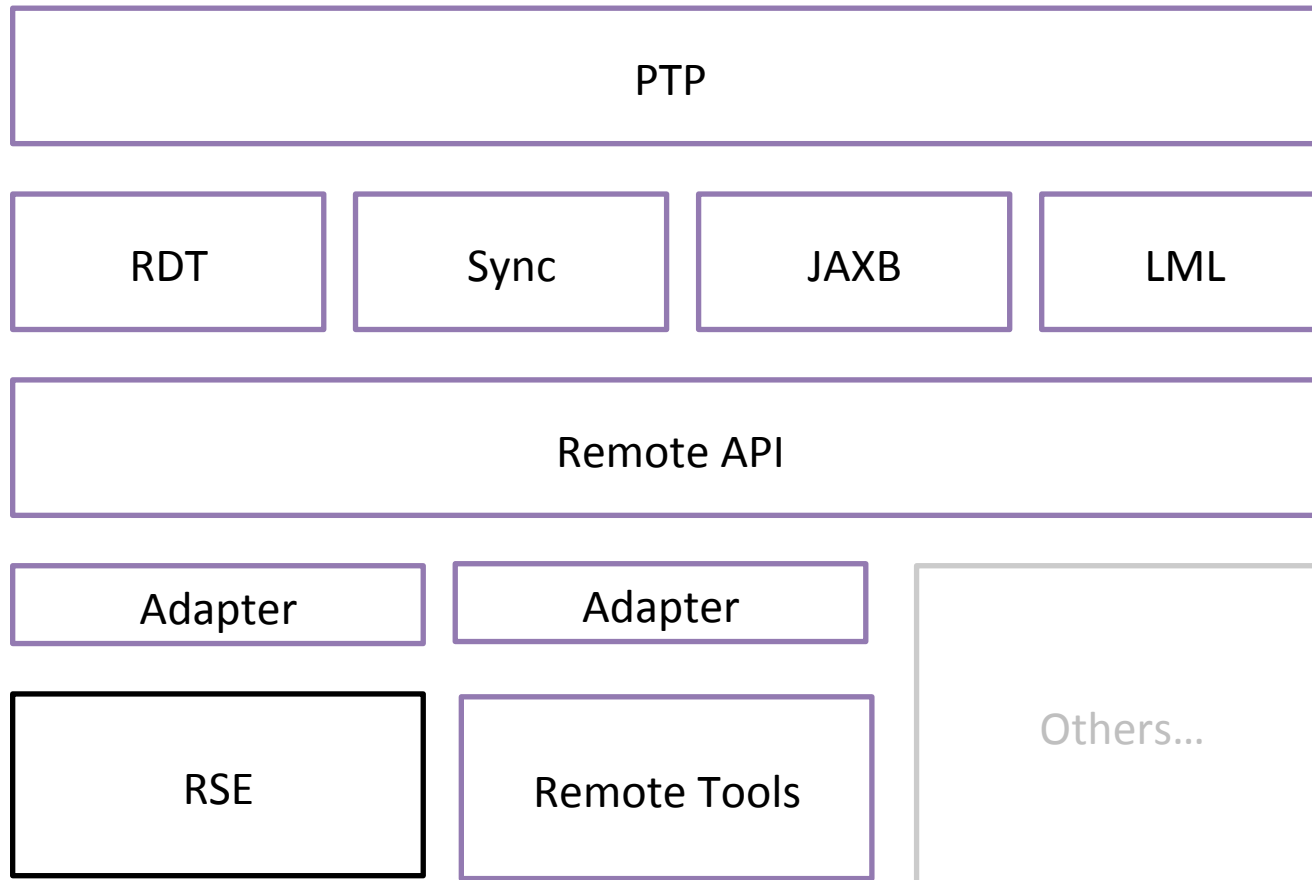# Remote Support NG

Greg Watson, IBM
PTP User/Developer Workshop
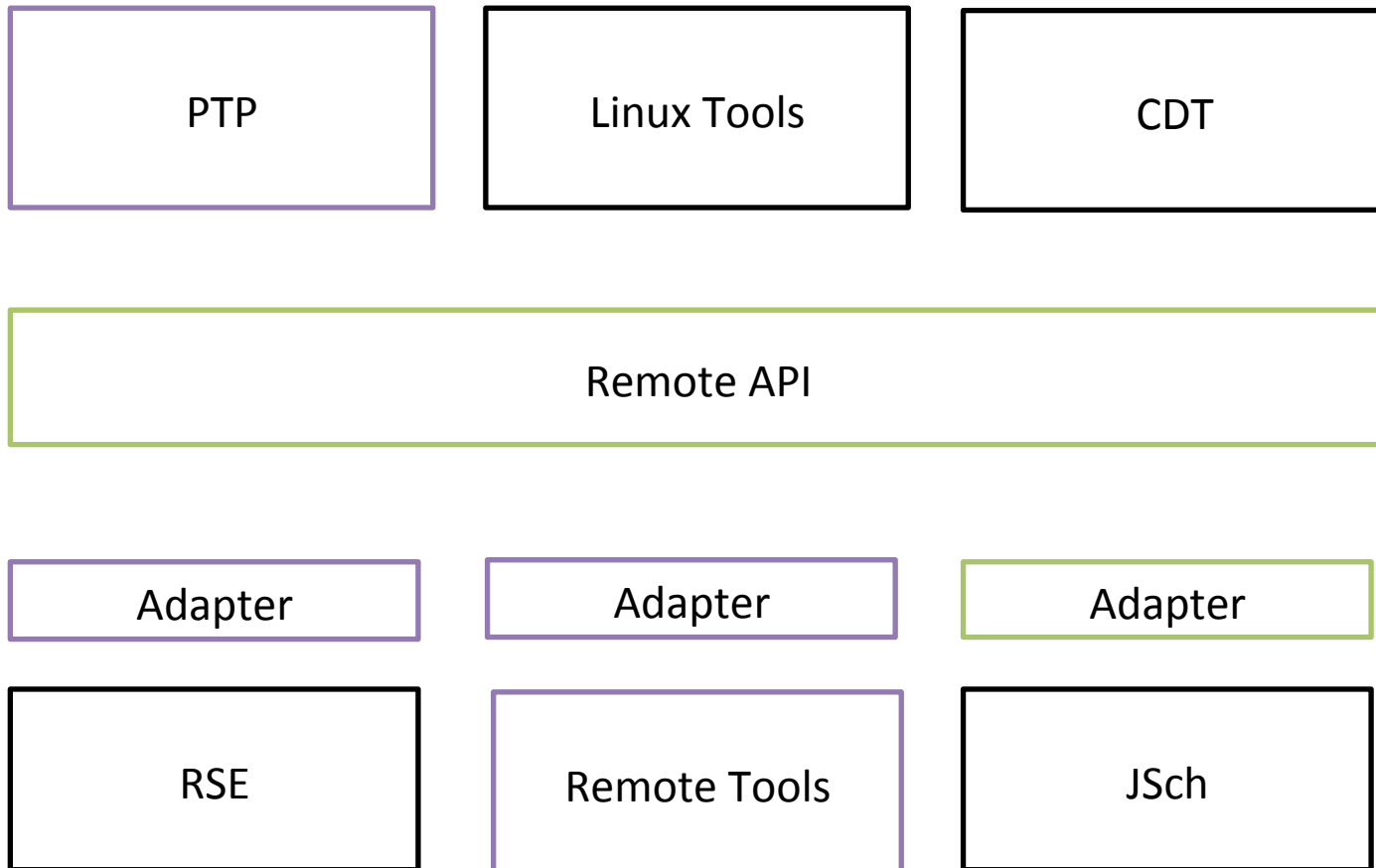13-14th Sept 2013
Chicago

Remote Support

- Used to provide remote services throughout PTP
- Abstraction of remote concepts
  - IRemoteConnection
  - IRemoteResource
  - IRemoteProcess
  - IFileStore
- Allows different service providers to be used
  - Important to allow other remote functionality to be used seamlessly with PTP
- Is not being used by other projects because of "fear of dependencies"
- Is hindering remote enablement of Linux Tools which would benefit PTP

Remote Architecture

PTP

RDT	Sync	JAXB	LML

Remote API

Adapter	Adapter	
RSE	Remote Tools	Others...

Remote Architecture NG

PTP	Linux Tools	CDT

Remote API

Adapter	Adapter	Adapter

RSE	Remote Tools	JSch

Current Plugins

- Remote API
  - org.eclipse.ptp.remote.core
  - org.eclipse.ptp.remote.ui
- Adapters
  - RSE
    - org.eclipse.ptp.remote.rse.core
    - org.eclipse.ptp.remote.rse.ui
  - Remote Tools
    - org.eclipse.ptp.remote.remotetools.core
    - org.eclipse.ptp.remote.remotetools.ui
- Remote Implementations
  - org.eclipse.rse.*
  - org.eclipse.ptp.remotetools.*

Plugins NG

- Remote API
  - org.eclipse.remote.core
  - org.eclipse.remote.ui
- Adapters
  - org.eclipse.ptp.remote.*
  - org.eclipse.remote.jsch.*
- Remote Implementations
  - com.jcraft.jsch
  - org.eclipse.rse.*
  - org.eclipse.ptp.remotetools.*

"Tweaks" to the API

