

## Using Technology to Accelerate G20 Plans for Strengthening Global Financial Supervision

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## Using Technology to Accelerate G20 Plans for Strengthening Financial Supervision and Regulation

The G20 Summit in London in April revealed a most welcome and promising consensus on the policies and governance structures required to reform the global banking system. Better “macro-prudential” supervision will be facilitated by enhanced roles for the Washington-based IMF, and by a strengthened mandate and expansion of the Basel-based Financial Stability Forum (FSF) to include all G20 countries, Spain, and the European Commission—now renamed the Financial Stability Board (FSB). There are also numerous references in supporting documents to “more intensive collaboration” among supervisory agencies, both to agree upon detailed rules and to improve the effectiveness of “supervisory colleges” for large financial institutions. All this is expected to be achieved in less than two years—compared with the five or more years required to settle upon the last set of banking regulatory changes, the so-called Basel II reforms.

Yet throughout several hundred pages of publicly available reports produced to support the G20 Summit—from the EU, FSA, UN, U.S. Treasury, and G20 Working Groups—there is not a single mention of the role technology could play in supporting the new system. Several reports suggest the need for more resources or new skills,<sup>1</sup> but there is no discussion of the challenge of delivering the greater international collaboration that is at the heart of so many of the proposals.<sup>2</sup>

This paper addresses that issue and explores how collaborative and other technologies can be a critical enabler of many of the reforms being planned. Major changes will need to be implemented in regulation, structure, and processes—and, more important, also in the culture of those leading both large financial institutions and the supervisory agencies. Technology has a key role in supporting these changes.

“We also agree to establish the much greater consistency and systematic cooperation between countries and the framework of internationally agreed high standards that a global financial system requires.”

**Communiqué of G20 London Summit Leaders Statement  
April 2, 2009**

## Areas of Reform Requiring More International Collaboration

Almost all of the proposals will require more frequent and widespread collaboration among national, regional, and international supervisory agencies and their constituent bodies in order to accelerate decision-making. Some areas, however, can be particularly highlighted:

- Agreeing upon rules and mechanisms for the new “macro-prudential” approach to supervision of the finance sector—both at the EU and global levels
- Expanding the number of supervisory colleges for cross-border financial institutions and the frequency of meetings—both at the EU and global levels
- Enhancing the process for management of crises at cross-border financial institutions, or for systemic problems
- Agreeing upon new rules on capital adequacy, liquidity management, and counter-cyclical capital buffers, and upon improved regulatory oversight of hedge funds/private equity, credit rating agencies, and compensation policies
- Enhancing collaboration among national supervisory agencies and their staff assigned to increasingly powerful international bodies

Better application of technology can play a role both in supporting the new macro-prudential approach through advanced data-sharing networks, and in enhancing collaboration through improved voice- and videoconferencing. Each is addressed below.

## Role of Technology in Macro-prudential Approach

The macro-prudential approach is largely a new departure. The IMF has had a Financial Sector Assessment Program (FSAP) for some time, but with little impact. The G20 Working Group on Enhancing Sound Regulation and Strengthening Transparency recommended: “The expanded FSF, together with the IMF, should create an effective mechanism for key financial authorities in each country to periodically come together around an international table to jointly assess the systemic risks across the global financial system and to coordinate policy responses.”<sup>3</sup> Additionally, it recommended a more formal review process for all G20 FSAPs, and an expanded scope to cover the regulatory approach.

