



**Sentia Solutions Inc.**

1550 16th Avenue  
Building C North  
Richmond Hill, ON  
L4B 3K9  
Canada

Tel: 905.508.8489  
Toll free: 1.866.610.8489  
Fax: 905.508.0878

A Sentia Solutions White Paper

# Building a Rock Solid Foundation with IaaS

Practical Infrastructure-as-a-Service Strategies



# Table of content

|  |    |
|--|----|
| <u>Introduction</u>  | 3  |
| <u>Infrastructure Issues Facing Small to Midsized Enterprises</u>  | 4  |
| <u>Cornerstones of a Solid Technology Foundation</u>   | 5  |
| <u>IaaS Options &amp; Considerations</u>   | 6  |
| <u>More typical business scenarios and how an IaaS model, deployed by a trusted partner, can address them.</u> | 7  |
| <u>A Practical Infrastructure Planning Methodology</u>   | 8  |
| <u>Partnering with an IaaS Professional</u>  | 9  |
| <u>Is Infrastructure as a Service right for your organization?</u>   | 10 |
| <u>About Sentia</u>  | 10 |

# Is a secure, resilient, disaster-ready infrastructure out of reach for small to midsized enterprises?

## Not anymore.

Up until recently, only large businesses had the existing framework, in-house talent, and deep pockets to implement a robust technology foundation.

## But things have changed.

No longer do you need a big budget, large IT staff, multiple data centre locations, or expensive communication and networking systems to deploy a rock-solid infrastructure. Existing technologies and mixed vendor environments can be easily accommodated.

Numerous infrastructure options are now well within reach of small to medium businesses and, in one form or another, many are evolving to an Infrastructure-as-a-Service (IaaS) model.

For example, the same cloud capabilities that make backup and recovery solutions so easy to deploy have opened up a world of possibilities for smaller enterprises to manage day-to-day IT operations. Implemented in an intelligent way, a federated cloud service approach is an affordable and efficient option.

## IaaS implementations on the rise<sup>1</sup>:

- 67 percent of companies report budget reduction with IaaS implementation
- About 60 percent of respondents were either planning or had already implemented cloud infrastructure services. This tracks with Gartner's 2013 forecast that IaaS will continue to be the fastest growing market segment

## Why Smaller Enterprises Should Consider IaaS<sup>2</sup>

- **Cost:** Cloud applications re-use and share resources. No upfront capital investment, no need for specialized IT personnel
- **Scalability:** Cloud systems are designed to scale and can typically handle huge changes in load
- **Reliability:** Multiple redundancy in cloud systems means higher reliability than standalone systems
- **Performance:** Cloud services are constantly monitored and improved for performance
- **Access to better infrastructure:** Take advantage of applications and services created for larger enterprises



# Cornerstones of a Solid Technology Foundation

Before jumping into the mass of IaaS options available to your business, it's important to consider the fundamentals of a sound technology infrastructure.

**1** **Reliable IT Infrastructure / Data Centre**  
Your data centre is the foundation upon which all technology services are built. In order to deliver consistent and dependable applications to your end users, your business must have an IT infrastructure that includes highly reliable power, cooling, physical security, server infrastructure resiliency, and network resiliency services.

**2** **Secure IT Environment**  
Whether driven by regulatory compliance or a need to protect intellectual property, corporate data and reputation, a secure IT environment is paramount. IT security was once relatively straightforward to implement; today, it is a moving target – with new threats arising on a regular basis.

**3** **Flexible Network Infrastructure**  
Keeping users connected across multiple locations and a variety of devices is essential. When it comes to network infrastructure, smaller enterprises must consider data centre/distribution/access switching requirements, wireless and remote access, and support for traditional PCs and devices like smartphones and tablets. And since these devices may or may not be owned by the business, device management requires careful thought and planning. The good news is that network infrastructure and bandwidth costs have dropped dramatically, and deployment options have improved.

**4** **Disaster Ready Compute Infrastructure**  
Compute infrastructure, namely servers and storage, is the final cornerstone – and key to protecting your business from disaster. Small to mid-sized businesses stand to benefit from the many advances made in this space. Virtualization and consolidation capabilities like dynamically adjusting shared resources and moving applications between servers allow businesses to increase utilization of computing assets, improve performance, reduce complexity and increase application availability – all within a more cost-effective infrastructure. Even the smallest of enterprises can now afford the resiliency, performance and disaster protection that was once only available at significant expense.

# IaaS Options & Considerations

Infrastructure-as-a-Service is a cloud model that provides compute-on-demand services. Since every organization's requirements are unique, every IaaS structure is different and may include servers, storage, networks, operating systems and related services.

The good news is that an experienced IaaS provider can make it all possible – within your existing IT budget.

The table below illustrates typical business scenarios and how an IaaS model, deployed by a trusted partner, can address them.

| Business Scenario   | Technology Options  | Considerations  |
|---|---|---|
| Disaster Recovery site is required for compliance but your company doesn't have the capital to build out a second data centre | <ul style="list-style-type: none"> <li>▪ Disaster Recovery IaaS offerings where an IaaS/PaaS offering can be leveraged to complete your second site</li> </ul>  | <ol style="list-style-type: none"> <li>1. Platform compatibility</li> <li>2. Backup/recover/replication design</li> <li>3. Flexible deployment models to meet your needs and budget</li> <li>4. Overall Disaster Recovery requirements – network, application, data, call centre</li> </ol>   |
| Your company has a questionable security posture and doesn't have the in-house skill set to close the gap                     | <p>Managed Security Solution that comprises:</p> <ul style="list-style-type: none"> <li>▪ Firewall</li> <li>▪ Wireless / bring your own device (BYOD)</li> <li>▪ IaaS including Managed Firewall and VPN</li> </ul> | <ol style="list-style-type: none"> <li>1. Outsource point products such as firewall, network infrastructure and access</li> <li>2. Host infrastructure in a secure data centre environment and outsource edge security</li> <li>3. Full IaaS offerings from partners that have the capability to cover your security concerns. Offerings may include device management</li> </ol> |

