIO-GT3 period.

A contract is in place to maintain our routers until 2030 so a replacement procurement event will be required towards the end of the RIIO-GT3 regulatory period.

This investment will:

- Initiate a procurement with a view to replacing or extending the existing contract and to ensure any modernisation activity is carried out.
- Replace all National Gas's Routers, Switches and WAP's when they reach end-of-life. The equipment choice will be as stated in our architecture roadmap.

Replacement of the end-of-life equipment will enable the National Gas Enterprise Network to continue to be reliable, flexible and secure with an appropriate support contract.

Problem / opportunity statement

Without investment in a contract renewal or replacement, the routers, switches and Wi-Fi WAP devices upon which user access to business critical systems depends would degrade, become less reliable and secure, and ultimately stop functioning.

5.2.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. Only one alternative is presented as this is a binary choice – to invest in replacement technology or not. The table below sets out the options for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do not invest		• Installed devices will go beyond end-of-life. • Lower Reliability. • Lower Performance. • Weaker Security
A	New procurement process and implementation for replacement equipment and its deployment. **Recommended**	• Competitive Vendor selection process. • Access to latest technology. • Improved reliability and security from modern equipment. • Regulatory compliance.	• Complexity, managing a large-scale procurement process can be complex and resource-intensive requiring dedicated programme management and legal capabilities. • Cost of equipment and its installation.

5.2.3   Preferred option

Our recommended investment approach is Option A to initiate an RFP event to review and select most appropriate replacement devices and vendor. A vendor will be selected through a competitive bidding process and the devices selected will be contemporary to the RIIO-GT3 regulatory period so we can take advantage of technology advancements.

Consumer / stakeholder benefits

The benefits gained by external parties are indirect, being continued provision of services from NGT through the support provided by the technology for essential business processes.

5.2.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below. As part of the delivery of RIIO-T2 a similar activity of network hardware replacement took place, and this has informed the costings in the table below.

IT 070 Refresh Routers, Switches & Wireless Access Points							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	■	■	■	■	■	■	■	■	▁▃▆
OPEX	■	■	■	■	■	■			

The project plan for this investment is set out below showing annual replacement activity progressing through the estate.

IT 070 Refresh Routers, Switches & Wi-Fi WAP devices	FY 27	FY 28	FY 29	FY 30	FY31
Replace end-of-life switches routers, and wireless access points	➤	➤	➤	➤	➤

5.3   IT 071 – SDWAN upgrade

5.3.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – end-of-life hardware	Refresh	Operate safely, reliably, and flexibly – refresh infrastructure	Secure and resilient supplies	IT & Telecoms

The on-going RIIO-T2 separation programme is installing new SDWAN (Software-Defined Wide Area Network) equipment at offices located within National Gas sites, a solution that aligns with National Gas's strategic network and security roadmap. SDWAN is used by the business for connecting people to collaboration resources, telephony, publicly hosted business applications, privately hosted business applications, and remote access connectivity for IT support. Application to application data transfers are also enabled by the SDWAN including transfers to and from National Gas's external partners. The SDWAN is composed of several key components including:

- Edge devices at office/remote locations responsible for routing data traffic between the local and wide WAN.
- Controller which acts as a central brain of the solution.
- Orchestrator which manages the configuration and provisioning of devices and services.

This investment will evaluate and implement necessary replacement SDWAN technology installed at our sites during separation from National Grid when it reaches end-of-life (5 years) during the RIIO-GT3 period. The equipment volumes are managed through the CMDB.

Problem / opportunity statement

Without investment in replacement, the equipment upon which user access to business critical systems depends would degrade, become less reliable and secure, and stop functioning.

5.3.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. Only one alternative is presented as this is a binary choice – to invest in replacement technology or not. The table below sets out the options for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do not invest	• None	• Installed devices will go beyond end-of-life. • Increased risks for Reliability, Performance and Security.
A	New procurement event for both vendor and equipment, and implement by replacing SDWAN equipment **Recommended**	• Competitive Bidding • Access to latest technology • Improved reliability and security from modern equipment • Regulatory compliance	• Complexity, managing a large-scale procurement process can be complex and resource-intensive requiring dedicated program management and legal capabilities. • Cost of equipment and installation.

5.3.3   Preferred option scope and project plan

Our recommended investment approach is Option A to initiate a new procurement event for both vendor and equipment, and implement by replacing SDWAN equipment. This option involves a vendor selection event with a competitive bidding process to select a vendor and appropriate equipment and it will lead to a modern, reliable and secure SDWAN.

Consumer / stakeholder benefits

The benefits gained by external parties are indirect, being continued provision of services from NGT through the support provided by the technology for essential business processes.

5.3.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below. The spend figures show that the Totex for this investment falls 15% above the Gartner benchmark. This is justified by the fact that in recent separation work we have obtained accurate costs from Palo Alto for their specific solution being used, upon which the plan is based and in line with the use of Palo Alto across our estate. These are specific to our requirements and circumstances and have a high level of confidence.

IT 071 SDWAN Upgrade							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	■	■	■	■	■	■	■	■	▃▅█
OPEX	■	■	■	■	■	■			

The delivery plan for this investment is set out below.

