

SAP Solution in Detail
SAP for Defense & Security



PLANNING AND SUPPORT OF OPERATIONS AND EXERCISES

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INTRODUCTION

Today, armed forces, police, and aid organization operations require distinct and immediate orientation on their respective missions. Information is crucial for planning and executing military operations and exercises abroad and domestically. A support system using modern information technology (IT) is required, and the system must integrate all information relevant to the decision-making process.

The domestic base of the armed forces initiates and supports operations and exercises. Organizations, personnel, and material must be planned for these situations. These plans must be flexible, clear, and quick to implement.

Although some available IT products are suitable for use by defense forces, rescue workers, and security forces, these products typically do not provide enhanced functions designed specifically for military purposes. In contrast, the SAP for Defense & Security set of solutions provides all the functions that armed forces, police, and aid organizations require to support their administrative and logistics processes. SAP for Defense & Security builds on the functionality of the mySAP™ Business Suite family of solutions to create a platform for meeting the current and future requirements of these organizations.

SAP for Defense & Security provides new information objects that integrate personnel and material categories of organizational units, achieved by representing “authorized” personnel and material. Based on contingency plans and alternative scenarios, operation contingents can be predefined, and their concrete deployment can be planned. These contingents are equipped and staffed from the domestic base using target/actual comparisons.

In the area of operation, SAP for Defense & Security supports mobile computing as required, even independently of domestic information systems. Maintenance and material requirements are entered locally and passed on to the domestic logistics base, for example. The data flow required to do this must be implemented without integration gaps.

The assignment (chain of command) and support relationships between the deployed units must be mapped in the system, and must be taken into consideration when services are performed. At the same time, the on-scene commander can get a real-time, aggregated picture of the available resources.

SAP has developed extensive IT support for all these capabilities in a strategic development project (SDP) in cooperation with the German Armed Forces (Bundeswehr). Functions based on mySAP Business Suite and its core mySAP ERP solution are available for use in military organizations. The solution, which has been developed and released in stages, completely integrates the mySAP Business Suite functions with military planning, accounting, controlling, personnel, organization, armament, logistics, training, and health.

SAP for Defense & Security enables armed forces to perform a comprehensive evaluation of costs and activities for operations and exercises, while providing new options for cooperation and data exchange among partners and other organizations.

OVERVIEW

Because of the specific character of their missions and tasks, armed forces, police, and aid organizations must be able to:

- Plan and carry out operations and exercises (operational planning, relocation of operation contingents, operational execution, and redeployment of operation contingents) flexibly from their respective domestic bases
- Trigger and control accompanying or subsequent processes (for example, materials management, scheduled and unscheduled maintenance tasks, or budgeting)
- Trigger and carry out subsequent processes automatically on the basis of organizational changes or task organizations

The SAP for Defense & Security solutions enhance the standard SAP functions, thus meeting the above requirements by providing functions for the following tasks and processes:

- Mapping organizational structures
- Material and personnel resource planning
- Materials management
- Maintenance
- Budgeting and account assignment
- Dangerous goods management
- Technical support for flight operations

These solutions provide the following benefits:

- Integrated mapping of the organizational structure for domestic bases and operations and exercises
- Complete process chains from planning through implementation and execution to the completion of operations
- Provision of information and evaluation options
- Integration of personnel and material requirements and resource planning

- Organizational flexibility in routine day-to-day activities: changes to organizational structures and modified resource requirements are immediately taken into account and implemented in the subsequent processes
- Autarky-enablement of individual organizational units (function in the event of temporary interruption to the communications link between systems involved), using a distributed system architecture and mobile applications
- Integration in standard SAP processes (accounting, human resources, logistics, and so on)
- Component-specific workflows as well as object status and authorization management
- New object types for the specific mapping of elements between armed forces, police, and aid organizations
- User interfaces that provide users with all relevant integrated functions

This document describes the functions provided in SAP for Defense & Security for planning, executing, and both effectively and efficiently supporting operations and exercises.

ORGANIZATIONAL STRUCTURE

The basis for providing integrated and flexible support for operations and exercises consists of organizational structures that enable the rapid and operation-related structuring of contingents in an integrated SAP® system group while supporting the follow-on reorganization measures.

FORCE ELEMENTS

Organizational elements of armed forces, police, and aid organizations are represented in the SAP system by the force element.

A force element (such as an infantry battalion, a medical section, or a duty watch) is included in the organizational structure and enables descriptive attributes, personnel and material categories, and accounting information to be connected in a single object.

All force element resources can be displayed in a transparent manner and form the basis for making command decisions.

