**Gennadiy Krivdyuk**  
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**Enterprise Architect –** SAP HANA and Security

| RDS |Concepts, Strategies and Policies| TOGAF | SAP Authorization Concepts Expert | IAF | H Model |

**Areas of Expertise**

Strategic thinking and attention to details, IT implementations and projects (150+ projects), Project management, Business analysis and process redesign, Performance management and scorecards. IT Architecture, Security Architecture and Business Transformation

**Selected companies where I worked as Security and Enterprise Architect**

SAP America, SAP AG and SAP Mexico **–** (ConAgra Foods, Becton and Dickinson and Company (BD), Graphic Packaging, ConocoPhillips, Colgate, Deloitte US, Allegheny Energy, Inc., NASA, Whirlpool, Eastman, Adobe, CMC, BNSF, Chevron-Phillips, Department of Personal State of Washington, FEMSA (Coca Cola Mexico and Latin America's), JoAnne, CMC, SAP America and SAP AG internal projects, modules , SAP America and SAP AG Lead for SAP Resource Management @ Field Services new module)

I**BM GBS and IBM ISM**

Sask-power**,** Applied Materials (46 countries), NBC Universal(30+countries), General Motors-3 projects 170 countries), IBM (Blue Harmony Project) Global HR for IBM (174+ countries), Medtronic (36 countries), Bridgeston Tires (48 countries)

**Convergys Corp,** (Fifth Third Bank, State of Florida, Fifth Third Bank, AT&T, Whirlpool, DuPont, Johnson & Johnson, Pfizer, Solectron Corporation, Guidant, Lucent)

**Canada Corp.** (Tim Horton, Burger King, Uni — Select, Saudi Electricity Company, Tampa Electric Company, Sap-tech, Millennium, IBM, Province of Nova Scotia), Bombardier Aerospace Group, Sunoco, Black and Veatch, Municipality of Anchorage)

**Selected Methodologies, Architecture and Design Tools**

ASAP, User — Centered Design (UCD), Centralized and De-Centralize Business Model, 3 Tier Approach Model, Position Based Model, Tasks Oriented Model, RBAC Model, Job Related Model, Agile, Waterfall, Drop Down, TOGAF, ECM/BPM, Zachman Framework, SAP Activate methodology, Integration Architecture Framework, Reference Architecture-Reusable Templates, Rapid Deployment Solution, H Model- The two-stage model, ArchiMetric, Visio

**SUMMARY: SAP S/4HANA and HANA and HANA 2, SAP Lumira, SAP Afaria and Kapsel -**solution implementation-projects based on implementation guide (transaction *SPRO*)

SAP Afaria - SAP Mobile Application Framework (MAF) component such as the Kapsel \ Logon plugin

Strategies for implementing SAP S/4HANA solutions andprovided content per implementation phase

Required Enterprise Business Functions:

Setting up a new best-practice client, carrying out technical setup, carrying out settings for implementation

**SAP S/4HANA, HANA and HANA, HANA live**- System Configuration, the Simplification List Items as XLS, simplification Items with SAP S/4HANA, Items related to SAP Add-On Portfolio and Project Management (PPM)

New “Core” items in SAP S/4HANA (this includes items which changed their simplification category)  
Performed advanced analytic (predictive analytic, spatial data processing, text analytic, text search, streaming analytic, graph data processing). Managed services provider-upgrade to SAP HANA 2.0

**SAP HANA 2.0** security improvements as adds log volume encryption, easier to manage encryption keys for data, log, and application encryption. SQL statements to upgraded all encryption keys, and back them up on a dedicated, password-protected file and a system privilege called ENCRYPTION ROOT KEY. ADMIN to supervise administration of encryption.

**SAP HANA 2.0** handled group authorization and privileges, controls with the SAP HANA cockpit. For example, admins can create users and configure their privileges, right from the cockpit. New database management functionality to help you maintain business continuity, high availability and performance.

**Runs on physical or virtual hardware** called the primary system, and uses a process called System Replication to create a backup copy on the secondary system, which can either be located in the same data center (high availability) or another data center (disaster recovery).

Participated in All Phases of SAP HANA Application Life-Cycle Management

**Model** -defined product structure to provide a framework for efficient software development. This includes creating delivery units and assigning packages to delivery units. The delivery units are then bundled in products.

**Develop-**performed software development in repository packages. SAP HANA application lifecycle management supports with change tracking functions.

Transport-transported and developed content in different ways also exported delivery units, and import them into another system.

**Assemble-**developed software plus the metadata defined when modeling product structure as well as possible translation delivery units are the basis for assembling add-on product.

