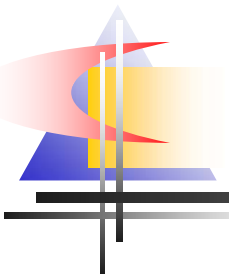
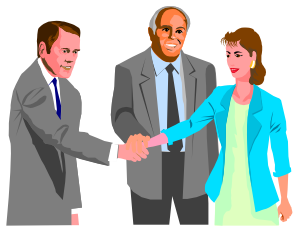


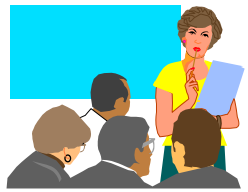
AB Strakt's N-tier Framework

for Real-time Computer-assisted Collaborative Applications

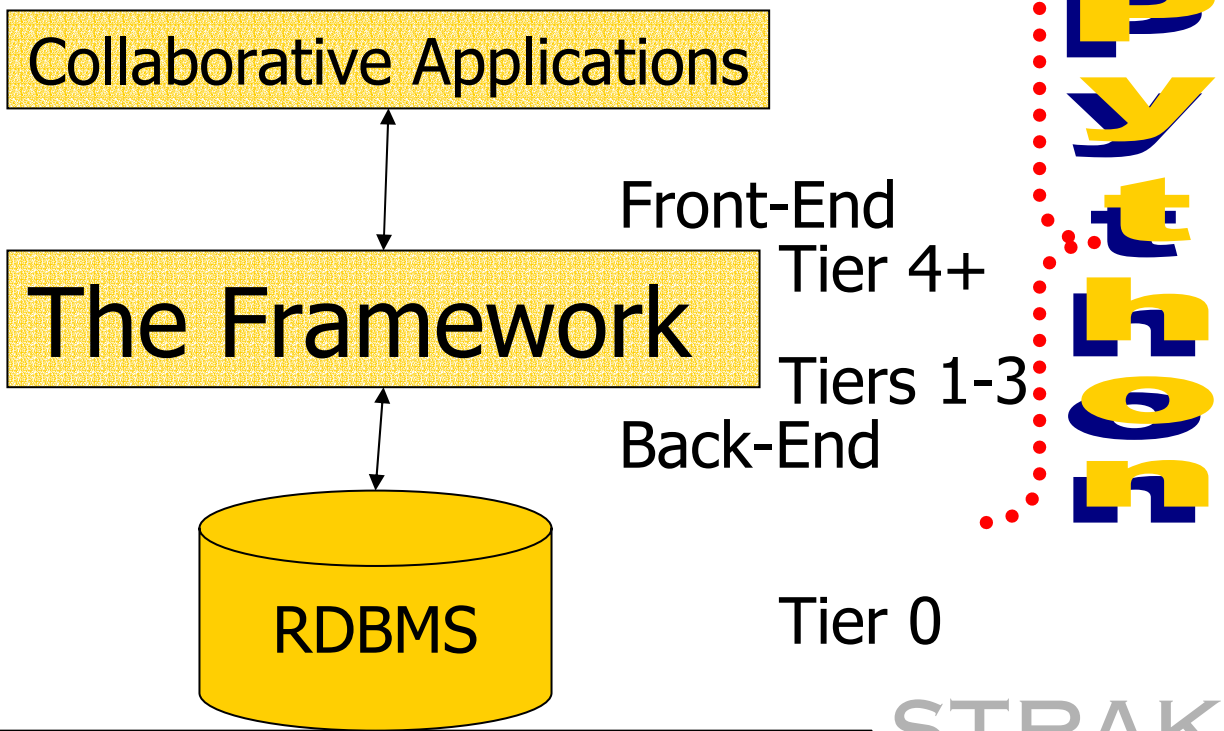
The Mile-High View

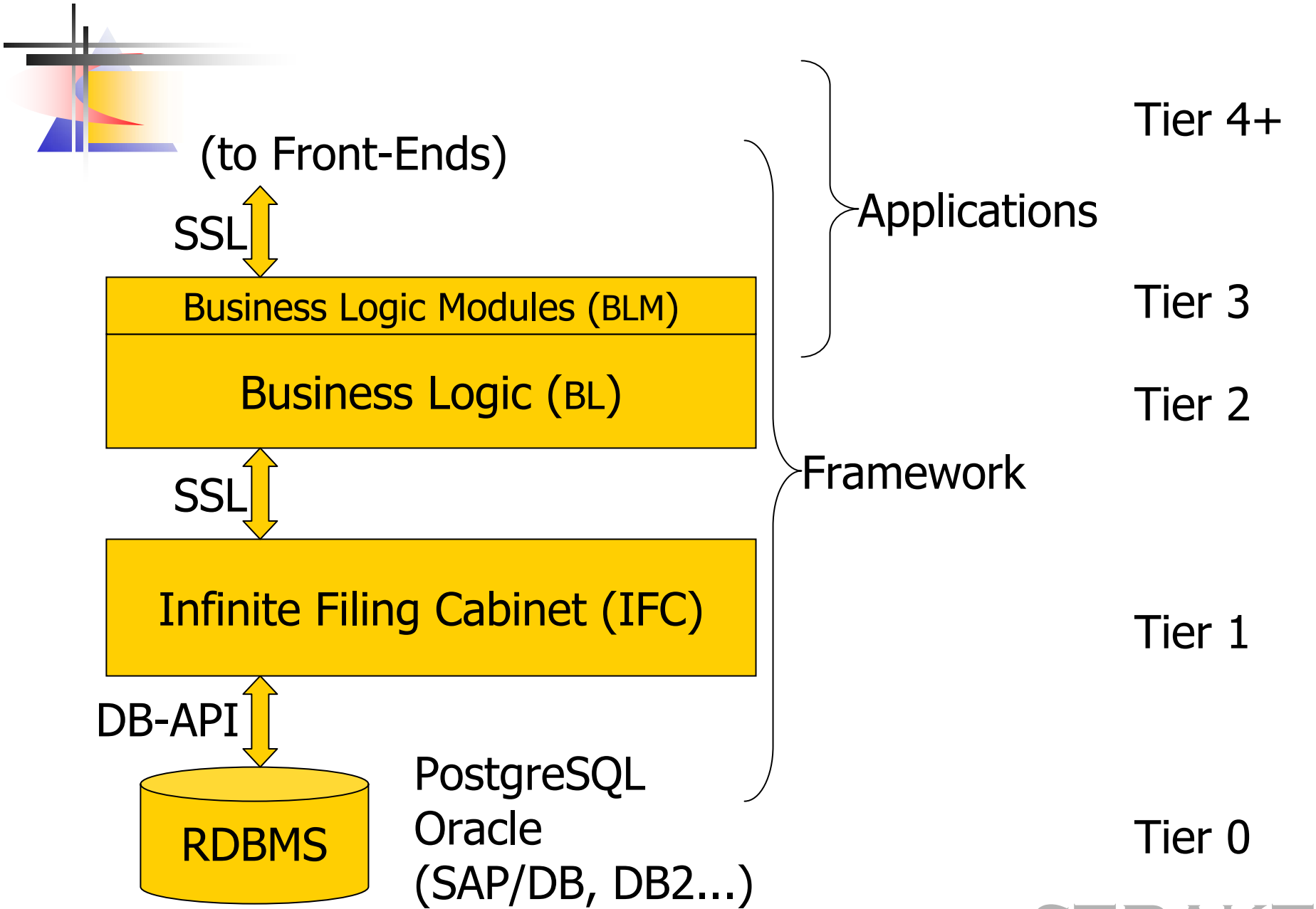
People Collaborate

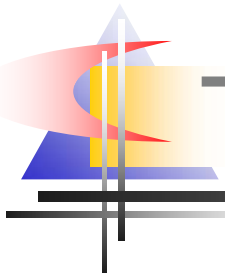




Computers and Networks assist them

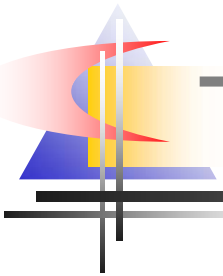






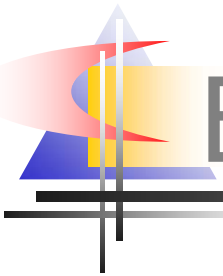
The Infinite Filing Cabinet

- builds an OO DB on top of the RDBMS's tables / transactions / views / queries...
- can use any good standard SQL RDBMS
- **queries** yield sets of objects
- **requests** yield object attributes
- each is **transient** or **subscription**
- **subscriptions** feed BL with RT info
- IFC also provides *intrinsic audit trail*



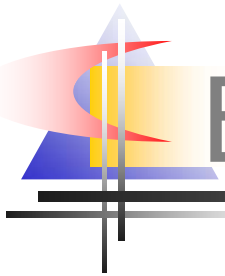
The Business Logic subsystem

- builds business objects on top of IFC (so all other Tiers can deal in high-level, application oriented concepts/terms)