SDWAN Upgrade	FY 27	FY 28	FY 29	FY 30	FY31
Replace Cisco SDWAN with Palo Alto SDWAN at 28 dedicated NGT sites	➤	➤	➤		
Replace end-of-life Palo Alto ION equipment				➤	➤

5.4   IT 072 – Enterprise network procurement event

5.4.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – end-of-life contract	Refresh	Operate safely, reliably, and flexibly – refresh infrastructure contract	Secure and resilient supplies	IT & Telecoms

The enterprise network supports the National Gas workforce across all the IT services they use, this includes critical business data flow between National Gas and external organisations for activities such as forecasting and trading. The enterprise network also plays a critical role in transferring cyber security data to the National Gas security team.

This investment is for a procurement event for the replacement of the Enterprise Network Contract which will end between 2025-2028. The contract has a duration of three years with optional extension of one or two years and will be extended to 2026 after which a replacement will be required.

Problem / opportunity statement

Without investment in replacement, the network through which user access to business critical systems depends would not be available.

5.4.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. Only one alternative is presented as this is a binary choice – to invest in a replacement contract or not. The table below sets out the options for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do not invest	• None	• Current Enterprise Network contract ends with no replacement. • Failure to meet our regulatory obligations.
A	New procurement event for the National Gas Enterprise Network contract **Recommended**	• Vendor selection • Cost savings – As a result of carrying out a procurement event National Gas are likely to receive competitive pricing as a result of multiple vendors being involved in the bidding process. • Innovation – carrying out a procurement event will allow National Gas to review new technologies and solutions. • Improved reliability and security from modern equipment	• Complexity, managing a large-scale procurement process can be complex and resource-intensive requiring dedicated programme management and legal capabilities.

5.4.3   Preferred option

Our recommended investment approach is Option A to initiate a new procurement event to extend or replace the current Enterprise Network contract. This will enable us to reselect a vendor, leverage the latest technologies and reinforce our security and reliability.

Consumer / stakeholder benefits

The benefits gained by external parties are indirect, being continued provision of services from NGT through the support provided by the technology for essential business processes.

5.4.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below. Note that the cost profile shows the cost spread across all five years, in line with data tables.

IT 072 Enterprise Network Procurement Event							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	■	■	■	■	■	■	■	■	▪■▮
OPEX	▪	▪	▪	▪	▪	▪			

The project plan for this investment is set out below and shows contract renewal decision review in 2027 and 2028 and preparation and deployment in 2028, assuming that the latest renewal date is used

IT 072 Enterprise Network Procurement Event	FY 27	FY 28	FY 29	FY 30	FY31
Enterprise Network Procurement Event	➡				
Enterprise Network switch over project		▮			

5.5   IT 073 – Digital operations

5.5.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Fragmented systems	Enhanced management tools	Operate safely, reliably, and flexibly – enhance infrastructure	Secure and resilient supplies	Digital processes

This investment will develop the technologies and practices required to manage and optimise IT processes, infrastructure and services. This is part of the continuing digitalisation of the organisation.

The digital operations capability comprises a set of IT tools and management processes that enables the organisation to optimise and manage digital assets and processes. It will enable National Gas to better deliver reliable, secure and scalable IT services to drive digital transformation. The primary scope of the investment includes:

- Unified operations centre – a consolidated facility providing the tooling and processes to enable our support teams to monitor, manage and secure our IT environment. This will provide a 'single pane of glass' across infrastructure, cloud and hosting environments, network, user devices and applications to give real time visibility into the health and performance of systems.
- Automated application maintenance – automated tooling to streamline and optimise the maintenance and support of applications.
- Discovery – tooling and processes to identify, gather and manage IT assets within the IT environment including devices, applications, network components and other IT resources.
- Disaster recovery – leveraging cloud-based solutions to provide a virtual Disaster Recovery solution, accessible from anywhere.

This investment will deliver the following capabilities and benefits:

- Consolidation of all current capabilities 'single pane of glass'.
- More efficient problem resolution.
- Reduced business disruption.
- Improved financial management – e.g. underutilised assets, problem assets, proactive resolution.
- Support digital transformation.

Problem / opportunity statement

Current facilities for IT operations management are disparate and fragmented, making it difficult to assess and optimise operations across the estate as a whole. This is a barrier to improving operational efficiency and can make problem diagnosis and resolution more difficult.