**Configure -**delivered configuration content, used the process engine of SAP HANA application life-cycle management to automate configuration tasks

SAP Best Practices for SAP S/4HANA Enterprise Management integration with SAP Hybris Commerce

SAP Hybris Commerce architecture:

**SAP Hybris Platform** as a Java-based web application, Business and Persistence Layer, SAP Hybris Commerce data model. SAP Hybris Commerce integration rapid deployment solution: Software and Delivery Requirements, SAP Hybris Commerce Accelerator, Business Partners Using Odata Service, SAP Hybris Commerce, SAP & Hybris Integration, The front-end (i.e. the customer view or presentation layer)

**The commerce API layer** , ERP, External single-purpose applications, Asynchronous vs. Synchronous Integration, Hybris Data Hub, SAP IDOC to Hybris Translation, Hybris ImpEx, Product Information Management (PIM), Solution through their Product Cockpit (PCM) or Product Content Management, B2B and B2C commerce, B2C Commerce - Asynchronous Order Management (1MA)

**SAP CRM Integration Scenario:** Product Cockpit Module enables cockpit end users to manage and structure product information and catalogs, Customer Experience enables the end users to manage website pages, providing them with intuitive graphical way of data presentation and management, Backoffice Administration Cockpit is the graphical user interface of SAP Hybris Commerce and offers finer-grained control over the user’s data

**Responsiveness− SAP Fiori** is combined with the power of SAP HANA and provides an unmatched application response and query executions time

Advanced knowledge of SAP, IBM, MS and AWS Services including:

Management - CloudWatch (Events/Logs), IAM, CloudTrail, EC2 Systems Manager

CaaS, PaaS, SaaS, IaaS - EC2, VPC, EBS, ELB, KMS, Config, SNS, SQS, SES, SWF, S3, Glacier

Data Management – MS SQL, DynamoDB, BI, BW, HANA etc.

Other - Server Migration, Storage Migration, SAP Gateway, AWS Gateway, Ariba

**Hands-on experiences with CloudFormation**

Proficiency and experienced with AWS developer tools and work-flows (AWSCLI, CloudFormation, etc.)

Experienced with other tools like data dog are added advantage

Experienced designing and deploying dynamically scalable, highly available, fault tolerant, and reliable applications on AWS, Experienced selecting appropriate AWS services to design and deploy an application based on given requirements.

Experienced operating virtualization in a data center, migrating applications from data centers to cloud, or planning and executing similar scale and technology programs. Working knowledge of networking infrastructures, including LAN, WAN, VPN, Virtual Network, Subnet, etc. Fundamental knowledge understanding of Application Authentication and Security, Communication and Database security, Network and Cyber Security

**Experienced with managing applications** in Commercial Cloud Providers, including MS Azure or AWS possess and maintain a deep understanding of IaaS and PaaS services offered on cloud platforms and understand how to design and operate networks to support ease of use, self-service, automation, and reliability of services

**Methods Integration Platform**

Developed integration solution Microsoft SSIS with SAP HANA:

* **Tools:**MS Visual Studio, Business Intelligence tools for Visual Studio , Hana client, Sample Data Source
* Created Create a .csv file with few records. Visual Studio and created a data source connection to HANA, SAP HANA as the data source .Provided the HANA server details as .NET Data Provider for SAP Hana, HANA schema in Visual Studio.
* Created a destination table in HANA database using HANA studio under the desired schema, created a new SSIS project to load data from a csv file to HANA database. ‘Flat File Source’ to upload the .csv file. Registered the ODBC connection through device manager (Operating System), ‘ODBC Destination’ to ‘Data Flow’. ‘Flat File Source’ to ‘ODBC Destination’

**Created SAP NetWeaver** - SAP Virus Scan Interface 2.0 (NW-VSI 2.0). The SAP NetWeaver Virus Scan Interface (NW-VSI) allows external anti-virus and content security solutions to integrate with SAP Applications Servers. The Virus Scan Adapter is built by the anti-virus solution provider based on SAP templates in the Software Development Kit (SDK) for Virus Scan Adapters.

**EMPLOYMENT HISTORY****Federal Corporation- 8851484 CANADA CORP., Toronto, ON**

July 2014 – January 2018

**Principal Enterprise and Security Architect**

Familiar SAP S/4HANA Cloud releases, provides all security related features for HANA such as Authentication, Authorization, Encryption and Auditing, and some add on features, which are not supported in other multitenant databases.

