

ICC ICT Services

Trusted Shared Services and Digital Business Solutions







November 2019



Who We Are

The International Computing Centre (ICC) has nearly 50 years of experience providing Information and Communications Technology (ICT) services to United Nations programmes, funds and entities, as well as other United Nations or related not-for-profit organisations.

Its mission is to provide ICT services, maximise the sharing of ICT solutions from innovation and infrastructure to systems and skills in order to generate economies of scale to benefit its more than 60 Clients.

The organisation has a strategic view of ICT support for United Nations goals and results, with expertise and complex knowledge about ICT environments. As a United Nations entity, ICC is uniquely positioned to understand and meet the needs of its Clients.



ICC is a United Nations entity providing ICT services with a professional workforce with global presence and coverage - New York, March 2016. Photo: ICC/Allen

What We Do

ICC provides core business services to United Nations Agencies, including client services, support for innovative technologies, information security, data and analytics, software as a service and cloud integration services, infrastructure and platform services including network service, enterprise backup, ERP, web hosting and enterprise collaboration platforms. ICC offers cost savings, business efficiencies, and volume discounts based on the scale of its engagements. ICC operates on a full cost recovery basis, with surplus funds being refunded at the end of projects or initiatives.



62 UN Clients and International Organizations



48 Years of Industry Experience



40 Shared
Services and Digital
Solutions



5 Strategic and Operational Locations

The ICC Advantage

ICC is the premier shared service provider for the United Nations, providing agile, cost-effective, UN-audit compliant ICT services. ICC is highly competitive with today's technology marketplace, building synergies with industry partners as well as with its Clients. ICC's data centres and offices are extra-territorial, meaning that they are not under the jurisdiction of any national authority. The data and systems ICC hosts are protected from any national interest or intrusion, safeguarding United Nations jurisdiction. ICC is governed by the same rules as its Partner Organizations for procurement, financial audits and reporting.

Business First

ICC maintains a strategic view of ICT support for United Nations goals and deliverables around the globe. ICC's expertise and complex knowledge about United Nations ICT environments means that Clients and Partner Organizations get the top of today's technology marketplace services with the best value money can buy.

Several principles frame the engagements ICC has with its Clients and Partner Organizations:

- Business acumen and responsiveness
- Courteous and professional attention
- Collaborative, honest communications
- Aligned services, architecture, portfolio
- Proactive understanding of Client needs
- Timely and useful information sharing.



Figure 1. The ICC advantage: nearly 50 years of UN and ICT experience

Governance

ICC is governed by its Management Committee membership, comprised of representatives from its Partner Organizations. The ICC Mandate, the Memorandum of Understanding that all Partner Organizations sign and Service Delivery Agreements provide the policies and guidelines governing all service engagement.

The ICC Mandate covers jurisdiction, structure, governance, arrangements for service provision, funding and cost recovery processes, liabilities, and safeguards. ICC's Memorandum of Understanding includes rules for service management, ICC and Client management roles and responsibilities, confidentiality and security as well as payment protocols. Service Delivery Agreements govern the scope, service

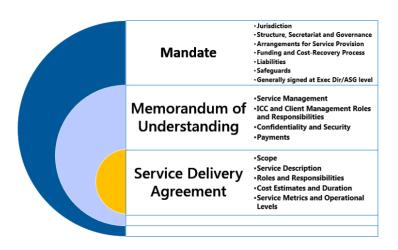


Figure 2. ICC's governance model and approach

description, roles and responsibilities, cost estimates, and service metrics and Operational Levels (OLAs) for every service partnership.

Superior Operations

Operational excellence, service level management and continuous service improvement are fundamental to ICC's mission, vision and governance. They span the landscape of ICC's ICT projects and services and account for ICC's trusted reputation with Partner Organizations and other Clients. ICC's operations are tried and trusted, with:

- Strategic oversight
- Enterprise architecture
- Product development
- Efficient project management
- Continuous service improvement.



ICC is a core contributor to United Nations programme delivery. Photo: UNDP/Wright

ICC is committed to improving its Client experience by building trust through standards-based service delivery, improving value for money, fostering cross-functional collaboration and communications and advancing the capabilities of its Clients and Partner Organizations to respond to and anticipate their needs in an ever-changing digital business landscape.

Global Presence and Impact

In order to meet its goals and provide quality services to its Clients, ICC has established offices in five strategic locations, as well as a presence in the Green One UN House in Hanoi, Vietnam, to support its Asian Clients.

- Geneva, Switzerland
- New York, USA
- Brindisi and Rome, Italy
- Valencia, Spain.