Reference force elements whose equipment is described on the basis of the reportable item code (RIC) can also be set up in the system. This functionality ensures a flexible and quick response to the requirements of the troop deployment, and ensures that checks are performed to establish the availability of individual units for multinational operations.

Reference force elements or reference structures also enable force elements and structures to be created from preconfigured modules. In the future, it should also be possible to pass down the characteristics of the reference objects and their changes to the derived objects, and to generate dependent objects (material planning objects and positions). This capability will enable identical or similar structures and resource planning to be created across the organization on the basis of standard requirements (such as NATO requirements).

The required representative attributes can be stored for the purpose of planning and executing actual operations and exercises. Contingents are defined systematically with regard to personnel and materials, and force providers are determined across all hierarchy levels without integration gaps.

Characteristics and Classification

The characteristics and classification of a force element can be described on the basis of attributes. These attributes include country, organizational area, structure type, level of readiness, and deployment area. On the basis of these attributes, the symbol code can be automatically generated in accordance with MILSTD 2525B, for example, and used in other systems to represent military symbols.

Status and Validity Period

In addition to its descriptive attributes, a force element has a validity period and a planning status. This status is used during planning and authorization processes and is connected to SAP workflow. Depending on the status, certain activities (such as making stock postings) can be carried out. Before changing the status, the system checks whether all the required prerequisites (master data maintained completely, for example) have been met.

Organizational Task

For cross-area planning, approval, and implementation of force elements, various task areas (structure, personnel, material, accounting, logistics, and so on) can be grouped together in an organizational task, which enables the individual task areas to be processed consistently. Organizational tasks can therefore be used to process the basic organization and to plan operational and exercise structures and task organizations. The organizational task uses the extensive SAP Records Management functions for operation processing, including supporting functions such as countersigning documents and document management.

Tasks and Skills

“Tasks” (such as executing transportations) can be selected from a structured task catalog and assigned to a particular force element.

“Skills” describe the current potential of the force element.

Training requirements can also be assigned on the basis of the assigned tasks and skills of the particular force element.

Authorized Personnel

The authorized personnel of a force element are described at position level. (See also “Personnel Categories.”) Authorized personnel can also be assigned to force elements for a particular time period.

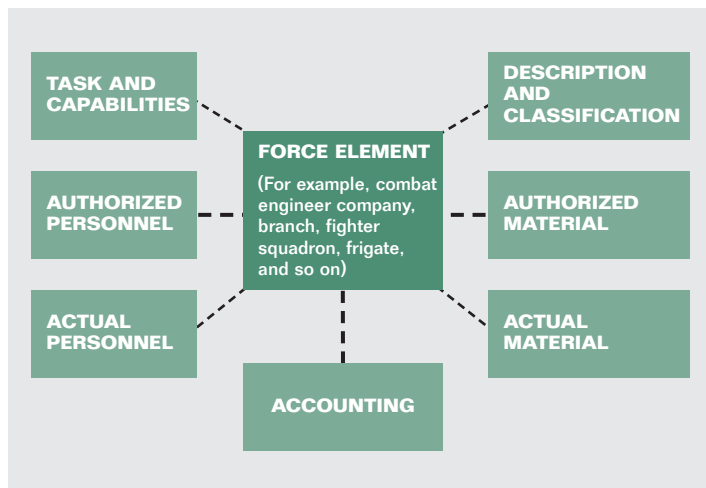


Figure 1: The Force Element

Usage types can be used to describe the different personnel scope of the basic organization and wartime establishment of a military organization, for example.

Positions can also be assigned with a status to provide comprehensive support in personnel planning and approval processes.

Actual Personnel

In the SAP system, positions are linked to persons to describe the actual personnel of a force element. (See also “Personnel Categories.”)

The personnel resource situation of a force element can be displayed at any time using the extensive options provided in mySAP ERP Human Capital Management (mySAP ERP HCM).

The SAP authorization concept ensures that users can access only the personnel data for which they have the relevant authorization.

Authorized Material

The authorized material of a force element can be defined by means of assigning material planning objects (see “Material Categories”) for different usage types (such as basic organization and defense).

In addition to a validity period, this assignment has a status that is used during the planning and approval processes.

A procurement channel (material comparison, central logistics, and so on) can be defined that controls where the authorized material is obtained.

Material planning objects can be grouped together in material containers that describe the standard equipment of force elements. Any changes automatically have a knock-on effect in all parts of the organization in which the material container is used.

Actual Material

Provisions and stocks can be assigned to a force element and managed individually. A material requirements planning (MRP) area and a storage location have been created for this purpose. They are included in the stock accounting, materials management, and evaluation processes in mySAP Supply Chain Management. This capability enables a complete view of a unit's actual material situation to be displayed at any time, and the actual material to be compared with the authorized material.

