

Information Technology Services

A Tailored Response to Information Technology Challenges and Resources



Our Technology Services

Concerns about making the best technology judgments are not unique. Many IT-related decisions are made or delayed based on fear and a lack of time and understanding. Boardrooms and C-suites across the country are full of decision-makers struggling to understand the best way to use technology. Many divisions within a business can see technology's benefits in, for example, operational efficiencies, improved analytics, and increased sales and marketing exposure. But despite the integral role that information technology plays in today's businesses, many companies approach major IT initiatives in a way that is far from business-like. Frequently, six- or seven-figure investments are made without tying these decisions to clearly defined business results. Dozens of smaller decisions are made and funded, to be followed six months after implementation by the surprise news that integrations – and further spending – are still required to "make it work."

Building upon a strong foundation of industry specialization and technological knowledge, our professionals follow a proven technology roadmap to cultivate original, practical solutions that help address our clients' most pressing challenges. At Crowe Horwath, innovation is part of our culture – we have a history of applying new tools and technology to help streamline and effectively manage complex processes. Crowe Horwath can help you to monitor their organization's growth, performance and governance through our specialised services including,

- Information Technology Audit
- Project Management and Quality Assurance
- Cyber Security & Resilience
- Business Transformation
- Microsoft Dynamics Solutions implementation



Information Technology Audit and Risk Assessment

Delivering your information technology audit requirements

In today's economic and regulatory environment, boards, audit committees and executives must understand the logic, value proposition and cost behind their companies' IT audit plans. An IT risk assessment is a crucial first step to creating a methodical risk management process that quantifies the likelihood of technology, process, and people related threats that could hinder the organization from attaining its objectives in an efficient, effective and controlled manner, better identified, assessed and managed as appropriate for your business. Our IT specialists undertake:

- ISO-IEC 27001 readiness assessment
- IT operational and audit planning activities.
- Assessing disaster recovery, business continuity, privacy, change management, network penetration, and vulnerability protection plans
- Protecting high-risk IT components supporting essential organizational processes
- Supporting strategic enterprise projects, such as enterprise risk management
- Complying with regulatory requirements and applicable standards
- Incorporating Internet-based project management tools to streamline processes
- Building a multiyear plan focused on mitigating long-term organizational risk
- IT Audit
- Review and development of information management policies and procedures.

We can also provide specialists with platform specific experience and practical knowledge of implementing good practice frameworks such as ADAA, NIST, COBIT, ITIL and ISO 27001.

Our View

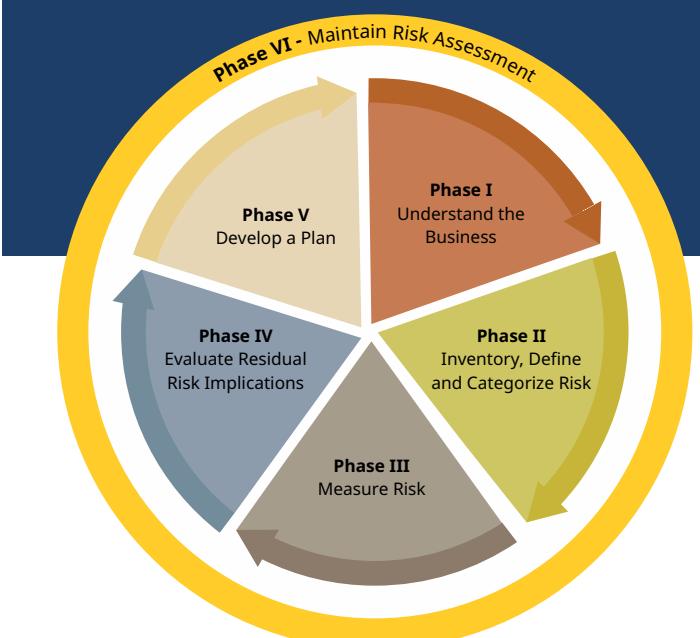
In accommodating a wide range of stakeholders and inputs, organisation face the potential of significant operational risk. Because reducing the number of variables isn't a realistic option, executives must develop a comprehensive enterprise risk management (ERM) strategy.

With a strategic approach to risk management, Crowe Horwath works with organisations to uncover potential risks earlier, improve operational performance, enhance corporate governance, and reduce compliance costs over time.

