

Deploying custom images for use on ExoGENI and InstaGENI

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Custom images that work everywhere

- Goal:
 - Maintain a single image that works on both primary rack types
- Existing approach:
 - Start with a bare or already booted EG image
 - Use Emulab EC2 import tool convert for use with the emulab:xen sliver type on IG
- Current restrictions:
 - While the OS and any software on base image can remain the same, the client tools (neuca and tmcc) must be installed for each rack architecture and enabled/disabled appropriately
 - Conversion process requires emulab-generated user ssh public key to work. This is not the same as a GENI portal key or any user supplied key
 - There is no “one-click” solution. Setting up the image, client tools, and dependencies is a manual process
 - Conversion process is in the EG->IG direction only

The big list of instructions

- Current set of conversion steps:
 - <http://groups.geni.net/geni/wiki/sol4/IDMS/CreatesImages>
- The page assumes the user starts with bootstrapping a new filesystem and OS from scratch
 - Any existing EG image can be downloaded and repackaged
 - Or use the EG VM snapshot feature to start (pointer provided)
- A pre-converted image can also be booted locally for testing
- Pointers for installing the Neuca and Emulab client tools
- Tested and working with CentOS and Debian distributions

Summary

- Conversion is possible if you take the time to understand the process
- Requires account/support from an Emulab installation
 - Should be exposed via the AM API soon
- IG->EG in the works
- Both IG and EG have working image snapshot features
 - Create and boot custom images for each aggregate type
 - Start there, then evaluate if a single, convertible image makes sense