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## **COTS based systems: the necessity of a service & systems management strategy to assure service levels**

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**COTS based systems create the need for system management strategy:** In large military organisations, as in any traditional business organisation, the collection of the tasks to be performed by every employee results in the service the organisation provides. In order to perform his tasks at best, each employee needs a set of tools, which differs according to the task to be performed (e.g. phone, vehicle, etc.). In our particular subject, the employees rely on (a) computer(s) and on the applications and data accessed through or processed by his (several) computer(s).

The kind of applications and data used by each employee will vary according to the role of the employee and the tasks he has to perform, from simple office tools to more advanced workflow or C3 applications, the trend being that the set of applications consists more and more out of COTS. In any case, the employees make use of a mix of critical and non-critical business applications.

In an ideal situation - certainly from an efficiency point of view -, employees should not care about computers, operating systems, underlying protocols or networks. What really matters to them and to the efficiency of the organisation, is the availability of the applications and data in order for them to perform their tasks efficiently at the appropriate time. Inability to perform, whatever the reason, can result in a chain effect - as tasks are interrelated -, creating a negative impact on the performed service of the organisation: its operational capacity can then be impacted to various degrees.

Because of this, it has become very important for IT infrastructures, to create a situation where they can manage the support and the availability of the entire IT capability (from the network infrastructure up to the user interface running on each client desktop), where they can be accountable on the base of service level agreements between the IT department and the users. While in the past (specialised infrastructures), the system management aspects were taken care of by the application from its very first design, the systems based on COTS relies on the assembly of elements not conceived for high availability purposes, hence the need

to develop a specific strategy to improve the efficiency and availability of the entire COTS based IT system. Else, the COTS system will be as weak as its weakest link, and the CTRL+ALT+DEL syndrome will apply at critical server levels.

**Service & system management through service level agreements:** Starting from this perception, Tivoli has over the last years developed a complete set of tools aiming at managing the total IT infrastructure - enterprise system management -, widely accepted by the market. This management platform is the best answer to manage the whole enterprise, reduce the complexity and gain back the control of today's IT environments.

The cornerstone of the efficiency of this platform relies on the fact that it is implemented starting from the business rules of an organisation (e.g. operational requirements) and not from an IT perspective (e.g. driven by the operating system that is being used). Tivoli does focus on managing the IT processes instead of the IT technology. Once the business rules have been defined for a given organisation, they can be applied to the existing IT infrastructure including the COTS (or non-COTS) based applications.

This approach is the only way to increase the efficiency of the organisation and thus provide or increase the appropriate level of availability, reliability and security of the applications and data for each user according to his business needs, hence to the entire organisation. Only then, organisations can provide and achieve high and measurable service levels, be really responsive to business demands and meet the operational goals, even when COTS are being combined as the basic platform for the employees.

You have to gain back the control of the IT environment by implementing systems management best practices. The Problem Management best practice for instance (with the help of pro-active monitoring solutions) will result in shorter problem resolution times and focused interventions with well identified skilled resources. The

complete granularity of the Tivoli family of solutions allows to tackle the entire range of systems management disciplines such as problem, change, asset, security, storage, and operations management, and this in a coherent and single interface across the entire COTS stack altogether with the rest of the IT resources (data, applications, hardware, network, users etc.) of the organisation, helping to achieve the appropriate level of service and operationability.

All organisations are confronted with widely distributed heterogeneous systems, interconnected COTS applications and a high rate of change. We should reduce the complexity inherent of today's COTS environments by managing the systems in a consistent way and by simplifying the operations. The management infrastructure does not have to be modified when the migration of COTS (version upgrade or move to another product) occurs because Tivoli is platform independent. The defined business rules will simply be applied and translated to management rules implemented in the newly installed COTS. Organisations are finally able to reach the COTS rollout deadlines and are even less dependent on specific skills to fulfil these operations. This altogether leads to a reduced cost for supporting these regular changes (new implementations or upgrades).

The increased control of the IT resources and the possibility to manage complex environments and applications, is an absolute necessity at the beginning of the e-business era. Obviously, the multiple enterprise systems connected to the Internet need to be managed, with an even higher availability and security, and the operations and processes to support the huge potential growth need to be well managed.

This confirms once more that there is an absolute necessity to implement a dedicated strategy & environment to manage COTS.