- IRemoteConnectionWorkingCopy
  - All set* methods
  - save() method
- IRemoteConnectionManager#newConnection() returns IRemoteConnectionWorkingCopy
- IRemoteServices#getFileManager() and getProcessBuilder() moved to IRemoteConnection
  - services.getFileManager(connection) becomes connection.getFileManager()
  - services.getProcessBuilder(connection, options) becomes
  - connection.getProcessBuilder(options)
- IRemoteServices#getCapabilities() provides user with information on what is supported by implementation
  - Connection creation/editing
  - Port forwarding
  - X11 forwarding

New/Updated UI

- Remote connections preference page
  - Shows all connections from all providers in one place
  - Allow connections to be created/modified/removed
  - Will allow connections to be opened/closed
  - Will show connection status
- IRemoteUIConnectionManager methods now return IRemoteConnectionWorkingCopy

JSch Provider

- Will be preferred provider
- Requires one sftp channel and one exec channel
- If MaxSessions < 2, will create two separate ssh sessions
  - May require two logins
  - Only happens once when the connection is opened

Demo

Next Steps

- Finish implementation
  - Few UI features still need to be finished
  - Existing adapters need to be ported
- Commit to master branch
- Testing
  - Particularly MaxSessions < 2
- Create new git repo for org.eclipse.remote.*
- Promote to other projects
  - Particularly Linux Tools
  - Platform adoption