5.5.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. Only one alternative is presented as this is a binary choice – to invest in a consolidated capability or not. The table below sets out the options for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do not invest	• No change to the current model	• Miss the opportunity to consolidate NOC (National Operations Centre) functions to deliver improved efficiency. • Poor customer experience – a lack of digital tools can result in slower response time for users.

| A | Develop a digital operations capability **Recommended** | • Enhanced customer experience– faster response to IT incidents, improved service quality and personalised experience (e.g. proactive resolution of slow performing laptops)
• Cost reduction – processes become more streamlined and resource allocation to IT processes is optimised (e.g. major incident management)
• Improved risk management – data driven insights enable better decision making for changes within the IT environment.
• Increased efficiency – automation of processes reduces manual intervention and improved productivity (e.g. monitoring application health and automatically trigger alerts for issues). | • Integration challenges – integrating new technologies with existing systems can be complex and time-consuming.
• Expertise – possible need to upskill and train resources to leverage new tools. |

5.5.3   Preferred option

Our recommended investment approach is Option A to create a digital operations capability. This option supports the digital transformation of the organisation by providing these benefits

- Enhanced efficiency and productivity – automation of repetitive tasks frees IT staff to focus on strategic initiatives and faster resolution of IT incidents.
- Improved customer experience – consistent service delivery through standardised processes and data-driven insights to better understand customer needs.
- Enhanced security – improved monitoring of IT environments allowing proactive response to incidents.

Consumer / stakeholder benefits

The benefits gained by external parties are indirect, being continued provision of services from NGT through the support provided by the technology for essential business processes.

5.5.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below.

IT 073 Digital Operations							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	■	■	■	■	■	■			
OPEX	■	■	■	■	■	■	■	■	

Digital Operations	FY 27	FY 28	FY 29	FY 30	FY31
IT Ops model review	➤				
IT Ops model change	➤				
IT Ops model maintenance	➤	➤	➤	➤	➤

6   Capability 3: Cloud computing

This capability area supports our strategy for Cloud, which includes four core areas of investment where we will leverage the latest technologies to ensure secure, flexible and reusable services across the whole IT landscape. Each investment is a key part of the foundational Cloud infrastructure which will enable National Gas to develop, host and service applications with maximum process efficiency and low IT incident volumes, focussing on our strategy of 're-use, buy then build'. The Cloud strategy

recognises the efficiencies offered by the IT services market and resulting benefits of lower cost of ownership, scalability and environmental performance. Unlike IT products and services in the past, buying-in can offer more innovation and flexibility than building in-house, even for a unique 'sector of one' organisation such as ours.

As part of RIIO-T2 and separation we have implemented this strategy and moved away from traditional on-premise services to those hosted in the Cloud. Separation has helped in accelerating this journey and we are continuing this with the focus on 'buy over build' to invest in our core platforms. Investing in the Cloud helps to give us access to more efficient hardware to help reduce our emissions and contribute to our net zero targets and regulatory priorities.

Our cloud strategy is referenced in the IT & Telecoms Strategy document sections 3.2 and 5.2.

There are four investments in this area, as follows:

Platform	Capability	Investment	£m
Cloud	Technology management	IT 077 Service Management	■■
		IT 078 Integration	■■
		IT 079 Software Development – Value Stream Management	■■
		IT 080 Cloud Fabric	■■

6.1　IT 077 – Service Management

6.1.1　Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – maintain system health	Regular update / upgrade	Operate safely, reliably, and flexibly – up-to-date and secure systems	Secure and resilient supplies	IT & Telecoms

IT Service Management is the practice of planning, implementing, managing and optimising information technology services to meet the needs of users. It encompasses processes to create, deliver, and support IT services. In RIIO-T2 we delivered our Service Management platform for National Gas using a third-party Platform as a Service (PaaS). As part of becoming an independent business from National Grid, we achieved the same objectives as we set out in RIIO-T2 in standing up a new platform for National Gas. We leveraged as much out-of-the-box capability as possible, simplifying the platform and easing our ability to maximize the platform's offerings and capabilities. Part of our 'buy then build' principle is to minimise customisation of bought offerings. Keeping 'out-of-the-box' as a key goal for the delivery has ensured the maintainability and performance of the platform was optimal.

In RIIO-GT3 our aim is to keep the estate up to date and preserve the value of the investment already made – preventing the platform from becoming outdated and inefficient. In addition to reducing the risk of operational failure, this also helps us to stay compliant with data legislation and regulations and to protect our systems and data from the increasing cyber threat.

We will continue to keep the platform current through incremental investment, exploiting new functionality to enable efficient delivery of core processes, thereby avoiding the need for major system replacements with associated cost and risk whilst maintaining a secure and controlled eco-system. Additionally, we plan to expand and leverage the utilisation of the platform for existing users and other business units. This is to achieve a key area of focus which is excellent employee experience in not just ITSM (IT Service Management) but also security, risk management and business services.

We will continue to evaluate opportunities to migrate services from bespoke solutions onto the Service Management platform. We also seek to strengthen our data management capability by leveraging the advanced analytics that come with the core system.

As part of compliance, we plan annual system upgrades during RIIO-GT3, to maintain the application software and underlying technology stack while introducing new functionality that enables the business to unlock value from the Service Management platform and meet changing business capability needs. Automation of testing and deployment will be key to driving pace and cutting costs.

Problem / opportunity statement

Without this investment in upgrades, maintenance and enhancement to the platform, its performance will start to degrade and there will be increasing user issues and a rising security risk.