The EU, in the de Larosiere report, suggested a similar approach at an EU level where implementation might be faster. It proposes establishment of a new formal body, the European Systemic Risk Council (ESRC), with logistical support of the European Central Bank (ECB) in Frankfurt, to oversee macro-prudential supervision in the EU.<sup>4</sup> The U.K. FSA’s Turner Review calls for “robust institutional arrangements which will empower the IMF or other international institutions to produce wholly independent analysis of system-wide risks.”<sup>5</sup> And the U.S. Treasury recommends a single regulator in the United States to take responsibility for “systemically important firms and critical payment and settlement systems.”<sup>6</sup>

To be successful, the implementation of an effective macro-prudential approach—endorsed at the G20 Summit—will require a huge amount of up-to-date—if not real-time—data from a variety of sources. This data will need to be analyzed for indicators of threats to the system and shared in a digestible form with senior international policymakers. Indeed, the Declaration on Strengthening the Financial System, published with the London Summit Communique, calls for the launch by the IMF and FSB of an “Early Warning Exercise” at their

spring 2009 meetings. The relevant G20 Working Group<sup>7</sup> recognizes that “for effective early warning, data collection must be strengthened,” and recommends that the IMF and FSB provide proposals to this effect before the next meeting of G20 finance ministers in September.

A similar issue faces those trying to influence climate policy: a need to bring together massive amounts of data from a wide variety of sources in near real time to inform policy. Earlier this year, NASA and Cisco responded with a joint commitment to develop “Planetary Skin”<sup>8</sup>—an intelligent, IP-based network platform for capturing worldwide environmental data from satellite, airborne, maritime, terrestrial, and other sources. The project has the active support of the UN Framework Convention on Climate Change (UNFCCC) and the International Panel on Climate Change (IPCC). It will comprise “sensor networks” for collecting data; decision-support tools for management of resources, risks, and environmental markets; and a “commonsense” layer to facilitate public and private feedback for decision-makers. The aim is to address one of the three basic requirements for mitigating and adapting to changing climate outlined by public- and private-sector leaders at the World Economic Forum in 2009 and endorsed earlier by the UNFCCC—namely, “the creation of a globally trusted mechanism for measurement, reporting, and verification,” or MRV. This concept is developed further in a paper on the use of networks to help solve apparently intractable common-good problems—in particular, those involving collaborative risk assessments—entitled “Creating a Connected Commons.”<sup>9</sup>

By comparison, the collection of data from G20 supervisory authorities—a “Financial Skin”—would seem simple. But it will require this sort of modern, secure network technology linking supervisory authorities rather than traditional report-sharing processes. New technologies are emerging to allow this to become a reality. These include “Trust Clouds,” a development of cloud computing that provides trusted, Internet-based computing services accessible across agencies and jurisdictions by authenticated users.<sup>10</sup> Just as Planetary Skin will provide a discussion forum for climate experts, so a “Financial Skin” could provide a similar forum for accelerating consensus among regulatory experts across the globe.

## Role of Technology in Enhancing Collaboration among Agencies

The present approach to international cooperation among regulatory and supervisory authorities is unfit for addressing today’s challenges. It usually consists of a series of formal meetings at various levels to prepare final recommendations to be endorsed by policymakers. Committee meetings are preceded by working groups that are informed by groups of experts. The pace of progress is defined largely by the speed with which the formal meetings can take place.

There is no true “collaboration,” where the parties get together quickly when needed, for two main reasons: an essential lack of understanding among national and international supervisory authorities; and the lack of technology to enable face-to-face meetings without travel. And the two are linked: few, formally set-up meetings reinforce historical misunderstandings; frequent, informal face-to-face meetings breed trust. This is as true for the domestic supervisor wanting to “control” its representatives in international bodies as it is for the national supervisors themselves. Indeed, until now, the representatives of member states were only loosely coupled to their home agencies, and the two or three statutory meetings per year attended by the head of the home agency were deemed sufficient to

allow control. As the international bodies are strengthened, member states will search for mechanisms to increase their influence on the decision-shaping process.

Proposals to expand the number and effectiveness of “supervisory colleges” will equally require a new approach to collaboration. These colleges are relatively new and have developed voluntarily over time, with the FSF (now FSB) taking the lead in agreeing upon principles to govern the coverage-structure role and working methods. Colleges exist now for 28 “large, complex financial institutions,” but the de Larosiere report recommends wider coverage.<sup>11</sup> We doubt whether the current approach of just two formal physical meetings per year,<sup>12</sup> supplemented by conference calls, is sustainable in the current environment.