Authorizations can be used to determine which users have read or change access to the MRP areas and storage locations.

Integration with Plant Maintenance

If the force element is a maintenance facility, it can be assigned a work center. This assignment ensures that the maintenance facility is integrated with the maintenance process in the SAP system.

Technical objects such as vehicles, weapons, and measuring and inspection devices that are posted in the stock of a force element can be displayed at any time, together with their technical data. Information about a force element's current maintenance status can also be displayed at any time.

Integration with Accounting

A force element can be linked to a cost center and thus integrated with accounting within mySAP ERP. A cost center can be budgeted and assigned to accounts in accounting processes, and provides the link to fiscal bookkeeping and funds management processes.

The cost center and profit center hierarchy can be derived automatically from the organizational structure, as can account assignment objects in funds management. Any changes to the organizational structure can automatically result in changes to the hierarchies.

For operations and exercises, a force element can be assigned a work breakdown structure (WBS) element created for these purposes. Costs and activities from operations and exercises can then be posted to this element.

Planned costs and funds requirements can be simulated outside routine day-to-day activities and the results can then be imported into the active system.

Planning data can be transferred from the operative system to SAP Strategic Enterprise Management (SAP SEM®) where it is used for detailed planning. The results are then available in the budget control system (BCS).

Integration with Land Use Management

Addresses, taken from a centrally coordinated address catalog, are maintained for the force element. Addresses can be specified for different purposes (for example, for the delivery of goods or a seaport address for a relocation). Instead of the address, the geographical location can also be defined in the form of coordinates.

The NATO Logistic Functional Area Services (LogFAS) use a standard database to define the location of airports, ports, barracks, and so on. This data can be transferred automatically to the SAP system where it is used for planning purposes.

The extensive functions of SAP Real Estate Management are fully integrated with the other functions provided in SAP for Defense & Security. In the future, it will also be possible to transfer addresses from the information about land use for the force element deployment.

COMMAND AND CONTROL RELATIONSHIPS

The command relationships between force elements in armed forces, the police, and aid organizations can be mapped in the SAP system using the organizational management functions in mySAP ERP HCM. Time-dependent changes to organizational structures can automatically trigger essential follow-on measures in the SAP system, such as changes to authorizations and stock transfers. The organizational structure can be flexibly evaluated by defining evaluation paths.

Organizational Structure, Wartime Establishment, and Administrative Chain of Command

In addition to the organizational structure (basic organization), alternative command and control relationships, such as the wartime establishment or operational structure/administrative chain of command, can also be defined in the SAP system on the basis of hierarchy links between force elements.

The organizational structure can differ in its setup and scope depending on the usage type (for example, basic organization). The structure and assignments of a force element also represent the administrative chain of command.

Operational and Exercise Structures

A unique distinction can be made between basic organizations and operational and exercise structures when these are planned, approved, and implemented separately in the system; this temporarily overrides the basic organization but does not change it. Operations and exercises can also be classified by type and characterizing parameters. The command responsibilities can also be uniquely defined.

Operation and exercise contingents can be assigned to form the basis for planning contingents and the relevant force providers.

Task Organization

Command and control relationships that are restricted to a certain period of time are defined within task organizations. These can be defined to the minute and override the organizational structure. They are also integrated in the processes in the SAP system.

SUPPORT RELATIONSHIPS

In the SAP system, the support relationships between force elements can be flexibly defined and mapped. These relationships not only fulfill documentation needs, but are also fully integrated in the relevant processes.

In addition to the supply and maintenance relationships provided in the standard system, further support relationships, such as supply of medical services, can be set up in the “Customizing” view.

Supply Relationships

Supply relationships are support relationships that can be created between force elements to the exact minute. They govern which supplier provides which force element.

The supplier that supports a particular force element depends on the type of material required. For example, some replenishment units stock only bulk consumable goods (ammunition, operating supplies, and so on) while others stock only individual consumable and nonconsumable goods (such as spare parts). For this reason, supply relationships are differentiated according to the NATO classes of supply, for example.

Maintenance Relationships

Like supply relationships, maintenance relationships control which force element receives maintenance notifications or orders. The maintenance relationships can be connected to types of damage (such as wheel and track damage or electronics failure) to facilitate separate workflows.

This enables operational control in the task organization to be changed to the exact minute at the same time as a required change is made to the support relationships, for example. On the basis of SAP workflow, services are forwarded to the relevant assigned suppliers as soon as they are requested. The supply chain remains closed at all times.

PERSONNEL CATEGORIES

Personnel categories of the organizational structure are defined using mySAP ERP HCM.