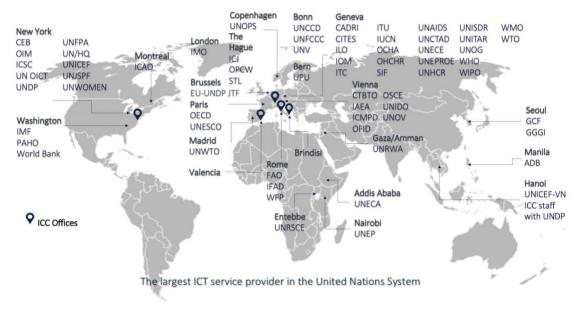


Figure 3. ICC's 60+ Clients and Partner Organizations today

ICC prides itself on the expertise and professionalism of its personnel, comprised of 260 regular staff and nearly 150 consultants. The expert team at ICC brings decades of experience in the United Nations family together with state-of-the-art technology and business skill sets spanning digital business environments.

Clients can focus on core business activities by leveraging ICC's services, built upon industry best practices, standards and documented business processes subject to a Continuous Process Improvement cycle.



Figure 4. ICC's 60+ Clients and Partner Organizations today

Service Continuity and Disaster Recovery

Service continuity ensures through comprehensive processes and procedures that mission-critical functions continue during and after a service disruption or disaster. Disaster recovery involves the steps taken to resume operations, ensuring that a robust and fault-tolerant ICT infrastructure is in place to continue or restart operations in the event of a natural or man-made disaster or disruption.

At ICC, this includes restoring business critical data with backups, re-establishing telephony exchanges or network infrastructure to meet immediate and longer-term business needs. ICC services incorporate a high level of business continuity and disaster recovery, as well as enterprise backup services available to complete Client requirements.

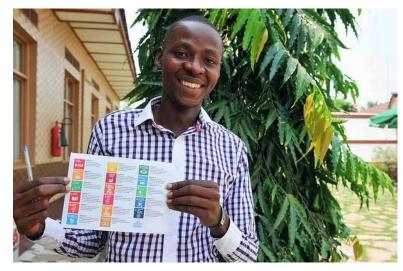


Some of ICC's dedicated service desk staff in New York. Photo: ICC/Allen

Worldwide Data Centres - UN Jurisdiction, Immunities and Privileges

ICC's data centres are geographically distributed over the world and comply with the United Nations jurisdiction. The organisation ensures that Client data meets all UN immunities and privileges. ICC provides service continuity and Disaster Recovery for all of its environments and service delivery options. Data centres are located as follows:

- Primary Data Centre (Valencia, Spain)
- Primary Data Centre (Geneva, Switzerland)
- Secondary Data Centre (Geneva, Switzerland).
- North American Data Centre (Piscataway, NJ, USA).



Clients can focus on core business activities by leveraging ICC's services. Photo: UNDP

Staff Expertise

The unique business environment of ICC requires a workforce that is versatile and skilled in deploying and supporting diverse technologies across the ICT spectrum.

It demands knowledgeable staff who are familiar with United Nations goals, ethics, regulations, procurement, business and technology environments.

Staff and contractors command industrystandard certifications in the areas of strategic advisory services, professional services, training, communications, data and analytics, application development, Robotic Process Automation (RPA), software services, platform services,



ICC delivers ICT projects and services with continuous improvement. Photo: ICC/Diana

infrastructure services, as well as public cloud integration and management services.

This includes training, qualification, and certification from key industry partners and suppliers, including Microsoft, Oracle, and Cisco, and professional certifications in governance (COBIT 5), information security (ISO 27001), project management (PRINCE2, PMBOK and ISO 21500) and service management (ITIL and ISO 20000). This advanced expertise allows ICC to function as the go-to ICT organisation for the entire United Nations family.

Best Practices, Standards and Certifications



Figure 5. ICC services use industry standards and certifications

ICC's staff are trained in Information Technology Infrastructure Library (ITIL) service management standards, PRINCE2 project management methodologies and use the COBIT 5 standard as a governance internal control framework.

ICC has established and embedded a culture of continual improvement in the quality of ICT services by implementing ISO 20000 certification for all ICC services.

Common Secure Information Security

ICC is committed to maintaining appropriate levels of information security, pursuing a number of relevant certifications and independent audits based on international standards, including ISO 27001:2015 and ISAE 3402.

ICC's information security services, with over 30 Clients, offer continuous, reliable and timely information security protections and controls, including gathering critical cyber information from Partner members, commercial security firms, service providers, federal, state and local government agencies, law enforcement and other trusted resources.

These services help to strengthen relationships with the cyber community at large on behalf of United Nations organisations and to foster a reputation for excellence. ICC is thus uniquely positioned to quickly disseminate cyber threat alerts and other critical information to subscribing organisations across the world.

ICC is a 2017 and 2020 CSO50 information security award winner.

ICC's Trusted Services

ICC has been the go-to service provider for United Nations programmes, funds, and entities since its inception. ICC, a United Nations entity itself, provides services to its Partner Organizations, other United Nations Agencies and related not-for-profit organisations.

All told, ICC's Clients number over 60, including nearly 50 Partner Organizations (those with membership or representation in ICC's Management Committee).

ICC places a lot of importance on operational excellence, with particular emphasis on the performance and availability of its services and the level of security associated with them.