6.1.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. These options reflect sustaining and enhancing our existing solution or taking a more transformative approach. The table below sets out the options for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do not invest	• None	• Inability to operate the platform. • Reduced employee satisfaction. • Security vulnerabilities. • Performance issues.
A	Maintain and enhance existing platform and capabilities **Recommended**	• Maximise investment – continue to capitalise on the original investment made to implement the core platform during T2. • Integration – ServiceNow supports integrations with other enterprise applications making it easier to manage and deliver a simplified user experience. • Scalability – ServiceNow platform can scale to meet the growth demands of National Gas • Industry trends – benefit from the scale of investment that ServiceNow invests in research and development to access the latest technology trends (e.g. AI platform capabilities).	• Dependency/overreliance on a third-party for security, reliability, and environment availability • Risk of vendor lock-in – may make it difficult to switch to another platform in the future. • Reduced negotiation power – reduced business scale following separation may present difficulties when negotiating contracts or pricing.
B	Capability transformation	• Opportunity for full transformation – National Gas would be able to benefit from re-evaluating platform capabilities available on the market. • Avoid lock-in – National Gas can ensure it has capabilities spread across platforms, offering benefits in terms of resilience. • Procure best fit for the organisation – resize the solution based on the current business needs.	• Significant costs – National Gas has recently invested in a new service management platform and this would be replicating that activity. • Major organisational impact – this could have a negative impact on customer satisfaction, as it would need re-education and training.

6.1.3   Preferred option scope and project plan

Our recommended investment approach is Option A – maintain and enhance the existing Service Management platform. This option allows us to sustain an essential service and continue to improve the employee experience offered by the platform, without imposing major organisational impact. As part of the separation from National Grid, we have already moved to a platform that is well suited to the needs of National Gas using the most current technologies available. We do not foresee a need to perform another transformation in such short succession and so Option B is not recommended. To avoid lock-in and over-reliance on a vendor, we will use the current contract expiry at the beginning of the RIIO-GT3 to perform a market review and possible procurement event, for the same capabilities offered by the platform at the time.

Option DNI is not viable as the platform must continue to receive investment as it is essential for the delivery, support and monitoring of IT services at National Gas.

Consumer / stakeholder benefits

The benefits gained by external parties are indirect, being continued provision of services from NGT through the support provided by the technology for essential business processes.

6.1.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below. The benchmark analysis shows that the Totex for this investment falls above the Gartner benchmark (by 4%). The Totex figure has a high level of confidence as it is based on recent projects and licensing costs for the same platform.

IT 077 – Service Management							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	■	■	■	■	■	■	■	■	▮▮▮
OPEX	■	■	■	■	■	■			

IT 077 Service Management	FY 27	FY 28	FY 29	FY 30	FY31
Contract renewal / procurement event	➤				
Yearly upgrades	➤	➤	➤	➤	➤
Ongoing enhancements	➤	➤	➤	➤	➤
Projects	➤	➤	➤	➤	➤

6.2   IT 078 - Integration

6.2.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – maintain system health	Regular update / upgrade	Operate safely, reliably, and flexibly – up-to-date and secure systems	Secure and resilient supplies	IT & Telecoms

An effective integration platform is a necessary part of a successful IT architecture. It gives us a single platform to manage the full range of our applications and services, whether they be SaaS or on-premise, e.g. Maximo, Dynamics 365, Copperleaf, GasGrantor.

During RIIO T2 we have established and will continue to evolve the core integration platform. Ensuring all applications and services can be securely, reliably and flexibly integrated is a key outcome for this investment line. We implemented our National Gas dedicated Integration Platform as a Service (iPaaS), in line with our cloud-first strategy.

During RIIO T3 we will continue to exploit the integration platforms to mature our IT architecture. The integration platforms include both API and system integration management. We will enable effective integration between systems across the enterprise IT estate so that automation and data can be leveraged to streamline IT processes. Using the integration platform, we will continue to on an API-first approach to enable seamless connectivity between applications and systems. Establishing API governance and lifecycle management will maintain consistency and security. We will also use the integration platform to promote the use of APIs both internally and externally to foster innovation and seamless connectivity with partner organisations.

The integration platform will allow us to implement robust monitoring and alerting systems for proactive issue detection. This will increase the security and reliability of our services. In addition, we will be able to continuously optimise integration processes and monitor resource utilisation to reduce unwanted costs. An effective integration platform will also allow us to ensure our IT estate is as sustainable as possible. This is an important business objective for National Gas and there is a great opportunity by using the real-time data and monitoring functionality in the integration platform that we will be able to lower resource usage and our energy consumption and carbon footprint.

This investment provides enterprise integration capabilities upon which other IT investments across the business plan depend. It is shown in the dependency matrix in section 4.4 of the IT & Telecoms Strategy document as having 14 other projects either depending on it in order to proceed or to avoid major functional impact.

Problem / opportunity statement

Our integration platform needs regular investment to sustain its security, performance and compatibility with other systems. Without continuing investment, it would fall out of support with the provider, increasing security risk and impacting performance and functionality. Costs associated with supporting the platform would rise as problems become more frequent.

