CLAIMS

1. A method comprising:

determining, by a secure interface control of a computer that prevents unauthorized accesses to locations in a memory of the computer, that a host absolute page is not previously mapped to a virtual page in accordance with securing the host absolute page; and

determining, by the secure interface control, that a host virtual page is not already mapped to an absolute page in accordance with securing the host absolute page, wherein the secure interface control:

marks the host absolute page as secure;

registers the host absolute page for use by the secure interface control;

securely decrypts the host absolute page;

registers a host virtual address associated with the host absolute page to create a host-address pair for use by a secure entity;

checks the host-address pair on access by the secure entity; and

locks the host absolute page for use by the secure interface control to prevent other calls to the host absolute page.

~~2. The method of claim 1, wherein the secure interface control marks the host absolute page as secure.~~

2~~3~~. The method of ~~any one of the preceding~~ claim~~s~~ 1, wherein the secure interface control ~~registers the host absolute page for use by the secure interface control, securely decrypts the host absolute page, subsequently~~ un-registers the host absolute page for use by the secure interface control, and registers the host absolute page to a~~the~~ secure domain.

~~4. The method of any one of the preceding claims, wherein the secure interface control registers the host virtual address with the associated host absolute page to create a host-address pair for use by the secure entity, and checks the host virtual addresses match on access by the secure entity.~~

~~5. The method of any one of the preceding claims, wherein the secure interface control locks the host absolute page for use by the secure interface control to prevent other calls to the host absolute page.~~

3~~6~~. The method of ~~any one of the preceding~~ claim 1~~s~~, wherein the secure interface control unlocks the host absolute page to assign a secure guest domain loaded into the memory.

4~~7~~. The method of ~~any one of the preceding~~ claim 1~~s~~, wherein the~~a~~ secure entity accesses a secure page that has been transparently paged-in by an untrusted entity executing on the computer and is non-secure.

5~~8~~. The method of claim 4~~7~~, wherein the untrusted entity is a hypervisor, and wherein the secure entity is a secure guest.

6~~9~~. The method of ~~any one of~~ claim~~s~~ 4~~7 or 8~~, wherein hardware presents a program interruption to the untrusted entity indicating a need for decryption of a secure guest page.

7~~10~~. The method of ~~any one of~~ claim~~s~~ 6~~7 to 9~~, wherein the untrusted entity issues an import instruction that provides the host absolute page and the host virtual page.

8~~11~~. A computer program product comprising a computer readable storage medium having program instructions embodied therewith, the program instructions executable to cause operations comprising:

determining, by a secure interface control of a computer that prevents unauthorized accesses to locations in a memory of the computer, that a host absolute page is not previously mapped to a virtual page in accordance with securing the host absolute page; and

determining, by the secure interface control, that a host virtual page is not already mapped to an absolute page in accordance with securing the host absolute page, wherein the secure interface control:

marks the host absolute page as secure;

registers the host absolute page for use by the secure interface control;

securely decrypts the host absolute page;

registers a host virtual address associated with the host absolute page to create a host-address pair for use by a secure entity;

checks the host-address pair on access by the secure entity; and

locks the host absolute page for use by the secure interface control to prevent other calls to the host absolute page.

~~12. The computer program product of claim 11, wherein the secure interface control marks the host absolute page as secure.~~

913. The computer program product of ~~any one of~~ claims ~~8~~11 or 12, wherein the secure interface control ~~registers the host absolute page for use by the secure interface control, securely decrypts the host absolute page, subsequently~~ un-registers the host absolute page for use by the secure interface control, and registers the host absolute page to a~~the~~ secure domain.

~~14. The computer program product of any one of claims 11 to 13, wherein the secure interface control registers the host virtual address with the associated host absolute page to create a host-address pair for use by the secure entity, and checks the host virtual addresses match on access by the secure entity.~~

~~15. The computer program product of any one of claims 11 to 14, wherein the secure interface control locks the host absolute page for use by the secure interface control to prevent other calls to the host absolute page.~~

106. The computer program product of ~~any one of~~ claim~~s~~ 8~~11 to 15~~, wherein the secure interface control unlocks the host absolute page to assign a secure guest domain loaded into the memory.

117. The computer program product of ~~any one of~~ claim~~s~~ 8~~11 to 16~~, wherein the~~a~~ secure entity accesses a secure page that has been transparently paged-in by an untrusted entity executing on the computer and is non-secure.~~,~~

128. The computer program product of claim 117, wherein the untrusted entity is a hypervisor, and wherein the secure entity is a secure guest.

139. The computer program product of ~~any one of~~ claim~~s~~ 117 ~~or 18~~, wherein hardware presents a program interruption to the untrusted entity indicating a need for decryption of a secure guest page.

1420. The computer program product of ~~any one of~~ claim~~s~~ 137 ~~to 19~~, wherein the untrusted entity issues an import instruction that provides the host absolute page and the host virtual page.

1521. A system comprising:

a memory;

a secure interface control of the system that prevents unauthorized accesses to locations in the memory,

wherein the system performs operations comprising:

determining, by a secure interface control of a computer that prevents unauthorized accesses to locations in a memory of the computer, that a host absolute page is not previously mapped to a virtual page in accordance with securing the host absolute page; and

determining, by the secure interface control, that a host virtual page is not already mapped to an absolute page in accordance with securing the host absolute page, wherein the secure interface control:

marks the host absolute page as secure;

registers the host absolute page for use by the secure interface control;

securely decrypts the host absolute page;

registers a host virtual address associated with the host absolute page to create a host-address pair for use by a secure entity;

checks the host-address pair on access by the secure entity; and

locks the host absolute page for use by the secure interface control to prevent other calls to the host absolute page.

~~22. The system of claim 21, wherein the secure interface control marks the host absolute page as secure.~~

1623. The system of ~~any one of~~ claim~~s~~ 1521 ~~or 22~~, wherein the secure interface control ~~registers the host absolute page for use by the secure interface control, securely decrypts the host absolute page, subsequently~~ un-registers the host absolute page for use by the secure interface control, and registers the host absolute page to a~~the~~ secure domain.

~~24. The system of any one of claims 21 to 23, wherein the secure interface control registers the host virtual address with the associated host absolute page to create a host-address pair for use by the secure entity, and checks the host virtual addresses match on access by the secure entity.~~

~~25. The system of any one of claims 21 to 24, wherein the secure interface control locks the host absolute page for use by the secure interface control to prevent other calls to the host absolute page.~~