ICC staff designing for the new digital business landscape. Photo: ICC/Allen

Testimonials

UNHCR appreciates the support provided by ICC and views this partnership as strategic.

Douglas Greene, CIO, UNHCR

The focus on end user satisfaction was the measure of success for our IP Telephony project.
Soren Thomassen, IT Director, UN Women

Special thanks go to the ICC Network Engineering Group (NEG) who took on the management from day-zero, led throughout the implementation phase with tireless efforts to achieve stability. Kirk Teran, UN OICT Network Support Unit Chief

With ICC's data and analytics solutions, UNJSPF can transform the way it does business. The data

visualisation is wonderful - a picture really is worth a thousand words!

Miharu Goto Gill, Chief, Enterprise Solutions, UNJSPF



ICC works with United Nations programmes, funds, and entities. Photo: UNOG/Ferre

We are pleased to renew our decade-long relationship with ICC and look forward to continuing to optimise the system with new technology and the most trusted service support.

Paul Raines, CISO, UNDP

ICC Services At-a-Glance

Client Services

- > Strategic and SME Advisory Services for software, infrastructure and platform support, standards, project management and more
- > IT Advisory Firm Services
- > Learning
- > Communications
- > App-Dev Services
- > Monitoring
- Robotic ProcessAutomation

Information Security

- Governance and CISO Support
- > Threat Intelligence Network
- Security Operations Centre (CSOC)
- Security Incident Event Management (CSIEM)
- Phishing and Vulnerability Management
- > Penetration Testing
- Incident Response and Forensics
- > Infosec Awareness
- > PKI Services

Data and Analytics

- > Common Services
- > Advanced Analytics
- > Business
- Intelligence

 > Database Services

Software Services & Cloud

- > AWS Management
- Ms Office 365
 Management
- > Ms Azure
- Management
- Cloud Web Hosting
- > Ms Dynamics 365
- > ServiceNow Support

Infrastructure Services

- Business Continuity
 & Disaster
 Recovery
 Planning
- Servers/Enterprise Server Support
- Storage on Demand and Management
- > Enterprise Backup
- > Data Centre Consolidation
- > Network Services
- Internet and Connectivity
- > OnelCTBox

Platform Services

- > Enterprise Resource Planning (ERP)
- Enterprise Web Applications, Hosting and Traffic, Analysis
- > Enterprise SharePoint (2013, 2016 and 2019)
- Business
 Intelligence
 Platform Support

Figure 6. ICC services overview

Client Services

ICC offers its Clients strategic advisory services, subject matter expertise, IT Advisory Firm Services, project management, ICT communications, application development, training and learning, Robotic Process Automation (RPA) and monitoring.

Professional Services

Professional services spans the Client Services area, with a wide array of services across the ICT landscape. ICC professional services are flexible enough to deliver one-time projects and related on-going services for Clients. Professional services are negotiated to fit all requirements including scope, deliverables, roles, responsibilities as well as cost estimates.

Utilising proven best practices, procedures, guidelines, standards as well as tools, professional services are delivered in multi-disciplinary areas. Examples include:

- Information security services
- Application development projects
- Project management and service desk
- ERP or CRM implementation
- Infrastructure/platform/application support and integration
- Performance testing and technical security testing.



Professional services are negotiated to fit all requirements. Photo: WIPO/Berrod

Software Services

ICC offers its Clients hosting and delivery of software

applications designed to be delivered over the Internet for their end-users. This includes business applications, business data as well as the underlying cloud platforms and infrastructure tailored to run the software. Benefits include resiliency, end-to-end setup and support, cloud services management and cost management, lower total cost of ownership, scalability and seamless state-of-the-art solutions.

Platform Services

ICC offers computing platforms that allow administrators and developers to create, run and customise their application suites, including software-as-a-service components. ICC manages computing platforms for ERPs and CRMs, data and analytics, web hosting applications, database, middleware, directory, resources and domains platforms.

Infrastructure Services

ICC provides computing infrastructure resources that allow administrators and engineers to easily manage networking, data centres and infrastructure elements for their business needs and application stack. ICC offers networking, physical servers, virtual servers, Operating Systems, storage, physical hosting from its data centres or ICC-brokered arrangements with third party cloud providers.

Cloud Integration Services

ICC's traditional strengths have been in providing stable private cloud environment for its Client needs, from Enterprise Resources Planning and collaboration platforms to email and Unified Communications, Business Intelligence, web hosting, custom applications and monitoring and reporting.

Recent global innovations have opened the door for public cloud solutions, which are lean and cost-effective, but require advisory services, migration support, and ongoing administrative and cost management services to make these off-the-shelf solutions fit the needs of United Nations organisations, which rely on robust information security and protection of UN information assets in cost-effective and integrated ICT environments.

Client Services

Consulting and Advisory Services

ICC offers client services from consulting services and IT Advisory Firm Services to application development, project management, training and learning, ICT communications, Robotic Process Automation (RPA) and monitoring.

