



UNIVERSIDAD DEL BÍO-BÍO
FACULTAD DE CIENCIAS EMPRESARIALES

DevCloud

Heterogeneous Computing

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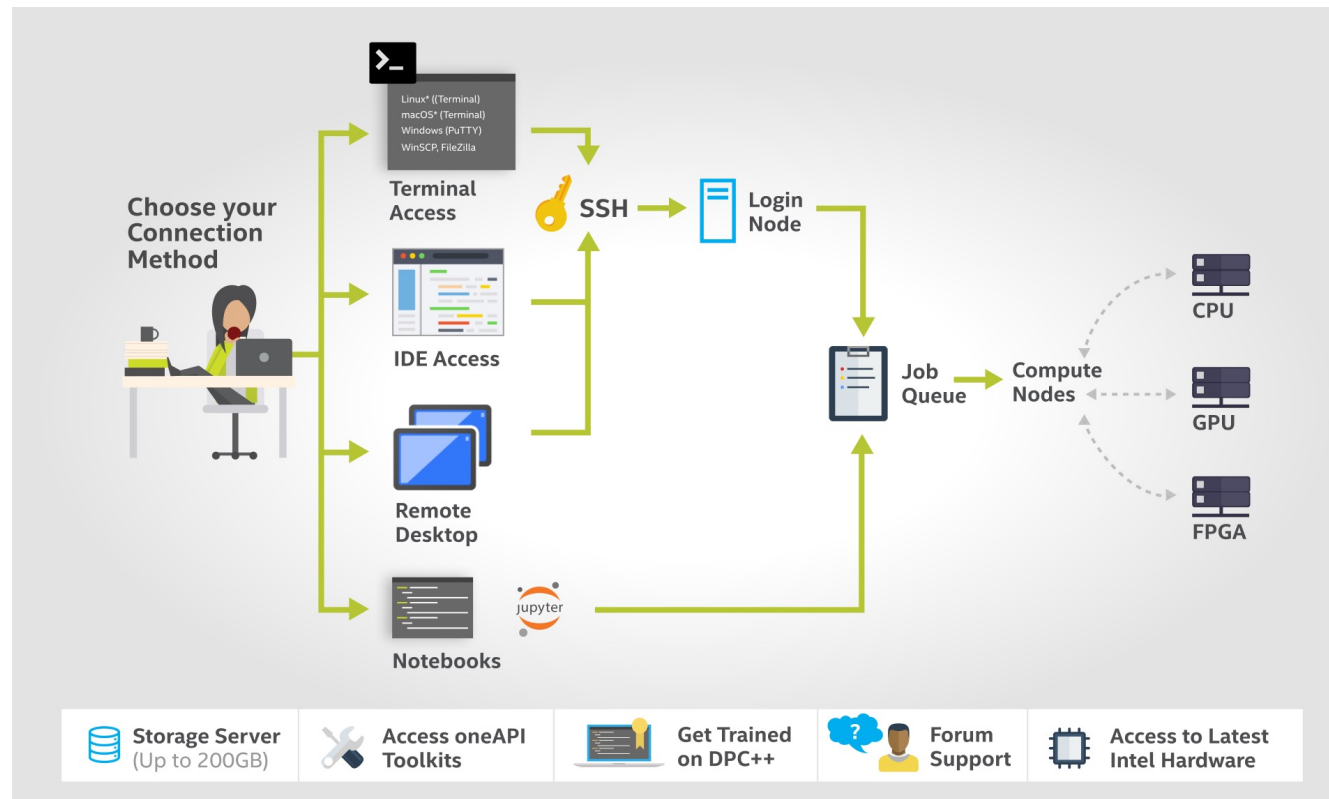
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Course website: <http://www.face.ubiobio.cl/~jfuentes/classes/ch>

DevCloud

- Remote development environment with access to multi-core CPUs, GPUs, FPGAs, etc.
- We will focus on development with OneAPI (DPC++)



DevCloud

1. Create a DevCloud OneAPI account.
 - <https://devcloud.intel.com/oneapi/>
2. Install Cygwin.
 - <https://cygwin.com/install.html>
 - Software to include during installation: ssh, gcc, g++
3. Install VSCode.
 - <https://code.visualstudio.com/>
 - Install Remote extension - SSH from the Visual Studio Marketplace

DevCloud: Configure IDE

See steps in detail <https://devcloud.intel.com/oneapi/documentation/connect-with-vscode/>

1. Configure SSH.
 1. Download script according to User DevCloud
 2. Open Cygwin and run script with: `$bash file.txt`
2. Configure SSH extension in VSCode.
 1. Open Remote Explorer
 2. Update the SSH Config in configurations to: `C:\cygwin64\home\<user>\.ssh\config`
 3. Update the Remote.SSH Path in File->Preferences->Settings (use the Search tool) to: `C:\cygwin64\bin\ssh.exe`

DevCloud: Access

1. Open terminal 1 Cygwin
2. Access DevCloud using: `$ssh devcloud .`
 - Request compute node using: `$qsub -I`
3. Open Terminal 2 Cygwin
 - Access the compute node using: `$ssh <compute-node-name>.aidevcloud`
 - for example if the node name is `s001-n059` you must run: `$ssh s001-n059.aidevcloud.`
4. Open Devcloud Connection in VSCode.