6.2.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. These options reflect sustaining and enhancing our existing solution or taking a more transformative approach. The table below sets out the options considered for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do not invest	• None	• Inability to operate the platform – will fall out of support with provider. • Reduced employee satisfaction. • Security vulnerabilities. • Performance issues. • Capability degradation. • Increased maintenance costs.
A	Maintain and enhance existing hybrid platform. **Recommended**	• Maximises existing investment. • Latest functionality can be leveraged. • Familiarity and process maturity. • Predictable costs.	• Requires continuous maintenance that can cost. • Risk of vendor lock-in.
B	Capability transformation.	• Opportunity for full transformation. • Leverage the best of the market.	• Significant costs. • Major organisational impact. • Higher risk of service disruption when migrating.

6.2.3　Preferred option

Our recommended investment approach is Option A – maintain and enhance the existing platform is the preferred option. This option allows us the flexibility to review our capabilities and market offering, ensuring that we maintain traction to maturing our organisation. The iPaaS solution implemented as part of separation from National Grid utilises industry leading technology which has been chosen with longevity in mind. The capabilities offered from the platform will require continuous investment as we mature our organisation. The contract for the current provider expires at the start of the RIIO-GT3 period, therefore we will look to review the current capabilities and explore the market to possibly enhance the current offering.

We will not be looking to transform the platform, nor can we allow the consequences of not investing to materialise, therefore Option DNI and Option B are not viable.

Consumer / stakeholder benefits

The benefits gained by external parties are indirect, being continued provision of services from NGT through the support provided by the technology for essential business processes.

6.2.4　Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below.

IT 078 - Integration							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	■	■	■	■	■	■	■	■	▂▆█
OPEX	■	■	■	■	■	■			

IT 078 Integration	FY 27	FY 28	FY 29	FY 30	FY31
Ongoing enhancements	➤	➤	➤	➤	➤
Projects / upgrades	➤	➤	➤	➤	➤

6.3   IT 079 – Software engineering / value stream management

6.3.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – maintain system health	Regular update / upgrade	Operate safely, reliably, and flexibly – up-to-date and secure systems	Secure and resilient supplies	IT & Telecoms

When considering IT product delivery at National Gas, we took the opportunity from becoming an independent business to establish an Agile and DevOps culture as the core ways of working throughout the software development lifecycle. Agile and DevOps are mindsets, cultures, and a set of technical practices. They provide communication, integration, automation, and close cooperation among all the people needed to plan, develop, test, release and maintain a solution.

The Value Stream Management (VSM) tool is used to support Capex IT delivery and provides the essential data for the Regulatory Reporting Process including investment pipelines, end to end visibility and real time tracking into projects. During RIIO-GT3 we will need to continue to invest to maintain the platform with updates / upgrades and introduce feature enhancements as required.

As part of the business separation, we strategically invested in our Value Stream Management Platform (VSMP), giving us a head start for RIIO-GT3. This platform provides end-to-end visibility and insights by connecting and ingesting data from existing tools involved in all phases of software delivery, from customer need to value delivery. It provides insights to assess and improve the overall health of product delivery and drive the alignment of business priorities. A successfully implemented VSMP is key to ensuring we deliver the best IT solutions to achieve our business objectives. The VSMP comprises an anchor toolset running from planning to release, with additional integrated tools throughout.

During RIIO-GT3 we will continue to mature our software engineering capability, leveraging industry recognised frameworks and tools.

Capabilities included in this investment are:

- Planning and application lifecycle management.
- Code repositories.
- Continuous integration / continuous delivery.
- Test management.
- Automated testing and integration testing.
- Release management.
- Infrastructure and application monitoring.
- Environments management.
- Value stream analytics.

During RIIO-GT3 we will continuously review the combination of integrated tools to the anchor platform to ensure we have the best tools fit for key capabilities, including code scanning, application security testing, build automation, infrastructure as code (resources like servers, networks and storage are managed using code instead of manual processes), automated testing and monitoring.

Problem / opportunity statement

Software engineering is a rapidly evolving area and represents a major improvement opportunity. There are high value-adding capabilities expected to be released on the software engineering toolset during the RIIO-GT3 period which will be beneficial to the success of every step in our Value Stream Management Platform. Continuing to maintain and enhance our toolset means that we will be able to continue to fully mature our software engineering function, in turn enabling us to attract industry leading talent who will be able to deliver the highest quality products to meet our business needs. This option will be cost efficient as we will be able to predict the upgrade and licensing costs.

Continuing to invest in Value Stream Management platform and integrated tools means we can streamline our workflow, reducing bottlenecks and improving collaboration. We are also able to track and analyse metrics easily with this platform, as the data is centralised. The platform offers robust reporting any analytics features which are key to enabling better decision making and continuous improvement.

If we do not invest, then we will allow our tools to become obsolete and this will lead to increased defects and issues due to ineffective collaboration, and performance issues in all aspects of software delivery from planning to release.