ICC Consulting Services



ICC provides strategic consulting to CIOs and other executive managers. This includes business model mapping, ICT strategy development, project portfolio prioritisation, and industry benchmark research and writing. High-level peer review of major projects at key points in a project lifecycle is provided to assess and make appropriate recommendations for the likelihood of successful delivery.

ICC offers specific subject matter advice across the ICT landscape. From enterprise architecture and risk management to cloud computing, ICC has a wide range of knowledge in various subjects that can be readily offered according to individual Client needs. ICC can rapidly assemble the right team of experts and define a proposition tailored to Partner requirements.



IT Advisory Firm Services

ICC provides cost-efficient and volume-discounted packages for industry research groups, including Gartner, 451 Research, Cutter Consortium, Forrester, IDC Research, Info-Tech, and McLean & Company advisory services. These groups provide excellent research and development as well as industry trend analysis to drive ICT strategic governance and project planning, acting as arbiters between organisations and outside service providers.

ICT Communications Services

ICC offers ICT communications services, including advisory services, information/content design and delivery, campaign channel management, website content management, crisis communications, social media support, technical writing, editing, translations, event planning, photography and multimedia (video, audio, animations) campaigns, collateral and creative marketing design (templates, documents, posters, presentations, etc.) as well as e-learning and information security awareness support.

ICC's strong and mature experience within the UN family and the knowledge of its unique context of business activities allows it to offer ICT communications services with professional standards and proactive delivery applied to UN Agency communications context.

Project Management Services



ICC's project management services offer Clients an opportunity to tailor or build the required "tools and processes" to align strategic investments with corporate goals, thereby working to yield the highest return, with efficiency and transparency. Based on a proven Project Management Office (PMO) framework, this service leverages the shared expertise of many UN Clients and is adaptable to particular needs. ICC provides project management



services with direct end-to-end project support from a multi-tiered and multi-locational team that takes full control and responsibility for projects aligned to a Client's governance model.

OCHA

United Nations
Office for the Coordination of Humanitarian Affairs

ICC services employ best practices and are up-to-date with models and techniques that enable Clients to focus on business competencies and innovation. ICC aligns to project management standards including PRINCE2, PMBOK and ISO 21500.

Application Development Services



ICC's application development services help Clients design, enhance and build mission-critical custom enterprise applications and collaborative solutions, including Intranet, Extranet and corporate website design or revamps, business application development, application integration, data migration, certificate exchange hubs, mobile apps and more.



International Plant Protection Convention

ICC's services follow best practices in selecting the fit-for-purpose development process, quality code management, rigorous testing and validation, and other processes and tools for continuous integration and continuous deployment. ICC's software development framework and techniques follow industry standards and best practices for the Secure Software Development Lifecycle (SSDL).



Learning Services



ICC helps Clients deliver organisational learning programs, developing training strategies, needs analyses, vendor relationship management, certification programs and training content. ICC organises workshops for technical, business, and executive staff focused on specialised topics.





ICC provides learning and training in all areas of best practices and standards, from Microsoft, Cisco, and Oracle technical training to standards-based training in ISO

27001 for information security, ISAE 3402 for audit, ITL V3 for service management, ISO 20000 for service management system certification and COBIT 5 for ICT governance.



Monitoring as a Service

ICT infrastructure monitoring supports monitoring Client's end-to-end or component infrastructures by using a common pool of knowledge, resources, tools and systems. The service collects and aggregates near real-time data from a Client's ICT infrastructure to generate alerts of unplanned downtime as well as resource saturation.

This service is provided on a 24/7, 365-day basis from a Central Monitoring System and offers support for geographically dispersed locations. It is scalable with quick deployment, customisation and adaptation to Client requirements. Clients can subscribe to a mixture of monitoring levels for a variety of environments from development and testing to production.



Robotic Process Automation (RPA)



Robotic Process Automation is a logical step forward for organisations to increase efficiency in performing rule-based, high volume repeatable business process activities. ICC's value proposition provides for complete services, from inception to management of 'bots' and all related RPA functions. ICC co-creates value by offering the 'best-of-breed' and 'absolute fit-for-purpose' RPA solutions across various RPA platforms.

Powered by strategic partnerships with the top three RPA platform vendors (UiPath, Blue Prism and Automation Anywhere) and world-class implementation partners, a robust enablement plan within ICC delivers the highest quality of RPA work to drive Client Return on Investment.



Common Secure Information Security

ICC's information security services, as part of a wide range of expanding professional services, cover cyber security oversight and governance as well as operational components.

ICC is certified with ISO 27001 and offers consulting services to assist other Clients to obtain this key Information Security Management System certification. ICC is a 2017 and 2020 CSO50 information security award winner.

Governance and CISO Support Services



A proper Information Security Management System (ISMS) framework mitigates the risk of exposure of an organisation to a high risk of negative reputational impact, loss of valuable information, exposure to malicious acts as well as sophisticated and complex cyber-attacks. Institutions without an identified person (or group) responsible for overall information security are susceptible to exposure, attacks, financial damage as well as an unquantifiable loss of information.