*See more business scenarios next page...*

More typical business scenarios and how an IaaS model, deployed by a trusted partner, can address them.

| Business Scenario   | Technology Options   | Considerations   |
|---|--|--|
| <p>Maintaining in-house IT expertise is too costly for your organization</p>                    | <ul style="list-style-type: none"> <li>▪ Outsource infrastructure management</li> <li>▪ Outsource data centre and infrastructure management</li> <li>▪ IaaS</li> </ul>                         | <ol style="list-style-type: none"> <li>1. If your business already has modern and competent technology, outsourcing management of the infrastructure can be a first step</li> <li>2. A partner that can provide a lifecycle management plan for your infrastructure, enabling you to plan for migration to an IaaS model in the future, as technologies and economics dictate</li> </ol> |
| <p>Your IT infrastructure is outdated; OpEx and CapEx options should be taken into account.</p> | <ul style="list-style-type: none"> <li>▪ CapEx involves building your own infrastructure and may include outsourcing to a Managed Services Provider</li> <li>▪ OpEx is an IaaS play</li> </ul> | <ol style="list-style-type: none"> <li>1. IaaS offerings are very cost-effective when you consider TCO</li> <li>2. Flexible service models are available to meet varying business requirements</li> <li>3. Integration expertise is required to make migration seamless</li> </ol>   |
| <p>Your business has no budget to expand capacity to meet increased workload requirements.</p>  | <ul style="list-style-type: none"> <li>▪ IaaS</li> <li>▪ SaaS</li> <li>▪ ASP</li> </ul>  | <ol style="list-style-type: none"> <li>1. Identify which applications could be outsourced most readily to free up in house resources</li> <li>2. Identify which application usage requirements are appropriate to reside outside your corporate data centre</li> <li>3. Identify compliance requirements</li> </ol>  |

# A Practical Infrastructure Planning Methodology

Reliable. Secure. Resilient. Omni-accessible. Disaster-ready. These elements of a strong technology backbone aren't new. What is new is the range of IT service options available to smaller businesses that were once only within reach of large corporations.

The first question many smaller enterprises ponder is: Which components should we invest in ourselves and for which components should we consider hosted infrastructure services?

While there's no one right answer, there is a practical methodology that will help you determine what's best for your business. If lack of time or limited experience is an issue, it's best to engage a professional IT partner that can guide you through the evaluation, selection, design and deployment process.

## How Sentia Solved an Audit Requirement for a Financial Services Company

### **Business Problem:**

A Canadian financial services company had an audit requirement for Business Continuity, but did not have a second site to which to replicate or recover data.

### **Sentia's Solution:**

Sentia conducted an initial assessment to determine the company's requirements and developed a Business Continuity as a Service (BCaaS) solution.

### **Results Achieved:**

Now that the organization is leveraging Sentia's BCaaS as a compute and storage resource, it is able to replicate data from its main site to Sentia's cloud infrastructure located in Sentia's Canadian Tier 3 data centre.



# Partnering with a IaaS Professional

What to look for in a high value IT partner:

## Best Practices Methodology

- A thoughtful approach to developing a managed services roadmap – including analysis, planning, design, and implementation capabilities.
- An all-Canadian support operations centre

## Technology Know-how

- Strong relationships with key technology vendors and a deep understanding of new and emerging technologies.

## People with Proven Expertise

- Innovative thinking, premium levels of certification and specialization for various platforms and technologies, and a commitment to ongoing learning.

## Proof Points

- Case studies and direct customer references that underscore experience, expertise, and a successful track record.

# Is Infrastructure as a Service right for your organization?

Call today to schedule an IaaS readiness assessment.

## Call us!

1-866-610-8489 extension 311

905-508-8489 extension 311

email us at [info@sentia.ca](mailto:info@sentia.ca)

## About Sentia

At Sentia, we take a comprehensive and consultative approach to helping you achieve your business goals. We are an extension of your team, always looking at challenges and opportunities from your perspective. Along with offering the highest quality products from leading vendors, we keep an eye out for game-changing trends and emerging technologies. Each Sentia solution is built to deliver long-term, cost-effective value. Sentia's team of senior architects lives and breathes IT, offering superior skills and a proven track record. Our entire staff shares a deep dedication to our work and pride in our customers' successes.

## People + Technology Building Value

---

### END NOTES

1. Cloud Computing; Moving to IaaS, Teena Hammond, Between the Lines, September 2013  
[www.zdnet.com/research-67-percent-report-budget-reduction-with-iaas-implementation-7000020231/](http://www.zdnet.com/research-67-percent-report-budget-reduction-with-iaas-implementation-7000020231/)
2. Move IT Infrastructure to the Cloud? What SMBs Need to Know, Allen Bernard, October 2012  
[www.smallbusinesscomputing.com/testdrive/move-it-infrastructure-to-the-cloud-what-smbs-need-to-know.html](http://www.smallbusinesscomputing.com/testdrive/move-it-infrastructure-to-the-cloud-what-smbs-need-to-know.html)
3. Gartner Reveals Top Predictions for IT Organizations and Users for 2012 and Beyond  
[www.gartner.com/newsroom/id/1862714](http://www.gartner.com/newsroom/id/1862714)