

Hughes Europe: Integrating Network Access

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Today's businesses have become ever-more complex and geographically diverse. As a result, in the drive to maintain effective communications between the centre, or hub of the business and remote sites, they have built up increasingly complex infrastructures, often requiring differing solutions depending on the location involved.

This has a number of implications. Change is happening with ever-increasing frequency and with often mission-critical implications on how the organisation will continue to function effectively in the face of tough global competition.

The impact on the business and the issues involved will not simply centre on having the right communications technologies in place – terrestrial broadband, cellular or satellite – but critically will also involve having the appropriate connectivity services and management support.

And, of course, this must all take place within an affordable budget – particularly critical at times of economic stress, when every element of corporate expenditure is especially closely scrutinised.

This White Paper examines the kinds of problems today's enterprise businesses face and the implications on their ability to maintain continuity in responding to change.

Finally, it will look at how Hughes Europe can provide an essential multi-tier response – one which not only assesses and implements the most appropriate network communications technology, but backs this up with connectivity services that have comprehensive support encompassing network and service management.

The issue is one of *Network Access Integration*. By taking this problem away from the business, Hughes Europe enables management to concentrate on its core offering – what it does best.

1. Access Layer

Go on to the Internet and one will find many different definitions of 'access layer' in the context of an organisation's communications infrastructure. Yet a common thread is that most definitions focus on the point at which the local end user within the organisation links to the central network and the multiplicity of components required to manage that relationship.

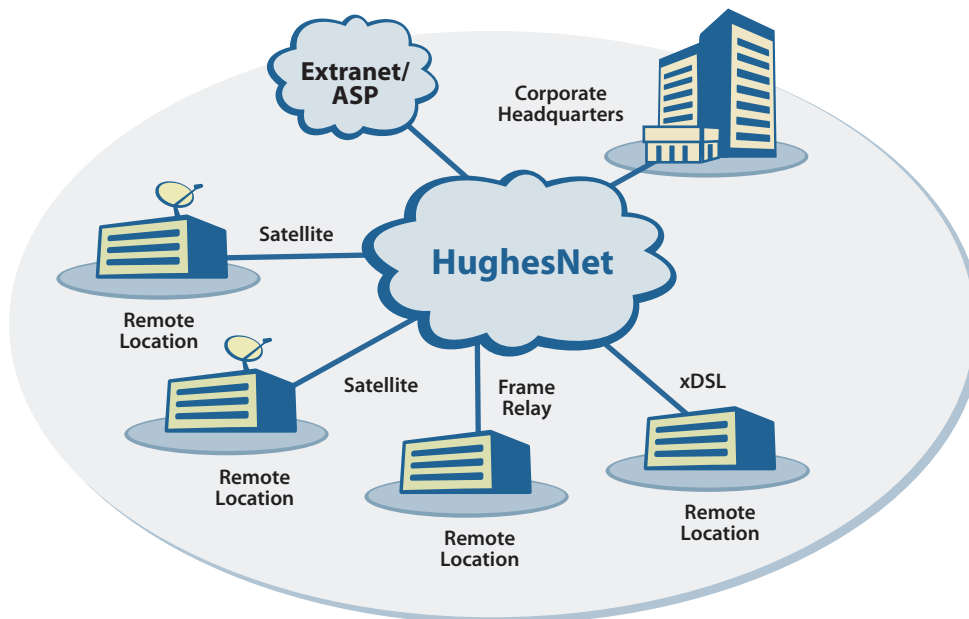
And this is critical for the effective two-way flow of voice and data. The geographic location of the outlying sites may, for example, in large part drive which technology is deployed. In areas of high population density, a broadband ADSL terrestrial solution may well be the preferred solution: in remote locations, by contrast, VSAT may be the only viable option.

Similarly, the level of importance of the information transmitted will also dictate the level of resilience required and the presence of a back-up technology. Where the data transmitted is fundamental to the business – for example, lottery data transmitted from multiple remote locations – solution design will need to ensure maximum business continuity. So a primary ADSL solution may have secondary VSAT or cellular technology to support this.