METEOROLOGICAL

ORGANIZATION

WORLD

Based on its proven record of accomplishment in managing end-to-end Information Security, ICC offers governance and CISO support services. This is an Information Security Management System service with the goal to protect organisational assets, intellectual property, sensitive data, and reputation. The service leverages the shared expertise umbrella of UN Clients and is adaptable to Client needs.

Common Secure Threat Intel



This ICC information security service functions primarily to share timely, relevant and actionable physical and cyber security threat and incident information. This enhances the ability of the United Nations to prepare for, respond to, and mitigate risks associated with these threats.



It offers continuous, reliable and timely information gathering from Agency members, commercial security firms, service providers, federal, state and local government agencies, law enforcement and other trusted resources. It works to build relationships with the cyber community on behalf of the United Nations system and develop a reputation for excellence. Common Secure is positioned to disseminate cyber threat alerts and critical information to organisations across the world.



Common Secure Operations Centre (CSOC)

combination of technology processes and solutions.



Many ICC Clients have implemented cyber security initiatives including Security Information and Event Management (SIEM) systems, endpoint detection and response tools, firewalls, intrusion prevention systems and threat detection and analytics tools.

Many ICC Clients subscribe to Microsoft and Amazon cloud services, which generate continuous security alerts of various severities. The Common Secure Operations Centre



The CSOC is staffed with skilled cyber security practitioners who have deep knowledge of cyber threats, with matrices and service level agreements that enable Clients to respond to security incidents in a timely manner. CSOC analysts work closely with organisational incident response teams to ensure security issues are addressed quickly upon discovery.

(CSOC) involves a specialised unit that monitors, analyses, and responds to cybersecurity events using a





Common Secure Information and Event Management (CSIEM)



Security Information and Event Management (SIEM) solutions and services are typically part of an organisational security operations regime. They provide real-time analysis of security alerts generated by applications and network hardware.



ICC's Common Secure SIEM services (CSIEM) gather, analyse and present information from network and security devices, including identity and

access-management applications, vulnerability management and policy-compliance tools, operating system, database and application logs and external threat data assessment. They provide log auditing, review and incident response. A well-managed CSIEM is a pre-requisite for any successful Security Operations Centre (CSOC).



ICC provides a managed CSIEM service to help Clients configure business and organisational specific use cases, fine-tuning the CSIEM to reduce false-positives and align systems to organisational security requirements. Clients can benefit from standardised use cases provided by ICC for other Partners. Additional security services complement the CSIEM service, such as Common Secure Threat Intel Services and Common Secure Security Operations Centre (CSOC).

Phishing Simulation Services

ICC's phishing simulation services enable Partner Agencies to test effectiveness of their information security awareness programme. ICC's Information Security Specialists work with Clients to develop content and manage phishing simulation exercises including customising phishing campaigns and platforms to Client requirements, moving from a reactive program to a proactive one.

The service includes design and execution of phishing simulation campaigns, with reports showing results of the campaigns (number of users who have clicked on the links, number of users who have entered credentials, etc.).

Vulnerability Management Services

ICC's vulnerability management services provide continuous identification and remediation of vulnerabilities and configuration flaws through a combination of processes and technologies that its Information Security specialists can leverage.



These services include host and application vulnerability scans, security configuration checks and Internet footprint monitoring.



Penetration Testing Services

Penetration testing consists in actively exploiting vulnerabilities in order to prove (or disprove) real-world attack vectors against an organisation's ICT assets, data, staff, and/or physical security. It allows to identify weaknesses in information security controls and determine the extent to which adversaries can penetrate into the network or systems being tested. ICC has partnered with leading cyber security firms to perform third-party penetration tests for those Agencies who are interested.

Incident Response and Forensics Services

ICC's Digital Forensics and Incident Response (DFIR) services provide well-defined incident handling procedures for analysing incident-related data and for determining appropriate responses to any organisational security incident. ICC utilises industry standard best practices to assist its Partner Organizations in the creation of their incident response program, including the establishment of a Computer Security Incident Response (CSIRT) team.

See NEW Common Secure PKI Services

A PKI environment provides and manages public and private key encryption and digital signatures to establish a secure network environment for electronic transactions or data transfers and comprises the three main features of authentication, encryption and non-repudiation.

ICC's PKI services are broadly divided into three categories: internal UN system-wide PKI services for secure communications between Agencies, hosting and managing of organisational PKI infrastructures and publiclytrusted PKI services complemented with a full range of certificate types. ICC centrally manages an efficient, productive and secure certification environment.

Infrastructure and Network Support Services

ICC's infrastructure and network support services span across infrastructure, platform and applications from the delivery of fully managed components to the utilisation and analytics of tools as well as techniques. It includes:

- Two Factor Authentication (2FA)
- Managed firewall infrastructure
- Network intrusion detection and prevention
- Network access control
- Email security services
- Content filtering.



ICC offers strategic advisory services to help an organisation set up a state-ofthe-art, effective information security awareness strategy, an industryleading cloud-based learning lab and communications support including deliverables with messages, bulletins, posters and portal support.