BASIC ELEMENTS

Persons

Members of armed forces, police, and aid organizations are represented as persons (actual personnel) in the SAP system. Each person can be linked to a position in the basic organization or wartime establishment. In addition, a person can also be temporarily assigned to a force element or position as a reservist who becomes active in the event of war.

Positions

A position is a concrete post to be occupied by a person within the authorized personnel of a force element (for example, the appointment of the battalion commander of the 141st tank battalion). Various relationship types can be used to define whether a particular position is active only in the basic organization or only in the event of war.

Jobs

A distinction is made between positions and jobs. Jobs are used for the general classification of posts in a force element (such as first sergeant or Leopard 2 gunner) that can be described in more detail on the basis of the tasks and qualifications assigned to the jobs. The job descriptions correspond to the general activity description (GAD) and can apply to several positions with comparable tasks and characteristics.

Tasks

Tasks from a structured task catalog (such as managing personnel documents) can be assigned to both positions and jobs.

Tasks describe the activities that are to be carried out in a force element. For HR purposes, tasks are individual responsibilities or duties that have to be carried out by persons. They can also be used within SAP workflow (approving leave request, for example).

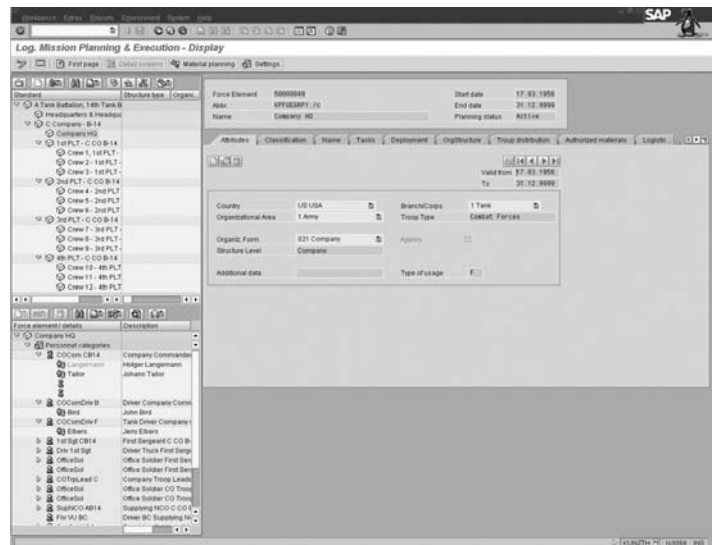


Figure 2: Personnel Categories

Qualifications

In the SAP system, a qualification catalog can be set up in which typical qualifications, such as training and performance records and language skills, are stored in a structured manner.

When qualifications from this catalog are assigned to jobs or positions, the relevant requirements are defined. Persons who occupy the positions must fulfill these requirements.

Conversely, the qualifications from the same catalog are used for persons to describe their personal knowledge and skills.

Planning and Implementation of Personnel Categories

On the basis of the operational or exercise structure, rough plans for the manpower per force element and operation contingent can first be created with the help of the system. These plans can then be substantiated at job level and the authorized personnel generated on this basis.

“Authorized personnel” is defined at position level by copying the authorized personnel of a different force element, generating positions on the basis of jobs, or creating new positions.

A profile comparison is carried out between the requirements defined for a position and the qualifications assigned to a person in order to identify suitable personnel in the system. For this purpose, the nominated personnel is first accessed from the assigned force provider. If the position cannot be occupied in the assigned area, it is forwarded to the next highest level that can then identify suitable and available personnel in its area.

Required qualifications can be obtained through training courses, blocks of training, or periods spent at training areas. SAP Event Management provides support for posting, administration, and payroll. Persons, individual teams, or even entire force elements can be posted to specific training sections.

When an operation contingent is activated, SAP Event Management can automatically trigger any necessary orders for reassignments. In addition, other necessary actions such as the payment of supplementary allowances are automatically performed in the payroll software.

MATERIAL CATEGORIES

The material categories in the structures of armed forces, police, and aid organizations are provided by the mySAP Supply Chain Management and mySAP Product Lifecycle Management solutions.

LEVELS OF MATERIAL PLANNING

Material Planning Object

The material planning object (such as “truck, average-size”) enables different models to be grouped under one term, without having to refer to specific materials. A material planning object is a generic material (authorized material) that has its own life cycle within the processes of armed forces planning, armament, and usage management.

A material planning object can also be assigned other material planning objects that are required in routine day-to-day activities. For example, tool kits can be assigned to a truck.

Projects for implementing defense material can be controlled and all the documents that are relevant to the product life cycle, such as phase documents and decisions, can be linked to the material planning object using the application components project system and SAP Easy Document Management.