Capturing the Benefits of More Effective Risk Management

The Crowe Horwath systematic ERM process delivers a number of strategic and organizational benefits. With our assistance organisation can build tools and processes to:

- Gain a broader understanding of risks;
- Align resources to manage risks and control the cost of compliance;
- Identify key risks, determine corrective action, and define roles; and
- Expand their capabilities to respond to and manage risks that their competitors cannot. In addition, a successful ERM program will strengthen corporate governance and facilitate communication with stakeholders, including regulators.



Project Assurance and Program Services

Using project management experience and understanding to reduce the risk of project failure

Whether it is addressing an ad hoc data request for responding to a regulatory inquiry or designing an automated solution for business-as-usual compliance programs, Crowe Horwath can assist in designing, implementing, configuring and tuning technology solutions for your business critical operations. When you need help building a custom data extraction solution for regulatory inquiry response or assistance in implementing fully scalable vendor systems. Our comprehensive services include:

1. Advising clients on potential process automation, including the elimination of redundant controls
2. Incorporating technology solutions to enhance the integration and effectiveness of business functions to reduce the costs of the operations
3. Providing guidance and support for implementation planning, execution and validation services for compliance enabling systems.

4. Planning and implementing technology solutions including:

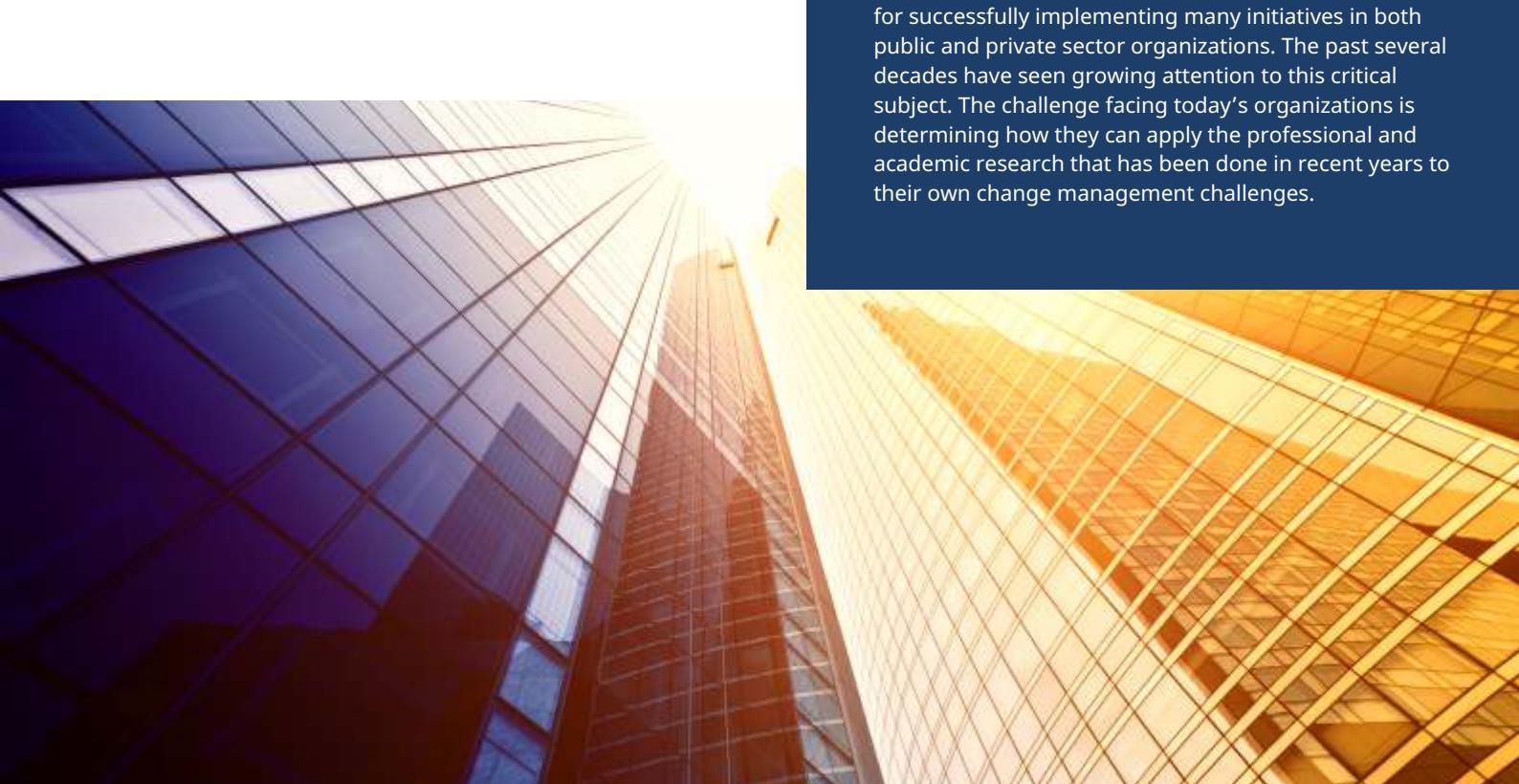
- Vendor selection
- Current and future state analysis
- Requirements gathering
- Requirements mapping to technology solutions
- Data requirements gathering
- Data quality analysis and remediation
- Assistance with integrating client data to vendor solutions (ETL – extract, transform, load)

