Segment Details

The following is an analysis of the fourth quarter of 2019 versus the fourth quarter of 2018 reportable segment external revenue and gross margin results. Segment pre-tax income includes transactions between the segments that are intended to reflect an arm's-length transfer price and excludes certain unallocated corporate items.

(\$ in millions)

For the fourth quarter:	2019	2018	Yrto-Yr. Percent/ Margin Change	Yrto-Yr. Percent Change Adjusted for Currency
Revenue			8-	
Cloud & Cognitive Software	\$ 7,238	\$ 6,661*	8.7%	9.4%
Gross margin	79.2%	79.4%*	(0.2)p	ots.**
Global Business Services	4,243	4,269*	(0.6)%	6 (0.3)%
Gross margin	27.5%	27.8%*	(0.3) p	ots.
Global Technology Services	6,949	7,299*	(4.8)%	6 (4.0)%
Gross margin	35.2%	34.9%*	0.2 p	ts.
Systems	3,042	2,621	16.0%	16.5%
Gross margin	56.0%	50.8%	5.2 p	ts.
Global Financing	301	402	(25.3)%	6 (24.9)%
Gross margin	35.6%	29.1%	6.5 p	ts.
Other	4	507*	(99.2)%	6 (99.1)%
Gross margin	NM	42.0%*	NM	
Total consolidated revenue	\$21,777	\$21,760	0.1%	o ⁺ 0.7%
Total consolidated gross profit	\$11,100	\$10,687	3.9%	**
Total consolidated gross margin	51.0%	49.1%	1.9 p	ts.
Non-operating adjustments				
Amortization of acquired intangible assets	189	89	112.2%)
Operating (non-GAAP) gross profit	\$11,289	\$10,776	4.8%	**
Operating (non-GAAP) gross margin	51.8%	49.5%	2.3 p	ts.

^{*} Recast to reflect segment changes.

NM-Not meaningful

Cloud & Cognitive Software

Cloud & Cognitive Software revenue of \$7,238 million grew 8.7 percent as reported and 9 percent adjusted for currency in the fourth quarter of 2019 compared to the prior year. We had growth as reported and adjusted for currency in all three lines of business: Cognitive Applications, Cloud & Data Platforms and Transaction Processing Platforms. Growth in Cloud & Data Platforms and total cloud revenue in the segment reflected the acquisition of Red Hat and clients' continued adoption of our hybrid cloud solutions.

In the fourth quarter, Cognitive Applications revenue of \$1,619 million increased 0.6 percent as reported and 1 percent adjusted for currency, reflecting the strength of our AI-led software solutions including Security and IoT. We continue to drive new innovations in these areas, and in November 2019, we launched Cloud Pak for Security which allows clients to leverage their investments in cybersecurity by integrating their security tools with existing data sources to more quickly resolve security incidents. In IoT, we extended our Maximo suite of offerings with the announcement of Maximo Asset Monitor, an AI-powered monitoring solution designed to help clients better maintain and improve performance of their high-value physical assets.

Cloud & Data Platforms revenue of \$3,101 million increased 19.0 percent as reported and 20 percent adjusted for currency compared to the prior year reflecting the acquisition of Red Hat in 2019. Demand for our cloud capabilities continued to ramp and we began to realize synergies across IBM and Red Hat. We had strong performance in the quarter in Red Hat's RHEL and OpenShift, and broad-based traction across the suite of Cloud Paks that addresses workloads across automation, data and integration. Clients are realizing the benefits of hybrid cloud with our containerized middleware and data platform software portfolio, including faster deployment and improved automation.

Transaction Processing Platforms revenue of \$2,517 million increased 2.9 percent as reported (4 percent adjusted for currency) reflecting the value we provided clients by managing their critical workloads, and providing for predictability in IT spend.

Within Cloud & Cognitive Software, total cloud revenue of \$1.6 billion grew 78 percent as reported and adjusted for currency, which reflects the acquisition of Red Hat.

^{**2019} results were impacted by Red Hat purchase accounting and acquisition-related activity.

⁺ 2.8 percent excluding divested businesses and adjusted for currency.