



**Trusted Network Connect IF-MAP (Metadata Access Protocol)
FAQ
September 2010**

Q. What is the IF-MAP specification?

A. The original [IF-MAP](#) (Metadata Access Protocol) was introduced in 2008. It extended the TNC architecture to support standardized, dynamic data interchange among a wide variety of networking and security components, enabling customers to implement multi-vendor systems that provide coordinated defense-in-depth. IF-MAP acts as a central clearinghouse for information that security devices can act on, using a publish/subscribe model.

This month, we make available the [IF-MAP Binding for SOAP Version 2.0](#), or informally, IF-MAP 2.0, an update to the original IF-MAP specification.

Q. What is new with IF-MAP 2.0?

A. Customers and vendors have been using IF-MAP for many surprising purposes such as cloud security. To support these new uses, IF-MAP has been separated into two parts: a base spec and a network security metadata spec. This split enables more responsiveness and flexibility to the spec as new uses develop and new metadata is developed for the publish/search/subscribe primitives provided in the IF-MAP 2.0 base protocol.

Growing use of IF-MAP has led to demand for several new features, including:

- A "notify" operation, which enables an IF-MAP server to support message-bus functionality in addition to publish/subscribe database functionality.
- New standard network security-related metadata, including details on location and device characteristics.
- Improved reliability and performance, based on input from implementers, to enable broader adoption of the TCG standards

Q. What are the benefits to product vendors and end users of IF-MAP 2.0?

A. Product vendors can more quickly develop standards for data exchange to support use cases beyond network security. End users benefit from the ability to leverage their IF-MAP infrastructure across more applications as vendors from different industries adopt IF-MAP in their products. Both vendors and end users gain a richer set of protocol functionality and a more mature standard.

The complete specification can be found at http://www.trustedcomputinggroup.org/resources/tnc_ifmap_binding_for_soap_specification.

Q. What are some of the anticipated uses and applications for IF-MAP?

A. Some current applications include:

- Federation between remote access and network access control (NAC)
- Integration of NAC with endpoint profiling and behavior monitoring, data leak detection and enforcement for unmanaged devices
- Integration of physical access control and NAC

Potential applications include:

- Industrial control and security: enabling efficient communication of data among systems so action can be taken in event of problems or breaches
- Smart grid: enabling more efficient and robust power systems by aggregating, correlating and distributing from generating systems, transmission systems, distribution systems, meters, electrical loads and other devices in real time
- Cloud security: enabling independent providers and consumers of cloud resources to discover and declare their requirements and capacities, allocate cloud resources, enforce policies, and prove compliance
- Unified communications security: Providing limitless flexibility for using a variety of parameters – including user location, time of day, device type, available networks, user preferences and more – to deliver optimal voice, data and video services to users at all times

Q. Are any enterprises using IF-MAP now?

A. Yes, a number of customers have piloted and/or deployed production systems using IF-MAP, with applications including network security and access control, industrial automation, and federated security. Many customers are reluctant to talk publicly about their security measures, but we should have some case studies soon.

Q. Which vendors support IF-MAP?

A. Products we know about include Great Bay's [Beacon](#) endpoint profiler; Juniper Networks' [Unified Access Control](#) (UAC) and [SSL VPN](#) appliances (SA); Infoblox' Core Network Services Appliances and [Orchestration \(IF-MAP\) Server](#); Insightix' [BSA](#) Business Security Assurance suite; Lumeta's [IPsonar](#) network discovery solutions; Hirsch Electronics' [Velocity Physical Access Control System](#) and Byres Security's [Tofino](#) industrial security gateways.

Q. Is certification planned for IF-MAP?

A. Yes, certification is planned for 2011. Watch for developments. You can read more about the current [Trusted Network Connect](#) and [Trusted Platform Module](#) certification programs at <http://www.trustedcomputinggroup.org/certification>.

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