5. Project management

6. Quality Assurance
7. Project health checks
8. Pre-Implementation reviews
9. Post Implementation Reviews

Our View

Effective project assurance & management is essential for successfully implementing many initiatives in both public and private sector organizations. The past several decades have seen growing attention to this critical subject. The challenge facing today's organizations is determining how they can apply the professional and academic research that has been done in recent years to their own change management challenges.



Cyber Security Services

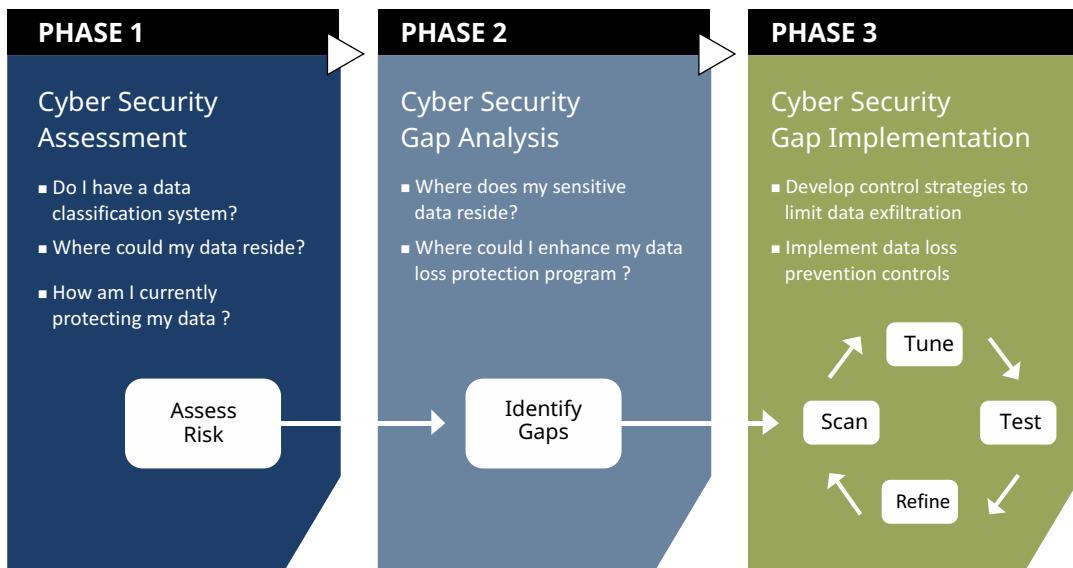
Protecting Critical Enterprise Information

The rise of sophisticated attacks against organizations in virtually all industries is increasing the risk of inappropriate access to vulnerable data on enterprise networks. Deficient technical controls open the door to security breaches resulting in data loss and more:

- Monetary loss
- Regulatory reprimand
- Reputation damage
- Loss of investor confidence

Protecting Organizational Data

Preventing inappropriate access to sensitive information requires heightened controls and protections. Crowe Horwath Risk Consulting professionals can help enhance your data protection program through better control of data access using a three-step approach:



The first step in developing a plan to protect your data is to gain an understanding of the types of information you have and where the data resides.