6.3.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. These options reflect sustaining and enhancing our existing solution or taking a more transformative approach. The table below sets out the options considered for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do not invest	• None	• Reduced employee satisfaction. • Security vulnerabilities. • Performance issues. • Capability degradation. • Increased maintenance costs. • Increased code defects. • Increased IT incidents.
A	Maintain and enhance existing tools. **Recommended**	• Stability – National Gas can continue to benefit from the investment made during RIIO-T2. • Cost efficiency and predictable costs – costs are currently known. • Knowledge retention, foster maturity - users are now familiar with the platform and will assist to enhance the platform to meet the needs of the business.	• Older tools may lack modern features. • Investment cost.
B	Full transformation	• Market evaluation – this would provide an opportunity to re-evaluate business requirements and ensure the product fits business needs. • New tools with cutting-edge features – an opportunity to select a product with specific features that may be unavailable on the current platform. • Competitive pricing – right size the commercials for the current organisation and introduce competition.	• Extensive training required – re-education of users needed. • Decreased short-term productivity. • Possible integration challenges – National Gas's IT environment has been shaped, in part, on the dependencies of other application this could be undone by using an alternative tool. • Highest costs – implementation costs would be introduced to stand up a new platform.

6.3.3   Preferred option

Our recommended investment approach is Option A. The Value Stream Management platform is offered on an ongoing subscription basis and we must continue to invest or be left with no platform. There are no benefits to Option DNI, which would degrade our capability and this is not recommended. We do not foresee a requirement to fully transform the VSMP (Option B) as we have invested in a strategic platform and a full transformation would be costly, time consuming and not conducive to maturing our software development capabilities.

The Value Stream Management platform is currently a Gartner industry-leading platform with a strong long-term roadmap featuring cutting edge technologies for development, testing and analytics which we will be able to leverage by continuing to invest in the platform. In addition, we have carefully curated the integrated toolset with best of breed tools, several of them being open source. The current platform has been configured to hold value in this rapidly changing area of technology.

Consumer / stakeholder benefits

The benefits gained by external parties are largely indirect, being continued provision of services from NGT through the support provided by the technology for essential business processes. The VSMP does produce efficiencies in software development and system engineering, and these are reflected in our costs and passed on to consumers as part of our cost base.

6.3.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below. Note that the procurement event spend has been smoothed across the five years. The Totex for this investment is based on 2900 users. The individual user costs are within the benchmark range.

IT 079 – Software Engineering - VSM							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	▮	▮	▮	▮	▮	▮	▮	▮	
OPEX	▮	▮	▮	▮	▮	▮			

IT 079 Software Engineering - VSM	FY 27	FY 28	FY 29	FY 30	FY31
Procurement event	▶				
Ongoing enhancements	▶	▶	▶	▶	▶
Projects / upgrades	▶	▶	▶	▶	▶

6.4   IT 080 – Cloud fabric

6.4.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – maintain system health	Regular update / upgrade	Operate safely, reliably, and flexibly – up-to-date and secure systems	Secure and resilient supplies	IT & Telecoms

During RIIO-T2, as part of separation, we transitioned away from a strategy of 'sweating' IT assets beyond end of life, due to performance, reliability and security issues, to a strategy where the IT infrastructure is within service life and fully vendor supported. We also moved from running services internally within physical data centres to a multi-cloud estate (with the exception of our CNI Data Centre – see Section 7).

Becoming an independent business has enabled us to achieve the goals for RIIO-T2 through a fully independent, modernised National Gas multi-cloud environment. Digital transformation and digital ways of working are now an integral part of business strategy and future ways of working, and our multi-cloud estate helps us achieve this. It provides us speed and flexibility for our business upon which we can deliver digital solutions in the most secure, reliable, flexible and cost-effective manner.

During RIIO-GT3, we will continue to maintain and enhance the cloud infrastructure which hosts core infrastructure services, applications, data and workloads. National Gas has a cloud-first strategy, i.e. all applications should be architected to be in the cloud and be designed to leverage cloud flexibility and scalability. Database technologies are cloud-friendly, with managed database PaaS services being the preferred option.

This investment line will achieve the following outcomes and benefits:

- Ability to leverage market investment in commoditised cloud services, delivering cost effectiveness and environmental benefits.
- Improved application capability through exploiting new functionality on cloud hosting environments.
- Automation enabling us to scale and absorb new workloads and contain costs related to provisioning and decommissioning.
- Improved management information to facilitate the business to make efficient hosting decisions.
- Enhanced agility and flexibility for workload deployment supporting digital initiatives.
- Regular upgrades of server infrastructure, cloud and associated storage to ensure that it is secure and fully vendor supported.
- Improved service availability.
- Increased reliability with long term support by vendors.
- Improved security.
- Enhanced application capability through hosting on new functionally rich infrastructure.
- Enable long term reduction in RTB.

This investment provides the foundation of computing power upon which other IT investments across the business plan depend. It is shown in the dependency matrix in section 4.4 of the IT & Telecoms Strategy document as having 9 other projects either depending on it in order to proceed or to avoid major functional impact.

Problem / opportunity statement

Without investment, our Cloud fabric would be unavailable, and the services would no longer be supported. This would significantly impact business performance. This strategy would reduce the ability of the business to embrace new technologies and grow, or scale down where appropriate, resulting in higher costs for unused capacity. An out of support Cloud would no longer benefit from vendor supplied security patches, making them vulnerable to security breaches which may result in service disruption or compromise of data. Also, failure to keep the Cloud up to date would not be supported by vendor service level agreements and the business would suffer greater disruption.

