



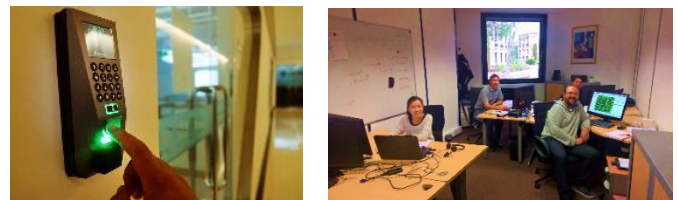
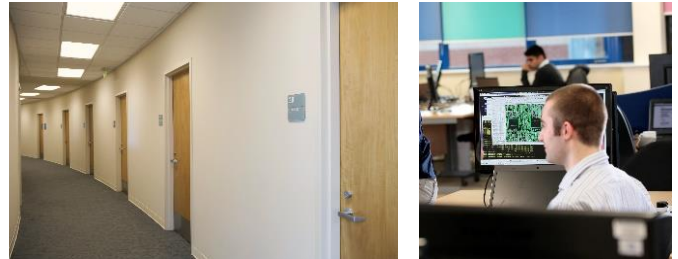
Success through partnership

Off-Shore Design Centers (ODC)

ODC Introduction

Semiconductor design, especially at latest technology nodes, requires an ever expanding number of design, verification and physical implementation engineers. Companies may wish to outsource elements of the design process to access specialist skills or to reduce design costs.

Sondrel has created accredited design locations in the UK, mainland Europe and China where specialist engineering teams operate within a secure environment. Data and physical security are set at international design center standards but the room by room compartmentalization of the space allows clients to set their own standards if required.



Multi-Room ODC Format

Benefits to Client

- Companies moving to a new technology node may wish to access specialist skills not available in-house.
- Companies may find it difficult to access sufficient engineering resources in their local area to enable expansion.
- Companies may be headquartered in a high salary area and wish to reduce design costs.
- Companies may lack space in their facility as designs get more complex and team sizes grow.
- Companies may wish to 100% outsource a specific skill set
- Companies may find it uneconomic to carry design skills between projects, or wish to react quickly to high peak loads
- Companies may not wish to buy physical design EDA licenses, preferring the ODC to supply

Engagement Models

Though inherently an off-site engagement model clients may wish to include a contracted Sondrel project engineer working on their site as liaison.

- Client decides the nature and scale of the outsource project. Block level, SoC level, verification, DfT, physical design etc.
- Sondrel discusses with the client location and skill balance of the project team.
- Sondrel can offer 100% China, 100% UK/European or balance of both to meet the client's budget and project needs.
- Sondrel will show the client the standards of data and physical security available.
- Client is allocated a room within the ODC and can set a higher standard if required.





Sondrel Physical and Data Security Standard

Sondrel's clients can select ODC locations in the UK, mainland Europe and China based on international ISO 27001 standards. These facilities offer separate and secure multi-room environments to the international standard, but each capable of further upgrade to your company standard (if different). Clients select a room size suitable for the project and audit the physical and data security offered by Sondrel.

- Fully documented security policy, refreshed annually
- Bi-annual ISO 27001 audit, risk assessment and continuous improvement
- Multi-level access control and data logging
- 24 hour security cameras , fully monitored alarms
- Data disaster recovery
- Staff background checks
- Comprehensive staff security training program

EDA License Considerations

Options of Sondrel supplied tooling or client own tooling (CoT) are offered. With Sondrel tooling we take responsibility for the license supply and usage of tools within our ODC environment. With CoT Sondrel remotely access licenses on your servers. (Subject to EDA license agreements).

Sondrel has a neutral and flexible view on software licenses having a license capability with all the major EDA suppliers. We are able to offer any combination of tools and will consult with you to decide and procure the best price/performance tools to use for your design.



Xi'an and Shanghai

Cloud Options

With our EDA and cloud partners we are able to offer a unique capability of project scalable (license and machine) secure cloud (in house or public) based Sondrel or collaborative working. This is a fast growing area of interest for companies who wish to flex the machine and license usage as the design matures to tape out.

Next Steps

Call us today on
0118 983 8550 or email
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