Crowe Horwath cybersecurity risk specialists can help with data mapping, risk assessments, and records management inventories to begin the process of defining enhanced data classification standards.

A gap analysis maps how your organization handles, processes, and stores data to quantify risks. Our specialists use penetration testing skills to find the weaknesses so we can help you improve controls, set up alerts, and design other methods to prevent hacking.

The final step includes our recommendations for appropriate policies and procedures to safeguard data access, storage, transfer, and destruction. Crowe Horwath specialists are also available to assist with tuning, testing, and use of exfiltration techniques to clean infected areas.

Our View

Most organizations have at least one IT security project they just can't get off the back burner. In many instances, technology was purchased (often at considerable cost), but getting it set up and properly configured proved to be a greater challenge than anticipated – especially when the pressure of day-to-day IT issues took priority.

Crowe Horwath IT security consultants can revive struggling projects and bring them to conclusion – beginning with a prompt triage to identify projects that offer the greatest potential benefit through decreased risk and heightened compliance capabilities.

IT Led Business Transformation

Why IT Led Transformation FAIL?

Some of us blame it on complex technology, yet we are very comfortable adopting technology in our personal lives. So why adopting technology in an enterprise is challenging? How can we maximize chance of success?

The Crowe Horwath business transformation team helps clients achieve higher levels of performance and agility by focusing on latest technological tools and platforms to develop efficient operation. At Crowe Horwath, we have a record of driving significant results for clients in public and private sector.

Our experienced specialists have expertise in a range of disciplines, tools, and methodologies to address business challenges such as:

- Digital Strategy roadmap
- Business transformation roadmap
- Business transformation preparedness review
- Process Efficiency improvement
- Business process alignment and collaboration
- Operational restructuring and turnaround
- Consolidation plans for business processes, applications and technical infrastructure
- IT organisational structure and sourcing requirements
- Cloud and Mobility roadmap

Our View

A Systematic Approach to Sustainable Improvement is as important as technical and industry expertise are, the Crowe Horwath business transformation team's success is equally driven by its proven systematic approach.

- **We find the right levers.** The Crowe Horwath analytic approach identifies those areas where performance improvement can have financial impact so we can focus our efforts.
- **We help implement what we recommend.** Rather than merely presenting reports and recommendations, the Crowe Horwath team works side by side with you at each level of your business to achieve the improvements you want.
- **We stay with you until results are delivered.** We deliver an agreed-upon return. We establish a specific financial return at the outset of the assignment – and remain on the engagement until the results are achieved.
- **We work to make it last.** We go beyond merely training your people in tools and techniques, and strive to instill an attitude of continuous improvement so that the results can be sustained – and form the basis for further improvement.

The Crowe Horwath Performance Improvement team's goal is your satisfaction and success – our performance is measured by the return on investment that we can deliver. So let's get started.