6.4.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. These options reflect sustaining and enhancing our existing solution or taking a more transformative approach. The table below sets out the options considered for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do not invest	• None	• Impacted business performance. • Unable to scale. • Security vulnerabilities.
A	Maintain and enhance the existing cloud fabric. **Recommended**	• Familiarity with current partners. • Cost efficiency. • Mature integration with current systems and processes. • No migration required.	• Risk of vendor lock-in. • Possibly miss new features from the market.
B	Capability transformation.	• New provider benefits – competitive pricing, new features.	• Migration complexity. • Significant costs.

6.4.3   Preferred option

Our recommended investment approach is Option A. This option allows us to incrementally improve on the successes made as part of standing up our independent business using modern and industry leading providers. We have confidence in long-term strategic value that our existing Cloud capabilities will bring in terms of technical flexibility, reliability and security.

Option DNI is not recommended as our Cloud fabric is a core foundation of our IT architecture which must be maintained to allow us to host our applications in a scalable manner that is cost effective and is well suited to our needs. Our continued investment into Cloud does not need to be transformative (Option B) as we have already undergone significant transformation from forming our new business.

Consumer / stakeholder benefits

The benefits gained by external parties are largely indirect, being continued provision of services from NGT through the support provided by the technology for essential business processes. The cloud strategy does deliver cost efficiencies, and these are reflected in our costings and passed on to consumers as part of our cost base. Cloud computing also offers environmental benefits from consolidated and efficient technologies.

6.4.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below.

IT 080 – Cloud Fabric							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	■	■	■	■	■	■	■	■	▁▆█
OPEX	■	■	■	■	■	■			

IT 080 Cloud fabric	FY 27	FY 28	FY 29	FY 30	FY31
Licence / contract renewal		➤			
Procurement event				➤	
Ongoing enhancements	➤	➤	➤	➤	➤
Projects / upgrades	➤	➤	➤	➤	➤

7   Capability 4: CNI data centre

At National Gas our CNI environment is primarily based on-premise inside the Crown Hosting Data Centre, a joint venture between the Cabinet Office and ARK Data Centres. National Grid has been using this service since 2017 and as part of separating from National Grid has retained this technology due to being on its own standalone infrastructure.

The non-CNI (enterprise) environment has taken a different approach, with a cloud-first strategy. All the enterprise estate is located in the cloud using GCP, Azure or AWS infrastructure. This was an accelerated journey due to the separation requirement from National Grid.

The difference in approach between the two environments is a deliberate decision due to the critical nature of the CNI estate. As CNI continues its journey into RIIO-GT3 it has presented the opportunity to review the strategy of the CNI datacentres to ensure National Gas can continue to support the needs of the business.

This area has one investment:

Platform	Capability	Investment	£m
Cloud	Storage & Compute Services	IT 101 - Feasibility Analysis	■

7.1   IT 101 – CNI data centre Feasibility and Analysis

7.1.1   Background and scope summary

Problem / Trigger	Strategy	Business Outcome	Primary Regulatory Outcome	Cost sub-category
Asset health – maintain system health	Regular update / upgrade	Operate safely, reliably, and flexibly – up-to-date and secure systems	Secure and resilient supplies	IT & Telecoms

During the RIIO-GT3 period there is likely to be a high degree of change within the energy sector and we will need to make sure we have the right tools and scalability to respond. We will continue to explore technological opportunities and advancements to support the business and deliver value for money to consumers.

To meet this challenge, we will carry out a review of the current CNI (Critical National Infrastructure) data centre strategy, incorporating a review of the 'as-is' and looking at the technology landscape to understand what opportunities are available to best position the CNI estate for the future.

This investment will inform the decision making for the CNI data centre by identifying and evaluating options, and producing a strategic recommendation. It will provide the costs, risks, resource planning and technical model for each of the options. The recommendation will inform the requirements for the following price control period, RIIO-GT4.

Problem / opportunity statement

This investment addresses questions regarding whether the CNI estate should progress to the cloud (or other architecture) as best practice technology evolves. At present, the decision criteria relating to the CNI estate, together with the current contract terms, have kept us from aligning with the cloud-first strategy for the rest of the IT estate. However, it will be appropriate to formally review this towards the end of RIIO-GT3.

7.1.2   Optioneering

The options were selected to contrast the outcome of not investing with alternative ways of achieving the target outputs. These options reflect either moving the CNI DC to the cloud (option A) or carrying out a study to determine the right strategy i.e. whether to move to the cloud or not (option B). The table below sets out the options for this capability.

Ref.	Option Description	Pros	Cons
DNI	Do not invest	• No cost	• Opportunity to improve systems may be limited.
A	Move CNI DC to the cloud in RIIO-GT3.	• Environment management and support processes are simplified. • Utilise cloud native apps for agility and scalability. • Benefit from resources of large cloud providers (e.g. security). • Pay only for what you use.	• If there is a failure in the migration it would be high impacting due to the criticality of the system and could cause reputational damage. • Significant exit costs from current vendor. • Minimal CNI cloud experience in the market.
B	Carryout a feasibility and analysis activity for moving CNI DC to the cloud. **Recommended**	• Provides picture of current landscape, needs and challenges to enable informed decision making. • Identification of and detailed of costing. • Understanding and mitigation of security risks.	• Additional cost on top of any decision made. • Significant lead times whilst analysis is undertaken. • Uncertainty of outcome from feasibility analysis.