Material Containers

Several material planning objects can be grouped together in a material container. This material container can be assigned to different force elements. As a result, modular packages of nonconsumable goods can be created that contribute to the equipment of a unit in line with the requirements of the order. Any changes made to the material container directly affect the equipment bases of the relevant units.

Models and Materials

Several models are available for each material planning object that describe concrete features and establish the relationship to the SAP material master. The NATO stock number (NSN) is mapped in the SAP system by the material master.

This link between the model and material master facilitates integration with mySAP Supply Chain Management, whose functions can be used to represent the logistics processes within materials management.

Equipment

Technical objects represent vehicles, weapon systems, facilities, and equipment. The functional location depicts the structure and installation location of a component within this structure.

The component itself is represented by the equipment. Equipment represents an individual physical object that is maintained as an autonomous unit. As such, it combines all parts or all components that must be tracked and regularly maintained.

Each piece of equipment is assigned a unique equipment number. Equipment is represented by a serialized material master record, which enables it to be stored and transported in an IT environment.

On the basis of the equipment usage period, a document can be provided that records at which location in which object the particular piece of equipment has been installed over its entire life cycle.

Reportable Item Code

NATO uses the RIC to refer generically (based on skills) to weapon systems, equipment, and, to a certain extent, qualification profiles. These codes can be transferred to the SAP system as master data and assigned to reference force elements. Operational structures can thereby be set up at any time and equipped with the necessary equipment.

The RIC for equipment required for operations consists of an alphanumeric code in a hierarchical structure. The individual items (hierarchy levels) describe the different categories. The RIC can be used to categorize material planning objects.

Logistical Requirements

When the initial and follow-up supply runs are defined, logistical requirements are defined for force elements. These are one-time requirements relating to materials needed to initially supply the troops to be deployed, and the stocks of which should not fall below a defined reorder point after a subsequent supply run is triggered.

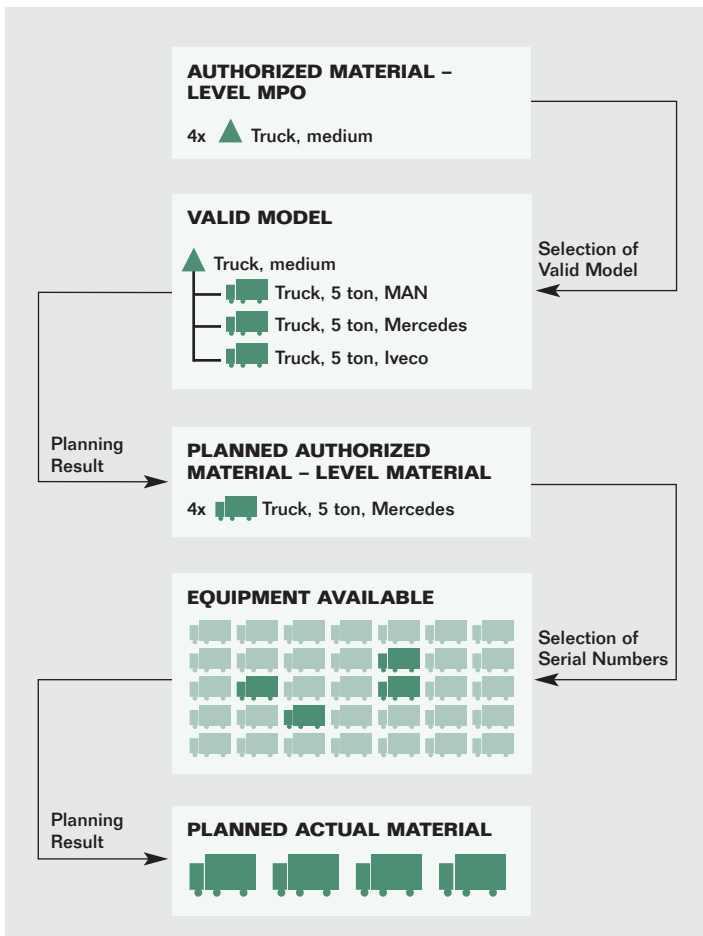


Figure 3: The Material Planning Process

In accordance with this basic principle, there are different types of provisions packages, such as spare parts packages, basic load, and heavy equipment reserves, which can be used in different ways.

Like the authorized material, provisions packages can be assigned to force elements as logistical requirements. The system differentiates between the provisions for a supporting force element and the force element’s own provisions.

In the operational logistics processes, reorder points are calculated, and material requirements are created and automatically adjusted when reclassification is required. All this is performed using the material requirements defined in the material packages.

Equipment Packages

Equipment packages are used to plan and implement the actual material. The equipment packages group different materials and equipment into functional units such as “radio team.” They can be derived from material containers, and material requirements can be planned for them as a whole.