Expert knowledge security related features, provided by SAP HANA

* User and Role Management
* Authentication and SSO
* Authorization
* Encryption of data communication in Network
* Encryption of data in Persistence Layer

**Scenario 1** - System Conversion: Existing SAP Business Suite Customer who wants to move to

SAP S/4HANA

**Scenario 2** – Landscape Transformation: Existing SAP Business Suite Customer who wants to

optimize their system landscape and move to SAP S/4HANA

**Scenario 3** – New Implementation: New SAP customer who wants to move from legacy systems

to SAP

**Experienced with additional Features in multitenant HANA database:**

* **Database Isolation** − It involves preventing cross tenant attacks through operating system mechanism
* **Configuration Change blacklist** − It involves preventing certain system properties from being changed by tenant database administrators
* **Restricted Features** − It involves disabling certain database features that provides direct access to file system, the network or other resources.

**SAP HANA integrated with BI platform** tools and acts as reporting database, then the end-user and role are managed in application server

End-user directly connects to the SAP HANA database, then user and role in database layer of HANA system is required for both end users and administrators, SAP HANA- standard users and restricted users, Security administration with SAP HANA Studio, Created design-time HANA roles based on System Privileges, Object Privileges, Schema Privileges, Source Privileges, Analytic Privileges, Package Privileges, Application Privileges Run-time roles granted to an user by using the stored prerecord for

„GRANT\_ACTIVATED\_ROLE“

* SAP S/4HANA Cloud 1503: 2015
* SAP S/4HANA Cloud 1506: 2015
* SAP S/4HANA Cloud 1511: 2015
* SAP S/4HANA Cloud 1603: 2016
* SAP S/4HANA Cloud 1605: 2016
* SAP S/4HANA Cloud 1608: 2016
* SAP S/4HANA Cloud 1611: 2016
* SAP S/4HANA Cloud 1702: 2017
* SAP S/4HANA Cloud 1705: 2017
* SAP S/4HANA Cloud 1708: 2017

**PUBLIC road map-real-time processing** of inventory postings and visibility of inventory values, simplified Data Model, analytic - analytic performed on primary data, move from batch processing to real-time processing

Defined data-persistence model here by using design-time artifacts to define tables, views, sequences, and schema.

* Debugged perspective
* Provided views and menu options that help you test your applications, for example: to view the source code, monitor or modify variables, and set break points.
* Provided Modeler perspective views and menu options that enable to define analytic model, attribute,
* analytic, and calculation views of SAP HANA data
* Synchronized Team perspectives
* Provided views and menu options that enable to synchronize artifacts between your local file system
* Access to a running SAP HANA development system (with SAP HANA XS classic)
* A valid user account in the SAP HANA database on that system
* Access to development tools, for example, provided in:
* SAP HANA studio, HANA studio XS, Authorization Assistance
* SAP HANA Web-based Development Workbench
* Access to the SAP HANA repository
* Access to selected run-time catalog objects
* Role-Based− decomposed various SAP transactions and changed them into user interactive applications that show only most relevant information to the users

**SAP S/4HANA (familiar on-premise) releases:**

* SAP S/4HANA Finance 1503: 2015
* SAP S/4HANA 1511: 2015
* SAP S/4HANA Finance 1605: 2016
* SAP S/4HANA 1610: 2016
* SAP S/4HANA 1709: 2017

**Provided SAP Best Practices** available for this scenario are an accelerated project methodology via “step-by-step” guide, project tools and enhancements to use the SUM with DMO to its fullest potential, and a guided process to migrate your database leveraging new project accelerators.

**Responsiveness− SAP Fiori** combined with the power of SAP HANA and provided an unmatched application response and query executions time

Simple− made SAP Fiori simple to match the user demand, SAP has designed it as a 1-1-3 scenario. This means 1 user, 1 use case and 3 screens

* **Seamless Experience**− the Fiori apps based on the same language and it does not matter on the deployment and platform.
* Delightful− SAP Fiori designed to work with ECC 6.0 to make it easy for the users and to deploy on the existing SAP systems
* Implemented and deployed next applets: Transactional Apps, Fact Sheets, Analytical Apps

**Key capabilities:**

* New delightful visual theme: Belize
* SAP Fiori launchpad and extended with Viewport concept
* Notifications - with connection to SAP Business Workflow and My Inbox
* Me Area: direct navigation to recent apps and business objects, to settings, app finder
* Improved navigation via “Me Area” and via navigation to previously opened apps via drop down in new merged header
* Merged header: only one header bar, giving more space for each app
* New SAP Fiori elements: Overview Page, List Report and Object Page

**SAP Fiori / SAP Gateway:**

* Authentication managed by the SAP Fiori Framework
* Authorization for the user is shipped by Software Component ST-UI for SAP Solution Manager applications.
* In addition, for each individual application back-end authorization and RFC - communication authorization are required
* General security - related topics are mitigated by the front-end security of your Central Hub system, such as URL redirection, administrator access, input validation, and so on