7.1.3   Preferred option

Our recommended investment approach is Option B. This option will give time to fully evaluate and inform the strategy for the CNI data centre whilst minimising the risk to the operation of critical infrastructure. Selecting this option allows for further learning from the implementation of the enterprise cloud environment. The current solution does not need an immediate decision and so can continue to operate whilst further analysis is undertaken, ensuring that National Gas benefit from current and future technological advancements.

Option B also avoids the cost of early exit from the current data centre contract.

Consumer / stakeholder benefits

The benefits gained by external parties are largely indirect, being continued provision of services from NGT through the support provided by the technology for essential business processes. Option B provides lower risk and cost than Option A for consumer services.

7.1.4   Cost and deliverability

The cost drivers for this investment are in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.3. Costs are for the full scope of deliverables as described above. Deliverability of this investment is in common with other IT investments and are described in the IT & Telecoms Strategy document, section 3.4.5.

The spend profile and delivery plan are shown below. The cost of the feasibility and analysis project is well understood from previous projects and resourcing profiles and market rates have been assessed by Gartner.

IT101 – CNI Data Centre Feasibility & Analysis							Gartner Benchmark Range		Gartner Rating
Investment (£m)	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	Totals	Low	High	
CAPEX	▬	▬	▬	▬	▬	▬	▬	▬	▂▅▇

IT101 – CNI Data Centre Feasibility & Analysis	**FY 27**	**FY 28**	**FY 29**	**FY 30**	**FY31**
Feasibility and analysis project					➤

8   Outcomes, priorities, commitments and price control deliverables

8.1   Ofgem outcomes

Select all priorities that are supported by this programme/scheme.

✓ Secure and resilient supplies

☐High quality of service from regulated firms

✓System efficiency and long-term value for money

☐Infrastructure fit for a low-cost transition to net zero

8.1.1   How will the programme/scheme support the regulatory priority/priorities?

All investments in this IJP except for one (IT 068 Innovation and Modern Technology) are aligned with the outcome 'Secure and Resilient Supplies'. These investments enable us to sustain the core IT infrastructure upon which critical business systems and our digitalisation strategy depend.

The one exception is IT 068, which is focused on the opportunities presented by modern technologies for greater efficiencies and effectiveness in our infrastructure and IT operations management.

8.2   Our business priorities

Select all priorities that are supported by this programme/scheme.

☐ Drive positive environmental and community impact

☐ Shape the energy markets of the future

✓ Operate safely, reliably and flexibly

☐ Invest in our people, grow our capability, and value everyone's contribution

☐ Deliver sustainable value for customers and stakeholders

8.2.1   How will the programme/scheme support our business priority/priorities?

All investments in this IJP are aligned with the outcome 'Operate safely, reliably and flexibly'. These investments enable us to sustain the core IT infrastructure upon which critical business systems and our digitalisation strategy depend. This is critical to maintain security and reliability of our infrastructure and IT operations, upgrading to the latest versions on a timely basis. We have selected an infrastructure architecture which is more flexible than others, especially in our cloud-first strategy, in the knowledge that our business and the industry are entering a period of change on the road to net zero.

8.3   Price control deliverables

Not applicable.

8.4   Commitments

The principal commitment supported by these investments is 12: Transforming our activities through our IT and data. One other commitment (11: Innovating now and for future generations) is supported by a specific investment, as shown in the table below.

Ref	Investment Line	Commitment
IT 064	Device refresh	12
IT 065	Operating System updates	12
IT 066	Renewal of Digital Workplace Services Contract	12
IT 067	Video conferencing refresh	12
IT 068	Innovation and Modern Technology	11, 12
IT 069	Replacement of GSTIG	12
IT 070	Refresh Routers, Switches & Wireless Access point	12
IT 071	SDWAN Upgrade	12
IT 072	Enterprise Network Procurement Event	12
IT 073	Digital Operations	12
IT 077	Service Management	12
IT 078	Integration	12
IT 079	Software Development Tooling - Value Stream Management	12
IT 080	Cloud Fabric	12
IT 101	CNI Data Centre Feasibility and Analysis	12

9   Conclusion

This IJP sets out the critical investments needed to sustain our IT infrastructure and operations capability. These investments are vital to the continuing provision of IT services to the organisation and to our external users of systems and data. This paper also includes one investment (IT 068) to support innovation and respond to opportunities provided by evolving technologies.

Investments in this paper primarily support two Ofgem key outcomes: *Secure and Resilient Supplies* (14 investments with Totex of ▉▉▉▉▉) and *System Efficiency and Long-Term Value* (1 investment with Totex of ▉▉▉▉). The Totex total for this paper is £48.198m.