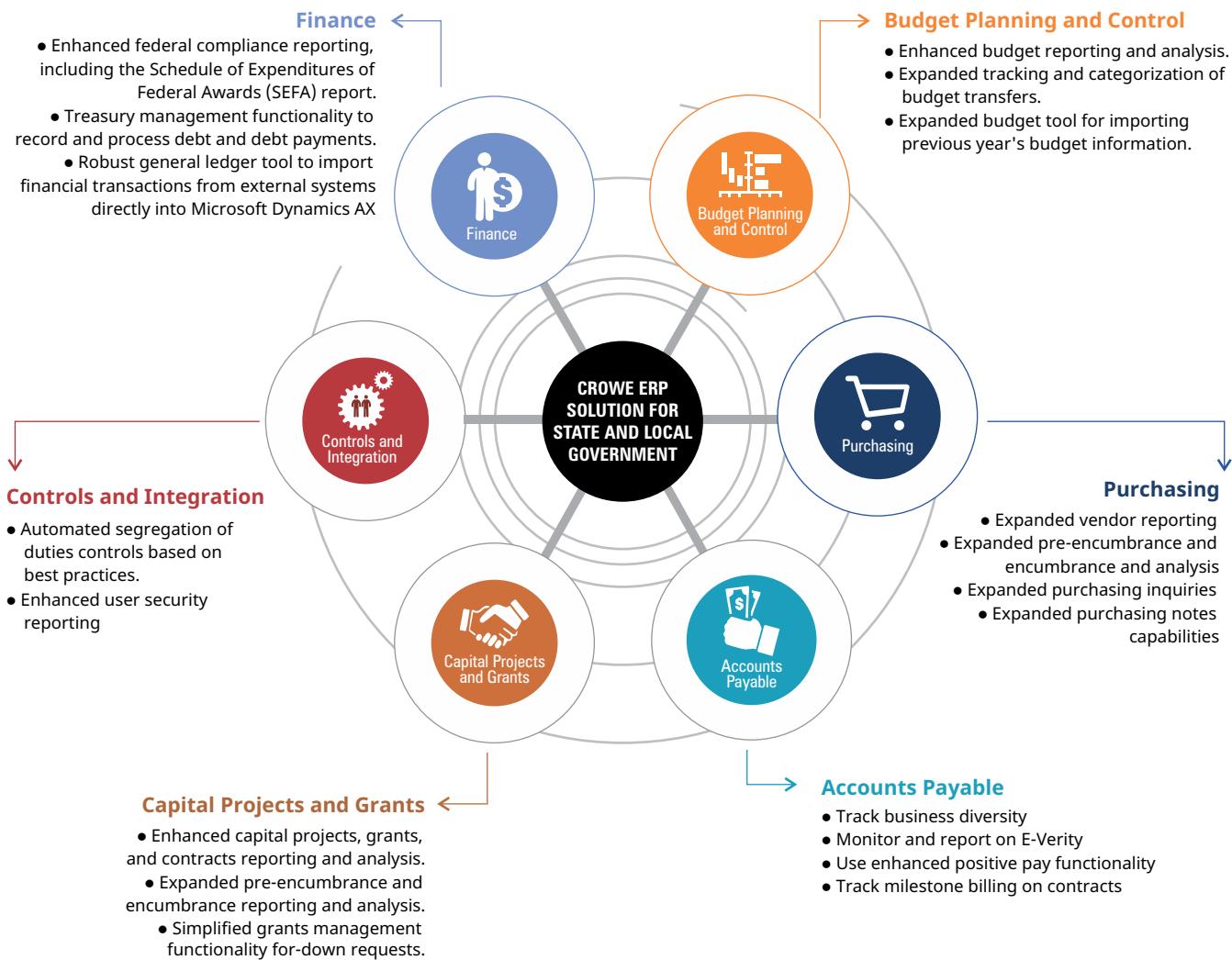


Microsoft Business Solution Implementation

A Structured Approach to technology led business transformation

With in-depth public and private sector experience and proven technological strength, Crowe Horwath has built a track record of success in implementing Microsoft Dynamics® AX with public sector entities. Implementing a high-performing ERP system with enhanced capabilities can improve operational efficiency and allow governmental entities to provide greater transparency and access to critical financial information.

To address this need, Crowe Horwath has developed a tailored ERP Solution for Government, Public and Private Institutions built on the Microsoft Dynamics® AX platform. This solution combines our firsthand knowledge of government entities in a highly configurable package that outperforms the competition. Below are some of the highlights of this tailored ERP Solution for Government that extend the already robust functionality of Microsoft Dynamics® AX.



Our View

Even in today's environment of limited resources, strong internal controls and rigorous segregation of duties rules are indispensable tools for public sector entities. Integrating and automating these controls within your financial management or enterprise resource planning system can help mitigate the risk of fraud and mismanagement.

Culture of Innovation

As part of an international global accounting network with a presence in more than 120 countries, the Crowe Horwath approach is focused on understanding how best to accomplish results in every type of corporate culture and environment. One key to this effort is a relentless commitment to innovation that manifests itself in several notable attributes:

- **Crowe “Triple Threat” Strategy** – The Crowe Horwath strategy combines technical knowledge, industry expertise, and applied technology to deliver customized solutions to meet clients’ needs.
- **Technology-Based Approach** – Crowe Horwath employs a growing suite of in-house developed applications, all of which originated as responses to individual client needs.
- **Security and Privacy Laboratories** – The Crowe Horwath R&D investment in this area has yielded valuable results to clients, developing tools and building an environment in which to conduct industry-leading internal and external penetration testing.



Crowe Horwath

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