**Security tools:** Integrated platform for performing security testing and audit of web applicationsas Burp Suit, Lynis, Beef, Passenger, CobaltStrike, Metasploit, Armitage, Cortana, Msfconsole and others

Malware Analyses Tools: Balbuzard, Bdlogparser, Box-js, Mamscanlogparser, Cuckoo, Zerowine and others

**GRC for SAP HANA**: SAP Controls, GRC PI for HANA, HANA based Application

**Define** clear steps required to implement GRC on HANA plug in to integrate GRC 10.x with HANALIVE DB for user provisioning

**Completed** SAP GRC HANA “plug in” setup, provided connectivity test from GRC to HANALIVE DB Integrated HANA API to the SYSTEM catalog by using HANA Studio

Perform risk analysis for SAP HANA-based authorizations to avoid SoD conflicts

**Virtualization Data Using Flowgraphs:**

Visualized data by transforming it using a flowgraph editor and various transforming nodes. Use the nodes to design a flowgraph to retrieve data from an external system, transform it, and view it. Flowgraph

editors exist in the following tools:

● SAP HANA Web IDE

● SAP HANA Web-based Development Workbench

● SAP HANA studio

**eCommQuest, Inc., 4151 Ashford Dunwoody Rd., Suite 200 Atlanta, GA, 30319**

Client IBM / Sunoco, Philadelphia, PA USA, November 2013 – June 2014

**Security Architect**

**Selected projects**:CRM, WEBUI, Business Planning and Consolidation, eCommerce, Hybris

**SAP Technical Architect**

The goals of this project “Storm” is to build:

Develop database artifacts for use by applications running in the SAP HANA XS advanced environment, bear in mind the following prerequisites:

* Lead author technical and functional requirements
* Monitoring and configuration of security-related settings
* Data access and integration with SAP HANA data provisioning tools and technologies
* SAP HANA Architecture
* SAP HANA In-Memory Database
* SAP HANA Database Architecture
* SAP HANA Extended Application Services
* SAP HANA-Based Applications
* Access to a running SAP HANA development system (with SAP HANA XS advanced)
* A valid user account in the SAP HANA database on that system
* Access to development tools, for example, provided in:
* SAP Web IDE for SAP HANA
* SAP HANA Run-time Tools (included in the SAP Web IDE for SAP HANA)

**Administration tool like HANA studio for most common activities include:**

* Created Users
* Granted roles to users
* Defined and Create Roles
* Deleting Users
* Resetting user passwords
* Reactivating users after too many failed logon attempts
* Deactivating users when it is required

Role admin privilege authorizes the creation and deletion of roles using the CREATE ROLE and DROP ROLE commands. It also authorizes the granting and revocation of roles using the GRANT and REVOKE commands.

Activated roles, meaning roles whose creator is the per-defined user \_SYS\_ROPE, can neither be granted to other roles or users nor dropped directly. Not even users having ROLE ADMIN privilege are able to do so.

**IDM Connector for SAP HANA - Provisioning:**

Create User with Password, Password notification, Creating User with different authentication methods

Creating User with Session Client, Provisioning of HANA Roles, DE-provisioning, Deleting Users Yes

Deprovisioning of HANA, Modify, Changing of Authentication Method, Changing of parameters of the corresponding Authentication Method, Changing the Session Client, Lock and Unlock of Users

Synchronization with HANA, Loading of HANA Roles, Loading of HANA Privileges, Loading of Users, Mass Maintenance (On Basis of IdM RDS), Reporting (On Basis of IdM RDS), Managing of customer specific HANA Tables (ACL)

Worked with Object/SQL Privileges, Analytic Privileges, Package Privileges, Application Privileges, System Privilege to create new roles. Experienced with HANA procedures and generate SQL roles (Create role, GRANT SELECT, EXECUTE…) in each system if it is required. Familiar to create repository or run time roles and design time. Created user schema and data schema.

**Familiar with authentication methods supported by SAP HANA:**

* User name/Password
* Kerberos
* SAML 2.0
* SAP Logon tickets
* X.509
* ISO 27001/27002, ITIL and COBIT frameworks
* Windows, UNIX and Linux operating systems
* Perimeter security controls – firewall, IDS/IPS, network access control and network segmentation
* Router, switch and VLAN security; wireless security
* Security concepts related to DNS, routing, authentication, VPN, proxy services and DDOS mitigation technologies
* Practices and methods of IT strategy, enterprise architecture and security architecture
* Network security architecture development and definition
* Knowledge of third party auditing and cloud risk assessment methodologies

**The SuccessFactors Employee Central Integration to SAP S/4HANA**

Best Practice offers you predefined content for data integration to enable end-to-end business processes across your core cloud HR and SAP S/4HANA on premise system landscape. In this scenario, SuccessFactors Employee Central as your core HR system in the cloud is the system of record for all human resources (HR) data.