Organizations will benefit from a security-focused culture, empowering employees to protect assets, prevent downtimes, increase adoption, institute proactive practices, collect risk data, reduce risks and maintain audit compliance.





Enterprise Resources Planning (ERP)

ICC's Oracle and SAP Enterprise Resources Planning managed services provide fully managed solutions for many of the major products from Oracle and SAP.

Oracle and SAP ERP Managed Services



ICC offers its Clients a variety of ERP platform hosting solutions and support, to give Partner Organizations integrated views of core business processes, often in real-time. Current solutions include:

- Oracle PeopleSoft ERP

Oracle E-Business ERP

- Fusion Middleware Applications/Modules
- Oracle database.







Data and Analytics Services

Software, Infrastructure and Platform Services

ICC offers various data analytics tools to direct and drive business insight. Business Intelligence helps predict, track, analyse, and present information as it relates to business performance, providing Partner Organizations with tools to translate data into actionable information. ICC's solutions include data analytics and visualisation, business performance management, data warehousing, dashboards and key performance indicators (KPIs).

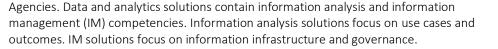
Data and Analytics Common Services



ICC offers data and analytics services including consulting, implementation and managed services for decision, analytics and information capabilities, executed on a technology platform that supports an organisation's fact-based decision making. ICC offers years of data and analytics expertise and experience with a proven track record of project delivered for multiple









Business Intelligence Services



Business Intelligence (BI) services utilise a wide variety of platforms providing Client organisations with a set of tools to make appropriate and timely decisions based on meaningful information. The service consists of technologies, techniques and solutions for raw data transformation into meaningful insight for business analysis and strategic decision making through structured and unstructured data processing.

Business Intelligence simplifies information discovery and analysis, measuring, managing and improving organisation performance management. BI further helps Clients to align decisions against organisational goals with consolidated data visualisation in a dedicated portal.



Advanced Analytics



Advanced analytics is the set of techniques used to discover relationships, recognise complex patters or predict current trends in Client data. Its objective is to model data from internal and external variables in order to obtain useful insights that result in smarter decisions and better business results. Advanced analytics contains prescriptive, diagnostic, predictive and prescriptive analytics, including:



- Data Lake and data storage
- Big Data and analytics
- Data discovery.



Business Intelligence Platform and Support



Business Intelligence (BI) platform and support services are an all-in-one service including all the necessary hardware, software, hosting and support. ICC has proven experience in deploying, managing and supporting BI platforms and data management systems from basic to complex installations in multiple environments. A package is also available for managing Client online databases.





Database Services

Database services are based on the Database Management System (DBMS) from Microsoft. They offer advanced features for hosting critical databases with high performance in a secure environment. ICC has the proven experience in deploying, managing and supporting database services from very basic to complex installations in multiple environments.

ICC offers fully managed solutions including all the underlying infrastructure, licenses and 24/7 support, end-to-end support, additional storage to suit Client requirements upon request, complemented with pre and post engagement activities such as assessment, migration, quarterly patching, provisioning and de-provisioning.

Enterprise Web Services

Platform Services

ICC provides a secure, high performance and high available hosting environment for web applications. Clients may select a preferred hosting environment, a preferred web server and more.

Enterprise Web Hosting



ICC offers Microsoft Windows or Linux servers as hosting environments and several content management system (CMS) solutions, such as Drupal, Liferay, Sitecore and others (Microsoft SharePoint is supported through separate Enterprise SharePoint services).



Features include enterprise search engines, load balancing, clustered database back ends, hardware, software, storage, hosting support as well as backups and restore. ICC web hosting



comprises development, staging, and production environments.

Professionally managed website bosting with ICC allows organisation

Professionally managed website hosting with ICC allows organisations to benefit from full technical support. For organisations seeking sensitive data hosting, ICC will provide the needed data backup and restoration features as well as secure hosting features, both at infrastructure and software levels.



Website Traffic Analysis



ICC offers a high performance website traffic analysis service providing Clients with an analysis of website traffic (e.g. who visited a site, which pages were visited, and how long users stayed on a site). ICC uses a powerful web analytics software tool to produce website usage statistics in HTML format for viewing with a standard web browser.



The service is available for websites hosted in ICC such as SharePoint, Drupal, WordPress, Liferay as well as custom websites (Java, Asp.net, PHP, etc.). The results present in both columnar and graphical format, which facilitates interpretation. Yearly, monthly, daily and hourly usage statistics present, along with the ability to display usage by site, URL, referrer, user agent (browser), search string, entry/exit page, username and country. The web analytics tool also provides custom reports for website applications.



Enterprise SharePoint

Platform Services

ICC has proven experience in deploying, managing and supporting Enterprise SharePoint servers and services from basic to very complex installations with multiple environments for production, disaster recovery, development and staging. ICC is a Microsoft Gold Partner with certified teams for Enterprise SharePoint implementation and hosting.

