

The Essential Guide to IT Infrastructure Decisions for Small Businesses



IT leaders for small businesses factor two key criteria in IT infrastructure decisions:

- 1. Maximizing business uptime**
- 2. Minimizing technology spend**

To be successful, these leaders should follow a six-step process, focusing on critical business goals, identifying infrastructure obstacles to achieving them, detailing the organisation's requirements and pinpointing the total cost of ownership for the technology investment.

These steps distill the best practices used by small business IT leaders to successfully deploy, maintain and grow IT infrastructure to enable business growth.

These IT leaders have made Dell Technologies the world's leading supplier of small business IT infrastructure solutions. Overall, IDC gave Dell the No. 1 worldwide position in servers, by units shipped and No. 1 worldwide, by vendor revenue. IDC listed Dell Technologies as No. 1 in enterprise storage, by vendor revenue.

This market position is based on the buying decisions of thousands of IT leaders, who have been convinced of the superiority of Dell Technologies' IT solutions, including hardware, software, and services.

This guide assumes the following:

- Your IT resources – spending plan, in-house staff, and expertise – are limited.
- Business downtime for whatever reason – outdated or inadequate technology, lack of management capabilities, sophisticated cyberattacks – is unacceptable.
- Enabling and sustaining growth is the organisation's business priority for IT capability.



Table of Contents

Step 1: Specify and Prioritise your Existing IT Shortcomings	4
Step 2: Inventory the Existing IT Infrastructure to Establish Total Cost of Ownership	5
Step 3: Build a Consensus on your Organisation's IT Requirements	6
Step 4: Specify the Capabilities you Need from IT Infrastructure Vendors	6
Step 5: Build Cybersecurity into your IT Infrastructure	8
Step 6: Leverage External Services to Manage your Infrastructure Costs	10
Conclusion	12

STEP 1

Specify And Prioritise Your Existing IT Shortcomings

Pain is a great motivator for change. For small businesses, pain often takes the form of either constrained growth or of one or more specific IT-related technical problems.

- Where and how is your organisation feeling pain?
- What are the persistent and urgent technology complaints from business end-users and business unit leaders?
- What key business functions are being hampered by outdated infrastructure elements?
- Are technology constraints causing business units to underperform on their key performance indicators?

Work with business leaders to track business problems back to specific IT problems or inadequacies.



STEP 2

Inventory The Existing IT Infrastructure To Establish Total Cost Of Ownership

Closely related to specifying IT shortcomings is inventorying the IT infrastructure components, including:



Hardware: end-user technology (PCs, laptops, tablets), servers, storage, networking gear.



Software: office suites, business applications, systems software, and security and management software; licensing costs.



Services: all outside IT-related services such as maintenance, tech support, help desk.

Factor the initial and ongoing costs of these components. Also factor the opportunity costs to your business caused by your documented IT shortcomings. One example would be a major marketing promotion that under-performed because the IT infrastructure was unable to handle the resultant surge in online customer orders and queries.

Another common example of how poor office IT causes you problems or cost your business money is being unable to access files when working remotely or losing work and files because they are stored locally rather than on a network. And IT outages often have a ripple effect on how they impact an organisation.

Maybe those databases and applications can be restored quickly but what happens when full data recovery might take longer, especially for an SMB? Productivity levels plummet, and that affects your bottom line.

Your goal should be to calculate definitively your organisation's total cost of ownership of the existing IT infrastructure. Total cost of ownership is a metric that takes into account not only the initial purchase price of an IT solution (or its components) but its operating costs over its lifetime. TCO is the foundation you need for your infrastructure decisions going forward.

PRO TIP

Decide if you need help to document your IT TCO.

Independent consultants or IT infrastructure vendors offer expertise, tools and guidance to specify IT shortcomings, identify specific technical problems, expose hidden costs, relate these to business objectives and accurately arrive at your organisation's IT TCO.

STEP 3

Build a Consensus on your Organisation's IT Requirements

Leverage the information from Steps 1 and 2 to clarify with business leaders what are the organisation's priority IT requirements.

This is the opportunity for IT leaders to demonstrate and document how the existing IT infrastructure is (or will be in the future) hampering business growth, undermining business goals, and hurting productivity.

Remember: pain is a motivator.

Yet it's also the opportunity for IT leaders to document IT infrastructure strengths, which will need to be sustained or expanded investment to meet expected growth in sales, revenue, customers, and employees.

Having the organisation's business leaders' informed and enthusiastic agreement on the critical business requirements will make them collaborators in funding new IT infrastructure investments.

STEP 4

Specify The Capabilities you Need from IT Infrastructure Vendors

Any hardware vendor can, and will, discount the systems you want to buy. But focusing on the item price tag clouds the total cost of ownership perspective. You can end up with an initially cheaper solution that will not be able to meet your longer-term needs.

All infrastructure vendors use the same building blocks, such as advanced processors from Intel and AMD, the latest flash storage technology, and high-bandwidth interconnects.