**Supported data integration:**

* Integration of employee data between SAP S/4HANA and SAPSuccessFactors Employee Central where the employee data of SAPSuccessFactors Employee Central enables business processes, such as travel expenses, purchase orders, and so on.
* Integration of organizational data between SAP S/4HANA and SAP SuccessFactors Employee Central to synchronize organizational information such as the enterprise structure data, reporting lines, and so on
* Integration of financial data, such as cost center and cost center assignment integration between SAP S/4HANA FI and SAP SuccessFactors Employee Center

**Business Benefits**

* Easy Integration of the HANA based S/4HANA
* Fully benefit from innovation delivered via the SAP SuccessFactors cloud solutions
* Setup the integration faster and with less risk due to best practice content
* Ensure the security of an HR data transfer according to security governance protocols
* Realize the data integration using SAP Best Practice to improve the security concept of the on premise system landscape
* Usage of SAP HANA Cloud Platform, Integration Services as midleware

**Trust and Key Stores for Securing Communication**

Used different trust and key stores exist for internal communication and external communication. Depending on implementation, these will either be in the form of:

* In-database certificate collections (recommended)
* Personal security environments (PSEs) stored in the file system

A certificate collection (or PSE) is a secure location where the public information (public-key certificates) and private information (private keys) of the SAP HANA server are stored. A certificate collection may also contain the public information (public-key certificates) of trusted communication partners or root certificates from trusted Certification Authorities

**Used the Transport Layer Security** (TLS)/Secure Sockets Layer (SSL) protocol to secure communication between the SAP HANA database and clients that access the SQL interface of the database

**Saudi Electricity Company, Dammam, KSA**

**March 2013 – August 2013**

Provider: Al Bilad Arabia

**Security Manager**

Sap Solution overview: Conclusion and Recommendations,

Redesigned and rebuilt Solution Policy, Business and Technical roles, Procedures

* Sol-Man, ECC, ERP 6.0, HCM, SRM, CRM, BRM, LSO,MII CLM, SRM, BPC, BI, BOBJ, BO, BPC, GRC 10 (Process and Access Control and Risk Management
* Risk Management and Content Life Cycle Management), TOGAF
* **Established an environment for HANA administration, HANA Information Modeling and Data Provisioning in HANA database,** Developed Business Cases

**Solution Manager Business Cases development and optimization project**

* SAP HANA Live, S4/HANA Fiori, Hybris
* Multi-catalog support
* Multi-language and
* Multi-currency support
* CRM, ERP and SAP HANA
* Evaluating SAP HANA Solution

**Developed Authentication is the process of verifying the identity of a user who attempts to use Business**

Objects Enterprise system (BOE, BI/BW/BOBJ, HANA)

* Developed Security Model concerned with two areas:
* authentication – establishing who the user is, essentially the logon process and

authorization – controlling user access to different areas of the system

**SAP BusinessObjects Enterprise (BOE), BOBJ, BI/BW, HANA**

Used the Central management console (CMC) to define our security model and we can grant or deny access to a vast array of options and features throughout the system from controlling which documents can be viewed to what features within an application can be utilized – download to Excel in Web Intelligence, for example:

* Developed authentication type to be Enterprise or Third Party Authentication such as LDAP or Windows AD
* Created authorization process of verifying the user and sufficient rights to perform the requested action upon a given objects
* Action means to view, refresh, edit, schedule, etc. Object means folder, report, instance, universe, etc
* Handled authorization based on how the access level, application security, and content security such as users and groups, universe security, folder access, etc. are defined using CMC

Created of the authorization part is created, administered and maintained in CMC.

T**his includes:**

* Access Levels and Inheritance
* Application Security
* Content Objects Security

**Set access level of rights that users frequently need**:

BOBJ per-defined out of the box access levels such as Administrator, Full Access, Schedule, View and View on Demand

Created and customized your own access levels

* Set an object for a user rights are in order to control the access to the specific objects
* Set this individually (when there are hundreds of objects)
* Resolved inheritance this impractical situation by passing on the set of rights from a group to sub-group or from a folder to sub-folder
* Worked with CMC to control the appearance and features of tools such as, InfoView, Desktop Intelligence, Web Intelligence

Universe and Connection Security:

* Managed Universe security is at two levels CMC and Universe Designer:
* Applied CMC restrictions such as access level, users and groups, and usage rights and stored in CMS
* Restricted from Universe Designer Connection, Query Controls, SQL Generation
* Defined Object Access, Row Access, Alternate Table Access

Defined user security at the most granular level for the following content objects:

* Folders and sub-folders
* Reports
* Categories
* Events
* Program Files
* Publications

Configured BOBJ with following out of the box security:

Access Levels

* Full Control
* Schedule
* View
* View on Demand

Application Security

* Content
* Designer
* Web Intelligence, CMC, etc.