The reality is, of course, that things can go wrong and technology can fail. What the solution in place must achieve is to minimise the likelihood of the systems failing. And, when failures happen, the right people and right processes must be in place to have the system up and running again with minimal disruption.

This demands the right technology with the right connectivity and services support to provide the right end-to-end solution.

So what are the typical catalysts for change within the business that may demand a fundamental review of the existing infrastructure, in order to ensure that the communications solution meets the reliability needs of the business today and can scale and flex to the evolving needs of tomorrow?



These fall into three primary categories: technical, operational and commercial —

■ Technical

Such change to the network may be prompted by a problem at either the operating centre of the organisation, the outlying remote sites, or both.

At one level, it may involve a major change of application, for example: changing a national lottery system; moving from standard credit card verification to Chip and Pin; or introducing a new inventory management system. Alternatively, improvement to the existing network may be needed following an internal security breach or the need to comply with new external regulatory requirements.

■ Operational

Here, change is likely to be driven by the need to improve efficiency. It may be, for example, that the network is not sufficiently reliable: or, though reliable, one part of the process is taking too long and needs to be improved in order to meet the needs of the business or the customer.

Again, the network may lack reach, with too many compromises necessary in linking with outlying sites. It may be that, when the network goes down, it affects too many people or no-one takes ownership of the problem in resolving the issue promptly and effectively. And finally, although the network may be able to scale with future business needs, the parallel support infrastructure may not be sufficiently agile or flexible.

These may be defined as ‘pure’ operational issues. In addition, there are marketing-focused issues such as the need to ensure consistent brand delivery, for example in providing advertising over a retail store network during a particular campaign. Similarly, for a petrol retailer it might include the need for automatic number plate recognition (ANPR) technology as part of the strategy for dealing with those who leave the forecourt without paying.

And finally, there are a number of HR-led issues requiring a review of current communications capability, such as the need to centralise timesheet management in order to minimise unnecessary use of senior management time or to analyse and detect undesirable trends in overtime and time off for sickness.

■ Commercial

This centres on the need to reduce costs or improve the control – and thus the predictability – of corporate expenditure. This may include the need to introduce remote training capability to cut the cost of travel to physical training sessions, or improve the transparency of telephone billing to get control of escalating mobile phone costs.

Services that provide flexibly agreed yet fixed price billing which allow the customer to have predictable expenditure can be very important to many organisations especially during times of difficult financial environments.

2. Implications For The Business

It will be obvious that the edges of such categorisation are somewhat blurred, as many of the examples have an impact in more than one area of the organisation. What they all have in common however, is the fact that they cause the business enough of a headache to demand swift and significant change and are less likely to fall into the category of 'something we can live with'.

2.1 Internal and External Impact

A typical frustration is the ability to determine precisely the problem faced by the business – for example, the need for consistent inventory management across the enterprise – and the subsequent lack of ability to deploy a solution to resolve it.

Some issues are purely internal in their impact, requiring additional and unnecessary resource. Network interruptions may require regular input from the chief systems architect to sort out continual or repeated problems. Alternatively, with no back-up systems, costly additional staff and increased use of faxes and telephone calls may be required to cover the times when the communications system is down.

The biggest risk here is potential loss of reputation, as such problems can have a knock-on external impact by compromising the quality of the customer experience in some way. And in today's fiercely competitive world, there are very few examples where the customer cannot 'vote with their feet' in the face of below-par service delivery and switch to another provider.

From a commercial perspective – especially in tough economic times – one of the biggest concerns is the loss of the ability to predict costs. And here, with the growth in broadband, customers have become increasingly aware of the ability – and need – to control what is one of the largest elements of operational expenditure within the business.

2.2 Managing Business Growth

All of the above require responses to internal or external issues having a negative impact on the business. There are however, parallel strains on the business which emerge as a result of organic or other growth activity and which need to be addressed quickly if new business opportunities are to be realised as the economy emerges from recession.

A company may acquire new territories as a result of business expansion or merger or acquisition strategy. Such activity is, in part, designed to improve operational efficiencies and cut costs, yet the ability to realise such benefits will be severely compromised if the communications network lacks sufficient reach.