For small businesses IT leaders with a TCO perspective, the critical issue is optimising IT capacity for current workloads and ensuring a smooth path forward in scaling this capacity for projected business growth.

This is the issue whether the organisation needs an overall IT upgrade to address obsolete software, aging hardware, and lack of support or one or more targeted upgrades to address specific technical problems.

The decisions in either case require an infrastructure vendor with specific product and service capabilities:



Integrated Product Families

Servers, storage, and networking products designed to work together, available in pre-tested configurations for small business customers. All three product categories should scale easily to meet growth demands and changing business conditions.



Automated Management

This should be a design focus for the vendor. Integrated, automated management relieves the burden on in-house staff, identifies emerging problems, slashes response time to remedy them, and enables the use of remote management services.



Advanced IT Capabilities

Trends in virtualising desktops, applications, and storage have made these capabilities available and affordable for small businesses. The result is standardised, manageable, and adaptable IT infrastructures that are more resilient, efficient, and cost-effective.



PART 1

What to Look for in Infrastructure Vendors

1. Infrastructure products that are modular, integrated, and packaged for small business purchase and deployment.
2. Two-dimensional scalability – adding compute, storage, and memory internally and adding additional boxes externally.
3. Embedded and automated management features and tight integration with third-party enterprise management software suites.
4. Support for hyperconverged infrastructure and container architecture, which enables a quickly deployed solution for automated IT operations and software application development, scaling, and management.
5. Tools for analyzing your existing IT infrastructure, performance, and workloads, to identify problem areas and clarify investment decisions.

STEP 5**Build Cybersecurity into
your IT Infrastructure**

Adding security layers and features to existing products and infrastructure is costly, hard to manage and difficult to integrate between layers across different products. And it requires an ever-growing internal cybersecurity expertise, which is a problem for small business customers.

In today's digital business environment, small business IT leaders cannot afford the costs and risks of this ad hoc, piecemeal security approach.

Stolen or compromised customer data and ransomware or denial of service attacks directly put the organisation at risk. Cost-effective responses require that cybersecurity capabilities be designed and built into infrastructure products, rather than relying solely on separate, added layers of security.

Your infrastructure vendors should be able to show how cybersecurity is a priority from the product designing and planning phase through manufacturing and distribution, to installation and support.

Designed-in cybersecurity for IT infrastructure products has the following key capabilities:



Securing the supply chain by validating that all sourced components are protected at every point from manufacture to deployment.



Erasing organisation and customer data quickly, easily, and completely on all systems and components being replace or retired.



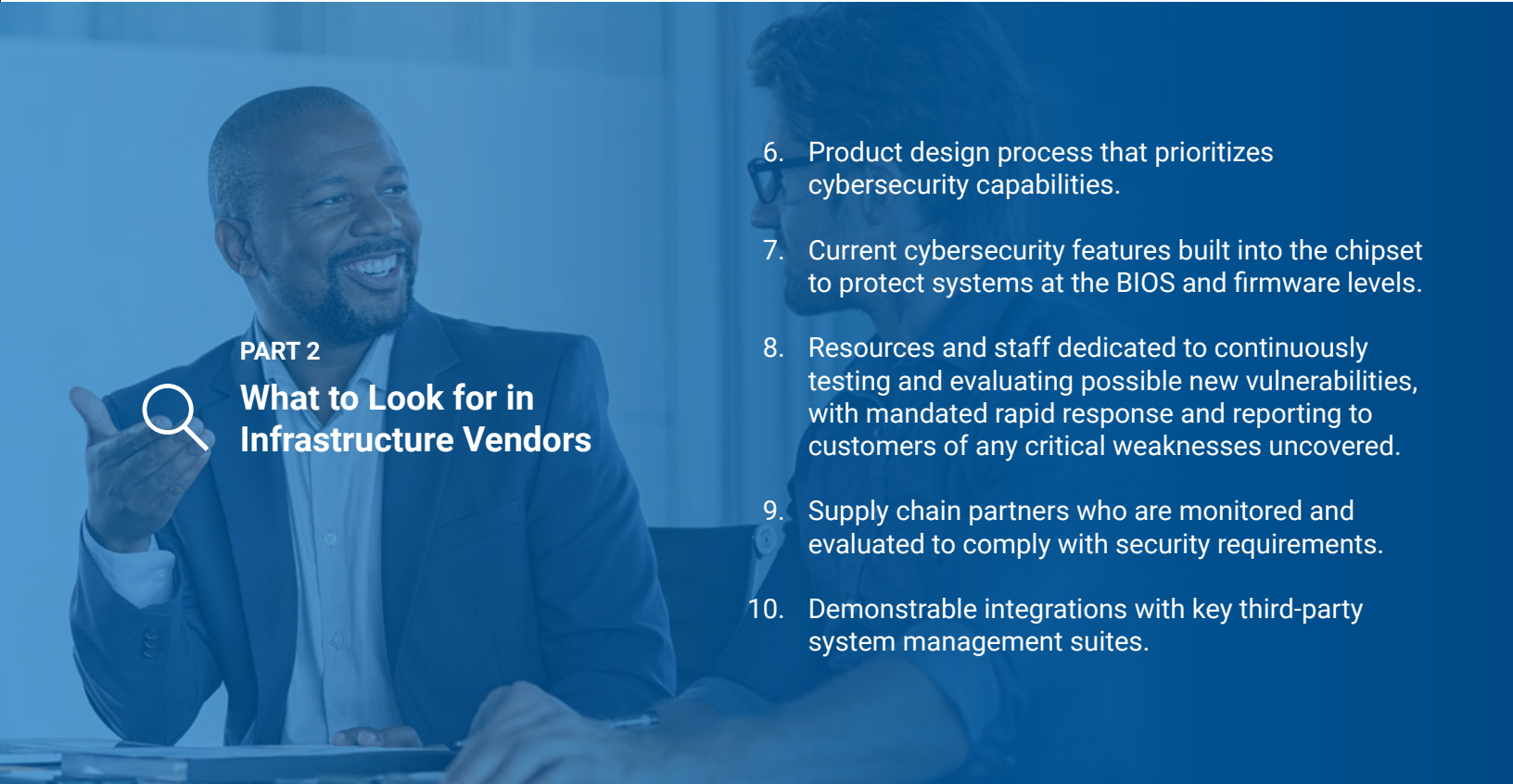
Cryptographically signing firmware packages and deploying Secure Boot to maintain data safety.