Users and Groups

* Administrators
* Everyone
* Universe Designer Users

Applications (Default Settings)

* CMC
* InfoView
* Web Intelligence
* Desktop Intelligence, etc.

**Gwinnett County Government, State of Georgia, Lawrenceville, GA**

Nov. 2012- March, 2013

SAP Technical Architect

Sub-contractor (Ask Stuffing)

* SAP Solution Specialist - SAP Solution Application Architect
* SAP Solution overview: Conclusion and Recommendations,
* Redesigned and rebuilt all CRM Business and Technical roles,
* ERP, CRM, BI, BOBJ, BO, BPC, ECC, “Cut Over”, “Go Live”

**Network Security-related**

Separate network zones:

These network zones can be basically described as follows:

* **Client zone**

The network in this zone is used by SAP application servers, by clients such as the SAP HANA studio or Web applications running against the SAP HANA XS server, and by other data sources such as SAP Business Warehouse

* **Internal zone**

This zone covers the interhost network between hosts in a distributed system as well as the SAP HANA system replication network.

* **Storage zone**

This zone refers to the network connections for backup storage and enterprise storage.

**Divided on two categories:**

1.”Passive" when a network intruder intercepts data traveling through the network, and Critical Security Settings in SAP HANA Cockpit monitoring

2.”Active" in which an intruder initiates commands to disrupt the network's normal operation or to conduct reconnaissance and lateral movement to find and gain access to assets available via the network Passive: Wiretapping, Port scanner, Idle scan.

**Active:**Denial-of-service attack, DNS spoofing, Man in the middle, ARP poisoning, VLAN hopping, Smurf attack, Buffer overflow, Heap overflow, Format string attack, SQL injection, Phishing, Cross-site scripting, CSRF, Cyber-attack, PKI Database Security-related: Access control, Auditing, Authentication, Encryption, Integrity controls, Backups, Application security

**Database Security** applying Statistical Methodologies Disaster Recovery, Backup, Business Continuity, Developed a set of policies and procedures to enable the recovery or continuation of vital technology infrastructure and systems followinga natural or human-induced disaste**r**

**Physical security**: The component of communications security that results from all physical measures necessary to safeguard classified equipment, material, and documents from access thereto or observation thereof by unauthorized persons

**Standards**: Familiar with ISO 27002 (1), COBIT, NIST 800-53, ISO 27002 and SANS Critical Controls, Harmonized TRA, PCI compliance , NIST Framework, Guidelines, and the SANS Consensus Audit Guidelines Six Sigma, CMM, ITIL, Application Security Assessment: Penetration Testing and AppSec Prioritization, Application Security Report Cards, Report Card Development Process, Report Card Integration, Prioritizing Systems, Security Assessments and Treatment, Security activities including threat modeling

**Static Application Security Testing** (SAST), **Dynamic Application, Scanning Tools** (DAST), Penetration testing, Critical security controls. Operating-system-level virtualization, also known as containerization, refers to an operating system feature in which the kernel allows the existence of multiple isolated user-space instances.

**Security tools:** Configured SAP HANA to use TLS/SSL for secure communication,

Integrated platform for performing security testing and audit of web applicationsas Burp Suit, Lynis,

Beef,Passenger, CobaltStrike, Metasploit, Armitage, Cortana, Msfconsole and others

**Malware Analyses Tools**: Balbuzard, Bdlogparser, Box-js, Mamscanlogparser, Cuckoo, Zerowine and others

**Tampa Electrical Company (TECO), Tampa, FL**

June 2012 - July 2012

**Security Solution Consultant**

* Sub-contractor (Deloitte / AJACE)
* HCM, BOBJ, BOE, BPC, BW, BW-BPS, SRM, ECC, PORTAL, ERP 6.0, CRM WEB UI
* “Go Live” and after “Go Live” Support, BOBJ re-design,
* Front End and Back End BOBJ integration with HANA

Concerned the security model of a BI application is with three distinct areas

* User access – which users are allowed access to the application
* Data access – what data is exposed through the BI Application
* Functional access – what the users can do with this data

