Renaming cell<> to latest<>,

P0561R3 proposes a class for deferred reclamation so that multiple threads can easily access the “latest snapshot” of a state. Currently the class where all snapshots are managed is called a cell (with a basic_cell<> class template in header <cell>).

This paper proposes a different name for cell. The reason is that there are different meanings of cell and the most obvious one is counter-intuitive, because we talk about a container-like class, holding/managing multiple snapshots; while the intuitive meaning of “cell” is the smallest unit, which sounds more like being an element of a container.

Although the name works if you think of an electrochemical cell, holding and yielding a state; but even then it is confusing that the cell can handle multiple states at the same time.

We therefore propose to use a more intuitive name. After a lot of very constructive discussion, the name we proposed is:

latest<>

The authors of the original paper, Andrew Hunter and Geoffrey Romer are willing to support it.

The resulting API for some configuration would be as follows:

```cpp
#include <snapshot>
...
std::latest<Config> config; // was: std::cell<Config>
...
snapshot_ptr<const Config> currentConfig = config.get_snapshot();
```

The fact that you can read std::latest<Config> as “latest Config” is very intuitive.

As a consequence the concrete proposal is to adjust P0561 as follows:

- Rename the header to <snapshot>
  - As the snapshot is the most intuitive key concept here, this seems to be more intuitive than a header <latest>, which, however, is also possible.
- Rename the basic class template to basic_latest<>
- Rename the alias template to latest

with all corresponding fixes like changing the constructor names and so on.

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Feature Test Macro

No need for a feature macro because the goal of this paper is to change a name of a library feature that is not standardized yet. It should be used in a new/joined revision of P0561.