Integrating tightly with an array of third-party system management products to leverage their security and protection features for monitoring, detecting, and responding to cyberattacks.



Tracking all software changes to block unauthorized or malicious activity.



PART 2



What to Look for in Infrastructure Vendors

6. Product design process that prioritizes cybersecurity capabilities.
7. Current cybersecurity features built into the chipset to protect systems at the BIOS and firmware levels.
8. Resources and staff dedicated to continuously testing and evaluating possible new vulnerabilities, with mandated rapid response and reporting to customers of any critical weaknesses uncovered.
9. Supply chain partners who are monitored and evaluated to comply with security requirements.
10. Demonstrable integrations with key third-party system management suites.

STEP 6

Leverage External Service to Manage your Infrastructure Costs

Today, numerous infrastructure functions can be outsourced cost-effectively to specialists or vendors. Service level agreements and pricing tiers let you balance the resources you need with what you can afford to spend. You can upgrade and extend these services as needed in the future.

If reliably executed, these outside services enable you to invest proactively in cost management capabilities that would be difficult to implement in-house.

This approach to cost management can cover some or all of the entire infrastructure process:

- **Early consulting** to accurately establish specific infrastructure requirements.
- **Financing** options through the vendor to fund the infrastructure components.
- **Installation** and training to speed deployment.
- **Remote monitoring** and tiered tech support for early warning of emerging problems, fast response to critical events (including cyberattacks), and preservation of business operations.

Initial **consulting** services can validate your performance requirements and guide your hardware/software purchase decisions to get the optimal solution.

Financing services tailored to small businesses can enable IT and business leaders to invest relatively more in innovation and growth compared to operations and cost control. In the ongoing changes wrought by COVID-19, these services also can help these leaders create a more flexible and agile funding approach to infrastructure.

Installation and deployment services can speed the process of bringing your infrastructure solution online, validating its readiness, and training end-users

Remote monitoring can focus on your organisation's critical business priorities, such as the e-commerce site to detect and remedy emerging problems before they blow up.

Service level agreements and pricing tiers let you balance the resources you need with what you can afford to spend, and then upgrade and extend as needed in the future.



PART 3



What to Look for in Infrastructure Vendors

11. Advisory services to analyze your existing infrastructure capabilities and issues and to map out an upgrade path to achieve the organisation's business goals.
12. Financial services that can give you lease and credit options, consolidate multiple purchases into one payment stream and custom payment arrangement to maximise your cashflow flexibility.
13. Installation services that create a single point for project management and can handle any or all, phases of delivery, configuration, and installation, including site readiness review and implementation planning.
14. Tiered support services to fit your specific critical systems and spending constraints.

Conclusion

Selecting the right IT infrastructure partner is a critical decision for small business IT leaders. The right partner brings essential expertise and experience to deliver an IT infrastructure that will support your organisation's growth and competitive innovation.

Your assessment should focus on having vendor candidates demonstrate concretely that they have the capabilities to enable you to achieve your business goals.

Talk to a Dell Technologies Advisor at **0800 085 4878**,
or visit us online at dell.co.uk/chat

ⁱ "Maximizing the impact of technology investments in the new normal," Deloitte, February 2021

<https://www2.deloitte.com/xe/en/insights/focus/cio-insider-business-insights/impact-covid-19-technology-investments-budgets-spending.html>