**Black & Veatch, Anchorage, AK USA**

February 2012 - April 2012

**Principal Consultant – Enterprise Architect**

Municipality of Anchorage

HCM PROJECT

Structural Authorization, Indirect Assignment, Strategy, Policy

SRM, PORTAL, BI, ECC, HCM, ESS/MSS. ERP 6.0, CRM2007

**IBM Global Business Service - Jacksonville, FL**

September 2010 to February 2012

Multiple Projects, USA

**Managing Consultant - Application Architect. Security**

**Specific stream ciphers include**: One-Time Pad, Feedback Shift Register (LFSR), Linear Congruential, and RC4

RC4 is the most widely-used stream cipher and is used in Secure Socket Layer (SSL) and Wired Equivalent Privacy (WEP), Asymmetric Key Encryption, Diffie-Hellman Key Exchange, RSA Encryption, Elliptic Curve Cryptography

**Transmission security** ( TRANCES ): The component of communications security that results from the application of measures designed to protect transmissions from interception and exploitation by means other than crypt-analysis and cryptography (frequency hopping and spread spectrum).

**Examples of some projects:**

**NBC Universal - Global HCM Project**

Lead of HCM Solution (36 Countries)

ESS/MSS, Portal, Eureka, ECC, HCM, XI/PI, ERP 6.0, BOBJ, BPC, CRM

Global Project for 36 countries

**General Motors**, **Detroit, Michigan**

**Global Projects**

Back Point 1, Back Point 2 (170 Countries)

ECC, ERP 6.0, CRM2007, BI – Cognos, Portal

**SAP Solution Strategy and Architecture**

* BI Cognos Reconciliation
* GRC reports and BI Cognos reconciliation
* Internet Portal and BI Cognos integration
* LDAP Bi Cognos Groups and Roles
* Integration with ECC6, CRM7

**Bombardier Aerospace Group**, **Montreal, QC**

**Application Development & Entertainment, IT**

May 2010 – September 2010

Sub-Contract with Canada Corp and CSI in SAP Solution Field

SAP Solution Consultant

Description/Scope: Extended Warehouse Management (EWM)

Responsibilities/Deliverable/ Achievements:

Solution Manager, CRM Channel Management, WEB UI, EWM

Encryption are created equal and using a data encryption method that is PIPS-certified (Federal Information Processing Standard), which means it has been certified for compliance with federal government security protocols.

**Cryptography:** Algorithms ranging from symmetric, a-symmetric, hashes, and random number generators, all aspects of the Key life-cycle including storage

**Sask-power, Regina, SK**

October 2009 - April 2010

**Lead SAP Solution** Consultant

Subcontractor from IBM ISM/MODIS

Projects Description/Scope:

* ECC 6, BI, CRM 7, Sol Man 6, SRM 6, PORTAL 7, Tivoli IDM 4.1, ERP 6.0
* HCM Remediation Project
* Roles and Infrastructure re-design
* Migration from ECC 5 to ECC 6
* BW 3.5 migration to BI 7.0

**Responsibilities/Deliverable/Achievements**

* Integration TIVOLI Identity Manager, UME and corporate LDAP
* RBAC - Role Based Access Control Model development
* Overview and consideration of Role Based Access Control, The Role modeling challenge, Role Based Access Models, Overview, Statement of the Problem
* Access Control Principles, The Implementation and Conversion Program, Migration Plan
* Implementing the Pilot Program, Role Based Access Control Solution AIX management overview
* RBAC in Oracle (RDMS), Role Based Access Model for SAP, Policy-Based Authorization
* Business Processes, Business Policies, The RBAC pattern as an extension of the Authorization pattern
* Role-Based Access Control (RBAC) Pattern, Implementing and Modeling Roles in ITIM
* Separation of Duty in Role Based Access Control System Pattern

**SAP America Inc., Jacksonville, FL** (permanent) April 2007 - April 2009

SAP Solution Consultant

Industry: Multiple

**Technical Security Specialist**

**Projects Description/Scope:** Multiple Solutions

Competency Areas:

* SSO-Concepts (Certificates, SAP Logon Tickets)
* Kerberos and Public-Key Cryptography
* Business Continuity Planning
* Solution Management Practice
* Solution Infrastructure Architecture
* CRM Channel Management, E-commerce, WEB UI
* Enterprise SOA Solution in SAP Systems
* Integrating ABAP User-Management with Organizational Management
* Central User Storage Techniques
* Build Framework: Solution Audit tools & Change Documents (SCDO)
* Maxware, IDM and LDAP in a company environment
* SAP UME administration and J2EE roles
* Handling PFCG (check indicators, SU24, transport & upload roles)
* Configure and implement cryptography technologies in SAP System
* Solution Policy and Strategy
* BI/BW Strategy in Analysis Authorization, BI, BOBJ, BPC
* SAP CRM module, SAP Biller Direct, SAP Exchange Interface ("PI/XI")
* Flexible Solution framework that can be adapted to specific customer (business partners) needs

**Convergys Corporation, Jacksonville, FL** (permanent)

April 2006 - April 2007

**Sr. SAP Solution Consultant**

Industry: Software Consulting Co., Government, Banking, Chemical, Retail, Pharmaceutical, Telecommunications, Manufacturing

Project Description/Scope: SAP Global Solution

Shared Service(Clouds) for 14 Global Companies (Multiple projects).