Network performance may be equally good in Birmingham and Warsaw, for example, but the same may not be true of towns thirty miles away from these respective cities. Here, VSAT technology is likely to provide the ideal – and perhaps only – viable solution in bringing new geographies within effective reach of the corporate hub, reducing the need for constant travel by senior managers to new outlying operations in bringing them on board.

Here in particular, Hughes Europe's ability to offer the best of breed in satellite and terrestrial broadband technologies as part of its global capability, ensures that it can provide reach wherever you need it to be, with a network solution matching the rest of the existing communications solution in terms of performance and service quality.

3. Responses / Solutions

So what options are available to the business faced with such problems? The responses fall into two primary categories – tactical and strategic:

a. Tactical

- **Inertia** — At the simplest level, the business may choose to ignore it in the hope that somehow the problem may go away. This is especially true at a time of economic stringency, yet almost certainly the problem will not go away: indeed, the likelihood is that the risk of the problem worsening and requiring even more severe (and costly) response at a later date is magnified.
- **‘Sticking plaster’ response** — Another option is to adopt a ‘point problem, point solution’ approach, which tackles the local problem without integrating it within the broader business. So, for example, local specialists may be brought in to address the problem of reach for an outlying site, without providing the level of service available throughout the rest of the operation. This is a cheaper, ‘better than nothing’ approach, which may buy some time, but which fails to address the underlying issue.

b. Strategic

At the other end of the spectrum, there may be strategic approaches which also fail to deliver the desired best value solution. It is seductive to go with a leading telco or systems integrator, for example, that may be excellent in playing to their strengths but who has very defined boundaries in terms of their capability.

Such a provider may well claim to offer an all-embracing solution. However, if they can only offer one communications technology, this may prove to be a much more expensive option in reaching remote sites – for example, in the case of terrestrial broadband when putting in extra leased lines – rather than offering the most appropriate communications technology in each case. The result might be summed up as ‘a second class solution from a first class provider’.

4. Best Practice – the Hughes Alternative

Hughes Europe leads the market in providing high-quality, resilient and cost-effective broadband network solutions to private and public sector organisations throughout Europe. Combining the best of breed in satellite and terrestrial broadband technologies, the company is uniquely positioned to meet the individual requirements of organisations in sectors such as retail, automotive, oil and gas, financial services, IT, telecommunications and lotteries.

Though Hughes Europe began life in pioneering VSAT solutions, it quickly broadened its expertise to bridge the gap between satellite and terrestrial communications. Unlike today’s single technology providers therefore, it has more than a decade’s experience developing solutions based on the communications technology or combined technologies which best suit each customer’s needs.

In short, Hughes Europe has the flexibility and desire to do ‘as much for you as you want us to do’, and works with many of the world’s leading organisations who today rely on Hughes Europe to manage the ever-increasing demands on their corporate networks.

So, what are the key elements in a best practice solution? What is clear is that this is not simply about the technology, but encompasses a complete product and service solution in enhancing delivery of those aspects of the network proposition necessary to meet the customer’s individual needs.

In providing this, Hughes Europe’s combination of two Network Operations Centres (NOCs) - each with built-in redundancy and separate connections into the cloud – and two data centres is built to support complex high bandwidth networks.



4.1 Key Technologies

Hughes offers an unrivalled depth of technological expertise which creates an individual scalable network configuration ideally suited to each client through the combination of core technologies.

This combination of VSAT, DSL, wireless, private lines and specialist hardware delivers the flexible, resilient and high availability network infrastructure required by each client, regardless of size and geographical location.

Thus, a client may want terrestrial broadband as the technology of choice, but will require some VSAT as the most cost-effective means of reaching remote sites. Cellular technology may also be specified as essential back-up: though not optimised for data, it is ideal for example, if the need to install the network quickly runs ahead of the ability to achieve the necessary landlord consents. Whatever the need or customer preference in providing scalability or reach, Hughes Europe can design and deliver the most appropriate configuration.