- handles real-time interaction with IFC and front-ends
- highly modular: loads (from IFC) the Python *Business Logic modules* to perform application-specific work
- supervises authorization issues



Business Logic modules

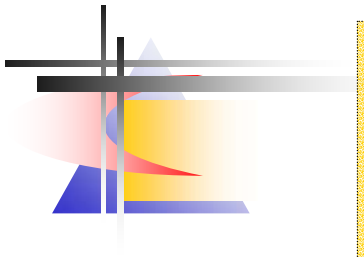
- Python modules residing in the IFC, loaded by and running in the BL
- each BLM deals with a specific application area
- describes each business object
- asserts (may implement) business rules
- may include presentation-level information (passed on to front-ends)



BLM Language

- "small language" (mostly Python classes) to ease ER-like expression of BLMs

```
_ent_doc = Entity('Document').attributes(
    (String('Heading'),Mandatory,Short),
    (Timestamp('Created'),Unchangeable,
     OnCreation(BlmLang.timeStamp),
    (Blob('Contents'),),
).relation('Links', (0,Any), (0,Any)
).presenterClass(DocumentPresenter
)
```



Front ends

Batch and Scripting

Custom GUI

NNTP I/O

Flexible QT GUI Client

Email I/O

...

Webkit-based Web server

Your front-end goes here!