Planning and Implementation of Material Categories

For exercises and operations, the required material is usually not procured as new, but is taken from existing force elements (force provider) using a material comparison.

An authorized/actual comparison can be used for the individual force elements in an operation or exercise to determine which material is to be supplied as a result of the material comparison. Here, the authorized material is compared with the stock of the force element in question at material planning object level.

During planning, force providers are responsible for determining which force element within their area of responsibility is to provide which material for an operation or exercise. The planning process can be started at material planning object level. The material can then be planned, and finally the equipment. The SAP system provides all the information required for decision making, such as the technical status or necessary inspections.

Once the operation/exercise contingent has been activated, the system automatically creates the essential logistics data for the new structure, such as material master data. The planned material comparisons are triggered by stock transport orders that are generated automatically by the system.

At the same time, logistics requirements are fulfilled using the supply relationships between the units. This means that purchase orders are automatically generated for the initial requirements, and reorder points for the subsequent supply can be updated in the material master. In routine day-to-day activities, reorder points ensure that the minimum provisioning quantity is adhered to by generating replenishment orders in good time.

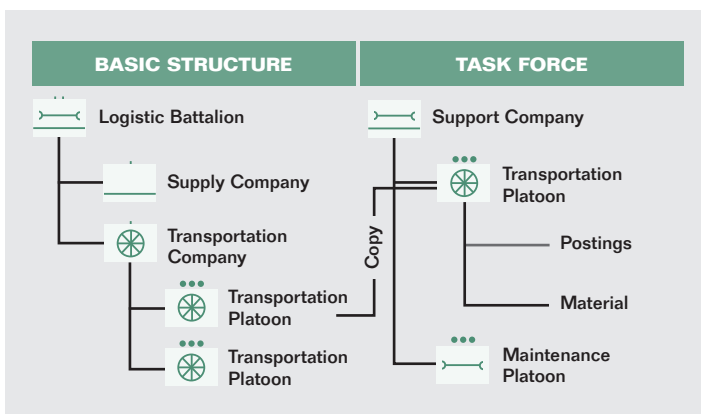


Figure 4: The Material Planning Process

ACCOUNTING

When organizational units are set up, cost centers, profit centers, cost center groups, profit center groups, funds centers, and their links are also created. These objects are also assigned to the relevant force elements. The standard hierarchies (cost center and profit center hierarchies) reflect the assignments between force elements and accounting objects. When organizational changes are made, the system ensures that the force element's cost center and the associated facilities are identical.

The standard hierarchy for cost center and profit center accounting breaks down the organizational structure from a controlling perspective or with regard to cost responsibility areas. In the SAP system, the organizational structure of accounting is broken down into organizational units such as controlling area, company code, cost center, and profit center.

Cost centers, profit centers, and the associated standard controlling hierarchies can be generated on the basis of the organizational and operational structure. This scalable generation function enables cost centers, profit centers, and corresponding hierarchy nodes to be generated on the basis of organizational areas and structure levels for the relevant force element, for example.

In the FM area organizational unit, funds centers are broken down into areas of responsibility. The funds centers responsible in the organizational and operational structures are automatically determined on the basis of the cost center assignment in the force element. The standard SAP derivation function is used in the force element to derive the funds center from the cost center. The derivation strategy is used to determine account assignments for funds management, taking into account the fiscal master data model.

RELOCATION AND TRANSPORTATION PLANNING AND IMPLEMENTATION

RELOCATION AND TRANSPORTATION PLANNING

In line with the requirements of the operation, the operation contingent must gradually expand and the skills it contains must be developed. To support this process, relocation steps and priorities can be defined in the system for the individual organizational elements. This capability enables the relocation and transportation of personnel and material to be planned from the advance party through the main command to full operating capability (FOC).

Planning is carried out in the following steps:

- A relocation is assigned to the force elements involved in an operation/exercise.
- Relocation steps are assigned to the force elements. Each force element can assign its specific relocation steps during relocation.
- Material planning objects are assigned to relocation steps and material planning objects are defined up to material level and serial number. Equipment packages can be used to facilitate the definition process.
- Provisions packages (and therefore the materials in the packages) are assigned to relocation steps.
- Positions are assigned to weight groups (without equipment, with light equipment, with heavy combat gear).
- Positions with weight groups are assigned to the relocation steps.

The assignment of material planning objects and provisions packages to relocation steps enables a staggered, time-based relocation of personnel, stocks, and provisions to be planned.

ALLIED DEPLOYMENT AND MOVEMENT SYSTEM

The Allied Deployment and Movement System (ADAMS) is a NATO system for planning relocations. The system enables multinational plans to be generated and developed for transporting units and their equipment to the area of operation. Relocation plans can be visualized, evaluated, analyzed, and cleared of conflicts.