Enterprise SharePoint 2013

Enterprise SharePoint 2013 services are all-in-one services including all necessary hardware, software, hosting and support. Some of the key features offered include:

- Intranet, extranet, enterprise social, collaboration and other websites
- Collaboration, publishing, content, document and records management capabilities
- Business Intelligence and analytics
- Business process management and workflows
- Office Web Apps services.

Enterprise SharePoint Online can be found here under Microsoft Office 365 Management services.

Enterprise SharePoint 2016 and SharePoint 2019



Enterprise SharePoint 2016 and SharePoint 2019 services are fully managed solutions designed to leverage the platform and respond to a wide range of requirements. Accordingly, they offer a variety of subscription plans and options each one with different capabilities.



This service aims at maximising sharing of resources among tenants while maintaining data isolation and application flexibility. In addition, it offers fully dedicated environments tailored

to Client requirements and managed based on individual agreements. Some of the key features offered include:

- Intranet, extranet, enterprise social, and websites
- Collaboration and publishing capabilities
- MS Workflow Manager service
- Content, document and records management
- Business Intelligence and analytics
- Business process management and workflows.

Enterprise SharePoint Online can be found here under Microsoft Office 365 Management services.

Computing Services

ICC offers a wide range of computing services and service packages, including business continuity and disaster recovery (BC/DR) planning, servers and enterprise server support, storage and management, scalable and managed enterprise backup solutions, and data centre and technical equipment room consolidation for Clients.



NEWBusiness Continuity and Disaster Recovery Planning Services

Business Continuity (BC) ensures that mission-critical functions continue during and after service disruptions or disasters. Disaster Recovery (DR) involves steps to resume operations, ensuring that a robust and fault-tolerant ICT infrastructure is in place to continue or restart operations after a disruption. This includes restoring business critical data with backups, re-establishing telephony exchanges or network infrastructure to meet business needs. BC/DR planning is a continuous process and uses the continuous improvement approach to increase an organisation's readiness and response to downtimes and disasters.

Servers and Enterprise Server Support

This service includes a wide range of computing service packages. While vServers provide virtual CPU and RAM instances, allowing Clients to commission their own operating systems, enterprise server support services include licensing and Operating Systems support with security, health, hygiene, and monitoring systems. It provides physical server provisioning and hosting services for Clients opting for a bare metal solution hosted in ICC's Tier-3 data centres. VMware support services offer Clients full management of dedicated VMware environments including setup, configuration and ongoing administration following VMware best practices.

Storage on Demand and Management

These online storage services are based on ICC's data centre grade technologies in high-end and mid-range arrays over SAN and TCP/IP networks. With multi-vendor setup (HP, DELL, Violin, ORACLE, NetApp, EMC, IBM and HDS), optional combination environments of SSD for high response time, SAS for high performance, and/or NL for high volume are offered to Clients with around-the-clock monitoring and support in ICC's Tier-3 data centre.

Enterprise Backup



This service offers full and scalable backup, restore and archiving solutions with retention options. With automation and scheduling under highly secure environment, it seamlessly integrates a wide range of operating in VMware infrastructure, with agents for application including Oracle, SAP, SQL Lotus Domino, MS Exchange, and direct block-based backup from any storage solution. Backup data is secured using at-rest and in-flight encryption. Supporting infrastructure is

monitored through ICC's enterprise monitoring service and data is stored in a highly secure environment. Enterprise backup can be combined with storage on demand for complete end-to-end management.



Data centre consolidation services provide a management and support system for Clients data centre/technical equipment rooms that provides on-premises management, consolidation, migration and decommissioning services.

ICC's value-added expertise and experience in ICT infrastructure management also allows ICC Partners the ability to consolidate its infrastructure before, during, and after cloud migrations. This service features allow Clients to:

- Manage ICT infrastructure on site or remotely
- Support migration to virtual or container technologies
- Help perform hardware refreshes updating to newer equipment
- Decommission outdated infrastructure
- Relocate equipment to other data centres (such as ICC's shared service data centres).

Network Services

Infrastructure Services

ICC provides networking, Internet and connectivity services that leverage well-proven designs, up-to-date technology and best practices. ICC resources are certified and well versed in many networking and ICT disciplines, from core routing and switching to a full range of applications and services at every network layer.

Network Services

ICC provides a wide range of network services, including the management, maintenance and monitoring of switching and routing infrastructure, wireless access, web proxy, WAN optimisation, load balancing and application delivery controllers, as well as IP address management to ensure networks are available, secure, nimble and responsive to performance and capacity demands.

Internet and Connectivity Services



ICC offers a secure, shared Internet Access Service from highly redundant infrastructures complemented with firewalls and caching components.

The DNS hosting and domain registration service is a fully managed 2nd Level DNS system, while FTP Protocol services allow Clients to store/retrieve files in a secure environment. The service is fully managed with 24/7 support, flexible,

secure, highly available and versatile allowing mobility.