A range of technologies is being used by international companies to enhance collaboration. These extend from closed social networks and discussion forums to voice, video, and data-sharing technologies. One particular new technology developed to address the challenge of enhancing collaboration is telepresence—a high-definition-video, sensitive-audio system that matches the experience of physical, face-to-face meetings. There is a range of configurations that meet the needs of small to very large groups across multiple locations. While it is possible to envision virtual meetings of whole boards—as is already being practiced in the private sector—the more likely early use is as a substitute for many of the smaller committee and working group meetings of senior officials of supervisory agencies.

The Cisco TelePresence offering is simply an application on a standard, high-bandwidth IP telephony network and requires no dedicated support. It is as easy to use as a telephone. Meetings can be recorded and interpreters can be patched in for participants. The technology is already tried and tested, with Cisco deploying more than 400 units around the world and linking to an increasing number of partners and customers.

Most large financial institutions have started to deploy telepresence to enhance collaboration, accelerate decision-making, and reduce the time and costs of travel for executives. Governments and regulatory agencies have so far been slow to adopt, although the Basel-based Bank for International Settlements (BIS) recently installed some units and leaders of the Australian and Italian governments have also expressed strong interest.

**Figure 1.** Cisco TelePresence Room with Image of Remote Booth for Interpreters



Source: Cisco IBSG, 2009

## Implications for Ways of Working

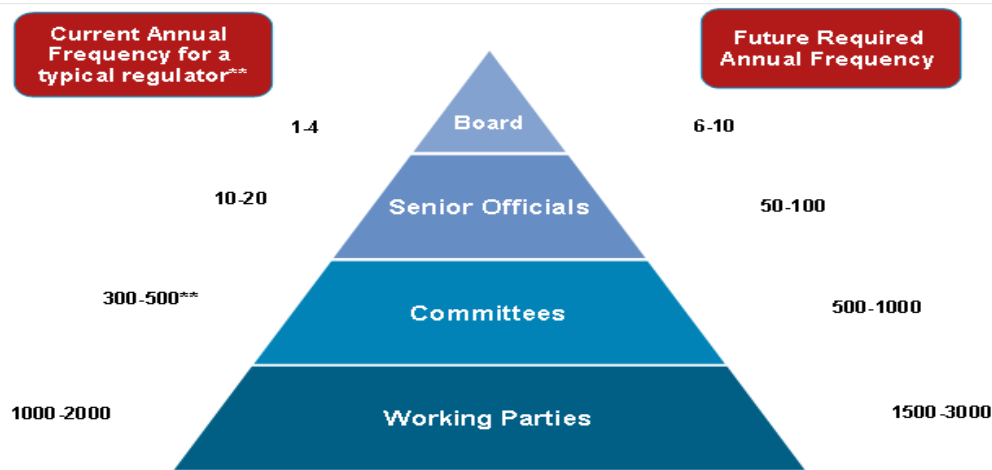
If the major G20 supervisory authorities and key international bodies such as the FSB/BIS, the IMF, the ECB, and the EU Commission all had access to interlinked telepresence systems, the whole process for agreeing and implementing the reforms to global financial regulation put forward at the G20 Summit could be accelerated and made more effective. The practical problem of arranging dates for meetings—where almost all participants have to travel long distances—is real, and with the extended membership of the FSB, will only become more severe.

Of course, there may be an aversion at some levels to substitute enjoyable overseas trips with telepresence meetings, and there is undoubtedly a continuing role for physical, face-to-face meetings and the socializing associated with them. As pressures on senior officials mount, however—not least from those concerned about the environmental footprint—the need for an alternative way to enhance and maintain interagency relationships will grow.

Figure 2 illustrates how the frequency of meetings might need to change as a result of the calls for more international collaboration across so many areas, using the U.K. regulatory agency, the FSA, as an example. No data are published or are available on numbers of meetings, so these are estimates based on discussions with former officials. International agencies such as the ECB already have a more intensive meeting schedule: the Governing Council and 15 Committees of the Eurosystem/ESCB each meet once or twice per month. The use of telepresence would remove the need to travel for many of these meetings.