Tier 4+

SSL

Back end (IFC+BL+BLM)

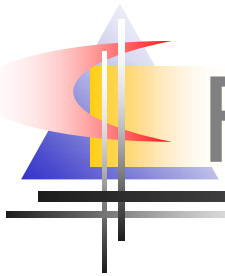
Tiers 1-3

DB-API

RDBMS

Tier 0

STRAKT



Front-Ends (Tier 4)

- Communicate with the BL (via SSL)
- Receive presentation-control from BLM
- Optionally support RT updates
- Framework supplies some flexible / generic ones (current and/or planned) customized via presentation-control ...
- ... and supports adding custom ones
- May support Tiers 5+ (e.g. Tier 4 Web server ➲ Tier 5 browsers)

Applications

- One or more BLMs for logic
  - may use BlmLang
  - may support presentation-control in order to customize flexible generic front-ends
- Optionally, custom Front-Ends
  - if the flexible generic ones aren't enough
- Coded in Python (other languages are not "forbidden", but... why?-)
- Integration "hooks" with externals
  - back-end (metadata, "peer to peer", ...)
  - front-end (more typical -- and easier)

Size to date (approx SLOC)

bin	500
Common	7000
IFC	7000
BL	7000
BLM	2500
FE Base	4500
Test Scripts	1500
Gui Base	7000
Gui/*	7000
Web FE	5000