Application and Software:

ECC, ERP 6.0, SAP R3 4.7, Visio, Microsoft Project, SAP CRM, SRM, BW, BI 7.0, Portal, XI, CRM

**Operation System:** Windows XP

**Responsibilities/Deliverable**:

* Solution based on industry standards (ECM/BPC)
* SAP framework for SAP Global Solution and authorization support and implementations.

Achievements

* Completed SAP Global Solution for 14 Global companies
* Completed SAP Global implementation for leading global provider of electronics and manufacturing services (EMS) and integrated supply chain solutions

Similar experience as above from 1981. Examples:

**Visa International and Bank of America, Foster City, CA, USA**

**Technical Lead - Senior Systems Analyst**

(project involved 5 team members and 5 different teams from (**500 to 5000 members**)); each member built prototypes for one team

**Project Development:**

* Large system, locking critical Visa applications
* Conversion (migration) from Assembler 370 (3, 5 million lines of code) to C/C++ (mainframe and PC) environment was using Visual Age C++ for TPF. Responsibilities involved directing the Process and Technology Deployment (PTD). PTD supports the Shared Services Organization in the evaluation, acquisition, and roll out of software tools and development methodologies.

**Oracle Telecomputing**

Senior Embedded Programmer Analyst

**Project Development:** Air traffic control systems, Air traffic control simulator, Backup systems, Firewire, Drivers, Linux drivers (PCI, ISA, Firewire), Touch screen drivers

* Designed air traffic Control System for Cuba (drivers for firewire backup of air traffic system, radar
* simulator), Air traffic Control Simulator (client and telecommunication server), TCP/IP, SMTP, Voice Communication Systems, DSP's SIEMENS, MOTOROLA (MPC7450), i960, INTEL, EMULEX, (PEB 20560 20340), and drivers, these entailing the development of different models to forecast the effects of alternative sector and route geometry, *,*the establishment of lab-to-house simulation models and the reams of data they employ and the development of an internationally recognized process for airspace

**Application and Software:** C/C++ compiler for Linux, Hardware and Software Configuration, Assembler, C/C++, and, Java 2.0, Vi editor

**Operation System:** Linux (Caldera, Slack ware, Red Hat , Turbo Linux), VMware, UNIX, Windows NT, Windows 98, Qunix

**Hardware:** PC server/workstation, oscilloscopes

**Alternative Resources Corporation and Subsidiaries/National Grocery, Toronto, ON**

Senior Programmer Analyst

**Project Development:** Real time warehouse system

* Designed, programmed, tested, and documented set of batch applications to check information in the database
* Designed, programmed, tested, and documented the interface application between two warehouse systems

**Environment: Application and software:** Oracle 7, C, Pro\*C/C++, PL/SQL, OOP methods, MS Exchange/ MS Outlook, MS Internet Mail, MS Office 98 and MS Excel. Operation System: AIX UNIX 4.2, Window NT4.0 server/workstation, Windows 95. Hardware: PC server/workstation

**EDUCATION**

**1981- Master of Science Degree in Computer Science and Electronic Engineering**,

Vinnitsa State Technical University, Vinnitsa, Ukraine, USSR

**Program emphasis:**

Information System, Embedded Systems, Database, Business Application and Communications, Computer Engineering, Management, Software Architectures

**Final Project:** **“Adaptation for generation of functions on segnetopyezo electrical elements of analog memory by a method of piece-linear approximation”**

**Central Processor Internal Operations Certificate**,

Union Computer Complex, Kazan, USSR

Principle of Operation (Processors), Programming in Assembler, Micro Programmed Control Unit,

Operations unit, Local Memory of Processor, Control Unit, Diagnostic Unit, Operational Memory Bank,

Unit of giving command, System of Virtual Machine, Selection Unit, Accelerator

**1998-Programmer Analyst Diploma**, CDI College, Kingston, ON

SAP- Solution and Authorization Concepts Certificate, SAP, Montreal, QC

REFERENCES AVAILABLE UPON REQUEST