Deployment of telepresence and other collaborative technologies, however, will require a sea change in the approach of international supervisory agencies toward the use of IT. Rather than being seen as a necessary cost to be minimized, technology needs to be viewed as an enabler for greater supervisory effectiveness. There is no sign of such attitudes at present. To take just one example, the ECB coordinates a basic, secure conference calling facility that is hardly used by most constituent central banks because of difficult setup. And as far as can be ascertained, other international agencies are equally poorly served in terms of communications networks to link with home agencies.

**Figure 2.** Meetings of International Regulators at All Levels Must Accelerate If Changes Are to Be Implemented More Quickly



Source: Cisco IBSG, 2009

## Cisco's Lessons from Use of Collaborative Technologies

Cisco deploys TelePresence as one of a range of technologies to enhance collaboration. Others are Cisco WebEx, a laptop-based voice, data, and video-sharing solution; wikis, blogs, and other discussion forums; and an internal version of YouTube. It is TelePresence, however, that has had the greatest impact: a 57 percent reduction in travel cost per employee; 103,000 metric tons of emissions saved; and acceleration in “deal cycle” times of 9.7 percent.<sup>13</sup>

Cisco TelePresence rooms are utilized, on average, during 49 percent of a 10-hour day, with utilization rates far higher in major cities such as London, New York, or Hong Kong. This compares with a typical 5 percent daily utilization of traditional videoconferencing.

For Cisco, adoption accelerated once a critical mass of about 50 locations was reached. Therefore, while the early initiative could come from core international supervisory agencies such as the IMF, BIS and ECB, the existence of a wider network embodying all G20 supervisory agencies would yield the greatest value for all.

Another lesson from Cisco and other enterprises that have adopted this technology is the need to make it easy and open to use by all those with a strong reason to meet and avoid long travel. While it may be important for senior officials to be early users in order to stimulate interest, the network should be open to all those involved in international supervisory activities.

## Conclusion

While the G20 Summit provides strong guidance and commitment to the reform of the global financial system, the details of implementation will be worked out over the coming months. One strand of the implementation program needs to be the deployment of technologies to support the extra staff effort that will be required if the program is to succeed. Collaborative technologies such as telepresence can be deployed relatively quickly if the sponsorship and budgets are put in place as part of the post-Summit action plan. A system for near-real-time measurement, reporting, and verification of data—a “Financial Skin”—will take longer, but could prove to be a lasting legacy of the G20 program.



## Endnotes

1. FSA Discussion Paper 09/2, page 188.
2. U.S. Treasury Framework for Regulatory Reform, March 26, 2009—one of “four broad components of comprehensive regulatory reform.”
3. G20 Working Group on Enhancing Sound Regulation and Strengthening Transparency, March 2009; Recommendation 4, page xi.
4. de Larosiere report (“The High-Level Group on Financial Supervision in the EU”), February 25, 2009, page 44.
5. FSA, The Turner Review, March 2009, page 86.
6. U.S. Treasury Framework, *ibid*; Recommendation 1 on Addressing Systemic Risk.
7. G20 Working Group on Reinforcing International Cooperation and Promoting Integrity in Financial Markets, March 27, 2009, page 27/8.
8. NASA press release, March 3, 2009.
9. Cisco IBSG Paper, “Creating a Connected Commons,” December 2008.
10. Cisco IBSG Point of View, “Trust Clouds,” December 2008.
11. de Larosiere report, *ibid*, page 52.
12. FSA, The Turner Review, *ibid*, page 98.
13. Cisco Executive Metrics Dashboard, data to March 8, 2009.

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### More Information

The Cisco Internet Business Solutions Group (IBSG), the global strategic consulting arm of Cisco, helps CXOs and public sector leaders transform their organizations—first by designing innovative business processes, and then by integrating advanced technologies into visionary roadmaps that address key CXO concerns.

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