OnelCTbox

The ICC OneICTbox support service is a comprehensive infrastructure and platform solution to Client's field, branch, remote, and satellite offices. Through integrated hardware, the service provides support to multiple network and security functionalities covered with 24/7 monitoring and support. Positioned at the gateway between the Internet (or WAN) and the internal network at the Client's field office, the solution builds on standardised hardware and logical designs, simplifies deployment processes in addition to reducing operating complexity and on-going costs. The service entails:

- A one-time project based activity that covers the development of a Client's specific template to be applied on all instances and the actual deployment and configuration of the same template on each OnelCTbox
- An on-going activity to provide a Client specific central portal with network monitoring and reporting tools and the support of deployed OnelCTbox instances
- An extended support to optional components and features including the provisioning/leasing of hardware and software, LAN support, web caching and filtering, as well as virtual server hosting and support for custom applications.

Cloud Management and Support

ICC is meeting the challenges and drivers for organisations to move to new private, hybrid and public cloud offerings. ICC offers assessment, migration and implementation as well as fully managed operational support and cost management for a number of cloud solutions, including Microsoft O365, Microsoft Azure, cloud web hosting, AWS Management services, Microsoft Dynamics 365 and ServiceNow services.

Microsoft Office 365 Management Services



Microsoft Office 365 Management services help Clients who wish to use the Software as a Service capabilities of Microsoft's public cloud with an emphasis on communications, collaboration, endpoint management, enterprise mobility and identity management.



This service includes full lifecycle support from inception to production, with one-time and recurring activities designed to fit specific Client sizes and needs. From on-boarding to full administration of tenants including support of individual Office 365 services and applications, the service is scaled to provide powerful and controlled cloud productivity support to organisations of all sizes, helping them control cloud operations, costs and free up valued resources.



Microsoft Azure Management Services



Microsoft Azure management services provide value added options for Clients who seek to host their applications, platforms and infrastructure in the Microsoft Azure cloud. The service spectrum varies from Clients building and operating services in Azure to ICC building, deploying and operating these services on their behalf.



ICC provides architecture, business analysis and application development services in conjunction with Microsoft Azure management services, to build turnkey solutions for its Clients. The overall services is structured with three pillars: cost management, cloud administration and cloud deployment.





Microsoft Azure management services include a full lifecycle support from inception to production, with one-time and recurring activities as well as cost management.



Microsoft Dynamics 365

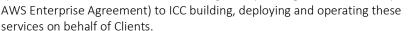
ICC's Microsoft Dynamics 365 services help Clients transform their processes across domains. They help organisations in every step of their digital transformation journey for business processes, including licensing needs, Dynamics 365 configuration, custom development, integration, training and support. This facilitates resilient, secure, automatable, repeatable and predictable processes. ICC can analyse, install, configure, customise and integrate Dynamics 365 for the entire Client organisation.

For non-profit organisations, ICC has been part of the Microsoft Insiders Program for the Non-profit Accelerator, which brings non-profits the tools for donor management and fundraising, program management, volunteer management and compliance with International Aid Transparency Initiative (IATI) standards for transparency.

AWS Management Services



AWS management services provide value-added options for Clients who seek to host their applications, platforms and infrastructure in the Amazon Web Services cloud. The service spectrum varies from the Clients building and operating services in AWS (leveraging ICC's





ICC provides architecture, business analysis and application development services in conjunction with AWS Management services, to build turnkey solutions for its Clients. The overall service is structured with three pillars: cost management, cloud administration and cloud deployment.

AWS management services include a full lifecycle support from inception to production, with one-time and recurring activities as well as cost management.





Cloud web hosting services aim to be the go-to cloud web hosting solution when control, security and performance are of utmost importance. ICC provides the required automation, scalability and reliability so that clients are able to focus on development.

This service is built to provide flexible cloud web hosting solutions for distinct platform and deployment control needs to Clients who seek to host or extend their web applications into the public, ICC-managed cloud by the use of latest platform technologies, coupled with controlled deployments. All major Content Management Systems (CMS) solutions and programming languages are supported.



ServiceNow is an integral service that will help organizations adopt a single cloud platform across the IT value chain. Organizations are in the midst of digital transformation across all aspects of their businesses, but they are often hindered by a complex web of legacy processes and systems.

ICC, through ServiceNow services, provide partners an opportunity to quickly transform the employee experience and optimise corporate services so they can focus on business innovation. Build to manage everything as a service, ServiceNow services helps the modern enterprise operate faster and be more scalable than ever before. It does this by placing a service-oriented lens on the activities, tasks and processes that make up the day-to-day work life.

About ICC - The United Nations International Computing Centre is the leading provider of Information Technology and Communications (ICT) services within the United Nations system. Over the last four decades, ICC has been continually expanding the services it is providing to its Partners in various parts of the world, and in various areas of ICT. For more information, visit us at: www.unicc.org.

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ICC has office and data centre locations with UN jurisdiction worldwide. Photos: ICC/Allen