The structure information and resource data required for planning purposes can be automatically extracted from the SAP system and transferred to ADAMS via a standard interface. This considerably accelerates the relocation and transportation planning process.

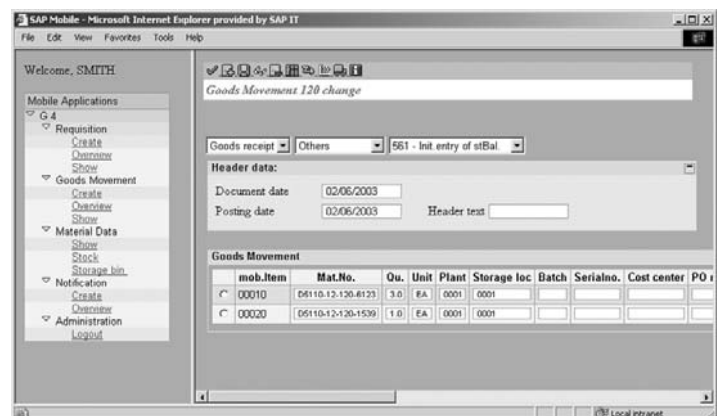


Figure 5: Relocation Support with SAP Event Management

RELOCATION SUPPORT

When a relocation step is activated, the SAP system automatically generates the required logistics documents. The activities then carried out can include both the supply by force providers or depots of units to be set up, and the transportation of material already available in the units.

A rough workload estimate enables the transportation requirements to be estimated on the basis of:

- Materials assigned in the planning process and their weights and volumes
- Weight groups assigned to positions in the planning process and the resulting number of persons to be transported and their weight

The processes linked to the actual relocation of personnel and material, in particular the transportations of personnel and material, can be monitored and controlled using SAP Event Management.

PLANNING AND IMPLEMENTATION OF OPERATIONAL SUPPORT

SAP Event Management receives the messages from the supply chain that are relevant for monitoring purposes and consolidates these in a comprehensive view of the relocation.

PLANNING

The concept of operations is the starting point for concrete planning of an operation or exercise. Evaluating the given orders provides structured and unstructured information such as the required equipment or organizational strengths that are used as constraints for further planning.

This information, which can be stored in documents and checklists in the SAP system, can be used in the process of determining the skills required to execute the operation or exercise. The relevant skills are stored with the force element that represents the operation or exercise.

The required skills provide the information needed for selecting from among existing force elements that serve as templates for the operations or exercises to be planned. When existing target structures are copied, they can be transferred either completely or with their personnel or material categories only.

Force planning is an iterative process. The open SAP architecture allows the implementation of interfaces to other systems, such as systems for generating structures. Interfaces such as these can be used to transfer parts of the structure automatically.

SAP Easy Document Management can be used to link all relevant information and corresponding documents (such as maps, aerial photos, and results from simulations) to the corresponding force element.

The structure created is subsequently filled with actual resources from other force elements on the basis of the assignment of personnel and material. Since the structure can no longer fulfill its original order, the organizational structure must be adjusted by planning new support relationships and delimiting existing support relationships to avoid supply gaps.

When the operation or exercise structure is planned, the force elements that have to provide the basic organization with personnel or material are defined in the SAP system.

Controlling objects (cost centers or WBS elements) can be assigned to force elements for cost planning and budgeting of operations and exercises.

Persons can be linked to positions in order to refine the plans for the operational structure.

The authorized material is substantiated by selecting material numbers that are assigned to the material planning objects. If required, the material selection is detailed for certain equipment down to equipment level.

In logistics planning, master data required for carrying out key processes, such as plants, material requirements planning (MRP) areas, storage locations, and work centers, is also created in the SAP system and linked to the associated force elements.

In the SAP system, the planning and assignment of spare parts packages for specific equipment is supported by the provisions package object. Provisions packages contain material numbers and are assigned to force elements – also supporting initial and subsequent supplies. An initial requirement and reorder point are defined for each material item. Both quantity specifications are input parameters for materials management. The initial requirement thus ensures that the authorized initial supply is observed.

To ensure that different values can be defined for force elements in material packages with identical contents, new material packages have to be created from “material reference packages” (specified in usage management, for example) by copying material reference packages and customizing them.

IMPLEMENTATION

Once the operational structure has been released, HR processes are triggered and stock transport orders are generated from the new structure in order to post the stock for the authorized material and generate shipping papers. Authorized/actual comparisons are also carried out to monitor the material filling percentage.