4.2 Connectivity Services

With the core technologies in place, the connectivity requirements are added. The need may be for a variety of Internet Access services or optimised/high availability VPN. It may be critical to provide a second or back-up path to ensure business continuity or support Digital Media Solutions – or a combination of any of these services. Hughes Europe works closely with an organisation to understand its needs and deliver the network access infrastructure essential to bring outstanding operational efficiency to any organisation:

- **Optimised Networks** — uses the core basket of available technologies to pick and choose the commercially and technologically optimal combination for your network;
- **High Availability Networks** — use a combination of the core technologies to deliver guaranteed availability of better than 99.9% for your full network;
- **Access Continuity** — augments your existing network making it more resilient against today’s physical threat scenarios by offering a true second path;
- **Digital Media Solutions** — uses our core technologies to deliver video and audio over your Hughes network.

4.3 Enhanced Services

Individual network requirements are optimised through Hughes Europe's range of enhanced Internet and hosting services. In providing Security Management, for example, Hughes Europe can help customers meet sector-specific requirements, such as PCI certification in handling credit card payments. The company also provides Content Management in managing, reporting and ensuring delivery of Digital Media Solutions, and can host specific applications at one of its state-of-the-art network operations centres.

- **Security Management** — from security policies down to intrusion prevention, an ever-important cornerstone for the reliability and compliance of your network. Hughes' Security Management services provide the necessary levels of security – proven by managing more than 10 million credit card transactions every day;
- **Internet Services** includes VoIP and local in-country breakouts;
- In-built **WAN Traffic Optimisation** for your individual data communications profile, and finally;
- **Content Management Services** for the reliable distribution of your data, perhaps for your IP Video or Digital Media delivery project.

4.4 Network Management Services

With a resilient network in place, Hughes Europe's 'Design, Implement, Run and Control' capability provides end-to-end specialist support to manage a network efficiently and cost-effectively, freeing up valuable internal resources and overheads. Specifically, Hughes Europe's Project Management capability adopts the industry standard Prince2 methodology and its Helpdesk Services are aligned with the principles of ITIL. Performance Management in particular is important, as things change constantly and it is imperative to ensure maximum performance is maintained in an environment of 'application creep'.

- World-class **Account Management**, enabling timely and in-budget rollout of your telecommunications solution;
- A **24/7 Helpdesk** that speaks your language, is capable of quickly resolving any issues. It also offers state-of-the-art performance management that both integrates into your own existing service management structure and provides real-time status information on anything from on-site visits to data throughput;
- **Project Management**, delivering solutions on time and in budget;
- **Service Performance Management** provides up-to-the-minute statistics and reports on what is happening where in your network.

4.5 Service Management

This is all about managing relationships and the 'people' aspect of Hughes Europe's service delivery. Here, complex contracts, consolidated multi-currency billing, high-level SLAs and licensing requirements ensuring regulatory compliance across multiple geographies, languages and currencies are simplified and managed with the goal of maintaining good relationships with the right people and with the flexibility to evolve with the changing requirements of the business:

- **Contract Management** — working with your procurement and legal teams, ensuring that each contract has a managed start, service phase and – something which is often overlooked – the contract finish;
- **SLA Management** — supplying you with up-to-the-minute statistics on service quality and incident handling, so you are 100% sure you are getting what you are paying for;
- **Billing Services** — seamlessly integrating with your existing SAP or Navision accounting system together with additional currency and invoice management, allowing you to concentrate on your core competencies, not on deciphering multiple invoices;
- **License Management** — working with your legal department to ensure that our service provides a truly one-stop global solution.

5. Summary

No network communications problem is simple, for each has a number of associated issues which must be addressed if the business is to remain competitive and maintain good customer relationships.

In this context, it is important therefore to talk to a provider who can deliver a comprehensive solution in this way. In response, Hughes Europe's knowledge and experience, combined with its unmatched adaptability and flexibility, means that we can work with you whatever your problem – up to and including a fully integrated network service.

For more information, please contact us at sales@hugheseurope.com or visit our website at www.hugheseurope.com.

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