**Trusted Multi-Tenant Infrastructure Use Cases**
**FAQ**
**February 2011**

**Note: for additional information on Trusted Multi-Tenant Infrastructure (TMI) Work Group, please see**
**http://www.trustedcomputinggroup.org/developers/trusted_multitenant_infrastructure**

**Q. What is new with the Trusted Multi-Tenant Infrastructure Work Group since the work group was announced in the fall of 2010?**
A.  In February 2011, we are making available the first group of a series of use cases to industry. These are available at
http://www.trustedcomputinggroup.org/resources/tcg_trusted_multitenant_infrastructure_use_cases.

**Q. How will use cases be helpful to those interested in securing multi-tenant infrastructures?**
A.  These use cases will help users understand the roles and key interactions necessary to implement a Trusted Multi-Tenant Infrastructure. A solid understanding of the separation of provider and consumer roles in a multi-tenant, multi-provider ecosystem will lay the groundwork for the implementation patterns and best practices necessary when implementing or migrating to a cloud ecosystem.

**Q. What is covered in the use cases?**
A.  The first in a series of planned use cases addresses relationships among components in a shared infrastructure and how they interact, based upon a trusted context rooted in three core functions:

*   Establishment of trusted context between parties
*   Exchange of information between parties within the trusted context
*   Enforcement of policy between parties in the trusted relationship

**Q. What do enterprises need to incorporate trust into their multi-tenant infrastructures? Are these available today?**
A.  TCG provides a number of standards and product certifications today which lay the groundwork for establishing trust in devices and networks. The Trusted Platform Module and Mobile Trusted Module specifications provide for attestation of end user devices, self-encrypting drives support trust in stored information and the TNC protocols establish a policy-based network. Devices based upon these standards are available today.

**Q. How will these be used? Can they be used immediately?**
A.  The TMI use cases define foundational relationships between trusted components in a multi-tenant infrastructure. The principles behind these use cases can inform current infrastructures, and the reference framework, implementation patterns and best practice guides and industry profiles will provide more definitive guidance for solidifying and validating an end to end multi-tenant, multi-provider trusted infrastructure.

**Q. What else do users need to have a Trusted Multi-Tenant Infrastructure?**
A. The TMI reference framework is based on the enforcement of domain policies based on a solid understanding of the risks of exposure of information and systems. Providers and Consumers need to define policies that define compliance based on a solid risk analysis. This compliance model is beneficial to single tenant systems, but critical for multi-tenant environments. One example is envisioned in the NIST Special Publications 800-53, 199, 200 and 800-137.

**Q. Which vendors are supporting the TMI effort and these use cases?**
A. HP, BAE and other TCG members are key drivers. Additional participants, particularly those enterprises considering an integrator, broker, provider or consumer role in the cloud, are encouraged to join and contribute to future use cases, scenarios and the reference framework development.

**Q. When do you anticipate these use cases will be deployed and by whom?**
A. The concepts and relationships are valid and can be implemented now. We expect that as the reference framework implementation patterns, best practices, implementation and industry profile guides are released, adoption will become simpler and more widespread. The TMI reference framework is targeted at integrator, broker, provider or consumer organizations interested in a trusted computing base and the cost savings possible with shared and consolidation of infrastructure.

**Q. What will future use cases address? When can we expect those?**
A. Future use cases and scenarios are expected to include industry specific scenarios as well as mapping to business systems, deployment s for application types as well as specific public, private, community and hybrid cloud use cases. Our philosophy is to release these for discussion as groups of related use cases are ready, in order to generate more insight and input from enterprises deploying or considering employment of cloud services.

**Q. The fall 2010 announcement of the TMI Work Group referenced an architectural framework. When can we expect that?**
A. The TMI work group anticipates a release of the initial implementation patterns and requirements early in the second half of 2011. The same "release early and often" philosophy will be used with the reference framework.

**Q. How does TCG's work in multi-tenant infrastructure, or cloud computing, align with that of the Cloud Security Alliance and similar groups?**
A. Many standards organizations are working on standardizing elements of the cloud computing ecosystem and trusted infrastructure platforms. The TCG TMI effort is focused on establishing standards, patterns and best practices for a trusted infrastructure that provides a trustworthy computing base. We view this as complementary to the risk management, applications, virtualization, systems management and other areas of focus under development by other groups. We would expect to reach out in an effort to generate synergy with interested groups over the next few months.

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