Once the replenishment paths (subsequent supply) have been set up, reorder points can be adjusted in the provisions packages, depending on the intensity of the operation. Following approval, the reorder points affected are updated in the MRP view in the material master.

REORGANIZATION

In the event of reorganization, supply and maintenance relationships (for example) are adjusted in the operational structure, or organizational changes are made by expanding or dissolving force elements.

If documents must be generated as a result of the planning process, various lists containing information about the operational structure can be generated from the SAP system.

REDEPLOYMENT

The process for redeploying personnel and material is comprehensively supported in the SAP system, occurring in the same way as relocation of personnel and material to the area of operation. In materials management, the use of material locks as a collection point for nonconsumable material is also supported.

EVALUATION AND LOGISTICS REPORTING

EVALUATION

Operational data can be evaluated using SAP Business Intelligence (SAP BI) and used as a basis for planning and decision making. The required operational data is cyclically replicated to SAP BI from the SAP system using extractors.

SAP provides relevant content for evaluation purposes. From a technical point of view, the content represents predefined role- and task-related information models based on consistent metadata.

The content contains predefined objects such as force elements, material planning objects, materials, positions, and persons.

Corresponding evaluation tools for the force element and authorized/actual comparisons are provided as part of the content delivery. These evaluation tools provide extensive selection and navigation options as well as layouts for preparing reports.

LOGISTICS REPORTING

The NATO LogREP (Logistics Reporting) process can be used to generate logistics messages for national and multinational command posts. As its data basis, LogREP uses the LogBASE database, together with the other LogFAS ACROSS and ADAMS.

The “reportable item list” is used to define material that is required for a specific operation or for which reporting must be carried out via LogUPDATE. SAP provides an interface for transferring the relevant resource data to LogREP.

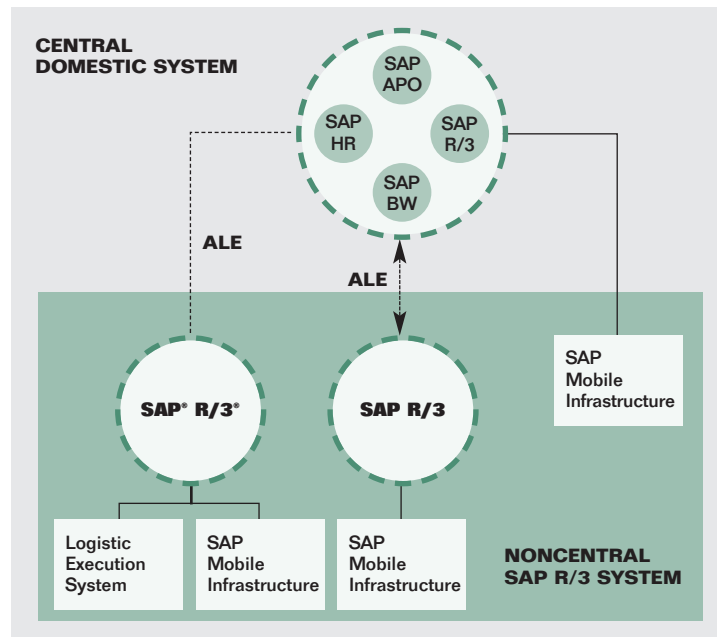


Figure 6: Evaluation in SAP Business Intelligence

OUTLOOK

Since May 2004, SAP for Defense & Security has been providing extensive and integrated process support for operations and exercises. The solutions are continuously undergoing further development and are expected to be generally available for armed forces, police, and aid organizations with mySAP ERP 2005.

In addition to the solutions in the application area, SAP provides a comprehensive integration platform with SAP NetWeaver™. SAP for Defense & Security integrates the application solutions with the technical SAP NetWeaver components, such as SAP Enterprise Portal, SAP Master Data Management, SAP Exchange Infrastructure, and SAP Business Intelligence, in a way that is specially adapted to meet the requirements of armed forces, police, and aid organizations. The relevant new information objects are already or will shortly be available within the entire portfolio.

SAP for Defense & Security therefore provides a comprehensive integration platform for specialist and executive information systems. As such, the software represents a major milestone in the transformation process for achieving network-centric capabilities.

For details about customizing the solutions in the mySAP Supply Chain Management area, mySAP Product Lifecycle Management, and the system architecture tailored to meet the requirements of armed forces, police, and aid organizations, as well as about SAP NetWeaver as an integration platform, see the individual documents.

The particular requirements of software for planning and controlling resources for defense forces, rescue workers, and security forces will also be taken into consideration in the future development of standard SAP software. SAP is working with the Defense Interest Group (DEIG), an SAP user group that collaborates with nations in the area of armed forces, to further enhance its defense solutions.

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